

# **KARNATAK UNIVERSITY, DHARWAD**



*Regulations and Syllabus*  
*for*  
*P.G.Department Studies in*  
**ANCIENT INDIAN HISTORY AND EPIGRAPHY**

**(I-IV Semester)**



*Under*  
*Choice Based Credit System (CBCS)*  
*From*  
*2008-09 Onwards*

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN ANCIENT INDIAN HISTORY & EPIGRAPHY**

**CHOICE BASED CREDIT SYSTEM**  
**M.A. PROGRAMME IN**  
**ANCIENT INDIAN HISTORY & EPIGRAPHY**  
**PROGRAMME STRUCTURE**

**I Semester**

S. No.	Details (Course Type/Name)	Max. marks	Max. marks	Total marks	Hours per week	Credits
<b>(A)</b>	<b>Compulsory Courses</b>	Int. Assmt. marks	End Sem. marks			
1	Course I (AIH.1A.1) History of North India	25	75	100	4	4
2	Course II (AIH.1A.2) Historical Method	25	75	100	4	4
3	Course III (AIH.1A.3) Introduction to Archaeology	25	75	100	4	4
4	Course IV (AIH.1A.4) Indian Political Institutions	25	75	100	4	4
5	Course V (AIH.1A.5) Introduction to Museology	25	75	100	4	4
<b>(B)</b>	<b>Specialization Course</b>					
1	None					
<b>(C)</b>	<b>Open Elective Course</b>					
1	Course I (AIH.1C.1) Ancient Indian Political Institutions	25	75	100	4	4
	Total Marks/credits for I Semester (Excluding OEC)	125	375	500	20	20

**II Semester**

S. No.	Details (Course Type/Name)	Max. marks	Max. marks	Total marks	Hours per week	Credits
<b>(A)</b>	<b>Compulsory Courses</b>	Int. Assmt. marks	End Sem. marks			
1	Course I (AIH.2A.1) History of South India	25	75	100	4	4
2	Course II (AIH.2A.2) Historiography	25	75	100	4	4
3	Course III (AIH.2A.3) Methods and Techniques	25	75	100	4	4

	of Archaeology					
4	Course IV (AIH.2A.4) History of Indian Literature	25	75	100	4	4
5	Course V (AIH.2A.5) History and Tourism in India	25	75	100	4	4
<b>(B)</b>	<b>Specialization Course</b>					
1	None					
<b>(C)</b>	<b>Open Elective Course</b>					
1	Course I (AIH.2C.1) Art and Architecture of India	25	75	100	4	4
	Total Marks/credits for I Semester (Excluding OEC)	125	375	500	20	20

### III Semester

S. No.	Details (Course Type/Name)	Max. marks	Max. marks	Total marks	Hours per week	Credits
<b>(A)</b>	<b>Compulsory Courses</b>	Int. Assmt. marks	End Sem. marks			
1	Course I. (AIH.3A.1) North Indian Art and Architecture	25	75	100	4	4
2	Course II. (AIH.3A.2) Indian Archaeology	25	75	100	4	4
3	Course III (AIH.3A.3) Indian Palaeography and Epigraphy	25	75	100	4	4
4	Course IV (AIH.3A.4) Harappan Civilization	25	75	100	4	4
<b>(B)</b>	<b>Specialization Course (Any one only)*</b>					
1	Course V. (AIH.3B.1) Inscriptions of the Mauryas	25	75	100	4	4
2	Course V. (AIH.3B.2) Ancient Indian Social Institutions	25	75	100	4	4
3	Course V. (AIH.3B.3) Indian Cultural Expansion in Southeast Asia	25	75	100	4	4
4	Course V. (AIH.3B.4) Indian Painting	25	75	100	4	4
5	Course V. (AIH.3B.5) Dissertation based on study of Museum exhibits, collections and display, prepared under the guidance of a teacher in the Dept.	-	100	100	4	4
<b>(C)</b>	<b>Open Elective Course</b>					

1	Course I. (AIH.3C.1) History of Indian Religious Thought	25	75	100	4	4
	Total Marks/credits for I Semester (Excluding OEC)	125	375	500	20	20

#### IV Semester

S. No.	Details (Course Type/Name)	Max. marks	Max. marks	Total marks	Hours per week	Credits
<b>(A)</b>	<b>Compulsory Courses</b>	Int. Assmt. marks	End Sem. marks			
1	Course I. (AIH.4A.1) South Indian Art and Architecture	25	75	100	4	4
2	Course II. (AIH.4A.2) Selected inscriptions of India	25	75	100	4	4
3	Course III. (AIH.4A.3) Indian Numismatics	25	75	100	4	4
4	Course IV (AIH.4A.4) Ancient World Civilizations	25	75	100	4	4
<b>(B)</b>	<b>Specialization Course (Any one only)*</b>					
1	Course V. (AIH.4B.1) Inscriptions of the Early Kadambas	25	75	100	4	4
2	Course V. (AIH.4B.2) Archaeology of Karnataka	25	75	100	4	4
3	Course V. (AIH.4B.3) Art of the Chalukyas of Badami	25	75	100	4	4
4	Course V. (AIH.4B.4) Dissertation based on field work (Field Survey of Inscriptions/Archaeological remains/ Monuments etc.) prepared under the guidance of a teacher in the Dept.	-	100	100	4	4
<b>I</b>	<b>Open Elective Course</b>					
1	Course I. (AIH.4C.1) Cultural History of Karnataka (Up to 14 <sup>th</sup> Century)	25	75	100	4	4
	Total Marks/credits for I Semester (Excluding OEC)	125	375	500	20	20
	Grand total of all 4 Semesters (Excluding OEC)			2000		80

**Note: The Dept Council shall decide the particular specialization course or courses to be offered during a particular academic year for I to IV Semester**

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPT OF ANCIENT INDIAN HISTORY & EPIGRAPHY**  
**Programme and Course Programme Specific Subjects and Course**  
**ANCIENT INDIAN HISTORY & EPIGRAPHY**

**All Subjects and Units :**

<b>All Subjects and Units</b>	
<b>PC1</b>	<b>History of North India</b> -Sources for the study of History of North India, Polity and Culture of Early and Later Vedic periods, North India between 6 <sup>th</sup> Century BC and 3 <sup>rd</sup> Century BC: Mahajanapadas-Rise of Magadha-Alexander's invasion, The Mauryas, Chandragupta Maurya-Ashoka and his Dharma-Décline of Mauryas, North India from 200 BC to 300 AD: Sungas and Kanvas – Indo-Greeks-Sakas-Kushanas, The Guptas-Political history-Cultural history, Harshavardhana and his times, Gurjara Pratiharas, Palas and other Rajput dynasties, North India on the eve of Delhi Sultanate.
<b>PC2</b>	<b>Historical Method</b> - History: definition, nature, scope and use, Relation of History with other sciences, A survey of development of historical thought to the end of twentieth century, Historical methodology: concepts, heuristics, criticism, synthesis and exposition, Problems connected with interpretation of the sources of Ancient Indian History: archaeological, epigraphic, art-historical and literary, Computer in historical research
<b>PC3</b>	<b>Introduction to Archaeology</b> -Definition, Nature, scope and use of Archaeology, Archaeology and other sciences, A Survey of History of Archaeology in the West, History of Archaeology in India, New Archaeology and post-processual Archaeology, Underwater Archaeology, Archaeological terms and artifacts associated with pre- and proto-history, Evolution of Man, Dating Methods in Archaeology-Absolute and Relative, Preservation-Antiquities – Organic materials-Principles of conservation of archaeological monuments, Computer in Archaeology.
<b>PC4</b>	<b>Indian Political Institutions</b> - Sources of Study, State-Theories of Origin-Saptangas, Origin of kingship-Position and functions of the king, Council of Ministers, Law and Justice,Taxation, Inter-state relationship ,Spy system,Vedic Polity, Republics, Administration under Mauryas, Guptas, Chalukyas, Cholas, Vijayanagara
<b>PC5</b>	<b>Introduction to Museology</b> -Museums-Definition-Nature and Scope, History of Museology, History of Museum Movement in India, Kinds of Museums- Archaeological, Natural history, Industrial, Technological, Indian Legislative Measures relating to Museum Objects-Treasure Trove Act, Ancient Monuments and Sites Preservation Act, Antiquities Export Control Act, Antiquities Registration Act Acquisitions and display of objects, Preparation of Cards, Registers and other documents, Museum Organisation and Management, Security Measures and Upkeep Preservation and Conservation of Museum Objects.
<b>PC6</b>	<b>Indian Cultural Expansion in Southeast Asia</b> -Sources,Geography and people,Routes, antiquity and nature of Indian cultural contacts,A study of the Indian cultural impact (with reference to polity, society, religion, art and architecture) on the following regions of Southeast Asia, Cambodia, Vietnam,Thailand and Laos,Burma,Malaya,Indonesia.
<b>PC7</b>	<b>History of South India</b> -Sources of South Indian History,Mauryas in South India,The Satavahanas, The Sangam Age,Post-Satavahana Deccan,The Kadambas and Gangas,The Pallavas and the Chalukyas of Badami,The Rashtrakutas,The Cholas and Pandyas, The Chalukyas of Kalyana,Hoysalas, Seunas and Kakatiyas,Vijayanagara empire.
<b>PC8</b>	<b>Historiography</b> -Trends in Ancient Indian Historiography,Some important archaeologists and their contributions: A.Cunningham, Meadows Taylor, Bruce Foote, James Burgess, John Marshall, M.Wheeler, H.D. Sankalia, M.H. Krishna,Some important epigraphists and their

	contributions: James Princep, J.F.Fleet, E. Hultzsch, D.C.Sircar, Rice, R.Narasimhachar, P.B.Desai,Some important historians and their contributions: V.A.Smith, R.C.Majumdar, K.A.Nilakanta Sastri, B.A.Saletore, D.D.Kosambi,Some important art-historians and their contributions: E.B.Hawell, A.Coomaraswamy, Stella Kramrisch, C.Sivaramamurti,
<b>PC9</b>	<b>Methods and Techniques of Archaeology</b> -Archaeological Exploration, Identification Sites- Nature of sites Open-air-Caves-Mounds-Burials, Scientific methods and techniques in archaeological exploration, Documentation and reporting of ancient sites <b>Excavation:</b> Aims of excavation,Vertical and horizontal excavation,Laying out of trenches- methods,Stratigraphy, Recording methods,Archaeological Photography Study of antiquities: Bone-Ivory-Metal-Stone-Pottery, Other materials, Interpretation of archaeological evidence, Excavation Report
<b>PC10</b>	<b>History of Indian Literature</b> -Vedic Literature,Ramayana and Mahabharata,Puranas,Dharmashastras,Kavyas,Dramas,Buddhist Literature,Jaina Literature,Early Dravidian Literature: Tamil (Sangam literature and Classics) ,Kannada (up to 10 <sup>th</sup> Century),
<b>PC11</b>	<b>History and Tourism in India</b> -Tourism: Definition, nature and scope Types-Relation with Other discipline-Impact, A brief history of tourism in the world and in India,Tourism in Karnataka-problems and prospects, Maps and guides-their preparation and use, Selected tourist centres of India with reference to their importance: Delhi-Agra-Mathura-Ajanta-Ellora-Nagarajunakonda-Bijapur -Badami, Aihole and Pattadakal-Belur and Halebid-Hampi-Srirangapattanam- Mahabalipuram-Thanjavur, Tourism Industry - Structure and Organisation - Integration,Tourism transport and accommodation - Structure of accommodation - Classification of accommodation-Nature and demand for accommodation facilities-Travel Agencies, Tourism advertising-Advertising Agencies-Travel Literature.
<b>PC12</b>	<b>Art and Architecture of India</b> -Features of Indian Art,Harappan art Mauryan art and architecture,Buddhist art and architecture,Gandhara, Mathura and Amaravati Schools,Gupta art and architecture,Temples of Orissa,Art and Architecture of the Chalukyas of Badami,Rashtrakuta Art in Ellora,Pallava art and architecture,Chola Temples,Chalukya and Hoysala Temples,Temples of Khajuraho,Vijayanagara Temples,Survey of Indian Painting.

<b>All Subjects and Units</b>	
<b>PC1</b>	<b>North Indian Art and Architecture</b> -Sources - Features of Indian Art-Terminology,Harappan art and architecture,Mauryan art and architecture,Buddhist art and architecture of the Sunga-Satavahana period,Kushana art - Gandhara and Mathura Schools,Gupta art and architecture, Temples of Orissa,Temples of Khajuraho,Temples of Rajasthan and Gujarat,Paintings of North India (Bagh and Pala Paintings).
<b>PC2</b>	<b>Indian Archaeology</b> -Indian physical features,Palaeolithic and Mesolithic Cultures, Neolithic Culture in Indo-Pak subcontinent,Harappan Civilization-Origin and Evolution-Characteristics-Divide-Chronology-Survival of Harappan tradition, Chalcolithic Cultures of Rajasthan, Central India, Eastern India and the Deccan, Neolithic-Chalcolithic culture of Karnataka and Tamilnadu, Iron Age Megalithic Culture in South India-Origin, typology, chronology, Iron Age culture in North India, Early Historic culture in Maharashtra, Andhra Pradesh and Karnataka.
<b>PC3</b>	<b>Indian Palaeography and Epigraphy</b> -Palaeography and Epigraphy - Definition and Scope

	and importance, Evolution of Scripts in general, Origin and antiquity of script in India, Harappan Script–Characteristics–Attempts at decipherment, Brahmi and Kharoshthi scripts–Origin and characteristics, Derivation of North Indian and South Indian scripts from Brahmi, Indian Numerals, Dating systems and Eras, Writing materials, General character of Inscriptions–Engraving–Forged records–Ornamental writing–Shell script - Seals and emblems.
<b>PC4</b>	<b>Harappan Civilization:</b> Harappan studies, Development of Pre-Harappan Culture and Early Harappan Culture, Harappan Culture at its maturity–Extent–Important, excavated sites–Town Planning and important structures, Political and social structure, Religion, Economy–Crafts and Trade, Script, Funerary Customs, Devolution of Harappan Culture–Late Harappan culture–Causes of Decline, Chronology, Survival and continuity of Harappan cultural elements.
<b>PC5</b>	<b>Inscriptions of the Mauryas</b> –A Brief History of Maurya period, History of Study of Mauryan Inscriptions, A survey of Mauryan inscriptions with reference to location, script, language and format, Inscriptions of Asoka - contents and importance, Minor Rock Edicts I–IV, Major Rock Edicts I–XIV, Special Major Edicts (XV–XVI), Minor and Major Pillar Edicts, Rumindei and Nagalisagar Pillar Inscriptions, Cave Inscriptions, Inscriptions of successors of Asoka.
<b>PC6</b>	<b>History of Indian Religious Thought</b> –Definition and character of religion, Harappan religious tradition, Vedic religious tradition and thought, Jainism, Buddhism, Vaishnavism, Saivism, Saktism and Nathapanthis, Islam and Sufism, Zoroastrianism, Sikhism, Christianity.
<b>PC7</b>	<b>South Indian Art and Architecture</b> –Sources and terminology, Buddhist rock-cut architecture of Maharashtra (Hinayana and Mahayana), Art of Amaravati and Nagarjunakonda, Early Hindu Caves of Ellora and Elephanta, Art and Architecture of the Chalukyas of Badami, Art and Architecture of the Rashtrakutas and the Gangas, Pallava art and architecture, Chola and Pandya Temple art and architecture, Art and Architecture under Chalukyas of Kalyana, Seunas, Hoysalas, Kakatiyas, Architecture and art under Vijayanagara empire, Survey of South Indian Bronzes, Survey of South Indian Painting.
<b>PC8</b>	<b>Selected Inscriptions of India</b> – Ashokan Edicts : Edict I, Edict XIII and Brahmagiri Edicts, Besangar Garuda Pillar Inscription of Heliodorus, Hathigumpha Inscription of Kharavela, Junagadh Inscription of Rudradaman, Nasik Cave Inscription of Queen Balasri (Gautamiputra Satakarni's prashasti), Allahabad Pillar Inscription of Samudragupta, Talagunda Pillar Inscription, Halmidi Inscription, Badami Cliff Inscription of Pulakesi-I, Aihole Prasasti of Pulakesi II, British Museum Plates of Govinda III, Jura Prasasti of Krishna III, Kurkyala inscription of Jinavallabha, Uttaramerur Inscriptions of Parantaka-I, Arjunavada Pillar Inscription of Seuna Kannara, Sravanabelgola Inscription of Bukka-I.
<b>PC9</b>	<b>Indian Numismatics</b> –Importance of Numismatics, Antiquity of Coinage in India, Punch-marked Coins, Indo-Greek Coins, Kushana Coins, Satavahana and Kshatrapa Coins, Roman Coins in India, Gupta Coins, Coins of South India–Kadamba–Ganga–Chalukya–Chola–Hoysala–Seunas, Coins of Vijayanagara dynasties.
<b>PC10</b>	<b>Ancient World Civilizations</b> –Background of the Early Civilizations of the World–Characteristics of Civilization–Factors contributing to the rise, A Study of the following Civilizations with reference to Polity, Society, Economy, Religion, Philosophy, Literature, Script, Science and Technology, Art and Architecture, Mesopotamian Civilization, Egyptian Civilization, Chinese Civilization, Greek Civilization.
<b>PC11</b>	<b>Art of the Chalukyas of Badami</b> –Political Background, Historiography, Cave Architecture and Sculpture, Structural Temples – Forms and Plans, Structural Temples of Nagara and

	Phamsana Traditions, Structural Temples of Dravida Tradition, Structural Temples of Mandapa and Apsidal forms, Sculptural art on Structural temples, Artists, Impact of Chalukya Architectural and Sculptural traditions.
<b>PC12</b>	<b><u>Dissertation based on field work</u></b> -(field survey of inscriptions/archaeological remains/monuments etc) prepared under the guidance of a teacher in the Department.

**I-Semester**  
**AIH&E-PG31T101-History of North India:**  
Total Hours: 48

**Course Outcome**

**Course Code: AIH&E-PG31T101**

**Course Name: History of North India**

**Upon Completion of the course, the students will be able to**

- Introduce the concept the History of North India.
- Introduce the all Dynasties in North Indian History
- Inscription and Pillar Mention the places names

**Unit-1.** Sources for the study of History of North India

**Unit-2.** Polity and Culture of Early and Later Vedic periods

**Unit-3.** North India between 6<sup>th</sup> Century BC and 3<sup>rd</sup> Century BC: Mahajanapada -Rise of Magadha-Alexander's invasion

**Unit-4.** The Mauryas: Chandragupta Maurya – Ashoka and his Dharma – Decline of Mauryas

**Unit-5.** North India from 200 BC to 300 AD: Sungas and Kanvas – Indo-Greeks – Sakas – Kushanas

**Unit-6.** The Guptas – Political history - Cultural history

**Unit-7.** Harshavardhana and his times

**Unit-8.** Gurjara Pratiharas, Palas and other Rajput dynasties

## **Unit-9. North India on the eve of Delhi Sultanate**

### **Reference:**

Majumdar R.C. (ed.): History and Culture of Indian People Vol. I to VI: Vedic Age, Bombay, 1951; The Age of Imperial Unity, Bombay 1951; The Classical Age, Bombay, 1954; The Age of Imperial Kanauj, Bombay, 1955; The Struggle for Empire, Bombay, 1957; The Delhi Sultanate, Bombay, 1958

Majumdar R.C., Ancient India

Nilakanta Sastri K.A., A Comprehensive History of India Vol. II: The Mauryas & Satavahanas 325 B.C.–A.D. 300, Calcutta, 1957

Romila Thapar, A History of India Vol. I, Middlesex: 2003

Romila Thapar, Asoka and the Decline of the Mauryas, Oxford, 1961

Satyanath Iyer R., History of India Vol. I: Ancient India

Tripathi R.S., History of Kanauj, Banaras, 1937

Bharatiya Janateya Itihasa mattu Samskriti (Kannada) (First Eight volumes), published by Bharatiya Vidya Bhavan, Bangalore

### **AIH&E-PG31T102-Historical Method:**

**Total Hours : 48**

### **Course Outcome**

**Upon Completion of the course, the students will be able to**

- Explain the definition and usage of the term in different types.
- Apply the knowledge and skills acquired during the course.
- Understand where the concept fits within the analysis.
- Introduce the concept of the all Thinkers

**Unit-1.** History: definition, nature, scope and use

**Unit-2.** Relation of History with other sciences

**Unit-3.** A survey of development of historical thought to the end of twentieth century

**Unit-4.** Historical methodology: concepts, heuristics, criticism, synthesis and exposition

**Unit-5.** Problems connected with interpretation of the sources of Ancient Indian History: archaeological, epigraphic, art-historical and literary.

**Unit-6.** Computer in historical research

### **Reference:**

Collingwood R.G., Idea of History, Oxford, 1951

Marwick A., The Nature of History, London, 1970  
 Marsak L.M., The Nature of Historical Enquiry, 1970  
 Gardiner P., The Nature of Historical Explanation, Oxford, 1968  
 Renier G.J., History: Its Purpose and Method, London, 1961  
 Aitkinson R.F., Knowledge and Explanation in History, London, 1986  
 Garraghan G.J., Guide to Historical Method, New York, 1973  
 Black Jermy and others, Studying History, London, 1997  
 Carr E.H., What is History, London, 1986  
 Dancey Williams, Archaeological Field Methods, New Delhi, 1985  
 Paddayya K., The New Archaeology and Aftermath, Pune, 1990  
 Bengston H., Introduction to Ancient History, London, 1969  
 Devahuti ed., Problems of Indian Historiography, Delhi, 1979  
 Romila Thapar, Interpreting Early India, Delhi, 1992  
 Romila Thapar, Early India, Delhi, 2002  
 Pandey G.C., The Meaning and Process of Culture, Allahabad, 1989  
 Chitnis K.N., Research Methodology in History, New Delhi, 1990

**AIH&E-PG31T103-Introduction to Archaeology:  
 Total Hours : 48**

**Course Outcome**

**Upon Completion of the course, the students will be able to**

- Use of the dating method
- Archaeology and other Divisions (disciplines)
- Archaeology is a Relationship with different disciplines
- Study of Archaeology help to build History

**Unit-1.** Definition, Nature, scope and use of Archaeology

**Unit-2.** Archaeology and other sciences

**Unit-3.** A Survey of History of Archaeology in the West

**Unit-4.** History of Archaeology in India

**Unit-5.** New Archaeology and post-processual Archaeology

**Unit-6.** Underwater Archaeology

**Unit-7.** Archaeological terms and artifacts associated with pre- and proto-history

Evolution of Man

**Unit-8.** Dating Methods in Archaeology – Absolute and Relative

**Unit-9.** Preservation – Antiquities – Organic materials - Principles of conservation of archaeological

monuments

## **Unit-10. Computer in Archaeology**

### **Reference:**

- Childe V.G., An Introduction to Archaeology, London, 1956
- Childe V.G., What Happened in History, London, 1957
- Wheeler R.E.M., Archaeology from the Earth, Harmondsworth, 1954
- Chakravarti D.P., A History of Archaeology in India, Delhi
- Roy S., A Hundred Years of Indian Archaeology, Delhi
- Raman K.V., Principles and Methods of Archaeology, Madras, 1991
- Daniel Glyn, A Hundred and Fifty Years of Archaeology, London, 1978
- Kenyon K.M., Beginning in Archaeology, London, 1961
- Sankalia H.D., Stone Age Tools, their techniques and functions, Poona, 1974
- Oakley K.P., Man the Tool-maker, London, 1972
- Knudson S.J., Culture in Retrospect: An Introduction to Archaeology, Illinois, 1985
- Renfrew C. and Bahn P., Archaeology: Theories, Methods and Practice, London, 1996
- Fagan Brian M., In the Beginning: An Introduction to Archaeology, New Jersey, 2001
- Staeck John P., Back to Earth: An Introduction to Archaeology, California, 2002
- Fagan Brian M., People of the Earth: An Introduction to World Prehistory, Illinois, 1989
- Tite M.S., Methods of Physical Examination in Archaeology, London, 1981
- Wymer J., Palaeolithic Age, London, 1982
- Chard C.S., Man in Prehistory, New York, 1975
- Sircar H., Museums and Protection of Monuments and Antiquities in India, Delhi, 1981

**AIH&E-PG31T104-Indian Political Institutions:  
Total Hours : 48**

**Course Outcome**

**Upon Completion of the course, the students will be able to**

- Use of the Administrative office Running
- Introduce the All Political Pilosapers
- Development, Implementation and communication Skill is Developed.

**Unit-1.** Sources of Study

**Unit-2.** State – Theories of Origin – Saptangas

**Unit-3.** Origin of kingship - Position and functions of the king

**Unit-4.** Council of Ministers

**Unit-5.** Law and Justice

**Unit-6.** Taxation

**Unit-7.** Inter-state relationship

**Unit-8.** Spy system

**Unit-9.** Vedic Polity

**Unit-10.** Republics

**Unit-11.** Administration under Mauryas, Guptas, Chalukyas, Cholas, Vijayanagara

**Reference:**

Altekar A.S., State and Government in Ancient India, Delhi, 1958

Ghosal U.N., A History of Hindu Political Theories (Calcutta, 1923)

Dikshitar V.R.R., Hindu Administrative Institutions (Madras, 1929)  
Saletore B.A., Ancient Indian Political Thought and Institutions (Bombay, 1963)  
Dikshitar V.R.R., Mauryan Polity (Madras, 1932)  
Nilakanta Sastri K.A., Studies in Chola History and Administration (Madras, 1932)  
Mahalingam T.V., South Indian Polity (Madras, 1955)  
Desai P.B. et. al., A History of Karnataka (Dharwad, 1970)  
Shamasastri R., Kautiliya Arthashastra (Madras, 1912)  
Romila Thapar, Asoka and the Decline of the Mauryas (Oxford, 1961)  
Sharma R.S., Indian Feudalism (Delhi)  
Kane P.V., History of Dharmasastra, Vols I-IV  
Stein B., Vijayanagara (New Delhi, 1999)  
Mookerji R.K., Local Self-government in Ancient India (Oxford, 1920)

**AIH&E-PG31T105-Introduction to Museology:  
Total Hours : 48**

**Course Outcome**

**Upon Completion of the course, the students will be able to**

- Ancient to Modern use the History of Museology
- History of Museum Movement in India.
- Preparation of Cards, Registers and other documents planning

**Unit-1.** Museums – Definition – Nature and Scope

**Unit-2.** History of Museology

**Unit-3.** History of Museum Movement in India

**Unit-4.** Kinds of Museums – Archaeological, Natural history, Industrial, Technological

**Unit-5.** Indian Legislative Measures relating to Museum Objects – Treasure Trove Act, Ancient Monuments and Sites Preservation Act, Antiquities Export Control Act, Antiquities Registration Act

**Unit-6.** Acquisitions and display of objects

**Unit-7.** Preparation of Cards, Registers and other documents

**Unit-8.** Museum Organisation and Management

**Unit-9.** Security Measures and Upkeep

**Unit-10.** Preservation and Conservation of Museum Objects

**Reference:**

Nigam M.L., Fundamentals of Museology

Witin A.S., The Museum: Its History and Its Task in Education

Mookerji A., Museum Studies

Markham S.F. and Hargreaves, The Museums of India

Gilman B.I., Museum Ideals, Purpose and Method

Murray D., Museums, Their History and Use (3 Volumes)

Satya Prakash, Museum and Society

Grace Morley, Museums To-day

Zahir M., Museum Management

Burns, Field Manual for Museums

Dorothy et al, Museum Registration Methods

Gairola T.R., Handbook of Chemical Conservation of Museums Objects

UNESCO, The Care of Paintings

Archaeological Survey of India, Conservation Manual

Sircar H., Museums and Protection of Monuments in India, Delhi, 1980

Bedekar V.H., New Museology for India, New Delhi, 1995

**AIH&E-PG31T106-Indian Cultural Expansion in Southeast Asia:**

**Total Hours : 48**

**Course Outcome**

**Upon Completion of the course, the students will be able to**

- Use of the out of Country History
- following regions of Southeast Asia
- polity, society, religion, art and architecture Places of the Cambodia, Vietnam, Thailand and Laos

**Unit-1.** Sources

**Unit-2.** Geography and people

**Unit-3.** Routes, antiquity and nature of Indian cultural contacts

**Unit-4.** A study of the Indian cultural impact (with reference to polity, society, religion, art and architecture) on the following regions of Southeast Asia

- (a) Cambodia
- (b) Vietnam
- (c) Thailand and Laos
- (d) Burma
- (e) Malaya
- (f) Indonesia

**Reference:**

- Majumdar R.C. (Ed.), History and Culture of the Indian People Vols I-VI (Bombay, 1951-64)
- Majumdar R.C., Hindu Colonies in the Far East, Calcutta, 1963
- Majumdar R.C., Ancient Indian Colonisation in South-East Asia
- Sastri K.A.N., Kingdom of Srivijaya
- Sastri K.A.N., South Indian Influence in the Far East, Madras, 1949
- Coedes G., The Indianized States of South-East Asia, Honolulu, 1968
- Majumdar R.C., Suvarnavipa Vols. I-II, Dacca, 1937-1938
- Sharan M.K., Studies in Sanskrit Inscriptions of Ancient Cambodia, New Delhi, 1974
- Majumdar R.C., Champa, Delhi, 1985
- Le May R., The Culture of South-East Asia, London, 1954
- Zimmer H., Art of Indian Asia, New York, 1955
- Rawson P., The Art of Southeast Asia, London, 1967
- India's Contribution to World Thought and Culture (Vivekananda Rock Memorial Volume)
- Das R.R., Art Traditions of Cambodia, Calcutta, 1974
- Soekmono, Chandi Borobudur, Amsterdam, 1976
- Chhabra B.Ch., Indo-Aryan Expansion, Delhi, 1975
- Beri, A History of Southeast Asia, Delhi, 1994
- Narasimha Murthy A.V., Gadiyache Bharatiya Samskriti (Kannada), Bangalore, 2002

## **II Semester**

**AIH&E-PG31T201-History of South India:**

**Total Hours : 48**

### **Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Introduce the concept the History of South India.
- Introduce the all Dynasties in South Indian History
- All kings are Queens Introduce the South History

**Unit-1.** Sources of South Indian History

**Unit-2.** Mauryas in South India

**Unit-3.** The Satavahanas

**Unit-4.** The Sangam Age

**Unit-5.** Post-Satavahana Deccan

**Unit-6.** The Kadambas and Gangas

**Unit-7.** The Pallavas and the Chalukyas of Badami

**Unit-8.** The Rashtrakutas

**Unit-9.** The Cholas and Pandyas

**Unit-10.** The Chalukyas of Kalyana

**Unit-11.** Hoysalas, Seunas and Kakatiyas

**Unit-12.** Vijayanagara empire

**Reference:**

- Sastri K.A.N., A History of South India, Bombay, 1965
- Sastri K.A.N., A Comprehensive History of India Vol. II: The Mauryas & Satavahanas 325 B.C.–A.D. 300, Calcutta, 1957
- Majumdar R.C. (Ed.), History and Culture of the Indian People Vols.I-VI, (Bombay, 1952-1964
- Shastri Ajaya Mitra, The Satavahanas and the Western Kshatrapas, Nagpur, 1998
- Sircar D.C., The Successors of the Satavahanas in the Lower Deccan, Calcutta, 1939
- Yazdani (Ed.), The Early History of Deccan, Vols. I-II, Bombay, 1960
- Desai P.B. et.al., A History of Karnataka (Dharwad, 1970)
- Sathyanath Iyer, History of India Vol. I, Ancient India
- Mahalingam T.V., Kanchipuram through the Ages
- Ramesh K.V., The Chalukyas of Vatapi, Delhi, 1984
- Altekar A.S., Rashtrakutas and their Times, Poona, 1934
- Madan A.P., The History of the Rashtrakutas, New Delhi, 1990
- Gopal B.R., The Chalukyas of Kalyana and the Kalachuris, Dharwad, 1981
- Darret J.D.M., The Hoysalas, A Medieval Indian Royal Family, London, 1958
- Sheik Ali B. (Ed.), The Hoysala Dynasty, Mysore, 1972
- Sastri K.A.N., The Cholas, Madras, 1925
- Ritti S.H., The Seunas, Dharwad, 1973
- Stein B., Vijayanagara, New Delhi, 1999

**AIH&E-PG31T202-Historiography:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Trends in Ancient Indian Historiography
- Some important epigraphists and their contributions
- Some important art-historians and their contributions

**Unit-1.** Trends in Ancient Indian Historiography

**Unit-2.** Some important archaeologists and their contributions: A.Cunningham, Meadows Taylor, Bruce Foote, James Burgess, John Marshall, M.Wheeler, H.D. Sankalia, M.H. Krishna.

**Unit-3.** Some important epigraphists and their contributions: James Princep, J.F.Fleet, E. Hultzsch, D.C.Sircar, Rice, R.Narasimhachar, P.B.Desai.

**Unit-4.** Some important historians and their contributions: V.A.Smith, R.C.Majumdar, K.A.Nilakanta Sastri, B.A.Saletore, D.D.Kosambi.

**Unit-5.** Some important art-historians and their contributions: E.B.Hawell, A.Coomaraswamy, Stella Kramrisch, C.Sivaramamurti .

**Reference:**

Roy S., The Story of Indian Archaeology, Delhi, 1961

Sankalia H.D., Born for Archaeology, Delhi, 1978

Clark G., Sir Mortimer Wheeler and Indian Archaeology, Delhi, 1979  
Chakrabarthi D.K., A History of Indian Archaeology, Delhi, 1988  
Sheik Ali, History, Its Theory and Method, Madras, 1978  
Devahuti ed., Problems of Indian Historiography, Delhi, 1979  
Annigeri A.M., Karnatakada Itihasakararu (Kannada), Dharwad, 1989  
Kanavalli S. et al., Mahamarga (Dr M.N.Kalburgi Festschrift, in Kannada), Gadag , 1998  
Nagaraj K.G. and Sundara A., M.H.Krishna and His Contributions, Mysore, 1985

**AIH&E-PG31T203-Methods and Techniques of Archaeology:**  
**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Learning the Students will get the ASI (Archaeology Survey of India)
- Scientific methods and techniques in archaeological exploration
- Documentation and reporting of ancient sites
- Vertical and horizontal excavation the Record the Documents.

**Unit-1. Archaeological Exploration :**

- (a) Identification Sites
- (b) Nature of sites: Open-air – Caves– Mounds – Burials
- (c) Scientific methods and techniques in archaeological exploration
- (d) Documentation and reporting of ancient sites

**Unit-2. Excavation:**

- (a) Aims of excavation
- (b) Vertical and horizontal excavation
- (c) Laying out of trenches – methods
- (d) Stratigraphy
- (e) Recording methods

**Unit-3.** Archaeological Photography

**Unit-4.** Study of antiquities: Bone – Ivory – Metal – Stone – Pottery - Other materials

**Unit-5.** Interpretation of archaeological evidence

**Unit-6.** Excavation Report

**Reference:**

Childe V.G., An Introduction to Archaeology, London, 1956

Wheeler R.E.M., Archaeology from the Earth, Harmondsworth, 1954

Raman K.V., Principles and Methods of Archaeology, Madras, 1991

Kenyon K.M., Beginning in Archaeology, London, 1961

Sankalia H.D., Stone Age Tools, their techniques and functions, Poona, 1974

Knudson S.J., Culture in Retrospect: An Introduction to Archaeology, Illinois, 1985

Renfrew C. and Bahn P., Archaeology: Theories, Methods and Practice, London, 1996

Fagan Brian M., In the Beginning: An Introduction to Archaeology, New Jersey, 2001

Staeck John P., Back to Earth: An Introduction to Archaeology, California, 2002

Chard C.S., Man in Prehistory, New York, 1975

**AIH&E-PG31T204-History of Indian Literature:**  
**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Vedic Literature of the Ramayana and Mahabharata Biggest Literature.
- Literature is the one person character automatically change
- Will gets the students During the and Kingship the character

**Unit-1.** Vedic Literature

**Unit-2.** Ramayana and Mahabharata

**Unit-3.** Puranas

**Unit-4.** Dharmashastras

**Unit-5.** Kavyas

**Unit-6.** Dramas

**Unit-7.** Buddhist Literature

**Unit-8.** Jaina Literature

**Unit-9.** Early Dravidian Literature: Tamil (Sangam literature and Classics)

**Unit-10.** Kannada (up to 10<sup>th</sup> Century)

**Reference:**

Winternitz M., History of Indian literature Vols. I – III, Calcutta, 1927-59

MacDonell A.A., A History of Sanskrit Literature, New Delhi, 1958

Keith A.B., A History of Sanskrit Literature, London, 1920

Keith A.B., The Sanskrit Drama, Oxford, 1924

Majumdar R.C. (Ed.), History and Culture of Indian People, Vols. I to V, Bombay, 1951-1958

(Relevant portions)

De S.K. et.al., The Cultural Heritage of India Vol. II: Itihasa, Puranas, Dharma and other Sastras, Calcutta, 1962

Chatterji S.K. (Ed.), The Cultural Heritage of India, Vol. V: Languages and Literature, Calcutta, 1987

### **AIH&E-PG31T205-History and Tourism in India:**

**Total Hours : 48**

#### **Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Tourism: Definition, nature and scope–Types–Relation with Other disciplines–Impact the Tourism
- A brief history of tourism in the world and in India.
- Use of the Maps and Guides
- Selected tourist centres of India with reference to their importance: Delhi–Agra–Mathura–Ajanta– Ellora–Nagarajunakonda–Bijapur–Badami, Aihole and Pattadakal–Belur and Halebid–Hampi– Srirangapattanam–Mahabalipuram–Thanjavur.

**Unit-1.** Tourism: Definition, nature and scope–Types–Relation with Other disciplines–Impact.

**Unit-2.** A brief history of tourism in the world and in India.

**Unit-3.** Tourism in Karnataka – problems and prospects.

**Unit-4.** Maps and guides – their preparation and use.

**Unit-5.** Selected tourist centres of India with reference to their importance: Delhi–Agra–Mathura–Ajanta– Ellora–Nagarajunakonda–Bijapur–Badami, Aihole and Pattadakal–Belur and Halebid–Hampi– Srirangapattanam–Mahabalipuram–Thanjavur.

**Unit-6.** Tourism Industry–Structure and Organisation–Integration.

**Unit-7.** Tourism transport and accommodation–Structure of accommodation–Classification of accommodation– Nature and demand for accommodation facilities–Travel Agencies.

**Unit-8.** Tourism advertising Advertising Agencies – Travel Literature .

**Reference:**

- Kamra K.K. and Chand M., Basics of Tourism, Theory, Operation and Practice, New Delhi, 2004
- Ram Acharya, Tourism in India
- Bhatia A.K., Tourism in India
- Mishra K.S., Tourism in India
- Anand M.M., Tourism and Hotel Industry, New Delhi, 1976
- Alchers F.R., Cultural Tourism in India – Its Scope and Development
- Prana Nath Seth, Successful Tourism Management
- McIntosh Robert W., Tourism, Principle, Practices and Philosophies
- Kaul S.N., Tourist India
- Singh R., Infrastructure of Tourism in India, New Delhi, 1998
- Singh R., Tourism Today (3 Volumes), New Delhi, 1994
- Maneet Kumar, Tourism Today: an Indian Perspective, Delhi, 1994
- Guide books relating to tourist centres in India

**AIH&E-OEC205A-Art and Architecture of India:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- This Subject is used for the Study public in the Historical Places of Hampi, Aihole, Pattadakallu,ect
- Art and Architecture of the Andia all Dyanasties.
- Intrudes the Political Background of the Temples

**Unit-1.** Features of Indian Art

**Unit-2.** Harappan art

**Unit-3.** Mauryan art and architecture

**Unit-4.** Buddhist art and architecture

**Unit-5.** Gandhara, Mathura and Amaravati Schools

**Unit-6.** Gupta art and architecture

**Unit-7.** Temples of Orissa

**Unit-8.** Art and Architecture of the Chalukyas of Badami

**Unit-9.** Rashtrakuta Art in Ellora

**Unit-10** Pallava art and architecture

**Unit-11.** Chola Temples

**Unit-12.** Chalukya and Hoysala Temples

**Unit-13.** Temples of Khajuraho

**Unit-14.** Vijayanagara Temples

**Unit-15.** Survey of Indian Painting

**Reference:**

Majumdar R.C. (Ed.), History and Culture of the Indian People, Vols. I-V, Bombay 1952-64

Dasgupta S.N., Fundamentals of Indian Art

Brown Percy, Indian Architecture, Vol. I (Buddhist and Hindu), Bombay, 1942

Rowland B., Art and Architecture of India, Harmondsworth, 1970

Zimmer H., Art of Indian Asia, New York, 1955

Saraswati S.L., A Survey of Indian Sculpture, Delhi, 1950

Huntington S., The Art of Ancient India, New York, 1985

Harle J.C., The Art and Architecture of the Indian Subcontinent, Harmondsworth, 1986

Srinivasan P.R., The Indian Temple Art and Architecture, Mysore, 1982

Krishna Deva, Temples of India, Delhi, 1995

Sivaramamurti C., A Survey of Indian Painting, Delhi, 1970

### **III Semester**

#### **AIH&E-PG31T301-North Indian Art and Architecture:**

**Total Hours : 48**

#### **Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Sources - Features of Indian Art – Terminology
- Old Ancient art is Harappa. Harappan Sites is a Available Horse Bone, Camel Bone and Coins and Sculpture etc.
- Source of the Mouryan Inscription, art of the Kushanas and Guptas art and Architecture.

**Unit-1.** Sources - Features of Indian Art – Terminology

**Unit-2.** Harappan art and architecture

**Unit-3.** Mauryan art and architecture

**Unit-4.** Buddhist art and architecture of the Sunga-Satavahana period

**Unit-5.** Kushana art – Gandhara and Mathura Schools

**Unit-6.** Gupta art and architecture

**Unit-7.** Temples of Orissa

**Unit-8.** Temples of Khajuraho

**Unit-9.** Temples of Rajasthan and Gujarat

**Unit-10.** Paintings of North India (Bagh and Pala Paintings)

**Reference:**

- Majumdar R.C. (Ed.), History and Culture of the Indian People, Vols. I-V, Bombay, 1952-64
- Brown Percy, Indian Architecture, Vol. I (Buddhist and Hindu), Bombay, 1956
- Rowland B., Art and Architecture of India, Harmondsworth, 1970
- Coomaraswamy A.K., History of Indian and Indonesian Art, London, 1927
- Zimmer H., Art of Indian Asia, New York, 1955
- Saraswati S.L., A Survey of Indian Sculpture, Delhi, 1950
- Huntington S., The Art of Ancient India, New York, 1985
- Harle J.C., The Art and Architecture of the Indian Subcontinent, Harmondsworth, 1986
- Srinivasan P.R., The Indian Temple Art and Architecture, Mysore, 1982
- Krishna Deva, Temples of India, Delhi, 1995
- Sivaramamurti C., A Survey of Indian Painting, Delhi, 1970
- Shukla D.N., Hindu Canons of Painting, Lucknow, 1957

**AIH&E-PG31T302-Indian Archaeology:****Total Hours : 48****Course Outcomes:****Upon Completion of the course, the students will be able to**

- Learning the Students will get the ASI (Archaeology Survey of India)
- Scientific methods and techniques in archaeological exploration
- Documentation and reporting of ancient sites of India
- Vertical and horizontal excavation the Record the Documents.

**Unit-1.** Indian physical features**Unit-2.** Palaeolithic and Mesolithic Cultures**Unit-3.** Neolithic Culture in Indo-Pak subcontinent**Unit-4.** Harappan Civilization – Origin and Evolution – Characteristics – Decline – Chronology – Survival of Harappan tradition**Unit-5.** Chalcolithic Cultures of Rajasthan, Central India, Eastern India and the Deccan**Unit-6.** Neolithic-Chalcolithic culture of Karnataka and Tamilnadu**Unit-7.** Iron Age Megalithic Culture in South India – Origin, typology, chronology**Unit-8.** Iron Age culture in North India**Unit-9.** Early Historic culture in Maharashtra, Andhra Pradesh and Karnataka**Reference:**

Sankalia H.D., Prehistory and Protohistory of India and Pakistan, Poona, 1974  
 Sankalia H.D., Prehistory of India, Delhi, 1960  
 Allchin Bridget and Raymond, The Rise of Civilization in India and Pakistan, Delhi, 1982  
 Fairservis W.A., Roots of Ancient India, London, 1975  
 Paddayya K., Acheulian Culture of the Hunasagi Valley, Poona, 1982  
 Deo S.B., Recent Researches on the Chalcolithic and Megalithic Cultures of the Deccan, Madras, 1982  
 Wheeler R.E.M., Indus Civilization, London, 1968  
 Lal B.B., The Earliest Civilization of South Asia, New Delhi, 1997  
 Lal B.B., India 1947-1997: New Light on the Indus Civilization, New Delhi, 1998  
 Lal B.B., The Sarasvati flows on, The Continuity of Indian Culture, New Delhi, 2002  
 Gururaja Rao B.K., The Megalithic Culture in South India, Mysore, 1972  
 Sundara A., Early Chamber Tombs of South India, Delhi, 1975  
 Moorti U.S., Megalithic Culture of South India, Varanasi, 1994  
 Narasimha Murthy A.V., Some Aspects of Early Historic Archaeology and Numismatics of Karnataka, Madras, 1991  
 Archaeological Survey of India, Indian Archaeology – A Review, Delhi (relevant vols.)

### **AIH&E-PG31T303-Indian Palaeography and Epigraphy:**

**Total Hours : 48**

#### **Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Intrudes the Palaeography and Epigraphy - Definition and Scope and importance
- Learning the Brahmin, Karoshti, and Ardha Magadi Scripts.
- Specific Derivation of North Indian and South Indian scripts from Brahmi Learning
- Brahmi and karoshti Script is only Ancient Period Available her.

**Unit-1.** Palaeography and Epigraphy - Definition and Scope and importance

**Unit-2.** Evolution of Scripts in general

**Unit-3.** Origin and antiquity of script in India

**Unit-4.** Harappan Script – Characteristics - Attempts at decipherment

**Unit-5.** Brahmi and Kharoshthi scripts – Origin and characteristics

**Unit-6.** Derivation of North Indian and South Indian scripts from Brahmi

**Unit-7.** Indian Numerals

**Unit-8.** Dating systems and Eras

**Unit-9.** Writing materials

**Unit-10.** General character of Inscriptions – Engraving – Forged records – Ornamental writing – Shell script - Seals and emblems

**Reference:**

Sircar D.C., Indian Epigraphy, Delhi, 1965

Pandey R.B., Indian Palaeography, Varanasi, 1957

Gokhale S., Indian Numerals

Diringer D., The Alphabet

Sivaramamurti C., Indian Epigraphy and South Indian Scripts, Madras, 199

Narasimha Murthy A.V., Kannada Lipiya Ugama mattu Vikasa, Mysore, 1998

Rao S.R., Lothal and Indus Civilization, Bombay, 1973

Presidential Addresses and Prasastis (delivered to/at the annual congresses of Epigraphical Society of India), Dharwad, 1986

Journals of the Epigraphical Society of India, Mysore

**AIH&E-PG31T304-Harappan Civilization:  
Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Aim to enhance in deep Learning. Students will get skill development.
- Harappan Culture and Early Harappan Culture step by step Developing the Culture.
- Important excavated sites – Town Planning and important structures of the Harappan Sites

**Unit-1.** Harappan studies

**Unit-2.** Development of Pre-Harappan Culture and Early Harappan Culture

**Unit-3.** Harappan Culture at its maturity – Extent – Important excavated sites – Town Planning and important structures

**Unit-4.** Political and social structure

**Unit-5.** Religion

**Unit-6.** Economy – Crafts and Trade

**Unit-7.** Script

**Unit-8.** Funerary Customs

**Unit-9.** Devolution of Harappan Culture - Late Harappan culture - Causes of Decline

**Unit-10.** Chronology

## **Unit-11. Survival and continuity of Harappan cultural elements**

### **Reference:**

- Wheeler R.E.M., Indus Civilization, London, 1968  
Rao S.R., Lothal and Indus Civilization, Bombay, 1973  
Lal B.B. (Ed.), Frontiers of the Indus Civilization, Delhi, 1984  
Ratnagarh S., Encounters, Westerly Trade of the Harappans, Delhi  
Ratnagarh S., Political Organization of the Harappans, Pune  
Ratnagarh S., Understanding the Harappans, Delhi, 2000  
Lal B.B., The Earliest Civilization of South Asia, New Delhi, 1997  
Lal B.B., India 1947-1997: New Light on the Indus Civilization, New Delhi, 1998  
Lal B.B., The Sarasvati flows on, The Continuity of Indian Culture, New Delhi, 2002  
Possehl G.L., Indus Age: The Writing System, New Delhi, 1996  
Possehl G.L., Indus Age: The Beginnings, New Delhi, 1999  
Relevant papers on Harappan Civilization published in Man and Environment and Puratattva Vols  
Archaeological Survey of India, Indian Archaeology – A Review (relevant vols.)

### **AIH&E-PG31T305-Inscriptions of the Mauryas:**

**Total Hours : 48**

#### **Course Outcomes:**

#### **Upon Completion of the course, the students will be able to**

- Inscription Learning the Students will get at the Archaeology Survey of India.
- Mauryan inscriptions is all India available her.
- Mauryan inscriptions location, script, and language Brahmi and Karoshti Scripts.

#### **Unit-1. A Brief History of Maurya period**

#### **Unit-2. History of Study of Mauryan Inscriptions**

#### **Unit-3. A survey of Mauryan inscriptions with reference to location, script, language and format**

#### **Unit-4. Inscriptions of Asoka - contents and importance**

- (a) Minor Rock Edicts I – IV
- (b) Major Rock Edicts I-XIV
- (c) Special Major Edicts (XV-XVI)
- (d) Minor and Major Pillar Edicts
- (e) Rumindei and Nigalisagar Pillar Inscriptions
- (f) Cave Inscriptions

#### **Unit-5. Inscriptions of successors of Asoka**

### **Reference:**

Hultzsch, Corpus Inscriptionum Indicarum, Vol. I

Sircar D.C., Inscriptions of Asoka

Romila Thapar, Asoka and the Decline of the Mauryas

Gupta S.P. (Ed.), The Origin of the Brahmi Script

Krishnan K.G., Uttankita Sanskrit Vidya Aranya Epigraphs Vol. II, Mysore, 1989

**AIH&E-OEC205B-History of Indian Religious Thought:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Introduce Definition and character of religion
- Harappa religious Continuity of the Modern age.
- All Religion available in Indian Countr

**Unit-1.** Definition and character of religion

**Unit-2.** Harappan religious tradition

**Unit-3.** Vedic religious tradition and thought

**Unit-4.** Jainism

**Unit-5.** Buddhism

**Unit-6.** Vaishnavism

**Unit-7.** Saivism, Saktism and Nathapanthis

**Unit-8.** Islam and Sufism

**Unit-9.** Zoroastrianism

**Unit-10.** Sikhism

**Unit-11.** Christianity

**Reference:**

Majumdar R.C. (Ed.), History and Culture of the Indian People Vols I-VI (Bombay, 1951-64)  
 Ramakrishna Mission Institute of Culture, The Cultural Heritage of India Vols. I-VI  
 Hick John H., Philosophy of Religion  
 Weber Max, The Sociology of Religion  
 Madan T.N., Religion in India  
 Ratnagar S., Understanding Harappa Civilization in Greater Indus Valley  
 Rao S.R., Lothal and Indus Civilization  
 Lal B.B., The First Civilisation of South Asia  
 Allchin B. and Allchin R., The Rise of Civilization in India and Pakistan  
 Bhasham A.L. (ed), A Cultural History of India  
 Banerji P., Early Indian Religions  
 Mehta P.D., Early Indian Religious thought  
 Syed Ameer Ali, The Spirit of Islam  
 Daljeet Singh, Essentials of Sikhism  
 Boyce, Zoroastrians: Their Religious Beliefs and practices  
 Stephen C. Neil, A History of Christianity in India Vol.I and II.

#### **IV Semester**

#### **AIH&E-PG31T401-South Indian Art and Architecture:**

**Total Hours : 48**

#### **Course Outcomes:**

#### **Upon Completion of the course, the students will be able to**

- Sources - Features of Indian Art–Terminology
- Old Ancient art is Harappa. Harappan Sites is a Available Horse Bone, Camel Bone and Coins and Sculpture etc.
- Early Hindu Caves of Ellora and Elephant Temples Small Sculpture Available here.

**Unit-1.** Sources and terminology

**Unit-2.** Buddhist rock-cut architecture of Maharashtra (Hinayana and Mahayana)

**Unit-3.** Art of Amaravati and Nagarjunakonda

**Unit-4.** Early Hindu Caves of Ellora and Elephanta

**Unit-5.** Art and Architecture of the Chalukyas of Badami

**Unit-6.** Art and Architecture of the Rashtrakutas and the Gangas

**Unit-7.** Pallava art and architecture

**Unit-8.** Chola and Pandya Temple art and architecture

**Unit-9.** Art and Architecture under Chalukyas of Kalyana, Seunas, Hoysalas, Kakatiyas

**Unit-10.** Architecture and art under Vijayanagara empire

**Unit-11.** Survey of South Indian Bronzes

**Unit-12.** Survey of South Indian Painting

**Reference:**

Majumdar R.C. (Ed.), History and Culture of the Indian People, Vols. I-V, Bombay 1952-64

Brown Percy, Indian Architecture, Vol. I (Buddhist and Hindu), Bombay, 1942

Rowland B., Art and Architecture of India, Harmondsworth, 1970

Coomaraswamy A.K., History of Indian and Indonesian Art, London, 1927

Zimmer H., Art of Indian Asia, New York, 1955

Saraswati S.L., A Survey of Indian Sculpture, Delhi, 1950

Huntington S., The Art of Ancient India, New York, 1985

Harle J.C., The Art and Architecture of the Indian Subcontinent, Harmondsworth, 1986

Blurton R.T., Hindu Art, London, 1992

Srinivasan P.R., The Indian Temple Art and Architecture, Mysore, 1982

Srinivasan P.R., South Indian Bronzes

Sivaramamurti C., A Survey of Indian Painting, Delhi, 1970

Sivaramamurti C., Vijayanagara Paintings, Delhi, 1985

Shukla D.N., Hindu Canons of Painting, Lucknow, 1957

**AIH&E-PG31T402-Selected Inscriptions of India:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Inscription Learning the Students will get at the Archaeology Survey of India.
- Mauryan inscriptions is all India available here.
- Mauryan inscriptions location, script, and language Brahmi and Kharoshti Scripts.

A Study of the contents of the following inscriptions from historical, religious, administrative, literary and interpretative points of view:

**Unit-1.** Ashokan Edicts : Edict I, Edict XIII and Brahmagiri Edicts

**Unit-2.** Besangar Garuda Pillar Inscription of Heliodorus

**Unit-3.** Hathigumpha Inscription of Kharavela

**Unit-4.** Junagadh Inscription of Rudradaman

**Unit-5.** Nasik Cave Inscription of Queen Balasri (Gautamiputra Satakarni's prashasti)

**Unit-6.** Allahabad Pillar Inscription of Samudragupta

**Unit-7.** Talagunda Pillar Inscription

**Unit-8.** Halmidi Inscription

**Unit-9.** Badami Cliff Inscription of Pulakesi-I

**Unit-10.** Aihole Prasasti of Pulakesi II

- Unit-11.** British Museum Plates of Govinda III  
**Unit-12.** Jura Prasasti of Krishna III  
**Unit-13.** Kurkyala inscription of Jinavallabha  
**Unit-14.** Uttaramerur Inscriptions of Parantaka-I  
**Unit-15.** Arjunavada Pillar Inscription of Seuna Kannara  
**Unit-16.** Sravanabelgola Inscription of Bukka-I

**Reference:**

- Krishnan K.G., Uttankita Sanskrit Vidya Aranya Epigraphs Vol. II (Prakrit and Sanskrit Epigraphs, 257 BC to 320 AD), Mysore, 1989  
Hultzsch, Corpus Inscriptionum, Indicarum Vol. I (Inscriptions of Asoka and his successors) (Revised Edition)  
Diskalkar D.B., Selections from Sanskrit Inscriptions, Poona, 1925  
Fleet J.F., Corpus Inscriptionum Indicarum Vol.III (Inscriptions of the Early Gupta Kings), Calcutta, 1888 (Revised Edition)  
Epigraphica Carnatica Vol. II (Revised) and Vol.VII  
Epigraphia Indica Vols. VI, VIII, XXI, XXXIII  
Sastri K.A.N., Studies in Chola History and Administration, Madras, 1932  
Desai P.B., Basavesvara and His Times, Dharwad, 1968

**AIH&E-PG31T403-Indian Numismatics:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Numismatics is Ancient Period to Modern Period Antiquity of Coinage in India
- Punch-marked Coins Start in Gupta Period Punch Marked Coins Symboles natya saraswati, billu, bana, king and quens symble available her.
- Coins of South India – Kadamba – Ganga – Chalukya – Chola - Hoysala – Seunas and Other Dynasties of the coins

**Unit-1.** Importance of Numismatics

**Unit-2.** Antiquity of Coinage in India

**Unit-3.** Punch-marked Coins

**Unit-4.** Indo-Greek Coins

**Unit-5.** Kushana Coins

**Unit-6.** Satavahana and Kshatrappa Coins

**Unit-7.** Roman Coins in India

**Unit-8.** Gupta Coins

**Unit-9.** Coins of South India – Kadamba – Ganga – Chalukya – Chola - Hoysala – Seuna

## **Unit-10. Coins of Vijayanagara dynasties**

### **Reference:**

Sircar D.C., Studies in Indian Coins, Delhi, 1968

Majumdar R.C. (Ed), History and Culture of the Indian People Vols. I-VI (Bombay 1951-1964)

Gupta P.L., Coins, Delhi, 1969

Bhandarkar D.R., Carmichael Lectures on Indian Numismatics, Calcutta, 1921

Narain A.K., Indo-Greek Coins

Allan J., Catalogue of Indian Coins in the British Museum, London, 1936

Altekar A.S., Bayana Hoard of Gupta Coins

Rapson, Coins of India

Narasimha Murthy, Coins of Karnataka, Mysore

Narasimha Murthy, Studies in Coins of Karnataka, Mysore, 1997

## **AIH&E-PG31T404-Ancient World Civilizations:**

**Total Hours : 48**

### **Course Outcomes:**

#### **Upon Completion of the course, the students will be able to**

- Background of the Early Civilizations of the World – Characteristics of Civilization - Factors contributing to the rise.
- A Study of the following Civilizations with reference to Polity, Society, Economy, Religion, Philosophy, Literature, Script, Science and Technology, Art and Architecture World Civilizations
- Ancient World Civilization is Mesopotamian Civilization, Egyptian Civilization, Greek Civilization and Harappan Civilization in India.

**Unit-1.** Background of the Early Civilizations of the World – Characteristics of Civilization - Factors contributing to the rise

**Unit-1.** A Study of the following Civilizations with reference to Polity, Society, Economy, Religion, Philosophy, Literature, Script, Science and Technology, Art and Architecture

- (a) Mesopotamian Civilization
- (b) Egyptian Civilization
- (c) Chinese Civilization
- (d) Greek Civilization

**Reference:**

Swain E., History of World Civilizations

Sedillot R., A Bird's Eye view of World History

Glyn Daniel, The First Civilizations

Will Durant, Story of Civilization vols.

Toynbee A., A Study of History

Karlton J.H., Ancient Civilizations

**AIH&E-PG31T405-Art of the Chalukyas of Badami:****Total Hours : 48****Course Outcomes:****Upon Completion of the course, the students will be able to**

- Introduce the Political Background of the Badami Chalukyas
- This is used for the Study to Guide public in the Historical places of the Badami, Aihole and Pattadakallu etc.
- Impact of Chalukya Architectural and Sculptural traditions in Karnataka.
- Badami and pattadakallu temples Nagara and Phamsana Tradition

**Unit-1.** Political Background**Unit-2.** Historiography**Unit-3.** Cave Architecture and Sculpture**Unit-4.** Structural Temples – Forms and Plans**Unit-5.** Structural Temples of Nagara and Phamsana Traditions**Unit-6.** Structural Temples of Dravida Tradition**Unit-7.** Structural Temples of Mandapa and Apsidal forms**Unit-8.** Sculptural art on Structural temples

**Unit-9. Artists**

**Unit-10. Impact of Chalukya Architectural and Sculptural traditions**

**Reference:**

Ramesh K.V., The Chalukyas of Vatapi, Delhi, 1984

Cousens, H., Chalukyan Architecture of the Canarese Districts, Calcutta, 1926

Soundara Rajan K.V., Early Temple Architecture in Karnataka and its Ramifications, Dharwad, 1969

Soundara Rajan K.V., Cave Temples of the Deccan, Delhi, 1981

Michell George, Early Western Chalukya Structural Temples, AARP I, London,  
1975

Foekema, G., Fifteen Golden Examples of Karnataka Temples, Bangalore, 2005

Rajasekhara S., Early Chalukya Art at Aihole, Delhi, 1985

Ashwin Lippe, Early Chalukya Icons, Artibus Asiae 34/4, pp 273-330 (1972)

Gupte R.S., Temples of Aihole, 1964

Rajendra Prasad, Art of south India Andhra Pradesh, Delhi, 1980

Ramachandra Rao, Alampur.

Tarr, G., The Durga Temple at Aihole, a Historiographical Study, Delhi, 1997

**AIH&E-PG31T406-Dissertation based on field work:**

**Total Hours : 48**

**Course Outcomes:**

**Upon Completion of the course, the students will be able to**

- Dissertation based is the Field Knowledge is development
- Sculpture, coins and inscription excavation Knowledge is come here
- Dating method and C-14 carben method learning.

**Course V: (AIH.4B.4) Dissertation based on field work (field survey of inscriptions/archaeological remains/monuments etc.) prepared under the guidance of a teacher in the Department**

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**Note: Regulations Governing Post-graduate Programmed in the Faculty of Social Sciences under choice based credit system (framed under section 44(1)(C) of KSU Act 2000), circulated under circular no. KU/ACA(S&T)/(SMP-32)/CBCS/PG Courses/08-09/325 dated 11/13.06.2008 apply.**

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# **KARNATAK UNIVERSITY, DHARWAD**



*Regulations and Syllabus  
for  
P.G.Department Studies in*  
**ANCIENT INDIAN HISTORY AND EPIGRAPHY**

**Ph.D.Course Work**



*Under  
Choice Based Credit System (CBCS)  
From  
2016-Onwards*

**KARNATAK UNIVERSITY DHARWAD**  
**DEPARTMENT OF ANICIENT INDIAN HISTORY**  
**AND EPIGRAPHY**

**Ph.D.CourseWork Syllubas**

**Cource I (Core): Research Methodology**

## **AIH&E-Ph.D-31, Course-IResearch Methodology**

### **Course Out come**

**Course :AIH&E-COURSE-I**

**Course Name: Research Methodology**

### **Upon Completion of the course, the students will be able to**

- The Ph.d Students to better understanding how to selection of the Area of Research and Reseachtipoc
- To understand how to collect the Primery and Secondry data
- After the collection of the data how classification analyzed data
- Ofter completion of the data collection then learn to writing the thisis
- The Methodology is most important part of Ph.D

**Unit.1.** Research in Archaeological Disciplines and History: Meaning, purpose and importance- Research Ethics- Development of History thought

**Unit.2.** Selection of area of research and Research topic- Areas of research in India Archaeology and Indian History-Regional Archaeology and History, its importance-karnataka

**Unit.3.** Aspect of Research process, Concepts and tools:preliminaries- Objectivity- Reasoning- Bibliography- Abbreviations- References –Maps – Index – Graphs- Illustrations – Notes from primary and secondary source- field Notes

**Unit.4.** Analysis and Interpretation of Archaeological and literary Source: Criticism – Antiquarian remains – Art and Architecture – epigraphs- Coins – Religious literature – Secular literature –Folk literature – Computerin research

**Unit.5.** Aspects of Research Report: Clasification of analyzed data – chapterzation – Subheadings – Notes and References- Presentation – Tabulation – Bibliography and other appendages

**Unit.6.** Approaches to Ancient Indian History, Archaeology and Culture: Orientalist Discourses– Imperialist historiography- Nationalist Historiography – Marxist- Socialist Approaches- Other trends

## Refrence:

- Car E.H. 1964 What is History? London: Macmillan.
- Chidanandamurti M. 2011. Samshodhane: Pandityarasa. Bengaluru: PriyadrshiniPrakashana.
- Chidanandamurti M 1966. Kannada ShasanagalasamskritikaAdhyayana. Mysore: Universty of Mysore
- Collingwood R.G. 1946. The Idea of history. Oxford:Oxford University Press.
- Evans J r. 1997. In Defence of History. London: Granta Books.
- Gottlob M.(Ed). 2003. Historical Thinking in south Asia. New Delhi: Oxford University Press.
- Gottlob M (Tranlated by AryaAcharya). 2010. DakshinaEshiyadalliItihasa- chintane. Dharwad: Karnatak University.
- Haddock B.A. 1980. Itroduction to Historical Thought. London: Edward and Arnold Publishers.
- Kosambi D.D.1956. An Introduction to the Study of Indian History.
- Kosambi D.D. 1972. The Culture and Civilization in Ancient India in historical Outline. New Delhi: Vikas Publishing house.
- Majumdar R.C. 1967. Historiography n Modern India . Bombay: Asia Publishers
- Marc Bloch. 1954. The Historian's Craft. Manchester.
- Marwick Arthur. 1970. The Nature of History. Londn and Basingstoke: Macmillan press Ltd.
- Renier G.J. 1950. History: its Purpose and method. London.
- Sharma R.S 1980. Indian feudalism. New Delhi: Macmilla.
- SharmaR.S. 1980. Sudras in Anicient India. New Delhi: MotilalBanarasidass.
- Sheik Ali. B. 1975. History Its Theory and Method. New Delhi:Orient Longman.
- Shreedharan E. 2004. A Textbook pf historiography 500 BC to AD 2000. New Delhi: Orient Blackswan.
- Thapar R. 1987. Anicient Indian Social History: Some Interpretations. New Delhi: Oriet Longman
- Thapar R. 1994 Interpreting Early India. New Delhi: Oxford university Press.

- Thapar R. 2000 early India (Ed.). The Past and Prejudice. New Delhi: National Book Trust.
- Thapar R. 2000 Early India. New Delhi: Penguin.
- Upinder Singh (Ed.). 2011. Rethinking Early Medieval India. New Delhi: Oxford University Press.

**Karnatak university dharwad**  
**Department of Ancient Indian History and Epigraphy**  
**Ph.D. Course Work 2020-21**  
**Course II(Core): Advances in Archaeology, Epigraphy, History, Art and Culture of india**  
**with special reference to Karnataka (upto AD 1600)**

**AIH&E-PH.D32-Cource-II-Advances in Archaeology, Epigraphy, History, Art and Culture of india with special reference to Karnataka (upto AD 1600)**

**Course Out come**

**Course :AIH&E-COURSE-II**

**Course Name: A.A.E.H.A &A India**

**Upon Completion of the course, the students will be able to**

- Students get the knowledge about the pre-historical sites like Isampur, Budihal, Sanganakallu, Tadakanahalli, Kumaranahalli, Heggadehalli, Banavasi, vadagaonMadhavpur, Sannati, Kanaginahalli.
- To learn the Students Epigraphy and other recently discovered Copper plate epigraphas, Gudnapura, Halashi, Talakadu, Rajaghatta, Vijayanagar (Hampi)
- To learn Art and Architecture of Karnataka, Some important Architecture centers at Badami, Aihole, Beluru, Halebidu, Hampi etc
- 

**Unit 1.**Advances in india Archaeology, Karnataka Archaeology: Palaeolithic (Isampur)- Mesolithic and Neolithic (Budihal, Sanganakallu, And Other Sites) – Megalithic (Tadakanahalli, Kumaranahalli, Heggadehalli) – Early Historic – (Banavasi, vadagaonMadhavpur, Sannati, Kanaginahalli) – Early and Medieval – Kadamba-Ganga (Gudnapura, Halashi, Talakadu, Rajaghatta) – Vijayanagar (Hampi)

**Unit-2.**Advance in Epigraphy: Ashokan Epigraphs (Nittur, Udegolam, Sannati) – Satavahana Epigraphs (Kanaginahalli Inscription) – Aretalegadde and other recently discovered Copper plate epigraphs (Priyavratavarma, Krishnavarma I and pulindavarma) – Kappe-Arabhatta's Epigraph – Gosasa Inscription – Anegondi Plates of Pottes's Guid.

**Unit-3.**Historiography of Karnataka (upto 16<sup>th</sup> Century)

**Unite-4.**Recent Development in Karnataka Art Historical Studies: Documentation of Temples – Textual Correlation – Temple Components – Temple Form – Iconography and Sculpture Styles – Interpretation of Temple Architecture and Art.

**Unite-5.**Cultural Studies on Ancient India: Religion, Society and Economy

**Unite-6.**Book Review: 1. R.S Panchamukhi: *Karnataka Itihas Vol-1*.

2. M. Chidanandmurti: *Kannada ShasanagalSamskritikaAdhyayana*.

**Reference:**

Chidanandmurti M 1966 Kannada ShasanagalSamskritikaAdhyayana.Mysore:University of Mysore.

Chidanandmurti M. 2011. Samshodhane: Pandityarasa. Bengaluru: PriyadarshiniPrakashana.

Sharma R.S.1980. Indian Feudalism. New Delhi:Mecmillan

Sharma R.S.1980. Sudras in Ancient India. New Delhi: MotilalBanarasidass.

Annual Reports.Deccan College Post Graduate and Research Institute.

Man and Environment Volumes.

Puratattva Relevant Volimes.

Epigraphia India ElevantValumes.

Indian Archaeology – A Review Volumes.

Narasimha Murthy et al. 1997. Excavation at Banavasi, Directorate of Archaeology and Museum, Mysore

VijayanagaraAdhyayan Volumes.Derectorate of Archaeology and Museums, Mysore/Hampi

Krishnamurthy M.S. et al. Talakadu Excavation, Directorate of Archaeology and Museums, Mysore

Krishnamurthy M.S. 2012 TalakaduDept of Archaeology, Museums and Heritage, Governmen of Karnataka, Mysore

Devaraj.Et al. Excavations at Hegganehalli.Dept of Archaeology, Museums and Heritge,  
Governmen of Karnataka, Mysore

Madhu: Dr: M.N Deshpande Festschrift. Delhi: Agam Kala Prakashan.

**Karnatak University, Dharwad**  
**Department of Ancient Indian History and Epigraphy**  
**Ph.D Course Work 2017 Syllabus**  
**Course III: (Area of Research) Cultural History of Karnataka: Religion,**  
**Inscriptions, Art& Architecture**

**Unit-I**

Nature and scope of Karnataka epigraphy

**Unit-II**

In the study of Epigraphy the field work is essential

**Unit-III**

Importance of Karnataka inscriptions

a) Kadamba inscriptions

b) Badami Chalukya inscriptions

**Unit-IV**

From 8<sup>th</sup> century AD to 12<sup>th</sup> century AD inscriptions

a) Karnataka

b) Rastrakutas

c) Kalyan Chalukya inscriptions

d) Hoysala inscriptions

e) Kadambas of Goa

**Unit-V**

Importance of Vijayanagar inscriptions

**Unit-IV**

Important hero stone inscriptions of Karnataka

**Reference:**

Altekar A.S: The Rastrakutas and their Times, Poona, 1934

Bhandarkar R.G: Early history of the Deccan III Edition Calcutta, 1928

Gopal. R: Cultural study of History inscriptions, Mysore

Chidanandmurthy M: Kannada shasanagalu Samskrutaadhyayana, Mysore

**Karnatak University, Dharwad**

**Department of Ancient Indian History and Epigraphy**

**Ph.D Course Work 2020-21 Syllabus**

**Course III: (Area of Research) Cultural History of Karnataka: Religion,  
Inscriptions, Art & Architecture**

**AIH&E-PH.D33-Course-III Area of Research**

**Course Outcome**

**Course Name: A.A.E.H.A & A India**

**Upon Completion of the course, the students will be able to**

**Name of the Candidate - Basavaraj**

1. In the study of History and Culture the Field Work is essential
2. Importance of Kannada Inscriptions
  - a) Kadambas Inscriptions.
  - b) Badami Chalukyas Inscriptions
3. From 8<sup>th</sup> Century A.D to 12<sup>th</sup> Century A.D Inscriptions of Karnataka
  - a) Rashtrakutas Inscriptions
  - b) Kalyani Chalukyas Inscriptions
  - c) Hoysala Inscriptions
4. Important Religions of Karnataka
  - a) Shaiva & Vaishnava Religion
  - b) Jain Religion

c) Buddhist Religion

5. Important Centers of Art and Architecture of Karnataka: From BadamiChalukya period to Hoysala Period

6. Coins of Karnataka Dynasties: Form Kadamba period to vijayanagar period

**Books for Study /Reference:**

- Narasimha Murthy A.V (Ed), *Archaeology of Karnataka, Director of Archaeology and Museum Mysore*
- Desai P.B. et al., *A.I History of Karnataka , KRI, Dharwad*
- Chidanandmurti M; *KannadShasanagalu, Samskrutikadhyayan, University of Mysore, Mysore*
- F.R Allchin and Allchin ; *The Birth of Civilization in India and Pakistan, Landan*
- Percy Brown; *Indian Architecture Vol. I & II, Tarporewala, Bombay*
- Sonthemiear and Settar (ed.) *Memorial stones, K.U Dharwad*
- Narsimha Murthy A.V; *Studies in coins of Karnataka, Directorate of Archaeology & Museum Mysore*
- Hale J.C., *Art and Architecture of the Indian in Subcontinent, Penguin*
- Michael Meister and Dhaky M.A *Encyclopadia of Indian temples, American Institute of Indian Studies and Manohar, Delhi*
- Altekar A.S *The Rashtrakutas and theis Times, Oriental Book Agency, Poona*
- *Excavation Report on Banavasi, Talakadu, Sannati and Kanaginahalli*

# **KARNATAK UNIVERSITY, DHARWAD**



NAAC Accredited 2014

## **DEPARTMENT OF ANTHROPOLOGY**

### **CHOICE BASED CREDIT SYSTEM**

**(I to IV Semesters)**

**With effect from 2020-21**

**KARNATAK UNIVERSITY, DHARWAD**

**DEPARTMENT OF ANTHROPOLOGY**

**CHOICE BASED CREDIT SYSTEM**

**M.A. /M.Sc. ANTHROPOLOGY**

Anthropology as a systematic body of knowledge provides an understanding of the tremendous human diversity in biological, social-cultural and historical dimensions and their interrelationships. There are four major divisions of Anthropology, namely Social-Cultural, Biological, Archaeological and Linguistic Anthropology. The curriculum in Anthropology at the postgraduate level envisages imparting the holistic knowledge encompassing all its branches through theoretical, practical and field-based ethnographic work.

At Present, the Department of Anthropology provides opportunity for advanced study in Social-Cultural and Biological Anthropology in the form of lectures, tutorial, guidance, Practicals, intensive fieldwork and seminars. Facilities for research leading to the award of Ph.D degree are also available in these two branches.

The postgraduate syllabus of anthropology has been divided into two phases--namely, Core course and Elective course. While the Core course, taught during the I and II Semesters, is common for all, the students can choose either Social-Cultural anthropology or Biological anthropology as Elective course for the III and IV Semesters. The specializations are designed to impart advanced knowledge in the respective areas.

**GENERAL REGULATIONS:**

**Semester System course under the Choice Based Credit System (CBCS) from the year 2008 – 2009 onwards.**

**1) Courses offered and duration of the course**

Master of Anthropology : MA / M-Sc.

Areas of Specialization: 1. Social-Cultural Anthropology  
2. Biological Anthropology

- 2) M.A/M.Sc. (Anthropology) shall be spread over a period of Two Academic Years consisting of four semesters. The duration of each semester shall not be less than 16 weeks or more than 18 weeks.
- 3) Maximum period prescribed for completion of all the requirements for the award of the degree is two academic years from the date of admission failing which the candidate shall register afresh in the MA/M.Sc. Programme.

#### **4) Eligibility Criteria for Admission**

The students who have successfully completed the three-year / four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent thereto by this university shall be eligible for admission to the Post Graduate Programs under the KU-CBCS Program provided they also satisfy the eligibility conditions like percentage of marks etc. as may be prescribed by the University and as per Ordinance of the course.

#### **5) Attendance**

Each semester shall be taken as a unit for the purpose of calculating attendance and a student shall be considered to have put in the required attendance for the semester if he has attended not less than 75% of the number of working periods (Lectures and seminars taken together) during each semester.

**6) Choice Based Credit System** is introduced from the Academic year 2008-2009 for MA/MSc. Course in Anthropology. There are three categories of courses.

- a) Compulsory Course means fundamental papers which the student admitted to a particular Post-graduate Programme should successfully complete to receive the Post Graduate Degree in the concerned subject and which cannot be substituted by any other course;
- b) Specialization Papers mean advanced papers and departmental choices that student can opt as a special paper under a particular department only especially for students wanting to receive Degrees in those specialization areas;
- c) 'Open Elective Course' means a course offered by Department for students of other Departments in the same school or in other schools. Students have freedom to choose from a number of optional courses offered by other Department to add to their credits required for the completion of their respective programs;
- d) Credit means the unit by means of which a course work is measured.
- e) The departments in Social Science shall have 72 credits for the course subjects without practical and field-work and the departments with practicals/fieldwork shall have 96 credits.

**7) The medium of instruction shall be in English, except in languages.**

#### **8) Course Structure (For each semester)**

- (a) Compulsory Courses – 4 credits per week
- (b) Specialization courses (In III and IV Semesters only) – 4 credits per week

- (c) Open Elective Course (OEC)– 4 credits per week
- (d) The student shall register for minimum of 22 credits and maximum of 26 credits per semester. The student has to clear the minimum credits per semester.

### **9) Scheme and Hours of Instruction**

In each Semester, there shall be six papers. Each paper shall carry a minimum 4 hours of teaching per week.

### **10) Scheme of Examination**

- a) The University shall conduct an examination after the conclusion of every Semester Programme.
- b) The composition of theory and internal assessment marks for each paper shall be 75 and 25 respectively. Duration of examination for theory paper of 75 marks shall be of 3 hours.
- c) The Internal Assessment marks are 25 for each paper.

### **11) Dissertation:**

All those enrolled in the MA/M.Sc. Programme shall write a Dissertation under the guidance of a course teacher during their Fourth Semester based on the fieldwork data. Dissertation shall carry 100 marks allocated as follows:

Dissertation-Writing..... 80 marks  
Viva-voce.....20 marks

The viva-voce shall be conducted by a Board of Examiners comprising of the concerned guide of the candidate and one external examiner.

- 12) The intake capacity for the MA/MSc. Semester CBCS course in Anthropology is 36 students every year. Enhanced payment seats will be available as per the university rules.
- 13) Attendance rules for granting semester terms as per the rules of the University.
- 14) Fees, Applications form for admission, scholarship, library and cultural activities as per rules of the University.

**COURSE STRUCTURE AND SCHEME OF EXAMINATION FOR I, II, III, AND IV SEMESTERS**

Sl. No.	TITLE OF THE PAPERS	Credits	Theory: No. of Hours per week	Duration of Examination	Internal Assessment including attendance (22 + 03)	Marks at the exam	Total
	<b>SEMESTER – I</b>						
	<b>Compulsory Course</b>						
1.	PG32T101: Introduction to Anthropology	4	4	3 Hours	25	75	100
	PG32T102: Biological Anthropology	4	4	3 Hours	25	75	100
	PG32T103: Linguistic Anthropology	4	4	3 Hours	25	75	100
	PG32T104: Comparative Ethnography	4	4	3 Hours	25	75	100
	PG32P105: Practicals in Biological & Archaeological Anthropology	4	4	3 Hours	–	100	100
	PG32P106: Practicals in Social Cultural Anthropology	4	4	3 Hours	-	100	100
2.	<b>SEMESTER II</b>						
	<b>Compulsory Course</b>						
	PG32T201: Comparative Institutions	4	4	3 Hours	25	75	100
	PG32T202: Techniques and Methods in Anthropology	4	4	3 Hours	25	75	100
	PG32T203: Archaeological Anthropology	4	4	3 Hours	25	75	100
	PG32T204: Anthropology of Dr.B.R. Ambedkar	4	4	3 Hours	25	75	100
	PG32P205: Practicals in Biological and Archaeological Anthropology.	4	4	3 Hours	–	100	100
	PG32T206: <b>OPEN ELECTIVE COURSE</b> : Foundations of Anthropology	4	4	3 Hours	25	75	100
3	<b>SEMESTER III</b>						
	<b>Specialization Course Group A: Social Cultural Anthropology</b>						
	<b>Compulsory Course</b>						
	PG32T301A: Anthropological Theories	4	4	3 Hours	25	75	100
	PG32T302A: Urban Anthropology	4	4	3 Hours	25	75	100
	PG32T303A: Anthropology of Development and Planning	4	4	3 Hours	25	75	100
	PG32T304A: Medical Anthropology	4	4	3 Hours	25	75	100
	PG32T305A: Social Cultural Change	4	4	3 Hours	25	75	100
	PG32T306A: <b>OPEN ELECTIVE COURSE</b> : Population Anthropology	4	4	3 Hours	25	75	100

<b>SEMESTER III</b>						
<b>Specialization Course Group B: Biological Anthropology</b>						
<b>Compulsory Course</b>						
PG32T301B: Anthropological Theories	4	4	3 Hours	25	75	100
PG32T302B:Paleoanthropology	4	4	3 Hours	25	75	100
PG32T303B:Advanced Biological Anthropology	4	4	3 Hours	25	75	100
PG32T304B:Anthropological Demography	4	4	3 Hours	25	75	100
PG32P305B:Practicals in Advanced Biological Anthropology	4	4	3 Hours	–	100	100
PG32T306B: <b>OPEN ELECTIVE COURSE:</b> Forensic Anthropology	4	4	3 Hours	25	75	100

<b>SEMESTER IV</b>						
<b>Specialization course : Group A: Social Cultural Anthropology</b>						
<b>Compulsory Course</b>						
PG32T401A:Anthropological Methodology	4	4	3 Hours	25	75	100
PG32T402A:Applied Anthropology	4	4	3 Hours	25	75	100
PG32T403A:Ecological Anthropology	4	4	3 Hours	25	75	100
PG32T404A:Business Anthropology	4	4	3 Hours	25	75	100
PG32T405A: Field work and Dissertation	4	4	3 Hours	–	100	100
PG32T406A:Visual Anthropology	4	4	3 Hours	25	75	100
<b>SEMESTER IV</b>						
<b>Specialization Course: Group B: Biological Anthropology</b>						
<b>Compulsory Course</b>						
PG32T401B : Anthropological Methodology	4	4	3 Hours	25	75	100
PG32T402B : Human Genetics	4	4	3 Hours	25	75	100
PG32T403B : Forensic Anthropology	4	4	3 Hours	25	75	100
PG32P404B : Practical in Human Genetics	4	4	3 Hours	–	100	100
PG32T405B :Fieldwork and Dissertation	4	4	3 Hours	–	100	100
PG32T406B : Sports Anthropology	4	4	3 Hours	25	75	100

## **Programme Specific Outcomes (PSOs)**

After completion of this programme, the students will be able to:

1. Discuss human diversity which leads to a better understanding of different cultures of the world and therefore respect culture differences.
2. Describe how evolutionary and historical processes have shaped primates and human ancestors and lead to the biological, behavioral, and cultural diversity seen in the present.
3. Use Anthropological skills in different professions especially in the field of research and development, teaching, government and non government services.
4. Learn the methods and significance of ethnography as a research approach and methods.
5. Integrate and apply Anthropological concepts and methods to investigate human issues from the bio-cultural perspective.
6. Demonstrate the skills necessary to collect, analyze, and interpret within the context of anthropological theory and methods.
7. Demonstrate a thorough understanding of the various building blocks of culture.
8. Demonstrate the ability to follow ethical and professional standards for cultural sensitivity in interpersonal and cross-cultural interactions.
9. Demonstrate a thorough understanding of the ways evolutionary biology and culture interact to influence human health and behavior over time and in cross-cultural perspective.
10. Demonstrate the field and laboratory skills necessary to collect, analyze, and interpret the intersections of human biomarkers and ethnographic data within the contexts of current biocultural methods and theories.
11. Successfully employ the field and laboratory skills necessary to collect, analyze, and curate the material remains of past cultures and their environments, and interpret those remains within the context of current archaeological theory.
12. Demonstrate a thorough understanding of the diversity of past cultures and lifeways dating to the prehistoric and early historic eras.
13. Demonstrate a general understanding of human cultural and biological differences and similarities across the world and through time in terms of anthropological data and theories.
14. Provide a holistic approach to understanding human differences and similarities and our place in nature as a member of Primate.
15. Formulate significant abilities in critical thinking and reasoning pertaining to different social cultural and biological aspects of human problems and issues.
16. Students will develop an understanding of local and global processes and social complexity through space and time.
17. Will be able to interpret and analyze both qualitative and quantitative data, design and conduct a research projects, enhance communication and presentation skills, solving problems and identifying solutions.

<b>Paper Code and Name</b>	<b>PG32T101 : INTRODUCTION TO ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate mastery of basic socio-cultural anthropology vocabulary words and the analytical ideas that underlie their usage.
CO 2	Apply anthropological terms and concepts in cross-cultural contexts to reflect and write substantively on ways in which human beings find fulfillment in community.
CO 3	Critically evaluate popular representations of cultures and peoples around the world.
CO 4	Master typological and processual approaches to the study of marriage, family and kinship
CO 5	Understand distinguish British and American versions of Social-Cultural Anthropology

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Meaning and scope of Anthropology</b>	
– Main branches of Anthropology: Social Cultural Anthropology, Biological/Physical Anthropology, Archaeological Anthropology and Linguistic Anthropology.	12 Hours
<b>Unit II : Social-Cultural Anthropology and its Relationship with other disciplines</b>	
– History, Political Science, Economics, Psychology and Medical Science and Humanities. – Distinctiveness of Social Cultural Anthropology from Sociology. – British and American versions of Social-Cultural Anthropology	12 Hours
<b>Unit III : Basic Concepts</b>	
– Society, Culture, Community, Group, Association, Institution, Status and Role, Social Structure and Social Organization	14 Hours
<b>Unit IV : Kinship</b>	

<ul style="list-style-type: none"> <li>– The idea of Kinship System and its relationship to the Social Structure.</li> <li>– Principles of Descent, Inheritance, Succession and Residence (Unilineal, Bilateral and Cognatic Principles).</li> <li>– Descent and Filiation.</li> <li>– Jural and Political Aspects of Kinship.</li> <li>– Kinship usages</li> <li>– Relationship between Proximate and Alternate Generations.</li> <li>– Kin Terms and Kin Terminological Systems.</li> <li>– Morgan’s Classification of Descriptive and Classificatory System.</li> </ul>	14 Hours
<b>Unit V : Marriage and Family</b>	
<ul style="list-style-type: none"> <li>– Nature and Forms of Marriage</li> <li>– Debate on the Universal Definition of Marriage.</li> <li>– Marriage Regulations: Prescriptive and Preferential marriage systems, Marriage Alliance, Marriage Payments, Marriage Stability, Incest Prohibition.</li> <li>– Marriage in India.</li> <li>– Types and functions of Family; Family, Household and Domestic groups.</li> <li>– Universality of Family</li> <li>– Functions of Family.</li> <li>– Typological and Processual Approaches to the study of Family.</li> <li>– Indian Joint Family System.</li> <li>– Stability and Change in Family</li> <li>– Impact of Urbanization, Industrialization</li> <li>– Education and Feminist Movement on Family.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Beattie, J 1976 <i>Other Cultures</i>, London, R &amp; K Paul.</li> <li>2. Bohannan, P 1963 <i>Social Anthropology</i>, New York, Helt.</li> <li>3. E. Schuskey, <i>Manual of kinship Analysis</i></li> <li>4. Ember &amp; Ember, 1977 <i>Anthropology</i></li> <li>5. Evanspritchard.E.E. 1954 <i>Social Anthropology</i>, London, Cohen and West.</li> <li>6. Firth. R, <i>Elements of Social Organisation</i></li> <li>7. Fox. R , <i>Kinship and Marriage</i></li> <li>8. Freidl, J, 1976 <i>Human Portrait</i>, Prentice-Hall Inc. New Jersey.</li> <li>9. Hammond P.B (Ed) <i>Cultural and Social Anthropology</i></li> <li>10. Hoebel &amp; Frost <i>Cultural and Social Anthropology</i>; Englewood ed. NJ, Prentice Hall.</li> <li>11. K.M.Kapadia, <i>Marriage and Family in India</i></li> <li>12. Leach E.R <i>Rethinking Anthropology</i></li> <li>13. Majumdar &amp; Madan, <i>An Introduction to Social Anthropology</i>, Bombay,</li> </ol>	

1957 Asia. 14. Murdock. G. P, Social Structure 15. R.N.Anshen, Family: Human Destiny 16. Radcliffe Brown.A.R, Structure and Function in Primitive Society 17. Stephen. W. N, The family in cross cultural perspective	
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<b>Paper Code and Name</b>	<b>PG32T102 : BIOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify the relationship with other branches of Anthropology and other interdisciplinary disciplines.
CO 2	Distinguish between man and apes anatomically
CO 3	Examine the fossil evidences of different stages of human evolution.
CO 4	Demonstrate the basics of human genetics.
CO 5	Identify different races of the world and India.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction</b>	
<ul style="list-style-type: none"> <li>– Meaning and scope of Biological Anthropology</li> <li>– Its relation to other biological sciences.</li> <li>– Theories of Organic Evolution: <ul style="list-style-type: none"> <li>– Lamarckism</li> <li>– Darwinism</li> <li>– Neo-Darwinism.</li> </ul> </li> </ul>	10 Hours
<b>Unit II : Primates</b>	
<ul style="list-style-type: none"> <li>– Man's place in the animal kingdom</li> <li>– The order primate.</li> <li>– Comparative account of the primates with special reference to man and apes.</li> </ul>	14 Hours
<b>Unit III : Palaeontological evidence for Human Evolution</b>	
<ul style="list-style-type: none"> <li>– Austolopithecines</li> <li>– Pithecanthropines</li> <li>– Neanderthals</li> <li>– Homo sapiens.</li> </ul>	12 Hours
<b>Unit IV : Principles of Human Heredity</b>	

<ul style="list-style-type: none"> <li>– Anthropology and Genetics.</li> <li>– Cell structure and function.</li> <li>– Cell divisions and their genetic significance.</li> <li>– Blood Groups: ABO System, Rhesus Blood Groups.</li> <li>– MN System.</li> </ul>	14 Hours
<b>Unit V : Human Variation</b>	
<ul style="list-style-type: none"> <li>– The concept of race and Racism.</li> <li>– Criteria of racial classification.</li> <li>– Major races of the world.</li> <li>– Racial classification of Indian Population.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Birdshell, Human Evolution</li> <li>2. Buettner Janusch, J. 1969. Origin of Man. New Delhi: Wiley Es.</li> <li>3. Campbell B. 1967. Human Evolution. London: Heimnann Educational Book.</li> <li>4. Das B. M. Outlines of Physical Anthropology</li> <li>5. Dobzansky, Theodosium 1971. Mankind Evolving New Delhi: Wiley Es.</li> <li>6. Hammond, Peter B. (ed) 1964. Physical Anthropology and Archaeology. New York Mac. Millan (selected reading).</li> <li>7. Howells. F. Clark and the Editors of the Early Man (Life Nature Library).</li> <li>8. Kraus, Bertram 1964. The Basis of Human Evolution, New York, Harper and Row.</li> <li>9. Minkoff, Evolutionary Biology</li> <li>10. Rami Reddy R. Physical Anthropology</li> <li>11. Simpson G.S. 1952. The Meaning of Evolution, New York: Mentor.</li> <li>12. Stein and Rowe 1978. The new Physical Anthropology, New York: Mc. Graw Hill.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32T103 : LINGUISTIC ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Apply theory to practice by conducting your own mini field-work projects.
CO 2	Integrate your classroom learning into your primary research and, eventually, into your daily lives.
CO 3	Apply morphology and syntax in day-to-day communication
CO 4	Analyze ethnography of speaking and communication in different communities
CO 5	Gain expertise in Linguistic etiquettes like greetings, songs and dirges.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Linguistic Anthropology</b>	
<ul style="list-style-type: none"> <li>– Meaning and Scope of Linguistic Anthropology</li> <li>– Language and Communication</li> <li>– Universal Features of Language; Sign, Sign systems and Semiotics</li> <li>– Linguistics: Phonology and Grammar</li> </ul>	12 Hours
<b>Unit II : Phonology</b>	
<ul style="list-style-type: none"> <li>– Phonetics and Phonemics.</li> <li>– Branches of Phonetics: Articulatory, acoustic and auditory</li> <li>– Phonemics: Premises and Procedures – Four Basic Premises</li> <li>– Procedures: Preliminary and Analytic - Separating and Uniting.</li> <li>– Contrast and Complementation</li> </ul>	14 Hours
<b>Unit III : Grammar</b>	
<ul style="list-style-type: none"> <li>– Morphology and Syntax.</li> <li>– Morphology: Identification of Morphemes, Types of Morphemes</li> <li>– Syntax: Transformational – Generative Grammar.</li> <li>– Deep Structure and Surface Structure.</li> <li>– Structuralism in Linguistics and in Anthropology.</li> <li>– Semantics.</li> <li>– Classification of Languages: typological, genetic and aerial</li> </ul>	14 Hours

<b>Unit IV : Ethnolinguistics</b>		
<ul style="list-style-type: none"> <li>– Relationship between Language and Culture</li> <li>– Ethno linguistics and Linguistic anthropology</li> <li>– Ethno science and ethnography of speaking and communication.</li> <li>– Language and Society</li> <li>– Diglossia</li> <li>– Variation in speech: Idiolect, Variety, Dialect and Language</li> <li>– L Dialect Atlas.</li> </ul>		12 Hours
<b>Unit V : Sociolinguistics</b>		
<ul style="list-style-type: none"> <li>– Semantics</li> <li>– Cognitive Anthropology</li> <li>– Componential Analysis</li> <li>– Sapir-Whorf Hypothesis</li> <li>– Linguistic Acculturation</li> <li>– Bilingualism</li> <li>– Standard Language.</li> <li>– Linguistic etiquettes – greetings, songs, dirges.</li> </ul>		12 Hours
<b>REFERENCES</b>		
<ol style="list-style-type: none"> <li>1. Ardener, E. – Social Anthropology and language.</li> <li>2. Bright, W. – Sociolinguistics</li> <li>3. Burling, R. – Man’s Many Voices.</li> <li>4. Chomsky, N. Syntactic Structures</li> <li>5. Gleason, H. A. – An Introduction to Descriptive Linguistics.</li> <li>6. Greenberg, J.H. – Essays in Linguistics</li> <li>7. Hockett C. F. – A Course in Modern Linguistics.</li> <li>8. Hoijer, H. – Language in Culture</li> <li>9. Hymes, Dell (ed) – Language in Culture and Society.</li> <li>10. Marcel Danesi – A basic course in Anthropological Linguistics.</li> <li>11. Nida – Morphology</li> <li>12. Pike – Phonemics</li> <li>13. Poddar, A. (ed)- Language and Society in India ‘ Transactions of Indian Institute of Advanced Study. Volume 8. Proceedings of a Seminar. Simla: Indian Institute of Advanced Study</li> <li>14. Sapir, E. – Language</li> <li>15. Trudgill, Peter – Sociolinguistics : An Introduction. Harmondsworth: Pelican Books.</li> <li>16. Tyler, S.A. (ed) - Cognitive Anthropology.</li> <li>17. William A. Foley – Anthropological Linguistics: An Introduction.</li> </ol>		

<b>Paper Code and Name</b>	<b>PG32T104 : COMPARATIVE ETHNOGRAPHY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Compare ethnography to other forms of cultural representation such as journalism, film and creative non-fiction
CO 2	Discuss the intent of the researcher, impact on audience, and consequences for Communities.
CO 3	Comparative understanding different cultures around the world
CO 4	Understand the basis of Indian Unity and diversity
CO 5	Demonstrate diversity of peoples culture by studying monographs outside India

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Ethnology</b>	
<ul style="list-style-type: none"> <li>– Ethnographic studies and their importance in Social-Cultural Anthropology</li> <li>– The distinction between ethnography and ethnology</li> </ul>	10 Hours
<b>Unit II : Ethnographic regions</b>	
<ul style="list-style-type: none"> <li>– The major Ethnological-Ethnographic Regions of the World and their main characteristics.</li> <li>– India as a cultural region.</li> </ul>	10 Hours
<b>Unit III : Cultural zones</b>	
<ul style="list-style-type: none"> <li>– Cultural zones of India.</li> <li>– Salient features</li> <li>– Contributions of N.K. Bose and Irawati Karve</li> <li>– The Basis of Indian Unity.</li> </ul>	12 Hours
<b>Unit IV : Indian monographs</b>	
<ul style="list-style-type: none"> <li>– Study of a monograph on India: One of the following monographs to be selected by the faculty member each year.</li> </ul>	16 Hours

<ul style="list-style-type: none"> <li>– Srinivas M.N: Remembered village 1976</li> <li>– Ishwaran: Shivapur</li> <li>– Epstein: Economic development and social change in South India.</li> <li>– Vidyarthi L.P: Sacred Complex in Hindu Gaya.</li> <li>– Berremen G.D.: Hindus of the Himalayas</li> <li>– Halbar B.G.: Lambani Economy and society.</li> </ul>	
<b>Unit V : Monograph outside India</b>	
<ul style="list-style-type: none"> <li>– Study of a monograph outside India : One of the following monographs to be selected by the faculty member each year. <ul style="list-style-type: none"> <li>– Evans-Pritchard E.E.: The Nuer</li> <li>– Margaret Mead: Coming of Age in Samoa.</li> <li>– Turner V.W: Schism and Continuity in an African Society.</li> <li>– Nagbune: Mind and Body in Zulu Medicine.</li> <li>– Clifford Geertz: Peddlers and Princess.</li> <li>– Colin Turnbull: The Forest People.</li> </ul> </li> </ul>	16 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Bose N. K. 1972: Aspects of Indian culture and society.</li> <li>2. Forde,C.D 1963: Habitat Economy and Society.</li> <li>3. Govt. of India 1973: Tribal people of India, New Delhi publications Division. Ministry of Information and Broadcasting.</li> <li>4. Haimondorf, Von Furer: Tribes of India. The struggle for survival.</li> <li>5. K. S.Singh: Tribal Society in India.</li> <li>6. Karve: Hindu Society- An interpretation.</li> <li>7. Linton. R.: Tree of culture</li> <li>8. Madan and sarana: Social Anthropology.</li> <li>9. Majumdar D. N.1973: Race and culture of India. New Delhi: Concept publishing House.</li> <li>10. Murdock: Africa.</li> <li>11. Singh, K. S.: People of India; An Introduction; Anthropological Survey of India: Calcutta.</li> <li>12. Vidyarthi.L.P and Rai 1993: Tribal culture of India.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32P105 : PRACTICALS IN BIOLOGICAL AND ARCHAEOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Name and identify all the bones in the human skeleton.
CO 2	Identify all the landmarks on human skull and bones and calculate the indices.
CO 3	Identify all the landmarks on human body take measurements.
CO 4	Identify various somatoscopic observations on human body.
CO 5	Determine blood groups with the help of slide method.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Human Anatomy</b>	
<ul style="list-style-type: none"> <li>– Study and identification of bones and bone fragments of human skeleton.</li> <li>– Age and sex determination from skull.</li> </ul>	14 Hours
<b>Anthropometry</b>	
<ul style="list-style-type: none"> <li>– The drawing of various views of cranium and the study of landmarks.</li> <li>– Craniometry: Recording by repetition of the prescribed measurements and the calculations of indices involved on 5 skulls.</li> <li>– Somatometry: Recording by repetition of the prescribed measurements and the calculations of indices required on 5 living individuals.</li> </ul>	25 Hours
<b>Serology</b>	
<ul style="list-style-type: none"> <li>– Somatoscopy: Observations of the prescribed characters on the human body on 5 living subjects.</li> <li>– Serology: The testing and analyses of blood samples of 10 individuals for A, B, O, AB Groups.</li> </ul>	25 Hours

<b>Paper Code and Name</b>	<b>PG32P105 : PRACTICALS IN SOCIAL CULTURAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the new areas of research in Social Anthropology
CO 2	Learn how to prepare questionnaires, research design, review and conduct research in Anthropology
CO 3	Move on for a Ph.D. programme.
CO 4	Able to work as Researchers, consultants and designers
CO 5	Expertise in recording, analyze and report writing

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
– Framing three questionnaire and schedules on the problems given.	12 Hours
– Formulating three research designs.	12 Hours
– Three case studies with analysis.	14 Hours
– Construction of genealogical charts of three families.	12 Hours
– Observation and recording of data on three events.	14 Hours

<b>Paper Code and Name</b>	<b>PG32T201 : COMPARATIVE INSTITUTIONS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the role of institutions in bringing social change
CO 2	Understand the distribution and consumptions patterns in different societies.
CO 3	Use Anthropological approaches to the study of Religion
CO 4	Distinguish between state and stateless societies
CO 5	Apply Anthropological approaches to the study of Law and Acts

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Politics and Government</b>	
<ul style="list-style-type: none"> <li>– Political Anthropology: Meaning and Scope.</li> <li>– Concepts of Power, Authority and Legitimacy.</li> <li>– Types of Political Organization: Band, Tribe, Chiefdom, and State.</li> <li>– Difference between State and Stateless Societies.</li> </ul>	12 Hours
<b>Unit II : Social Control and Law</b>	
<ul style="list-style-type: none"> <li>– Definition of Law and Legal Anthropology</li> <li>– Cultural Background of Law</li> <li>– Anthropological approach to the study of Law.</li> <li>– Justice in Tribal and Peasant Societies.</li> <li>– Legal Ethnocentrism.</li> </ul>	12 Hours
<b>Unit III : Economic Anthropology</b>	
<ul style="list-style-type: none"> <li>– Meaning and Scope.</li> <li>– Principles governing Production, Distribution and Consumption in hunting, gathering, pastoral, horticultural, and agricultural societies.</li> <li>– Modes of Exchange: Barter, Ceremonial Exchange, Reciprocity, Redistribution, Marketing and Trade.</li> <li>– The Formalist versus Substantivist debate.</li> <li>– New Economic Anthropology.</li> </ul>	14 Hours
<b>Unit IV : Anthropology of Religion</b>	

<ul style="list-style-type: none"> <li>– Definition and Functions</li> <li>– Religion and its relation to other social Institutions</li> <li>– Magic, Witchcraft and Sorcery, Totemism and Taboo, Myth and Ritual,</li> <li>– Religious Functionaries – Priest, Shaman and Medicine Man.</li> <li>– Anthropological Approaches to the study of Religion.</li> <li>– Symbolism in Religion and Rituals.</li> </ul>	14 Hours
<b>Unit V : Social Stratification</b>	
<ul style="list-style-type: none"> <li>– Principles and Bases</li> <li>– Caste, Class and Estate</li> <li>– The major features of Indian Caste System</li> <li>– Caste in India today</li> <li>– The impact of caste on other Religious Groups in India.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. A.C.Mayer 'Caste' In Encyclopedia of Social Sciences</li> <li>2. Balawinder 1970, Political Anthropology</li> <li>3. Banton M (Ed) 1965, Political System and distribution of power. ASA Monograph 2</li> <li>4. Beals and Hoiger, <i>An Introduction to Anthropology</i>.</li> <li>5. Belshaw.C, Traditional exchange and markets</li> <li>6. Clammer. J (Ed) The New Economic Anthropology</li> <li>7. Epistin, - Economic Development and Social Change in South India</li> <li>8. Epistin, - South India : Yesterday, Today and Tomorrow.</li> <li>9. Firth, R. (Ed) Themes in Economic Anthropology</li> <li>10. Fortes and Evans Pritchard, African Political Systems</li> <li>11. G.Dalton 1971, Traditional tribal and peasant economies</li> <li>12. G.Dalton, Economic development and social change</li> <li>13. Geertz, C. – Encyclopedia of social sciences edited by David Sills.</li> <li>14. Gould H, 'Caste' In Encyclopedia of Social Sciences</li> <li>15. Gould.H.A 1971, Caste and clan: A comparative view A Mccalar module in anthropology</li> <li>16. Herskovits, M.J. Economic Anthropology</li> <li>17. Hoebel and Weaver, Anthropology and Human Experiences</li> <li>18. Hoebel, Man in the primitive world</li> <li>19. Keesinng R.M and Keesinng. F.M, New Perspectives in Cultural Anthropology</li> <li>20. Leach, E.R. (Ed) Aspects of caste in South India, Cylone and North-West Pakistan</li> <li>21. M.H.Fried 1976, Exploration in Anthropology</li> <li>22. Majumdar &amp; Madan, <i>An Introduction to Social Anthropology</i>, Bombay, 1957 Asia..</li> <li>23. Shalin.M, Stone age economics</li> </ol>	

24. Srinivas M N, Caste in Modern India	
<b>Paper Code and Name</b>	<b>PG32T202 : TECHNIQUES AND METHODS IN ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Explain the key research concepts and issues
CO 2	Read, comprehend, and explain research articles in their academic discipline.
CO 3	Handle data processing and data classification and Report making.
CO 4	Expertise in use of native language in ethnographic studies
CO 5	Apply Participatory learning and Assessment (PLA) and Participatory Rapid Assessment (PRA)

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Getting ready for Anthropological Research</b>	
<ul style="list-style-type: none"> <li>– The definition and delimitation of the Research problem</li> <li>– Hypothesis</li> <li>– The concept of Research designs.</li> </ul>	12 Hours
<b>Unit II : Field-work and Field-work Tradition in Anthropology</b>	
<ul style="list-style-type: none"> <li>– Importance of Field-work in Anthropology</li> <li>– Approaches in Anthropological Field-work</li> <li>– Getting acquainted with the field.</li> <li>– Establishing ‘rapport’ and learning the use of native language.</li> <li>– The use of informants, particularly the ‘key informants’.</li> <li>– The importance of diary, field notes logbook.</li> </ul>	14 Hours
<b>Unit III : The basic techniques of data collection</b>	
<ul style="list-style-type: none"> <li>– Observation: participant observation and other type of observation</li> <li>– Interview: Types of Interview</li> <li>– Schedule, Questionnaire: Case study Extended Case-study</li> <li>– Genealogical method</li> <li>– The use of history, personal official and historical documents</li> <li>– Participatory learning and Assessment (PLA) and Participatory Rapid</li> </ul>	12 Hours

Assessment (PRA)	
<b>Unit IV : The processing of data and Report writing</b>	
<ul style="list-style-type: none"> <li>– Classification and Tabulation</li> <li>– Measures of central tendencies – Mean, Median, Mode.</li> <li>– Dispersion and Measure of Dispersion</li> <li>– Standard Deviation</li> <li>– Sampling – types of sampling</li> <li>– Correlation</li> <li>– Chi-square Test</li> </ul>	12 Hours
<b>Unit V : Introduction to computers</b>	
<ul style="list-style-type: none"> <li>– Use of computers in the analysis of data</li> <li>– operating system, office suite and statistical software packages</li> <li>– SPSS</li> <li>– Data handling using SPSS and data analysis</li> <li>– Toolpak in Excel of MS Office</li> <li>– Creating document using word, editing and formatting text and inserting data bases.</li> <li>– Excel work sheet, creating data files in excel, formatting cells.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. A.Danda, <i>Research Methodology in Anthropology</i></li> <li>2. Blalock and Blalock, 1958, <i>Methodology in Social Research</i>, New York, Mc. Graw, Hill.</li> <li>3. Chamber.R, Participatory Rural Appraisal- Analysis and Experience</li> <li>4. Ellen.E.F.(Ed) <i>Ethnographic Research</i></li> <li>5. Goode, W.J. and Hatt, P.K. 1952. <i>Methods in Social Research</i>, Tokyo Mc Grew, Hill.</li> <li>6. Kel Rniger, F.W. <i>Foundations of Behavioral Research</i>.</li> <li>7. Kluckhohn. C, <i>Use of Personal Documents in Anthropology</i></li> <li>8. Madriga Lorena, <i>Statistics for Anthropology</i></li> <li>9. Pelto, P.S. and Pelto G.H. 1978 <i>Anthropological Research</i>, Cambridge, CUP.</li> <li>10. Royal Anthropological Institute of Great Britain and Ireland: <i>Notes and Queries on Anthropology</i>, London, 1874 Reprint 1954. Rotuledge and Kegan Paul Ltd.</li> <li>11. Russel, B.H. 1940. <i>Research Methods in Cultural Anthropology</i>, Altamira Press,London.</li> <li>12. Selitz C, Jahoda S.C. Drutsch, M, Cook, S.W. 1976. <i>Research methods in social relations</i>, New York:HRW.</li> <li>13. Wellar, S.C. <i>Systematic Data</i>.</li> </ol>	

14. Young, P.V. 1956. <i>Scientific Social surveys and Research</i> , New York Prentice-Hall.	
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<b>Paper Code and Name</b>	<b>PG32T203 : ARCHAEOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Explain the significance of anthropology in archaeology and its relationship with other branches.
CO 2	Understand the prehistoric period with reference to geological changes.
CO 3	Identify the age of the artifacts through different archaeological methods
CO 4	Name and identify various prehistoric stone tools.
CO 5	Become familiar with different world civilizations.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction</b>	
<ul style="list-style-type: none"> <li>– Archaeology and its place in the discipline of Anthropology</li> <li>– Relationship with other branches : earth sciences, physical sciences, life sciences, social sciences, archaeological sciences and ethno-archaeology.</li> <li>– The branches of archaeology and their interpretation.</li> </ul>	12 Hours
<b>Unit II : Prehistoric time-scale</b>	
<ul style="list-style-type: none"> <li>– Origin of Earth and Life</li> <li>– Geological Time-Scale.</li> <li>– The Pleistocene Ice Age</li> <li>– Glacial and Interglacial Periods</li> <li>– River terraces and moraines.</li> </ul>	12 Hours
<b>Unit III : Archaeological Methods</b>	

<ul style="list-style-type: none"> <li>– The methods of dating and their relevance of Archaeology.</li> <li>– The stone tool technology and typology during Paleolithic and post Paleolithic times.</li> </ul>	12 Hours
<b>Unit IV : Prehistoric Cultures</b>	
<ul style="list-style-type: none"> <li>– The Paleolithic and Mesolithic Periods in Europe and India, origin, distribution and cultural development.</li> <li>– A Study of the salient features of the Neolithic Cultures in general.</li> <li>– The Indian Neolithic Cultures.</li> </ul>	14 Hours
<b>Unit V : World Civilizations</b>	
<ul style="list-style-type: none"> <li>– The meaning of civilization in general.</li> <li>– The main centers of civilization.</li> <li>– A study of their extent, their distribution and general features.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Braidwood, Rober J. 1967:Prehistoric Men (latest edition). Glenview (III) Scott Foresman.</li> <li>2. Childe V.G. 1956. Man Makes Himself Placing Together the Past. London, Watts.</li> <li>3. Hammond, Peter B. (ed) 1964. Physical Anthropology and Archaeology. New York Mac. Millan (selected reading).</li> <li>4. Misra V.N. et.al. (ed) 1964 Indian Prehistory, Poona.</li> <li>5. Oakley K.P. 1959. Man the Tool Maker and Frame Works in Dating Fossil Man, Chicago, Chicago University Press.</li> <li>6. Sankalia H.D. 1964. Stone Age tools, their techniques, names and function.</li> <li>7. Shapiro H.L. (ed). 1971: Man, Culture and Society (Selected. Chapters), London, OUP.</li> <li>8. Wheeler M. 1968. Early India and Pakistan. London: Thames and Hudson.</li> <li>9. Zeuner F.E. 1958. Dating the Past Darien; Hafner.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32T204 : ANTHROPOLOGY OF DR. B.R.AMBEDKAR</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Explain the approaches to the study of Indian society.
CO 2	Learn about Indian society on the basis of some key concepts developed by various anthropologists.
CO 3	Learn about the contributions of some anthropologists to understanding Indian society and culture.
CO 4	Analyze and understand the theory of Broken Men
CO 5	Able to distinguish between touchable, untouchable and shudras

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Emergence and Growth of Anthropology in India</b>	
<ul style="list-style-type: none"> <li>– Racial, Linguistic and social characteristics of Indian Population both tribal and non-tribal.</li> <li>– Indian Population.</li> </ul>	12 Hours
<b>Unit II : Traditional Indian Social structure</b>	
<ul style="list-style-type: none"> <li>– Varna- Brahmana, Kshatriya, Vaishya, Shudra</li> <li>– Ashrama-Brahmacharya, Gruhastha, Vanaprashtha, Sanyasa</li> <li>– Purusharthas-Artha, Kama, Moksha, Karma, Rina and Rebirth</li> <li>– Castes in India</li> <li>– Caste system</li> <li>– Untouchables</li> <li>– Purity and Pollution</li> <li>– Infection of Imitation</li> <li>– Structural basis of inequality of Indian society.</li> </ul>	16 Hours
<b>Unit III : Religions in India</b>	
<ul style="list-style-type: none"> <li>– Impact of Buddhism, Jainism, Islam and Christianity on Indian society</li> </ul>	16 Hours
<b>Unit IV : Approaches to the study of Indian society</b>	

<ul style="list-style-type: none"> <li>– Concepts of Sanscritization, Westernization</li> <li>– Dominant caste</li> <li>– Jajmani System</li> <li>– Great Tradition, Little Tradition</li> <li>– Parochialization, Universalization</li> <li>– Nature–Man–Spirit Complex</li> <li>– Broken Men</li> </ul>	10 Hours
<b>Unit V : India as a great civilization</b>	
<ul style="list-style-type: none"> <li>– Aesthetic and creative aspects of Indian civilization, music, dance theatre, sculpture, architecture and paintings.</li> </ul>	10 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Allen, H.B. 1954 <i>Rural Reconstruction in Action</i>. Ithaca, CU Press.</li> <li>2. Ambedkar, B.R- The Buddha and his Dhamma.</li> <li>3. Ambedkar, B.R- The Untouchables: Who were they and why they became Untouchables.</li> <li>4. Ambedkar, B.R- Who were the Shudras? : How they became to be the Fourth Varna in the Indo-Aryan Society.</li> <li>5. Ambedkar, B.R. - Annihilation of Caste.</li> <li>6. Ambedkar, B.R.-Castes in India: Their Mechanism, Genesis and development.</li> <li>7. Ashwini, Deshpande- The Grammar of Caste: Economic Discrimination in Contemporary India</li> <li>8. Basham, A.L. 1982 <i>The wonder that was India</i>, London, Sidwick &amp; Jackson.</li> <li>9. Bhattacharya, S.N. 1959 <i>Village on the March</i>, Delhi Metropolitan</li> <li>10. Cohen, B. India: <i>Social Anthropology of Civilization</i>.</li> <li>11. Cohn &amp; Singer (Eds) 1970 <i>Structure and Change in Indian Society</i>, Chicago; Aldine.</li> <li>12. Coomarswamy, A.K. -<i>Hinduism and Buddhism</i>.</li> <li>13. Dhidon, H.S.- <i>Leadership and Groups in a South Indian Village</i>.</li> <li>14. Dube, S.C. 1958 <i>India's changing villages</i>, London: Routledge.</li> <li>15. Dumont, L. 1970 <i>Homo Hierarchicus</i>, Delhi, Vikas Publishers.</li> <li>16. Gore, M.S. 1973- <i>Some Aspects of Social Development</i>, Honk Kong, Peter Hodge.</li> <li>17. Ishwaran, K. 1966 <i>Tradition and Economy in Village India</i>, Bombay, Allied Publishers.</li> <li>18. Karve, I. 1961-<i>Hindu Society</i>, Poona, Deccan College.</li> <li>19. Kroeber, A.L. 1963 <i>An Anthropologist looks at History</i>, Berkely, University of California Press.</li> <li>20. Lewis, O. 1958.-<i>Village Life in Northern India</i>. Urbana, University of Illinois.</li> <li>21. Madan, T.N. &amp; G. Sarana 1962 <i>Indian Anthropology</i>, Bombay, Asia.</li> </ol>	

<p>22. Majumdar, D.N. 1958- <i>Races and Cultures of India</i>.</p> <p>23. Mandelbaum, D.G. 1989 <i>Society in India</i>. Bombay: Popular</p> <p>24. Marriott, M. (ed) 1961 <i>Village India</i>, Bombay, Asia.</p> <p>25. Mehata, V.L. 1964 <i>Decentralized Economic Development</i>, Bombay, Khadi and Village Industries Commission.</p> <p>26. Nehru, Jawaharlal, 1981- <i>The Discovery of India</i>, New Delhi, J.N. Memorial Fund.</p> <p>27. Prabhu, P.N. 1958. <i>Hindu Social Organisation</i>, Bombay, Popular Publishers.</p> <p>28. Radhakrishna, S. 1927 <i>The Hindu view of Life or An Ideal view of Life or Eastern Religion and Western Thought</i>. London; Allen Unwin.</p> <p>29. Redfield, R. 1958 <i>Peasant society and culture</i>, Chicago University Press.</p> <p>30. Redfield, R. 1967 <i>Little Community</i>, Chicago, Chicago University Press.</p> <p>31. Ross, M.G. 1955- <i>Community Organization</i>, New York, Harper</p> <p>32. Srinivas, M.N. (Ed) 1960 <i>India's Villages</i>, Bombay, Asia.</p> <p>33. Srinivas, M.N. 1962 <i>Caste in Modern India</i>. Bombay, Asia.</p> <p>34. Srinivas, M.N. <i>Social Change in Modern India</i>.</p> <p>35. Valsan, E.H. 1970. <i>Community Development Programmes and Rural Government, Comparative studies of India and Phillippines</i>, New york, Praeger.</p> <p>36. Vidyarthi, L.P. &amp; Roy, 1985 <i>Tribal Culture of India</i>, New Delhi, Concept.</p>	
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<b>Paper Code and Name</b>	<b>PG32P205 : PRACTICALS IN BIOLOGICAL AND ARCHAEOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Take the printed impressions of the palm and identify various pattern types.
CO 2	Draw the main line formula and understand the pattern
CO 3	Draw and name different prehistoric stone tools.
CO 4	Identify and describe various prehistoric stone tools.
CO 5	Identify ancient pottery wares, bone and iron tools.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Dermatoglyphics</b>	
– Ability to take inked impressions and to identify the pattern types and main line formula on finger palm prints of at least 10 individuals.	32 Hours
<b>Archaeological Anthropology</b>	
– Prehistory: Identification, drawing and description of the prescribed representative tool types: Paleolithic, Mesolithic and Neolithic Periods. – Sketches of various forms of Pottery wares, Bone tools and Iron tools available in the Department.	32 Hours

<b>Paper Code and Name</b>	<b>PG32T206 : FOUNDATIONS OF ANTHROPOLOGY (OPEN ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate mastery of basic socio-cultural anthropology vocabulary words and the analytical ideas that underlie their usage.
CO 2	Understand biological and genetic aspects of human variation.
CO 3	Apply anthropological terms and concepts in cross-cultural contexts to reflect and write substantively on ways in which human beings find fulfillment in community.
CO 4	Understand prehistoric cultures through various stone tool typologies.
CO 5	Critically evaluate popular representations of cultures and peoples around the world.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : History, Meaning and Scope of Anthropology</b>	
<ul style="list-style-type: none"> <li>– Other branches of Anthropology: <ul style="list-style-type: none"> <li>– Social-Cultural Anthropology</li> <li>– Physical/Biological Anthropology</li> <li>– Archaeological Anthropology</li> <li>– Linguistic Anthropology.</li> </ul> </li> <li>– Relationship with Life Sciences, Social Sciences, Humanities and environmental Sciences.</li> </ul>	12 Hours
<b>Unit II : Biological Anthropology</b>	
<ul style="list-style-type: none"> <li>– Human evolutionary studies</li> <li>– Human variation</li> <li>– Human Genetics</li> <li>– Human Growth and development.</li> </ul>	14 Hours
<b>Unit III : Social Cultural Anthropology</b>	
<ul style="list-style-type: none"> <li>– Culture, society, community.</li> <li>– Human Institutions: <ul style="list-style-type: none"> <li>– Family</li> </ul> </li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>– Marriage</li> <li>– Kinship</li> <li>– Religion</li> <li>– Development and Change</li> <li>– Research Methods: Tools and Technique.</li> </ul>	
<b>Unit IV : Archaeological Anthropology</b>	
<ul style="list-style-type: none"> <li>– Meaning and scope,</li> <li>– Branches of Archaeology.</li> <li>– Tool techniques and types.</li> <li>– Dating methods: relative and absolute</li> <li>– Cultural evolution</li> <li>– Broad outlines of pre-historic cultures and chronology.</li> </ul>	14 Hours
<b>Unit V : Linguistic Anthropology</b>	
<ul style="list-style-type: none"> <li>– Anthropology and Linguistics</li> <li>– Speech, language and dialect.</li> <li>– Semantics and Lexicon</li> <li>– Phonetics and phonemix</li> <li>– Morphemix and syntax socio-linguistics.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Ardeuer E. Social Anthropology and language.</li> <li>2. Bhattacharya D.K. Prehistoric Archaeology.</li> <li>3. Bohanan, Paul 1963. Social Anthropology</li> <li>4. Bright W. Socio-Linguistics.</li> <li>5. Buettner Janusch J 1969 Origins of man.</li> <li>6. Chomsky N. Syntactic Structures</li> <li>7. Das B.M. Outlines of Physical Anthropology.</li> <li>8. Ember and Ember 1977. Anthropology.</li> <li>9. Gleanson H.A. An Introduction to Descriptive Linguistics.</li> <li>10. Hammond P.B. (ed). Cultural and Social Anthropology.</li> <li>11. Hammond Peter (ed) 1964. Physical Anthropology and Archaeology.</li> <li>12. Majumdar and Madan, 1957. An Introduction to Social Anthropology.</li> <li>13. Misra V.N. et.al. (Ed) 1964. Indian Prehistory.</li> <li>14. Pike – Phonemics.</li> <li>15. Rami Reddy V. Physical Anthropology, Human evolution and Genetics.</li> <li>16. Sankalia A.D. 1964. Stone Age tools, their techniques, names and functions.</li> <li>17. Shapiro H.L. (ed) 1971. Man, culture and society.</li> <li>18. Stein and Rowe 1978. Physical Anthropology.</li> <li>19. Tylor S.A. Cognitive Anthropology.</li> </ol>	

<b>SPECIALIZATION : SOCIAL CULTURAL ANTHROPOLOGY (Group A)</b>	
<b>Paper Code and Name</b>	<b>PG32T301A : ANTHROPOLOGICAL THEORIES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Distinguish the classical theories of culture like evolutionism, diffusions and culture area.
CO 2	Understand historical particularism and neo-evolutionism.
CO 3	Learn about functionalism, structuralism and other more recent theories.
CO 4	Formulate research questions and hypotheses, testing of hypotheses, etc.
CO 5	Perform Restudy and Reinterpretation in Anthropology

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Evolutionism</b>	
<ul style="list-style-type: none"> <li>– Nineteenth Century Evolutionism - Tylor and Morgan</li> <li>– Criticism of Nineteenth Century Evolutionism</li> <li>– Evolutionism in Biology and Anthropology compared - Julian Huxley.</li> <li>– Contemporary trends in Evolutionary Studies: <ul style="list-style-type: none"> <li>– Universal Evolution</li> <li>– Multilinear Evolution</li> <li>– Specific and General Evolution</li> </ul> </li> <li>– Diffusionism: Criticism of British and German–Austrian Schools of Thought and American Distributionists.</li> <li>– Historical Particularism: Franz Boas and his contributions</li> <li>– Criticism of ‘The Comparative Method’</li> <li>– Comparison in Anthropology: Nature, Purpose and Methods: Radcliffe-Brown, Fred Eggan, Oscar Lewis and Gopala Sarana.</li> </ul>	14 Hours
<b>Unit II : Culture and Personality</b>	
<ul style="list-style-type: none"> <li>– Relevance of psychological categories and approaches for culture and personality studies in Anthropology.</li> <li>– Patterns Of Culture</li> <li>– Basic Personality Structure</li> <li>– Modal Personality</li> <li>– National character studies</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>– Studies of culture at a distance</li> <li>– Recent trends in Psychological Anthropology</li> </ul>	
<b>Unit III : Functionalism</b>	
<ul style="list-style-type: none"> <li>– Malinowski's contribution</li> <li>– Radcliffe-Brown's arguments</li> <li>– Relevance of the concepts of Manifest and Latent functions Eufunction/Dysfunction</li> <li>– Function and Cause</li> <li>– Structural functionalism: Radcliffe-Brown, Firth, Fortes and Nadel</li> <li>– Social structure</li> <li>– Societal structure.</li> <li>– Relationship between Linguistics and Anthropology</li> <li>– Structuralism of Levi Strauss</li> <li>– Leach's view of Social Structure as a model.</li> <li>– The Structuralist method in the study of myth and alliance.</li> <li>– Ethno science</li> <li>– New ethnography</li> <li>– Formal semantic analysis.</li> </ul>	14 Hours
<b>Unit IV : Social Anthropology and History</b>	
<ul style="list-style-type: none"> <li>– A Critical Examination of the plea for the unity of method in natural and social sciences.</li> <li>– Scientific and Humanistic approaches to be distinguished.</li> <li>– The nature of Anthropological method and the notion of its autonomy.</li> <li>– Explanation in science and in history: <ul style="list-style-type: none"> <li>– Hempelian covering law model of explanation.</li> <li>– Possibility and nature of explanation in Social-Cultural Anthropology.</li> </ul> </li> <li>– Restudy and Reinterpretation in Anthropology.</li> </ul>	12 Hours
<b>Unit V : Symbolism and Anthropology</b>	
<ul style="list-style-type: none"> <li>– Contribution of Schneider, Needham and Turner.</li> <li>– Interpretive Anthropology: Contribution of Greetz.</li> <li>– Post modernism and Anthropology.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Abraham Kardiner, Individual and Society</li> <li>2. Benedict . R, Patterns of Culture</li> <li>3. Evans Pritchard, E.E. 1963 Social Anthropology and other Essay</li> </ol>	

<p>Glencoe: Free Press.</p> <ol style="list-style-type: none"> <li>4. Firth, R. (Ed) 1960 <i>Man and Culture (Selected Essays)</i>, London: routledge.</li> <li>5. Firth, R. 1963 <i>Elements of social organization</i>. Boston: Beacon.</li> <li>6. Harris, M. 1962 <i>The Rise of Anthropological Theory</i>. London: Routledge and Kegan Paul.</li> <li>7. Hempel, C.G. 1963 <i>Aspects of Scientific Explanation</i>, Newyork, Free Press.</li> <li>8. Herskovits, M.J. 1960 <i>Man and his works</i>, New York, Knopf.</li> <li>9. Honigmann, J.J. 1973 <i>Handbook of Cultural and Social Anthropology</i>, R and Mc. Nally&amp;Co, Chicago.</li> <li>10. Honigmann, J.J. <i>Culture and Personality</i></li> <li>11. Kroeber, A.L. 1968 <i>The Nature of Culture</i>, Chicago University Press.</li> <li>12. Kuper A, <i>Anthropology and Anthropologist The British School 1971-1972</i></li> <li>13. Leach, E.R. 1964 <i>Political Systems of Highland Burma</i>, Lodnon, Bell.</li> <li>14. Levi-Strauss. C. 1968 <i>Structural Anthropology</i>, Lodnon: Allen</li> <li>15. Manners, R &amp; D. Kaplan (ed) 1969 <i>Theory in Anthropology</i>. London : Routledge.</li> <li>16. Mead and Metraux <i>Study of Culture at a distance</i></li> <li>17. Merton, R.F. 1962 <i>Social Theory and Social structure</i>, Glencoe, Free Press.</li> <li>18. Nadel, S.F. 1965 <i>The Theory of Social Structure</i>, London: Cohn and West.</li> <li>19. Nagel, E. 1968 <i>The Structure of Science</i>, Lodnon: Routledge.</li> <li>20. Naroll and Naroll, <i>Main Currents in Anthropological Theories</i></li> <li>21. Radcliff-Brown, A.R. 1976 <i>Structure and Function in Primitive Society</i>. London: R&amp;K Paul.</li> <li>22. Redfield, R. 1962 <i>Human Nature and the Study of society</i>.</li> <li>23. Sarana. G. 1975 <i>The Methodology of Anthropological Comparisons</i>, Tucson, Univ. of Arizona.</li> <li>24. Schneider and other <i>Symbolic Anthropology: A Reader in the study of symbolic and meanings</i>.</li> <li>25. Spencer, R.F.(ed) 1954 <i>Method and Perspective in Anthropology</i>. Minnesota University Press.</li> <li>26. Turner, V.W. 1981 <i>Forest of Symbols</i>. Ithaca: Cornell University Press.</li> <li>27. White, L.A. 1959 <i>Evolution of Culture</i>, New York: Mc. Graw Hill</li> <li>28. Wyler, S. (ed) 1969 <i>Cognitive Anthropology</i>, New York, H.R.W.</li> </ol>	
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<b>Paper Code and Name</b>	<b>PG32T302A : URBAN ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about urban anthropology and the role of an urban anthropology in planning and design of a city.
CO 2	Learn about how an urban society is formed.
CO 3	Learn about the methodology of studying urban issues like slums and crimes.
CO 4	Learn about studying, documenting and preparing a report on one of the problems of urban society.
CO 5	Solve Issues of Multi-ethnicity in context of national and international trends.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Simple and complex societies</b>	
<ul style="list-style-type: none"> <li>– British Anthropology’s model for the study of complex societies.</li> <li>– Transformation of the primitive world</li> <li>– Studies of rural peasant societies</li> <li>– Folk-urban continuum.</li> <li>– Idea of rural analysis.</li> <li>– Great tradition and little tradition</li> <li>– Text and context.</li> </ul>	12 Hours
<b>Unit II : Social Cultural integration</b>	
<ul style="list-style-type: none"> <li>– Levels of socio-cultural integration</li> <li>– Steward’s Study of Integration</li> <li>– Civilization, Community, Group and Industry in Western Culture (Warner and Others).</li> <li>– Psychological approaches to the study of wholes (Benedict, Mead, Gorer and others),</li> <li>– National character studies and the study of culture at a distance.</li> </ul>	12 Hours
<b>Unit III : Theories of Civilizations</b>	
<ul style="list-style-type: none"> <li>– Anthropological study of civilization.</li> <li>– Kroeber and anthropological study of civilization wholes.</li> </ul>	14 Hours

– Study of culture of poverty (O.Lewis).	
<b>Unit IV : Urban Anthropology</b>	
<ul style="list-style-type: none"> <li>– Historical perspectives</li> <li>– Contribution of urban sociology to urban Anthropology</li> <li>– Anthropology of urbanization, urbanism and poverty</li> </ul>	12 Hours
<b>Unit V : Multiethnicity</b>	
<ul style="list-style-type: none"> <li>– Ethnicity and ethnic pluralism.</li> <li>– Ethnic conflict and national integration in India.</li> <li>– The methodological relevance of an Anthropological approach to international relations.</li> <li>– Migration and cultural contact: Acculturation and inter acculturation with particular reference to overseas Indian communities.</li> <li>– Issues of Multi-ethnicity in context of national and international trends.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. An Anthropologist Looks at History, 1963, Berkeley, California University Press.</li> <li>2. Arensbey, C and Kindell S.T. The Family and community in Ireland.</li> <li>3. Dunt, P.S. Structure of American Life.</li> <li>4. Firth, R. 1959 Two studies of Kinship in London, London University Press.</li> <li>5. Geertz, C (Ed) 1963 Old Societies and New States. Glencoe, Free Press.</li> <li>6. Krishna: Myth, Rites and Attitude (1968) Chicago, Chicago University Press.</li> <li>7. Kroeber, A.L. Configuration of Cultural Growth (1969), Berkeley, California University Press.</li> <li>8. La Vida: A Puerto Rican Family in the Culture of Poverty.</li> <li>9. Lewis, Oscar 1959 Five Families New York, New American Library.</li> <li>10. Marriott, M. (Ed) 1961 Village India: Bombay Asia.</li> <li>11. Mead, M. and Meraux, R. 1959 Study of Culture at Distance, Chicago, CUP.</li> <li>12. Munford, L. The City of His</li> <li>13. Peasant Society and Culture, 1958, Chicago, Chicago University Press.</li> <li>14. Raghavan, V. Saint Singer (The Great Integrators).</li> <li>15. Redfield, R. 1962 Human Nature and the study of society, Chicago University Press.</li> <li>16. Singer, M. (Ed) 1970 Structure and Change in Indian Society. Chicago: Aldine.</li> <li>17. Sjoberg, G. 1960 The Pre-Industrial City, New York, Free Press.</li> </ol>	

18. Steward, J. 1955 Theory of Culture Change, Urbana Illinois, University. 19. Style and Civilization, 1957, Ithaca, Cornell University Press. 20. The nature of Culture. Chicago, Chicago University Press 1952. 21. Warner, Lloyd, A. 1946 Social Life of a Modern Community; New Haven, Yale University Press.	
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<b>Paper Code and Name</b>	<b>PG32T303A : ANTHROPOLOGY OF DEVELOPMENT AND PLANNING</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about development anthropology, development debates, and the relationship between culture and development.
CO 2	Learn about various tribal development plans and projects implementation
CO 3	Learn about how to review development projects and prepare reports on the same.
CO 4	Learn about development anthropology, development debates, and the relationship between culture and development.
CO 5	Apply Gandhian Approach to Development

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction</b>	
– Emergence of Development Anthropology	12 Hours
<b>Unit II : Theories of Development</b>	
– Meaning and Perspectives of Development – Theories – Adam Smith, Richards, Karl Marx and Schumpeter.	14 Hours
<b>Unit III : Approaches for development</b>	
– Gandhian Approach to Development. – New approaches to development particularly need based development. – Participatory approach in development – Mobilization of local resource – Rural development of India. – Agencies of Development : Governmental and Non-Governmental.	14 Hours
<b>Unit IV : Planning and Development</b>	
– Concept of planning for development – Formulation of policy and plan strategy. – Micro and macro level planning.	12 Hours

<b>Unit V : Displacement and Disaster management</b>	
<ul style="list-style-type: none"> <li>– Displacement and Disaster Management</li> <li>– Displacement situations: Voluntary, involuntary, Natural and Man Made.</li> <li>– Rehabilitation and resettlement : Policies and Management.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Barlett P (Ed) Agricultural Decision Making: An Anthropological contribution to Rural Development</li> <li>2. Belshaw, C.S, The Sorcerers apprentices: An Anthropology of public policy</li> <li>3. Chambers E, Applied Anthropology</li> <li>4. Chambers R, Article on Participatory Rural Appraisal published in World Development</li> <li>5. Charsley, Culture and Sericulture: Social Anthropology and Development in South India- Live Stock industry</li> <li>6. Clamer.J. Anthropology and political Economy theoretical an Asian perspective</li> <li>7. Cochrine. G , Policies for strengthening local self Government in Developing Countries</li> <li>8. Cochrine. G, Development Anthropology</li> <li>9. Cochrine. G, Policy studies and Anthropology, Article in Current Anthropology 21(4)</li> <li>10. Dalton, G. Traditional tribal and Peasant Economies: introductory survey of Economic Anthropology</li> <li>11. Eddy E.M, Partridge (Eds) Applied Anthropology in America</li> <li>12. Epistin A.L (Ed) Craft of Social Anthropology Introduction By Max Gluckman.</li> <li>13. Foster G M, Applied Anthropology</li> <li>14. Green, Edward, Practicing Development Anthropology</li> <li>15. Hoben Allan, “Anthropology and Development ” in A.R of Anthropology Vol-9, 1980.</li> <li>16. Hobert, M (Ed) Anthropological Critique of Development: The Growth of Ignorance</li> <li>17. Madan T.N, Culture and Development</li> <li>18. Mair, Lucy, Anthropology and Development</li> <li>19. Mathur, Hallen and Mohan, (Ed) anthropology in The development Process</li> <li>20. Mathur, Hallen and Mohan, (Ed) Development, Displacement and Resettlement: Focus on Asian perspectives</li> <li>21. Mathur, Hallen and Mohan, (Ed) The Human Dimension of Development: Perspectives from Anthropology</li> <li>22. Pitt- David. C, Development from Below: Anthropology and</li> </ol>	

<p>Development Situation</p> <p>23. Poffen Berger.M, Village Voices and Forrest Choices: Joint Forest Management in India</p> <p>24. Ralph Grillo and Allan Rew (Ed) Social Anthropology and Development Policy (ASA)</p> <p>25. Robertson A.F, People and the State: Anthropology of Planned Development.</p> <p>26. Sandy P.R (Ed) Anthropology and Public Interest</p> <p>27. Schneder H.K, “Economic Development and Anthropology” in A.R of Anthropology Vol-4, 1975.</p> <p>28. Willigen J.V, Applied Anthropology: An Introduction</p> <p>29. Wulff, Robert and Shuley, Anthropological Praxis</p>	
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<b>Paper Code and Name</b>	<b>PG32T304A : MEDICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about the relationship between anthropology and health.
CO 2	They will learn about epidemiology of communicable diseases.
CO 3	They will also learn about variation in healthcare systems in India.
CO 4	From the practical component they will learn about how to map the diseases, identify the symptoms and take preventive or curative measures.
CO 5	Understand Concepts of culture and life style in relation to health and disease

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Meaning and scope of Medical Anthropology</b>	
<ul style="list-style-type: none"> <li>– Branches of Medical Anthropology.</li> <li>– Concepts of Health, disease and illness</li> <li>– Concepts of culture and life style in relation to health and disease</li> <li>– Socio-cultural dimension of illness</li> <li>– Classification of Disease</li> <li>– Disease causation</li> <li>– Evolution of Diseases</li> </ul>	12 Hours
<b>Unit II : Ethnomedicine</b>	
<ul style="list-style-type: none"> <li>– Indigenous Medical Systems, Magico-religious, Herbal and other indigenous aspects</li> <li>– Preventive, Diagnostic and curative measures and Pharmacopoeia (Magic, Witchcraft, Sorcery)</li> <li>– Folk-lore and Medicine</li> </ul>	12 Hours
<b>Unit III : Diverse Medical System</b>	
<ul style="list-style-type: none"> <li>– Ayurveda</li> <li>– Bio-medical</li> <li>– Siddha</li> <li>– Unani</li> <li>– Homeopathy</li> </ul>	16 Hours

<ul style="list-style-type: none"> <li>– Chinese</li> <li>– Tibetan and others</li> <li>– Basic principle Renaissance of traditional medical systems in the west and in India.</li> <li>– Existence of multiple medical practices</li> </ul>	
<b>Unit IV : Doctor and patient interactions</b>	
<ul style="list-style-type: none"> <li>– Socio cultural backgrounds of doctor and healers and patients</li> <li>– Age, Gender, ethnicity, class, race, family relationship and selected case studies</li> <li>– Psychological Disorder: Biological and Sociocultural Approach</li> </ul>	12 Hours
<b>Unit V : Medical statistics</b>	
<ul style="list-style-type: none"> <li>– Measurement of Morbidity</li> <li>– Mortality rates</li> <li>– Incidences and prevalence rates</li> <li>– Adjustment of rates and other vital statistics.</li> <li>– Voluntary efforts in Community Health and Development – some case studies of community participation</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Alland, A. Jr. Adaptation in Cultural Evolution: An approach to Medical Anthropology New York: Columbia University press.</li> <li>2. Caudil, “Medicine in Applied Anthropology” in Anthropology Today by Kroeber A L (Ed). Chicago, Chicago University Press 1953.</li> <li>3. Choudhary, Buddhadeb Tribal Health Delhi: Inter India Publishers</li> <li>4. Foster, G.M. 1958 Problems in intercultural Health Programs U.S.A.: SSRC, New York: SSRC</li> <li>5. Foster, G.M. and G. Anderson Medical Anthropology New York: Wiley and sons.</li> <li>6. Good, M, J. et al (eds) Pain as human experience: and anthropological prospective Berkeley: University of California press</li> <li>7. Helman, C.G. Culture, Health and Illness Oxford: Bultermorth Heinmanu</li> <li>8. Huges” Ethnomedicine”in Encyclopedia of Social Sciences vol. 10 1968</li> <li>9. Janaen, Johan,M. The quest for Therapy: Medical pluralism in lower Zaine Berkeley: University of California press</li> <li>10. Joshi &amp; Mahajan (ed) Medical Anthropology</li> <li>11. Jrawick, K The Ayurvedic physician and scientist in Social Science and Medicine: 29: 1031-1050</li> <li>12. Kleinman, A.K, L. Eisenberg and B.Good. Culture, Illness and Care: Clinical lessons from Anthropological and cross-cultural Research</li> </ol>	

13. Kleinman, A.K. Patients and healers in the context of culture Berkeley: University of California press 14. Kleinman, A.K. The illness narratives: Suffering, healing and the Human condition New York: Basic Books 15. Landy, D. Medical Anthropology: A critical appraisal pp. 105-314 in Ruttim (ed) Advances in medical social science Vol.1, New York 16. Landy, David Culture, Disease and Healing New York: Mac Millan 17. Leslie, Charles Asian Medical System Berkeley: University of California press 18. Lessa W.A.and VogtE. I. "Reader In Comparative Religion: An Anthropological Approach" 19. Lieban R W, 1973 <i>Medical Anthropology</i> - in Handbook of Cultural and Social Anthropology by Honigmann J.J (Ed). Chicago, Rand Mc. Nally. 20. Loudon J. B (Ed) Social Anthropology and Medicine ASA-13. New York: Academic Press Inc. 21. Mering Ott.Von and Kasdan Leonard (eds) Anthropology and Behavioural and Health Science U.S.A.: University of Pittsburg Press 22. Middleton, John 1979 Magic, witchcraft and curing London: University of Texas Press 23. Nichter, Mark Anthropology and International Health Kluwen: Publishers. 24. Polgar, J Health and Human Behaviour Areas of Interest Common to the Social and Medical Sciences Current Anthropology 3: 159-205 25. Romanuoci-Ross, Lola Daniel, E. Morman The <u>Extraneous</u> factors in western medicine Ethos 16(2): 146-166 26. Scotch, N.A. Medical Anthropology. Biennial Review of Anthropology 1963:30-68 stanford calif, SUP 27. St.Louis, Morty Chrisman, N.J. Clinically applied anthropology: Anthropologists in Health Sciences setting Holland: Reidal Dordrecht 28. Turner, V.W.1968 An Ndembu doctor in practice pp.223-263 In Kiev (ed) Magic, Faith and Healing Free press of Glencoe 29. Young, Allan, The Relevance of Traditional Medical Cultures to Modern Primary Health Care Social Science and Medicine 17 (6):1205-1211	
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<b>Paper Code and Name</b>	<b>PG32T305A : SOCIAL - CULTURAL CHANGE</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about the scope and relevance of Social-Cultural change and its relationship with other branches of anthropology.
CO 2	Learn about concepts of society, culture, social stratification, etc.
CO 3	Learn about important institutions like family, marriage and kinship.
CO 4	Learn how to follow up some of the commonly used techniques of data collection in Social-Cultural change.
CO 5	Understand the Perspectives on Modernization and Nation Building process

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction to social change</b>	
<ul style="list-style-type: none"> <li>– Dynamics of Society and Culture.</li> <li>– Concepts of Stability and change.</li> <li>– Distinction between social change and cultural change.</li> <li>– Importance of studying social-cultural change.</li> </ul>	12 Hours
<b>Unit II : Theories of social cultural change</b>	
<ul style="list-style-type: none"> <li>– Theories of social cultural change: <ul style="list-style-type: none"> <li>– Telic</li> <li>– Deterministic</li> <li>– Cyclic and</li> <li>– Linear.</li> </ul> </li> </ul>	14 Hours
<b>Unit III : Anthropology and social cultural change</b>	
<ul style="list-style-type: none"> <li>– Anthropological Perspective on the study of change.</li> <li>– Functionalism and Study of change.</li> <li>– Culture contact, acculturation, diffusion and evolution.</li> </ul>	12 Hours
<b>Unit IV : Factors of social cultural change</b>	

<ul style="list-style-type: none"> <li>– Factors Responsible for social change (Internal and External) factors responsible for change.</li> <li>– Innovation.</li> <li>– Contra acculturative and Nativistic movements</li> <li>– Cultural context of technical change.</li> </ul>	14 Hours
<b>Unit V : Modernity and State</b>	
<ul style="list-style-type: none"> <li>– Perspectives on Modernization and Nation Building process.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Barnet H. G. – Innovation.</li> <li>2. Mead M. – Cultural Patterns and Technical change.</li> <li>3. Spicer E.H. – Human Factors in Technological change.</li> <li>4. Richards A.I. – Economic development and Tribal change.</li> <li>5. Dalton George (ed) – Economic development and social change.</li> <li>6. Etzioni A. &amp; E. (eds) – Social change : Sources, pattern and consequences.</li> <li>7. Firth R. Social change in Tikopia.</li> <li>8. Foster G.M. – Traditional cultures and Impact of Technical change.</li> <li>9. Chambers - Applied Anthropology and Development.</li> <li>10. Barnet H.G. – Anthropology in Administration.</li> <li>11. Samuel Koing – Sociology</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32T306A : POPULATION ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about demographic anthropology and its importance in anthropology.
CO 2	Learn about major theories of population.
CO 3	Learn about the various sources of data in population studies.
CO 4	Learn about how to collect demographic data from various sources and prepare a project report on the same.
CO 5	Impact of family planning programs on population control in developed and developing countries

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Nature and scope of Population Anthropology</b>	
<ul style="list-style-type: none"> <li>– Relationship with other disciplines such as Population Studies, Economics, Sociology, Psychology, Geography, Public Health and Statistics.</li> <li>– Demographic Studies in Anthropology</li> <li>– Demographic methods: <ul style="list-style-type: none"> <li>– Census</li> <li>– Registration System</li> <li>– Sample methods</li> <li>– Dual reporting system</li> <li>– Genealogical method.</li> </ul> </li> </ul>	14 Hours
<b>Unit II : Demographic Theories</b>	
<ul style="list-style-type: none"> <li>– Malthusian, Optimum, Socio cultural Biological and Demographic Transition.</li> <li>– Population structure</li> <li>– Population size and composition</li> <li>– Fertility, Mortality, Migration and their inter-relationship.</li> </ul>	14 Hours
<b>Unit III : Factors affecting population growth</b>	
<ul style="list-style-type: none"> <li>– Biological and Socio Ecological</li> </ul>	14 Hours

<ul style="list-style-type: none"> <li>– Fecundity</li> <li>– Fertility</li> <li>– Natality</li> <li>– Mortality</li> <li>– Morbidity</li> <li>– Age at Menarche</li> <li>– Age at Menopause</li> <li>– Age at Marriage and marital distance</li> <li>– Measures of Fertility and Mortality</li> <li>– Population Education and Extension</li> <li>– Population education concept, importance and objectives</li> <li>– Components of population education; training programmes</li> <li>– population education general procedure for developing training programmes and alternative models of training in population education.</li> </ul>	
<b>Unit IV : Family planning programmes</b>	
<ul style="list-style-type: none"> <li>– Meaning and historical development of the family planning programmes in India</li> <li>– Different methods of family planning</li> <li>– Impact of family planning programs on population control in developed and developing countries</li> <li>– Causes of slow progress of these programmes.</li> </ul>	10 Hours
<b>Unit V : HIV/AIDS and control</b>	
<ul style="list-style-type: none"> <li>– HIV/AIDS epidemic in India and Africa, U.S.A and Thailand</li> <li>– HIV/AIDS programmes of Karnataka</li> <li>– NGO's programmes</li> <li>– Commercial sex workers and HIV / AIDS prevalence and control mechanisms</li> <li>– Other forms of sexual behaviour like homosexuality, extra - marital sex, adolescent sexuality, lunuchs, Blood transfusion etc and AIDS</li> <li>– The determining of sexual and reproductive health</li> <li>– Health education strategies for reproductive health and HIV/AIDS</li> <li>– World Health Organization Programmes and their contributions to reproductive health.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Agarwala, S.N 1977 India's Population: Problem, New Delhi: Tata McGraw publishing Company Ltd.,</li> <li>2. Barclay, G. W. 1968 Techniques of Population Analysis. New York: John Wiley and Sons.</li> <li>3. Bogue, D.J 1969 Principles of Demography. New York :John Wiley and</li> </ol>	

sons.	
4. Chandrashekar, S 1976 India's Population: Fact and Policy. Meerut: Meenakshi.	
5. Kohli, K.L. 1977 Mortality, in India: . A State-wide Study. New Delhi: Sterling Publishers.	
6. Mahadevan, K 1986 Fertility and Mortality theory Methodology and Empirical Issues New Delhi Sage Publications	
7. Mahadevan, K et al 1985 Infant and Child Mortality: Bio - Social Determinants New Delhi: Mittal Publishers.	
8. Mahadevan,K 1984, Strategies for Population Control. Tirupati : S.V University. 1984	
9. Mandelbaum,D.G 1974 Human Fertility in India. Delhi: Oxford University Press.	
10. Shryak, H.S. et.al. 1971, The Methods and Materials of Demography, Washington: U.S. Department of Economics.	
11. Srinivas, M.N and E. A Rangaswamy 1977 Culture and Human Fertility in India. Delhi : Oxford University Press	
12. United Nations, 1973 Determinants and Consequences of Population Trends, New York: United Nations.	
13. United Nations, 1982 Evaluation of the Impact of Family Planning Programmes on Fertility Population, No. 76, New York: United Nations.	

<b>SPECIALIZATION : BIOLOGICAL ANTHROPOLOGY (Group B)</b>	
<b>Paper Code and Name</b>	<b>PG32T301B : ANTHROPOLOGICAL THEORIES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Distinguish the classical theories of culture like evolutionism, diffusions and culture area.
CO 2	Understand historical particularism and neo-evolutionism.
CO 3	Learn about functionalism, structuralism and other more recent theories.
CO 4	Formulate research questions and hypotheses, testing of hypotheses, etc.
CO 5	Understand Functions and Dysfunction in society

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Evolutionism</b>	
<ul style="list-style-type: none"> <li>– Nineteenth Century Evolutionism - Tylor and Morgan</li> <li>– Criticism of Nineteenth Century Evolutionism</li> <li>– Evolutionism in Biology and Anthropology compared - Julian Huxley.</li> <li>– Contemporary trends in Evolutionary Studies: <ul style="list-style-type: none"> <li>– Universal Evolution</li> <li>– Multilinear Evolution</li> <li>– Specific and General Evolution</li> </ul> </li> <li>– Diffusionism: Criticism of British and German–Austrian Schools of Thought and American Distributionists.</li> <li>– Historical Particularism: Franz Boas and his contributions</li> <li>– Criticism of ‘The Comparative Method’</li> <li>– Comparison in Anthropology: Nature, Purpose and Methods: Radcliffe-Brown, Fred Eggan, Oscar Lewis and Gopala Sarana.</li> </ul>	14 Hours
<b>Unit II : Culture and Personality</b>	
<ul style="list-style-type: none"> <li>– Relevance of psychological categories and approaches for culture and personality studies in Anthropology.</li> <li>– Patterns Of Culture</li> <li>– Basic Personality Structure</li> <li>– Modal Personality</li> <li>– National character studies</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>– Studies of culture at a distance</li> <li>– Recent trends in Psychological Anthropology</li> </ul>	
<b>Unit III : Functionalism</b>	
<ul style="list-style-type: none"> <li>– Malinowski's contribution</li> <li>– Radcliffe-Brown's arguments</li> <li>– Relevance of the concepts of Manifest and Latent functions Eufunction/Dysfunction</li> <li>– Function and Cause</li> <li>– Structural functionalism: Radcliffe-Brown, Firth, Fortes and Nadel</li> <li>– Social structure</li> <li>– Societal structure.</li> <li>– Relationship between Linguistics and Anthropology</li> <li>– Structuralism of Levi Strauss</li> <li>– Leach's view of Social Structure as a model.</li> <li>– The Structuralist method in the study of myth and alliance.</li> <li>– Ethno science</li> <li>– New ethnography</li> <li>– Formal semantic analysis.</li> </ul>	14 Hours
<b>Unit IV : Social Anthropology and History</b>	
<ul style="list-style-type: none"> <li>– A Critical Examination of the plea for the unity of method in natural and social sciences.</li> <li>– Scientific and Humanistic approaches to be distinguished.</li> <li>– The nature of Anthropological method and the notion of its autonomy.</li> <li>– Explanation in science and in history: <ul style="list-style-type: none"> <li>– Hempelian covering law model of explanation.</li> <li>– Possibility and nature of explanation in Social-Cultural Anthropology.</li> </ul> </li> <li>– Restudy and Reinterpretation in Anthropology.</li> </ul>	12 Hours
<b>Unit V : Symbolism and Anthropology</b>	
<ul style="list-style-type: none"> <li>– Contribution of Schneider, Needham and Turner.</li> <li>– Interpretive Anthropology: Contribution of Greetz.</li> <li>– Post modernism and Anthropology.</li> </ul>	12 Hours
<b>REFERENCES</b>	
29. Abraham Kardiner, Individual and Society 30. Benedict . R, Patterns of Culture 31. Evans Pritchard, E.E. 1963 Social Anthropology and other Essay	

<p>Glencoe: Free Press.</p> <p>32. Firth, R. (Ed) 1960 <i>Man and Culture (Selected Essays)</i>, London: routledge.</p> <p>33. Firth, R. 1963 <i>Elements of social organization</i>. Boston: Beacon.</p> <p>34. Harris, M. 1962 <i>The Rise of Anthropological Theory</i>. London: Routledge and Kegan Paul.</p> <p>35. Hempel, C.G. 1963 <i>Aspects of Scientific Explanation</i>, Newyork, Free Press.</p> <p>36. Herskovits, M.J. 1960 <i>Man and his works</i>, New York, Knopf.</p> <p>37. Honigmann, J.J. 1973 <i>Handbook of Cultural and Social Anthropology</i>, R and Mc. Nally&amp;Co, Chicago.</p> <p>38. Honigmann, J.J. <i>Culture and Personality</i></p> <p>39. Kroeber, A.L. 1968 <i>The Nature of Culture</i>, Chicago University Press.</p> <p>40. Kuper A, <i>Anthropology and Anthropologist The British School</i> 1971-1972</p> <p>41. Leach, E.R. 1964 <i>Political Systems of Highland Burma</i>, Lodnon, Bell.</p> <p>42. Levi-Strauss. C. 1968 <i>Structural Anthropology</i>, Lodnon: Allen</p> <p>43. Manners, R &amp; D. Kaplan (ed) 1969 <i>Theory in Anthropology</i>. London : Routledge.</p> <p>44. Mead and Metraux <i>Study of Culture at a distance</i></p> <p>45. Merton, R.F. 1962 <i>Social Theory and Social structure</i>, Glencoe, Free Press.</p> <p>46. Nadel, S.F. 1965 <i>The Theory of Social Structure</i>, London: Cohn and West.</p> <p>47. Nagel, E. 1968 <i>The Structure of Science</i>, Lodnon: Routledge.</p> <p>48. Naroll and Naroll, <i>Main Currents in Anthropological Theories</i></p> <p>49. Radcliff-Brown, A.R. 1976 <i>Structure and Function in Primitive Society</i>. London:R&amp;K Paul.</p> <p>50. Redfield, R. 1962 <i>Human Nature and the Study of society</i>.</p> <p>51. Sarana. G. 1975 <i>The Methodology of Anthropological Comparisons</i>, Tucson, Univ. of Arizona.</p> <p>52. Schneider and other <i>Symbolic Anthropology: A Reader in the study of symbolic and meanings</i>.</p> <p>53. Spencer, R.F.(ed) 1954 <i>Method and Perspective in Anthropology</i>. Minnesota University Press.</p> <p>54. Turner, V.W. 1981 <i>Forest of Symbols</i>. Ithaca: Cornell University Press.</p> <p>55. White, L.A. 1959 <i>Evolution of Culture</i>, New York: Mc. Graw Hill</p> <p>56. Wyler, S. (ed) 1969 <i>Cognitive Anthropology</i>, New York, H.R.W.</p>	
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<b>Paper Code and Name</b>	<b>PG32T302B : PALEOANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand different modern evolutionary theories and principles.
CO 2	Demonstrate the morphological changes of primates in the course of evolution.
CO 3	Become familiar with the hominid evolution and their molecular basis.
CO 4	Demonstrate the origin of different races.
CO 5	Become familiar with the human and non-human social behavior.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Palaeontological Principles</b>	
<ul style="list-style-type: none"> <li>– Speciation</li> <li>– Irreversibility</li> <li>– Orthogenesis</li> <li>– Parallelism and Convergence</li> <li>– Adaptive radiation and extinction.</li> <li>– Principles of modern synthetic theory of evolution.</li> </ul>	12 Hours
<b>Unit II : Primate Evolution</b>	
<ul style="list-style-type: none"> <li>– Evolution of primates with reference to dentition, skull, limbs, brain and special sense organs.</li> </ul>	10 Hours
<b>Unit III : Hominid Progression</b>	
<ul style="list-style-type: none"> <li>– Ramapithecus</li> <li>– Australopithecus.</li> <li>– Homo erectus</li> <li>– Neanderthal &amp; Neanderthal problem.</li> <li>– Homo sapiens</li> <li>– Tools and evolution of man.</li> <li>– Recent advances in human evolution.</li> <li>– Molecular basis of human origin.</li> </ul>	20 Hours
<b>Unit IV : Origin of Races</b>	

<ul style="list-style-type: none"> <li>– Fossil men and origin of races</li> <li>– A critical examination of Coon's thesis.</li> </ul>	12 Hours
<b>Unit V : Ethology and Human Evolution</b>	
<ul style="list-style-type: none"> <li>– Social behaviour of non-human primates.</li> <li>– Evolution of human behaviour.</li> </ul>	10 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Beuttner Janusch J. : Origins of Man</li> <li>2. Buettner, Janusch, J. : Physical anthropology: A Perspective</li> <li>3. Campbell Bernard: Human Evolution</li> <li>4. Chiarelli, A.B. : Evolution of Primates : An introduction to the Biology of Man</li> <li>5. Devar I. (ed) : Primate behaviour, field studies, monkeys and apes.</li> <li>6. Krauss Bertram: The basis of human evolution.</li> <li>7. Le Gros Clark : The fossil evidence of human evolution.</li> <li>8. Loring Brace : Man in evolution perspective</li> <li>9. Montague Ashley: The origin and evolution of man.</li> <li>10. Nelson, H and Jurmain, R. : Introduction to Physical Anthropology</li> <li>11. Sphuler J.N. (Ed): Evolution of man's capacity for cultures.</li> <li>12. Stein and Rowe: The new Physical anthropology</li> <li>13. Washburn S.L. (Ed): Social life of early man.</li> <li>14. Wood A.B.: Evolution.</li> <li>15. Young J.S.: Emergence of man.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32T303B : ADVANCED BIOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate different concepts of mating systems and their biological consequences.
CO 2	Become familiar with different concepts of human growth and development
CO 3	Understand aging and senescence and factors affecting the same.
CO 4	Demonstrate applied aspects of biological anthropology.
CO 5	Apply bio-statistical methods in understanding population variation.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Genetic structure of Human Populations</b>	
<ul style="list-style-type: none"> <li>– Concept of genetic polymorphism.</li> <li>– Mendelian Populations</li> <li>– Random mating.</li> <li>– Hardy Weinberg Law</li> <li>– Inbreeding, out breeding.</li> <li>– Biological effects of mating systems.</li> </ul>	12 Hours
<b>Unit II : The concept of Human Growth and Development</b>	
<ul style="list-style-type: none"> <li>– Genetics of Growth.</li> <li>– Methods of studying Growth.</li> <li>– Stages of growth – Prenatal, natal, infant, child hood, adolescence, maturity, senescence.</li> <li>– Factors controlling growth and development</li> <li>– Human Ecology : Nutritional ecology, climatic adaptation and disease.</li> </ul>	14 Hours
<b>Unit III : Aging and Senescence</b>	
<ul style="list-style-type: none"> <li>– Theories and Observations</li> <li>– Biological and Chronological</li> <li>– Longevity</li> <li>– Socio-cultural, Biological and Genetic factors in ageing.</li> </ul>	10 Hours

<b>Unit IV : Applied Biological Anthropology</b>	
<ul style="list-style-type: none"> <li>– Anthropology of sports</li> <li>– Kineanthropology and Ergonomics</li> <li>– Nutritional Anthropology</li> <li>– Anthropology in the designing of defense and other equipments.</li> <li>– Forensic Anthropology: methods and principles of personal identification and reconstruction.</li> </ul>	12 Hours
<b>Unit V : Age, sex and population variation in the physiological characteristics of man</b>	
<ul style="list-style-type: none"> <li>– Hb level, body, fat, pulse rate, respiratory functions and sensory perceptions in different cultural, and socio-economic groups.</li> <li>– Impact of smoking, air, water and sound pollution, alcoholism, drugs and occupational hazards on human health.</li> <li>– Bio statistics and its application in Biological Anthropology: <ul style="list-style-type: none"> <li>– Chi square analysis</li> <li>– Correlation co-efficient</li> <li>– Linkage analysis</li> <li>– Regression co-efficient</li> <li>– T–test</li> <li>– F– test,</li> <li>– Penrose test</li> <li>– Mahalanobis D<sup>2</sup> test</li> <li>– Sangvi’s test.</li> </ul> </li> </ul>	16 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Arnold Henry:Population.</li> <li>2. Brace Loring (Ed) 1976:Man in Evolutionary Perspective, New York, Willey.</li> <li>3. Buettener – Janusch John:Origins of Man, New Delhi, Willey Eastern. 1969</li> <li>4. Clark Le Gross 1969:The Fossil Evidence for Human Evolution, Chicago University Press.</li> <li>5. Compbell, Bernard 1967:Human Evolution, London: Heinemann Educational Books.</li> <li>6. Devore (ed) 1965:Primate Behavior, Field Studies – Monkeys and Apes.New York: Holt.</li> <li>7. Dobzhansky, Theodosius :Mankind Evolving.</li> <li>8. Goldschmidt 1963: Genetics of Migrant and Isolated Populations, New York;Williams and Wilkins.</li> <li>9. Harrison G.A. et.al. (Ed)1990:Human Biology, Oxford</li> <li>10. Kraus Bertram – 1964:The basis of Human Evolution, Chicago, C U P.</li> <li>11. Lerner Michael et.al. 1976: Heredity, Evolution and Society. San</li> </ol>	

<p>Francisco; Freeman.</p> <p>12. Levine R.P. 1968:Genetics, New York, Holt, Rinchart and Winston.</p> <p>13. Leviton Max and Montagu Ashley Text book of Human Genetics. 1977</p> <p>14. Mckusick Victor K.:Human Genetics.</p> <p>15. Mishra B.D.:An Introduction to the study of population.</p> <p>16. Montague Ashley:The Origin and Evolution of Man. 1964, Glencoe, Free Press.</p> <p>17. Morris L.N. et.al. 1973: Human Populations, Genetic Variation and Evolution. Aylesbury, ITC.</p> <p>18. NewYork Academic. 1976.</p> <p>19. Shryock Henny S. &amp; Siegel Jacob. S.:The Methods &amp;Material of Demography,</p> <p>20. Sol Tax (ed)1960:Evolution after Darwin Vol.I. Chicago,Chicago University Press.</p> <p>21. Spuhler J.N. (Ed):Evolution of Man's capacity for cultures.</p> <p>22. Stern Curt, 1960:Principles of Human Genetics, Sanfrancisco: Freeman.</p> <p>23. Washburn S.L.(ed):Social Life of Early Man.</p> <p>24. Williams J.K.:Evolution and Origins: An Introduction to Physical Anthropology</p> <p>25. Winchester A.M. 1977:Genetics Boston; Mifflin.</p> <p>26. Young J.Z.:Emergence of Man.</p>	
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<b>Paper Code and Name</b>	<b>PG32T304B : ANTHROPOLOGICAL DEMOGRAPHY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand different aspects of human fertility
CO 2	Demonstrate different methods of studying demography.
CO 3	Understand different demographic rates and ratios.
CO 4	Demonstrate different factors affecting demographic events.
CO 5	Become familiar with different population policies.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Demography</b>	
<ul style="list-style-type: none"> <li>– Concept, meaning, scope of demography.</li> <li>– Reproductive physiology of male and female.</li> <li>– Biological aspects of human fertility.</li> <li>– Relevance of menarche, menopause and other bio-events to fertility.</li> <li>– Fertility patterns and differences.</li> </ul>	16 Hours
<b>Unit II : Demographic methods</b>	
<ul style="list-style-type: none"> <li>– Biological, Social and Cultural Demographic Methods: <ul style="list-style-type: none"> <li>– Census,</li> <li>– Registration system.</li> <li>– Sample methods and</li> <li>– Dual reporting system.</li> </ul> </li> </ul>	10 Hours
<b>Unit III : Population structure</b>	
<ul style="list-style-type: none"> <li>– Population structure and Population dynamics.</li> <li>– Demographic rates and ratios.</li> <li>– Life table-structure and utility</li> </ul>	16 Hours
<b>Unit IV : Factors influencing demographic change</b>	
<ul style="list-style-type: none"> <li>– Biological and socio-ecological factors influencing <ul style="list-style-type: none"> <li>– Fecundity</li> </ul> </li> </ul>	10 Hours

<ul style="list-style-type: none"> <li>– Fertility</li> <li>– Natality</li> <li>– Morbidity</li> <li>– Mortality.</li> </ul>	
<b>Unit V : Population policies</b>	
<ul style="list-style-type: none"> <li>– Biological consequences of population control.</li> <li>– National Population Policy.</li> <li>– Family planning in India</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Hansraj: An Introduction to Demography.</li> <li>2. Moriss I.N.: Human Populations</li> <li>3. Shryock Henry S and Siegel Jacob S.: Methods and Materials of Demography.</li> <li>4. Amald Henry: Population</li> <li>5. Mishra B.D.: An Introduction to the Study of Population.</li> <li>6. Bogue, Donald J.: Principles of Demography.</li> <li>7. Cox Peter R.: Demography.</li> <li>8. Harrison G.A. (Ed): Population Structure and Human Variation.</li> <li>9. Harrisson G.A. and Boyce A.J. (ed): The structure of Human Population.</li> <li>10. Srinivas K. and Mukharjee S. (ed): Dynamics of Population and Family Welfare in India.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG32P305B : PRACTICALS IN ADVANCED BIOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate different muscular attachments and their functions.
CO 2	Demonstrate different angles and measurements on human bones.
CO 3	Determine ABO, Rh and MNS blood groups with the help of test tube method.
CO 4	Demonstrate the recording of human blood pressure levels.
CO 5	Determine sickling of erythrocytes and abnormal haemoglobins.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Human Osteology</b>	
– A detailed study of Human skeleton with special reference to muscular attachments and their respective functions.	12 Hours
<b>Osteometry</b>	
– A few measurements and angles should be taken on <ul style="list-style-type: none"> <li>– Skull,</li> <li>– Scapula</li> <li>– Sacrum</li> <li>– Limb bones.</li> </ul>	16 Hours
<b>Human Serology</b>	
– Determination of ABO, Rh and MNS Blood groups of at least 10 individuals with the help of test tube method. – Determination and recording of blood pressure of at least 10 individuals.	16 Hours
<b>Abnormal haemoglobins</b>	
– Determination of sickling of erythrocytes with the help of Scliver and Waugh Method and Bisulphate method of 5 individuals. – Determination of abnormal haemoglobins like HbS, HbC, HbD, HbE and HbF with the help of Electrophoretic methods of 5 samples.	20 Hours

<b>Paper Code and Name</b>	<b>PG32T306B : FORENSIC ANTHROPOLOGY (OPEN ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate the anthropological view on forensic science and crime investigation.
CO 2	Identify the individuals on the basis of skeletal remains and other recent trends.
CO 3	Demonstrate the significance of dermatoglyphics in crime investigation.
CO 4	Become familiar with the identification of individuals through anthropometry and body fluids.
CO 5	Understand paternity dispute through different approaches.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Crime investigation</b>	
<ul style="list-style-type: none"> <li>– Definition, aim and scope of Forensic Anthropology</li> <li>– Definition of crime, its theories</li> <li>– Crime scene investigation <ul style="list-style-type: none"> <li>– Location</li> <li>– Evaluation</li> <li>– Protection of evidences</li> <li>– Photography and sketching</li> </ul> </li> <li>– Establishment of complete or partial identity from decomposed or mutilated bodies.</li> <li>– Anthropological perspective of forensic science.</li> </ul>	14 Hours
<b>Unit II : Personal identification through skeleton</b>	
<ul style="list-style-type: none"> <li>– Study of Human Skeleton.</li> <li>– Human Skull-determination of age, sex and ethnic group.</li> <li>– Electronic superimposition identification device</li> <li>– Attribution of sex and reconstruction of stature from skeletal remains</li> </ul>	10 Hours
<b>Unit III : Dermatoglyphics</b>	
<ul style="list-style-type: none"> <li>– Dermatoglyphics in Forensic Anthropology.</li> <li>– Finger prints tracing and developing techniques</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>– Classification of finger prints.</li> <li>– Use of palm, and sole prints including sole marks</li> <li>– Analysis of ridge and crease characters.</li> </ul>	
<b>Unit IV : Anthropometry</b>	
<ul style="list-style-type: none"> <li>– Personal Identification, somatometric measurements and somatoscopic observations.</li> <li>– Identification through mannerisms, scars, occupational marks, hand writing etc.</li> <li>– Analysis of hair structure and types.</li> <li>– Body fluids viz., blood, semen, saliva, urine and sweat.</li> </ul>	14 Hours
<b>Unit V : Disputed paternity</b>	
<ul style="list-style-type: none"> <li>– Disputed paternity and different approaches to solve it <ul style="list-style-type: none"> <li>– Morphological</li> <li>– Serological</li> <li>– Cytogenetic etc.</li> </ul> </li> <li>– Recent trend in personal identification <ul style="list-style-type: none"> <li>– Reconstruction of facial physiognomy</li> <li>– DNA finger printing,</li> <li>– Computer applications.</li> </ul> </li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Boorman and Dodd :Blood Group Serology Bridges:Practical Finger Printing</li> <li>2. Brothwell, D.R. (Ed :Dental Anthropology</li> <li>3. Chatterjee:Finger, Palm and Sole Prints</li> <li>4. Chatterjee, J.B. : Haematological Techniques</li> <li>5. Cherril, F.R.:Fingerprint systems at Scotland</li> <li>6. Gilbert, H.R.:Genetic markers in Human Blood</li> <li>7. Kind, Stuart and Science Against Crime</li> <li>8. Lundquist, F and A.S. Curry Methods in Forensic Sciences</li> <li>9. Ment:Modern Trends in Forensic Medicine</li> <li>10. Michael Kirk, P.L.:Crime Investigation</li> <li>11. Nicoles:Methods in Forensic Science</li> <li>12. Steward, T.D.:Forensic Anthropology</li> <li>13. Symans, J.:Crime and Detection</li> <li>14. Turner : Forensic Science and Laboratory Techniques</li> <li>15. Yunis, J.J. (Ed): Biochemical methods in Red cell Genetics</li> </ol>	

<b>SPECIALIZATION : SOCIAL CULTURAL ANTHROPOLOGY (Group A)</b>	
<b>Paper Code and Name</b>	<b>PG32T401A : ANTHROPOLOGICAL METHODOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Describe the major developments in the history of anthropology.
CO 2	Recognize and assess ethical considerations in contemporary anthropological inquiry.
CO 3	Apply competing theoretical approaches to generate alternative interpretations of the same anthropological data.
CO 4	Understand Emic and Etic Approaches in Research
CO 5	Critically examine 19 <sup>th</sup> century anthropologists

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction to methods</b>	
<ul style="list-style-type: none"> <li>– Technique, Method and Methodology distinguished.</li> <li>– A critical examination of the plea for the unity of method in natural and social sciences,</li> <li>– Scientific and humanistic approaches to be distinguished</li> <li>– Anthropology as a natural Science, Social Science and a humanity discipline</li> <li>– The nature of anthropological Method and notion of its autonomy &amp; Interpretive Anthropology.</li> </ul>	12 Hours
<b>Unit II : Comparison in Anthropology</b>	
<ul style="list-style-type: none"> <li>– ‘The comparative method’</li> <li>– Criticism of ‘The comparative method’</li> <li>– Comparisons in Anthropology</li> <li>– Nature, purpose and Methods Radcliffe Brown, Fried, Eggan, Oscar Lewis and Gopala Sarana.</li> </ul>	14 Hours
<b>Unit III : Nature of explanation</b>	
<ul style="list-style-type: none"> <li>– Explanation in Science and in History</li> <li>– Hempelian covering Law model of explanation</li> </ul>	12 Hours

– Possibility and Nature of explanation in Social cultural anthropology	
<b>Unit IV : Ethnoscience and interpretation</b>	
<ul style="list-style-type: none"> <li>– Ethnoscience</li> <li>– New Ethnography and formal Semantic Analysis</li> <li>– Emic and Etic Approaches.</li> <li>– Interpretive Anthropology</li> <li>– Contribution of Clifford Geertz and Thick description.</li> <li>– Post-Modern trends in Anthropology</li> <li>– Critique of the principle of value neutrality in classical Anthropological Research</li> </ul>	14 Hours
<b>Unit V : Reinterpretation in Anthropology</b>	
<ul style="list-style-type: none"> <li>– Restudy and reinterpretation</li> <li>– The methodological implications of the difference between the work of 19<sup>th</sup> century anthropologists and re-interpretation of the contemporary ethnographies: Leach, Needham, Loynsbury</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Evans Pritchard, E.E. 1963 <i>Social Anthropology and other Essays</i> Glencoe: Free Press.</li> <li>2. Firth, R. (Ed) 1960 <i>Man and Culture (Selected Essays)</i>, London: Routledge.</li> <li>3. Firth, R. 1963 <i>Elements of social organization</i>. Boston: Beacon.</li> <li>4. Geertz, C. <i>Interpretation of Cultures</i>.</li> <li>5. Harris, M. 1962 <i>The Rise of Anthropological Theory</i>. London: Routledge and Kegan Paul.</li> <li>6. Hempel, C.G. 1963 <i>Aspects of Scientific Explanation</i> New York, Free Press.</li> <li>7. Herskovits, M.J. 1960 <i>Man and his works</i>, New York: Knopf.</li> <li>8. Honigsmann, J.J. 1973 <i>Handbook of Cultural and Social Anthropology</i>, Chicago: Rand Mc. Nally &amp; Co.,.</li> <li>9. Kroeber, A.L. 1968 <i>The Nature of Culture</i>, Chicago: University Press.</li> <li>10. Leach, E.R. 1964 <i>Political Systems of Highland Burma</i>, London: Bell.</li> <li>11. Levi-Strauss. C. 1968 <i>Structural Anthropology</i>, London: Allen</li> <li>12. Manners, R &amp; D. Kaplan (ed) 1969 <i>Theory in Anthropology</i>. London: Routledge.</li> <li>13. Marcus and Fisher <i>Writing Cultures</i>.</li> <li>14. Merton, R.F. 1962 <i>Social Theory and Social structure</i>, Glencoe: Free Press.</li> <li>15. Nadel, S.F. 1965 <i>The Theory of Social Structure</i>, London: Cohn and</li> </ol>	

<p>West.</p> <p>16. Nagel, E. 1968 <i>The Structure of Science</i>, London: Routledge.</p> <p>17. Radcliff-Brown, A.R. 1976 <i>Structure and Function in Primitive Society</i>. London: R&amp;K Paul.</p> <p>18. Redfield, R. 1962 <i>Human Nature and the Study of society</i>.</p> <p>19. Sarana. G. 1975 <i>The Methodology of Anthropological Comparisons</i>, Tucson: Univ. of Arizona.</p> <p>20. Schneider et. al., <i>Symbolic Anthropology: A Reader in the study of symbolic and meanings</i>.</p> <p>21. Schneider, D.M. <i>Culture and Kinship</i>.</p> <p>22. Spencer, R.F.(ed) 1954 <i>Method and Perspective in Anthropology</i>. Minnesota University Press.</p> <p>23. Turner, V.W. 1981 <i>Forest of Symbols</i>. Ithaca: Cornell University Press.</p> <p>24. White, L.A. 1959 <i>Evolution of Culture</i>, New York: Mc. Graw Hill</p> <p>25. Wyler, S. (ed) 1969 <i>Cognitive Anthropology</i>, New York, H.R.W.</p>	
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<b>Paper Code and Name</b>	<b>PG32T402A : APPLIED ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Examine the history and theoretical underpinnings of applied anthropology.
CO 2	Identify the ethical issues involved in applied anthropology and demonstrate familiarity with the ethics guidelines of the Society for Applied Anthropology (SfAA)
CO 3	Identify the roles of applied anthropologists as practitioners of social science.
CO 4	Select the appropriate qualitative and quantitative methodologies and employ them in an applied policy setting.
CO 5	Use the knowledge of anthropology in solving labour related problems

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Meaning and scope</b>	
<ul style="list-style-type: none"> <li>– Applied Anthropology.</li> <li>– Action Anthropology</li> </ul>	12 Hours
<b>Unit II : Applied Anthropology in Education and Medicine</b>	
<ul style="list-style-type: none"> <li>– Debate between formal and Informal Education.</li> <li>– Education and Society.</li> <li>– People’s Perspective on Education.</li> <li>– Medicine: Anthropological Perspective</li> <li>– Health and Disease Control programmes.</li> <li>– Community Health.</li> </ul>	14 Hours
<b>Unit III : Applied Anthropology in Industry and Administration</b>	
<ul style="list-style-type: none"> <li>– Labour and Management Relations.</li> <li>– Knowledge of anthropology in solving labour related problems.</li> <li>– Anthropology and Administration</li> <li>– Knowledge of Anthropology in Administration.</li> </ul>	14 Hours
<b>Unit IV : Tribal Welfare and Tribal Issues</b>	

<ul style="list-style-type: none"> <li>– Poverty</li> <li>– Indebtedness,</li> <li>– Land alienation,</li> <li>– Tribal Policy Detribalization</li> <li>– Tribal Unrest</li> <li>– Emergence of ethnicity</li> <li>– Tribal movements</li> <li>– Quest for identity pseudo tribalization etc.</li> </ul>	12 Hours
<b>Unit V : Tribal programs and policies</b>	
<ul style="list-style-type: none"> <li>– Measures taken by Government of India to solve tribal problems.</li> <li>– Plans and Programmes of Tribal Development.</li> <li>– Special Component Plans.</li> <li>– Role of Non Governmental Organisations.</li> <li>– Anthropology and Tribal Development.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. A Philosophy for NEFA.</li> <li>2. Belshaw, C. <i>Traditional exchange and modern markets.</i></li> <li>3. Bose, B.P.G., <i>Disaster Policies and administration: A study of three Andhra disasters.</i></li> <li>4. Bose, N.K. 1970 <i>Tribal life in India (NBT)</i> New Delhi, National Book Trust.</li> <li>5. Chambers E, <i>Applied Anthropology</i></li> <li>6. <i>Commission for scheduled castes and scheduled tribes: Six Reports (1983-1994).</i></li> <li>7. <i>Commission for scheduled castes and scheduled tribes: Twenty-seven reports upto 1980-1981.</i></li> <li>8. Dalton, G. 1971 <i>Economic Anthropology and development</i>, New York, Basic BKS.</li> <li>9. Elwin, V. <i>A new deal for Tribal India</i>, Ministry of Human Affairs (1963).</li> <li>10. Frendes, et.al. (Ed) (1989) <i>Development, Displacement and Rehabilitation</i>, Delhi: Indian Social Institute.</li> <li>11. Gangopadhaya, T. and Mankodi, K.A. (1983), <i>Rehabilitation: Econological and Economic cost</i>, Surat: Centre for Social studies (1983).</li> <li>12. Goldsmith and Hildyad, N. 1985. <i>The social and environmental effects of Large Dams.</i> Waole Bridge Econological Centre, 1984.</li> <li>13. Keller, Stephen L. 1975 <i>Uprooting and social change</i>, New Delhi. Monohar Book Service 1975.</li> <li>14. Mair Lucy, 1957 <i>Studies in applied Anthropology</i>, London: London University</li> </ol>	

<p>15. Majumdar, D.N. 1981 <i>A Tribe in Transition: A study in cultural pattern</i>, New Delhi, Cosmo.</p> <p>16. Ministry of Home Affairs Report of Committee on forest and Tribal Areas in India (1982).</p> <p>17. Ministry of information and broadcasting: <i>The Adivasis</i></p> <p>18. Planning Commission (1972) Report of the study team on tribal research.</p> <p>19. Planning Commission (All India communities on Plan Projects). Report of the study team on Tribal development programmes.</p> <p>20. Planning commission Report on development of tribal areas (1985) (National Committee on Development of Backward areas).</p> <p>21. Planning commission: Report of the study team on social welfare (committee on plan projects) and welfare of backward classes (1959)</p> <p>22. Planning for tribal development, administering transition: some human issues.</p> <p>23. Reports of the committee on special multipurpose tribal blocks (1960).</p> <p>24. Sachidananda <i>Shifting cultivation</i>.</p> <p>25. Sachidananda <i>The Affairs of a tribe: culture change in tribal Bihar : Munda and Oraon</i>.</p> <p>26. Schnader, T. <i>The Human Ecology and Big projects: River Basin Development and Resettlement</i>, Annual Review of Anthropology. Volume 2.</p> <p>27. <i>Selected essays in the current Anthropology</i> (1968, 1973, 1974) journal, C U P.</p> <p>28. Sharma, B.D. <i>Basic issues in tribal development</i>.</p> <p>29. Sharma, B.D. <i>Shifting cultivators and their development</i>.</p> <p>30. Sharma, Brij Koshore 1996 <i>Tribal Revolts</i>, Jaipur, Pointer Publishers.</p> <p>31. Singh, K.S. <i>Tribal society in India</i>.</p> <p>32. Thakkar, A.V. <i>Tribes of India (Volume 2)</i>.</p> <p>33. Vidyarthi, L.P. <i>Socio-Cultural implications of industrialization in India</i>.</p> <p>34. Vidyarthi, L.P. and Roy 1985 <i>Tribal culture in India</i>, New Delhi Concept.</p>	
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<b>Paper Code and Name</b>	<b>PG32T403A : ECOLOGICAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Describe different models for human adaptations to the environment through time.
CO 2	Evaluate the impact of humans upon the environment caused by different subsistence strategies.
CO 3	Demonstrate effective knowledge of ecology as it relates to human and environmental interaction.
CO 4	Know Recent trends in ecological anthropology
CO 5	Address Developmental issues and regional planning.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Definitions and scope of Ecological Anthropology</b>	
<ul style="list-style-type: none"> <li>– Methods of Ecological anthropology</li> <li>– Deterministic and possibilistic theories,</li> <li>– Relationship of Ecological anthropology Environment Cultural Ecology and Ethno ecology.</li> <li>– Julian Steward's concept and application of the Cultural ecological method.</li> <li>– Importance of Ecological anthropology and its relevance in contemporary societies.</li> <li>– Differences between Cultural Ecology, human ecology, Social Ecology and ethno ecology.</li> <li>– Recent trends in ecological anthropology</li> </ul>	12 Hours
<b>Unit II : Cultural Ecology</b>	
<ul style="list-style-type: none"> <li>– Cultural adaptations due to environment and environmental impact on culture</li> <li>– Environmental problems</li> <li>– Developmental issues and regional planning.</li> </ul>	12 Hours
<b>Unit III : Ecology and Adaptations</b>	

<ul style="list-style-type: none"> <li>– Adaptations in nature social and cultural adaptation</li> <li>– Biological adaptation Climatic environmental, nutritional and Genetic Adaptation as a major process of Cultural change.</li> <li>– Analysis of Socio-cultural environmental adaptations in similar environmental conditions-</li> <li>– Functional interdependence among the parts of culture due to Social and Cultural adaptation.</li> <li>– Factors determining ecological adaptations division of labour, size and stability of local groups and their distribution in space and residence rules</li> <li>– Adaptation of hunting, gathering and fishing people's – pastoralists, Horticulturalists and agriculturalists</li> </ul>	14 Hours
<b>Unit IV : Human Adaptability</b>	
<ul style="list-style-type: none"> <li>– Ecological perspectives on household management</li> <li>– Natural environment study vs. human environment study</li> <li>– Impact of ecology on production Distribution, consumption and material recycling principles governing production distribution and consumption in hydrological societies</li> </ul>	12 Hours
<b>Unit V : Applications of Ecological Anthropology</b>	
<ul style="list-style-type: none"> <li>– Application in the field of administration</li> <li>– Developmental plans, programmes and schemes</li> <li>– Application in civil engineering housing, providing government land for shelter, construction of lakes, ponds, roads and bridges, planning for civil beneficiaries, application in localization of Industries</li> <li>– Application in bringing environmental and diversified cultural zones intact.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Adams, E. 1965, The Relation of general ecology to Human ecology</li> <li>2. Audy, J.R. 1965, The environment in Human Ecology</li> <li>3. Bresler, J.B. (ed), 1966 Human Ecology: Collected Reading, Massachusetts.</li> <li>4. Bresler, J.B. (ed) The Environments of man</li> <li>5. Baker, P.T. and J.S. Weiner (eds) The Biology of Human Adaptability</li> <li>6. Bates, M. 1953 Human Ecology In Anthropology Today (ed) A.L.Kroeber</li> <li>7. Horan, E.F. Human Adaptability: An Introduction Ecological Anthropology</li> <li>8. Harris, M. Culture, Man and Nature</li> <li>9. Honigman, J.J. (ed)1973, Handbook of social and Cultural Anthropology, Chicago</li> </ol>	

10. Moran, E.F. (ed) The Eco-system concept in Anthropology 11. Vayada, A.P. (ed) Environment and Cultural Behaviour: Ecological studies in Cultural Anthropology 12. Dubos, R. 1967 Man Adapting, New Haven: Yale University. 13. Cyorgy, P and O.L. Kline (eds) Malnutrition is a problem of Ecology 14. Paul, B.D. (ed) 1959 Health Culture and community New York.	
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<b>Paper Code and Name</b>	<b>PG32T404A : BUSINESS ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn about the corporate and business world and what anthropology can do to understand this world better.
CO 2	Learn about consumer behaviour, globalisation, and methods of conducting research in business world.
CO 3	Learn how an industry or business organisation functions, how it decides its priorities, how it links itself with the market and also prepare a detailed report on the same.
CO 4	Doing corporate ethnography as an insider and outsider
CO 5	Use business management skills and behaviour Network.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction to Business Anthropology</b>	
<ul style="list-style-type: none"> <li>– History and Growth of Business and Corporate Anthropology</li> <li>– Industrial Anthropology and Human Relations School(1930-1960)</li> <li>– The Ethics questions(1960-1980)</li> <li>– The rebirth of Business Anthropology 1980 and Beyond.</li> <li>– Basic concepts: Group, Role and Status, organisation, Corporate, organisational culture, Business and Business Management and behaviour Network.</li> </ul>	12 Hours
<b>Unit II : Consumer Behaviour</b>	
<ul style="list-style-type: none"> <li>– Anthropology and consumer behaviour:</li> <li>– Basic concepts- customer, consumer, market</li> <li>– Anthropological theory and practice in marketing and consumer behaviour.</li> </ul>	12 Hours
<b>Unit III : Applied Business Anthrpology</b>	
<ul style="list-style-type: none"> <li>– Doing Anthropology in Organisational contexts</li> <li>– Applied anthropology in industry</li> <li>– Complex Health care organizations</li> </ul>	14 Hours

<ul style="list-style-type: none"> <li>– Health Economy, Libraries, Hospital management, NGO's etc.</li> <li>– Advancing ethnography in corporate environments: Challenges and opportunities.</li> </ul>	
<b>Unit IV : Anthropology of Globalization</b>	
<ul style="list-style-type: none"> <li>– Globalization, international trade and anthropology</li> <li>– Understanding the process of globalisation, information technology , communication networks and international trade.</li> </ul>	12 Hours
<b>Unit V : Ethnography of Business</b>	
<ul style="list-style-type: none"> <li>– Techniques for Conducting Fieldwork for Business Organizations</li> <li>– Conventional ethnographic methods</li> <li>– Rapid ethnography</li> <li>– Ethnography for systems development and product design</li> <li>– Doing corporate ethnography as an insider and outsider</li> <li>– Analysis of Relationships, Semiotic analysis, Video based introduction Analysis, Virtual ethnography and making use of electronic data.</li> <li>– Multiple techniques and rapid assessment.</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Aguilera, F. E. (1996) Is Anthropology Good for the Company? American Anthropologist, New Series. Vol. 98. No. 4. (Dec. 1996), pp. 735-742 Published by: Blackwell Publishing on behalf of the American Anthropological Association.</li> <li>2. Ferraro, G. P. (2006) The Cultural Dimensions of International Business. Pearson Education.</li> <li>3. G Hofstede (1998) Culture Consequences: International Differences in Work related Values. Beverly Hills, California, Sage Publication.</li> <li>4. Gupta, R. K. (1997).Towards the effective Management of Indian culture. Indian Management, Vol136, No, 4 pp 22-27.</li> <li>5. Hendrick, S. (1986). Anthropological contributions to business in multicultural context. In Anthropology and International Business by Serrie, H. Williams. Dept of Anthropology, College of Williams and Mary.</li> <li>6. Hofstede, G. &amp; Hofstede, G. J. (2005). Cultures and Organizations: Soft ware of Mind . Mc Graw Hill.</li> <li>7. Hofstede, G. &amp; Deussen, C. V. &amp; Carolyn, B. &amp; Thomas, A. M. Charles (2002). What Goals Do Business Leaders Pursue? A Study in Fifteen Countrie. Journal of International Business Studies, 33, 4 (Fourth Quarters): 785-803</li> <li>8. Jordan, A. T. (2003) Business Anthropology, Illinois, Waveland Press Inc.</li> </ol>	

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10. Marreetta, L. B. (2006) Anthropology and Business, in James Birx(ed) Encyclopaedia of Anthropology, New Delhi, Sage Publication.
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12. Pant, D. &Fernandos, A. (1997) Anthropology and Business: Reflection on Business application of Cultural Anthropology, Luic paper, Serea Economee Imprela, guigno.
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14. Schein, E. H. (1992) Organization culture and Leadership, San Francisco: Jossey-Bass Vinson, Nathan, Marioand Virginia ed (1986) Anthropology and International Business: Studies in Third world countries. Dept of anthropology, College of William and Marry, Williamburg, Virginia.
15. Sharma, S. (2003). Indian Ethos and model for corporate organization. Journal of Human Values,9: 2, Sage Publication
16. Sherry, J. F. Jr., (1988).Teaching International Business: A View from Anthropology. Anthropology& Education Quarterly. Vol. 19, No. 4. (Dec., 1988), pp. 396-415 Published by: Blackwell Publishing on behalf of the Anthropological Association.
17. Sinha, D. P. (1973). Organizational development: Approach and Issues. Journal of management. Vol.2 March, 39-52
18. Sinha, J. P. B. (2005). \_Indian Shifting Cultural frame for Managing people in Organization. paper presented in National seminar on "Indian culture and Management" organized by Cosmode Management Research Centre, Hyderabad.
19. Sinha, D. P. (1997).Leadership and Human Development. The Eastern Anthropologists,50:3- 4
20. Sinha, D. & Joseph, (ed) (1991).Management in Asian Context. Singapore, Mc Graw Hills co.
21. Virmani, B. R, andGuptan, S. U. (1991). Indian Management. New Delhi. Vision Books.

<b>Paper Code and Name</b>	<b>PG32T405A : FIELD WORK AND DISSERTATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Record a journal of their experience during the service learning experience.
CO 2	Apply the knowledge gained by coursework to the real world, through service learning.
CO 3	Relate their service learning experience to their coursework in anthropology and other disciplines.
CO 4	Able to generate primary and secondary data
CO 5	Expertise in data editing, data correction and data analysis

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
– Field Work in a tribal, rural or urban community or a special group under supervision of teachers continuously for not less than one month.	
– A field report based on the fieldwork shall be presented for examination. – A viva-voce examination will be conducted on relevant topics.	
– 100 Marks for this paper shall be distributed as follows: – Field Report based on field work      80 marks – Viva-voce Examination                      20 marks	
<b>REFERENCES</b>	
1. Barlett F.C.: The Study of Society (Selected Chapters) 2. Murdock G.P. et.al.: Outlines of Cultural Materials (Selected Chapters) 3. Royal Anthropological Institute of Great Britain and Ireland – <i>Notes and queries on Anthropology</i> .	

<b>Paper Code and Name</b>	<b>PG32T404A : VISUAL ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify and define key concepts in visual anthropology
CO 2	Distinguish the key approaches and aims of ethnographic filmmaking
CO 3	Apply anthropological analysis to visual social phenomena
CO 4	Speak and write clearly about concepts, methods, and theories as these apply in visual anthropology
CO 5	Understand documentary and ethnographic films in India

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Visual Anthropology</b>	
<ul style="list-style-type: none"> <li>– Concepts, scope, uses and problems.</li> <li>– Visual communication through folk arts and modern mass media.</li> <li>– Visual anthropology as a discipline for study and a mode of recording and documenting human societies and culture.</li> </ul>	12 Hours
<b>Unit II : History and development of visual anthropology</b>	
<ul style="list-style-type: none"> <li>– Approaches to anthropological films</li> <li>– Visual anthropology and analysis of cultural style.</li> <li>– Visual anthropology and films: commercial realistic, new wave and documentary films.</li> </ul>	14 Hours
<b>Unit III : Visual Anthropology and Culture</b>	
<ul style="list-style-type: none"> <li>– Visual anthropology as a mode of preserving culture and as an input to cultural enrichment.</li> <li>– Visual anthropology as an aid to visual literacy and cultural development.</li> </ul>	12 Hours
<b>Unit IV : Television and visual anthropology</b>	
<ul style="list-style-type: none"> <li>– Video tape</li> <li>– New techniques of observation and analysis in Anthropology.</li> <li>– Film review, appreciation and criticism.</li> </ul>	14 Hours

<ul style="list-style-type: none"> <li>– Film as an art.</li> <li>– The film language.</li> <li>– Necessary conditions for film making.</li> </ul>	
<b>Unit V : Scope of visual anthropology</b>	
<ul style="list-style-type: none"> <li>– Scope of visual anthropology in India.</li> <li>– Its uses, urgent problems and future possibilities.</li> <li>– Development of Visual Anthropology and ethnographic films in India.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Arnheim, R. 1969 Visual Thinking, University of California Press</li> <li>2. Asch, T. 1971 Ethnographic Film Production, Film Comment 7(1):40-53</li> <li>3. Asch, T. 1972 Making Ethnographic film for Teaching and Research, PIEF Newsletter, 3(2) :6-10</li> <li>4. Asch, T. et al. 1973 Ethnographic film: Structure and function, Ann. Reviews of Anthropology, 2: 179-187</li> <li>5. Barndt, D. 1974 Toward a Visual study of Society, Michigan State University, College of Social Sciences</li> <li>6. Barnouw, E. 1974 Documentary: A History of Non-fiction film, Oxford University Press, New York</li> <li>7. Becker, 1981 Exploring society photographically, University of Chicago Press</li> <li>8. Bogaart, N.C.R. and H.W.E.R. Ketelaar (Ed) 1983 Methodology in Anthropological film making, Herodot, Gottingen.</li> <li>9. Breen, R. (Ed) 1977 Ethnographic Film, Cambridge University Press</li> <li>10. Collier, J. and Collier, M. 1986 Visual Anthropology: Photography as a Research Method University of New Mexico Press</li> <li>11. Hockings, P. (Ed) 1975 Principles of Visual Anthropology, Mouton, The Hague</li> <li>12. Jeffrey, I. 1981 Photography : A concise History, Oxford University Press, New York</li> <li>13. Mead, M. and Metraux, R. (Eds) 1982 The study of culture at a distance, Chicago University Press</li> <li>14. Taureg, M. and Ruby, J. 1987 Visual Explorations of the World, Herodot, Aachen.</li> <li>15. Thorn, R. 1987 Visual anthropology as Teaching Method, CVA Newsletter, Jan 29-32</li> </ol>	

<b>SPECIALIZATION : BIOLOGICAL ANTHROPOOLOGY (Group B)</b>	
<b>Paper Code and Name</b>	<b>PG32T401B : ANTHROPOLOGICAL METHODOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Describe the major developments in the history of anthropology.
CO 2	Recognize and assess ethical considerations in contemporary anthropological inquiry.
CO 3	Apply competing theoretical approaches to generate alternative interpretations of the same anthropological data.
CO 4	Understand Emic and Etic Approaches in Research
CO 5	Critically examine 19 <sup>th</sup> century anthropologists

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction to methods</b>	
<ul style="list-style-type: none"> <li>– Technique, Method and Methodology distinguished.</li> <li>– A critical examination of the plea for the unity of method in natural and social sciences,</li> <li>– Scientific and humanistic approaches to be distinguished</li> <li>– Anthropology as a natural Science, Social Science and a humanity discipline</li> <li>– The nature of anthropological Method and notion of its autonomy &amp; Interpretive Anthropology.</li> </ul>	12 Hours
<b>Unit II : Comparisons in Anthropology</b>	
<ul style="list-style-type: none"> <li>– ‘The comparative method’</li> <li>– Criticism of ‘the comparative method’</li> <li>– Comparisons in Anthropology</li> <li>– Nature, purpose and Methods Radcliffe Brown, Fried, Eggan, Oscar Lewis and Gopala Sarana.</li> </ul>	14 Hours
<b>Unit III : Nature of explanation</b>	
<ul style="list-style-type: none"> <li>– Explanation in Science and in History</li> <li>– Hempelian covering Law model of explanation</li> </ul>	12 Hours

– Possibility and Nature of explanation in Social cultural anthropology	
<b>Unit IV : Ethnoscience and interpretation</b>	
<ul style="list-style-type: none"> <li>– Ethnoscience</li> <li>– New Ethnography and formal Semantic Analysis</li> <li>– Emic and Etic Approaches.</li> <li>– Interpretive Anthropology</li> <li>– Contribution of Clifford Geertz and Thick description.</li> <li>– Post-Modern trends in Anthropology</li> <li>– Critique of the principle of value neutrality in classical Anthropological Research</li> </ul>	14 Hours
<b>Unit V : Reinterpretation in Anthropology</b>	
<ul style="list-style-type: none"> <li>– Restudy and reinterpretation</li> <li>– The methodological implications of the difference between the work of 19<sup>th</sup> century anthropologists and re-interpretation of the contemporary ethnographies: Leach, Needham, Loynsbury</li> </ul>	12 Hours
<b>REFERENCES</b>	
<p>26. Evans Pritchard, E.E. 1963 <i>Social Anthropology and other Essays</i> Glencoe: Free Press.</p> <p>27. Firth, R. (Ed) 1960 <i>Man and Culture (Selected Essays)</i>, London: Routledge.</p> <p>28. Firth, R. 1963 <i>Elements of social organization</i>. Boston: Beacon.</p> <p>29. Geertz, C. <i>Interpretation of Cultures</i>.</p> <p>30. Harris, M. 1962 <i>The Rise of Anthropological Theory</i>. London: Routledge and Kegan Paul.</p> <p>31. Hempel, C.G. 1963 <i>Aspects of Scientific Explanation</i> New York, Free Press.</p> <p>32. Herskovits, M.J. 1960 <i>Man and his works</i>, New York: Knopf.</p> <p>33. Honigsmann, J.J. 1973 <i>Handbook of Cultural and Social Anthropology</i>, Chicago: Rand Mc. Nally &amp; Co.,.</p> <p>34. Kroeber, A.L. 1968 <i>The Nature of Culture</i>, Chicago: University Press.</p> <p>35. Leach, E.R. 1964 <i>Political Systems of Highland Burma</i>, London: Bell.</p> <p>36. Levi-Strauss. C. 1968 <i>Structural Anthropology</i>, London: Allen</p> <p>37. Manners, R &amp; D. Kaplan (ed) 1969 <i>Theory in Anthropology</i>. London: Routledge.</p> <p>38. Marcus and Fisher <i>Writing Cultures</i>.</p> <p>39. Merton, R.F. 1962 <i>Social Theory and Social structure</i>, Glencoe: Free Press.</p> <p>40. Nadel, S.F. 1965 <i>The Theory of Social Structure</i>, London: Cohn and</p>	

<p>West.</p> <p>41. Nagel, E. 1968 <i>The Structure of Science</i>, London: Routledge.</p> <p>42. Radcliff-Brown, A.R. 1976 <i>Structure and Function in Primitive Society</i>. London: R&amp;K Paul.</p> <p>43. Redfield, R. 1962 <i>Human Nature and the Study of society</i>.</p> <p>44. Sarana. G. 1975 <i>The Methodology of Anthropological Comparisons</i>, Tucson: Univ. of Arizona.</p> <p>45. Schneider et. al., <i>Symbolic Anthropology: A Reader in the study of symbolic and meanings</i>.</p> <p>46. Schneider, D.M. <i>Culture and Kinship</i>.</p> <p>47. Spencer, R.F.(ed) 1954 <i>Method and Perspective in Anthropology</i>. Minnesota University Press.</p> <p>48. Turner, V.W. 1981 <i>Forest of Symbols</i>. Ithaca: Cornell University Press.</p> <p>49. White, L.A. 1959 <i>Evolution of Culture</i>, New York: Mc. Graw Hill</p> <p>50. Wyler, S. (ed) 1969 <i>Cognitive Anthropology</i>, New York, H.R.W.</p>	
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<b>Paper Code and Name</b>	<b>PG32T402B : HUMAN GENETICS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand different concepts of human genetics and its relationship with other sciences and medicine.
CO 2	Demonstrate different methods used in studying human genetics
CO 3	Identify different chromosomal aberrations
CO 4	Understand different concepts in human bio-chemical genetics.
CO 5	Demonstrate different aspects of applied human genetics.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Mendelian Genetics</b>	
<ul style="list-style-type: none"> <li>– Meaning and Scope of Human Genetics.</li> <li>– Historical Development of the science of Human Genetics.</li> <li>– Major branches of Human Genetics, its relationship with other sciences and medicine.</li> <li>– Mendel's Laws of Heredity in the light of Chromosome theory</li> <li>– Gene theory and Molecular concept of DNA.</li> <li>– Gene Action</li> </ul>	14 Hours
<b>Unit II : Methods in Human Genetics</b>	
<ul style="list-style-type: none"> <li>– Pedigree analysis</li> <li>– Twin study</li> <li>– Foster child and co-twin method</li> <li>– Cytogenetic methods</li> <li>– Biochemical methods</li> <li>– Immunological methods</li> <li>– Recombinant DNA technology</li> <li>– Restriction Fragment Length Polymorphism (RFLP)</li> <li>– Southern blotting</li> <li>– Polymerase Chain Reaction (PCR).</li> </ul>	12 Hours
<b>Unit III : Human Cytogenetics</b>	

<ul style="list-style-type: none"> <li>– Normal chromosomal component</li> <li>– Numerical and structural Aberrations</li> <li>– Autosomal aberrations: <ul style="list-style-type: none"> <li>– Down's Syndrome</li> <li>– Patan's Syndrome</li> <li>– Edward's syndrome</li> <li>– Criduchat syndrome</li> </ul> </li> <li>– Sex chromosomal aberrations: <ul style="list-style-type: none"> <li>– Turner's syndrome</li> <li>– Klinefelter Syndrome</li> <li>– Super females</li> <li>– Mosaics and chimeras</li> </ul> </li> </ul>	10 Hours
<b>Unit IV : Human Biochemical Genetics</b>	
<ul style="list-style-type: none"> <li>– Inborn errors of metabolism; <ul style="list-style-type: none"> <li>– Phenyl Ketone Urea</li> <li>– Galactoscinia</li> <li>– Alkaptonurea</li> <li>– Albinism.</li> </ul> </li> <li>– Proteins and Enzymes in the blood</li> <li>– Hemoglobin and Hemoglobin variants <ul style="list-style-type: none"> <li>– Haptoglobin</li> <li>– Transferrin</li> <li>– Group Specific Component</li> <li>– Glucose-6-phosphate Dehydrogenase deficiency</li> <li>– Phosphoglucomutase Acid Phosphatase,</li> <li>– Adenylate Kinase,</li> <li>– Serum choline-esterase.</li> </ul> </li> </ul>	14 Hours
<b>Unit V : Applied Human Genetics</b>	
<ul style="list-style-type: none"> <li>– DNA finger printing</li> <li>– Paternity Diagnosis</li> <li>– Eugenics</li> <li>– Genetic Screening for inherited diseases</li> <li>– Genetic Engineering</li> <li>– Gene cloning</li> <li>– Genomic Study</li> <li>– Human Genome Project</li> <li>– Genetic Counseling</li> <li>– Gene Therapy</li> <li>– DNA technology.</li> </ul>	14 Hours

<ul style="list-style-type: none"> <li>– Prevention and Cure of Hereditary diseases.</li> <li>– Anthropogenetics in medicine</li> <li>– Serogenetics and Cytogenetics in Reproductive Biology.</li> </ul>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Leviton Max &amp; Montagu Ashley 1977Text Book of Human Genetics, New York, OUP.</li> <li>2. Harrison G.A. Et.al. Human Biology</li> <li>3. Stern Curt, 1960 Principles of Human Genetics, Sanfranscisco, Freeman.</li> <li>4. Levine R.P. 1968 Genetics, New York, Holt.</li> <li>5. Mc. Kusick Victor A. Human Genetics.</li> <li>6. Thompson and Thompson, 1986Genetics and Medicine, W.B. Saunders Company, London.</li> <li>7. Winchester A.M. 1974, Genetics, New Delhi, Oxford IBH.</li> <li>8. Morris L.N. 1973 Human Populations, Genetics, Variation and Evolution, Aylesbury ITC.</li> <li>9. Berner, Michael, et.al.Heredity, Evolution and Society.</li> <li>10. Harris H. 1980 The Principles of Human Biochemical Genetics.</li> <li>11. Gilbett 1969 Genetic Markers in Human Blood.</li> <li>12. Garrod Archibald Sir, 1968 Inborn Errors of Metabolism, Chicago II Year Book Medical.</li> <li>13. Wittinghal Human Genetics.</li> <li>14. Roberts, 1960 An Introduction to Medical Genetics, London: OUP.</li> <li>15. Brock D.J.M.and Mayo O(Ed)The Biochemical Genetics of Man:Academic Press London.</li> <li>16. Carter T.P.&amp; Willey A.M. (Ed) 1985Genetic Diseases: Screening and Management.Liss:New York.</li> <li>17. Cavalli-Sfroza L.L. and Bodmer W.F. 1971 The Genetics of Human Populations. Freeman, Sanfrancisco.</li> <li>18. Emery A.E.H. 1984 An Introduction to Recombinant DNA; John Wiley Chichester.</li> <li>19. Goodman M. and Tashjan R.E. (eds) 1976 Molecular Anthropology. Plenum Press New York.</li> <li>20. Karp, L.E. 1977 Genetic Engineering – Threat or Promise, Chicago, Nelson Hall.</li> <li>21. Nei M. 1987 Molecular Evolutionary Genetics, Columbia University Press, New York.</li> <li>22. Rao C.R., 1972 Advanced Statistical Methods in Biometric Research.</li> <li>23. Steinberg A.G.&amp; Bearn A.G.(Eds)1981Progress in Medical Genetics, Vol.I to X;Grune and Stratton.</li> <li>24. Vogel F. &amp; Motulsky A.G. 1986 Human Genetics: Problems and</li> </ol>	

<p>Approaches, Springer Verlag Berlin.</p> <p>25. Winnacker Ern.1967 From genes to clones–Introduction to Gene Technology, New Delhi, Panima Educational BK.</p> <p>26. Williamson R. (Ed). 1981 Genetic Engineering, London Academic Press.</p>	
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<b>Paper Code and Name</b>	<b>PG32T403B : FORENSIC ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Demonstrate the anthropological view on forensic science and crime investigation.
CO 2	Identify the individuals on the basis of skeletal remains and other recent trends.
CO 3	Demonstrate the significance of dermatoglyphics in crime investigation.
CO 4	Become familiar with the identification of individuals through anthropometry and body fluids.
CO 5	Understand paternity dispute through different approaches.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Crime investigation</b>	
<ul style="list-style-type: none"> <li>– Definition, aim and scope of Forensic Anthropology</li> <li>– Definition of crime, its theories</li> <li>– crime scene investigation</li> <li>– Location</li> <li>– Evaluation</li> <li>– Protection of evidences</li> <li>– Photography and sketching</li> <li>– Establishment of complete or partial identity from decomposed or mutilated bodies.</li> <li>– Anthropological perspective of forensic science.</li> </ul>	14 Hours
<b>Unit II : Personal identification through skeleton</b>	
<ul style="list-style-type: none"> <li>– Study of Human Skeleton.</li> <li>– Human Skull-determination of age, sex and ethnic group.</li> <li>– Electronic superimposition identification device</li> <li>– Attribution of sex and reconstruction of stature from skeletal remains</li> </ul>	10 Hours
<b>Unit III : Dermatoglyphics</b>	
<ul style="list-style-type: none"> <li>– Dermatoglyphics in Forensic Anthropology.</li> <li>– Finger prints tracing and developing techniques</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>– Classification of finger prints.</li> <li>– Use of palm, and sole prints including sole marks</li> <li>– Analysis of ridge and crease characters.</li> </ul>	
<b>Unit IV : Anthropometry</b>	
<ul style="list-style-type: none"> <li>– Personal Identification, somatometric measurements and somatoscopic observations.</li> <li>– Identification through mannerisms, scars, occupational marks, hand writing etc.</li> <li>– Analysis of hair structure and types.</li> <li>– Body fluids viz., blood, semen, saliva, urine and sweat.</li> </ul>	14 Hours
<b>Unit V : Disputed paternity</b>	
<ul style="list-style-type: none"> <li>– Disputed paternity and different approaches to solve it <ul style="list-style-type: none"> <li>– Morphological</li> <li>– Serological</li> <li>– Cytogenetic etc.</li> </ul> </li> <li>– Recent trend in personal identification <ul style="list-style-type: none"> <li>– Reconstruction of facial physiognomy</li> <li>– DNA finger printing,</li> <li>– Computer applications.</li> </ul> </li> </ul>	14 Hours
<b>REFERENCES</b>	
16. Boorman and Dodd :Blood Group Serology Bridges:Practical Finger Printing 17. Brothwell, D.R. (Ed :Dental Anthropology 18. Chatterjee:Finger, Palm and Sole Prints 19. Chatterjee, J.B. : Haematological Techniques 20. Cherril, F.R.:Fingerprint systems at Scotland 21. Gilbert, H.R.:Genetic markers in Human Blood 22. Kind, Stuart and Science Against Crime 23. Lundquist, F and A.S. Curry Methods in Forensic Sciences 24. Ment:Modern Trends in Forensic Medicine 25. Michael Kirk, P.L.:Crime Investigation 26. Nicoles:Methods in Forensic Science 27. Steward, T.D.:Forensic Anthropology 28. Symans, J.:Crime and Detection 29. Turner : Forensic Science and Laboratory Techniques 30. Yunis, J.J. (Ed): Biochemical methods in Red cell Genetics	

<b>Paper Code and Name</b>	<b>PG32P404B : PRACTICALS IN HUMAN GENETICS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Determine various serum protein polymorphisms.
CO 2	Determine different red blood cell enzyme polymorphisms.
CO 3	Determine colour deficiency and phenyl thio carbamide.
CO 4	Record blood and urine sugar levels.
CO 5	Estimate blood cholesterol and lipids.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Serum Protein Polymorphisms</b>	
– Determination of Haptoglobin and Transferin variants with the help of Electrophoresis of 5 samples.	12 Hours
<b>Red cell Enzyme Polymorphisms</b>	
– Determination with the help of elctrophoresis of 5 samples <ul style="list-style-type: none"> <li>– Glucose–6– Phosphate Dehydrogenase (G-6 PD)</li> <li>– Phosphoglucomutas (PGM)</li> <li>– Acid Phosphatase Adenylate Kinase</li> <li>– Adenosine Diaminase</li> <li>– Lactate Dehydrogenase Polymorphisms</li> </ul>	20 Hours
<b>Other Genetic Traits</b>	
– Testing of at least 20 individuals for colour deficiency with Ishahara chart. – Testing at least 20 individuals for tasting Phenyl Thio Carbamide (PTC).	12 Hours
<b>Blood, Urine and Lipid profiles</b>	
– Estimation of random blood cholesterol values and lipid profiles. – Blood and urine sugar values of at least 5 individuals.	20 Hours

<ul style="list-style-type: none"> <li>– Estimation of hemoglobin content in the blood with the help of Sahli-Hellige Haemoglobinometer of 5 individuals.</li> </ul>	
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<b>Paper Code and Name</b>	<b>PG32T405B : FIELD WORK AND DISSERTATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Record a journal of their experience during the service learning experience.
CO 2	Apply the knowledge gained by coursework to the real world, through service learning.
CO 3	Relate their service learning experience to their coursework in anthropology and other disciplines.
CO 4	Able to generate primary and secondary data
CO 5	Expertise in data editing, data correction and data analysis

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
– Field Work in a tribal, rural or urban community or a special group under supervision of teachers continuously for not less than one month.	
– A field report based on the fieldwork shall be presented for examination. – A viva-voce examination will be conducted on relevant topics.	
– 100 Marks for this paper shall be distributed as follows: – Field Report based on field work      80 marks – Viva-voce Examination                      20 marks	

<b>Paper Code and Name</b>	<b>PG32T406B : SPORTS ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the use of anthropological knowledge in understanding sports.
CO 2	Understand body proportionality and sports performance.
CO 3	Understand body composition and sports performance.
CO 4	Demonstrate different methods of studying human physique
CO 5	Become familiar with different sports played by different races, gender and physically challenged groups.

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Introduction</b>	
<ul style="list-style-type: none"> <li>– Sports and its relation to anthropology.</li> <li>– History and development of sports anthropology, its relevance to Indian context.</li> <li>– Traditional sports and games in India.</li> <li>– Energy and Sports activity, introduction, concept, interaction of energy systems.</li> <li>– Fuel for sports, different food stuffs and their involvement during exercise, effect of intensity and duration of exercise on fuel consumption.</li> </ul>	16 Hours
<b>Unit II : Sports performance</b>	
<ul style="list-style-type: none"> <li>– Kinanthropometry</li> <li>– Body proportionality and the age changes.</li> <li>– Body proportionality in relation to sports.</li> <li>– Cardio-vascular fitness, physical work capacity and sports performance.</li> </ul>	12 Hours
<b>Unit III : Human physique and body composition</b>	
<ul style="list-style-type: none"> <li>– Human physique and body composition and its role in sports participation and excellence.</li> <li>– Different methods of studying human physique and assessment of body composition for both sexes.</li> </ul>	12 Hours

<b>Unit IV : Sports talent selection</b>	
<ul style="list-style-type: none"> <li>– Sports talent selection in young children on the basis of structural, functional and endurance characteristics.</li> <li>– Genetic constitution, physical fitness and sports performance.</li> </ul>	12 Hours
<b>Unit V : Drugs and Sports</b>	
<ul style="list-style-type: none"> <li>– Drug uses in sports</li> <li>– Sports and games for handicapped children and adults.</li> <li>– Gender specific sports and games.</li> <li>– Race and sports performance.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Boyd W.C., 1950 Genetics and the Races of Man. Little Brown, Boston</li> <li>2. Das B.M., 1980 Outlines of Physical Anthropology. Kitab Mahal, Allahabad</li> <li>3. Eveleth P.B. and Tanner J.M., 1990 Worldwide Variations in Human Growth. Cambridge University Press, Cambridge</li> <li>4. Forbes G.B., 1987, Human Body Composition, Springer-Verlag, New York</li> <li>5. Garn S.M., 1971 Human Races. Thomas, Springfield, Illinois</li> <li>6. Hooton e.A., 1965 Up From the Ape. Motilal Banarasidas, Delhi</li> <li>7. Lohman T.G., 1992 Advances in Body Composition Assessment, Human Kinetics, Champaign</li> <li>8. Montagu A., 1960 An Introduction to Physical Anthropology.</li> <li>9. Sheldon W.H., Stevens S.S., Tucker, W.B. 1940 Varieties of Human Physique. Harper Grow, New York</li> <li>10. Singh I.P. and M.K. Bhasin, 1968 Anthropometry, Kamal-Raj Publishers, Delhi</li> <li>11. Singh S.P., Sidhu L.S. and J. Singh, 1992 Skeletal Maturity, HBPS, Patiala</li> <li>12. Sodhi H.S., 1991 Sports Anthropometry, Anova Publishers, Mohali</li> <li>13. Tanner J.M., et al., 1983 Assessment of Skeletal Maturity and Prediction of Adult Height (TW2 method)</li> <li>14. Weiner J.S. and Laurie J.A., 1969 Human Biology - A guide to Field Methods</li> </ol>	

**KARNATAK UNIVERSITY DHARWAD**  
**DEPARTMENT OF STUDIES IN ANTHROPOLOGY**

**PhD Programme**

**1.0 Eligibility to apply for Admission to PhD Programme**

1.1 Any candidate who has obtained a Post-Graduate Degree from a recognized University including foreign candidates (sponsored by their Embassies) and sponsored candidates securing not less than 55% marks (50% for SC/ST/Cat-I/Physically challenged candidates) at the Post-Graduate Degree shall be eligible to apply for the Ph.D., Degree Programme.

1.2 In the case of those candidates who are appointed on regular basis prior to March 31, 1992 as teachers, librarians and physical education personnel in colleges and University Departments, the minimum marks shall be 50% (45% for SC/ST/Cat-I/Physically challenged candidates) provided they (i.e., employees) are continuing in service at the time of submission of application for registration.

If the results of Master's Degree are declared in the form of grades/credits/cumulative points in their marks cards/transcripts, such grades/points shall be converted into percentages to assess the minimum eligibility criteria as specified above in Regulations 1.1 and 1.2

**2.0 Entrance Test**

2.1 All the applicants who possess the minimum percentage of marks at their P.G Degree as specifies above in Regulations 1.1 and 1.2 shall appear for the Entrance Test.

2.2 However, (a) Government sponsored foreign candidates, (b) candidates who have cleared the UGC/UGC-CSIR JRF Test/NET/SLET(Karnataka)/GATE/GRE/M.Phil (Admitted through and Entrance Test) shall be eligible for exemption from the Entrance Test:

2.3.1 All the Departments shall consider the following for conducting Entrance Test:

2.4 **Maximum marks** for Entrance Test: 100

2.5 **Nature of questions:** Multiple Choice Questions

2.6 **Syllabus for Entrance Test:** Research Methodology and Cognate/Core subjects for the P.G. Department conducting the Entrance Test.

2.7 **Number of Questions:** 100 questions, each carrying 1 mark, 50% of the questions shall be from Research Methodology and the remaining 50% from the cognate/core subjects. The Department Council shall prepare the course inputs for the Entrance Test.

2.8 The 50 questions on Research Methodology shall consist of data interpretation, language comprehension and test of reasoning. The other 50 Questions shall be based on current syllabus of cognate/core subjects.

2.9 The Departmental council shall prepare two sets of question paper and submit the same to Registrar (Evaluation).

2.10 The Registrar (Evaluation) shall choose randomly one of the two sets.

2.11 **Duration of Entrance Test** : 120 minutes

2.12 After evaluation of the scripts (OMR Sheets), the Registrar (Evaluation) shall send marks list to the Chairperson of the concerned P.G. Department who shall prepare and note the merit list of qualified candidates indicating the date and time of the interview.

2.13 No research supervisor shall act as an examiner for the entrance test if his/her relative ( as specified by the university from time to time) has appeared for the Ph.D. Entrance Examination.

### **Programme Outcomes (POs)**

1. After completing this program, the students will be able to
  - a. Develop expertise in anthropological tools, techniques, methods and research methodology
  - b. Develop expertise in advance level of Anthropology by applying anthropological knowledge in different fields like forensic, sports, biological and cultural anthropology and bring social change.

<b>Paper Code and Name</b>	<b>PAPER-I : RESEARCH METHODOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand how anthropological fieldwork is unique and different from other disciplines.
CO 2	Use and apply anthropological Research methods in different branches of Anthropology
CO 3	Able to use native language, and research methods like Genealogical methods, case study, Interview and Questionnaires
CO 4	Can distinguish logic and logic in use and Comparative method and The Comparative Method.
CO 5	Etic and Emic perspectives can be used in Research, Restudy and Reinterpretation in Anthropology

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Field Work Tradition</b>	
<ul style="list-style-type: none"> <li>– Field-work tradition and importance of field-work in Anthropological Research.</li> <li>– Holism and field-work in Anthropology.</li> <li>– Review of literature.</li> <li>– Preparing for field-work.</li> <li>– Getting acquainted with the field and field-work.</li> <li>– Ethical issues and field-work.</li> </ul>	
<b>Unit II : Research Design</b>	
<ul style="list-style-type: none"> <li>– Research design and types of research design.</li> <li>– Uniqueness of Anthropological Research design.</li> <li>– Research Methods in Biological Anthropology.</li> <li>– Bio-Statistics and its application</li> <li>– Computer application for the analysis of data.</li> </ul>	
<b>Unit III : Research Techniques</b>	
<ul style="list-style-type: none"> <li>– Anthropological research techniques: <ul style="list-style-type: none"> <li>– Interview</li> <li>– Questionnaire</li> <li>– Schedule</li> <li>– Establishment of rapport.</li> </ul> </li> <li>– Learning the use of native language.</li> <li>– Census, field notes and log book.</li> <li>– Use of Genealogical Method.</li> <li>– Case study and Extended case study.</li> </ul>	
<b>Unit IV : Methods and Methodology</b>	
<ul style="list-style-type: none"> <li>– Meaning and Technique</li> <li>– Method and Methodology</li> <li>– Reconstructed logic and logic in use: Abraham Kalpan, Gopala sarana</li> <li>– Scientific Method and Anthropology</li> <li>– Uniqueness of Anthropological Method: Evans Pritchard, Alfred Kroeber, Robert Redfield and Gopala Sarana.</li> <li>– Comparative Methods in Anthropology: Franz Boas, Redcliff-Brown, Fred Eggan. Oscar Lewis, Gopala Sarana.</li> </ul>	

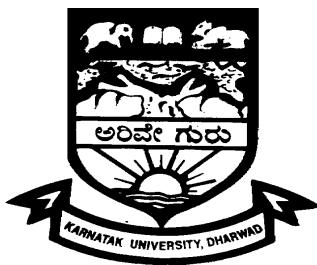
<ul style="list-style-type: none"> <li>– Explanation in Science and History</li> <li>– Uniqueness of Explanation in Anthropology: Carl Hemphel, S. T. Gob and Gopala Sarana.</li> </ul>	
<b>Unit V : Methodological Explanation</b>	
<ul style="list-style-type: none"> <li>– Ethno-science and New Ethnography</li> <li>– Etic and Emic perspectives: Willium Sturtevant, Marvin Haris, Stephen Taylor</li> <li>– Restudy and Reinterpretation in Anthropology: Edmond Leach, Floyd Lounsbury, Rodney Needham.</li> <li>– Symbolism in Anthropology: David Schneider, Mary Douglas, Victor Turner.</li> <li>– Interactive Anthropology and Thick Description: Clifford Geertz.</li> </ul>	

<b>Paper Code and Name</b>	<b>PAPER-II : ADVANCED ANTHROPOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Distinguish process of change like diffusion, westernisation, Urbanization and Modernization.
CO 2	Understand Racial, Ethnic, Religious and Linguistic profile of Indian Population.
CO 3	Relevance of Applied anthropology in day to day life
CO 4	Able to apply anthropology in sports, Forensic and Biological Anthropology
CO 5	Make the Cultural Identity in Tourism

<b>PARTICULARS</b>	<b>Teaching Hours (Max.64)</b>
<b>Unit I : Social Cultural Change</b>	
<ul style="list-style-type: none"> <li>– Meaning and Definition</li> <li>– Anthropological Perspectives of Change</li> <li>– Factors of Social Change</li> <li>– Processes of Change: Diffusion, Sanskritisation, Modernization, Parachilization, Westernization, Urbanization.</li> </ul>	

<b>Unit II : Indian Culture and Civilization</b>	
<ul style="list-style-type: none"> <li>– Approaches to the study of Indian Society</li> <li>– Evolution of Indian Culture and Civilization : Prehistoric and Protohistoric</li> <li>– Racial, Ethnic, Religious and Linguistic profile of Indian Population.</li> </ul>	
<b>Unit III : Tribes and Tribal Development</b>	
<ul style="list-style-type: none"> <li>– Definition and Geographical Distribution</li> <li>– Tribal Problems : Indebtedness, Poverty, Illiteracy, Exploitation, Health and Displacement</li> <li>– Constitutional Safeguards</li> <li>– Tribal Development Programmes</li> <li>– National Tribal Policy</li> </ul>	
<b>Unit IV : Applied Anthropology</b>	
<ul style="list-style-type: none"> <li>– Meaning of Applied and Action Anthropology</li> <li>– Applied Social Cultural Anthropology</li> <li>– Applied Biological Anthropology</li> <li>– Sports and Forensic Anthropology</li> </ul>	
<b>Unit V : Anthropology and Tourism</b>	
<ul style="list-style-type: none"> <li>– Concept, Meaning and Scope</li> <li>– Tourism, Culture and Heritage</li> <li>– Local Customs and Tourism</li> <li>– Folklore and Cultural Identity in Tourism</li> <li>– Globalization and Tourism</li> </ul>	

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

For

**MASTER OF SCIENCE IN APPLIED GENETICS**

**CHOICE BASED CREDIT SYSTEM**



**2008-2009 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



# **REGULATIONS**

**For**

**MASTER OF APPLIED GENETICS**

**CHOICE BASED CREDIT SYSTEM**

**From**

**2008-2009 & Onwards**

# KARNATAK UNIVERSITY, DHARWAD

Regulations concerning Master Degree Programme

**Faculty of Science, from 2008-2009**

**Master Degree Programme in Applied Genetics (CBCS)**

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

## **MASTER OF APPLIED GENETICS CHOICE BASED CREDIT SYSTEM (CBCS)**

### **Title:**

These Regulations shall be called “Regulations Governing Post-Graduate programmes in the Faculty of Science & Technology under the Choice Based Credit System” in Karnatak University, Dharwad

### **Commencement:**

These Regulations shall come into force from the academic year 2008-2009.

### **Definitions:**

#### **3.0 Definitions**

a. In these Regulations, unless otherwise provided:

“**Academic Council**” means Academic Council of the University constituted according to the *Karnatak State Universities Act, 2000*.

b. “**Board of Studies**” means P.G. Board of Studies of the University, Adhoc/Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.

c. “**Compulsory Course**” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.

d. “**Course Weightage**” means number of credits assigned to a particular course.

- e. **“Credit”** means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f. **“Cumulative Grade point Average (CGPA)”** refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g. **“Degree”** means Post-Graduate Degree.
- h **“Grade”** is an index to indicate the performance of a student in the selected course. These grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i. **“Grade Point Average (GPA)”** refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. **“Open Elective Course”** means a paper offered by a Department to the students of other Departments.
- k. **“Post-Graduate Programme”** means semesterised Master’s Degree Programmes excluding P.G.Diploma.
- l. **“Specialization course”** means advanced paper offered by a Department that a student of that Department can opt as a special course.
- m. **“Student”** means the student admitted to programmes under (k).
- n. **“University”** means Karnatak University, Dharwad.

### **Minimum Eligibility for Admission:**

A candidate, who have successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programme in science provided the candidate also satisfied the conditions like the minimum percentage marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnatak reservation policy and the directions issued in this regard from time to time.

### **5.0 Durations of the Programme**

The Durations of the study for the Post-Graduate programme shall extended over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed and complete the programme with due approval from the Registrar. Candidate shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the durations of P.G. Programme.

## **6.0 Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

## **7.0 Programme Structure**

**7.1** The students of Post-Graduate programme shall study the courses as may be approved by the concerned Board of Studies. Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

**7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization courses and Open Elective Courses.

**7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned degree.

**7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

**7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centres and affiliated colleges can offer those Open Electives Courses which are approved of prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.

**7.6** The credits for each of the Compulsory Courses may vary from 2 to 4: for Specialization Course, from 2 to 4 and for Open Elective Course, from 2 to 4, wherever project work/field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.

**7.7** The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.

**7.8** The students shall undertake project/field work during the programme as compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by concerned Board of Studies.

**7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department

**7.10** The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure-Ia & Annexure-Ib

**7.11** The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

## **8.0 Attendance**

**8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.

**8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching /practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

**8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

**8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75% of the total number of instructional hours during the semester.

**8.5** There is no provision for condoning shortage of attendance.

**8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission a fresh to the given semester.

**8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

**9.1** There shall be an examination at the end of the each semester. The odd semester examinations shall be conducted by the respective Departments/P.G. Centres/Colleges. The even semester examinations shall be conducted by the University.

**9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks for practical examination.

**9.1.2** Every student shall register for each semester-end examinations as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.

**9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances at semester-end examinations.

**9.1.4** The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.

**9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).

**9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

**9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

**9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.

**9.2.2** The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation)

**9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/P.G. Centres/Colleges who shall conduct the Examinations according to the Schedule announced by the University.

**9.2.4** The Chairperson of the Department/Administrator of the P.G. Centre/Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.

**9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centres where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.

**9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.

**9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centres.

**9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

### **9.3 Even Semester Examination**

**9.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/Research Institutes.

**9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averages with nearer award of the two evaluations.

Provided that in case of the number of answer scripts to be referred to the third examiner in a course exceeds 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In Case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

### **9.4 Evaluation**

**9.4.1** Each Course shall have two evaluation components- Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA Component in a course shall carry 25% / 30% /50% and the Semester End Examination shall carry 75% /70% /50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table.

For courses carrying 25% of marks for IA, the attendance marks shall be

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

**9.4.4** Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the Department/Centres/Colleges for a period of one year from the date of semester examination. These records may be called by the University or body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation /project work viva-voce shall be conducted by an internal and external examiner.

## **10.0 Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

## **11.0 Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case of the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in stipulated time (vide Regulation 5) or had applied for improvement of results.

## **12.0 Marks, Credit Points, Grade points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

<b>Percentage of marks</b>	<b>Grade points</b>	<b>Grade Letter</b>
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75%	6.00 and above but less than 07.5	B
50 and above but less than 60%	5.00 and above but less than 6.0	C
40 and above but less than 50%	4.00 and above but less than 5.00	D
Less than 40%	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester= Sum of the CP of the I Semester+Sum of the credits of the I Semester

CGPA for the II Semester= Sum of the CP of the Sem +Sum of the CP of II Sem +Sum of the Credits of the I Semester+II Semester

CGPA for the III and IV Semester shall be computed accordingly.

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No. class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below.

<b>Cumulative Grade Point Average (CGPA)</b>	<b>Class to be awarded</b>
7.5 to 10.0	First Class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

### **13. Miscellaneous:**

- a)** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repeated.
- b)** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c)** The University shall issue such order, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d)** The procedural details may be given by the University from time to time.
  - e)** Any unforeseen problems/difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

## **Course Outline for the M.Lib.I.Sc.**

### **SEMESTER – I**

<b>Paper Code</b>	<b>Title of the paper</b>	<b>Max. Marks</b>	<b>IA marks</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching hrs</b>
CT 1.1	Biological Chemistry (Theory)	75	25	100	04	50 hrs
CT 1.2	Genetics & Cytogenetics(Theory)	75	25	100	04	50 hrs
CT 1.3	General Microbiology(Theory)	75	25	100	04	50 hrs
CT 1.7	Biophysical & Biochemical Techniques (Theory)	75	25	100	04	50 hrs
CP 1.4	Biological Chemistry (Practical)	40	10	50	02	48 hrs
CP 1.5	Genetics & Cytogenetics(Practical)	40	10	50	02	48 hrs
CP 1.6	General Microbiology(Practical)	40	10	50	02	48 hrs
CP 1.8	Biophysical & Biochemical Techniques (Practical)	40	10	50	02	48 hrs

### SEMESTER – II

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
CT 2.1	Developmental & Evolutionary Genetics(Theory)	75	25	100	04	50 hrs
CT 2.2	Molecular Biology(Theory)	75	25	100	04	50 hrs
CT 2.3	Intermediary Metabolism (Theory)	75	25	100	04	50 hrs
ET 2.7	Molecular Biology Techniques (Elective) (Theory)	75	25	100	04	50 hrs
CP 2.4	Developmental & Evolutionary Genetics(Practical)	40	10	50	02	48 hrs
CP 2.5	Molecular Biology(Practical)	40	10	50	02	48 hrs
CP 2.6	Intermediary Metabolism (Practical)	40	10	50	02	48 hrs

### SEMESTER – III

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
CT 3.1	Genetic Engineering (Theory)	75	25	100	04	50 hrs
CT 3.2	Microbial Genetics & Technology(Theory)	75	25	100	04	50 hrs
CT 3.3	Human Genetics & Genetic Counselling	75	25	100	04	50 hrs
ET 3.7	Genetic Disorders & Counselling	75	25	100	04	50 hrs
CP 3.4	Genetic Engineering (Practical)	40	10	50	02	48 hrs
CP 3.5	Microbial Genetics & Technology(Practical)	40	10	50	02	48 hrs
CP 3.6	Human Genetics & Genetic Counselling(Practical)	40	10	50	02	48 hrs

### SEMESTER – IV

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
CT 4.1	Bioinformatics (Theory)	75	25	100	04	50 hrs
CT 4.2	Immunogenetics & Immunotechnology(Theory)	75	25	100	04	50 hrs
CT 4.3	Molecular Diagnosis & Molecular Medicine(Theory)	75	25	100	04	50 hrs
CPJ4.7	Project work	125	25	150	06	
CP 4.4	Bioinformatics(Practical)	40	10	50	02	48 hrs
CP 4.5	Immunogenetics & Immunotechnology(Practical)	40	10	50	02	48 hrs
CP 4.6	Molecular Diagnosis & Molecular Medicine(Practical)	40	10	50	02	48 hrs

### Annexure-I

The Programme structure of the Master of Science Degree shall be as follows:

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem. I	Th:04(04)=16 Pra/Th*:02(04)=08	24	----	--	24
Sem. II	Th:03(04)=12 Pra/Th*:03(02)=06	18	Th:01(04)=04	04	22
Sem. III	Th:03(04)=12 Pra/Th*:03(02)=06	18	Th:01(04)=04	04	22
Sem. IV	Th:03/04** (04)=12/16 Pra/Th*:3/4** (02)=06/08 D# 01(06)=06	24	--		24
Total	Th 13(04)= 52 Pra /Th 12/13(02)=24/26 D1(06) =06	84	Th: (04)=08	08	92

Note: Except for I & IV Semester, the concerned Department shall offer one each of open elective theory and practical course or two \*open elective Theory courses for students of other science departments.

\*Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics

Abbreviations: Th=Theory; Pra=Practical; D=Dissertation;

### GRADE CARD

Programme: M.Sc. ( )

Name of the Candidate:..... Semester: IV

Seat No: Month & Year:

Course	Course Code	Credit	IA Marks	Theory/ Practical	Max	Marks obtained	Semester Grade point	Credit Points		
Max			Obt	Max				Obt		
Compulsory Courses										
Course-I	XXCT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course-II	XXCT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course-III	XXCT 4.3	04	25	15	75	28	100	43	4.30	17.20

Course-IV	XXCT 4.4	02	15	06	35	34	50	40	8.00	16.00
Course-V	XXCT 4.5	02	15	06	35	34	50	40	8.00	16.00
Course-VI	XXCT 4.6	02	15	06	35	34	50	40	8.00	16.00
Course-VII	XXCD# 4.7 Or	06	25	20	125	100	150	120	8.00	48.00 Or
Course-VI	XXCT* 4.7	04	25	15	75	28	100	43	4.30	17.20
Course-VIII	XXCP+/CT ψ 4.8	02	15	05	35	35	50	40	8.00	16.00
Total		24			600			200.00/185.00		

XX refers to course abbreviations, 4.1 refers to IV semester course 1; e.g. CHI CT

1.1=chemistry

Inorganic compulsory theory 1.1

# except for Mathematics and Statistics; \* For Statistics and mathematics; + Only for statistics;

Ψ Only for Mathematics

**GPA for IV Semester- CP (IV Sem)/Credits (IV Sem)=200/24.00=8.33**

**GPA for I semester =CP(I sem)/Credits (I sem)**

**CGPA for I semester = GPA for I semester**

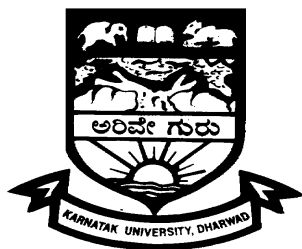
$$\text{CGPA for II Sem} = \frac{\text{CP (I sem)} + \text{CP (II sem)}}{\text{Credits (I sem)} + \text{Credits (II sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP (I sem)} + \text{CP (II sem)} + \text{CP (III sem)}}{\text{Credits (I sem)} + \text{Credits (II sem)} + \text{Credits (III sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I sem)} + \text{CP (II sem)} + \text{CP (III sem)} + \text{CP (IV)}}{\text{Credits (I sem)} + \text{Credits (II sem)} + \text{Credits (IIIsem)} + \text{Credits (IV sem)}}$$

(\*CP: Credit point)

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF SCIENCE IN APPLIED  
GENETICS**

**CHOICE BASED CREDIT SYSTEM  
(CBCS)**

**KARNATAK UNIVERSITY, DHARWAD**  
**Department of Applied Genetics**  
**Proposed Courses under CBCS from 2008-2009**  
**FIRST SEMESTER**

**PG71T101 -CT 1.1 BIOLOGICAL CHEMISTRY**

**50Hours**

Teaching hours per week : 4

No. of credits: 4

**UNIT-I**

**Chemical Bonds:** Covalent, Coordinate, Electrostatic Hydrogen, Ionic bonds, Van der Waals forces, hydrophilic and hydrophobic Interaction, functional groups.

**Properties of Water:** Structure, properties of water, water as a solvent and its importance in biological system, importance of pH, pK and buffer, Henderson-Hasselbalch equation and its application.

**10 Hours**

**UNIT-II**

**Carbohydrates:** Classification, outline of methods of structure elucidation. Structure and stereochemistry of carbohydrates. Derivatives of monosaccharides- amino sugars deoxysugars, and glycosides Structure of disaccharides-sucrose, lactose and maltose. Structure of polysaccharides starch, cellulose, glycogen, dextrin, hemicellulose, pectins, lignins, agar-agar, chitin, hyaluronic acid, heparin, chondroitin sulphate, peptidoglycan, and carbohydrates on cell surface.

**Proteins:** Amino acids: General structure, chemical structure, chemical reaction of amino acids, and physiological properties. Peptides peptide bond, structure determination, C-terminal and N-terminal residue determination, peptide synthesis. Proteins Isolation, purification, and chemical reactions of proteins. Primary, secondary and tertiary structures, denaturation.

**14Hours**

**UNIT-III**

**Lipids:** Classification of lipids, chemistry of fatty acids, chemistry of triacylglycerides - drying of oils, saponification and iodine values of oils and fats. Occurrence and structure of phospholipids (Lecithin and cephalin) and sphingolipids (sphingomyelin, cerebroside and ganglioside).

**Terpenes:** Introduction, sterols, general introduction and structure of cholesterol classification of terpenes, chemistry of farnesol, phytol, squalene and carotenes.

**12 Hours**

**UNIT-IV**

**Nucleotides:** Chemistry of nucleic acids, structure of purines and pyrimidines, modified bases nucleosides, nucleotides and polynucleotide, structural polymorphism of DNA and RNA types.

**Vitamins:** Chemistry, fat and water-soluble vitamins and their biological functions.

**Antibiotics:** Structure and Chemistry of penicillin, streptomycin, chloramphenicol and tetracyclines.

**Alkaloids:** General introduction, chemistry of medicinally and industrially important alkaloids.

**Pigments:** Chemistry of chlorophylls, heme, phenolics and tannins.

**Metal ions in Biomolecules :** Examples and their role.

**14 Hours**

**References:**

1. Nelson, D.I and Cox, MM, Lchninger, A.L. (2000) Principles of Biochemistry, Illrd Ed. Mc. Millan Press, Hamshire.
2. Mathews, C, K. Van Holde and Ather, K. (2000): Biochemistry, V Ed. Benjamin/cummings Publishing Co. Inc. N.Y.
3. Voet D and Voet J. 2000: Biochemistry Jobn Wiley and Suns
4. Stryer L. 2000, Biochemistry, st Ed. W H. Freeman and Ca. New York.
5. Robert J.D., and Caserio, M.C. (1974); Basic Principles of Organic Chemistry, I Ed. W.A. Benjamin, Inc. N.Y.
6. Bloom Field, V.A. and Harrington, ILE. (Ed) 1995: Biophysical Chemistry, W.H. Freeman and Co. N.Y.

## PG71T102- CT 1.2 GENETICS AND CYTOGENETICS

**50Hours**

Teaching hours per week :4

No. of credits: 4

### UNIT - I

**History of genetic** :Genetics in Biology. Role of genetics in agriculture, industry and medicine, impact on society/ Overview of Mendelian genetics.Application of laws of probability (product rule, sum rule, binomial property).Chi square test and its application in analysis of genetic data.

**Extension of Mendelism:** Basis of dominant and recessive mutation. Visible, sterile and lethal mutations. Genotype to phenotype, effect of environment on phenotype development-penetrance and expressivity, phenocopies overview of gene interaction and modifying genes. Pleiotropy. Multiple alleles- Eye color in fruit fly, coat color in locus in Maize. Testing gene mutation for allelism complementation.

**12 Hours**

### UNIT-II

**Linkage, recombination and gene mapping in eukaryotes:** Recombination frequency and map function. Linkage studies in fruit fly and maize, Detection of linkage by test cross. Two point cross, three point cross and four point cross and gene mapping coincidence and interference. Recombination frequency and genetic map distance, chiasma frequency and genetic map distance, genetic distance and physical distance. Evolutionary significance of recombination, Genetic control of recombination.Cytogenetic and physical maps using molecular markers.

**Sex determination:** Autosomes and sex chromosomes- fruit fly, birds, melandrium and humans. Sex linked, sex limited and sex influenced characters, environmental determination of sex, Dosage compensation of X-linked genes. Molecular mechanism of sex determination.

**Inheritance of quantitative traits:** Continuous and discontinuous variations. Polygenic inheritance, genetic variance, heritability- narrow sense and broad sense, genetic advance under selection.

**13 Hours**

### UNIT-III

**Extra chromosomal inheritance:** Non Mendelian inheritance, variegation in leaves of higher plants, Correns studies in *Mirabilis Jalapa*: Extn nuclear genes *chlamydomonas* mutants showing unipatental inheritance chloroplast and mitochondrial genome.

**Eukaryotic Chromosome:** Chromatin, its chemical nature, Macromolecular organization. Nucleosome structure, chromosome model, centromeric DNA, Telomere organization.Law of DNA constancy and C-value paradox.

**Mechanism of Cell division:** Mitotic apparatus, cytokinesis, chromosome movement present concept. Regulation of eukaryotic cell cycle- Overview of cell cycle, molecular mechanism of regulating mitotic events, cell cycle control in mammalian cells.Mutation causing loss of cell cycle control. Meiotic process- stages, chromosome pairing and chiasma formation. Molecular mechanism of recombination, synaptonemal complex and recombination nodule. Spermatogenesis and oogenesis , biochemical studies with oocytes,eggand early embryos.

**13 Hours**

### Unit-IV

**Haploidy** : Occurrence , production, detection, meiosis, breeding behavior, use in genetic analysis and plant breeding.

**Polyploidy** : Autopolyploidy – Origin, induction, cytological , genetic and breeding behavior. Allopolyploidy- cytogenetics, genome analysis, synthesis of new genera.Ployploidy in animal kingdom

**Aneuploidy:**Hyperploids- Trisomics and Tetrasomics- Origin, meiotic behavior and its uses. Hyperploidy in animals and humans.Hypoploidy- monosomies and nullisomies source, cytological behavior, genetics and their uses in gene mapping.

**Chromosome engineering:** Transfer of whole genome, genome reconstruction, chromosome sorting, transfer of individual chromosome, substitution of alien chromosome arm. Cytogenetic basis of apomixis: Classification, detection, embryological, cytological and genetic basis. Apomixis in plant breeding. **12 Hours**

**References:**

1. Griffith et. al., 2000: An introduction to genetic analysis, 7th Ed. W.H. Freeman, London
2. Strickberger, M.W. 1995: Genetics, 3rd Edn. Prentice-Hall Inc. London.
3. Tamrin, R.M. 2000: Principles of Genetics, 6th Ed. W.M.C. Brown Publications Co. London.
4. Snustod, D.P. and Simmons, M.J. (2003) Principles of Genetics, 3rd Edn John Wiley and sonsinc. N.Y.
5. Alberts, B., Bray, D., Lewin, J., Raff, M., Roberts, K. and Watson J.D. (1994): Molecular Biology of The Cell, 3rd Edn.
6. Lodish, H., Berk»A., Ziprusky, S.L., Matsudairra. P., Baltimore, D., and Damell, J. (2000): Molecular Cell Biology. Freeman W.H. and CO. N.Y.
7. Kaip. G. (1996): Cell and Molecular Biology: Concept and Experiments. John Willey and Sons. Inc. N.Y.
8. Gupta, P.K., (1965): Cytogenetics. Rastogi Publication Meerut.
9. Schulz Schaeffer, J. (1980): Cytogenetics: Plants, Animals and Humans. Springer-Verlag N.Y.
10. Lewis, W.H. (1980): Polyploidy: Biological Relevance Plenum Press N.Y.
11. Bumham, CJL (1962): Discussion in cytogenetics. Bergress Minneapolis.

## PG71T103-CT 1.3.GENERAL MICROBIOLOGY

**50 Hours**

Teaching hours per week :4

No. of credits : 4

### UNIT- I

**Introduction:** Scope and development of microbiology, comparative study of prokaryotic and Eukaryotic microorganisms. Study of structure of bacteria genetic elements ribosomes, membranes, cell envelope capsule, flagella, Pilli, and endospores.

**Classification of Microorganisms:** Nomenclature and study of different types of microorganisms, Characterization of Microorganisms, bacteria, fungi, actinomycetes, algae, protozoa, mycoplasmas, chlamidae, rickettsia. Methods of sterilization: Principles, physical and chemical sterilizing agents, pasteurization and disinfection, batch and continuous sterilization of media and air.

**Nutrition and culture media:** Nutritional requirement and nutrition classes of microorganisms. Types of culture media selective, differential, indicator and transport media.

**12 Hours**

### UNIT-II

**Isolation of pure cultures:** Different methods of isolation and pure cultures spread plate pour plate and streak plate methods, enumeration of cell number, enrichment culture techniques.

**Cultivation of bacteria:** Methods of inoculation and culturing streak, stab, lawn or carpet culture, liquid culture. Growth and reproduction in microorganisms, growth curve of bacteria and factors affecting the growth curve, synchronous and diauxic growth, methods of growth measurement plating turbidometry, metabolic product, Nitrogen content Preservation of microbial cultures-storing glycerol.

**Identification of bacteria:** Morphological identification, staining methods simple staining, capsule cell wall, flagella and endospore staining, Biochemical identification IMVIC test, oxidase, catalase urease, Sugar fermentation and H<sub>2</sub>S production.

**12 Hours**

### UNIT-III

**Habitats of Microorganisms:** Microbes of air, water, soil, food, and normal human body flora.

**Viruses:** Physiochemical properties and classification of viruses. Isolation, cultivation and assay of viruses. Bacteriophages odd and even T phages, ΦX174. Structure, mode of infection, replication and assembly of T even phage. Lytic and lysogenic cycle. Virioids and prions-Yeast.

**Clinical microbiology :** Infection and intoxication endo and exotoxins, air, water and food borne diseases of man and domestic animals causative agent, epidemiology and diagnosis. A. Microbial antibiotics curative and prophylactic measures. B. Monoclonal antibodies: Production and application C. Insulin production by genetically engineered microbes (GEM) D Vaccines killed attenuated and recombinant vaccines. E Integrated pest control management.

**12 Hours**

### UNIT-IV

**Food microbiology :** A .Microbes in the spoilage of food and milk and their prevention. B. Microbes in the production of food-cheese, vitamins, amino acids, organic acids and in alcoholic beverages. C. Microbes as food: Single Cell protein from algae, bacteria, yeast and fungi as mushroom.

**Environmental and Fuel Microbiology:** Environmental pollution: Agricultural domestic and industrial wastes A. Microbes in liquid and solid waste management B. Sacchrirification, Silage production and composting microbes in degradation of pesticides and Xenobiotics ; Microbial fertilizers; biological control of pest by *B. thurengiensis*. C. Metal leaching and extraction, microbes as non conventional energy source, Biogas production, Methane and butanol and hydrogen gases; Alcohol production **14 Hours**

**References:**

1. Pelczar, MJ. Chan, EOSA and Kreig<sup>^</sup>.R., (1993). Microbiology, McGraw Hill Inc., N.Y.
2. Atlas, R.M (1998); Microbiology, Fundamentals and applications II Ed. Me. Millan Publications Co. N.Y.
3. Prescott, L.M., Harley, J.P., and Klein, D.A., (1996): Microbiology, Wm C Brown PubL N.Y.
4. Holt, J.S., Kreig, N.R., Sneath, P.HA. and Williams S.T. (1994): Bergey's Manual of Systematic Bacteriology, 9\* ed. William and Wilkins, Baltimore.
5. Frazier, W.C. and Westhaff ; D.C. (1998): Food Microbiology, Tata Me Graw Hill Publishers, New Delhi.
6. Warren, L., and Ernest, J. (1994): Medical Microbiology and Immunology. Appleton and Lange, Stanford.
7. Sullia, S.B. and Shantharam, S. (1998): General Microbiology, Oxford IBH, New Delhi.
8. Edward Alcamo I. (1997). Fundamentals of Microbiology 5th Edn. Adelison Wesley Longmon. Inc. New York.
9. Madigon, M.T., Martinco, J.M. and Parker J. (1997) Brock Biology of Microorganisms, 8th Ed. McGraw Hill, Inc. New York.
10. Alexander (1997) Introduction to Soil Microbiology. John Wiley and Sons Inc. New York.
11. Biswas, S.B. and Anita Biswas (1997), An Introduction to Viruses. 4th revised edition. Vikas Publishing House, Pvt. Ltd. New Delhi. ....
12. Alexopoulos CJ. and Mims (1979) Introductory Mycology, Wiley Eastern Limited, New Delhi.
13. Ram R. C. (2007) Microbial Diversity- Modem Trendo, Mittal Publications, New Delhi.

Teaching hours per week : 4

No. of Credits :4

**UNIT-I**

**Introduction :** Scope of biophysics, physical loss, interaction of living and non living matter, chemical foundation of biophysics.

**Characterization of biological molecules:** Hydrodynamics properties of biomolecules- viscosity, diffusion, osmosis, partial specific volume and Donnan effect.

**Microscopy:** Principles of microscopy, light, phase, contrast, fluorescence, X-ray, UV, transmission and scanning electron microscope, confocal microscope and atomic force microscope.

**Preparation of specimen for microscopy:** Microtome technique, fixation, embedding, sectioning and staining for light and electron microscopy. **12 Hours**

**UNIT-II**

**Separation methods:**

**Chromatography:** Paper, thin layer, gas liquid, column, gel filtration, ion exchange, affinity, HPLC, RPLC.

**Centrifugation:** Preparative and analytical centrifuges, rotors, sedimentation analysis, rate-zonal and equilibrium gradient centrifugation, ultra centrifugation, subcellular isolation.

**Electrophoresis:** Types of electrophoresis- Paper and gel (starch, acrylamide and agarose) electrophoresis, capillary, disc, slab vertical gel electrophoresis, submarine horizontal agarose gel electrophoresis, gradient gel electrophoresis, isoelectric focusing, immune electrophoresis, pulsed field gel electrophoresis, blotting of nucleic acids and proteins from gel to solid supports.

**13 Hours****UNIT-III**

**Concentration of macromolecules:** Salting out with ammonium sulphate, flash evaporation, lyophilization, pressure dialysis, reverse dialysis, hollow fiber membrane and reverse osmosis.

**Analytical methods:** Spectroscopy, photobiophysics, electromagnetic spectrum of light, simple theory of absorption of light by molecules, Beer-Lambert's law, types of detectors. UV-Visible spectrophotometry, infrared spectroscopy, Raman spectroscopy, fluorescence spectroscopy, flame photometry, atomic absorption, plasma emission, mass, ESR and NMR spectroscopy, MALDI-TOF MS, LC-MS, ORD and CD, X-ray diffraction and X-ray crystallography.

Biological importance of LASERS, Microwaves and radiations.

**13 Hours****UNIT-IV**

**Radioisotope tracer techniques:** Nature and types of radioactivity, decay units, preparation of labeled biological compounds, detection and measurement of radioactivity (GM counter, Scintillation counter, Cerenkov radiation, autoradiography, photographic emulsion, Gamma ray counter), Quench correction, safety measures in handling radioisotope, biological uses of radioisotopes.

Automatic analysers for amino acids, protein sequencer, nucleotide sequencing system, peptide and polynucleotide synthesizer.

**Methods of detection and quantization of macromolecules on gels:** Staining procedures for proteins, nucleic acids, carbohydrates, pigments. Zymograms, densitometric methods and transilluminators. **12 Hours**

**References:**

1. Boyer R.F. (2001): Modern experimental biochemistry. 3<sup>rd</sup> Ed Benjamin/Cummings Pub.Co.
2. Jayaraman J. (1998): Laboratory manual of biochemistry. Wiley Eastern limited New Delhi.
3. Work T.S. and Burdon R.G.: laboratory techniques in biochemistry and molecular biology.
4. Skoog D.A., West D.M., Holler F.J. and Crouch S.K. (2004). Fundamentals analytical chemistry. Thomson Asia Pte Ltd., Singapore.
5. Cantor C.R. and Schimmel P.R. (2004): Biophysical chemistry part-I, II and III. W.H. Freeman and Company, New York.
6. Wilson K and walker J (2005): Principles and techniques of biochemistry and molecular biology. 6<sup>th</sup> Ed. Cambridge University Press, USA.
7. Sadasivam S. and Manikam A. (1992): Biochemical Method. Wiley Eastern Limited New Delhi.

**Courses in Practical's CP 1.4., CP 1.5., CP 1.6.:**

Contact hours per week : 4

No. of credits : 2

**PG71P101- CP. 1.4 PRACTICAL-I**

1. Preparation of buffers-citrate buffer, Tris-HCl buffer and phosphate buffer.
2. Determination of  $pK$  of proteins and amino acids.
3. Estimation of inorganic phosphorus by Fiske-Subbarowe method.
4. Sorenson-Formal titration for estimation % purity of glycine.
5. Isolation and estimation of protein using various colorimetric (Lowry, Biuret methods) and spectrophotometric methods.
6. Determination of molecular weight of a protein by gel filtration chromatography or SDS-PAGE.
7. Estimation of total-sugars/reducing sugars.
8. Isolation and estimation of DNA/RNA
9. Extraction and estimation of plants pigments.
10. Extraction of lipids and fatty acid composition (TLC or GLC)
11. Saponification value and iodine number of fats.

**(New Experiments may be introduced each year)**

**References:**

1. S. Sadavasivam and A. Manikam (1992), Biochemical Methods for Agricultural Sciences. Wiley Eastern Ltd, New Delhi.
2. J. Jayaraman (1968). Laboratory Manual for Biochemistry, Wiley Eastern Ltd, New Delhi.
3. Plummer D.T., (1977). An Introduction to Practical Biochemistry. Tata McGraw Hill, Bombay.
4. Dr.Palanivelu, (2001). Analytical Biochemistry and Separation Techniques- A Laboratory Manual for B.Sc. and M.Sc. Students.

**PG71P102- CP 1.5 PRACTICAL-II**

1. Preparation of fruit fly media and handling of fruit flies.
2. Morphology of adult fruit fly, recognizing the sex of adult fly. Life cycle of fruit fly. Collection of virgin flies.
3. Examination of mutant flies.
4. Study of law of segregation and law independent assortment in fruit fly.
5. Linkage studies in fruit fly.
6. Preparation of media and culture methods for *Neurospora* / *Sordaria* and *Ascobolus*.
7. Ordered and unordered tetrad analysis in *Neurospora*/*Sordaria* and *Ascobolus*.
8. Preparation of reagents, stains and dehydration grades for cytological studies.
9. Cytological methods: Chromosomes counting, Chromosome banding techniques and Karyotype analysis
10. Analysis of polytene chromosome, sex chromosomes.
11. Structural and numerical changes in Chromosomes.
12. Induction of polyploidy and characterization of autopolyploids.

**(New Experiments may be introduced each year)**

### **References :**

1. Ashburner M, Golic K. G. and Scott Hawley R. (2005), *Drosophila a Laboratory Handbook*, 2 Edn. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York.
2. Khanna V.K, (2006), *Laboratory Manual Plant Cytogenetics*. Kalyani Publishers.
3. Batch Margret J. (1997), *AgtCytogenetics Laboratory Manual*. Lippincott Williams and Wilkins Publishers.

### **PG71P103 - CP. 1.6 PRACTICAL-III**

1. Preparation of nutrient broth and nutrient agar slants, and sterilization. Culture of microorganisms using various methods.
2. Isolation of microorganisms from soil sample and determination of the number of colony forming units. Isolation of pure culture techniques.
3. Simple and differential staining procedures, endospore staining, flagellar staining, cell wall staining, capsular staining and negative staining.
4. Identification of bacteria by biochemical tests.
5. Life cycle of bacteria, fungi, actinomycetes, blue green algae and Clostridium.
6. Study of growth curve of E. coli cells-effect of pH, temperature, salt concentration, nutrient and agitation on growth phase.
7. Antibiotic sensitivity test, LD-50, potency of drug/antibiotic.
8. Microbiological assays of vitamins.
9. Isolation of bacteriophages.

**(New Experiments may be introduced each year)**

### **References:**

1. Pelczar, M.J. Chan, EOSA and Kreig, N.R., (1993). *Microbiology*, McGraw Hill Inc., N.Y.
2. Atlas, R.M (1998); *Microbiology, Fundamentals and applications II Ed.* Mc. Millan Publications Co. N.Y.
3. Prescott, L.M., Harley, J.P., and Klein, D.A., (1996): *Microbiology*, Wm C Brown Publ. N.Y.
4. Holt, J.S., Kreig, N.R., Sneath, P.H.A. and Williams S.T. (1994): *Bergey's Manual of Systematic Bacteriology*, 9th ed. William and Wilkins, Baltimore.
5. Alexander (1997) *Introduction to Soil Microbiology*. John Wiley and Sons Inc. New York.
6. Alexopoulos C.J. and Mims (1979) *Introductory Mycology*, Wiley Eastern Limited, New Delhi.
7. Ram R. C. (2007) *Microbial Diversity- Modern Trends*, Mittal Publications, New Delhi.
8. Cappuccino, J.G. and Sherman, N (1999) *Microbiology a Laboratory Manual* Addison Wesley.

**Course ET 1.7 (For the Student of other Departments)**

**Course ET.1.8 (For the Student of other Departments)**

DRAFT PRACTICALS BASED  
ON  
**PG71P104-CP. BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES**

1. Purification of peptides/proteins-salt precipitation, dialysis, column purification.
2. Molecular weight determination of peptides/proteins by gel filtration chromatography/SDS-PAGE.
3. Effect of salt, pH and temperature on proteins.
4. Blotting of nucleic acids/ proteins.
5. Extraction of lipids and fatty acid composition.
6. Estimation of hormones by HPLC.
7. Analysis of elements- AAS/Flame photometer/Kjeldahl method.

**(New Experiments may be introduced each year)**

## SECOND SEMESTER

50 Hours

### PG71T201- CT 2.1.DEVELOPMENTAL AND EVOLUTIONARY GENETICS.

Teaching hours per week : 4

No. of credits : 4

#### UNIT-I

**History and basic concepts:** Model organisms for genetic analysis of development: Insect-drosophila amphibians-*Xenopus* *jarvis*, birds-chick, mammals-mouse, identifying developmental genes.

**Patterning of the vertebrate body plan:** Axes and germ layers-settling of the body axes mesoderm and early nervous system-somite formation and patterning, neural induction and the role of the organizer.

**Development of fruit fly body plan:** maternal gene activity, polarization of body axes during oogenesis, zygotic gene activity in early embryo, segmentation-activation of pair rule genes, selector and homeotic genes, segment polarity genes and compartments. **12 Hours**

#### UNIT-II

**Genetics of embryonic development in plant:** Early events in embryogenesis, gene expression in embryo, genetics of embryogenesis-embryo-lethal mutants, apical-basal axis mutants, segment deletion mutant, radial axis mutants. Cell fate maps in embryo development.

**Genetics of seedling development:** Photomorphogenesis, shoot development, leaf development and root development.

**Genetics of flowering, seed and fruit development:** Transition from vegetative to floral development, ABC model and homeotic genes, mad box genes. Genetics of anther development and pollen formation. Seed development- Endosperm, endosperm balance number, maturation stage, LEA protein and control of seeds dormancy and germination. Fruit development and control of ripening. Genetics of aging and Senescence in animals and plants.

**12 Hours**

#### UNIT-III

**Theories of organic evolution:** Lamarkism and neo-lamarckism, Darwinism and neoDarwinism. Gene frequencies and Equilibrium Gene pool and Gene frequency. Hardy-Weinberg law, attainment of equilibrium at 2 or more loci and sex linkage. Estimation of equilibrium frequencies in natural population-Codominance and dominance in natural population, Sex linkage in natural populations.

**Changes in gene frequencies:** Mutation rate, selection, fitness, gametic and zygotic selection, heterozygous advantage. Unstable equilibrium, equilibrium between mutation and selection. Mutation rate and equilibrium frequencies estimation, migration, Random genetic drift.

**Inbreeding and heterosis:** Inbreeding and assortative mating, inbreeding coefficient from genotypes and pedigrees. Effect of inbreeding on genotype frequencies, phenotypic mean and variance, Cross breeding and heterosis. **13 Hours**

#### UNIT-IV

**Genetic Structure of Population:** Optimum phenotype and selection pressure, types of selection, Fischer's theorem on natural selection, genetic variability in natural populations,

Canalization, genetic homeostasis, genetic load and genetic drift. Genetics of evolutionary process: Race formation, Isolating mechanisms, modes of speciation. Genetic Polymorphism: Types of Polymorphism, Maintaining polymorphisms, sampling the genome, Multilocus selection models, neutral alleles, Molecular evolutionary clock.

**Molecular phylogenies and evolution:** Amino acid sequences, DNA and repetitive DNA sequences, DNA-DNA hybridization, Restriction enzyme sites. Molecular Polymorphism and its evolutionary implications Nucleotide sequence homologies, rate of molecular changes, regulating genes and evolutionary consequences. **13 Hours**

### **References:**

1. Bhojwani, S.S, and Bhatnagar, S.P. (2000): The embryology of Angiosperms Vikas Publication House, New Delhi.
2. Carlson, B.M. (1996): Pattern's foundation of embryology. McGraw Hill Inc. N.Y.
3. Hartl. D.L. (1988): A primer of population genetics. Sinauersunderland USA.
4. Howell, S.H. (1998): Molecular genetics of plant development. Cambridge University Press, Cambridge.
5. Lewin. B. (2001): Genes VII. Oxford University Press. Oxford.
6. Li. W and Graur (1990): Fundamental of Molecular evolution. Sinauer associates Sunderlandbd, USA.
7. Price, P.W. (1996): Biological evolution. Saunders pub. Philadelphia.
8. Russo, V.E.A., Brody, S., Cove. D. And Okkolenghi (1992): Development. The molecular genetic approach.Springer Verlag Berlin.
9. Snustad, D.P., and Simmons, M.J. (2003): Principles of Genetics, 3<sup>1</sup> Edn. John Wiley and Sons, inc. N.Y.
10. Strickberger, M.W. (1996); Evolution, 2<sup>nd</sup>Edn. Jones and Barlett Pub. London.
11. Strickberger, M.W. (1996): Genetics, 3<sup>rd</sup>Edn. Prentice Hall of India, New Delhi.
12. Tamarin, R.H. (2000): Principles of Genetics 6 Edn. W.C. Brown Publishers, London.
13. Wolpert, L.et.al. (2002): Principles of development, 2d ed. Oxford University Press, Oxford.

## **PG71T202- CT 2.2. MOLECULAR BIOLOGY**

**50**

### **Hours**

**Teaching hours per week: 4**

**No. of credits: 4**

### **UNIT-I**

**Genetic Material:** Discovery, Overview- DNA-Chemical composition and molecular structure, polymorphism in DNA structure. RNA-Chemical composition and macromolecular structure and types of RNA.

**DNA replication:** Overview, enzymes of replication. Replication apparatus- Primosomes and Replisomes.Mechanism of Replication.Continuous and discontinuous DNA synthesis, supercoiling and termination of replication.Eukaryotic DNA Replication, telomere length and aging. **8 Hours**

### **UNIT II**

**Transcription:** Central dogma, role of DNA in protein synthesis, General features of RNA synthesis. Prokaryotic transcription RNA polymerase, mechanism of transcription.Eukaryotic transcription- RNA polymerases, transcription factor, Post transcription modification of

mRNA- Capping and Polyadenylation. Split genes- intron, exons and gene splicing .Reverse transcription.

**Translation:** Genetic code- Properties of genetic code, Deciphering of genetic code, initiation and termination codons, degeneracy of genetic code, quasiuniversal nature of genetic code, wobble hypothesis and evolution of genetic code. Protein synthesis- ribosomes, amino acid activation, initiation, elongation and termination in prokaryotes and eukaryotes, post translational modification of proteins. Inhibitors of translation. **12 Hours**

### UNIT-III

**Mutagenesis:** Spontaneous mutations. Mutation frequency, Physical mutagens Ionizing radiations and non-ionizing radiations, Radiosensitivity. Chemical mutagens- mutagenic compounds, mode of action, molecular basis of mutation. In vitro site directed mutagenesis.

**DNA repair mechanism:** DNA damage, dark repair, light repair, post replication repair, SOS repair systems. Mobile genetic elements in eukaryotes, transposon tagging of genes, Genetics and evolutionary significance.

**Regulation of gene expression in prokaryotes:** Operon models- Lac operon inducible system, cap protein and catabolite repression, His operon repressible system, Trp operon attenuation control. Posttranscriptional control- feed back inhibition and protein degradation.

**Regulation of gene expression in eukaryotes:** Short term regulation, heat shock proteins, activators, enhancers and silencers. Hormonal regulations, DNA methylation, Z-DNA. Molecular control of transcription, gene expression and chromosome organization, euchromatin and heterochromatin, and gene amplification. Role of RNA in gene expression: siRNA, antisense RNA, hairpin RNA and RNAi. **20 Hours**

### UNIT-IV

**Genome organization:** Genome size, cot analysis, DNA constancy and enigma. DNA complexity, coding and non-coding sequences, LINES and SINES and multigene families.

**Genomics:** Introduction, structural genomics- cytogenetic maps, FISH, SNP, STR, AFLP, RFLP, RAPD, mapping quantitative traits using QTL, construction of chromosome specific library, positional cloning- chromosome walk and jumps. Functional genomics- gene expression sequences, DNA micro array and genome evolution. **10 Hours**

### References:

1. Freifelder, D (1999): Molecular Biology. Narosa Pub. House. New Delhi.
2. Griffith et al (2000): An introduction to genetic analysis. Freeman W.H. and Company, NY
3. Karp, G. (1996): Cell and Molecular biology. Concepts and Experiments. John Willey and Sons. Inc. N.Y.
4. Lewin, B. (2001): Genes VII, Oxford University Press, Oxford.
5. Lodish, H, Berk A., Zipursky, S.L., Matsudaiva, P., Baltimore, D., and Darnell, J. 2000: Molecular Cell Biology. W.H. Freeman and Co.
6. Sambrook, J., Fritsch, E.F. and Maniatis, T (2000): Molecular Cloning, CSHL Press. NY
7. Snustad, D.P and Simmons, M.J. (2002): Principles of Genetics. 3rd Edn. John Willey and Sons. N.Y.
8. Twyman, R.M. (1998): Advanced Molecular Biology. Viva Book Pvt. New Delhi.

### UNIT-I

**Bioenergetics:** Free energy change in biological transformations, thermodynamic principles in biology, redox potential, high energy compounds, brief account of enzymes and coenzymes involved in biological oxidations, organization of respiratory electron transport system, mechanism of oxidative phosphorylation, biological energy transducers, chemiosmotic generation of ATP.

**Metabolism of Carbohydrates:** Glycolysis, Citric acid cycle, glyoxylate cycle, gluconeogenesis, pentose phosphate pathway, glycogenolysis and glycogen synthesis, Biosynthesis of Lactose and starch. Energetics and regulations of the pathways . **12 Hours**

### UNIT-II

**Metabolism of Amino acids:** Hydrolysis of proteins, Proteases, biosynthesis of amino acids and their catabolism(deamination, decarboxylation, transamination) Co-ordinated control of amino acid metabolism, formation of ammonia and Urea, Nitrogen cycle, Biological nitrogen fixation (symbiotic and non symbiotic).

**Metabolism of Lipids:** Lipid Hydrolysis, lipases, outlines of schemes of oxidation of fatty acids (saturated and unsaturated), Biosynthesis of fatty acids, Biosynthesis of Cholesterol, Phospholipids and Glycolipids, Leukotrienes and eicosanoids, prostaglandins and thromboxanes. Lipid peroxidation, metabolism of ketone bodies.Regulation of lipid metabolism. **12 Hours**

### Unit-III

**Metabolism of Heme:** Biosynthesis and degradation of hemeporphyrin, regulation, porphyries.

**Metabolism of Nucleotides:** Biosynthesis of purine and pyrimidine nucleotides by *denovo* and salvage pathways. Regulation Inhibitors of nucleotide biosynthesis.Degradation of nucleotides.

**Signal Transduction:** Inter and Intra cellular signalling: Signal molecules-Protein and non-proteins signals. Organisms involved in the synthesis and release, transport, target cells/tissues. Signal receptors, distribution interaction between the signal receptors, signal transducing elements and the mechanism of transduction. Role of second messengers, such as calcium, cAMP, cGMP, Phosphatidylinositol phosphatases. A general view of plant signals, phytohormones, calcium, phosphatidylinositol and their mechanisms. **12 Hours**

### Unit-IV

**Photosynthesis:** Introduction, Photosynthesis pigments, photosystems, cyclic and noncyclic electron flow and photophosphorylation, CO<sub>2</sub> fixation by Calvin Cycle, C<sub>3</sub>, C<sub>4</sub> and CAM pathways, photorespiration.

**Biochemistry of Hormones:** Classification, structure and functions of hormones Biosynthesis of steroid hormones, thyroid hormones, hormone receptors, second messengers, signal transduction, signal component receptors, mechanism of signal transduction. **14Hours**

**References:**

1. Lodish, H. Berk A., Zipursky, S.L., Matsudaira, P. Baltimore D and Darnell J. 2000: Molecular Cell Biology. W.H. Freeman and Co.
2. Voet D and Voet J. 2000: Biochemistry, John Wiley and Sons.
3. Stryer L. 2000: Biochemistry, 5<sup>th</sup> Ed. W.H. Freeman and Co. New York.
4. Moran L.A., Sceimgeour K.G., Hortan H.R., Ochs R.S., and Rawn J.D., Biochemistry 3<sup>rd</sup> Ed. Neil Patterson Publishing prentice Hall.
5. Lehninger A: Principles of Biochemistry .C.B.S. Publishers.
6. Mathews and Van Holde: Biochemistry.

**Courses in Practicals CP 2.4, CP 2.5, CP 2.6****PG71P201-CP. 2.4 Practical-I**

1. Fixation of plant and animal tissues, preparation of paraffin blocks and microtomy. Staining and microscopic observations.
2. Types of eggs and cleavage.
3. Development of *Arabidopsis*/fruitfly/fish/frog/mammals.
4. Mounting of imaginal discs in fruit fly.
5. Demonstration of cell death.
6. Gametogenesis, embryogenesis and seed development.
7. Root and shoot differentiation.
8. Estimation of allelic frequency in natural population-PTC loci.
9. Genetic variation in natural population- beak shape, colour pattern in lady beetle, flower colour variation, Mimicry- butterfly and orchid flowers, Metroglyph analysis.
10. Estimation of genetic diversity in natural population.
11. Mechanism of speciation-Polyploidy.
12. Genetic analysis of inbreeding.

**(New Experiments may be introduced each year)**

**References:**

1. Johnson, D.A., (1940) Plant Microtechnique, McGraw Hill, New York.
2. Vasudevarao. K, (2004) Developmental Biology, A Modern Synthesis, Oxford Publishing Co. Pvt. Ltd. New Delhi.
3. Subramaniam. T (2002) Developmental Biology: Narosa Publication
4. Kalthoff. K (1996). Analysis of Biological Development, McGraw Hill, Inc. New York.
5. Strickberger M.W. (1996), Evolution Jones and Bailett H. Publishers, Sudbury, Massachusetts.
6. Gilbert Scott F. (1996). Developmental Biology, Sunderland, Sinauer Associates.
7. Miglani G.S. (2006) Developmental Genetics, I.K. International Publishing House, Pvt. Ltd. Bangalore.

**PG71P202- CP.2.5 PRACTICAL-II**

1. Isolation of genomic DNA from plants, microbes and mammals
2. Quantification of DNA by UV-spectrophotometer
3. Agarose gel electrophoresis and quality check of isolated DNA
4. Isolation and quantification of RNA by UV-spectrophotometer
5. Electrophoresis of RNA using denaturing gels
6. Induction and characterization of mutations using Chemical/Physical mutagens in plants and animals
7. Induction and demonstration of heat shock proteins
8. Mutation and DNA repair system in microorganisms
9. Substrate induced enzyme synthesis in *E. coli*

**(New Experiments may be introduced each year)**

**References:**

1. Molecular Cloning: A laboratory manual, J. Sambrook, E.F. Fritsch and T. Maniatis. Cold Spring Harbor Laboratory Press, New York, 2000.
2. DNA cloning: A Practical Approach, D.M. Glover and B.D. Hames, IRL Press, Oxford. 1995.
3. Molecular and Cellular Methods in Biology and Medicine, P.B. Kaufman, W. Wu, D. Kim and L.J. Cseke, CRC Press, Florida, 1995.
4. DNA Science: A first course in Recombinant Technology, D.A. Mickloss and G.A. Freyer, Cold Spring Harbor Laboratory Press, New York, 1990.

**PG71P203-CP.2.6 PRACTICAL-III**

1. Qualitative analysis of Carbohydrates.
2. Qualitative analysis of Proteins.
3. Qualitative analysis of Amino acids.
4. Qualitative analysis of Lipids
5. Estimation of mineral elements (Na/P/K/Ca/Fe)
6. Determination of Salivary amylase activity
7. Extraction and estimation of vitamins: Thiamine or Niacin/Ascorbic acid or Vitamin-A
8. Estimation of lycopene
9. Estimation of plant hormone- IAA/Ethylene

**(New Experiments may be introduced each year)**

**References:**

1. S. Sadavasivam and A. Manikam (1992), Biochemical Methods for Agricultural Sciences. Wiley Eastern Ltd, New Delhi.
2. Jayaraman (1968). Laboratory Manual for Biochemistry, Wiley Eastern Ltd, New Delhi.
3. Plummer D.T., (1977). An Introduction to Practical Biochemistry. Tata McGraw Hill, Bombay.
4. Dr.Palanivelu, (2001). Analytical Biochemistry and Separation Techniques- A Laboratory Manual for B.Sc. and M.Sc. Students.

**Course ET 2.7 (For the Student of other Departments)**  
**Course ET 2.8 (For the Student of other Departments)**

**Second Semester**

**PG71T204A- ET 2.7. MOLECULAR BIOLOGY TECHNIQUES (ELECTIVE)**

**UNIT-I**

**Microscopy:** Sample preparation light microscopy, phase contrast microscopy, Electron microscopy.

**Spectrophotometry, Fluorescence, Fluorescent microscopy, Confocal laser scanning microscopy, Flow cytometry, FACS. Radiochemistry-Scintillation Spectrophotometer,  $\alpha$  -rays counter.**

**PH and Buffer:** pH measurement, centrifugation-Analytical preparative differential, Differential gradient.

**UNIT-II**

**Introduction to proteins:** Levels of protein structure, protein denaturation; chromatography-introduction types membrane and detergents, electrophoresis/SDS PAGE- IEF and protein detection. Protein purification and sequencing.

**Immunogens:** Features, preparation, Antibodies- Immunoblotting, ELISA, Immunoprecipitation monoclonal antibodies.

**13 Hours**

**UNIT-III**

**Nucleic acids:** Structure and isolation of DNA and RNA; modifying DNA-Nucleases, restriction enzymes.

**Electrophoresis:** Agarose and PFGE. Blotting and hybridization: Northern blots and Southern : blots.

**Probes:** Radioactive and non-radioactive labelling;

**PCR:** Quantitative PCR and types of PCR;

**Recombinant DNA:** Vectors, ligation, identifying recombinants, expression of recombinant proteins, DNA sequencing.

**13 Hours**

#### **UNIT-IV**

**Computational Biology or Bioinformatics: Sequence alignments pair-wise sequence alignment. Database searching, BLAST search**

**Genomes and proteomes: Initial identification and characterization proteom identification, mixed peptide sequencing**

**12 Hours**

#### **References:**

- 1. Sambrook, J., Fritsch, E.F. and Meniates, T (2000): Molecular Cloning. CSHLPRESS. NY Glick. B.R., Pasternak J.J., 3rd Ed. (2003):**
- 2. Molecular Biotechnology: Principles and Application of Recombinant DNA. ASM Press, Washington DC**

#### **Course EP 2.8 : Elective Practical -II**

- 1. Isolation of DNA from Plant.**
- 2. Isolation of DNA from Animals/Human.**
- 3. Isolation of DNA from Microbe.**
- 4. Isolation of plasmid DNA.**
- 5. Quantification of DNA - Spectrophotometry, Agarose Gel Electrophoresis.**
- 6. PCR (Polymerase Chain Reaction).**
- 7. Restriction analysis of DNA.**
- 8. Preparation of competent cells and Transformation.**
- 9. Isolation of protein.**
- 10. SDS PAGE.**
- 11. Analysis of Protein and DNA sequence.**

**(New Experiments may be introduced each year)**

#### **References:**

- 1. Sambrook, J., Fritsch, E.F. and Meniates, T (2000): Molecular Cloning. CSHLPRESS. NY Glick. B.R., Pasternak J.J., 3rd Ed. (2003):**
- 2. Molecular Biotechnology: Principles and Application of Recombinant DNA. ASM Press, Washington DC.**

**(New Experiments may be introduced each year)**

### THIRD SEMESTER

#### **PG71T301- CT 3.1. GENETIC ENGINEERING**

**50 Hours**

Teaching hours per week:4

No. Of credits:4

##### **UNIT-I**

**General introduction to the concept of Genetic Engineering:** Milestones in genetic engineering; Isolation of enzymes, DNA sequencing: synthesis and mutation, detection and separation, cloning, gene expression. Patenting of life forms, genetic engineering guidelines

**Restriction Endonucleases:** Modification Methylases and other enzymes needed in genetic engineering

**Cloning vectors:** Plasmids and plasmid vectors, phages and phage vectors, phagemids, cosmids, artificial chromosome vectors (YAC, BAC, HAC), Animal virus derived vectors – SV40 and retroviral vectors.

**12 Hours**

##### **UNIT-II**

**Molecular cloning:** Recombinant DNA techniques, construction of genomic DNA and cDNA libraries, screening of recombinants. Expression strategies for heterologous genes.

**DNA analysis:** labeling of DNA and RNA probes. Southern blotting and fluorescence in situ hybridization, DNA fingerprinting, chromosome walking.

**13 Hours**

##### **UNIT -III**

**Analysis of gene expression:** Northern and Western blotting, gel retardation technique, DNA footprinting, Primer extension, S1 mapping, Reporter assays, RT-PCR and micro array.

**DNA Sequencing:** chemical synthesis of oligonucleotides; techniques of *invitro* mutagenesis, Site-directed mutagenesis, gene replacement and gene targeting. Polymerase chain reaction and its applications.

**13 Hours**

##### **UNIT-IV**

**Use of transposons in genetic analysis:** Transposon tagging and its use in identification and isolation of genes

**Applications of genetic engineering:** Transgenic animals, production of pharmaceuticals, gene therapy, disease diagnosis

**Biosafety regulation:** Physical and Biological containment

**12 Hours**

#### **References:**

1. Molecular Cloning: A laboratory manual, J. Sambrook, E.F. Fritsch and T. Maniatis. Cold Spring Harbor Laboratory Press, New York, 2000.
2. DNA cloning: A practical Approach, D.M. Glover and B.D. Hames, IRL Press, Oxford. 1995.
3. Molecular and Cellular Methods in Biology and Medicine P.B. Kaufman, W.Wu. D. Kim and L.J. Cseke, CRC Press, Florida, 1995
4. Methods in Enzymology, Guide to Molecular Cloning Techniques vol. 152. S.L. Berger and A.R. Kimmel, Academic Press Inc., San Diego, 1996.

5. Methods in Enzymology, vol. 185. Gene Expression technology D.V. Goeddel. Academic Press Inc. San Diego, 1990.
6. DNA Science: A first course in Recombinant Technology, D.A. Mickloss and G.A. Freyer, Cold Spring Harbor Laboratory Press, New York. 1990.
7. Molecular Biotechnology 2<sup>nd</sup> Edn., S.B. Primrose, Blackwell Scientific Publishers Oxford, 1994.
8. Milestones in Biotechnology, Classic papers on genetic Engineering, J.A. Davies and W.S. Reznikoff-Butterworth Heinemann, Boston, 1992.
9. Route Maps in Gene Technology, M.R. Walker and R. Rapley, Blackwell Science Ltd. Oxford. 1997.
10. Genetic Engineering: An introduction to gene analysis and Exploitation in Eukaryotes, S.M. Kingsman and A.J. Kingsman, Blackwell Scientific Publications, Oxford, 1998.
11. Molecular Biotechnology-Glick

### **PG71T302- CT 3.2. MICROBIAL GENETICS AND TECHNOLOGY (50 Hours)**

Teaching hours per week : 4

No. Of credits: 4

#### **UNIT-I**

**Metabolic regulation in bacteria:** Microbial metabolism, catabolism, EMP, PP, ED, PK pathway in brief; TCA cycle, respiration and fermentation. Anabolism-biosynthesis of nucleic acids, proteins, peptidoglycan and lipids in brief. Metabolic regulation: Modification of enzyme activity, control of enzyme synthesis, mechanism of general regulation. Secondary metabolism and its control, non-ribosomal peptide synthesis, auto regulation, end-product regulation, inducible effects, nitrogen and phosphate regulation. Use of metabolic Inhibitors and tracer techniques in the investigation of metabolic pathways.

**Mutagenesis in bacteria:** Isogenic strains, types of mutants- auxotrophic and antibiotic mutants; mutagenic agents and mechanism of action of mutagens; isolation and characterization of mutants, replica plating; reversion and suppression. **13 Hours**

#### **UNIT-II**

**Plasmid biology:** Types of plasmids, plasmids, isolation and purification of plasmid DNA, transfer of plasmid DNA, in vitro plasmid transfer, plasmid replication. Properties of F plasmid, R plasmid, Col plasmids, Ti plasmid, broad host range plasmids and other plasmids.

**Transposable genetic elements:** IS elements, detection of transposition, Transposition mechanism, and excision of transposons, phage mu, transposition and evolution.

**Recombination in bacteria:** Transformation biology of transformation, molecular mechanism, transformation mapping and other applications. Conjugation-F factor, Hfr transfer and mapping. Recombination in recipient cells, Rec mutants-properties, rec protein and function. Transduction- generalized and specialized transduction, transduction and mapping and its role as cloning vehicle. **12 Hours**

#### **UNIT-III**

**Phage genetics:** Phage genetic material, phage mutants. T4 phage and its life cycle. Genetic recombination and mapping in T4 phage Lambda phage-gene organization, lytic cycle, transcription, replication and recombination in lambda phage and non essential genes.

Lysogeny-immunity and excision and other modes of lysogeny. Lambda phage and carcinogen screening.

**Fine structure analysis of gene:** One gene one enzyme hypothesis. Arginine biosynthesis in *Neurospora*, colinearity between gene and protein Tryptophan synthase gene in *E. Coli*. Genetic analysis of rII region of T4 phage and cistron concept. **12 Hours**

#### **Unit-IV**

**Genetic improvement of industrial microorganisms:** Screening selection and genetic improvement of industrial culture. Mutation and screening-random and rational screening. Use of recombinant DNA technology in SIP. Problem associated with SIOP. Improvement of character other than product. Importance of media in SIP.

**Industrial fermentation:** Industrial fermentation and production of organic acids, amino acids, antibiotics, alcohol, enzymes, polymers, biomass, solvents, steroids and vitamins. Recent advances in industrial products using microbes: Biosensors, biochips, biofertilizers, bioplastic and bioremediation, immobilized cells and enzymes. **13 Hours**

#### **References:**

1. Maylor, S.R., Cronan, J.E., Freifelder, D. (1994): Microbial Genetics 2<sup>nd</sup> Edn. Jones and Bartlett Pub. Boston.
2. Hayes, W. (1968): Genetics of bacteria and their viruses, 2<sup>nd</sup> Ed. John Wiley and Sons N.Y.
3. Dale, J.W. (1994): Molecular genetics of bacteria, 2<sup>nd</sup> John Wiley and Sons N.Y.
4. Synder, L and Champness, W. (1997): Molecular genetics of bacteria ASM Press, Washinton.
5. Glazer, A.N., and Nikaido, H. (1995): Microbial Biotechnology, W.H. Freeman N.Y.
6. Stanbury, P.F. and Whitaker, A. (1984): Principles of fermentation Technology, Pergamon Press Ltd. London.

#### **PG71T303- CT 3.3. HUMAN GENETICS AND GENETIC COUNSELLING (50 Hours)**

Teaching hours per week : 4

No. Of credits : 4

##### **UNIT -I**

**Meaning and scope of Human Genetics:** Historical development of human Genetics. Its relationship with other Biological sciences and medicine.

**Patterns of monogenic inheritance:** Pedigree construction Autosomal inheritance, sex linked inheritance. Other modes of inheritance- mitochondrial genes, genomic imprinting, uniparental disomy.

**Patterns of polygenic and multifactorial inheritance:** Continuous and discontinuous traits, Multifactorial threshold traits Pyloric stenosis, Neural tube defect. Congenital heart defects. Complex disorders of adult life. **12 Hours**

## UNIT-II

**Human cytogenetics:** Normal human karyotype, sex chromosomes, chromosome preparation methods- Leucocyte culture, bone marrow, solid tissue, testicular and ovarian biopsies. Chromosome banding methods and nomenclature of chromosome bands. Autosomal abnormalities- abnormalities of chromosome number and structure. Sex chromosomal abnormalities.

**Gene mapping and linkage analysis:** Physical mapping of human genes- somatic cell genetics, mapping by gene dosage, FISH and high resolution mapping approaches. Detection and measurement of linkage in humans. Linkage maps and its applications. Human genome project- organizations and goals. Genome organization Nuclear and mitochondrial genome, gene families. Mapping strategies, current status. Human genome diversity and comparative genomics.

**13 Hours**

## UNIT-III

**Biochemical genetics:** Biochemical and molecular basis of human diseases. Inborn errors of metabolism- amino acid, carbohydrate and nucleic acid metabolisms. Haemoglobinopathies- globin gene mutation and genetic disorders. Lysosomal and other genetic disorders.

**Genetics of Cancer:** Forms of cancer, genetic basis and properties of cancer cells, clonal nature, oncogenes, tumor suppressor genes. Familial cancer, cancer cytogenetics, chemical and radiation carcinogenesis.

**13 Hours**

## UNIT-IV

**Applied Human Genetics:** Prevention and cure of hereditary diseases: prenatal diagnosis and preimplantation diagnosis, amniocentesis, chorion villi sampling, ultrasonography, cytogenetic and biochemical analysis Genetic screening of hereditary diseases, gene therapy. DNA fingerprinting and paternity diagnosis. Eugenics.

**Genetic Counseling:** Meaning, Objectives and goals. Process of genetic counselling, diagnosis, family history calculating the risk, discussing the options, genetic testing of children, carrier detection, ethical and legal aspects.

**12 Hours**

## References:

1. Thompson, M.W., Mc. Innes, R.R., Willard, M.F. (1991), 5 Edn W.B. Saunders and Co. London.
2. ISCN (1995): An international system for human cytogenetic nomenclature. F. Mittleman Karger, Freiburg.
3. Mange, E.J. and Mange, A.P. (1999): Basic Human Genetics, 2 Ed. Sinauer Assoc. Inc. Mass.
4. Pasternak, S. (2000): Introduction to molecular human genetics, Fritzgarland.
5. Limoine, W.R. and Cooper D.NB (1996): Gene Trophy, Bios Scientific Pub. Oxford.
6. Snustad, D.P., and Simmons, M.J. (2003): Principles of Genetics 3<sup>rd</sup> ed. John Wiley and Sons Inc. N.Y.
7. Conner, J.M. and Smith, MAF (2000): Essential Medical Genetics Blackwell Sci. Pub. Oxford.

### **Courses in Practicals CP 3.4, CP 3.5, CP 3.6:**

**Contact hours per week:4**  
**No. of credits:2**

#### **PG71P301- CP. 3.4 PRACTICAL-I**

1. Bacterial culture and antibiotic selection media. Preparation of competent cells
2. Isolation of plasmid DNA
3. Quantification of plasmid DNA
4. Agarose gel electrophoresis and restriction mapping of DNA
5. Construction of restriction map of plasmid DNA
6. Cloning in plasmid vectors
7. Preparation of single stranded DNA template
8. DNA sequencing
9. Gene expression in *E.coli* and analysis of gene product
10. PCR
11. Reporter gene assay (GUS/CAT/a-GAL)
12. Gene silencing (Demonstration using teaching kit)

**(New Experiments may be introduced each year)**

#### **References:**

1. Molecular Cloning: A laboratory manual, J. Sambrook, E.F. Fritsch and T. Maniatis. Cold Spring Harbor Laboratory Press, New York, 2000.
2. DNA cloning: A practical Approach, D.M. Glover and B.D. Hames, IRL Press, Oxford. 1995.
3. Molecular and Cellular Methods in Biology and Medicine P.B. Kaufman, W.Wu. D. Kim and L.J. Cseke, CRC Press, Florida, 1995.
4. Methods in Enzymology, Guide to Molecular Cloning Techniques vol. 152. S.L. Berger and A.R. Kimmel, Academic Press Inc., San Diego, 1996.
5. Methods in Enzymology, vol. 185, Gene Expression technology D.V. Goeddel. Academic Press Inc. San Diego, 1990.
6. DNA Science: A first course in Recombinant Technology, D.A. Mickloss and G.A. Freyer, Cold Spring Harbor Laboratory Press, New York. 1990.

#### **PG71P302-CP.3.5 PRACTICAL-II**

1. Induction and characterization of mutants in bacteria
2. UV-dose survival curve in bacteria
3. Conjugation in bacteria
4. Isolation of plasmid
5. Transformation in bacteria
6. Microbial fermentation.
7. Microbiological assay of Vitamins.
8. Estimation of Vitamin C by 2,4-dinitro-phenyl hydrazine method.
9. Estimation of Vitamin A by calorimetric method.

10. Estimation of Calcium, Phosphorus and Iron. Estimation of Nitrogen by Microjeldahl's method.
11. Estimation of Lipids
12. Estimation of Carbon content
13. Analysis of water

**(New Experiments may be introduced each year)**

**References:**

1. Dale, J.W. (1994): Molecular genetics of bacteria, 2d John Wiley and Sons N.Y.
2. Glazer, A.N., and Nikaido, H. (1995): Microbial Biotechnology, W.H. Freeman N.Y.
3. Streptis and Yasbin (2001) Modern Microbial Genetics, Niley Ltd.

**PG71P303 - CP. 3.6 PRACTICAL-III**

1. Detection of inborn errors of metabolism.
2. Identification of ABO and Rh blood group alleles.
3. Estimation of Hemoglobin
4. Estimation of Lipid Profile (HDL, LDL, VLDL).
5. Culture of human leucocytes and chromosomal preparations
6. Human Karyotyping
7. Chromosomal abnormalities in some human syndromes
8. Cytogenetic characterization of cancerous cells
9. In vitro fertilization and embryo transfer (demonstration)
10. Genetic counseling methods based on case history.
11. Assessment of inheritance of quantitative characters.
12. Study of sex chromatin in humans.

**(New Experiments may be introduced each year)**

**References:**

1. ISCN (1995): An international system for human cytogenetic nomenclature, F. Mittleman Karger, Freiburg.
2. Mange, E.J. and Mange, A.P. (1999): Basic Human Genetics, 2<sup>nd</sup> Ed. Sinauer Assoc. Inc. Mass.
3. Pasternak, S. (2000): Introduction to molecular human genetics, Fritzgarland. Limoine, W.R. and Cooper, D.NB (1996): Gene Trophy, Bios Scientific Pub. Oxford.
4. Snustad, D.P., and Simmons, M.J. (2003): Principles of Genetics 3d ed. John Wiley and Sons Inc. N.Y.
5. Conner, J.M. and Smith, MAF (2000): Essential Medical Genetics Blackwell Sci. Pub. Oxford.
6. Stacy L Blachford (Editor) (2001). The Gale Encyclopedia of Genetic Disorders. Gale Group Publishers, Vol. 1 (A-L), Vol. II (M-Z)

**Course ET 3.7 (For the Student of other Departments)**

**Course ET 3.8 (For the Student of other Departments)**

## FOURTH SEMESTER

### PG71T401- CT 4.1 BIOINFORMATICS

50 Hours

Teaching hours per week:4

No. of credits:4

#### UNIT-I

**Information Theory and Biology:** Concepts of probability, joint probability, conditional probability. Shannon Entropy and Information, Mutual information, Information theory, Bayes theorem, Markov chains, Hidden Markov Models, applications to DNA and protein sequences.

**Biological Databases:** Introduction. Construction, file formats, contents, search and retrieval tools of various biological databases: GenBank, SwissProt, Protein Data Bank, PubMed, Online Mendelian Inheritance in Man, Species 2000, KEGG pathway database, Gene Expression Omnibus, prosite, BLOCKS, Structural Classification of Proteins (SCOP) Database.

13 Hours

#### UNIT-II

Pair wise Sequence Alignment and database sequence similarity search: Meaning of Sequence alignment, pairwise sequence alignment, Global alignment, Local Alignment, Dynamic Programming Method, Needleman Wunsch algorithm, Smith - Waterman algorithm, Substitution matrices - Unitary matrix, PAM and BLOSUM matrices, Gap penalties, Evolutionary basis and significance of sequence alignment. Sequence similarity search methods for DNA and protein sequences, their significance.

- a. FASTA- Algorithm, Parameters, Output and interpretation of results, Versions of FASTA.
- b. BLAST - Parameters, Output and interpretation of results, Versions of Algorithm, BLAST.
- c. PSI-BLAST and PHI-BLAST.

12 Hours

#### UNIT-III

**Multiple Sequence Alignment:** Meaning of Multiple Sequence Alignment, Global Multiple Sequence Alignment: Progressive Alignment method CLUSTALW. Local Multiple sequence Alignment: Profile Analysis, Block Analysis. Significance of Multiple Sequence Alignment. Multiple Sequence Alignment editors: JalView, GeneDoc, CLUSTALX, Boxshade.

**Molecular Phylogenetics:** Meaning of phylogenetic analysis. Relationship between Multiple Sequence Alignment and Phylogenetic Analysis. Meaning and significance of evolutionary trees. Methods of phylogenetic prediction: Distance based methods: Fitch Margoliash method, Neighbor joining method, Unweighted pair group method with arithmetic mean. Maximum Parsimony method, Maximum Likelihood method. Reliability of phylogenetic predictions, uses of phylogenetic analysis.

Commonly used phylogenetic analysis programs: PHYLIP and PAUP.

12 Hours

#### UNIT-IV

**Genome Databases and Genome Analysis:** Genomic sequence databases; GOLD, human genome sequence database, Mouse Genome database, Arabidopsis genome resource, E.coli genome database. Genome sequence analysis. Principle, salient features and drawbacks of methods of gene prediction/gene modeling: GRAIL, GENEMARK, GLIMMER. Promoter prediction methods. salient features and drawbacks of methods of genome comparison: MUMMER, significance of comparative genomics. Microarrays: Principle, construction and applications.

**Protein Structure Prediction:** Principle, salient features and drawbacks of methods of prediction of protein secondary structure: Chou-Fasman, GOR, PSI-PRED, PROF, PHD. Principle, salient features and drawbacks of methods of prediction of tertiary structure of proteins: Comparative protein modeling, threading and ab initio structure prediction.

#### References:

1. Durbin, Eddy, Krogh and Mitchinson (2004): Biological Sequence Analysis: Probabilistic Models of Proteins and Nucleic Acids. Allied Publishers
2. Nucleic Acids Research, Database Issue, Oxford University Press. 15th January every year.
3. David W. Mount (2005): Bioinformatics Sequence and Genome Analysis, 2 Edition. Cold Spring Harbor Laboratory Press, USA / CBS Publishers, India.
4. Silberschatz, Korth and Sudarshan (2005): Database Concepts, 4th Edition.
5. TA Brown (2003): Genomes. John Wiley and Sons Publishers.

## **PG71T402- CT 4.2. IMMUNOGENETICS AND IMMUNOTECHNOLOGY (50Hours)**

Teaching hours per week: 4

No. of credits: 4

### **UNIT I**

**Introduction:** Phylogeny of Immune system, innate and acquired immunity, clonal nature of immune response.

**Cells and Organs of Immune system:** Hematopoiesis, Immune system cells: Lymphoid cells, Mononuclear cells, Granulocytic cells; organs of the immune system, primary and secondary lymphoid organs, B-Cell receptor

**Antigens:** Factors that influence immunogenicity, epitope Properties of B-Cell epitope and T-cell epitope (Eptope)

14 Hours

### **UNIT-II**

**Immunoglobulin Genes:** Genetic model compatible with Ig structure, mutagenic organization of Ig genes, Gene arrangements, Generation of antibody diversity, expression of Ig genes, regulation of Ig gene transcription

**Immune response to infectious diseases:** Viral, Bacterial and Protozoan diseases: Autoimmunity. Immunodeficiency diseases, Phagocytic, Humoral, Cell-mediated and combined immunodeficiency.

12 Hours

### **UNIT-III**

**Immune systems and AIDS:** The immune system in AIDS, HIV, diagnosis of HIV infection and AIDS, immunological abnormalities in AIDS, development of an AIDS vaccine.

**Transplantation immunology:** Immunological basis of graft rejection, MHC and HLA polymorphism tissue typing, general and specific immunosuppressive therapy; Cancer and Immune system: tumors of the immune system, tumor antigens, Immune response to tumor, cancer immunotherapy.

12 Hours

### **UNIT-IV**

**Immunotechnology:** Introduction, production of polyclonal and monoclonal antibodies, engineered antibodies: purification and fragmentation of immunoglobins; immunoprecipitation, labeling antibodies; immunoblotting and immunoassay; immunohistochemistry

12 Hours

**References:**

1. Immunology, Janis Kuby, 3<sup>rd</sup> ed. W.H. Freeman and Co., (1997)
2. Kuby Immunology, 4<sup>th</sup> ed., R.A. Goldsby, Thomas. J. Kindt, Barbara A. Osborne (Freeman)
3. Immunology, A short Course, 4<sup>th</sup> ed, Eli Benjamin, Richard Coico, Geoffrey Sunshine (Wiley-Liss)
4. Fundamentals of Immunology, William Paul.
5. Immunology by Roitt and others.

## PG71T403- CT 4.3. MOLECULAR DIAGNOSIS AND MOLECULAR MEDICINE

Teaching hours per week:4

No. of credits: 4

### UNIT-I

**Introduction to Molecular Basis of Diagnosis:** Discovering human disease genes, cloning human disease genes. Functional and, positional cloning of candidate gene

**DNA Diagnostic Systems:** Polymerase Chain Reaction (PCR) Techniques, DNA, RNA and Protein blotting, Reverse line blotting, Hybridization probes, non radioactive hybridization procedures, molecular beacons, DNA fingerprinting, Single Nucleotide Polymorphisms (SNP), Restriction Fragment Length Polymorphisms (RFLP), Randomly Amplified Polymorphic DNA (RAPD), Pedlock probes, genotyping with fluorescence labelled PCR primers. DNA micro-array.

14 Hours

### UNIT-II

**Molecular Diagnosis of Genetic disease:** Direct detection of mutations in Human disease genes-Single strand conformation, polymorphism analysis, Sensitive conformation gel electrophoresis., Denaturing Gradient Gel Electrophoresis, Heteroduplex analysis, Chemical mismatch cleavage., Direct DNA sequencing, Protein truncation test, Linkage analysis. Examples-Sickle Cell anaemia, Hemophilia etc.

12 Hours

### UNIT-III

**Molecular Cytogenetics:** Basic Principles of FISH, Steps in typical FISH procedure, signal amplification procedure, other systems of FISH: Comparative Genomic Hybridization (CGH) Molecular FISH, Primed in situ hybridization (PRINS) and In situ PCR.

**Applications of FISH:** Probes hybridizing to unique sequences Prader Willi syndrome, Angelman syndrome, translocations.(Probes hybridizing to entire chromosomes) Chromosome painting, chromosome in situ suppression (CISS), reverse painting.

12 Hours

### UNIT-IV

Concepts and perspectives of molecular Medicine: Basic Biochemistry, Molecular Biology and Genetics relevant to Molecular Medicine. Human Genome: Implications and applications Gene Therapy as a potential tool to cure human diseases. Recombinant molecules in medicine.

Transgenic and knockout animal models. Stem cell research and its application in human health. Intellectual property Right (IRP) Issues and Ethical Legal, and Social (ELSI).

12 Hours

## References

1. Gelehrter R.D., Collins F.S. and Ginsburg D. (1998) Principles of Medical Genetics, Baltimore, Williams and Wilkins
2. Kingston H.(1994) An ABC of Clinical Genetics, London, BMJ publishing.
3. Thompson M. and Mcinnes J. (1998) Genetics in Medicine, Philadelphia, Saunders
4. King R.A., Rotter J.I. and Motulsky A.G. (1992) The Genetic Basis of common diseases Oxford, Oxford University Press
5. Jameson, L.J. (ED) (1998) Principles of Molecular Medicine, New Jersey, Humana.
6. Strachan T. and Reid A.P (1996) Human Molecular Genetics, Oxford Bios.
7. Trent R.J., (1997) Molecular Medicine an Introductory Text. Edinburg Churchill Livingstone.
8. Krawczak M. and Schmidtke J. (1994) DNA Fingerprinting, Oxford, Bios.
9. Desnick R.J. (ed.) (1991) Treatment of Genetic diseases.London, Churchill Livingstone  
Report on the Ethics or Gene Therapy (1992) London. HMSO. A clear and simple review covering the general principles as well as the ethics

### **Courses in Practicals CP 4.4, CP 4.5, CP 4.6:**

Contact hours per week: 4

No. Of credits:2

#### **PG71P401- CP. 4.4 PRACTICAL I**

1. Literature database search: Pub Med. (I Session)
2. Database search and retrieval using keywords: GenBank, WISS-FrOL, PDB, OMIM, KEGG, GEO, ProSite, GOLD (4 Sessions)
3. Pairwise sequence alignment: using GAP and SIM algorithms, (I Session)
4. Sequence search and retrieval using BLAST, (( Session)
5. Sequence search and retrieval using FASTA, (I Session)
6. Multiple sequence alignment: Using CLUSTAL W. (I Session)
7. Phylogenetic analysis using Phylip or PAUP (1 Session)
8. Gene prediction using algorithms like GRAIL, GLIMER, GENEMARK, (1I Session)
9. Genome comparison using MUMMER (I Session)
10. Protein Structure prediction using algorithms like GOR, PSI-Pred, PROF, PHD.(I Session)

#### **References:**

1. Durbin, Eddy, Krogh and Mitchinson (2004): Biological Sequence Analysis: Probabilistic Models of Proteins and Nucleic Acids. Allied Publishers.
2. Nucleic Acids Research, Database Issue, Oxford University Press. 15th January every year.
3. David W. Mount (2005): Bioinformatics Sequence and Genome Analysis, 2nd Edition. Cold Spring Harbor Laboratory Press, USA / CBS Publishers, India.

#### **PG71P402- CP. 4.5 PRACTICAL-II**

1. Blood film Preparation and identification of cells
2. Lymphoid organs and their structured organization
3. Immunization, collection of serum
4. Double diffusion and immuno- electrophoresis
5. Radial immuno diffusion
6. Purification of IgG from serum
7. Separation of mononuclear cells by Ficoll- Hypaque method

8. Con-A induced proliferation of thymocytes (by MIT method)
9. Western-blotting
10. ELISA
11. Hapten conjugation and quantization
12. Immunodiagnostics (demonstration using commercial kits)

**References:**

1. Gordon J.R., (1998). A Practical Guide to Cellular and Molecular Methods in Immunology. Gordon Publishers.

**PG71P403- CP. 4.6 PRACTICAL-III**

1. Polymerase Chain Reaction (PCR)
2. Detection of HIV in serum (ELISA Method)
3. Detection of HIV using PCR primers.
4. Detection of HPV using InnoLipa Kit method
5. Detection of Hemophilia and Sickle cell anemia mutations by SSCP/SCGE
6. Human DNA fingerprinting.
7. FISH demonstration.

**References:**

1. Molecular Cloning: A laboratory manual, J. Sambrook, E.F. Fritsch and T. Maniatis. Cold Spring Harbor Laboratory Press, New York, 2000.

**KARNATAK UNIVERSITY, DHARWAD**



Regulations and Syllabus (Revised) For M.Sc. Course

In

BIOCHEMISTRY (I to IV Semesters)

Under Choice Based Credit System (CBCS)

**From  
2019-20 onwards**

Regulations Governing Post-Graduate Programmes in the Faculty of Science and Technology Under Choice-Based Credit Scheme (CBCS)  
(framed under Section 14(1)(c) of K.S.U. Act, 2000)

### 1.0 Title

These Regulations shall be called “Regulations “governing the Post-Graduate Programmes in the Faculty of Science & Technology under the Choice Based Credit System” in Karnatak University, Dharwad.

### 2.0 Commencement

These Regulations shall come into force with effect from the academic year 2018-19

### 3.0 Definitions

- a In these Regulations, unless otherwise provided: “Academic Council” means Academic Council of the University constituted according to the *Karnatak State Universities Act, 2000*.
- b “ Board of Studies” means P.G. Board of Studies of the University, Adhoc/Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.
- c. “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d Course Weightage” means number of credits assigned to a particular course.
- e. “Credit means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f “Cumulative Grade point Average (CCPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g. “Degree” means Post-Graduated Degree.
- h “ Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i “ Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- k. “Post-Graduate Programme” means semesterised Master’s Degree Programmes excluding P.G. Diploma.
- l. “ Specialization course means advanced paper offered by a Department that a student of that Department can opt as a special course.
- m. “Student” means the student admitted to programmes under (k).
- n. “ University” means Karnatak University, Dharwad.

#### **4.0 Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor's Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0 Durations of the Programme**

The Durations of the study for the Post-Graduate programme shall extended over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed and complete the programme with due approval from the Registrar. Candidate shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the durations of P.G. Programme.

#### **6.0 Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

**7.1** The students of Post-Graduate programme shall study the courses as may be approved by the concerned Board of Studies. Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

**7.2** There shall be three categories of courses namely, Compulsory Courses. Specialization courses and Open Elective Courses.

**7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.

**7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

**7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centres and affiliated colleges, can offer those Open Electives Courses which are approved of prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.

**7.6** The credits for each of the Compulsory Courses may vary from 2 to 4: for Specialization Course, from 2 to 4 and for Open Elective Course, from 2 to 4, wherever project work/field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.

**7.7** The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.

**7.8** The students shall undertake project/field work during the programme as compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by concerned Board of Studies.

**7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department

**7.10** The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure-Ia& Annexure-Ib

**7.11** The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

## **8.0 Attendance**

**8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.

**8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching /practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

**8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

**8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75% of the total number of instructional hours during the semester.

**8.5** There is no provision for condoning shortage of attendance.

**8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission a fresh to the given semester.

**8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0. Examination**

**9.1** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/P.G. Centres/Colleges. The even semester examinations shall be conducted by the University.

**9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks practical examination.

**9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.

**9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at 1<sup>st</sup> semester-end examination. That will be the Register Number of the candidate for all subsequent appearances at semester-end examinations.

**9.1.4.** The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.

**9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).

**9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/courses shall appear for such course/courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

**9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

**9.2.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**9.2.2** The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation)

**9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/P.G. Centres/Colleges who shall conduct the Examinations according to the Schedule announced by the University.

**9.2.4** The Chairperson of the Department/Administrator of the P.G. Centre/Principal of the College shall appoint one of their fulltime course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.

**9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.

**9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.

**9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centres.

**9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

**9.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/Research Institutes.

**9.3.3.** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averages with nearer award of the two evaluations.

Provided that in case of the number of answer scripts referred to the third examiner in a course exceeds of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be

valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4.** Wherever dissertation/project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In Case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

**9.4.1.** Each Course shall have two evaluation components- Internal Assessment (IA) and the Semester End Exams.

**9.4.2.** The IA Component in a course shall carry 25% / 30% /50% and the Semester End Examination shall carry 75% /70% /50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3.** Marks for attendance shall be awarded to the students according to the following table.

For courses carrying 25% of marks for IA, the attendance marks shall be

Attendance (in percentage)	Marks
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

**9.4.4.** Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

**9.4.5.** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6.** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7.** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8.** The IA records, pertaining to Semester Examination, shall be preserved by the department/Centres/Colleges for a period of one year from the date of semester examination. These records may be called by the University or body constituted by the University as and when deemed necessary.

**9.4.9.** The dissertation/project work viva-voce shall be conducted by an internal and external examiner.

#### **10.0 Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

## 11.0 Declaration of Results

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case of the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in stipulated time (vide Regulation 5) or had applied for improvement of results.

## 12.0 Marks, Credit Points, Grade points, Grades and Grade Point Average

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75%	6.00 and above but less than 07.5	B
50 and above but less than 60%	5.00 and above but less than 6.0	C
40 and above but less than 50%	4.00 and above but less than 5.00	D
Less than 40%	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters.

The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester=

Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester=

Sum of the CP of the Sem ÷ Sum of the CP of II Sem ÷ Sum of the Credits of the I Semester ÷ II Semester

CGPA for the III and IV Semester shall be computed accordingly.

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in

each course, the grade letter and the grade point average. No. class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade point Average.

**12.6.** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below.

Cumulative Grade Point Average (CGPA)	Class to be awarded
7.5 to 10.0	First Class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

- a) Notwithstanding anything contained in these regulations, the semester system at Post- Graduate level is hereby repeated.
- b) The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c) The University shall issue such order, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d) The procedural details may be given by the University from time to time.
- e) Any unforeseen problems/difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

The Programme structure of the Master of Science Degree shall be as follows:

Semester	No. of compulsory & Specialization courses (credit s/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course	Total credits of open elective course	Total credits for the semester
Sem. I	Th:04(04)=16 Pra/Th*:04(02)=08	24	----	--	24
Sem.II	Th:03(04)=12 Pra/Th*:03(02)	18	Th:01(04)=04	04	22
Sem.III	Th:03(04)=12 Pra/Th*:03(02)	18	Th:01(04)=04	04	22
Sem.IV	Th:03/04** (04)=12/16 Pra/Th:03/04**(02) =06/08 Pj# 01(06)=06	24		--	24
Total	Th 13/ 04= 52 Pra 13/ 02=26 24/26 Pj 1(06)=06	82	02(04)=08	08	92

\*Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics  
Abbreviations: Th=Theory; Pra=Practical; Pj=Project;

Programme: M.Sc. ( )  
Name of the Candidate:.....  
Seat No:

Semester: IV  
Month & Year:

Course	Course Code	Credit	IA Marks	Theory/ Practical	Max	Marks obtained	Semester Grade point	Credit Points
--------	-------------	--------	----------	----------------------	-----	-------------------	----------------------------	------------------

			Max	Obt	Max	Obt				
Compulsory Courses										
Course-I	XXCT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course-II	XXCT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course-III	XXCT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course-IV	XXCT 4.4	02	15	06	35	34	50	40	8.00	16.00
Course-V	XXCT 4.5	02	15	06	35	34	50	40	8.00	16.00
Course-VI	XXCT 4.6	02	15	06	35	34	50	40	8.00	16.00
Course-VII	XXCPJ <sup>#</sup> 4.7	06	25	20	125	100	150	120	8.00	48.00
<i>Or</i>										<i>Or</i>
Course-VI	XXCT* 4.7	04	25	15	75	28	100	43	4.30	17.20
Course-VIII	XXCP <sup>+</sup> /CT <sup>ψ</sup> 4.8	02	15	05	35	35	50	40	8.00	16.00
Total		24					600			200.00/ 185.00

XX refers to course abbreviations, 4.1 refers to IV semester course 1; e.g. CHI CT 1.1=chemistry Inorganic compulsory theory 1.1

# except for Mathematics and Statistics; \* For Statistics and mathematics; + Only for Statistics;

ψ Only for Mathematics

GPA for IV Semester-  $CP(IV \text{ Sem})/Credits(IV \text{ Sem})=200/24.00=8.33$

GPA for I Semester= $CP(I \text{ Sem})/Credits (I \text{ Sem})$

CGPA for I Semester=GPA for I Semester

$CP (ISem)+CP (IISem)$

CGPA for II Sem= $\frac{CP (ISem)+CP (IISem)}{Credits (I \text{ Sem})+ Credits (II \text{ Sem})}$

$Credits (I \text{ Sem})+ Credits (II \text{ Sem})$

$CP (ISem)+CP (IISem)+CP (III \text{ Sem})$

CGPA for III Sem= $\frac{CP (ISem)+CP (IISem)+CP (III \text{ Sem})}{Credits (I \text{ Sem})+ Credits (II \text{ Sem})+Credits (III \text{ Sem})}$

$Credits (I \text{ Sem})+ Credits (II \text{ Sem})+Credits (III \text{ Sem})$

$CP (ISem)+CP (IISem)+CP (III \text{ Sem})+ CP(IV \text{ Sem})$

CGPA for the Programme =  $\frac{CP (ISem)+CP (IISem)+CP (III \text{ Sem})+ CP(IV \text{ Sem})}{Credits (I \text{ Sem})+ Credits (II \text{ Sem})+Credits (III \text{ Sem})+ Credits (IV \text{ Sem})}$

$Credits (I \text{ Sem})+ Credits (II \text{ Sem})+Credits (III \text{ Sem})+ Credits (IV \text{ Sem})$

(\*CP: Credit Points)

## KARNATAK UNIVERSITY, DHARWAD

### P.G. DEPARTMENT OF STUDIES IN BIOCHEMSITRY

The Post-graduate studies in Biochemistry was started in the Karnatak University as a division in the Department of chemistry during the year 1970, and it was separated as an independent Department of Biochemistry in 1997. Since then, teaching and research in Biochemistry to train M.Sc. and Ph.D degree students have been the major thrust of department. The teaching programme is designed to give our students current awareness in the wide ranging allied subjects with in-depth study of core biochemistry. Consequently, many of our students successfully completed National Level Examination like NET of

UGC/CSIR and GATE. The excellent training given to the students has helped them to be placed in National/International Research Laboratories and Pharmaceutical companies, Medical, Dental, Agricultural colleges and Universities in the Country and Abroad. The department has several national and international collaborative research projects. The major thrust areas of research in the department include Lectins and Glycobiology, Environmental Biotechnology, Enzymology, Antiviral Protein Biochemistry and Clinical Biochemistry and Toxicology.

## M.Sc. Degree in Biochemistry

The department offers two years M.Sc. course in Biochemistry of four semester with Choice Based Credit System (CBCS). The following are the Regulations governing the M.Sc. course in Biochemistry offered by Karnatak University under Choice Based Credit System (KU-CBCS) from the academic year 2008-09.

### a. Course structure and scheme of Examination for M.Sc. Biochemistry semester I, II, III & IV

#### I SEMESTER

Sl. No.	Paper Code No. and Title Compulsory Courses and Open Elective Course	Credits	No. of Hrs/week Theory /Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory /Practical	Marks at the Exams	Total marks
Theory							
1	CT 1.1 Basic Biochemistry	4	4	3	25	75	100
2	CT1.2 Analytical Biochemistry	4	4	3	25	75	100
3	CT 1.3 Physiology & Nutrition	4	4	3	25	75	100
4	CT 1.4 Cell Biology	4	4	3	25	75	100
Practicals							
1	CP 1.5: Basic Biochemistry Practicals	2	4	4	10	40	50
2	CP1.6: Analytical Biochemistry Practicals	2	4	4	10	40	50
3	CP 1.7: Physiology and Nutrition Practicals	2	4	4	10	40	50
4	CP 1.8: Cell Biology Practicals	2	4	4	10	40	50

#### II SEMESTER

Sl. No.	Paper Code No. and Title	Credits	No. of Hrs/week Theory /Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory	Marks at the Exams	Total marks
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					/Practical		
Theory							
1	CT 2.1 Biomolecules	4	4	3	25	75	100
2	CT 2.2 Enzymology	4	4	3	25	75	100
3	CT 2.3 Microbial Biochemistry	4	4	3	25	75	100
4	ET 2.1 Biochemical techniques	4	4	3	25	75	100
Practicals							
1	CP 2.4: Biomolecules Practicals	2	4	4	10	40	50
2	CP 2.5: Enzymology Practicals	2	4	4	10	40	50
3	CP 2.6: Microbial Biochemistry Practicals	2	4	4	10	40	50

### III SEMESTER

Sl. No.	Paper Code No. and Title	Credits	No. of Hrs/week Theory /Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total marks
Theory							
1	CT 3.1 Metabolism-I	4	4	3	25	75	100
2	CT 3.2 Metabolism-II	4	4	3	25	75	100
3	CT 3.3 Medical Biochemistry &Endocrinology	4	4	3	25	75	100
4	ET 3.1 Clinical Biochemistry	4	4	3	25	75	100
Practicals							
1	CP 3.4 : Metabolism-I Practicals	2	4	4	10	40	50
2	CP 3.5: Metabolism-II Practicals	2	4	4	10	40	50
3	CP 3.6: Medical Biochemistry Practicals	2	4	4	10	40	50

#### IV SEMESTER

Sl. No.	Paper Code No. and Title	Credits	No. of Hrs/week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total marks
Theory							
1	CT 4.1 Molecular Genetics & Immunology	4	4	3	25	75	100
2	CT 4.2 Molecular Biology	4	4	3	25	75	100
3	CT 4.3 Biotechnology	4	4	3	25	75	100
Practicals							
1	CP 4.4 Molecular Genetics & Immunology Practicals	2	4	4	10	40	50
2	CP 4.5 Molecular Biology Practicals	2	4	4	10	40	50
3	CP 4.6 Biotechnology Practicals	2	4	4	10	40	50
4	CPJ 4.7 Project /Dissertation	6	4		25	125	150

CT: Core Theory, CP: Core Practical, ET: Elective Theory, CPJ: Core Project

XI. Selection of Electives: In all the 'Science departments' number of seats available for the Electives depends on the facilities within the departments. The selection shall be done on merit-cum choice basis, based on the aggregate marks at the degree level. Candidate is required to give their Electives choice in preferential order at the time of admission.

XII. At, present, CBCS in Science Faculty is applicable on the Main campus, K.U. Dharwad only

Departments		Electives		Intake
1	Botany	I	Biodiversity	44
		II	Medicinal Plants	
		III	Plant Biotechnology	
2	Biochemistry	I	Introduction to Biochemistry	15
		II	Biochemical Techniques	
		III	Clinical Biochemistry	
3	Biotechnology	I	Introduction to Biotechnology	15
		II	Genetic Engineering	
		III	Fermentation Technology	
4	Chemistry	I	Applied Inorganic Chemistry	50
		II	Applied- Organic Chemistry	
		III	Applied- Physical Chemistry	
5	Computer Science	I	Computer Concepts and Applications	60
		II	Programming in C-Language and Mat lab	
		III	Internet information and Web Designing	

6	Electronics	I	Basic Electronics	25
		II	Linear Integrated Circuits	
		III	Communication	
7	Geography	I	Economic and Commercial Geography	30
		II	Regional Geography of India	
		III	Biogeography	
8	Applied Genetics	I	Human Genetics	20
		II	Molecular Biology Techniques	
		III	Genetic Disorders and Counseling	
9	Geology	I	Paleontology	20
		II	History of Earth	
		III	Remote sensing	
10	Mathematics	I	Calculus	70
		II	Mathematical Methods	
		III	Discrete Mathematical Structure and Mathematical Modeling	
11	Microbiology	I	Basic Microbiology	20
		II	Microbial Biotechnology	
		III	Clinical Microbiology	
12	Physics	I	Instrumental Methods	60
		II	Elementary Quantum Mechanics	
		III	Introductory Photonics	
13	Sericulture	I	Mulberry Production Technology	17
		II	Silkworm Rearing Technology	
		III	Seri biotechnology	

14	Statistics	I	Statistical Methods	30
		II	Bio-Statistics	
		III	Applied Statistics	
15	Zoology	I	Environmental Biology	30
		II	Animal Behavior	
		III	Economic Zoology	

### XIII: Scheme of Examinations:

- The examination will be conducted at the end of the each semester
- Each theory course will have a question paper of 3 hours of duration and maximum marks of 75. Each practical course will have examination of 4 hours duration and maximum marks of 40

### QUESTION PAPER PATTERN:

#### A) THEORY

There shall be a total of 7 questions of equal marks, each of 15 marks. The candidates should answer 5 questions. Question number 1 is compulsory and of the remaining 6 questions, candidates should answer any 4.

Question no. 1 shall have 7 sub questions of 3 marks each. The candidates should answer any 5 of them.

Question No. 2 to 7 should contain 2 to 3 sub questions.

The same scheme is applicable to both core and elective theory papers

#### B) PRACTICALS

The marks allotted for practical is 50, out of which 10 is for internal and 40 is for semester final.

The 40 marks is to be divided as follows

	Marks
Principle and Procedure writing	5
Experiments	20
Viva	10
Records	5
<hr/> Total	40 marks

The same scheme is applicable to both core and elective practical papers

#### C) PROJECT EVALUATION:

1. Internal assessment	: 25 marks
2. Evaluation of dissertation	: 75 marks
3. Viva-voce	: 50 marks
Total	:150 marks

#### Award of Gold medals:

The following gold medals will be awarded to the students for standing highest at the M.Sc. Biochemistry Examination

- The VamanraoKore Gold Medal
- The Dr. (Miss) Krishanabai R. Patil Gold Medal
- The Late Dr. S.M. Kurdikeri Gold Medal
- Sri R. Gundurao Gold Medal
- Principal C.S. Bennur'sSridevi Gold Medal
- Dr. Mumtaz Ahmed Khan Gold Medal

- Late (Smt) Padmabai Balajirao Koimattur Gold Medal
- Prof. M. Madaiah Memorial Gold medal

**Co-curricular Activities:**

Seminars, tutorials and group discussions will be conducted periodically. Study tours may also be arranged. However, these activities do not carry any marks.

**Biochemical Society;**

The Department has an active “Biochemical Society” under the auspicious of which several invited lectures by distinguished scientists and professor are organized every year. All the faculty members, research students and M.Sc. students are the members of the Biochemical Society special lectures sponsored by University are also arranged in the department. The Biochemical society also organizes educational tours, sports and cultural activities for the staff and students of the department.

The Department has also the local branch of society of Biological chemists (India) which arranges lectures by eminent scientists.

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

By completing their Post-Graduation Studies in Biochemistry, students are expected to have achieved the following knowledges, skills and capabilities.

- This programme is a platform to enhance active involvement in independent teaching and research through knowledge intensive, innovative thinking, creative problem solving and solution oriented base.
- Students with intellectually motivating education to acquire systematic understanding of integrated specialties of biological and biochemistry aspects through biochemical reactions.
- The programme provides understanding the biochemical concepts in the field of health and disease, food and natural resources, biotechnology, microbiology, pharmaceuticals, fertilizers, bio-fertilizers environmental sustainability, etc.
- It gives knowledge required to design, execute, and analyze the results of biochemistry experimentation in microorganisms, animal and plant model systems by evaluating and drawing conclusions that are based on qualitative and quantitative data.
- It also brings a comprehensive, detailed understanding of the molecular basis of heredity and heritable traits in families and populations with insight into cellular and molecular mechanisms.
- Preparing students to qualify national / state level examinations such as (UGC-CSIR/ ICAR), SET, GATE, GRE, other competitive, administration, research and teaching career at reputed national and international institutions upbring the carrier of an individual.

<b>Paper Code and Name</b>	<b>PG72T101: Basic Biochemistry</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the basic concept of biomolecules such as carbohydrates, proteins, lipids and nucleic acids and their functions in brief.
CO 2	Students will understand molecular mechanisms behind various organic reactions and water properties.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Introduction:</b> Origin, aim and scope of Biochemistry, Chemical unity of diverse living organisms, significant contributions of scientists in the development of Biochemistry, organization of cells and their chemical composition.	<b>3 Hr</b>
<b>2. Properties of water:</b> Structure and properties of water, importance of water in biological systems,. Ionic product of water. Buffers: acids-bases, pH, pKa, Henderson-Hasselbalch equation, buffers, buffer action and Physiological buffer systems (Bicarbonate, Phosphate buffers).	<b>6 Hr</b>
<b>3. Chemical bonding and Reactions:</b> Properties of covalent bond, non-covalent bonds and their importance in biological systems. Types of biochemical reactions: oxidation-reduction, condensation, rearrangement, cleavage, group- transfer, Resonance bond, electrophilic and nucleophilic substitution reactions.	<b>6 Hours</b>
<b>4. Amino acids and Proteins:</b> Structure and physico-chemical properties of amino acids, Role of non-protein amino acids, peptides, peptides of physiological significance, peptide bond, peptide synthesis. Structural features of proteins and their biological functions.	<b>7 Hours</b>
<b>5. Nucleotides and Nucleic acids:</b> Structure and properties of nucleotides, nucleosides, purine (Adenine, Guanine) and pyrimidine (Cytosine, Thiamine, Uracil) bases. Structural features of nucleic acids (DNA & RNA) and their biological functions.	<b>6 Hours</b>
<b>6. Carbohydrates:</b> Structure and stereochemistry of monosaccharides, structure and functions of sialic acid, oligosaccharides and polysaccharides, Starch, glycogen, cellulose and chitin. Structural studies of carbohydrates: periodate oxidation, methylation and use of glycosidases O glycanase and PNGase F. Structure and functions glycoproteins, mucins, N and O linked glycans, carbohydrate binding proteins. And their biological significance). Blood group antigens and heteropolysaccharides, glycosaminoglycans, proteoglycans, lipopolysaccharides and peptidoglycan.	<b>10 Hours</b>
<b>7. Lipids:</b> Lipids and their classification, Structure, nomenclature and functions of fatty acids (PUFA), triacylglycerols (TAG), Waxes, phospholipids(Phosphatidylserine, Lecithin, Cardiolipin, Plasmalogen and PAF), Sphingolipids (Cerebrosides, Globosides and Gangliosides) lipoproteins, glycolipids, steroids, prostaglandins and bile acids.	<b>8 Hours</b>
<b>8. Porphyrins and metal ions:</b> Role of metal ions in biological systems; Fe, Cu, Zn, structure and functions porphyrins, metalloporphyrins and iron-sulfur clusters with suitable examples.	<b>4Hr</b>
<b>REFERENCES</b>	
1. Principles of Physical Biochemistry by Van Holde, Johnson and P.S. Ho, (1998) Prentice-Hall, Inc. Jersey. 2. Organic chemistry by R.T. Morrison & R.N. Boyd, (2000) Prentice Hall of India, New Delhi. 3. Lehninger's Principles of Biochemistry D.L. Nelson, David L and M.M. Cox, (2000) Macmillan Worth Pub. Inc. NY. 4. Introduction to Glycobiology Oxford University Press (2001) By Maureen E.Taylor& Kurt Drickamer	

5. Biochemical calculations by Irvin, H. Segel, (1976) John Wiley and sons
6. Biochemistry by Voet, D. and Voet, D.J. (1999) John Wiley and sons
7. Biochemistry Geoffrey L. Zubay, (1998) McGraw Hill
8. Biochemistry Lubertstrayer, (2001) W.H. Freeman and Co.,
9. Biochemistry J. David Rawn, Etal. (1996), Prentice Hall International, Inc,
10. Metal ions in Biochemistry by P.K. Bhatthacharya (2005) Narosa
11. Concepts in Biochemistry by Boyer 3<sup>rd</sup>Edn. (2000) John Wiley
12. Biochemistry: The Chemical reactions of living cells volumes I and II by Metzler (2004) Elsevier Science.
13. Outlines of Biochemistry; 1976, by Conn and Stumpf, John-Wiley publishers  
Essentials of Glycobiology, 2nd edition, AjitVarki, Richard D Cummings, ISBN-13: 9780879697709.

<b>Paper Code and Name</b>	<b>PG72T102: Analytical Biochemistry</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will be able to perform various analytical techniques such as chromatographic, electrophoretic, spectrophotometric and other techniques.
CO 2	Students will learn principle and procedures and their trouble shooting of various techniques in the separation of components.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<p><b>1. Chromatography: Chromatography-</b> History, Principle, Partition coefficient - Nature of partition forces, Partition, Counter current distribution- Craig apparatus, Types of chromatography Planar chromatography -Paper chromatography, Thin Layer chromatography.</p> <p><b>Paper chromatography</b> - Choice of solvent system, Detection – Rf Values, Applications. <b>Thin Layer chromatography</b> - Preparation, Sample application, Plate development and detection, Advantages and applications.</p> <p><b>Column chromatography</b> - Columns, packing, Sample application, methods of elution, flow rate, analysis. Concept of plates - Theoretical plates,</p> <p><b>Partition Chromatography</b> - Gas- liquid chromatography (GLC), Principle, Carrier gas, columns, Solid support, Liquid Phase, coating the support, Sample preparation, detectors - Flame ionization, electron capture, thermo ionic, Retention time and quality analysis, applications, GC-MS. <b>Gel permeation chromatography</b> - Principle, and partition coefficient. Types of gels –Sephadax, Poly acrylamide, agarose, TLG, Styragel, Bioglass, Procedure. Advantages and applications.</p> <p><b>Ion exchange chromatography</b> - Principle, Types of ion exchange resins with examples. Preparation and choice of buffers, procedure and applications.</p> <p><b>Affinity chromatography</b> - Principle, Procedure and applications. Selection criteria: Matrix, ligands, , ligand coupling and</p> <p><b>HPLC-</b> Difference between conventional and HPLC, schematic diagram, column, detectors, Applications.</p>	14 Hours
<b>2. Spectrophotometry:.</b> UV and Visible spectroscopy - Principle, Instrumentation and applications, Principle and applications of Fluorescence spectroscopy, NMR and Infrared spectroscopy. ESI MS and MALDI-TOF. Flow cytometry	8 Hours
<b>3. Centrifugation:</b> Principle of centrifugation, Concepts of Relative Centrifugal Force (RCF) and Swedberg constant. Types of centrifuges and rotors. Differential and density gradient (Zonal and Isopycnic) centrifugation. Preparative and Analytical ultra-centrifugation, Subcellular fractionation.	5 Hours
<b>4. Electrophoresis:</b> Principle, Factors affecting paper, Cellulose acetate electrophoresis electrophoresis. Procedure and applications of polyacrylamide, Horizontal (agarose) and vertical electrophoresis (SDS PAGE- Isotacophoresis) and their applications. Iso electro focusing, Pulse field gel electrophoresis and capillary electrophoresis - applications. Blotting techniques – Southern, Northern and Western and their detection methods.	8 Hours
<b>5. Dialysis:</b> Principles, and applications of equilibrium dialysis and ultrafiltration. Artificial membranes, semi-permeable membranes, Donnan membrane equilibrium, and biological significance of osmosis and micelles.	3 Hours
<b>6. Techniques in biochemical investigations:</b> Whole organism studies, Manometry, Tissue slice techniques, Cell and Tissue culture, Tissue homogenation. Use of metabolic inhibitors in elucidation of metabolic pathways.	3 Hours
<b>7. Radioisotope Techniques:</b> Radioactivity, stable , unstable and radioactive isotopes,	5 Hours

Units of radioactivity, half life of radioisotopes.- Measurement of radioactivities, GM and, liquid scintillation counters and autoradiography. Isotope dilution technique. Molecular imaging of radioactive material, Radiation monitoring and its hazards. Applications of radioactive tracers in biology.	
<b>8. Microscopy:</b> Principle and application of Light microscopy- bright field, dark field, fluorescence, Phase-contrast microscopy. Principle and applications of Electron microscopy- transmission scanning, and Confocal microscopy.	4 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Analytical Biochemistry: D.J. Holme and H. Pick (1983) Longman</li> <li>2. Modern experimental Biochemistry by Rodney Boyer (2000), 3<sup>rd</sup> edition, Addison Wesley Longman.</li> <li>3. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>4. Physical Biochemistry ( ) David freifielder</li> <li>5. Biophysical chemistry by Cantor, C.R. &amp;Schimmel P.R. (1980) Freeman and Co.</li> <li>6. Methods in Cell Biology: Cytometry, 3rd Edition, Part B, Vol. 64 ZbigniewDarzynkiewicz, Harry A. Crissman, J.Paul Robinson, Academic Press, San Diego, October, 2000</li> <li>7. Fundamentals of MALDI-ToF-MS Analysis, Hosseini, Samira, Martinez-Chapa, Sergio O, Springer Singapore, eBook ISBN-978-981-10-2356-9.</li> </ol>	

Paper Code and Name	PG72T103: Physiology & Nutrition
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	The student will learn and understand the basics of biomembrane structure functions and transport of various ions and molecules in the systems.
CO 2	The course will aid to understand the basics of physiological process of digestion, cardiovascular & respiratory system and nervous systems.
CO 3	The student will learn and understand the fundamentals of nutrition of carbohydrates and proteins, vitamins macro, micro elements etc.,
CO 4	The student will understand the special nutritional aspects during the pregnancy and lactation.

PARTICULARS	Teaching Hours (Max. 50)
<b>1. Biomembranes:</b> Structure and composition of biomembranes, Supra molecular organization. Models of membranes: fluid-mosaic model of membrane, techniques to study membrane organization (EM, NMR, Fluorescence), Membrane domains-caveolae, rafts, Membrane potential.	<b>5Hr</b>
<b>2. Membrane transport:</b> Active and passive transport, mechanism of $\text{Na}^+\text{-K}^+$ ATPase and $\text{Ca}^{2+}$ - ATPase, transport of sugars and amino acids, lactose permease and PTS, ionophores, porins, gap junctions and tight junctions, desmosomes.	<b>5Hr</b>
<b>3. Digestive system:</b> Digestion and absorption of carbohydrates, lipids and proteins in the gastrointestinal tract, role of digestive enzymes and hormones, role of gastric HCl and bile salts in digestion.	4 Hours
<b>4. Cardiovascular and Respiratory systems:</b> Circulatory system, cardiac cycle, blood pressure and its regulation, Mechanism of transport of $\text{O}_2$ and $\text{CO}_2$ in blood. Excretory system- nephron, and mechanism of urine formation.	5 Hours
<b>5. Nervous system:</b> Organization, Comparison of somatic and autonomic nervous system, Classifications structure and function, Different types of cells in the nervous system and their functions, Structure of Neuron - Dendrites, Axons, Myelin sheath, Nodes of Ranvier.	<b>2Hr</b>
<b>6. Endocrine system:</b> A brief outline of various endocrine glands, Pituitary, Pancreas, Adrenals, thyroid, parathyroid, Adrenal cortex and their physiological roles.	<b>1Hr</b>
<b>II: Nutrition:</b>	<b>4Hr</b>
<b>1. Basic concepts of nutrition and dietetics:</b> Nutrients and essential nutrients, food Groups, proximate analysis of foods. energy values of foods and their determination, physiological fuel value and significance. BMR and factors affecting BMR, SDA.	
<b>2. Carbohydrates-</b> Sources and functions carbohydrates. Role of dietary fiber. Fats- Sources and functions, essential fatty acids, saturated and polysaturated fatty acids (PUFA).	<b>4Hr</b>
<b>3. Proteins:</b> Essential and non-essential amino acids, nutritional classification of Dietary proteins, nitrogen balance, methods for evaluation of nutritive values of dietary proteins. Protein- calorie malnutrition (PCM)-Kwashiorkor and Marasmus-, symptoms and prevention.	<b>5 Hr</b>
<b>4. Vitamins:</b> Sources, structure functions and deficiency symptoms of fat (A, D, E, K) and water-soluble (B-complex and C) vitamins.	<b>8Hours</b>
<b>5. Mineral elements:</b> Sources, functions and deficiency symptoms Ca, P, Na, K, Fe, I, Cu, Zn and other trace elements.	<b>5Hr</b>
<b>6. Special aspects of nutrition</b> during infancy, childhood, pregnancy and lactation.	<b>2Hr</b>

## REFERENCES

1. Introductory Nutrition by Helen Andrews GutHrie (3<sup>rd</sup> ed. 1975) C.V. Mosby Compnay, Saint Louis.
2. Human Nutrition and Dietetics by Stanley Davidson et.al. (8<sup>th</sup> ed. 1982) ELBS.
3. Nutrition by Chaney, Ross and Witschi (9<sup>th</sup> ed. 1979)
4. Nutrition – an integrated approach by R.L. Pika& M.L. Brown (3<sup>rd</sup> Ed. 1984) Wiley and sons Inc. NY.
5. Text book of Biochemistry with clinical correlations (2003) by T.M. Devlin
6. Text book of Human Nutrition (1996) M.S. Bamji, N. PralhadRao and V. Reddy, Oxford & IBH Publishers.
7. Modern Nutrition in Health and Diseases (7<sup>th</sup> ed. 1988) by Maurice E Skills and V.R. Young, K.M. Varghese Co. Bombay.
8. Text book of Medical Physiology (10<sup>th</sup>edn 2001) by A.G. Guyton and Hall JE, Haz court Asia.
9. Review of Medical physiology (12<sup>th</sup> ed. 1985) Ganong W.F. Lange Med. Pub.
10. Cell biology (1993) by E.S. Sedava, Jones and Barlett Publishers Boston, London
11. Cell and Molecular Biology (8<sup>th</sup>Edn. 2001) by E.D.P. de Robertis& E M F de Robertis (Jr) Lippincott Williams and Wilkins, Philadelphia.
12. Harper's Review of Biochemistry, Murray et al., (1997) End. Lange.
13. Molecular biology of the cell (1994) by J.D Watson etal, Garland Publishing Vitamins and Hormones by G. Litwack (Ed) Vol 50, 1995, Academic Press
14. Principles of Nutrition and Dietetics by M SwaminathanBapp Co, Bangalore Printing & Publicity, Co. Ltd, Bangalore.
15. Essential cell biology (1998) Bruce Alberts, Dennis Bray, Alexander Johnson, Julian Lewis, Martin Raff, Keith roberts and Peter walter. Published by Garland Publishing, Inc. New York.

<b>Paper Code and Name</b>	<b>PG72T104: Cell Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the basic concept cell and its components with their functions in details..
CO 2	Students will have comprehensive idea on molecular mechanisms involved in cancer, apoptosis and other physiological processes such as blood coagulation, biochemistry of vision and neurobiology etc.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>1. Cell Structure:</b> Structural organizations of eukaryotic cells, structure and functions of sub-cellular organelles.Molecular components of cells, Stem cells-different types	<b>5 Hr</b>
<b>2. Cytoskeleton:</b> Structure and function of microfilaments, microtubules, (Actin), intermediate filaments (Lamin and Keratin) and microtubules (Centrioles and Cilia). Structure and constituent proteins of erythrocyte cytoskeleton., Cell motility-cilia and flagella.	<b>5 Hr</b>
<b>3. Cell cycle:</b> Mitosis and meiosis, cell cycle and its regulation (outline), cyclin and cyclin dependent kinases (CDKs), Apoptosis; intrinsic and extrinsic pathway.	6 Hours
<b>4. Carcinogenesis:</b> Mechanism of carcinogenesis. Characteristics of cancer cells, Types of Cancer, Benign and Malignant Tumors. Cancer metastasis, Carcinogens (Chemical, Physical and Biological), Ames test for carcinogenicity.	6 Hours
<b>5. Muscle contraction:</b> Structural organization of muscles, muscle proteins, mechanism of muscle contraction and its regulation. Sliding filament theory.	<b>6 Hr</b>
<b>6. Blood Coagulation:</b> Blood coagulation factors, mechanism of blood coagulation-intrinsic and extrinsic pathway, role of thrombin, platelet aggregation, , coagulation and clot dissolution. Formation of platelet plug, proteins involved in blood coagulation. Role of vitamin-K.Gla-containing proteins, regulation and synthesis of Gla-proteins.	<b>6Hr</b>
<b>7. Vision:</b> Photoreceptor cells- rods and cones, photoreceptor pigments, Cascade of biochemical reactions involved in the visual cycle, color vision.	<b>6 Hr</b>
<b>8. Neurotransmission:</b> Molecular basis of the resting and action potential. Membrane Potential – Action Potential, Depolarisation, Hyperpolarisation, Propagation of action potential - Voltage gated and Ligand gated Ion channels. Role of G-proteins in neurotransmission Uses of Ionophores and toxins <b>Neurotransmission:</b> Synapse, Mechanism of neurotransmission, Neurotransmitters - Excitatory and Inhibitory neurotransmitters - Their structure and functions. Receptors – Nicotinic, Muscarinic, Adrenergic receptors.	<b>10 Hr</b>

#### **REFERENCES**

1. Introductory N Molecular cell biology-4<sup>th</sup>edn. (2000) By Lodish,Berk, Zipursky, Matsudaira, Baltimore, Darnell.
2. The Cell, A molecular approach By Geoffrey M cooper (1997) Oxford University Press
3. Cellular Physiology of Nerve and Muscle (1998) Gary G. Mathews, Blackwell Scientific Inc
4. Cell biology (1993) by E.S. Sedava, Jones and Barlett Publishers Boston, London
5. Cell and Molecular Biology (8<sup>th</sup>Edn. 2001) by E.D.P. de Robertis& E M F de Robertis (Jr) Lippincott Williams and Wilkins, Philadelphia.
6. Biochemistry by Voet, D. and Voet, D.J. (1999) John Wiley
7. Molecular biology of the cell (1994) by J.D Watson etal, Garland Publishing.
8. Essential cell biology (1998) Bruce Alberts, Dennis Bray, Alexander Johnson, Julian Lewis, Martin Raff, Keith roberts and Peter walter. Published by Garland Publishing, Inc. New York.

<b>Paper</b>	
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<b>Code and Name</b>	<b>PG72P101: Basic Biochemistry Practicals</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the basic concept of biomolecules such as carbohydrates, proteins, lipids and nucleic acids and their functions in brief.
CO 2	Students will understand molecular mechanisms behind various organic reactions and water properties.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Measurement of pH of solutions by pH meter</li> <li>2. Preparation of buffers</li> <li>3. Titration curves of weak acids/amino acids and determination of pKa</li> <li>4. Qualitative analysis of carbohydrates-monosaccharides and disaccharides</li> <li>5. Analysis of polysaccharides-starch, glycogen and cellulose</li> <li>6. Estimation of reducing sugars by Hegedorn -Jenson method</li> <li>7. Estimation of carbohydrates by Folin-Wu method</li> <li>8. Estimation of total sugar by phenol-sulphuric acid method</li> <li>9. Qualitative analysis of lipids</li> <li>10. Estimation of free fatty acids from oil.</li> </ol>	
References	
<ol style="list-style-type: none"> <li>1. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman</li> <li>2. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publishing</li> <li>3. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>4. Experimental Biochemistry (1976) by John M. Clark and Robert L. Swizer, W.H. Freeman and Company</li> <li>5. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney &amp; Randhir Singh, Narosa Publishing House.</li> <li>6. A Biologist's Guide to Principles and Techniques in Practical Biochemistry, 3<sup>rd</sup> edition (1992) by Keith Wilson and Kenneth H. Goulding, Cambridge University Press.</li> <li>7. Practical Biochemistry by Robit White.</li> <li>8. Practical Biochemistry by Deshpande and Rao.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG72P102: Analytical Biochemistry Practicals</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will be able to perform various analytical techniques such as chromatographic, electrophoretic, spectrophotometric and other techniques.
CO 2	Students will learn principle and procedures and their trouble shooting of various techniques in the separation of components.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Separation of carbohydrates by paper chromatography</li> <li>2. Separation of amino acids by paper chromatography (ascending, descending, circular &amp; two-dimensional)</li> <li>3. Thin layer chromatography (TLC) of Carbohydrates</li> <li>4. Thin Layer chromatography of amino acids</li> <li>5. Separation of lipids by TLC</li> <li>6. Separation of leaf pigments by adsorption chromatography</li> <li>7. Desalting of solutions by dialysis</li> <li>8. Separation of amino acids by paper electrophoresis</li> <li>9. Separation of serum proteins by cellulose acetate /agarose electrophoresis</li> <li>10. Cell disruption and preparation of cell free extracts by centrifugation.</li> </ol>	
<b>References</b>	
<ol style="list-style-type: none"> <li>1. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman</li> <li>2. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publishing</li> <li>3. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>4. Experimental Biochemistry (1976) by John M. Clark and Robert L. Swizer, W.H. Freeman and Company</li> </ol> <p>A Manual paper chromatography and paper Electrophoresis by (1955) R.J. Block, E.L. Durrum and G. Zweig, Academic press.</p>	

<b>Paper Code and Name</b>	<b>PG72P103: Physiology &amp; Nutrition Practicals</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	The student will learn and understand the basics of biomembrane structure functions and transport of various ions and molecules in the systems.
CO 2	The course will aid to understand the basics of physiological process of digestion, cardiovascular & respiratory system and nervous systems.
CO 3	The student will learn and understand the fundamentals of nutrition of carbohydrates and proteins, vitamins macro, micro elements etc.,
CO 4	The student will understand the special nutritional aspects during the pregnancy and lactation.

<b>Particulars</b>	<b>4 Hrs/week</b>
1. Determination of activity of digestive enzymes (alpha-amylase & lipase) 2. Measurement of blood pressure 3. Estimation of dietary proteins and fats. 4. Estimation of vitamin C by 2,6-Dichlorophenol indophenol method 5. Estimation of calcium content in foods. 6. Determination of phosphorus by Fiske-Subbarao method 7. Estimation of iron in foods. 8. Estimation of vitamin A by spectrophotometric method	
<b>References</b>	
5. Hawk's Physiological chemistry, Oser (1976) 14 <sup>th</sup> Edn Tata-McGraw-Hill 6. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman 7. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publishing 8. Practical Biochemistry: Principles and Techniques, 5 <sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press. 9. Experimental Biochemistry (1976) by John M. Clark and Robert L. Swizer, W.H. Freeman and Company 10. A Manual paper chromatography and paper Electrophoresis by (1955) R.J. Block, E.L. Durrum and G. Zweig, Academic press. A Manual paper chromatography and paper Electrophoresis by (1955) R.J. Block, E.L. Durrum and G. Zweig, Academic press.	

Paper Code and Name	PG72P104: Cell Biology Practical's	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Students will understand the basic concept cell and its components with their functions in details..	
CO 2	Students will have comprehensive idea on molecular mechanisms involved in cancer, apoptosis and other physiological processes such as blood coagulation, biochemistry of vision and neurobiology etc.	
Particulars		4 Hrs/week
9. Isolation and Fractionation of Subcellular Organelles 10. Isolation of human Peripheral Blood Mononuclear Cells (PBMCs) 11. Determination of cell number using Hemocytometer. 12. Estimation of DNA by DPA method. 13. Estimation of RNA by Orcinol Method. 14. Estimation of Protein by Bradford Method. 15. Preparation of Liposomes. 16. Identification of mitotic stages in onion root tips. 17. Determination of Erythrocyte sedimentation rate (ESR).  18. Test for mutagenesis.		
References		
1. Analytical Biochemistry and separation Techniques – A lab manual for B.Sc., M. Sc., & M.Phil. Students-Vi Edition: Twenty First century publications, India ISBN 2. Practical Biochemistry: Principles and Techniques, 5 <sup>th</sup> Edition, edited by Keith Wilson and John Walker (2000) Cambridge University, Press. 3. Experimental Biochemistry (1976) by John M Clark and Robert. I Swizer W H Freeman and Company		

## II Sem

<b>Paper Code and Name</b>	<b>PG72T201: <u>BIOMOLECULES</u></b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand detailed structure and functions of proteins
CO 2	Students will understand detailed structure and functions of Nucleic acid
CO 3	Students will get trained in protein and nucleic acid isolation and characterization.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Introduction:</b> classification based on source, composition, solubility and functions. Physicochemical properties of proteins.	2
<b>Methods of isolation and purification</b> of proteins, criteria of protein purity.	3
<b>Structural organizations of proteins:</b> Primary, secondary, tertiary and quaternary structures. Determination of primary structure of proteins. Determination of amino acid composition. N and C-terminal groups. Fragmentation of polypeptide chains by enzymatic, acid and chemical methods. Separation of cleaved fragments. Sequential degradation of Edman and modern methods of micro sequencing including solid phase sequencing methods. Assignment of disulfide bonds. Interpretation and overlapping of sequence.	5
<b>Secondary structure of proteins:</b> $\alpha$ -helix, $\beta$ -pleated sheets and other secondary motifs, super secondary structure of proteins: B-bend helix turn-helix. Zinc finger, and leucine Zippers. Prediction of secondary structure, Ramachandran plot. Fibrous proteins, keratin, silk fibroin, triple helix structure of collagen.	5
<b>Tertiary structure of proteins:</b> Protein folding and stability, Forces involved in folding protein, denaturation and renaturation. Role of chaperones in protein folding. Methods for the determination of protein structure: X-ray NMR CD and ORD. Protein structure prediction by CD and ORD	6
<b>Structure and function relation of proteins:</b> 3-D conformation of myoglobin, cytochrome c, insulin, evolutionary significance of proteins.	3
<b>Oligomeric structure of proteins:</b> Quaternary structure of Hemoglobin. Hemoglobin as an allosteric protein, oxygen binding mechanism, of Bohr's effect. DPG binding. Differences between myoglobin and hemoglobin. Normal and abnormal hemoglobins with respect to primary structure	6
<b>NUCLEIC ACID</b>	
<b>Introduction:</b> Components of nucleic acids, major classes of nucleic acids and their biological role.	2
<b>Chemical and physical properties of nucleic acids:</b> UV absorbance of nucleic acids, hypochromism and Hyperchromism.	2
<b>Isolation and purification of nucleic acids</b> – DNA and RNA, estimation of nucleic acids.	2
<b>Primary and secondary structure of DNA:</b> Base composition of DNA, Chargaff's rule, X-ray diffraction analysis of DNA, Watson-Crick model of DNA double helix, SBS model and other models, Different structural forms of DNA – A, B & Z	5
<b>DNA sequencing:</b> Chemical method of Maxam-Gilbert, Sanger's Dideoxy method and other recent methods, automated DNA sequencing.	2
<b>Tertiary or Higher-order structure of DNA:</b> DNA supercoiling, superhelix topology linking number, biological importance of DNA supercoiling, role of topoisomerases.	2
<b>Ribonucleic acids (RNA):</b> Structure of m-RNA, r-RNA and t-RNA, Clover leaf model and L-shaped model of t-RNA.	2
<b>Denaturation and Renaturation of nucleic acids:</b> Melting curves and T <sub>m</sub> value of DNA and their significance. Renaturation kinetics – Cot curves and their significance. Nucleic acid hybridization.	3

**Reference books**

1. Biochemistry: David Rawn, J. (1989) Neil Patterson Publishers
2. Biochemistry: Voet D. and Voet. J.G. [Eds] (1999) 3 Ed. John Wiley and sons
3. Principles of Biochemistry (2000) by Nelson, David L. and Cox, M M. Macmillan/Worth, NY
4. Fundamentals of Biochemistry (2005) by Donald Voet, Judith G. Voet and Chariottee W. Pratt, John Wiley & Sons, NY.
5. Biochemistry (IV ed 1998) by Geoffrey L Zubay, McGraw Hill
6. Biochemistry (IV ed 1996) by Lubert Stryer, WH Freeman and Co., San Francisco.
7. Biochemistry by R.H. Garrett and C.M. Grisham (1999) Second edition.
8. The Biochemistry of Nucleic acids (1986) by R.L. P. Adams, J.T. Knowler & D.P. Leader.
9. Nucleic acid Biochemistry and Molecular Biology, Mainwaring et al., (1982) Blackwell scientific.
10. Principles of protein structure, function and evolution, Dickerson and Geis (1983) 2<sup>nd</sup> Edn.
11. Protein purification applications. S.L.V. Harris and Angal (1990) IRI Press.
12. Proteins 2<sup>nd</sup> Edn. (2000) Structures and Molecular Properties by Thomas Creighton, W.H. Freeman and Company N.Y.
13. Biochemistry 5<sup>th</sup> Edn. (2005) By J.M. Berg, J.L. Tymoczko & Stryer L., W.H. Freeman and Company N.Y.
14. Principles of Nucleic acid structure by W. Saenger (1984) Springer Verlag DNA structure and function by R.R. Sinden (1984) Academic Press

Paper Code and Name	PG72T202: ENZYMOLOGY
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the functional aspects of different enzymes and inhibition/mechanism.
CO 2	Students will be able to understand the molecular mechanisms of enzyme actions, allosteric regulations and its clinical and industrial applications
CO 3	Students will get trained in enzyme kinetics, isolation and characterization.

PARTICULARS	Teaching Hours (Max. 50)
<b>1. Introduction:</b> Role of enzymes in living systems, nature and characteristic features of enzymes. Nomenclature and classification of enzymes. Intracellular localization of enzymes. Enzyme unit - activity, specific activity, molecular activity (turn over number).	<b>3</b>
<b>2. Quantitative assay</b> of enzymatic activity by different methods. Steady state methods, ion selective technique, immunoassay techniques, flow (continuous, stopped flow and quenched-flow) techniques, relaxation methods and their usefulness in the study of enzyme catalyzed reactions, energy of activation.	3
<b>3. Enzyme kinetics:</b> Importance, initial velocity plots, steady state approximation, evidence for ES complex formation. Kinetics of single-substrate -Michaelis- Menten equation, algebraic derivation of kinetic equation for the determination of $K_m$ and $V_{max}$ parameters, and their significance. Effect of pH, temperature, substrate concentration in enzyme activity and kinetics, Methods of kinetic analysis-Lineweaver Burk, EadieHofstee, Hanes and Dixon plots.	6
<b>4. Enzyme inhibition:</b> Reversible and irreversible inhibition, Types of reversible inhibitors – competitive, noncompetitive, uncompetitive and mixed inhibitors. substrate inhibition.	<b>3</b>

<b>5. Kinetics of bisubstrate enzyme catalyzed reactions:</b> Sequential, ordered, random, pingpong, theoroll-chance mechanisms and their Cleland's representations with examples. Graphical analysis, King-Altman procedure for deriving kinetic equation for single substrate and two substrate reactions with and without inhibitors. Rate expressions and secondary plots. Investigations of reaction mechanisms using isotopic – exchange at equilibrium.	5
<b>6. Molecular basis of enzymes catalysis:</b> General theories and hypotheses proposed to explain enzyme specificity, lock and key, induced fit theory, contribution of structural flexibility to the specificity of enzymes.	3
<b>7. Factors contributing to catalytic efficiency of enzymes:</b> Proximity and orientation effect, acid base covalent catalysis (nucleophilic and electrophilic), metal ion catalysis, preferential binding of the transition state complex.	3
<b>8. Active site characterization:</b> Method of active site group assignment. The identification of banding sites and catalytic sites, chemical modification of active site, amino acid side chains, active site directed reagents (irreversible inhibitors), the use of substrate analogs, pseudosubstrate, photoaffinity labelling, suicide inhibitors trapping of ES complexes, enzyme modification with proteolytic enzymes.	5
<b>9. 3D structure of enzymes:</b> General aspects of 3D structural features of enzymes as revealed by X-ray and chemical studies. Mechanism of action of following enzymes: Based on physicochemical and 3-D structural data-Lysozymes, RNase and chymotrypsin, Including zymogen activation. eg. Chymotrypsinogen.	4
<b>10. Different forms of enzymes:</b> Isozymes, multienzyme complexes, multifunctional enzymes, ribozymes, coenzymes and metalloenzymes, abzymes.	4
<b>11. Allosteric enzymes:</b> Identification and their characterization co-operativity, the Hill equation, the Scatchard plot and equilibrium dialysis techniques. Sigmoidal kinetics: The MWC & KNF models with examples, significance of sigmoidal behaviour. Regulatory features of ATCase.	5
<b>12. Regulatory mechanisms:</b> Regulation of enzymatic activity, fine control availability of substrates and cofactors, steady state fluxes, flux of metabolites through metabolic pathway. Types of feed-back regulations.	
<b>13. Applications of enzymes:</b> Immobilized enzymes- Clinical and Biotechnological applications of enzymes, temperature resistant enzymes.	3
<b>References:</b> <ol style="list-style-type: none"> <li>Enzymes by Paul Boyer, Vol.I&amp; II Academic press( )</li> <li>Lehninger's principles of biochemistry (2000) by Nelson, David L and Cox, M.M. Macmillan/Worth, NY.</li> <li>Enzyme kinetics by Roberts D.V. (1997) Cambridge Univ. Press.</li> <li>Enzyme kinetics by I.H. Segel (1996) Interscience-Wiley</li> <li>Understanding of enzymes by Palmer, (2003) T. Ellis &amp; Horwood Ltd.</li> <li>Enzymatic reaction mechanism (1979) by Christopher Wlash, Freeman Pub., San Francisco.</li> <li>Methods in Enzymology; Colowick. S.P. et.al., [Eds]. Different volumes, Academic press.</li> <li>Fundamentals of Enzymology, N.C. Price and Lewis (2000) Oxford University, Press.</li> <li>Intermediary metabolism and regulation by J. Larner</li> <li>Biochemistry (V Ed 2001) Lubertstrayer, W.H. Freeman and Co.,</li> <li>Biochemistry (III Ed 1999) Voet, D. and Voet J.G. Jhon Wiley and Sons.</li> <li>Biochemistry (II Ed 1996) J. David Rawn, Etal., Prentice Hall International, Inc,</li> <li>Enzyme Engineering: protein engineering, Structure prediction and Fermentation by M.J.C. Crabbe (1990) Ellis Horwood.</li> <li>Immobilized enzymes by M.D. Trevan (1980), John Wily and Sons.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG72T203: MICROBIAL BIOCHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to..	
CO 1	Students will understand the properties and special aspects of microorganisms
CO 2	Students will be able to understand the applications of microbes in the field of medicine, microbial disease and industrial importance.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>1. Introduction:</b> Historical development and scope of microbiology and microbial Biotechnology.	1
<b>2. Classification of microorganisms:</b> Nomenclature, study of different types of microorganisms, characteristics of the main groups of microorganisms.	2
<b>3. Cultivation of bacteria:</b> Nutritional requirements for the bacteria, Growth curve of bacteria and the factors affecting growth curve, chemostat, synchronous and diauxic growth. Measurement of growth, cell number– methods of enumeration. Study of bacterial cell structures–genetic elements, ribosomes, membranes, cell envelopes, capsule, flagella, pili and endospores.	4
<b>4. Identification of bacteria:</b> Staining methods- Gram staining and Acid fast staining, structure and differences between Gram-negative and Gram-positive bacteria.	2
<b>5. Bacteriology of milk</b> and Flora of the normal human body.	1
<b>6. Bacterial toxins</b> – Classification: exotoxins and endotoxins, chemical nature and associated diseases.	2
<b>7. Viruses:</b> Classification and properties of viruses. Isolation, culturing and assay of viruses. Animal viruses HPV, SV40 and viral diseases. Replication of DNA and RNA viruses – negative strand (vsv), positive strand (Polio), retroviruses (infection cycle). Bacteriophages – Structure, mode of infections – Lytic cycle and transduction – specialized, generalized and abortive. Interferons, clinical importance of viruses – HIV, Hepatitis A and B virus, RNA & DNA tumor viruses, transformation and cancer. Vaccines in prevention of viral infection.	9
<b>8. Food Microbiology:</b> Production of cheese, single cell protein, pasteurization of milk, contamination of milk and its prevention, food spoilage, food preservation.	4
<b>9. Environmental microbiology and energy:</b> Biomass production, biogas, environmental pollution, Biodegradation, Use of microbes in pollution control, metal leaching and extraction, nonconventional energy sources.	5
<b>10. Biotechnology</b> and international market, brief aspects about patent laws, culture collection, data bank, ethical values, pros and con of biotechnology.	3
<b>11. Fermentation technology</b> : Unit process, Design and operation of fermenters, surface, submerged and continuous culture methods, conditions of fermentations. Down stream process, selection of organism, raw materials and fermentation media. Recovery of products, production of ethanol from molasses. Production of wine, beer. Production acetone, butanol, glutamic acid, lactic acid, citric acid. Chemistry and mode of action of antibiotics. Production of penicillin streptomycin, chloramphenicol, ampicillin and tetracyclines.	14
<b>12. Public health:</b> Production of vaccines, interferons growth hormones human plasminogen activators.	3
<b>References:</b> 15. Enzymes by Paul Boyer, Vol.I& II Academic press( ) 16. Lehninger's principles of biochemistry (2000) by Nelson, David L and Cox, M.M. Macmillan/Worth, NY. 17. Enzyme kinetics by Roberts D.V. (1997) Cambridge Univ. Press.	

18. Enzyme kinetics by I.H. Segel (1996) Interscience-Wiley
19. Understanding of enzymes by Palmer, (2003) T. Ellis & Horwood Ltd.
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21. Methods in Enzymology; Colowick. S.P. et.al., [Eds]. Different volumes, Academic press.
22. Fundamentals of Enzymology, N.C. Price and Lewis (2000) Oxford University, Press.
23. Intermediary metabolism and regulation by J. Larner
24. Biochemistry (V Ed 2001) Lubertstrayer, W.H. Freeman and Co.,
25. Biochemistry (III Ed 1999) Voet, D. and Voet J.G. John Wiley and Sons.
26. Biochemistry (II Ed 1996) J. David Rawn, Etal., Prentice Hall International, Inc,
27. Enzyme Engineering: protein engineering, Structure prediction and Fermentation by M.J.C. Crabbe (1990) Ellis Horwood.
28. Immobilized enzymes by M.D. Trevan (1980), John Wiley and Sons.

<b>Paper Code and Name</b>	<b>PG72T204A: BIOCHEMICAL TECHNIQUES.</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper,	
CO 1	Students will understand detailed structure and functions of proteins
CO 2	Students will understand detailed structure and functions of Nucleic acid
CO 3	Students will get trained in protein and nucleic acid isolation and characterization.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
1. Introduction: Analyzing and reporting of experimental data-significant figures, scientific notation, units, error analysis and precisions in estimations, tables, controls and blanks. Solutions and buffers.	6
2. Chromatographic techniques: Principles and applications of PC, TLC, GLC adsorption, Ion exchange, gel permeation, affinity chromatography and HPLC.	8
3. Spectroscopic techniques: Principles and application colorimetry, spectrophotometry and spectrofluorimetry.	8
4. Centrifugation techniques: Cell disruption devices-homogenization and sonication application of differential and density gradient centrifugation. Dialysis and ultra filtration.	8
5. Electrophoretic techniques: Principle and application of polyacrylamide, SDS-PAGE and agarose electrophoresis. Blotting techniques-western and southern	9
6. Radio Isotope techniques: Units of radioactivity. Stable and radioactive isotopes, Liquid scintillation counter, applications in biology, Autoradiography.	8
7. Immunological techniques: RIA, ELISA.	3

#### **References books:**

1. Analytical Biochemistry: D.J. Holme and H. Pick (1983) Longman
2. Biochemical calculations, Irvin, H. Segel, (1976) John Wiley and sons
3. Biochemistry: David Rawn, J. (1989) Neil Patterson Publishers
4. Modern experimental Biochemistry by Rodney Boyer (2000), 3<sup>rd</sup> edition, Addison Wesley Longman.
5. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.
6. Introduction to practical biochemistry (2000) Edited by S.K. Sawhney & Randhir Singh,

Narosa Publishing House.

7. Practical Immunology 4<sup>th</sup>Edn. By F.C. Hay and O.M.R. Westwood (2002) Cold spring Harbour
8. An Introduction to Practical Biochemistry by David Plummer (1992) McGraw Hill Publishing
9. Biochemical Techniques (1990) by John F Robyt and Birnard J. White waveland press inc.,

Paper Code and Name	PG72P201: <b>BIOMOLECULES PRACTICALS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to..	
CO 1	Students will get trained in protein and nucleic acid isolation and characterization.
CO 2	Students will learn quantification of protein
CO 3	Students will learn quantification of nucleic acids.

PARTICULARS	4 hour /Week
<ol style="list-style-type: none"> <li>1. Qualitative analysis of amino acids</li> <li>2. Estimation of amino acids by Ninhydrin method</li> <li>3. Estimation of protein by FCR method</li> <li>4. UV Absorption spectra of proteins</li> <li>5. Estimation of DNA by diphenylamine method</li> <li>6. Estimation of RNA by Orcinol method</li> <li>7. UV Absorption of Nucleic acids</li> <li>8. Molecular weight estimation by gel-permeation chromatography</li> <li>9. Desalting by gel filtration chromatography</li> <li>10. Effect of denaturants on enzyme activity</li> </ol>	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman</li> <li>2. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publishing</li> <li>3. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>4. Experimental Biochemistry (1976)by John M. Clark and Robert L. Swizer, W.H. Freeman and Company</li> <li>5. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney&amp;Randhir Singh, Narosa Publishing House.</li> <li>6. A Biologist's Guide to Principles and Techniques in Practical Biochemistry, 3<sup>rd</sup> edition (1992) by Keith Wilson and Keneth H. Goulding, Cambridge University Press.</li> </ol>	

Paper Code and Name	PG72P202: <b>ENZYMOLGY PRACTICALS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will get trained in enzyme kinetics, isolation and characterization.
CO 2	Students will able to calculate activity, specific activity etc.,

PARTICULARS	4 hour/week
11. Qualitative analysis of amino acids	

12. Estimation of amino acids by Ninhydrin method 13. Estimation of protein by FCR method 14. UV Absorption spectra of proteins 15. Estimation of DNA by diphenylamine method 16. Estimation of RNA by Orcinol method 17. UV Absorption of Nucleic acids 18. Molecular weight estimation by gel-permeation chromatography 19. Desalting by gel filtration chromatography 20. Effect of denaturants on enzyme activity	
<b>References:</b> 7. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman 8. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publishing 9. Practical Biochemistry: Principles and Techniques, 5 <sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press. 10. Experimental Biochemistry (1976) by John M. Clark and Robert L. Swizer, W.H. Freeman and Company 11. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney & Randhir Singh, Narosa Publishing House. 12. A Biologist's Guide to Principles and Techniques in Practical Biochemistry, 3 <sup>rd</sup> edition (1992) by Keith Wilson and Kenneth H. Goulding, Cambridge University Press.	

<b>Paper Code and Name</b>	<b>PG72P203: MICROBIAL BIOCHEMISTRY PRACTICALS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to...	
CO 1	Students will be able to perform culturing and isolation of microorganisms.
CO 2	Students will be able to do the staining of microbes and identification.

Particulars	4 hour/week
1. Preparation of culture media 2. Sterilization by dry heat and moist heat – autoclaving. 3. Isolating pure cultures – bacteria and fungi 4. Gram staining and other staining procedures 5. Identification of bacteria by morphological and biochemical tests. 6. Antibiotic sensitivity test for microbial cultures 7. Bacterial growth curve – effect of pH, temperature, salt concentration and nutrients on growth of bacteria. 8. Production of Wine by fermentation. 9. Identification of microorganisms in milk. 10. Identification of microorganisms involved in food spoilage.	
<b>References:</b> 1. Biology of Microorganisms by M.T. Modigam, J.M. Matinko & J. Oanker, 8 <sup>th</sup> Edn. (1999) Prentice Hall 2. Microbes in action by H.W. Seeley and P.J. Vendomark ( 1975 ) W.H. Freeman 3. Laboratory methods in microbiology by W.F. Haccigan & M.E. Mccanca 4. Applied Microbial Physiology ; a practical approach Rhodes and Stanbury (1997) IRL Press. 5. Basic and practical microbiology, Ronald L. Atlas (1986) McMillan Publication Co.	

<b>Paper Code and Name</b>	<b>PG72T301: Metabolism-I</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will learn and understand the various metabolic pathway that occur in the human body and also energy production.
CO 2	The student will be able to Explain the metabolism of Carbohydrates, Lipids, Photosynthesis process.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>1. Introduction:</b> Basic concepts in metabolism; Catabolism, anabolism, catabolic, anabolic and amphibolic pathways.	<b>2 Hr</b>
<b>Metabolism of carbohydrates:</b> Glycolysis, its energetics, Glycerol-3-phosphate and Malate Aspartate shuttle. Regulation of glycolysis, role of PFK, Pasteur effect, alcoholic and lactic acid fermentation. Aerobic metabolism of carbohydrates, oxidation of pyruvate, citric acid cycle, its energetics and regulation. Anapleumatic and Amphibolic nature of citric acid cycle. Glyoxylate cycle and its significance.	<b>9 Hr</b>
Entry of sugars other than glucose, Galactose, Fructose, mannose, lactose and glycogen into glycolysis, Fructosuria, Galactosemia. Bio-synthesis and degradation of glycogen, glycogenolysis difference between liver and muscle glycogenolysis and their regulation, including hormonal control by epinephrine, insulin and glucagon. Regulation of blood glucose level, Role of glycogen phosphorylase a, glycogen storage diseases and their molecular basis. Gluconeogenesis its energetics and regulation. Futile cycle, Cori cycle and their significance. Alternate pathways of carbohydrate metabolism pentose phosphate pathway, its multifunctional significance. Glucuronate pathway. Pterosuria and genetic diseases of impaired pentose phosphate pathway. Biosynthesis of disaccharides: Maltose, Sucrose and Lactose. Regulation of lactose biosynthesis, biosynthesis of starch, cellulose and peptidoglycan. Effect of antibiotics on peptidoglycan biosynthesis.	<b>15 Hr</b>
<b>3. Lipid metabolism:</b> Intracellular hydrolysis of lipids and role of adipose tissue in storing fat as a energy fuel. Pathways for the transport of endogenous and exogenous lipids. $\beta$ -oxidation of fatty acids and its energetics, oxidation of unsaturated and poly unsaturated fatty acids (PUFA). Peroxisomal oxidation of fatty acids (Phytanic acid), Refsum's disease, ketone body formation and their clinical significance, diabetic keto acidosis. Biosynthesis of fatty acids, chain elongation and desaturation, regulation of fatty acids, Biosynthesis of triacyl glycerol, phospholipids and sphingolipids, Tay Sachs's and Fabry's diseases, plasma lipoproteins : classification, synthesis and their biochemical role, role of apoproteins, familial hypercholesterolemia and its molecular basis. Biosynthesis of cholesterol and its regulation, receptor mediated LDL-uptake pathway and its effect on cholesterol B.S. Catabolism of cholesterol, bile acids, and bile salts central role of acetate as a biosynthetic precursor of lipids steroids, prostaglandins and other natural products, integration of carbohydrate and lipid metabolism.	<b>16 Hr</b>
<b>Photosynthesis:</b> Introduction, photosynthetic organisms, pigments and accessory components, light and dark phases, photosynthetic apparatus, Hill reaction, role of	<b>8 Hr</b>

<p>photosystem-I-and photosystem - II photosynthetic. Electron transport -non-cyclic electron flow and cyclic electron flow. Photophosphorylation, chloroplast ATP synthase. Quantum efficiency of photosynthesis, bacterial photosynthesis, bioluminescence and its mechanism, the Calvin cycle, its regulation and Rubisco CO<sub>2</sub> fixation in C<sub>4</sub> plant Rubisco and its regulations, Hatch Slack pathway, photorespiration.</p>	
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## REFERENCES

### Reference books:

1. Harper's Review of Biochemistry, Murray et al., (1997) Lange. 26<sup>th</sup>edn.
2. Biochemistry by Donald Voet & Judith Voet (2005)
3. Fundamentals of Biochemistry by Donald Voet, Judith Voet and Charlotte W. Pratt. (2005)
4. Biochemistry by David E. Metzler, (2003)
5. Biochemistry by R.H. Garrett and C.M. Grisham (2003)
6. Principles of Biochemistry by A.L. Lehninger, D.L. Nelson and M.M. Cox
7. Text book of Biochemistry with Clinical correlations by T.M. Devlin, IV edn., (1997)
8. Metabolic pathways edn by Greenberg, D. Academic press
9. Intermediary metabolism and regulation by J. Lerner
10. Biochemistry (IV Ed 1998) Geoffrey L. Zubay, McGraw Hill
11. Biochemistry (V Ed 2001) Lubertstrayer, W.H. Freeman and Co.,
12. Biochemistry (II Ed 1996) J. David Rawn, Etal., Prentice Hall International, Inc,
13. Text book of Biochemistry with Clinical correlations (IV Ed 1997) Thomas Devlin Wiley-Liss
14. Photosynthesis: A Comprehensive Treatise by A.S. Raghvendra (1998) Cambridge University, Press.
  1. . Bookwell, 2007
  2. <http://egyankosh.ac.in/>

<b>Paper Code and Name</b>	<b>PG72T302: Metabolism-II</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the bioenergetics explaining the production of energy currencies.
CO 2	Students will learn the metabolic pathways relevant to catabolism and anabolism of nitrogen compounds and its associated disease in related enzymes or amino acids or nucleic acids.

Particular	Teaching Hours (Max. 50)
<b>Unit 1: . Introduction:</b> Basic concepts of bioenergetics, review of first and second law of thermodynamics, entropy, free energy, standard free energy change and equilibrium constant of reactions, ATP as universal currency of biological energy, ATP-ADP cycle of the cell, high energy phosphate compounds. Generation of ATP in living systems, substrate level phosphorylation redox potential, biological redox couples, Free energy changes in electron transfer reactions.	7 Hours
<b>Unit 2: Electron transport in Mitochondria:</b> Electron carriers in mitochondria, sequence of electron carriers and their mechanism of electron transfer reactions, specific inhibitors of ETC	4 HRS
<b>Unit 3: Oxidative phosphorylation:</b> Coupling of electron transport and ATP synthesis, mechanism of oxidative phosphorylation – Mitchell’s chemiosmotic hypothesis, P/O ratios, effect of uncouplers, specific inhibitors and ionophores. Structure of mitochondrail ATP syntheis-Boyer’s binding changer mechanism. Protein motive force in Halobacteria. Microsomal electron transport and cytochrome p 450.	7Hours
<b>Unit 4 Oxygen utilizing enzymes:</b> Monooxygenases and dioxygenases, oxygen toxicity– active oxygen species, role of superoxide dismutase, catalase and peroxidases	2 Hrs
<b>II: Metabolism of Nitrogen Compounds:</b> Importance of nitrogen in biological systems and metabolism of nitrogen compounds.	1 Hrs
<b>2. Metabolism of amino acids</b> General reactions of amino acid metabolism – transmination, deamination, decarboxylation and racemization. Role of pyridoxal phosphate in amino acid metabolism.	3 Hours
<b>3. Catabolism of amino acids:</b> Metabolic fate of amino nitrogen, transdeamination, Kreb’s urea cycle, ketogenic and glycogenic amino acids, degradation of individual amino acids, transmethylatongenetic disorders – phenylketonuria, alcaptonuria, albinism, maple syrup urine disease.	6 Hours
<b>Unit 4 Biosynthesis of amino acids:</b> Essential and non-essential amino acids, regulation of glutamine synthetase and aspertate family of amino acids	5 Hrs
<b>Unit 5. Biosynthesis of</b> Epinephrine, Norepinephrine, dopamine, histamine, serotonin, GABA creatine and polyamines.	1 Hours
<b>6. Non-ribosomal peptide synthesis:</b> Glutathione and Gramicidin	1 Hours
<b>7. Metabolism of Nucleotides:</b> Biosynthesis of purine and pyrimidine nucleotides by De novo and Salvagepathways, Regulation of nucleotide biosynthesis, Interconversion of nucleotide mono-, di- and triphosphates. Biosynthesis of deoxyribonucleotides and deoxythymidyrate, Inhibitors of	5 Hrs

nucleotide biosynthesis – mechanism of action of azaserine, acivicin, 5-fluorouracil and methotrexate as anticancer drugs.	
<b>Unit 8. Degradation of purine and pyrimidine nucleotides</b> , Genetic disorders – Gout, Lesch-Nyhan syndrome, immunodeficiency disease.	2 Hrs
<b>Unit 9. Biosynthesis of nucleotide coenzymes</b> –NAD <sup>+</sup> , NADP <sup>+</sup> , FAD and coenzyme A.	1Hrs
<b>Unit 10. Metabolism of Heme</b> :Biosynthesis and degradation of hemeporphyrin, regulation and porphyrias,formation of bile pigments	2Hrs
<b>Unit 11. Biological nitrogen fixation</b> :Nitroen cycle, utilization of nitrate, nitrogen-fixing organisms, mechanism of nitrogen fixation-nitrogenase and its regulation symbiotic nitrogen.	3Hrs
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Biochemistry by R.H. Garrett and C.M. Grisham (1999).</li> <li>2. Principles of Biochemistry by A.L. Lenhinger, D.L. Nelson and M.M. Cox(2000) M.M. Macmillan/ worth NY.</li> <li>3. Text book of Biochemistry with Clinical correlations by T.M. Devlin (1997)Wiely-Liss.</li> <li>4. The vital Force: A study of Bioenergetics by Harold, F.M. (1980) W.H. Freeman and company</li> <li>5. Bioenergetics by Nicholls,D.G. and Ferguson (1997) S.J. Academic press</li> <li>6. Biochemistry (IV Ed 1998) Geoffrey L. Zubay, MCGraw Hill</li> <li>7. Biochemistry (V Ed 2001) Lubertstrayer, W.H. Freeman and Co.,</li> <li>8. Biochemistry (III Ed 1999) Voet, D. and Voet J.G. Jhon Wiley and Sons.</li> <li>9. Biochemistry (II Ed 1996) J. David Rawn, Etal., Prentice Hall International, Inc,</li> <li>10. Biochemistry 6<sup>th</sup>Edn. By J.M. Berg, J.L. Tymoczko and Lubertstryer(2006) W.H. Freeman &amp; Company, Newyork</li> <li>11. Amino acid Metabolism by D.A. Bender (1985) Wiley</li> </ol>	

<b>Paper Code and Name</b>	<b>PG72303: Medical Biochemistry &amp; Endocrinology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	The basic concepts and principles of medical biochemistry, including the process of collection, storage and tests.
CO 2	The blood groups, blood components and their disorder and diagnostic studies.
CO 3	The clinical importance of organelles enzymes and their role in diagnosis. To understanding, various physiological role of kidney, liver, cardiac, gastric tract, etc.,
	The molecular basis of diabetes and serology followed by the detailed study of endocrinology: hormones and hormones its action.

<b>Particular</b>	<b>Teaching Hours (Max. 50)</b>
<b>1.Haematoglogy and Haematological disorders:</b> Development and maturation of erythrocytes and leukocytes. Different types of anemias viz., microcytic, megaloblastic, nutritional, aplastic and sickle cell. 'CBC' complete blood count. Total and differential and platelet counts and their clinical significance. Blood group substances, Rh factor, 'Rh' typing. 'ABO' and 'Rh' incompatibility (single and combined) and the dangers involved in foetal development and subsequent measures to reduce Haemoglobinopathies, porphyries. 'ESR'(Erythrocyte sedimentation rate) determination and its importance in the diagnosis of certain diseases. Blood disorders-broad classification, blood coagulopathy, 'α' and 'β' Thalassemias. Plasma protein electrophoretic profile in health and disease, CSF analysis.	6 Hrs
<b>2.Enzymes of clinical and diagnostic importance:</b> Enzymes as markers in the diagnosis of diseases. Clinical significance of cholinesterase, alkaline and acid phosphatase, Lactate dehydrogenase (LDH), Creatine phosphokinase (CPK), Aspartate amino transferase (AST/SGOT), Alanine aminotransferase (ALT/SGPT).	3Hrs
<b>3. Water, electrolyte and acid base balance:</b> Respiratory and metabolic acidosis and alkalosis, its regulation by lungs and kidneys, with special reference to diabetic keto acidosis and starvation. Water and electrolyte balance in health and disease with special emphasis on diarrhoeas, dysenteries and vomiting, fluid and electrolyte replacement therapy	3Hrs
<b>4. Biochemical investigations in Kidney diseases:</b> Kidney profile Urine analysis for normal and abnormal constituents, urine microscopy culture, and antibiotic sensitivity test. Clearance test and their importance in the assessment of kidney function. Kidney diseases like urinary tract infection (UTI) nephritis, Urolithiasis. Dialysis and kidney transplants	3 Hrs
<b>5: Biochemical investigations in Liver diseases:</b> Liver profile in health and disease. Hepatocellular functions, with special emphasis on its participation in the various detoxification mechanisms. Liver function tests (LFT), and their clinical significance in the diagnosis of liver diseases like cirrhosis and jaundice. Gallbladder stone analysis and its clinical significance, Hepatitis A, B, & C infections.	2 Hrs

<b>6. General screening procedures for inborn errors of metabolism:</b> of proteins, carbohydrates, lipids, purines and pyrimidines and subsequent therapeutic measures with special emphasis on clinical enzymology, and special dietary restrictions. Brief idea of deficiencies caused by trace elements in metabolism.	2 Hrs`
<b>8. Cancer:</b> Clinical and classical signs, different types and stages, diagnostic tests, chemotherapy(Natural and synthetic drugs), kidney and liver toxicity, radiation therapy, Molecular basis of cancer, cell differentiation	5 Hrs
<b>9. Gastric profile in health and disease:</b> Gastric function tests, (gastric analysis) (mention of aspiration of gastric HCl by Levin and Rhexuss tube. Hypo (achlorhydria) and hyper acidity, with emphasis on classification and therapeutics of duodenal, peptic and gastric ulcers, tests to confirm pancreatic involvement in disease. Stetorrhea, and malabsorption syndrome, with special emphasis on stool (faeces) examination.	2 Hrs
<b>10. Cardiac profile in health and disease:</b> Brief mention of heart diseases	1 Hrs
<b>11. Diabetes mellitus:</b> regulation of blood sugar, classification, stages and diagnosis (urine analysis, GTC/GTT, Glycosylated hemoglobins and fructosamine determinations. Role of antidiabetic oral drugs and insulin therapy	2 Hrs
<b>12. Serology:</b> WIDAL, VDRL, malaria and filarial parasitic antigens	1 Hrs
<b>ENDOCRINOLOGY: 1 Salient features of hormones</b> and their general classification	1 Hrs
<b>2. Brief account on structure, storage and secretion of hormones</b> and feed back regulation of hormone secretion of thyroid, T3 and T4, hypothalamus, stimulatory and inhibitory factors, pituitary; tropic hormones, pancreas; insulin and glucagon, adrenal, ACTH, sex hormones, Estrogens and androgens,	5 Hrs
<b>3. Structure biosynthesis function and mechanism of action of steroid hormones.</b>	3 Hrs
<b>4. Molecular Endocrinology:</b> Structure of hormone receptors, mechanism of ligand receptor interaction - Intracellular and membrane receptor mediated responses. Signaling pathways - G proteins mediated, and effect of toxins on signal transduction. Receptor tyrosine kinases, insulin receptor, MAPK pathway, nonreceptor tyrosine kinases, growth hormone receptor, Janus kinases, Role of second messenger cAMP, cGMP, Ca <sup>2+</sup> , inositol triphosphate (IP <sub>3</sub> ), diacylglycerol DAG and nitric oxide (NO) and their synthesis and biological role.	11 Hrs
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Tietz text book of clinical chemistry (2<sup>nd</sup>edn) C.A. Beutis, E.R. Ashwood (eds) Saunders WB,. Co. 2058 1994</li> <li>2. Robbins, Pathologic basis of disease 2/5<sup>th</sup>edn. (Robbis, Cotran, Jumar (W.B.Sauders Co) (1995) )(Prism Books Bangalore)</li> <li>3. Davidson's Principles and Practice of Medicine (17<sup>th</sup>edn) (1995) C.Haslett, E.R. Chilvers (Churchill- Livingstone)</li> <li>4. Clinical laboratory diagnosis by S.A Levinson and R.P MACFATE 7<sup>th</sup>Edn(1969) Lea and Febigea</li> <li>5. Biochemical actions of Hormones by G. Litewck (Ed) Voll-14, 1973-1987, Academic press.</li> <li>6. Endocrinology by L.G. Groot (Ed). 1995, Sandeers.</li> <li>7. Principles of Biochemistry by GeofferyZubay, William W. Parson, Dennis E. Vance.( latest Edn)</li> <li>8. Text Books of Biochemistry with clinical correlations by T.M Devlin (1997), John Wiley and Sons.</li> <li>9. Dhamdher, D.M. (2012). Operating Systems: A concept Based Approach. New Delhi: Jain Publishing.</li> <li>10. Vittal, N. and Mahalingam, S. (2001). Information Technology: India's Tomorrow. New Delhi: Manas.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG72T304A: Clinical Biochemistry</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to	
CO 1	Students will be able to understand the blood groups, blood components and their disorder and diagnostic studies.
CO 2	The clinical application of enzymes and their role in diagnosis.
CO 3	To understanding, the various physiological role of kidney, liver, cardiac, gastric tract etc.,

<b>PARTICULARS</b> <b><u>Paper ET-3.1: CLINICAL BIOCHEMISTRY</u></b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit.1: CLINICAL BIOCHEMISTRY</b>	1Hr
<b>Unit 2 Blood:</b> Composition of blood, Blood cells, Types of Anemias. 'CBC' complete blood count. Total and differential and platelet counts and their clinical significance. Blood group substances, Rh factor, nature of blood group antigens and rare blood groups. Hospital- laboratory methodology in blood and 'Rh' typing. 'ABO' and 'Rh' incompatibility (single and combined) and the dangers involved in foetal development and subsequent measures to reduce. Haemoglobinopathies, porphyrias. 'ESR' (Erythrocyte sedimentation rate) determination and its importance in the diagnosis of certain diseases. Blood disorders-broad classification, blood coagulopathies-broad classification, 'α' and 'β' Thalassemias. Plasma protein electrophoretic profile in health and disease, CSF analysis, <b>Mechanism of blood coagulation</b> and its regulation	10Hrs
<b>Clinical enzymology:-</b> Enzymes as markers in the diagnosis of diseases (like LDH, CPK, SGOT, SGPT).	4Hrs
<b>Water balance and factors affecting it, electrolyte balance:</b> in health and diseases.	5Hrs
<b>Kidney Profile in health and disease:</b> normal and abnormal constituents; clearance test and their importance is assessing kidney function supported by appropriate case study.	5 Hrs
<b>Liver profile in health and disease,</b> detoxification mechanisms, LFT and their clinical significance in diagnosis of liver diseases	5 Hrs
<b>Gastric profile in health and disease;</b> Gastric function test, hypo and hyper acidity, ulcers.	5 Hrs
<b>Cardiac profile tests in health and disease.</b>	3 Hrs
Diagnostic importance of serological test like the pregnancy, WIDAL, VDRL tests- Importance of lab accreditation and quality control in a clinical biochemistry lab	5 Hrs
Importance of laboratory accreditation and quality control in a clinical biochemistry Laboratory.	4 Hrs
<b>Endocrinology:</b> Classification of hormones, general mechanism of hormone action, role of second messengers in signal transduction.	5 Hrs

References	
1.	Tietz fundamentals of clinical chemistry (5 <sup>th</sup> edn) C.A. Beutis, E.R. Ashwood (eds) Saunders WB,. Co.
2.	Robbins, Pathologic basis of disease 5 <sup>th</sup> edn. (Robbis, Cotran, Jumar (W.B. Sauders Co)
3.	Davidson's principles and practice of medicine (17 <sup>th</sup> edn) C.Haslett, E.R.Chilvers (Churchill- livingstone)
4.	Clinical laboratory diagnosis by S.A Levinson and R.P MACFATE 7 <sup>th</sup> Edn(1969) Lea and Febigea
5.	Medical Biochemistry: by N. MallikarjuanRao (2002) New age International (P) Ltd., New Delhi
6.	Text Books of Biochemistry: Molecular and Clinical Aspects by S. Nagini (2002) Scitech publications (India) Pvt Ltd., Chennai
7.	Vitamins and Hormones by G. Litwack (Ed) Vol 50, 1995, Academic Press.
8.	Biochemical Actions of Hormones by G. Litewck (Ed) Voll-14, 1973-1987, Academic press.
9.	Endocrinology by L.G. Groot (Ed). 1995, Saunders.
10.	Principles of Biochemistry by GeofferyZubay, William W. Parson, Dennis E. Vance.( latest Edn)
11.	Text Books of Biochemistry with clinical correlation by T.M Devlin (1997), Wiley-Liss
12.	Biological membranes. Their structure and function (II Edn.,) (1980) Harrsion R.
13.	Cellular Physiology of Nerve and Muscle (1998) Gary G. Mathews, Blackwell Scientific Inc.

<b>and Name</b>	
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will learn and understand the various metabolic pathway that occur in the human body and also energy production.

<b>PARTICULARS</b>	
<b><u>Paper CP-3.4: METABOLISM-I PRACTICALS</u></b>	<b><u>(4Hr/Week)</u></b>
<ol style="list-style-type: none"> <li>1. Determination of blood glucose by Sasaki method</li> <li>2. Isolation of cholesterol from egg yolk.</li> <li>3. Estimation of cholesterol by Zak's method.</li> <li>4. Estimation of ascorbic acid by 2,4, Dinitrophenylhydrazine method</li> <li>5. Determination of iodine number of oils and fats</li> <li>6. Determination of saponification value of oils.</li> <li>7. Isolation of starch from potato</li> <li>8. Acid hydrolysis of starch</li> <li>9. Isolation of chlorophylls</li> <li>10. Spectral characterization of chlorophylls.</li> </ol>	
References	
<ol style="list-style-type: none"> <li>1. Varley's Practical Clinical Biochemistry, 6<sup>th</sup>Edn. (1996) by Alan H. Gowenlock</li> <li>2. Hawk's Physiological chemistry by Oser. (14<sup>th</sup>Edn 1976) Tata McGraw Hill publishing, company Ltd.</li> <li>3. Clinical Biochemistry by Warley (1980) Vol. 1 &amp; 2, Heinemann Medical</li> <li>4. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman</li> <li>5. Practical Biochemistry by David Plummer, (1992)Tata McGraw-Hill Publishing</li> <li>6. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>7. Experimental Biochemistry (1976)by John M. Clark and Robert L. Swizer, W.H. Freeman and Company</li> <li>8. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney&amp;Randhir Singh, Narosa Publishing House.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG72P302: Metabolism-II Practicals</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the bioenergetics explaining the production of energy currencies.
CO 2	Students will learn the metabolic pathways relevant to catabolism and anabolism of nitrogen compounds and its associated disease in related enzymes or amino acids or nucleic acids.
CO 3	Students will understand the bioenergetics explaining the production of energy currencies.

<b>PARTICULARS</b> <b><u>Paper CP-3.5: METABOLISM-II PRACTICALS</u></b>	<b><u>(4Hr/Week)</u></b>
1. Determination of ATP in biological systems 2. Measurement of O <sub>2</sub> uptake in mitochondrial ETC 3. Determination of oxygenase and catalase activities 4. Determination of glutathione in animal tissues 5. Estimation of urea 6. Determination of uric acid 7. Determination of bile pigments 8. Determination of activities of aminotransferases 9. Detection of phenylketonuria Determination of nucleotide coenzymes (NAD <sup>+</sup> /FAD)	
References	
1. Varley's Practical Clinical Biochemistry, 6 <sup>th</sup> Edn. (1996) by Alan H. Gowenlock 2. Hawk's Physiological chemistry by Oser. (14 <sup>th</sup> Edn 1976) Tata McGraw Hill publishing, company Ltd. 3. Clinical Biochemistry by Warley (1980) Vol. 1 & 2, Heinemann Medical 4. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman 5. Practical Biochemistry by David Plummer, (1992)Tata McGraw-Hill Publishing 6. Practical Biochemistry: Principles and Techniques, 5 <sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press. 7. Experimental Biochemistry (1976)by John M. Clark and Robert L. Swizer, W.H. Freeman and Company 8. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney&Randhir Singh, Narosa Publishing House.	

<b>Paper Code and Name</b>	<b>PG72P303: Medical Biochemistry &amp; Endocrinology Practical's</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	The basic concepts and principles of medical biochemistry, including the process of collection, storage and tests.
CO 2	The blood groups, blood components and their disorder and diagnostic studies.
CO 3	The clinical importance of organelles enzymes and their role in diagnosis. To understanding, various physiological role of kidney, liver, cardiac, gastric tract, etc.,

<b>PARTICULARS</b>	
<b>Paper CP-3.6: MEDICAL BIOCHEMISTRY AND ENDOCRINOLOGY</b>	<b>(4Hr/Week)</b>
<b>1. Urine Analysis:</b> Urine qualitative analysis for normal and abnormal constituent and urine microscopy for cells, casts and crystals. <b>2. Quantitative analysis of urine</b> a) Total titratable acidity b) Glucose c) Inorganic phosphorus d) Proteins. e) Creatine and creatinine <b>3. Blood analysis</b> a) Complete blood counts('CBC') b) Erythrocyte sedimentation rate determination ('ESR') c) Haemoglobin percentage determination d) Plasma protein electrophoresis (demonstration) <b>4. Blood /serum quantitative analysis</b> a) Glucose b) Bilirubin c) Cholesterol d) Acid and alkaline phosphatase. <b>5. Endocrinology</b> a) Quantitative estimation of 17 keto steroids in urine.	
<b>References</b>	
1. Varley's Practical Clinical Biochemistry, 6 <sup>th</sup> Edn. (1996) by Alan H. Gowenlock 2. Hawk's Physiological chemistry by Oser. (14 <sup>th</sup> Edn 1976) Tata McGraw Hill publishing, company Ltd. 3. Clinical Biochemistry by Warley (1980) Vol. 1 & 2, Heinemann Medical Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman	

<b>Paper Code and Name</b>	<b>PG72T401: Molecular Genetics &amp; Immunology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will learn how human body fights with invading microorganism and pathogens.
CO 2	Students will understand the human genetics and related components.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>I: Molecular Genetics:</b>	
1. Bacterial genetics: Bacterial chromosome, plasmids, fertility, resistance, colicins, virulent, metabolic and other factors. Transposable genetic elements, transformation and conjugation in bacteria, linkage map of bacterial chromosomes, recombination in bacteria.	<b>6 Hr</b>
2. Biochemical genetics: Human material, structure of chromosomes, chromosome banding, lampbrush and polytene chromosomes, chromosomal abnormalities, chromosomal proteins, introns, exons, pseudogenes, gene clusters, spacers, mapping of human genes, nature of inheritances, sex linked inheritance, Histones and nonhistones, nucleosomes.	<b>5 Hr</b>
3. Mutations: Types, mutagens, nature of mutation, mechanism of action of mutagens, suppressor mutation, genes and their importance, Temperature sensitive mutants, isolation of auxotrophic and nutritional mutant microbes replica plating.	<b>3 Hr</b>
4. DNA repair: Photoreactivation, Excision, Post-replication and Recombinational DNA repair mechanisms.	<b>2 Hr</b>
<b>II: Immunology :Organs and cells of the Immune system.</b> Primary (Structure of Bone-marrow and Thymus) and secondary lymphoid organs. (Spleen, lymph node, MALT etc.). Hematopoiesis (Cells of Myeloid and lymphoid lineages), Production and maturation (Ontogeny) of T (TH, TC and TREG) and B (B1 and B2) lymphocytes. Positive and Negative selection, Central and peripheral tolerance	<b>4 Hr</b>
<b>Innate Immune Response:</b> Mechanical barriers to infection, Physiological factors contributing to innate immunity, Inflammatory response and Phagocytic system (Role of Mononuclear phagocytes, Macrophages, Neutrophils in innate immunity). Types of infections and nature of infective agents, Alternate and classical pathway of complement system	<b>4Hr</b>
<b>Immunogenetics:</b> Genetic model compatible with Ig structure, Multigene organization of Ig genes, Variable-region gene rearrangements and its mechanism, Theories of antibody formation (Clonal selection and Network). Molecular basis of antibody diversity–gene recombination, somatic hypermutation, N- and P-nucleotide insertion, Class switching, Regulation of Ig-Gene Transcription.	<b>4 Hr</b>

<b>Antigens and Antibodies:</b> Chemical complexity and molecular property of Antigens, Haptens, Epitopes, Paratope. Epitope analysis, Basis of antigen specificity. Immunoglobulin fine structure and classes, Antigenic determinants on immunoglobulins, Immunoglobulin superfamily, monoclonal and polyclonal antibodies and their production by hybridoma technology.	<b>4Hr</b>
<b>Antigen-Antibody Interactions:</b> Principles, affinity and avidity and cross reactivity. Techniques: Precipitation, Agglutination, Radioimmunoassay, Enzyme-Linked Immunosorbent Assay, Western Blotting, Immunofluorescence, Immunoelectron Microscopy	<b>4Hr</b>
<b>Adaptive immune response:</b> Primary and secondary immune response. Nature of T and B cell surface receptors, Major Histocompatibility Complex- Molecular organization of MHC molecules (H-2, HLA), Structure of MHC molecules. Class I MHC-peptide and Class II MHC-Peptide interactions. Antigen presenting cells (APCs), Antigen processing and presentation by endo and exogenous pathways.	<b>5Hr</b>
<b>Immune effector mechanisms</b> – Immunological tolerance, Hypersensitivity: Immediate (type I, type II, type III) and delayed hypersensitivity reactions.	<b>3Hr</b>
<b>Autoimmunity</b> -Organ specific (Hashimoto's thyroiditis and Myasthenia Gravis) and systemic (Rheumatoid arthritis and Systemic lupus erythematosus) diseases. Tissue transplantation - auto, allo, iso and xenograft, transplantation rejection, mechanism and control, immunosuppressive agents. Cancer-immunology – Tumor associated antigens, Immunological surveillance of cancer.	<b>4 Hr</b>
<b>Cytokines:</b> Properties and functions of lymphokines, monokines, interleukins and chemokines; Transplantation Immunology: Mechanism of graft rejection and Immunosuppressive therapy	<b>2Hr</b>
<b>References</b>	
1. Biochemistry (V Ed 2002) Lubertstrayer, W.H. Freeman and Co., 2. Biochemistry (III Ed 1999) Voet, D. and Voet J.G. John Wiley and Sons. 3. Molecular Cell Biology, 4 <sup>th</sup> edition, (2000) by Lodish Harvey, Arnold Berk, S. Lawrence Zipursky, Paul Matsudaira, David Baltimore, James Darnell (W.H. Freeman and Company) 4. Genes VII Benjamin Lewin (Ed 2000) University Oxford Press 5. Microbial Biotechnology by Alexander, Glaser & Iltis 2 <sup>nd</sup> edn Freeman and Co. (1998) 6. Molecular cloning: A Laboratory manual, 3 <sup>rd</sup> edn. (2001) by J. Sambrook and Russell, Cold Spring Harbor Laboratory press. 7. Principles of Gene Manipulation 6 <sup>th</sup> Edn. (2001) by S.B. Primrose, R.M. Tevethy, R.W. Old, Blackwell Scientific 8. Molecular Biology of the cell by Alberts et al., (1989) Garland publications 9. DNA Cloning: A Practical approach by D.M. Glover (1985) Vol. 1. and 2, IRL press. 10. Plant cell culture by W. Horn's and K.J. Oparka (1994) IRL press, Oxford University 11. Basic & Clinical Immunology (4 <sup>th</sup> edn.) by Daniel P. Stabel, John D. Fudenberg H, Hugu, Wells, J. Vivian Stites (1982) Lange 12. Roitt's Essential Immunology; Ivan M. Roitt & Peter J Delves (2001) Blackwell Science 13. Immunology/Ivan Roitt, Jonathan Brostoff, David Male (6 <sup>th</sup> edn.) (2001) Mosby 14. Introduction to Immunology; Kimbell (Ed) (1990) 3 Ed McMillan 15. Kuby-Immunology; Goldsby et al., (2006), W.H. Freeman & Co.	

<b>Paper Code and Name</b>	<b>PG72T402: Molecular Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Student will explain genes and their activities in molecular terms.
CO 2	Student will study in detail the structure & activity of genes and the experimental evidence underlying those concepts.
	The student will learn the structure & functions of DNA and entrains basic converge of DNA replication and gene expression.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>1. DNA replication:</b> Semiconservative mode of replication. Experimental evidences, DNA unwinding, Topological problems, linking numbers and role of topoisomerases, direction of replication DNA polymerases I, II and III their role in DNA synthesis, Termination of replication. Nearest neighboring frequency analysis. Mechanism of E. coli replication. Single standard DNA, synthesis of phage DNA, rolling cycle model. Replication of eukaryotic and mitochondrial DNA, restriction and modification of DNA. Inhibitors of DNA replication.	<b>15Hr</b>
<b>2. Transcription:</b> Biosynthesis of RNA, role of RNA polymers, structure, properties and mechanism of transcription, Transcription factors, inhibitors of transcription, mechanism of splicing, processing of RNA's into mRNA, RNA and tRNA in eukaryotes and prokaryotes, RNA replicase and its role, polynucleotide phosphorylase reaction and its significance, reverse transcription and its mechanism, RNA dependent DNA polymerase, post transcriptional processing of RNAs.	<b>10Hr</b>
<b>3. Genetic code:</b> Biological significance of degeneracy, methods employed to decipher genetic code, size of the codon, triplet code studies by Khorana and Nirenberg. Feature of genetic code, wobble hypothesis coding property of tRNA, mitochondrial-genetic code.	<b>3Hr.</b>
<b>4. Translation and protein targeting:</b> Structural organization of ribosomes in prokaryotes and eukaryotes. Role of mRNA and tRNA in protein biosynthesis,. Stages in protein biosynthesis. Site and direction of protein biosynthesis. Amino acid activation. Formation of amino acyl tRNA, chain initiation, elongation and termination. Mechanism of synthesis of proteins. The role of various factors. Post translational modification of proteins. Inhibition of protein biosynthesis in eukaryotic	<b>12Hr.</b>

and prokaryotic system, protein targeting, synthesis of secretory and membrane proteins., signal sequence hypothesis. Mechanism of translational control.	
<b>5. Regulation of gene expression:</b> Gene regulation principles, Differences between prokaryotic and eukaryotic gene regulation, transcriptional control. Enzyme induction and repression. Jacob Monad operon model. Operon hypothesis The study of lac operon and its mechanisms of expression, as an example of + ve and – ve regulation, characteristic properties of lac repressor. Catabolite repression, role of cAMP and catabolite gene activator protein (CAP) in catabolite repression. Translational control, Si RNAs. A brief study of other operons, arabinose & tryptophan, attenuation. A brief account of regulation of gene expression in eukaryotes.	<b>12 Hr</b>
<b>References:</b>	
1. Biochemistry (V Ed 2002) Lubertstryer, W.H. Freeman and Co., 2. Biochemistry (III Ed 1999) Voet, D. and Voet J.G. Jhon Wiley and Sons. 3. Molecular Cell Biology, 4 <sup>th</sup> edition, by Lodish Harvey, Arnold Berk, S. Lawrence Ziursky, Paul Matsufaira, Daid Baltimore, James Durnel (W.H. Freeman and Company) 4. Genes VII Benjamin Lewin (Ed 2000) University Oxford Press 5. Molecular Biology of the cell by Albertsetal, (1989) Garland publications.	

<b>Paper Code and Name</b>	<b>PG72T403: Biotechnology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Explain the various tools used in rDNA, viz., plasmid, restriction enzymes
CO 2	Identify the various expression systems
CO 3	Yeast as an expression system,
CO 4	Understand the application of plant biotechnology. And cell biotechnology. Apply the bioinformatics tools and understand the various biostatics for analytical applications

PARTICULARS	Teaching Hours (Max.50)
<b>1. Introduction:</b> Scope of Biotechnology	<b>1 Hr</b>
<b>2. Recombinant DNA technology:</b> Basic principles of gene cloning cDNA cloning, construction of gene libraries strategies tissue specific mRNAs. Preparation of cDNA, alternative strategy of Okyama and Berg for cDNA synthesis insertion of target fragments into vectors by different methods. E.coli and other species in cloning plasmid cloning, vectors, plasmid size range, phenotypic traits, amplification, common plasmids like PBR-322, PUC, phage vectors, lambda phage M-13 SV-40, cosmids. phagemids, shuttle vectors, identification of recombinants- direct selection immunochemical detection and protein activity method.	<b>13 Hr</b>
<b>3. Restriction enzymes:</b> classification, isolation of gene fragments using restriction endonucleases and mechanical shear, fractionation by centrifugation, electrophoresis, nucleic acid hybridization technique. Construction and design of primers, PCR chemical synthesis, blotting technique.	<b>7 Hr.</b>
<b>4. Expression of foreign DNA</b> comparison of transcription initiation signals in prokaryotic and eucaryotics. Lac promoter, trp promoter, tac promoter. Synthesis of eukaryotic proteins on commercial scale production of insulin, construction of gene libraries, diagnostic probes of genetic diseases, site specific mutagenesis.	<b>6 Hr</b>
<b>5. Cloning in yeast</b> -development of yeast vectors, YIP. YEP, YAC selection and expression of clones.	<b>2 Hr.</b>
<b>6.. Plant biotechnology</b> – plant tissue culture, isolation of plant protoplasm's - Ti-plasmid or agrobacterium tumefaciens and other bacteria, caulimovirus. Introduction of desirable gene in plants phage, mediated transfer. Introduction of desirable gene in plants. Phage mediated transfer, Application of transgenic plants, Salinity & drought resistant plants, insect resistant plants, Golden rice, delayed senescence,	<b>7 Hr</b>
<b>7. Cell biotechnology:</b> Animal cell culture, cloning in mammalian cells transgenic animals, methods of introducing genes into eukaryotic cells and chromosomes, reproductive and therapeutic cloning, gene therapy.	<b>5 Hr</b>
<b>8. Biosensors:</b> Principle of biosensors and biochips and their applications.	<b>1Hr</b>
<b>9. Bioinformatics and Biostatistics:</b> Bioinformatics- Archives of biological databases, Computer Operating system, Application software, Protein Modelling, Concepts of Drug designing. <b>Biostatistics</b> - Uses, Analytical Considerations of Experimental error, selecting an analytical methods, Nature of experimental errors, Precession, Coefficient of variation, Variance. Population statistics- Probability- rules of probability, binomial distribution, Normal distribution, Confidence intervals, Confidence Limits and Student's t Factor, Criteria for the rejection of outlier experimental Data. Validation of analytical method, Analysis of Standard solution: one sample t-Test. ANOVA. P Value.	<b>8 Hr</b>

### References:

1. Biochemistry (V Ed 2002) Lubert Stryer, W.H. Freeman and Co.,
3. Biochemistry (III Ed 1999) Voet, D. and Voet J.G. John Wiley and Sons.
4. Biochemistry (III Ed 1999) Mary. K Cambell Harcourt Brace college Publishers.
5. Molecular Cell Biology, 4<sup>th</sup> edition, (2000) by Lodish Harvey, Arnold Berk, S. Lawrence Ziursky, Paul Matsufaira, Daid Baltimore, James Durnel (W.H. Freeman and Company)
6. Principles of information technology second edn. P.F. Stanbay, and S.J. Hall, Butterworth Hiremann 1995
7. Bioinformatics-sequence, Structure and detabanks Edited by thgginstaylor. W (2001) (Oxford University Press)
8. Principles of Biotechnology by Wiseman, A surrey (1998) Oxford University Press
9. Molecular cloning: A Laboratory manual, 3<sup>rd</sup>edn. (2001) by J. Sambrock and Russel, Spring Harbor Laboratory press.
10. Principles of Gene Manipultion 6<sup>th</sup>Edn. (2001) by S.B. Primose, R.M. Tqyman, R.W. Old, Blankwell Scientific
11. DNA Cloning: A Practical approach by D.M. Gover (1985) Vol. 1. and 2, IRL Press.
12. Plant cell culture by W. Horn's and K.J. Opara (1994) IRL press, Oxford University
13. Applied and Fundamental Aspects of plant cell, Tissue and organ culture by J.R. Reinert and Y.P.S. Bajaj (1997) Narosa Publications.
14. PCR Technology: and Application for DNA Amplification by H.A Erlich (Ed) (1989) Stocketon press.
15. Recombinant DNA: A short course by J.D. Watson, J. Toose and D.T. Kurtz (1983) Scientific American Books/Freeman.

<b>Paper Code and Name</b>	<b>PG72T404B: Project</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	After rigorous training during their project tenure, students will be able to gain comprehensive hands on training in the field of various research fields such as Biodegradation, Neurochemistry, Glycobiology and Protein Biology.
CO 2	Literature survey on the topic .
CO 3	Basics of research methodology and design of experiments.
CO 4	Preparation of manuscript for publication.
CO 5	Execution of research work by various techniques
CO 6	Presentation of research data in the conferences/seminars

<b>Paper Code and Name</b>	<b>PG72P401: Molecular Genetics &amp; Immunology Practical's</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will learn how human body fights with invading microorganism and pathogens.
CO 2	Students will understand the human genetics and related components.

<p align="center"><b><u>Paper CP-4.5: MOLECULAR BIOLOGY &amp; IMMUNOLOGY PRACTICALS</u></b>  <b><u>(4Hr/Week)</u></b></p>	
1.	Isolation of RNA from microbial source
2.	Estimation of RNA by Orcinol method
3.	Characterization of RNA by spectroophotmetry
4.	Preparation of polyribosomes.
5.	Mutations by UV irradiation and photoreactivation
6.	Designing of primers.
7.	Amplification of DNA by PCR technique
8.	Agarose gel electrophoresis of DNA
9.	Transformation of bacteria by CaCl <sub>2</sub> method
<b>References</b>	
1.	Plant cell culture by W. Horns and K.J. Opara (1994) IRL press, Oxford University
2.	Applied and Fundamental Aspects of plant cell, Tissue and organ culture by J.R. Reinert and Y.P.S. Bajaj(1997) Narosa Publications.
3.	PCR Technology: and Application for DNA Amplification by H.A Erlich(Ed 1989) Stocketon press.
4.	Recombinant DNA: A short course by J.D. Watson, J. Toose and D.T. Kurtz (1983) Scientific American Books/Freeman.
5.	Hand book of Molecular Biology (Cold spring Harbor) Maniatis and Maniatis
6.	IRL

<b>Paper Code and Name</b>	<b>PG72T402: Molecular Biology Practicals</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	<ul style="list-style-type: none"> <li>• Student will explain genes and their activities in molecular terms.</li> </ul>
CO 2	<ul style="list-style-type: none"> <li>• Student will study in detail the structure &amp; activity of genes and the experimental evidence underlying those concepts.</li> </ul>
	<ul style="list-style-type: none"> <li>• The student will learn the structure &amp; functions of DNA and entrains basic converge of DNA replication and gene expression.</li> </ul>

<b><u>Paper CP-4.5: MOLECULAR BIOLOGY PRACTICALS (4Hr/Week)</u></b>	
10.	Isolation of RNA from microbial source
11.	Estimation of RNA by Orcinol method
12.	Characterization of RNA by spectrophotmetry
13.	Preparation of polyribosomes.
14.	Mutations by UV irradiation and photoreactivation
15.	Designing of primers.
16.	Amplification of DNA by PCR technique
17.	Agarose gel electrophoresis of DNA
18.	Transformation of bacteria by CaCl <sub>2</sub> method
<b>References</b>	
7.	Plant cell culture by W. Horns and K.J. Opara (1994) IRL press, Oxford University
8.	Applied and Fundamental Aspects of plant cell, Tissue and organ culture by J.R. Reinert and Y.P.S. Bajaj(1997) Narosa Publications.
9.	PCR Technology: and Application for DNA Amplification by H.A Erlich(Ed 1989) Stocketon press.
10.	Recombinant DNA: A short course by J.D. Watson, J. Toose and D.T. Kurtz (1983) Scientific American Books/Freeman.
11.	Hand book of Molecular Biology (Cold spring Harbor) Maniatis and Maniatis
12.	IRL

<b>Paper Code and Name</b>	<b>PG72T403: Biotechnology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Explain the various tools used in rDNA, viz., plasmid, restriction enzymes
CO 2	Identify the various expression systems
CO 3	Yeast as an expression system,
	Understand the application of plant biotechnology. And cell biotechnology. Apply the bioinformatics tools and understand the various biostatics for analytical applications

<b><u>Paper CP-4.6 BIOTECHNOLOGY PRACTICALS (4Hr/Week)</u></b>
<ol style="list-style-type: none"> <li>1. Isolation of DNA from bacterial cells</li> <li>2. Characterization of DNA by UV Spectroscopy</li> <li>3. Estimation of DNA by diphenylamine method</li> <li>4. Restriction digestion of isolated DNA.</li> <li>5. Induction of <math>\beta</math>-galactodidase by lactose in <i>E. coli</i>.</li> <li>6. Application of MS EXCEL for the calculation of Standard Deviation and Plotting the graph.</li> <li>7. Introduction to SPSS, PRISM special features such as L-B Plot.</li> <li>8. Exploration of Biological Databases for Literature survey</li> <li>9. Comparative sequence analysis by FASTA and BLAST</li> <li>10. Rosmol for analysis of Protein structure.</li> </ol>
<b>References</b>
<ol style="list-style-type: none"> <li>1. Biochemical Techniques-theory and practical by John T. Robert and Bernad J White</li> <li>2. Biotechnology laboratory course 2<sup>nd</sup>edn. By Jeffery M. Becker, Guy A Caldwell and Eve Ann Zachicago</li> <li>3. Modern Experimental Biochemistry by Rodney Boyer (2000) Third edition, Addison Wesley Longman</li> <li>4. Practical Biochemistry by David Plummer, (1992) Tata McGraw-Hill Publisher</li> <li>5. Practical Biochemistry: Principles and Techniques, 5<sup>th</sup> Edition, Edited by Keith Wilson and John Walker (2000) Cambridge University, Press.</li> <li>6. Experimental Biochemistry (1976) by John M. Clark and Robert L. Swizer, W.H. Freeman and Company</li> <li>7. Introduction to Practical Biochemistry (2000) Edited by S.K. Sawhney&amp;Randhir Singh, Narosa Publishing House.</li> </ol>

KARNATAK UNIVERSITY  
DHARWAD

DEPARTMENT  
OF  
BIOCHEMISTRY

Ph.D. COURSE WORK

SYLLABUS

2012-13

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF BIOCHEMISTRY**

**Regulations and Syllabus for Ph.D. Course work**

As per the Amended regulations governing Ph.D. Programme (regulation 9.0) of the Karnatak University, Dharwad w.e.f. Academic year 2012-13, the candidates registered for Ph.D. degree shall undertake course work of one semester (16 weeks) on regular basis.

**9.0 Course work**

9.1 Registered Full-time and Part-time Ph.D. candidates shall undertake course work of one semester (16 weeks), normally in the parent department within one year from the date of provisional registration, failing which his/her registration shall be cancelled. However, if it is found necessary, course work may be carried out by doctoral candidates in sister departments/Institutes/ Research Centres recognized by the University for which due credit shall be given to such candidates.

9.2 The course work for Ph.D. programme shall comprise of three papers of 100 marks each, viz.,

- i) **Course-I: Research Methodology** which include Quantitative /Qualitative methods and computer applications
- ii) **Course-II: Cognate/Core Subjects**
- iii) **Course-III: Area of Research.** This shall be followed by comprehensive Viva-Voce for 50 marks

However, it shall be noted here that Course-I and II are common for all the candidates in the particular Department/subject/ Discipline.

9.3 Each Course shall have 48 contact hours. Classes for Courses-I and II shall be arranged by the Chairperson of the P.G. Departments/Head of the recognized research centres, and that of Course-III by the concerned Research supervisor. Both the Full-time and Part-time candidates shall attend atleast 75% of the classes in each paper to be eligible to appear for the examination.

9.4 The syllabus of Paper-I & II shall be framed by the Concerned Department consisting of the chairperson of the respective Department as Chairperson, two Research Supervisors, based on the seniority (including One Research Supervisor belonging to SC/ST Category wherever available). The syllabus of Paper-III shall be framed by the concerned Supervisors. The syllabi shall be placed before the concerned BOS for consideration and approval.

9.5 The candidates who fail to attend minimum of 75% of the classes in each of the courses shall not be eligible to appear for the examination and his/her provisional registration stands cancelled.

9.6 The following shall be the structure of Course work for Ph.D. Programme.

Sl. No.	Name of the Course	Contact Hours per Week	Maximum Marks			Examination Hours
			Continuous Assessment (IA)	Course-End Examination	Total	
01	Course-I: Research Methodology	03	50	50	100	02
02	Course-II: Cognate/Core Subject	03	50	50	100	02
03	Course-III: Area of Research	03	50	50	100	02
Total			150	150	300	
Viva Voce					50	
Grand Total					350	

9.7 Continuous Internal Assessment (IA) Marks of the course work shall be awarded based on

a) Assignments-10 marks b) Seminars-10 marks c) Tests-30 marks.

Paper	Internal Assessment Components (Marks)				
	Test-I (15)	Test – II (15)	Seminar (10)	Assignment (10)	Total
1. Course-I: Research Methodology	5 <sup>th</sup> week	9 <sup>th</sup> week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50
2. Course-II: Cognate/Core Subject	5 <sup>th</sup> week	9 <sup>th</sup> week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50
3. Course-III: Area of Research	5 <sup>th</sup> week	9 <sup>th</sup> week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50

9.8 The question paper (in two sets) of Paper-I & II of the Semester end examinations shall be set by BOE (vide Regulation 9.4). the concerned Supervisors shall set the question paper/s (in two sets) in respect of Paper-III. The manuscripts of the question papers shall be submitted to the Registrar (Evaluation). Out of the two sets of question papers or each Paper, one shall be chosen randomly by the Registrar (Evaluation).

9.9 The Semester-end examination shall be conducted in the 17<sup>th</sup> week and evaluation completed and results announced by the 18<sup>th</sup> week.

## **10.0 Examination and Evaluation of Answer Scripts**

- 10.1 There shall be a Course-end Examination of two hours duration (for 50 marks per Course).
- 10.2 The Chairperson of the P.G. Department shall conduct the examination for all the candidates (i.e., including those who are working for Ph.D in other institutions) in the Department.
- 10.3 Each answer script of the Course-end examination shall be coded and assessed by two examiners ( one internal Course teacher and another external- appointed by the Registrar (Evaluation) from the panel of examiners submitted by the Chairperson of the BOE). The marks awarded to the answer script shall be the average of these two evaluations.
- 10.4 If the difference in the marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner appointed by the Registrar (Evaluation) from the panel of examiners submitted by the Chairperson of the BOE. The marks awarded to that script shall be the average of two nearer marks out of three evaluations.

## **11.0 Minimum Pass Marks and Improvement Examination:**

- 11.1 The BOE shall prepare the Result sheet and submit it to the Registrar (Evaluation) who shall then declare the results and issue marks cards.
- 11.2 Minimum for pass in each written paper shall be 40% in the course-end examination and 50% in aggregate including the continuous internal assessment marks. However, there shall be no minimum for Viva-Voce as well as IA Marks. Every candidate shall compulsorily attend the Viva-Voce examination conducted by Respective Research supervisor and concerned Chairperson of the Department.
- 11.3 Failed candidates shall be allowed to reappear for the Ph.D. Course work examination only once within three months of the first examination. In case of failure of the candidate even after the re-examination, his/her provisional Registration shall be cancelled. There is no provision for improvement of IA marks.

## **Syllabus for Ph.D. Course work in Biochemistry**

### **Course-I : RESEARCH METHODOLOGY**

1. Research in biochemistry- An over view, Literature review, objectives of Research work, Approaches and methodology 6 hrs
  2. Documentation and presentation of data, Analysis and interpretation of data, manuscript preparation 5 hrs
  3. Biostatistics used for analysis of data 6 hrs
  4. Computer applications/Bioinformatics, biochemical databases, web tools and software packages 8 hrs
  5. Purification and characterization of biomolecules, Centrifugation, Chromatography, Electrophoresis, Spectrophotometry, GC-MS, NMR 8 hrs
  6. Microscopic and Immunological techniques, Radio isotopes in biochemical research 6 hrs
  7. Techniques in molecular biology; PCR, DNA Microarray, DNA sequencing and cloning techniques 9 hrs
- 48 hrs**

# Syllabus for Ph.D. Course work in Biochemistry

## Course-II: Cognate/Core Subject- Biochemistry

1. **Introduction:** Basic concepts of Biochemistry, Cellular organization and composition, Analytical tools in structural biology  
3 hrs
2. **Biomacromolecules:** Structural organization of Proteins and Nucleic acids, structure –function relationships, Supramolecular assemblies, Polysaccharides, Glycoproteins, lipoproteins, membrane assembly molecules, proteoglycans, blood group antigens.  
8 hrs
3. **Enzymes:** Substrate specificity, coenzymes, Isoenzymes enzyme Kinetics, catalytic mechanisms, Regulation of enzyme activity, diagnostic enzymes, application of enzymes.  
6 hrs
4. **Metabolism:** Metabolic pathways-carbohydrates, lipids, aminoacids and nucleotides, metabolic interrelationships, Genetic disorders, metabolic regulations Hormonal control.  
6 hrs
5. **Molecular physiology:** Mechanism of action of Hormones, Signal transduction, Hormone Receptors, Neurotransmission, Vision, Muscle contraction, stem cells & their applications.  
5 hrs
6. **Molecular Biology:** DNA replication, transcription, translation, Regulations of Gene Expression.  
6 hrs
7. **Immunology:** Antigens, Immunoglobulins, Immune systems, Autoimmunity, Molecular immunology.  
6 hrs
8. **Biotechnology:** Recombinant DNA technology, Gene cloning, restriction enzymes, expression of foreign genes, transgenic organisms, plant biotechnology, Human gene therapy Molecular Diagnostics.  
8 hrs

Total 48 hrs

# Syllabus for Ph.D. Course work in Biochemistry

## Course-III: Area of Research

### BIODEGRADATION AND BIOREMEDIATION

1. **Environmental Pollution:** A perspective review, Sources and toxicity of environmental pollutants, Xenobiotics 6 hrs
  2. **Biodegradation:** Role of microbes in the degradation of environmental pollutants, Biodegradative pathways in microorganisms-bacteria, fungi and yeast. Aerobic and anaerobic biodegradation by pure and mixed cultures, cometabolism, biotransformation 9 hrs
  3. **Persistent Organic pollutants (POPs):** Polycyclic aromatic hydrocarbons (PAHs), Polychlorinated biphenyls (PCBs), Halogenated and nitro aromatic compounds, Bioaccumulation and Biomagnification. 6 hrs
  4. **Elucidation of biodegradative pathways:** Isolation and characterization of metabolic products by physico-chemical methods, oxygen-uptake and enzymatic studies. 8 hrs
  5. **Enzymes of biodegradative pathways:** Monooxygenases, Dioxygenases, Esterases and Dehalogenases. Microbial enzymes and their industrial applications 6 hrs
  6. Development of genetically engineered microbial strains for degradation of toxic organic pollutants 4 hrs
  7. **Bioremediation:** Use of microbes in bioremediation of contaminated sites, **in situ** and **ex situ** bioremediation, bioaugmentation, phytoremediation and their applications in environmental pollution control , Biological treatment , Immobilized microbial technology 9 hrs
- 48 hrs**

## **Syllabus for Ph.D. Course work in Biochemistry**

### **Course-III: Area of Research**

#### **GLYCOBIOLOGY**

1. **Proteins**- Isolation, purification techniques for soluble and membrane bound proteins 5 hrs
2. Characterization of proteins for Primary, Secondary, Tertiary and Quaternary structure 10 hrs
3. **Carbohydrates**: Monosaccharides of biological origin, oligos, polysaccharides and their biological significance Methods used for characterization of carbohydrates, uses of enzymes, chemical methods, MALDI-TOF MS MS, NMR, Glycans, Complexity of glycans of glyconjugates, N and O linked glycans, biosynthesis and their characterization 13 hrs
4. **Carbohydrate binding proteins**: Lectins, classification structure, function and their applications. 10 hrs
5. **Cell biology**: Cell culture methods, cell based assays; proliferation, viability and apoptosis assays, Flowcytometry, confocal microscopy, Immunohistochemistry and western blotting, Cancer Biology. 10 hrs

**48 hours**

**Syllabus for Ph.D. Course work in Biochemistry**  
**Course-III: Area of Research**  
**NEUROCHEMISTRY**

**UNIT-1 GROSS ANATOMY OF BRAIN 07 Hours**

Components of the Central Nervous System (CNS), Cerebral topography, Topography of the Cerebellum and Brainstem, Development of the nervous system, The meninges, Covering of the brain and spinal cord (Dura Mater, Arachnoid Mater, Pia Mater). Cerebrospinal fluid -Formation, Circulation, Function and Composition. Blood-Brain Barrier (BBB).

**UNIT-2 THE NEURON 07 Hours**

The Neuron and its cellular components, Axonal Transport, Types of Neurons, Neuroglia, Myelinated Axons (PNS & CNS), Disorders associated with defected Myelination, Composition of Peripheral Nerves, Injury of the Neuronal cell body and Axonal damage, Recovery of Neuronal injury.

**UNIT-3 NEUROTRANSMITTERS 08 Hours**

Definition, Criteria for identifying neurotransmitter, Major classes of Neurotransmitter, its synthesis, removal, distribution and its physiological & clinical consideration, Receptors for Neurotransmitter, Mechanisms of regulation of receptors.

**UNIT-4 PROTEIN KINASE AND PHOSPHATASES IN SIGNALLING 08 Hours**

Introduction to reversible phosphorylation, Protein- serine/threonine and tyrosine kinase and phosphatase: structure and origin of protein phosphatase, effect of inhibitors on protein phosphorylation in intact cells. Calcineurin: its form, function and multiple roles in cell signaling with special emphasis on learning and memory.

**UNIT- 5 INHERITED AND NEURODEGENERATIVE DISEASES 10 Hours**

The Epilepsies, Phenotype and Mechanisms, Diseases Involving Myelin, Genetics of Neurodegenerative Diseases, Disorders of Amino Acid Metabolism, Lysosomal and Peroxisomal Diseases, Diseases of Carbohydrate, Fatty Acid and Mitochondrial, Metabolism, Disorders of Muscle Excitability, Neurodegenerative alpha-Synucleinopathies and Tauopathies, Neurodegenerative  $\alpha$ -Synucleinopathies and Tauopathies, Motor Neuron Diseases.

**Unit 6 BIOINFORMATICS 08 Hours**

**Biological Data bases:** resource data base generation (genome projects), structural data bases (protein data bases), data base mining and applications.

**Sequence analysis:** Sequence alignment (Global and Local), sequence analysis of Nucleic acids and proteins (FASTA and BLAST), Restriction mapping, Pair wise and multiple alignments, phylogenetic analysis.

**Drug designing:** Structure prediction of proteins, modeling, Drug designing, Molecular docking, evaluation and validation.

**Total Hours: 48 Hours**

**REFERENCES:**

1. Essential Neuroscience, Revised First Edition, Allan Siegel and Hreday N. Sapru. Lippincot & Williams publishers, 2007
2. Molecular Pharmacology, Edition Second by Eric J. Nestler, Steven E. Hyman and Robert C. Malenka. Prentice Hall. 2008
3. Fundamentals of Neurophysiology, Third Revised Edition, Edited by R. F. Schmidt. BIOS Publishers, 2012
4. Neural Plasticity and Memory, From Genes to Brain Imaging. *Frontiers in Neuroscience*, Edited by Federico Bermúdez-Rattoni Publishers Prentice Hall., 2007
5. Neuroscience: Exploring the Brain, Third Edition, Mark F Bear, Barry W Connors, Michael A Paradiso.2015
6. Basic Neurochemistry, 7th edition, by George J Siegel. Publishers L Williams & Wilkins, 2006
7. Protein phosphorylation, OXFORD university Press D. G. Hardie 1999
8. Instant notes in Bioinformatics, D.R. West head, T.H. Parish and Twyman, 2002, Publishers BIOS, 2002
9. Bio scientific Problems Oxford OX4, IRE, UK., 2003
10. Bioinformatics, Genes, Proteins & Computers: C.A Orengo, D.T. Jones & J.M. Thornton. Publishers BIOS Scientific,2003
11. Introduction to Bioinformatics Teresa Attwood, David Parry-Smith. Publishers Prentice Hall, 2003

**Syllabus for Ph.D. Course work in Biochemistry**  
**Course-III: Area of Research**  
**Protein Biology**

**UNIT- 1. PROTEINS AND AMINO ACIDS (8H)**

Amino acids classification and chemistry. Proteins– primary structure – secondary – tertiary – quaternary – super secondary structures. Sequence determination – Ramachandran plot. Globular and fibrous proteins. Protein folding and dynamics – Molecular chaperones – heat shock proteins. Protein denaturation (pH, temperature, chaotropic agents), Protein-Protein interactions, Functional proteins: Structure and Drug targets.

**Protein Folding:** Folding pathways; Intermediates of protein folding; Compact Intermediates; Role of chaperons (trigger factor, prefoldin), heat shock proteins (Hsp70, Hsp90), chaperonins (Group I & II) and enzymes in protein folding (PDI, PPI), Protein folding disorders.

**UNIT-2 BIOSIGNALING: (10H)**

Biosignaling is also known as cell signal transduction) is the transmission of molecular signals from a cell's exterior to its interior. Signals received by cells must be transmitted effectively into the cell to ensure an appropriate response. This step is initiated by cell-surface receptors. Signal transducing receptors are of four general classes: Receptors that penetrate the plasma membrane and have intrinsic enzymatic activity or are enzyme associated ([Enzyme-linked Receptors](#)); Receptors that are coupled, inside the cell, to G proteins ([7-TM Receptors](#)); Receptors that are found intracellularly and upon ligand binding directly alter gene transcription ([Nuclear Receptors](#)); [Ligand-gated ion channels](#).

Several small molecules within the cell act as intracellular messengers (also known as second messengers). These include cAMP, cGMP, nitric oxide, lipids and Ca<sup>2+</sup> ions.

**UNIT III - Protein Functioning (6H)**

One of the most important functions of cell signalling is to control and maintain normal physiological balance within the body. Activation of different signalling pathways leads to diverse physiological responses, such as cell proliferation, death, differentiation, and metabolism. Proliferation of damaged or malfunctioning cells is often a key factor in the generation of disorders such as [cancer](#), infectious diseases, inflammation, arteriosclerosis, [arthritis](#), and [neurodegenerative diseases](#).

Ageing: Theories of ageing – Ageing of stem cells – programmed cell death. Telomeres and Telomerase. Genes, epigenetic, nutrients regulations of ageing process. neurodegenerative – metabolic diseases. Anti-ageing approaches – stem cells and regeneration therapy.

**UNIT- IV – PROTEIN EXPRESSION STUDIES (10H)**

Genetic Engineering: Culture of *E. coli* cells & plasmid isolation, Preparation of competent cells, Transformation, Restriction enzymes, Ligation of DNA, Primers designing, Polymerase chain reaction, Generating Mutants, Sub-cloning of GFP protein. Mutagenesis: Effect of amino acid changes on protein function, site-directed mutagenesis

Expression Systems – *E. coli*, Yeast, Introduction, detection and purification of expressed protein - Engineering – Protein/peptide chemical synthesis - Protein-polynucleotide interactions

#### **UNIT- V PURIFICATION OF PROTEINS AND ENZYMES: (12)**

Extraction methods, Ammonium sulphate fractionation; Purification strategies: Gel filtration chromatography, Ion-Exchange chromatography, Affinity chromatography, Dye-ligand; Electrophoresis: SDS and Native, Western Blotting; Proteomics: 2DE and Mass Spectrometry.

Protein folding structure and function: Primary Structure, post translational modification of proteins (viz. glycosylation, N-terminal, modification, hydroxylation & modified amino acids). Secondary structure - UV, CD and fluorescence spectrophotometry. Quaternary structure - X-ray. Functional proteins - Hemoglobin and enzymes / peptide hormones.

Structural and functional aspects of proteins and DNA: Relationships between structure and function and their role in human diseases; Protein-DNA interactions; Protein-RNA interactions; Protein-protein interactions; Protein aggregation; Non-enzymatic glycosylation (Protein-sugar interaction); Methods to study these interactions.

#### **UNIT- VI – PROTEOMIC APPROACH**

**(4H)**

Data processing, Data mining; Bioinformatics – concept and applications; Biological databases – Primary and Secondary; Sequence Databases (EMBL, Gen Bank, DDBJ, SWISS-PROT, PIR, TrEMBL); Protein Family/Domain Databases (PROSITE, Pfam, PRINTS & SMART); Structure Database (PDB); Tools like BLAST, FASTA and EMBOS.

#### **REFERENCES:**

- ✓ Nelson, D.L. and Cox, M.M. (2012) Lehninger's Principle of Biochemistry, W.H. Freeman, New York. 2. Voet, D. and Voet, J.G. (2010) Biochemistry. John Wiley and Sons Inc., New Jersey.
- ✓ Introduction to Protein Structure (Garland Press, Second Edition), by Carl Branden and John Tooze.
- ✓ Introduction to protein structure by Thomas Creighton DNA structure and function by R. Sinden
- ✓ Nucleic Acids: Structures, Properties, and Functions (University Science Books) edited by Victor Bloomfield, Donald Crothers, and Ignacio Tinoco.
- ✓ Twyman, R.M. Principles of Proteomics. BIOS Scientific Publisher, New York. 2004.
- ✓ Liebler, D.C. Introduction to Proteomics: Tools for the New Biology. Human Press, Totowa NJ. 2002.

- ✓ Sambrook, J. and Russell, D.W. (2012) Molecular Cloning: A Laboratory Manual –a set of 3 volumes, CSHL Press, New York.
- ✓ Garrett, R.H. and Grisham, C.M. (2016). Biochemistry, Cengage Learning, Mason. Ohio. 2. Berg, J.M., Tymoczko, J.L., Stryer, L. (2011) Biochemistry, W. H. Freeman, New York. 3. Harris, D.A. (1995) Bioenergetics at a glance. Willey J. and Sons Inc., New Jersey.
- ✓ Cell and Molecular Biology Concepts and Experiments Gerald Karp (6th edition) John Wiley & Sons, Inc.
- ✓ Freifelder D. M. Physical Biochemistry- Application to Biochemistry and Molecular Biology, 2nd ed., W.H. Freeman, 1982.
- ✓ Gene Cloning and Dna Analysis an Introduction T.A. Brown. Sixth Edition (2010).

## **BT CT 1.1 - BIOMOLECULES**

**50 Hrs**

### **Unit 1**

**Chemical bonding:** Covalent bonds, Ionic bonds, Hydrogen bonds, Co-ordinate bonds, Electrostatic forces, Vander-Waal's forces, Hydrophobic forces, Molecular orbitals in chemical bond formation, Sigma and Pi bonds, Bond length, Bond strength, Bond energy and bond radius, formation of chemical bonds with carbon and other elements. Geometry of carbon compounds, stereo-isomers, tetrahedral structure, Conformation and Configuration of Optically active molecules, asymmetric and chiral centers, D and L isomers, R and S configurations, Cis-trans configuration.

**05 Hrs**

### **Unit 2**

**Water:** Structure & Properties of water, water as a solvent and its importance in biological system. pH and buffers - weak acid and weak base, Ionization of water and equilibrium constant, acid base theory and preparation of solutions, normality, molarity and molality. Henderson-Hasselbalch equation, Hydrogen ion and Hydroxyl ion concentration (pH), the pH scale, pK and pH relation, buffers concept, Importance and preparation of buffers.

**05 Hrs**

### **Unit 3**

**Bio-organic reactions:** Acid-base, Covalent and Metal ion catalysis, Concept of nucleophiles and electrophiles, Nucleophilic and substitution reactions  $SN_1$  and  $SN_2$  reactions and their importance. Oxidoreduction reactions

**03 Hrs**

### **Unit 4**

**Carbohydrates:** Properties and characteristics of Carbohydrates. Derivatives of monosaccharides, amino sugars, deoxy-sugars and glycosides Purification and Structure of homo and hetero polysaccharides, Starch, Cellulose, Glycogen, Dextrin, Hemi-cellulose, Xylan, Pectin, Lignin, Agar-agar, Chitin, Hyaluronic acid, Heparin, Chondroitinsulphate, Peptidoglycon and carbohydrates on cell surface.

**09 Hrs**

### **Unit 5**

**Nucleic acids:** Structure of nucleotides, DNA and RNA, conformation of DNA, RNA– mRNA, rRNA and tRNA.

**04 Hrs**

## **Unit 6**

**Amino acids and Proteins:** Classification, Structure and Properties of amino acids and classification of proteins. structural organization of proteins – primary, secondary, tertiary and quaternary structures (Haemoglobin – its conformational changes with respect to oxygen transportation), Conformational analysis, Ramachandran's plot and its significance, techniques of isolation and purification of proteins, Protein denaturation and renaturation kinetics with respect of RNA'ase, stability of proteins, Glycoproteins (N-glycan and O-glycan)

**10 Hrs**

## **Unit 7**

**Lipids:** Classification of phospholipids, Glyco and Sphingolipids, structure, properties and reactions of lipids. Cholesterol and its derivatives

**05 Hrs**

## **Unit 8**

**Vitamins:** Chemistry Fat and water soluble vitamins and their significance in metabolism.

**03 Hrs**

## **Unit 9**

**Secondary metabolites:** Alkaloids, Pigments and Secondary metabolites: General introduction, Chemistry of medicinally and industrially important Alkaloids, Terpenoids, Carotenoids, Essential oils.

**Pigments:** Chemistry of chlorophylls, Cytochromes, Heme, Phenolics and Tannins.

**03 Hrs**

## **Unit 10**

**Antibiotics:** Structure and Chemistry of Penicillin, Streptomycin, Chloramphenicol and Tetracyclins, Vancomycin, Peptide-antibiotics.

## PRACTICALS

### BTCP-1.5 Based on BTCT 1.1 Biomolecules

1. Safety in Laboratory – Biosafety and Safety notices.
2. Preparation of buffers: Citrate, Phosphate, Tris-HCl Buffer.
3. Chromatography techniques:
  - a. Separation of Plant Pigments and Amino acids by paper chromatography (Ascending and Descending).
  - b. Separation of Lipids by Thin Layer Chromatography.
4. Qualitative analysis of Carbohydrates, Amino acids and Lipids.
5. Estimation of Carbohydrates by Anthrone method.
6. Estimation of reducing sugars by DNS method.
7. Estimation of protein by Biuret and FCR method.
8. Estimation of Vitamins- Vitamin C, Thiamine and Riboflavin.
9. Estimation of Blood cholesterol.
10. Estimation of DNA by DPA method.
11. Estimation of RNA by Orcinol method.
12. Determination of Saponification values of fats.

## REFERENCES

1. Lodish, HT, Baltimore, A. Berk, B. L, Zipursky, P Mastudaira and J. Darnell, (2004) Molecular cell biology, scientific American Books, Inc. New York
2. Tobin and Morel. (1997). Asking about CELLS. Saunders college publishing. N.Y
3. Cooper, GM. (1997) THE CELL: A molecular approach > ASM Press, USA.
4. Karp, G (1996) Cell and Molecular biology concepts and experiments, John Wiley and sons Inc. New York.
5. Sharma, AK and Sharma, A. (1999) plant chromosomes, Harwood Academic Publishers.
6. De Robertis and De Robertis (1998) – Cell and Molecular Biology, 8<sup>th</sup> Edition. Saunders, New York.
7. David Freifelder and G.M. Malacinski. (1996) Essential of molecular Biology, 2<sup>nd</sup> Edition Panama publishers, New Delhi.
8. Prescott. DM (1998) Cells, Principles of molecular structure and functions. Jones Bartlett Publishers, Boston.
9. Garret RH and Gresham, CM. (1995) Molecular aspects of cell Biology, International Edition Saunders College Publishing, New York
10. Voet D and, JGVoet (2004) Biochemistry, John Wiley and sons.
11. Straye. L (2000) Biochemistry, 5<sup>th</sup> Edition. W. H Freeman and company New York.
12. Boyer R (2002) Concepts in Biochemistry. 2<sup>nd</sup> Edition – Brooks / Cole, Australia.

13. Montgonary RM, Conway TW and Spectator AA, (1996) Biochemistry- A Case – Oriented Approach 6<sup>th</sup> Edition, Mosby Inc, Missouri.
14. Roa, CNR, (1999) Understanding chemistry, University press Hyderabad.
15. Glick, BR and Pasternak, JJ. (1998) Molecular Biotechnology, ASM Press, Washington DC.
16. Nelson, D. L., Cox M. M. and Lehninger A. L. (2017) Lehninger principles of biochemistry 7<sup>th</sup> Edition: W.H. Freeman, New York.

#### Course outcomes

<b>Program code with title</b>	<b><u>BT CT 1.1 - BIOMOLECULES</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Chemical bonding:</b> The students would understand the different chemical bonding, bond energy, confirmations and configurations of different biomolecules.	<b>05 Hrs</b>
<b>Unit 2</b>	<b>Water:</b> Students will understand the structure and properties of water molecules and its physical and physiological properties.  Students will also understand the pH and buffers preparations and its importance.	<b>05 Hrs</b>
<b>Unit 3</b>	<b>Bio-organic reactions:</b> Students will understand the acid- base concepts, and related bio reactions.	<b>03 Hrs</b>
<b>Unit 4</b>	<b>Carbohydrates:</b> Students get to know the types of carbohydrates, properties and their biological functions.	<b>09 Hrs</b>
<b>Unit 5</b>	<b>Nucleic acids:</b> Students will understand the structure and confirmations of Nucleic acids.	<b>04 Hrs</b>
<b>Unit 6</b>	<b>Amino acids and Proteins</b> Students will understand the types properties and functions of different amino acids in biological systems .	<b>10 Hrs</b>

<b>Unit 7</b>	<b>Lipids:</b> Students will get to know the classification of different lipids.	<b>05 Hrs</b>
<b>Unit 8</b>	<b>Vitamins:</b> Students will get to know the chemical nature of different vitamins and significance.	<b>03 Hrs</b>
<b>Unit 9</b>	<b>Secondary metabolites:</b> Students will familiarize with the different secondary metabolites	<b>03 Hrs</b>
<b>Unit 10</b>	<b>Antibiotics:</b> Students will understand the structure and significance of antibiotics.	<b>03 Hrs</b>

### **BTCT 1.2-Microbiology**

**50 Hrs**

#### **Unit 1**

History and scope of Microbiology

**02 Hrs**

#### **Unit 2**

**Microbial diversity:** Prokaryotes and Eukaryotes. Classification systems, Criteria used for microbial classification, morphological, staining, biochemical methods, serological techniques, Phage typing, DNA base composition, DNA finger printing, rRNA sequence Numerical Taxonomy, Chemotaxonomy, Classification of bacteria according to Bergey's Manual of systematic Bacteriology.

**06Hrs**

#### **Unit 3**

**Isolation of microorganisms:**

**Culture media:** Definition, Components and different types of culture media

**Sterilization techniques:** Physical and chemical methods

**Methods of isolation:** Serial dilution, spread plate, streak plate and pour plate methods

**06Hrs**

#### **Unit 4**

**Identification of microorganisms:**

**Microscopy:** Working principles and different types of microscopy

**Stains and staining techniques:** Different types of stains, methods of staining and their applications.

**06 Hrs**

#### **Unit 5**

**Microbial nutrition and growth:** Nutritional requirements, Growth curve, measurement of growth, Factors affecting the microbial growth.

**04 Hrs**

#### **Unit 6**

**Viruses:** Salient features and Structure of viruses, Multiplication of viruses (Lytic and Lysogenic cycles), viroids and prions.

**02Hrs**

#### **Unit 7**

**Bacteria:** General characters, classification, morphology and ultrastructure of bacteria. Bacterial multiplication, Spirochetes, Rickettsia, Chlamydia, Mycoplasma, Cyanobacteria, Actinomycetes and Extremophiles, Importance of bacteria in biotechnology

**04 Hrs**

#### **Unit 8**

**Fungi:** General characters, Structure and Classification of fungi. Importance of fungi in fermentation and antibiotic production

**02Hrs**

## **Unit 9**

**Algae:** General characters, Structure and Classification of Algae. Economic importance of Algae

**02 Hrs**

## **Unit 10**

**Agriculture microbiology:** Plant microbe interactions, Bio-fertilizers and bio-pesticides. Integrated pest management, transgenic plants

**04 Hrs**

## **Unit 11**

**Medical microbiology:** Important diseases caused by microorganisms. Different types and modes of actions of antibiotics.

**04 Hrs**

## **Unit 12**

**Food microbiology:** Microbes as foods, Fermentation, Fermented foods. Food spoilage and preservation techniques.

**04 Hrs**

## **Unit 13**

**Environmental microbiology:** Aerobiology, Soil microbiology and Aquatic microbiology. Waste treatment, Bioremediation and biodegradation of Xenobiotics, Biotechnological applications of microorganisms in the environment.

**04 Hrs**

## **PRACTICALS**

### **BTCP- 1.6 Based on BTCT 1.2-Microbiology**

1. Laboratory safety rules and regulation.
2. Principal and working of laminar air flow, Autoclave, Hot air oven, Incubator, colony counter, haemocytometer and microscope.
3. Culture media preparation
  - Preparation of Nutrient broth, agar plates, stabs and slants
  - Preparation of Blood Agar, Chocolate agar, MacConkey agar and EMB agar

4. Microbial techniques for culturing Bacteria: Streak Plate, pour plate, spread plate and standard plate.
5. Staining techniques:

<b><u>Program code with title</u></b>	<b><u>BT CT 1.2 - MICROBIOLOGY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>History and scope of Microbiology:</b> Students will understand the history and contribution of scientists in the field of microbiology.	<b>02 Hrs</b>
<b>Unit 2</b>	<b>Microbial diversity:</b> Students will learn about the classification of microorganisms and different methods of classification.	<b>06Hrs</b>
<b>Unit 3</b>	<b>Isolation of microorganisms:</b>  Students will learn the different techniques for the isolation of microorganisms from different environment samples.	<b>06Hrs</b>
<b>Unit 4</b>	<b>Identification of microorganisms:</b>  Students familiarize with the different methods of isolation of microorganisms.	<b>06Hrs</b>
<b>Unit 5</b>	<b>Microbial nutrition and growth:</b> Students know about the different factors influencing the growth of microorganisms.	<b>04 Hrs</b>
<b>Unit 6</b>	<b>Viruses:</b> Students know about the structure and classification of viruses.	<b>02 Hrs</b>
<b>Unit 7</b>	<b>Bacteria:</b> Students study in detail about the structure general properties and Importance of bacteria in biotechnology.	<b>04 Hrs</b>
<b>Unit 8</b>	<b>Fungi:</b> Students know about the structure and	<b>02 Hrs</b>

	classification and economical significance of fungi.	
<b>Unit 9</b>	<b>Algae:</b> Students know about the structure and classification and economical significance of Algae.	<b>02 Hrs</b>
<b>Unit 10</b>	<b>Agriculture microbiology:</b> Students know about the important plant microbe interactions, biopesticides and biofertilizers.	<b>04 Hrs</b>
<b>Unit 11</b>	<b>Medical microbiology:</b> Students study in detail about the different types of diseases and their mode of transmission and importance of antibiotics.	<b>04 Hrs</b>
<b>Unit 12</b>	<b>Food Microbiology:</b> Students familiarize with fermentation, fermented foods, spoilage and preservation of food.	<b>04 Hrs</b>
<b>Unit 13</b>	<b>Environmental microbiology:</b> Students will study in detail about the different microbial interaction role of microorganisms in the degradation of xenobiotics in the environment.	<b>04 Hrs</b>

Preparation of bacterial smear, simple staining, Gram's staining, acid fast staining, Negative staining, Capsular staining, Endospore staining and Flagella staining.

6. Biochemical tests :

IMVIC Test, Catalase, Starch hydrolysis, citrate utilization, Fermentation of carbohydrates, Gelatin liquefaction test and IMVIC Test, oxycase test

7. Determination of Bacterial growth curve.

8. Study of antibiotic sensitivity test of bacteria: Disc/well diffusion method.

## REFERENCES

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**BT CT 1.2 – MICROBIOLOGY**

### **BTCT 1.3 - BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES**

**50 Hrs**

#### **Unit 1**

**Introduction to biophysics:** Scope of Biophysics, Bonds between atom & molecules, Ionic, Covalent, Hydrogen, Electrostatic, Disulphide & Peptide bonds, and Vander Waal's forces, Bond energies, Bond angles.

**03 Hrs**

#### **Unit 2**

**Acids and Bases,** Mole & Normality, Weak acids, Amphoteric electrolytes, pH, Calculation of pH from H & OH Concentration, measurements of pH, Henderson Haselbatch equation, Titration curve & pK values, Buffers & Stability of their pH, Numerical problems.

**03 Hrs**

#### **Unit 3**

**Microscopy:** Light Microscopy – Design and working of Compound, Phase contrast, Interference, Dark field Polarizing & Fluorescence microscope, Electron microscopy– Design and working of Scanning Electron Microscope (SEM), Transmission Electron Microscope (TEM), AFM. Super resolved fluorescence microscopy, Cryo-electron microscopy.

**04 Hrs**

#### **Unit 4**

**Centrifugation:** Basic principles, Forces involved, RCF Centrifugation, techniques- principles, types and applications. Centrifuges & Ultra-centrifuges types, optical methods used and applications of preparative (Differential, Density Gradient) and analytical (sedimentation velocity, sedimentation equilibrium) ultra-centrifugation.

**05 Hrs**

#### **Unit 5**

**Chromatography techniques:** Basic Concepts of adsorption & partition Chromatography, Principle Experimental set-up, Methodology & Applications of all types of Adsorption & Partition Chromatography methods-chromatography using paper, thin layer, HPTLC column (gel filtration, ion exchange, affinity), gas (GC,GLC), LCMS, HPLC: types of HPLC, Mobile phase elution , normal phase and reverse-phase HPLC,

column packing material, efficiency of column, types of HPLC – principles of methodologies, HPLC pumps -efficiency and suitability, Different injectors and Detectors; Ion Chromatography.

Membrane Techniques - Criteria of protein purity, equilibrium dialysis, ultra filtration and various membrane techniques.

**08 Hrs**

## **Unit 6**

**Electrophoretic techniques:** Principle, Electrophoretic mobility (EPM) estimation, factors affecting EPM, Instrument design & set-up, Methodology & Applications of Free & Zone (Paper, Cellulose acetate, Agarose & Starch gel, Pulsed-field, PAGE, SDS-PAGE, Capillary) Electrophoresis techniques, Principle, Experimental set-up, Methodology & Applications isoelectric focusing, 2D electrophoresis.

**06 Hrs**

## **Unit 7**

**Spectroscopic techniques:** Spectroscopy, Beer-Lambert's law, types of detectors, UV-Visible spectroscopy, Infrared spectroscopy, Raman spectroscopy, Fluorescent spectroscopy, Flame photometry, Atomic absorption, Plasma emission mass, ESR and NMR spectroscopy, ORD and CD. X-Ray Diffraction, X-Ray crystallography, Biological importance of Lasers, Microwaves and Radiations

**10 Hrs**

## **Unit 8**

**Synthesis of Nanomaterial's:** Physical methods: Methods based on evaporation, sputter deposition, chemical vapour deposition (CVD), electric arc deposition. Chemical Methods: colloids and colloids in solution, synthesis of nanoparticles by colloidal routes, micro emulsions, Sol-Gel method.

**Biological Methods:** Introduction to biomaterials, Synthesis using microorganisms and plant extracts.

**05 Hrs**

## **Unit 09**

**X-ray crystallography:** Unit cell, cell content, crystal symmetry, crystal systems, Bravais lattices, symmetry elements and operations, point groups and space groups. Bragg's law. Diffraction of x-rays by crystals, Atomic scattering factors and structure factors, amplitude and phase, Fourier transformation.

**04 Hrs**

## Unit 10

**Radioisotope techniques:** Nature of radioactivity, detection and measurement. GM counter and Scintillation counter, Auto radiography, Safety aspects and applications

02 Hrs

### PRACTICALS

#### BTCP-1.7 Based on BTCT 1.3-Biophysical and Biochemical techniques

1. Instrumentation: Spectrophotometer, Electrophoresis, Centrifuges, Micropipettes, Chromatographic techniques: Column, HPLC, GLC, GC-MS and NMR.
2. Demonstration of Beer-Lambert's Law.
3. Determination of pH using Indicators.
4. Determination of pKa value of acetate buffer.
5. Titration of strong acid with strong base.
6. Titration of weak acid and weak base.
7. Titration of mixture of strong and weak acids.
8. Titration curves of amino acids.
9. Colorimetric estimation of Inorganic phosphate.
10. Agarose gel electrophoresis for separation of Nucleic acids.
11. Separation of proteins by SDS-PAGE and Native PAGE.
12. Density Gradient centrifugation and separation of blood components.
13. Determination of acid value of fats.
14. Absorption curves of two different dyes.
15. Liposome Preparation: Sonication, light scattering, unicellular and multi cellular vesicles.
16. Synthesis and characterization of Nanoparticles from plants and microbial extracts.

### REFERENCES

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13. Stuart A. Hoenig & Daphne H. Scott, Medical Instrumentation and Electrical Safety, Wiley Medical.
14. Joseph J. Carr & John M. Brown, Introduction to Biomedical Equipment Technology, John Wiley and Sons.

### **BT CT 1.3 - BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES**

<b>Program code with title</b>	<b><u>BT CT 1.3 - BIOPHYSICAL AND BIOCHEMICAL TECHNIQUES</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Introduction to biophysics:</b> Students will learn about the scope of biophysics and different type of chemical bonds involved.	<b>03Hrs</b>
<b>Unit 2</b>	<b>Acids and Bases:</b> Students will get the details regarding the acid bases, normality and buffers.	<b>03Hrs</b>
<b>Unit 3</b>	<b>Microscopy:</b> Students will familiarize with different types of microscope and its application.	<b>04Hrs</b>
<b>Unit 4</b>	<b>Centrifugation:</b> Students will learn about the different types and application of microscopes.	<b>05Hrs</b>
<b>Unit 5</b>	<b>Chromatography techniques:</b> Students will learn about the different types and application of microscopes..	<b>08 Hrs</b>
<b>Unit 6</b>	<b>Electrophoretic techniques:</b> Students will learn about the different types and application of chromatographic techniques.	<b>06Hrs</b>

<b>Unit 7</b>	<b>Spectroscopic techniques:</b> Students will get to know the principal, Experimental set-up, Methodology & Applications of spectroscopic techniques.	<b>10 Hrs</b>
<b>Unit 8</b>	<b>Synthesis of Nanomaterial's:</b> Students will learn about the different methods for synthesis of nanoparticles and their applications.	<b>05Hrs</b>
<b>Unit 9</b>	<b>X-ray crystallography:</b> Students will learn about the principle and the applications of X-ray crystallography.	<b>09Hrs</b>
<b>Unit 10</b>	<b>. Radioisotope techniques:</b> Students will learn about the different methods and applications of Radioisotope techniques.	<b>02 Hrs</b>

## **BT CT 1.4 - CELL BIOLOGY AND GENETICS**

**50 Hrs**

### **Unit 1**

**Cell Theory and the cell:** The cell theory, Organization of Prokaryotic and Eukaryotic cells, plasma membrane – organization, present model and functions, Mechanisms of membrane transport.

**05 Hrs**

### **Unit 2**

**Cell organelles:** Structure and functions of Endoplasmic reticulum, Golgi complex, Mitochondria, Chloroplast, Ribosome, Lysosomes and Peroxisomes.

**Nucleus:** Microscopic and submicroscopic organization, structure and functions of nuclear membrane, Ultrastructure of Nucleolus.

**08 Hrs**

### **Unit 3**

**Eukaryotic chromosome:** Chromatin, nucleosome structure, chromosome model, centromeric DNA, organization of telomere. Laws of DNA consistency and C-value paradox, Heterochromatin and its significance, Special types of chromosomes-B chromosomes, polytene and lampbrush chromosomes, sex chromosomes and sex determination, karyotyping.

**08 Hrs**

### **Unit 4**

**Cell division:** Mitotic apparatus, cytokinesis, chromosome movement. Regulation of eukaryotic cell cycle-overview of cell cycle, cyclin and cyclin dependent kinases, molecular mechanism of regulating mitotic events. Cell cycle control in mammalian cells, Mutation causing loss of cell cycle control. Meiotic process- stages, Chromosome pairing, Chiasma formation, molecular mechanism of recombination, synaptonemal complex, recombination nodules and holiday junction, model of recombination.

**08 Hrs**

### **Unit 5**

**Numerical changes in chromosomes:** Euploidy, haploidy their fundamentals and practical significance. Polyploidy-Types induction genetic significance, Aneuploidy-Types and genetics significance.

**04Hrs**

#### **Unit 6**

**Principles of Heredity:** Introduction, concepts and theories of Mendelian genetics, chromosomal theory of inheritance, extra chromosomal inheritance and interaction of genes.

**03 Hrs**

#### **Unit 7**

**Genome Organization and Structural Analysis of Gene:** Organization of *E coli* Genome- Functional classes of predicted genes common features of the genome of Achaea and eukaryotes, genome size and organization in yeast, *Arabidopsis*, *C. elegans* and *Drosophila*. Bar-locus complex loci and Pseudoalleles complementation, fine structure of rII locus, split genes and overlapping genes.

**04 Hrs**

#### **Unit 8**

**Linkage and Crossing Over:** Introduction to linkage, gene mapping in eukaryotes, sex linked inheritance, genetic control of chromosome pairing and molecular mechanism of crossing over, gene conversion.

**02 Hrs**

#### **Unit 9**

**Sex Determination and Dosage Compensation:** Sex determination in *Drosophila* and mammals, Secondary sex determination in mammals, Dosage compensation in *Drosophila* and mammals.

**02Hrs**

#### **Unit 10**

**Mutation:** Mutation and their types. Base pair and frame shift mutation, genetic suppression. Luria-Delbruck fluctuation test. Use of base analogs, alkylating agents and ionizing radiations to induce mutagenesis and their mechanism.

Molecular basis of mutation – spontaneous and induced mutation and their role in evolution.

Detection of mutation by Ames's test.

Chloroplast mutations in *Chlamydomonas*, variations in mirabilis, Mitochondrial mutations in yeast and *Neurospora*. Human diseases caused by mutations in mitochondrial genome.

04 Hrs

## Unit 11

**Population Genetics:** Gene pools, allele frequencies, Hardy Weinberg equation, non-random breeding, genetic drift, gene flow, selection, speciation.

02 Hrs

## PRACTICALS

### BTCP 1.8 Based on BTCT-1.4-Cell Biology and Genetics

1. Micrometry: Calibration and measurement of Onion epidermal cells yeast and spores.
2. Study of Mitosis using onion root tips.
3. Study of Meiosis using grasshopper testis or Onion flower buds.
4. Buccal epithelial smear for study of Barr bodies.
5. Differential counting of WBC's using blood smear.
6. Culture and maintenance of *Drosophila melanogaster* cultures.
7. Mounting of Salivary gland chromosomes from *Drosophila* larvae.
8. Study of Auxotrophic mutants using replica plate technique.
9. Isolation and vital Staining of Mitochondria
10. Isolation of Chloroplast by density gradient method.
11. Isolation of protoplasts by osmotic/enzymatic method.
12. Karyotype analysis in humans: Normal: Male and Female, Abnormal: Down syndrome, Turner, Cri Du chat and Klinefelter's Syndrome.

## REFERENCES

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2. Alberts B, Wilson J, & Hunt T, (1989) *Molecular biology of the cell*. New York: Garland.
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### **BT CT 1.4 - CELL BIOLOGY AND GENETICS**

<b>Program code with title</b>	<b>BT CT 1.4 - CELL BIOLOGY AND GENETICS</b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Cell Theory and the cell</b> Students will learn about the cell theory and mechanism of membrane transport.	<b>03Hrs</b>
<b>Unit 2</b>	<b>Cell organelles:</b> Students will get the details regarding the Structure and functions of different cellular organelles .	<b>03Hrs</b>
<b>Unit 3</b>	<b>Eukaryotic chromosome:</b> Students will familiarize with the structural organization and karyotyping	<b>04Hrs</b>
<b>Unit 4</b>	<b>Cell division</b> Students will learn the different stages of cell cycle.	<b>05Hrs</b>
<b>Unit 5</b>	<b>Numerical changes in chromosomes:</b> Students will learn about the euploidy, polyploidy and their significance.	<b>08 Hrs</b>
<b>Unit 6</b>	<b>Principles of Heredity:</b> Students will learn about the different types and application of	<b>06Hrs</b>
<b>Unit 7</b>	<b>Genome Organization and Structural Analysis of Gene:</b> Students will get to know the organization of genetic material.	<b>10 Hrs</b>
<b>Unit 8</b>	<b>Linkage and Crossing Over:</b> Students will learn about the linkage, gene mapping in eukaryotes.	<b>05Hrs</b>
<b>Unit 9</b>	<b>Sex Determination and Dosage Compensation:</b> Students will learn about the sex determination.	<b>09Hrs</b>
<b>Unit 10</b>	<b>Mutation:</b> Students will learn about the different types of mutation and molecular basis of mutation.	<b>02 Hrs</b>
<b>Unit 11</b>	<b>Population Genetics:</b> Students will learn about the gene pool and Hardy Weinberg	<b>02Hrs</b>

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## **BIOTECHNOLOGY SECOND SEMESTER SYLLABUS**

### **FROM 2019-20 ONWARDS**

#### **BTCT 2.1- MOLECULAR BIOLOGY, BIOINFORMATICS AND BIOSTATICS**

##### **Unit 1**

**Organization of genetic material:** Genome organization in viruses, bacteria and eukaryotes. Interrupted genes, gene clusters, structure of nucleosome, chromatin and chromosome.

**03Hrs**

##### **Unit 2**

**Structural Polymorphism of DNA:** DNA Structure A, Band Z DNA, Super coiled DNA and DNA Binding Proteins,

**DNA viruses:** Double stranded (Pox virus and SV40 virus) and single stranded DNA viruses.

**Replication:** Rolling circle replication, semi-conservative replication, replication fork-leading and lagging strands, enzymes involved at different steps of replication.

Folded fiber model of *E. coli* chromosome, split genes, over-lapping genes, DNA amplification, the law of DNA constancy and C-value paradox. Structure, types and replication of RNA virus

**07Hrs**

##### **Unit 3**

**Transcription:** DNA Binding Proteins, Classes of RNA Molecules and RNA Polymerases, Prokaryotic and Eukaryotic transcription, Post transcription modification – mRNA processing, 5-capping, 3-polyadenylation, Splicing Mechanisms, rRNA and tRNA processing.

**03Hrs**

##### **Unit 4**

**Translation:** Genetic code and wobble hypothesis, tRNA and the Aminoacyl-tRNA synthetases, Clover leaf structure of tRNA prokaryotic and Eukaryotic translation machinery, Ribosomes, Mechanism of prokaryotic and eukaryotic transcription, Post translational modification of proteins, inhibitors of protein translation.

**03Hrs**

## **Unit 5**

**Gene as a Unit of Mutation:** Mutation, mutagens and types of Mutations, Molecular basis of spontaneous and induced mutations and their role in evolution. Transposon and site directed mutagenesis, environmental mutagenesis and toxicity testing, Hot spots, AME's Test, Comet Assay.

**03Hrs**

## **Unit 6**

**Computer Science:** Computer Architecture, Internal and External devices, computer software,

**Operating system:** Windows, UNIX (Ubuntu), LINUX, Macintosh, application software's like word processor, formatting the document, tables, mail merge and spell check. Spread sheets basics with MS Excel, labels, MS Power point, MS access

**Computer Viruses:** Overview and prevention

**Computer network:** Advantages of Networks, Types of Network (LAN & WAN) WIFI. Internet protocol (TCP/IP) File transfer protocols (FTP) WWW, HTTP. Etc., Cloud computing.

**07Hrs**

## **Unit 7**

**Programming** : Algorithm and flow chart, C and C++ programming, structure of C programme, Header file, Global declaration, Main function, variable declaration, control statement, conditional looping and unconditional control statement hub functions.

**03 Hrs**

## **Unit 8**

**Introduction to Bioinformatics:** Introduction to Biological Databases - Types of databases (Primary, secondary and complex databases), Bioinformatics platforms: NCBI, DDBJ EMBL, PUBMED. Nucleic Acid Sequence databases, Protein sequence database; Genomics, Transcriptomics, Proteomics and Metabolomics, PDB retrieval, Database visualization, Accessing bibliographic database, Integrated Information Retrieval, Extra 2 system. Bioinformatics softwares: Schrodinger, IMAGE J.

**04 Hrs**

## **Unit 9**

**Sequence alignment and phylogenetic:**

**Pair wise sequence alignment:** e.g. BLAST, FASTA & CONTIG sequences

**Multiple Sequence Alignment:** e.g. Clustal W & Clustal X,

Phylogenetic analysis with reference to nucleic acids –PHYLIP, MEGA and NTYSIS (3D &2D)

**Primer designing:** Primer 3, applied biosystems,

**03Hrs**

## **Unit 10**

**Structural biology:** Modeling, Protein secondary structure prediction – Chou Fasman rules –neural networks discriminant analysis, Prediction of trans-membrane segments in membrane proteins. Protein 3D structure prediction homology - identification of active sites/pockets, threading potential energy functions – energy minimization molecular dynamics simulated annealing.

b) Drug Design and discovery, steps in drug discovery, ADME, Lead identification, QSAR.

**04Hrs**

## **Unit 11**

**Commercial application of bioinformatics:** Definition, genome technology, High throughput sequencing and assembly. Genomics in medicine, Disease monitoring, profiles for therapeutic molecular targeting. Diagnostics, drug discovery and genomics, Gene evolution, Comparative proteomics and its applications, IPR and Bioinformatics patents

**03Hrs**

## **Unit 12**

### **Biostatistics:**

1. Organization, description and graphical representation of data.
2. Summary measures of – Central tendency (mean, mode, median), dispersion (Standard Deviation, Standard error) correlation (2-D, 3-D, Pearson, R value, Heatmap) and regression Chi square tests, tests of significance (t test, P-value, F, ANOVA).
3. Statistical softwares: MS Excel, MS access, Statistica, SPSS, Graph pad.

**07Hrs**

## **PRACTICALS**

### **BT CP 2.5 Based on BT CT 2.1 Molecular Biology, Bioinformatics and Biostatistics**

1. Isolation and estimation of DNA, RNA and plasmids.
2. Inheritance and pedigree analysis of simple Mendelian traits.

3. Induction and study of physical and chemical mutagens in bacteria/fungi
4. RFLP and RAPD analysis.
5. Demonstration of Southern blotting / Northern blotting/Western blot
6. Basic computer operations, Internet and its applications.
7. Programming in 'C'.
8. Virtual library – Bibliographic searches.
9. Sequence retrieval from nucleic acid and protein database.
10. Pair-wise comparison of sequences. (BLAST & FASTA)
11. Multiple sequence alignment.
12. Phylogenetic analysis
13. Primer designing.
14. Measures of Mean, Mode, Median, Central Tendency, Chi, Square Tests, t-test.
15. Organization, description and graphical representation of data
16. Mandatory visit to research institute/ Biotech industries

<b>Program code with title</b>	<b>BT CT 2.1- - MOLECULAR BIOLOGY, BIOINFORMATICS AND BIOSTATICS</b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Organization of genetic material:</b> Students will get to know the organization of genetic material.	<b>03Hrs</b>
<b>Unit 2</b>	<b>Structural Polymorphism of DNA</b> Students will get the details regarding different forms of DNA and replication.	<b>07Hrs</b>
<b>Unit 3</b>	<b>Transcription:</b> Students will familiarize with the DNA binding proteins and transcription machinery.	<b>03Hrs</b>
<b>Unit 4</b>	<b>Translation:</b> Students will learn about the genetic code translation and post translation modifications.	<b>03Hrs</b>
<b>Unit 5</b>	<b>Gene as a Unit of Mutation:</b> Students will learn about the different types of mutation transposans and AMe,S test	<b>03Hrs</b>
<b>Unit 6</b>	<b>Computer Science:</b> Students will learn about the basic concept of operating systems, different type of computer network and different type of viruses.	<b>07Hrs</b>
<b>Unit 7</b>	<b>Programming</b> : Students will learn about the Algorithm and flow chart and different programming languages.	<b>03Hrs</b>

<b>Unit 8</b>	<b>Introduction to Bioinformatics:</b> : Students will learn about the different Biological Databases and biological platforms.	<b>04Hrs</b>
<b>Unit 9</b>	<b>Sequence alignment and phylogenetic:</b> Students will learn about the different sequence alignment tools and about phylogenetic sequences.	<b>03Hrs</b>
<b>Unit 10</b>	<b>Structural biology</b> Students will learn about the modeling and structural prediction databases.	<b>04Hrs</b>
<b>Unit 11</b>	<b>Commercial application of bioinformatics:</b> Students will learn about the Comparative proteomics and its applications, IPR and Bioinformatics patents.	<b>03Hrs</b>

## REFERENCES

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3. Fairbanks DJ and Anderson WR (1999): Genetics- continuity of life. Brooks and Cole Publication Company. New York.
4. Lewins B (2000): GENES VII. Oxford University Press, New York.
5. Streips and Yasbin (2001). Modern microbial Genetics. Wiley Ltd.
6. John Ringo (2004). Fundamental Genetics. Cambridge University Press.
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9. Higgins & Taylor (2000). Bioinformatics, OUP.
10. Kulg, W.S and Cummins (2003) Concepts of genetics. 7<sup>th</sup> Edition Pearson educations.
11. David W. Mount, (2001) Bioinformatics: Sequence and Genome Analysis 2<sup>nd</sup> Edition.

## **BT CT 2.2 – IMMUNOLOGY AND IMMUNOTECHNOLOGY**

**50 Hrs**

### **Unit 1**

**Immunology:** Fundamental concepts and anatomy of the immune system, History and scope of immunology, cells involved in immune system – T-lymphocytes, B-lymphocytes, Monocytes, Macrophages, APC, Neutrophils, Mast cells, Types of immunity-Adaptive immunity, Innate immunity, Components of Innate and Acquired immunity; Phagocytosis, Complement and Inflammatory responses, Haematopoiesis, Organs of the immune system- primary and secondary lymphoid organs, Lymphatic system, Lymphocyte circulation, Lymphocyte homing, Mucosal and Cutaneous associated Lymphoid tissue (MALT&CALT).

**08 Hrs**

### **Unit 2**

**Antigen:** Concept of haptens, determinants, conditions of antigenicity, antigens and immunogenicity, super-antigen. Self and non-self-recognition, epitopes mapping, paratopes, nature of B-cell and T – cell epitopes, haptens, carbohydrate antigens, blood group antigens, synthetic peptides as antigens.

**Immunoglobulin:** Structure and properties of immunoglobulin classes, Theories of antibody formation, Multiple myelomas and structural basis of antibody diversity, Freund's adjuvants and its significance.

**05Hrs**

### **Unit 3**

**Antigen-antibody Interaction and Immunotechniques:** Agglutination, Precipitation, Affinity, avidity and cross reactivity, Immuno double- diffusion, single radial immunodiffusion, Haemagglutination and Complement fixation, Direct and Indirect Immunofluorescence.

**05 Hrs**

### **Unit 4**

**Immunodiagnosics:** Anti-microbial immunity: a general scheme, Defense against bacteria, viruses, fungi and parasites, Immunodiagnosics in virology – Serological methods for detection and quantitation of viruses including Hepatitis, Influenza, HIV and others.

**04 Hrs**

### **Unit 5**

**Immunotechniques and applications:** Immuno-assays: SRID, ELISA, ELISA-PCR, RIA, Western Blotting, Immunofluorescence and their application. Immune deficiencies and autoimmunity, Immunoelectrophoresis, Flow cytometry, Immunoblot, Complement fixation test (CFT), Montoux test, Applications of these methods in diagnosis of Microbial infections.

**05Hrs**

## **Unit 6**

**Expressions and Regulation of Immune Response:** Regulation of immune response, Antigen processing and presentation, generation of humoral and cell mediated immune response, activation of B and T lymphocytes, cytokines and their role in Immune regulation, T cell regulation, MHC complex restriction, Immunological tolerance.

**04 Hrs**

## **Unit 7**

**Hypersensitivity reactions:** Allergy, Type I- Anaphylaxis, Type II- Antibody dependent cell cytotoxicity and Type III- Immune complex mediated reactions, Type IV- delayed type hypersensitivity. Symptoms and Immunological methods of diagnosis of hypersensitive reactions,

Lymphokines and cytokines—Assay methods, Immunological tolerance and modulation

**04 Hrs**

## **Unit 8**

**Transplantation immunology:** Structure and functions of MHC and the HLA systems, types of grafts, grafts rejection, GVH reactions, mechanism of graft rejection and prevention of graft rejection. Gene regulation and Ir-genes; HLA and tissue transplantation – Tissue typing methods for transplantations in humans; graft versus host reaction and rejection, Xeno-transplantation, (inter species, intra Species, Intra Genus) immunosuppressive therapy,

**04 Hrs**

## **Unit 9**

**Tumor immunology:** Tumor specific antigens, Immune response to tumors, Theory of surveillance, Immunodiagnosis of tumors – detection of tumor markers – Alpha-fetoprotein, Carcino-embryonic antigen, Cancer therapeutics.

**04 Hrs**

## **Unit 10**

**Immunization & Vaccine technology and recombinant vaccines :** Common immunization practice, types of vaccines and its application, edible vaccines, conventional vaccines, viral vaccines, bacterial vaccines, peptide vaccines, genetically engineered vaccines, Hybridoma technology, immunization of animals Isolation of stimulated spleen cells, myeloma cell lines used and fusion partners, Fusion method production, detection and applications of monoclonal and polyclonal antibodies, production and application of Lymphokines.

**05 Hrs**

## **Unit 11**

**Cytokines:** Structure and receptors, signal transduction, modulation of immune response cytokine profile of diseases.

**02Hr**

## **PRACTICALS**

### **BT CP 2.6 BASED ON BT CT 2.2 – IMMUNOLOGY AND IMMUNOTECHNOLOGY**

1. Blood film preparation and identification of cells, WBC and RBC count
2. Determination of Blood groups and Rh factor.
3. Estimation of Hemoglobin.
4. Demonstration of antigen administration to animals Mice / Rat.(Intra-muscular, Intra- veinal, Intra-peritoneal)
5. Determination of Bleeding Time (BT) and Clotting Time (CT).
6. Separation of Serum / Plasma from whole blood, Electrophoretic separation of serum proteins/plasma
7. Precipitation of Immunoglobulins from serum by Ammonium sulphate precipitation.
8. Agglutination tests (Haemagglutination, Latex agglutination, Bacterial agglutination).
9. Immunoprecipitation tests – Radial Immunodiffusion test / Ochterlony double diffusion test.
10. Demonstration of ELISA
11. Demonstration of Western blot.
12. Identification of Bacteria by Using Fluorescent Ab Technique (FAT)
13. Determination of antibody titer of the serum.
14. Immunoelectrophoresis – Rocket Immunoelectrophoresis.
15. Demonstration of Agglutination Reaction of Unknown Bacterial Culture by Slide Agglutination Technique

## **REFERENCES**

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2. Ananthanarayan, R and Paniker. (2017). Text book of Microbiology, 10<sup>th</sup> Edition, Universities press Private Limited, Hyderabad, India.

3. Bisen, S.P. (2014). Laboratory Protocols in Applied Life Sciences, CRC Press Taylor and Francis Group
4. CV Rao (2006) An Introduction to Immunology 2<sup>nd</sup> Edition, Alpha Science Intl Ltd.
5. Christopher, J., Burrell, Colin. R., Howard, Frederick. A. Murphy. (2016). Fenner and White's Medical Virology, 5<sup>th</sup> Edition, Academic Press.
6. Coleman RM, Lombard MF and Sicard RE. (2012). Fundamental Immunology, 7<sup>th</sup> Edition, LWW publication.
7. Delves, P.J., Martin, S.J., Burton, D.R., Roitt, I.M. (2017). Roitt's Essential Immunology, 13<sup>th</sup> Edition, Wiley-Blackwell Publishers
8. Frank Hay. (2002). Practical immunology, 4<sup>th</sup> Edition, Blackwell Science
9. IR Tizard, (1995), Immunology: An Introduction, 4<sup>th</sup> Edition, Saunders College Publishers, New York.
10. Plummer, D.T. (1971). Introduction to Practical Biochemistry, Tata MacGraw Hill.
11. Pavri, KM (1996), Challenge of AIDS, National Book Trust, India.

<b>Program code with title</b>	<b><u>BT CT 2.2- - IMMUNOLOGY AND IMMUNOTECHNOLOGY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Immunology</b> Students will get to know the fundamental concepts and cells involved in immunology.	<b>08Hrs</b>
<b>Unit 2</b>	<b>Antigen:</b> Students will get the details regarding epitopes, antigens and super antigens and also about immunoglobulins.	<b>05Hrs</b>
<b>Unit 3</b>	<b>Antigen-antibody Interaction and Immunotechniques:</b> Students will familiarize with the different type of antigen antibody interactions and its applications.	<b>05Hrs</b>
<b>Unit 4</b>	<b>Immunodiagnostics:</b> Students will learn about the different Serological methods for detection and quantization of viral diseases.	<b>05Hrs</b>
<b>Unit 5</b>	<b>Immunotechniques and applications:</b> : Students will learn about the different immunotechniques and applications of these methods in diagnosis of Microbial infections	<b>05Hrs</b>

<b>Unit 6</b>	<b>Expressions and Regulation of Immune Response::</b> Students will learn about the regulation of immune response and immune tolerance and MHC cells.	<b>04Hrs</b>
<b>Unit 7</b>	<b>Hypersensitivity reactions:</b> Students will learn about the different types of hypersensitivity reactions.	<b>03Hrs</b>
<b>Unit 8</b>	<b>Transplantation immunology:</b> Students will learn about the different types of transplantation.	<b>04Hrs</b>
<b>Unit 9</b>	<b>Tumor immunology</b> Students will learn about the different mechanism of tumor formation and tumor antigens.	<b>04Hrs</b>
<b>Unit 10</b>	<b>Immunization &amp; Vaccine technology and recombinant vaccines:</b> Students will learn about the different methods of immunization and also about the different types of vaccines.	<b>05Hrs</b>
<b>Unit 11</b>	<b>Cytokines</b> Students will learn about the different types of cytokines and receptors.	<b>02Hrs</b>

## **BTCT – 2.3 ENZYMOLOGY AND METABOLISM**

**50 Hrs**

### **Unit 1**

**Bioenergetics:** Thermodynamics– laws of thermodynamics, Gibbs free energy, endergonic & exergonic reactions. ATP-Structure, organization of respiratory electron transport system, mechanism of oxidative phosphorylation biological energy transducers, chemo-osmotic generation of ATP, High energy compounds.

Introduction to Metabolism- Catabolism, anabolism, catabolic, anabolic and amphibolic pathways

**06 Hrs**

### **Unit 2**

**Enzymes:** Definition, structure, properties and classification of enzymes, Co-factors and Co-enzymes, Kinetics of enzyme catalyzed reactions. Michaelis –Menten equation  $K_M$  and  $V_{max}$ , single substrate and double substrate reactions. Lineweaver and Burk modification, enzyme kinetics and enzyme inhibitory kinetics (competitive, uncompetitive, noncompetitive and mixed inhibitions and determination of  $K_i$ )

**Mechanism of enzyme action:** Induced fit hypothesis nature of catalysis, mechanism of lysozyme action.

**Enzyme regulation:** Covalent and Allosteric regulation activation and inhibition of enzyme activity and isoenzymes, ribozymes and abzymes.

**08 Hrs**

### **Unit 3**

**Carbohydrate Metabolism:** Sources of carbohydrates, enzymatic conversion of metabolites as glucose and fructose, Introduction, aerobic and anaerobic pathways, brief account of glycolysis, Kreb's cycle, Glyoxylate cycle, Gluconeogenesis, Pentose phosphate pathway (HMP shunt) & its regulation, Glycogenolysis and Glycogenesis, Substrate level phosphorylation, rate controlling steps and regulation of the metabolic pathways.

**08 Hrs**

### **Unit 4**

**Metabolism of lipids:** Beta-oxidation of saturated, unsaturated and branched chain fatty acids. Peroxisomal beta- oxidation, alpha and omega oxidation Biosynthesis of fatty acids, biosynthesis of long chain fatty acids and branched chain fatty acids, desaturation. Biosynthesis of phospholipids De novo pathway and inter conversion, cholesterol biosynthesis and regulation.

**06 Hrs**

### **Unit 5**

**Metabolism of Amino acids and proteins:** Synthesis of amino acid and their catabolism (Deamination, Decarboxylation, Transamination and Reductive transamination), Hydrolysis of proteins, proteases. Co-ordinated control of amino acid metabolism, formation of Ammonia and urea.

**04 Hrs**

### **Unit 6**

**Nucleotide metabolism:** Pathway for degradation of purines and pyrimidines, de-novo biosynthetic pathway of ribonucleotides, Salvage pathways and related disorders, biosynthesis of deoxyribonucleotides. Regulation of degradation and biosynthesis.

**04 Hrs**

### **Unit 8**

**Photosynthesis:** Chemistry and components of photosystems, absorption spectrum and active spectrum, Cyt-b, Cyt-f complex, ATP synthesis, pigments involved in photosynthesis, Chlorophyll a, Chlorophyll b, Bacterio-chlorophyll, Bacterio-rhodopsin, mechanism of light reaction and carbon fixation, C3, C4 and CAM pathways, Photorespiration and its impact in bacterial photosynthesis.

**04 Hrs**

### **Unit 9**

**Signal transduction:** Inter and Intra cellular signaling, signaling molecules–proteins and non-protein signals, signal synthesis, release and transport. Target cells and tissues, signal receptors, distribution and interaction between the signal transduction and the mechanism of transduction

Role of secondary messengers, such as Calcium, cAMP, cGMP, Phosphatidyl inositol, phosphate  
A General view of plant signals, phytohormones and their mechanisms

**06 Hrs**

## **Unit 10**

**Biochemistry of Hormones:** Biosynthesis and regulation of hormones, mechanisms of hormone transduction, Cell-cell transport of hormones, Hormone receptors, signal component receptors.

**04 Hrs**

## **PRACTICALS**

### **BT CP 2.7 Based on BT CT 2.3 Enzymology and Metabolism.**

1. Qualitative and quantitative analysis of carbohydrates / proteins / amino acids / lipids.
2. Estimation of Chlorophyll.
3. Determination of pKa of proteins and amino acids.
4. Purification of enzymes/proteins using ammonium sulphate, pH precipitation and organic solvent methods.
5. Isolation of enzymes from different biological sources (bacterial / fungal / plant / animal cells).
6. Effect of substrate concentration, temperature and pH on enzyme activity.
7. Study of enzyme kinetics—effect of inhibitors, Determination of  $K_m$ ,  $V_{max}$  and  $K_i$  of competitive and noncompetitive inhibitor.
8. Isolation of  $\alpha$ -amylase from sweet potato, assay of enzyme activity and specific activity.
9. Isolation of protease from papaya, assay of enzyme activity and specific activity
10. Enzyme assay-Trypsin, Urease and Phosphatase.
11. Immobilization of enzymes.
12. Estimation of urea, creatine and Creatinine

## **REFERENCES**

1. Nelson, D. L., Cox M. M. and Lehninger A. L. (2017) Lehninger principles of biochemistry 7<sup>th</sup> Edition: W.H. Freeman, New York.
2. Devlin, T.M (1997) With Clinical Correlations. Wiley- Liss .Inc, NY.
3. Mathews, C.K and Holde K. E. V (1996) Biochemistry. The Benjamin, Cummings Publishing Company, Inc, NY.
4. Elliott W.H. and Elliott, D.C (1997) Biochemistry and Molecular biology. Oxford University Press.
5. Voet, D and, J.G. Voet (2004) Biochemistry, John Wiley and sons.
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7. Garret and Grashem (1999) Biochemistry Saunders College Publishers.
8. Fundamentals of Enzymology: Price, N.C and Sterans L. Oxford University press.
9. Palmer, T. (1999) Enzymes Harwood Publishing.
10. Hames, B.D, Hopper, N. M, Houghton, D. (2001): instant notes in Biochemistry, VIVA Books Pvt, Ltd New Delhi.

Program code with title	<b><u>BTCT – 2.3 ENZYMOLOGY AND METABOLISM</u></b>	
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Units	Course Outcome	No of hours
Unit 1	<b>Bioenergetics:</b> Students will get to know the Thermodynamics– laws of thermodynamics, Metabolism- Catabolism, anabolism, catabolic, anabolic and amphibolic pathways.	08Hrs
Unit 2	<b>Enzymes:</b> Students will get the details regarding: Definition, structure, properties and classification of Michaelis –Menten equation Mechanism of enzyme action: Induced fit hypothesis nature of catalysis, mechanism of lysozyme action and Enzyme regulation:	05Hrs
Unit 3	<b>Carbohydrate Metabolism:</b> Students will familiarize with the. Sources of carbohydrates, , rate controlling steps and regulation of the metabolic pathways.	05Hrs
Unit 4	<b>Metabolism of lipids :</b> Students will learn about the : Biosynthesis of fatty acids, s De novo pathway and inter conversion, cholesterol biosynthesis and regulation.	05Hrs
Unit 5	<b>Metabolism of Amino acids and proteins:</b> Students will learn about the different Metabolism of Amino acids and proteins Synthesis of amino acid and their catabolism (	05Hrs
Unit 6	<b>Nucleotide metabolism:</b> Students will learn about the Pathway for degradation of purines and pyrimidines,. Regulation of degradation and biosynthesis.	04Hrs
Unit 7	<b>Photosynthesis:</b> Students will learn about the Chemistry and components of photo systems, Photorespiration and its impact in bacterial photosynthesis.	04Hrs
Unit 8	<b>Signal transduction:</b> Students will learn about the different types of <b>Inter</b> and Intra cellular signaling, signaling molecules–and the mechanism of	06Hrs

	transduction and also the Role of secondary messengers,	
<b>Unit 9</b>	<b>Biochemistry of Hormones:</b> Students will learn about Biochemistry of Hormones Biosynthesis and regulation and mechanisms of hormone transduction	<b>04Hrs</b>

#### BT ET 2.4 MOLECULAR CELL BIOLOGY

**50hrs**

##### **Unit 1**

**Basics of Cell biology:** Cell theory, Structure of Prokaryotic and Eukaryotic cells, Differences between Plant and Animal cells.

**03 Hrs**

##### **Unit 2**

**Cell Organelles and Cell Architecture:** Ultrastructure of Plasma Membrane, Different models of Plasma membrane structure. Ultrastructure and functions of cellular organelles: Nucleus, Chloroplast, Mitochondria, Endoplasmic Reticulum, Golgi bodies, Ribosomes, Lysosomes, Vacuoles and Centrosomes. Structure of microtubules, cilia, flagella and centrioles, Intermediate Filaments Actin and Myosin, functional role of actin filaments and motor proteins. Role of microtubules in intracellular movements.

**10Hrs**

##### **Unit 3**

**Chromosomal organization:** Molecular organization of eukaryotic chromosomes, Molecular features of telomeres, centromere, kinetochore, chromatin and heterochromatin. Mechanism and causes of chromosomal condensation and relaxation. Mutations, Chromosomal aberrations- deletions, duplications, translocation and inversion. Euploidy and Polyploidy.

**06 Hrs**

#### Unit 4

**Cell Cycle:** Cell cycle and division - mitosis, mitosis and meiosis, phases of cell cycle, DNA Replication, Transcription and Translation. Control system of Cell cycle and Checkpoints in cell cycle regulation,

**08 Hrs**

#### Unit 5

**Apoptosis:** Phenomenon of Apoptosis, Programmed cell death, Caspases, Apoptotic protease activating factor (APAF) mechanism of apoptosis at biochemical, cellular and gene level, Necrosis, factors regulating apoptotic death in normal cells and tumorous cells.

**08 Hrs**

#### Unit 6

**Developmental biology and Cell Differentiation:** Establishing multi-cellularity, formation of blastula, embryonic germ layer, tracking of migrating cells. Aggregation behavior in embryonic cells and possible understanding in the positional information on developing organs; Events during fertilization, post fertilization early embryonic development and in vitro fertilization, Roles of different proteins in fertilization and cellular differentiation, Stem cells and their differentiation application of Stem cells.

**10Hrs**

#### Unit 7

**Molecular biology of Cancer:** Characteristics of Cancer cells, The Genetic Basis of Cancer, Proto-onco genes and its regulation, Oncogenes, Viral Oncogenes, Regulation of gene expression and signal transduction in cancerous cells, cancer treatment.

**05 Hrs**

#### PRACTICALS

##### BT EP 2.8 Based on BTET 2.4 Molecular Cell Biology

1. Preparation of meiotic chromosomes using Haematoxylin
2. Isolation of mitochondrial DNA
3. Isolation of Chloroplast DNA
4. Preparation of Salivary gland chromosomes – *Drosophila melanogaster*
5. Biosafety and lab protocol
6. Micrometry and measurement of given biological sample
7. Fixation of plant and animal tissues, preparation of paraffin blocks and micrometry staining and microscopic observation.
8. Sub cellular fractionation and marker enzymes.
9. Cytological methods, chromosome counting and karyotype analysis.
10. Analysis of Polytene chromosomes, bar bodies and chromosomes.

11. Detection of cell apoptosis by Comet Assay.
12. Cytophotometric estimation of nuclear DNA.
13. Structural and numerical changes in chromosomes and chromosome banding

## REFERENCES

1. Matthews, C.A. (2003). Cellular physiology of nerve and muscle. 4<sup>th</sup> Edition. Blackwell Publishers.
1. Alberts, B., Bray, D., Lewis, J., Raf, M., Roberts, K., Watson, J.D. (1994). Molecular Biology of the Cell.
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4. Edwards and Hassall (1980). Biochemistry and Physiology of cell, 2<sup>nd</sup> Edition. McGraw Hill Company.
5. Garrett, R.H., Gresham, C.M. (1995). Molecular aspects of Cell Biology, International Edition, Saunders College Pub.
6. Holy Ahern (1992). Introduction to Experimental Cell Biology, Wm. C. Brown Publishers.
7. Karp, G. (1996). Cell and Molecular Biology concepts and experiments, John Wiley and Sons Inc. NY.
8. Lodish, H., Baltimore, D., Berk, A., Zipursky, B.L., Mastsydaira, P., Darnell, J. (2004).
9. Molecular Cell Biology, Scientific American Books Inc. NY.
10. Tobin and Morel (1997). Asking about "Cells" Saunders College Publisher.
11. Wolfe, S.L. (1991). Molecular and Cellular Biology, Wordsworth Pub. Co.
12. Hallwell, B., Gutteridge, J.M.C. (2002). Free Radicals Biology and Medicine. Oxford Press.UK.

<b>Program code with title</b>	<b>BT CT 2.4 <u>MOLECULAR CELL BIOLOGY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Basics of Cell biology:</b> Students will get to know the fundamental concepts in cell theory and their structure in detail.	<b>03 Hrs</b>
<b>Unit 2</b>	<b>Cell Organelles and Cell Architecture:</b> Students will get the details regarding different cell organelles structure and their function.	<b>10 Hrs</b>
<b>Unit 3</b>	<b>Chromosomal organization:</b> Students will familiarize with different levels of chromosome organization and also about the mutation.	<b>06 Hrs</b>
<b>Unit 4</b>	<b>Cell Cycle:</b> Students will learn about the cell cycle check points and its regulation.	<b>08Hrs</b>
<b>Unit 5</b>	<b>Apoptosis</b> Students will learn about the concept of biochemical and cellular, molecular aspects of cell death.	<b>08Hrs</b>
<b>Unit 6</b>	<b>Developmental biology and Cell Differentiation:</b> students will learn about the stem cells and different stages of cell development and differentiation.	<b>10Hrs</b>
<b>Unit 7</b>	<b>Molecular biology of Cancer:</b> Students will learn regarding the oncogenes its expression and regulation.	<b>05Hrs</b>

## **BIOTECHNOLOGY THIRD SEMESTER SYLLABUS**

### **FROM 2020-21 ONWARDS**

#### **BTCT 3.1 ANIMAL BIOTECHNOLOGY**

##### **Unit 1**

**Introduction to Tissue culture:** Definition, principle and significance of tissue culture. Equipment's and materials for animal cell culture technology. Maintenance of sterility and use of antibiotics, detection of Mycoplasma and viral contaminants, tissue culture media, natural, synthetic media and Sera, Sterilization of cell culture media and reagents, role of carbon dioxide in animal cell culture

**05 Hrs**

##### **Unit 2**

**Types of animal cell culture:** Primary and secondary cell culture, development of cell lines or established cultures. Biological characterization of cell cultures, contact inhibition, cell transformation, cancer cells, indefinite cell lines. Measurement of cell viability, cytotoxicity, Screening of cytotoxic compounds and its importance

**04 Hrs**

##### **Unit 3**

**Techniques of Animal cell culture:** *In-vitro*, Disaggregation of tissue and primary culture, subculture and establishment of cell line, Cloning and selection, Cell separation, Characterization, Differentiation, Transformation and immortalization, Quantification of cell culture. Scale-up and cell synchronization.

**04 Hrs**

##### **Unit 4**

**Stem cells and Tissue engineering:** Overview; self-renewal potential; differentiation versus stem cell renewal; trans-differentiation; cell cycle dynamics of different stem cells. Stem cell assays and protocols: Isolation of defined stem cell populations; Progenitor cell assays, sources of progenitor cells, cytokine and chemotherapy approaches to mobilization of progenitor cells.

**Stem cell Therapy:** Clinical applications of stem cell therapy; neurodegenerative diseases- Parkinson's disease, Alzheimers, spinal cord injury, other brain syndromes; tissue systems failures- diabetes,

cardiomyopathy, kidney failure, liver failure hemophilia, lymphoma and leukemic malignancies requiring stem cell therapy.

**Tissue Engineering:** Basic cell biology, cell-matrix interactions, receptor biology, tissue ablation, engineering angiogenesis, vascularization, material based immune therapy and skin, bone, liver, muscle tissue engineering.

**12 Hrs**

## **Unit 5**

**Animal reproductive system with reference to insects and mammals:** Organization, function, hormonal regulation of growth and reproduction in insects and mammals. Hormonal regulation of estrous cycle, menstrual cycle and pregnancy, IVF– embryo transfer technology in human and livestock. Mechanism of protein and steroid hormone action and importance of hormones as a biotechnological products.

**09 Hrs**

## **Unit 6**

**Hybridoma Technology:** Production of murine monoclonal antibodies (MAbs)-Fusion strategies, HAT Selection; Strategies for production of human MAbs-Humanization and antigenization of MAbs-Chimeric, CDR-grafted, SDR-grafted, veneered MAbs.

**03 Hrs**

## **Unit 7**

**Antibody Engineering:** Antibody fragments, Antibody gene cloning; Expression of recombinant antibody genes; Next generation display technologies for production of antibodies *in vitro*; combinatorial libraries and phage display libraries; Bio-specific and bi-functional antibodies; Immuno-conjugates; Catalytic antibodies.

**03 Hrs**

## **Unit 8**

**Polymeric Biomaterials:** Polyolefins, Polyamides, acrylic polymers, fluoro-carbon polymers, rubbers, thermoplastics. Physiochemical characteristics of biopolymers, biodegradable polymers for medical purposes, Synthetic polymeric membranes and their biological applications, Biopolymers in controlled release systems artificial skin. Dialysis membrane

**Composite Biomaterials:** Properties, classification and Applications of Composite Biomaterials in fabrication of bio-devices and implants. Applications of biomaterials in Drug delivery systems

**05 Hrs**

#### **Unit 9**

**Gene therapy:** Types of genetic diseases targeted for gene therapy. Human genome project and its applications

**02 Hrs**

#### **Unit 10**

The legal and socio-economic impact of biotechnology at national and international levels, public awareness, Biosafety regulations, guidelines for research in transgenic animals, public awareness of the processes of producing transgenic organisms.

**03 Hrs**

#### **PRACTICALS**

##### **BT CP 3.5 Based on BT CT 3.1 Animal Biotechnology**

1. Rearing, Maintenance and safety of laboratory animals – Rat/ Mouse/ Silkworm.
2. Preparation of animal cell culture media(Natural and Synthetic)
3. Viability test and Cell counting (Trypan Blue Staining)
4. Disaggregation of animal tissue by trypsinization
5. Studies on the Estrous cycle
6. Sperm counting and Sperm viability
7. Demonstration of techniques involved in Ovaryectomy, Orchiectomy, Adrenalectomy and Hysterectomy in mice/rat
8. Isolation of DNA from animal tissues
9. Isolation of Bovine Serum Albumin (BSA)
10. Demonstration of Cryo-preservation of animal cells.
11. Estimation of Cholesterol
12. Comet assay of blood sample
13. MTT assay for Cytotoxicity
14. Developmental stages of chick embryo
15. Initiation of primary culture from chick embryo
16. Visit Research institute to veterinary institute and IVF center.

#### **REFERENCES**

1. R. Ian Freshney (2010) Culture of Animal cells, 5<sup>th</sup> Edition, A John Wiley & Sons, Inc., Publications, USA

2. R.W. Masters. (2000) Animal Cell Culture- Practical Approach, 3<sup>rd</sup> Edition, Oxford University Press. USA
3. Robert Lanza et al. (2006) *Essentials of Stem Cell Biology*”, Academic Press, 2<sup>nd</sup> Edition, US
4. G.C. Banerjee (1998) Text book of Animal Husbandary, 8<sup>th</sup> Edition, Oxford and IBH Publishing Co. Pvt. Ltd. India
5. Molecular Biotechnology: 4<sup>th</sup> Edition. (2010), Glick B.R., Pasternak J.J., Patten C. L., ASM press, USA
6. Gene Transfer to Animal Cells, 1<sup>st</sup> Edition (2005), R. M. Twyman, Taylor & Francis USA.
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9. Sujata V. Bhat, (2002) Biomaterials, Narosa Publishing House, 2002.
10. Houdebine L.M. (2001) Animal transgenesis and cloning. Wiley Publishers.
11. Hare WCD & Elizabeth L Singh. (2005) Cytogenetics in animal reproduction. CABI.

<b>Program code with title</b>	<b><u>BTCT 3.1 ANIMAL BIOTECHNOLOGY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Introduction to Tissue culture::</b> Students will get to know the fundamental of Tissue culture role of nutrients in animal cell culture	<b>05 Hrs</b>
<b>Unit 2</b>	<b>Types of animal cell culture:</b> Students will get the details regarding cell culture, cell lines Biological characterization of cell cultures and. Measurement of cell viability assay and its importance	<b>04 Hrs</b>
<b>Unit 3</b>	<b>Techniques of Animal cell culture:</b> Students will familiarize with, Cell separation, Characterization, and . Scale-up and cell synchronization.	<b>04 Hrs</b>
<b>Unit 4</b>	<b>Stem cells and Tissue engineering:</b> Students will learn about <b>Stem</b> cells and Tissue engineering, Stem cell Therapy Clinical applications of stem cell therapy and basics of Tissue Engineering.	<b>12Hrs</b>
<b>Unit 5</b>	<b>Animal reproductive system with reference to insects and mammals:</b> Students will learn about the concept of, hormonal regulation, IVF– embryo transfer technology in human and livestock. Mechanism of protein and steroid hormone action and importance of hormones as biotechnological products.	<b>09Hrs</b>

<b>Unit 6</b>	<b>Hybridoma Technology:</b> students will learn about the Production of monoclonal antibodies (MAbs)-Fusion strategies,	<b>03Hrs</b>
<b>Unit 7</b>	<b>Antibody Engineering:</b> Students will Antibody gene cloning technologies for production of antibodies.	<b>03Hrs</b>
<b>Unit 8</b>	<b>Polymeric Biomaterials:</b> Students will get to know about biopolymers, Composite Biomaterials: Properties,. Applications of biomaterials in Drug delivery systems	<b>05Hrs</b>
<b>Unit-9</b>	<b>Gene therapy:</b> : Students will get to know about genetic diseases gene therapy. Human genome project and its applications	<b>02Hrs</b>
<b>Unit 10</b>	<b>Socio-economic impact of biotechnology:</b> Students will learn Biosafety regulations, guidelines for research in transgenic animals	<b>03 Hrs</b>

### **BT CT 3.2 – ENVIRONMENTAL BIOTECHNOLOGY AND BIODIVERSITY**

**50 Hrs**

#### **Unit 1**

Meaning, Scope and Concept of Environment and Environmental pollution

**02 Hrs**

#### **Unit 2**

**Aerobiology:** Air Ssampling techniques, Identification of airborne Bio-particles, Sources and characteristics of air pollutants, health hazards due to air pollution. Air borne diseases and controlling measures of air pollution

**06 Hrs**

#### **Unit 3**

**Soil biology:** Classification of soil based on physical and chemical characteristics, Microorganisms in various soil types. Soil pollution – sources and characteristics of soil pollutants, health hazards due to soil pollution, control measures of soil pollution

Interaction among soil microbes-mutualism, commensalisms, amensalism, parasitism, predation, competition, antibiosis and their significance Interrelationship between microbes, plant and soil Brief account on rhizosphere, Phyllosphere and Sphermoshere, Symbiotic and non-symbiotic association with

higher plants, role of enzymes of microbial origin in the release of plant nutrients

08 Hrs

#### Unit 4

**Water Ecosystem:** Fresh water and marine water ecosystems, Zonation of water ecosystem, water pollution-sources, and characteristics of water pollution and health hazards due to water pollution, eutrophication. Biological indicators of water pollution - Chemical, Microbiological and Biotechnological indicators Water purifications Brief account on water borne diseases and control measures

08 Hrs

#### Unit 5

**Waste Treatment:** Solid and Liquids wastes and their Characterization Physical, chemical and biological methods of solid waste treatment Saccharification, Gasification, Composting and wastewater recycling-chlorination, Ozonization, radiation, filtrations, reverse osmosis. Effluent treatment - (Dairy, Distillery, Tannery, Textile, Paper and sugar industries) Physical, chemical and biological sewage treatment-Trickling filters, oxidation pond, ditch and activated sludge treatment. Advanced waste water treatment-Rotating Biological Contactors (RBC), submerged aerobic filters, fluidized bed reactors, biological aerated flooded system and combination of anaerobic, denitrification and aerobic treatment of wastewater. Advanced activated sludge process.

08 Hrs

#### Unit 6

**Bioremediation:** Concepts and principles, *Insitu* and *Exsitu* Bioremediation and Phytoremediation. Biodegradation of pesticides and Xenobiotics (Halocarbons, C-1 compounds, aliphatic hydrocarbons, acyclic hydrocarbons, Aromatic hydrocarbons, polycyclic Hydrocarbons, Halogenated compounds) in soil and their influence on soil micro flora Biodegradation of natural polymers-Cellulose, Lignin, Pectin, Chitin Detergents, soaps and plastics. Bio-deterioration of paper, Leather, Wood, Textiles Mode of Deterioration and organisms involved. Bio-leaching, Bio-mining, and Production of Oils and fuels from wooden-waste.

05 Hrs

#### Unit 7

**Environmental Education:** Agrochemicals, Global Warming, Ozone depletion, Greenhouse effect, acid rain their impact and biotechnological approaches in the environment.

03 Hrs

## Unit 8

**Biodiversity and its conservation:** Current levels of biodiversity, extinction and endangered species, reasons of concern for loss of biodiversity, steps to preserve biodiversity, *In-situ* and *Ex-situ* conservation, gene banks, convention on biological diversity, Species conservation

04 Hrs

## Unit 9

Biological control and Integrated Pest Management (IPM)

03 Hrs

## Unit 10

Bioenergy: Biofuels, bio-ethanol, biodiesel, biogas, bio-hydrogen, Algal Biotechnology for Bio-energy, byproducts of sugar industries, Bioethanol,

03 Hrs

## PRACTICALS

### BT CP 3.6 Based on BT CT 3.2 Environmental Biotechnology and Biodiversity

1. Detection of coliforms for determination of purity of potable water samples by MPN method
2. Determination of DO, BOD, COD and TDS of water samples
3. Isolation of Bacteriophages from sewage water samples
4. Study of microflora of industrial waste and effluents
5. Selective enrichment of auxotrophic and antibiotic ( $\text{Tet}^R/\text{Ref}^R$ ) mutants
6. Isolation of DNA from environmental samples
7. Isolation of Xenobiotic degrading bacteria by selective enrichment technique
8. Isolation of plasmids for degradation of polluted environment.
9. Study of effect of heavy metals on crop plants.
10. Study on Biogenic methane production
11. Estimation of Phosphate, sulphates, Nitrates, major cat ions ( $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Mg}^{++}$  and  $\text{Ca}^{++}$ ) and heavy metals in water samples
12. Effect of industrial effluents/ heavy metals on seed germination and seedling growth
13. Field excursion to an industrial area to assess environmental impact
14. Isolation and determination of Iron and Manganese reducing bacteria
15. Effect of herbicides (Glyphosate and 2, 4, - D) on chlorophyll content

## REFERENCES

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6. Agrawal, K.C. (1996). Biodiversity, Agro-botanical publications, new Delhi
7. Wilson, D.G. (1997) Handbook of solid waste management,
8. Handbook for monitoring industrial wastewater, U.S. Environment Protection Agency Technology Transfer 1997.
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10. Microbial transformation of bioactive compounds. Vol. II and CFC Press, Florida, I.
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12. Hiremath, M.B., Baligar, P.N. and Prashanth, M.S. (2012). Environmental Biotechnology. Prateeksha publishers, New Delhi.

<b>Program code with title</b>	<b><u>BT CT 3.2 – ENVIRONMENTAL BIOTECHNOLOGY AND BIODIVERSITY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Scope of Environment :</b> Students will understand the Meaning, Scope and Concept of Environment and Environmental pollution	<b>02 Hrs</b>
<b>Unit 2</b>	<b>Aerobiology:</b> Students will learn different Air sampling techniques,. Air borne diseases and controlling measures of air pollution	<b>06Hrs</b>
<b>Unit 3</b>	<b>Soil biology:</b> Students will learn properties of soil, characteristics of soil pollutants and control measures of soil pollution. Students will also understand about the different types of interaction between soil and microbes.	<b>08Hrs</b>
<b>Unit 4</b>	<b>Water Ecosystem:</b> Students will learn about different water ecosystems and also about Biological indicators of water. Students will get to know about water borne diseases and control measures.	<b>08Hrs</b>
<b>Unit 5</b>	<b>Waste Treatment:</b> Students will learn about Characterization of waste and its treatment.	<b>08Hrs</b>
<b>Unit 6</b>	<b>Bioremediation:</b> Students will familiarize with Concepts and principles of Bioremediation and also about Bio-leaching, Bio-mining.	<b>05Hrs</b>

<b>Unit 7</b>	<b>Unit 7</b> <b>Environmental Education:</b> Students will understand the consequences of Global Warming and their impact and biotechnological approaches in the environment.	<b>03Hrs</b>
<b>Unit 8</b>	<b>Biodiversity and its conservation:</b> Students will understand the importance of biodiversity and different methods for their conservation.	<b>04Hrs</b>
<b>Unit-9</b>	<b>Biological control :</b> Students will understand the concepts of Integrated Pest Management (IPM).	<b>03Hrs</b>
<b>Unit 10</b>	<b>Bioenergy:</b> Students will get to know the Biofuels, and Bio-energy, byproducts.	<b>03Hrs</b>

### **BT CT 3.3 – BIOPROCESS ENGINEERING AND TECHNOLOGY**

**50 Hrs**

#### **Unit 1**

**Introduction to Bioprocess Engineering:** Chronological development of fermentation industry, Industrial processes-Microbial biomass, Microbial metabolites, Recombinant products, Transformation process Isolation, Screening, Selection, Preservation and Maintenance of industrial important microorganisms.

**03 Hrs**

#### **Unit 2**

**Fermentation Technology:** Types of fermentation process, Solid-state fermentation, Liquid state fermentation, analysis of batch, fed batch and continuous bio-reactions. Stability of microbial reactors, analysis of mixed microbial population, Measurement and control of bio-process parameters

**04 Hrs**

#### **Unit 3**

**Bioreactors:** Basic design and function of a Bioreactor, body construction, aeration and agitation, attainment and maintenance of aseptic conditions, sterilization of Bioreactor. Ports for nutrients and inoculum, sampling, types of valves, Types of bioreactors: Specialized bioreactors– Tubular bioreactors, membrane bioreactors, Tower bioreactors, fluidized bed reactor, packed bed reactor and photo-bioreactors.

**05 Hrs**

#### **Unit 4**

**Bioprocess Development:** Upstream processing-Media Natural media, synthetic media and typical media. Media formulation strategies, sources of Carbon, Nitrogen, Vitamins and minerals Role of buffers, precursors, inhibitors, inducers and antifoam agents, Microbial growth kinetics, Specific growth rate. Monod equation, Strain improvement, Inoculum development for bacterial and fungal processes

**05 Hrs**

#### **Unit 5**

**Sterilization and Fermentation Process controls:** Midstream processing-Sterilization of fermentor, Media, feeds, air and filter sterilization, Method of batch sterilization and continuous sterilization process. Methods of measuring process Variables. Online Analysis and Control systems.Computer applications in fermentation technology.

**04 Hrs**

#### **Unit 6**

**Downstream Processing:** Objectives and criteria, removal of microbial cells and solid matter, Cell disruptions, foam precipitation, filtration, centrifugation, liquid-liquid extraction, chromatography, TFF membrane process, drying, crystallization, packaging. Quality control and quality assurance, Effluent treatment, DOC, COD and disposal.

**06 Hrs**

#### **Unit 7**

**Immobilization:** Definition and concepts of immobilization, enzyme and whole cell immobilization, Immobilization techniques – Adsorption, Cross-linking, ionic bonding, entrapment and encapsulation, Advantages and industrial applications of immobilized enzymes and cells

**03 Hrs**

#### **Unit 8**

**Industrial Production:** of Agar – Agar, Alginate, Alcohol (Ethanol), Organic acids (Citric, Acetic, Solvents (Glycerol & Acetone), Antibiotics (Penicillin & Streptomycin), Amino acids (Lysine & Glutamic acid), Single cell proteins (SCP), Vitamins (Riboflavin), Enzymes (Amylase, Lactase and Protease), Hydrocarbons – Biodegradable plastic or PHA and PHB, and recombinant protein (HCG, hepatitis – B vaccine).

**12 Hrs**

#### **Unit 9**

**Food processing:** Food spoilage and Food preservation Principles and general methods, elementary idea of canning, packing sterilization and Pasteurization of food products  
Food fermentation technology – Sausages, olives, bread, Idli and acidophilus milk Hazard analysis and critical control point (HACCP) concepts.

**04 Hrs**

#### **Unit 10**

**Entrepreneurship:** Potential entrepreneurship opportunities in biotechnology. Product development, marketing, resources, research and training units, Industrial licensing and venture capital, Biotech parks, Biotechnology industries in India, contract research (CRO) and Intellectual property rights (IPRs).

**04 Hrs**

### **PRACTICALS**

#### **BT CP 3.7 Based on BT CT 3.3 Bioprocess Engineering and Technology**

1. Study of Fermentor and bioreactor
2. Isolation and screening for industrially important microorganisms by crowd plat technique.
3. Study of antibiotic producing microorganisms in mass culture process and recovery of the product

4. Study of Alcohol fermentation – alcohol production from different substrates, Lab production of Wine, Estimation of percentage of Alcohol, Total acidity and volatile acidity in wine
5. Estimation of Alcohol by Potassium dichromate method.
6. Production of protease from *Bacillus* spp. by using Wheat bran, Coffee pulp through small scale fermentation process and its assay
7. Production of  $\alpha$ - Amylase using *Aspergillus oryzae*, *Bacillus* sp. using Wheat bran in small scale Solid state fermentation and its assay
8. Production of citric acid by *Aspergillus niger*, *Pencillium citrannum* and its estimation.
9. Immobilization of yeast cells by calcium alginate gel entrapment and assay for enzymes Invertase and Catalase
10. Production of alpha amylase from immobilized cells of *Bacillus* sp.
11. Production and analysis of SCP from *Spirulina* and Yeast
12. Production of Yoghurt, *Acidophilus* milk and Temph.
13. Rapid platform test for milk
14. Fat estimation in milk and milk products
15. Methylene Blue reduction test
16. Detection and quantification of Siderophores produced by *Pseudomonas* spp
17. Mandatory visit to Research Institutes / Industries and submission of report.

## REFERENCES

1. Olia and Oly, (1998). Introduction to Biochemical Engineering, 2<sup>nd</sup> Edition, bailey Pub.
2. Michael. Scheler and Fikretkargi (2001). Bioprocess engineering – basic concepts. 2<sup>nd</sup> Edition, Prentice Hall.
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8. Casida, Jr. L.E. (1997). Industrial Microbiology, New Age International Pvt Ltd, New Delhi.
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**BT CT 3.3 – BIOPROCESS ENGINEERING AND TECHNOLOGY**

<b><u>Program code with title</u></b>	<b><u>BT CT 3.3 – ENVIRONMENTAL BIOTECHNOLOGY AND BIODIVERSITY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Introduction to Bioprocess Engineering:</b> Student s will gain the knowledge about the development of fermentation industry, and Industrial processes and also about the Preservation and Maintenance of industrial important microorganisms	<b>03 Hrs</b>
<b>Unit 2</b>	<b>Fermentation Technology:</b> Students will be familiarized with different types of fermentation process and Measurement and control of bio-process parameters	<b>04 Hrs</b>
<b>Unit 3</b>	<b>Bioreactors:</b> Students will get to know the Basic design and function and different types of a Bioreactor.	<b>05Hrs</b>
<b>Unit 4</b>	<b>Bioprocess Development:</b> Students will get to know the upstream processing and Media formulation strategies. Students will also understand the Microbial growth kinetics and about Strain improvement.	<b>05Hrs</b>
<b>Unit 5</b>	<b>Sterilization and Fermentation Process controls:</b> Students will get to know the midstream processing, sterilization process and control of process variables in fermentation technology.	<b>04 Hrs</b>
<b>Unit 6</b>	<b>Downstream Processing:</b> Student s will gain the knowledge about the different methods for cell separation using different membranes.	<b>06 Hrs</b>
<b>Unit 7</b>	<b>Immobilization:</b> Students will understand the importance of immobilization and Advantages and industrial applications of immobilized enzymes and cells	<b>03 Hrs</b>
<b>Unit 8</b>	<b>Industrial Production:</b> Students will understand the production of some industrially important molecules and antibiotics.	<b>12 Hrs</b>
<b>Unit-9</b>	<b>Food processing:</b> Students will understand the concept of food spoilage and food preservation and also about the different fermented food products.	<b>04 Hrs</b>
<b>Unit 10</b>	<b>Entrepreneurship:</b> Students will understand the Potential entrepreneurship in biotechnology. Student s will gain the knowledge about the Intellectual property rights (IPRs).	<b>04 Hrs</b>

## **BT ET 3.4 – PLANT AND ANIMAL TISSUE CULTURE**

**50 Hrs**

### **Unit 1**

**Plant tissue culture and media:** Introduction to Cell and Tissue culture. Tissue culture as a technique to produce novel plants and hybrids, Tissue culture media: (Composition and Preparation). Initiation, maintenance of callus and suspension culture and single cell clones.

**07 Hrs**

### **Unit 2**

**Cell and Organogenesis:** Somatic embryogenesis, transfer and establishment of whole plants in soil. Shoot tip culture, rapid clonal propagation and production of virus free plants. Embryo culture and Embryo rescue. Anther, pollen and ovary culture for production of haploid plants and homozygous lines

**10 Hrs**

### **Unit 3**

**Protoplast isolation, fusion and cryopreservation:** Selection of hybrids cells and regeneration of hybrid plants, Symmetric and asymmetric hybrids and cybrids. Cryopreservation and DNA banking for germ plasm conservation.

**08 Hrs**

### **Unit 4**

**Animal cell, tissue and organ culture:** Historical perspectives, development and scope. Requirements for animal cell, tissue and organ culture – Equipments and materials for animal cell culture technology, advantages and limitations of tissue culture, aseptic handling, facilities, required media and cell lines. Organ and embryo culture: Choice of models, organ culture and histotypic culture Filter – well inserts, neuronal aggregates, whole embryo culture eggs, chick and mammalian embryos.

**07 Hrs**

### **Unit 5**

**Initiation of cell and primary culture:** Cultivation of animal cell in mass using Bioreactors, Biology of cell culture, evaluation of culture dynamics and maintenance of cell lines. Primary culture: Isolation of mouse and chick embryos, human biopsies, methods for primary culture, nomenclature of cell lines, Sub culture and propagation, immortalization of cell lines, cell line designation, selection of cell line and routine maintenance.

**06 Hrs**

## Unit 6

**Cell separation and characterization:** Density based, antibody based, magnetic and fluorescence based cell sorting. Characterization of cells based on morphology, chromosome analysis, DNA content, RNA and protein, enzyme activity, antigenic markers, cytotoxicity assays, Cell quantitation and Cell culture contamination, monitoring and eradication, Cryo preservation.

**05 Hrs**

## Unit 7

**Culturing of specialized cells:** Epithelial, mesenchymal, neural, ectodermal, hematopoietic, gonad and tumor cell Lymphocyte preparation and culture of amniocytes, fish cells and confocal microscopy, Stem cell culture and its applications

**03 Hrs**

## Unit 8

**Cell and tissue engineering:** Growth factors for *in-situ* tissue regeneration, biomaterials in tissue engineering, approaches for tissue engineering of skin, bone grafts, nerve grafts, Haemoglobin based blood substitutes, bio artificial or bio-hybrid organs, Limitations and possibilities of tissue engineering. Hybridoma technology and production of monoclonal antibodies

**04 Hrs**

## PRACTICALS

### BT EP 3.8 Based on BT ET 3.4 Plant and Animal Tissue Culture

1. Sterilization and preparation of plant tissue culture media.
2. Isolation of Ex-plant and maintenance of culture
3. Micro-propagation of Auxiliary buds and adventitious shoot
4. Anther culture for Haploid production.
5. Microspore culture for Haploid production
6. Initiation and establishment of cell suspension cultures.
7. Protoplast isolation and culture
8. Embryogenesis in cultured cells/Tissue.
9. Preparation of Synthetic seeds.
10. In-vitro pollination and cultures of ovary/ovule
11. Demonstration of bio-assay of hormones
12. Isolation of DNA from animal tissues
13. Demonstration of Cryo-preservation and Thawing
14. Sperm counting and Sperm viability
15. Animal Cell Culture: Preparation of media (Natural and Synthetic)
16. Preparation of metaphase chromosome from selected cells
17. Role of serum in cell culture
18. Estimation of Cholesterol

## REFERENCES

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2. Reinert, J.R. and Bajaj, Y.P.S. (1997): Applied Fundamental aspects of Plant cell, tissue and organ culture, Spinger and Verlag, Berlin.
3. Anthony, R.C., Wilhelm, G. and Joseph, E. (1995). Methods in plant molecular biology – A Laboratory course manual, Cold Spring Harbour Laboratory Press, USA.
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7. Gupta, P.K. (1996). Elements of Biotechnology, Rastogi Publications, Meerut.
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13. Harrison Maurees, Arae Ian, F (1997): General techniques of cell culture, Cambridge University Press.
14. Bhaskarrao, Dig Marti, Harshieta, Dig Marti, Sambasiva and Ambashiva Rao (1997): Advanced biotechnology, New Delhi. Discovery Publishing House.
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### **BT ET 3.4 – PLANT AND ANIMAL TISSUE CULTURE**

<b><u>Program code with title</u></b>	<b><u>BT ET 3.4 – PLANT AND ANIMAL TISSUE CULTURE</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Plant tissue culture and media:</b> Students will get to know the Cell and Tissue culture and its , maintenance.	<b>07 Hrs</b>
<b>Unit 2</b>	<b>Cell and Organogenesis:</b> Students will gain the knowledge of embryogenesis and production of virus free plants by different methods.	<b>10Hrs</b>
<b>Unit 3</b>	<b>Protoplast isolation, fusion and cryopreservation:</b> Students will understand the processs of Selection of hybrids and also about the Cryopreservation and germ plasma conservation.	<b>08 Hrs</b>
<b>Unit 4</b>	<b>Animal cell, tissue and organ culture:</b> Students will understand the historical perspectives, development and advantages and limitations of tissue culture. Students will gain the knowledge of organ and embryo culture.	<b>07Hrs</b>
<b>Unit 5</b>	<b>Initiation of cell and primary culture:</b> Students will gain knowledge about the bioreactors, cell lines propagation and its maintenance.	<b>06 Hrs</b>
<b>Unit 6</b>	<b>Cell separation and characterization:</b> Students will gain knowledge about the different methods of cell separation cytotoxicity assays and about Cryo preservation.	<b>05 Hrs</b>
<b>Unit 7</b>	<b>Culturing of specialized cells:</b> Students will understand the different cell culture and its applications.	<b>03 Hrs</b>
<b>Unit 8</b>	<b>Cell and tissue engineering:</b> Students will understand the importance of growth factors in tissue regeneration and also about the Hybridoma technology and production of monoclonal antibodies.	<b>04 Hrs</b>

## **BIOTECHNOLOGY FOURTH SEMESTER SYLLABUS**

### **FROM 2020-21 ONWARDS**

#### **BT CT 4.1 GENETIC ENGINEERING**

**50 Hrs**

##### **Unit 1**

**Introduction to Genetic Engineering:** Scope and importance of Genetic engineering

**02 Hrs**

##### **Unit 2**

**Cloning Vectors:** Brief account of naturally occurring plasmids (Conjugative and Non conjugative plasmids, Degradative plasmids, Resistance plasmids, Fertility plasmids, Col-Plasmids), artificial plasmids (pBR322, pUC vectors, Ti and Ri plasmids), Bacteriophages, Phagemids, Cosmids, Fosmids, Artificial chromosomes (BAC's, YAC's), Shuttle vectors, expression vectors, M13 derived vectors and Viral vectors (SV40 and Bovine Papilloma Virus).

**08 Hrs**

##### **Unit 3**

**Tools of Genetic Engineering:** Restriction endonucleases- nomenclature and types, recognition sequences and mechanism of action. DNA Modification enzymes (nucleases, kinases, Alkalinephosphatase, Klenow-Fragment polymerase, Lambda-Exonuclease and Exonuclease-III) and ligases- types and mechanism of action.

**05 Hrs**

##### **Unit 4**

**Cloning and Construction of gene Libraries:** cDNA library- isolation and purification of mRNA, Synthesis of cDNA, cloning of cDNA in to plasmids and phage vectors,

**Genomic DNA Library:** Isolation and purification of Genomic and Plasmid DNA, preparation of DNA fragments for cloning, Construction of genomic DNA library with different vectors and screening techniques.

**05 Hrs**

## Unit 5

**Selection, Screening and Analysis of Recombinants:** Blotting Techniques- Southern Blotting, Northern Blotting, Western Blotting and DOT Blot, Nucleic Acid hybridization (Colony Hybridization and Plaque Hybridization), Immunological methods and *In vitro* Translation. Chromosome walking,

**Gel Electrophoresis:** Agarose gel Electrophoresis, PAGE and PFGE

**06 Hrs**

## Unit 6

**Labeling and Detection Techniques:** Labeling of DNA, RNA and Proteins (Radioactive and non-radioactive isotopes). DNA Sequencing (Chemical and Enzymatic method).

**04 Hrs**

## Unit 7

**Transformation Techniques:**

Transformation and Transfection techniques: Preparation of competent cells of bacteria, chemical methods- calcium phosphate precipitation method and liposome mediated method. Physical methods- Electroporation and Gene gun method. Biological methods-Agrobacterium mediated transformation, Co-cultivation methods, Chloroplast transformation, method of DNA transfer to yeast, mammalian and plant cells.

**06 Hrs**

## Unit 8

**Polymerase chain Reaction:** Methodology, types and applications.

**03 Hrs**

## Unit 9

**Chemical Synthesis of genes:** Methods (Phosphodiester, Phosphotriester and Phosphite ester methods principle and strategies). Oligonucleotide synthesis and application, synthesis of complete gene.

**04 Hrs**

## Unit 10

**Antisense and Ribozyme technology:** Molecular mechanism of antisense molecules, inhibition of splicing poly-adenylation and translation, disruption of RNA structure and capping Biochemistry of

Ribozyme, hammer head, hairpin and other Ribozymes, strategies for designing Ribozymes, application of antisense and Ribozymes technologies.

**03Hrs**

## **Unit 11**

**Applications of Genetic engineering and rDNA technology:** Transgenic plants (disease resistant, weedicide resistant, frost resistant, halo-tolerant and pest resistant) production of growth hormones, interferon, insulin, recombinant vaccines, gene therapy, anti-sense RNA technology RNA; requirement of recombinant molecules in health, pharmaceuticals, agriculture and industrial sectors, research labs.

**04 Hrs**

## **PRACTICALS**

### **BT CP 4.4 Based on BTCT 4.1 Genetic Engineering**

1. Isolation and Electrophoretic separation of genomic DNA from Bacteria, Plant and Animal tissues.
2. Gel elution and purification of DNA fragment
3. Isolation and electrophoretic separation of RNA from Bacteria, Plant and Animal tissues.
4. Quantification and purity check of Isolated DNA using UV spectrophotometer.
5. Isolation, purification and electrophoretic separation of plasmid DNA from Bacteria.
6. Restriction Digestion of Genomic DNA and Plasmid DNA with Restriction Endonucleases and separation of digested products in Agarose gel.
7. Effect of Agarose concentration on migration of DNA fragments.
8. DNA Ligation using T4 DNA Ligase and *E.coli* DNA ligase
9. Preparation of Competent cells using Calcium Chloride Method.
10. Transformation of Bacterial cells (blue white Selection).
11. Blotting techniques: Southern, Northern and Western Blotting
12. Amplification of DNA using Polymerase chain Reaction.

## **REFERENCES**

1. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 1. Third Edition. (2001). Cold spring harbour laboratory press, New York.
2. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 2. Third Edition. (2001). Cold spring harbour laboratory press, New York.
3. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 3. Third Edition. (2001). Cold spring harbour laboratory press, New York.

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12. Principles of Gene Manipulations (1994) by Old and Primrose Blackwell Scientific Publications.
13. DNA Cloning: A Practical Approach by D.M. Glover and B.D. Hames, IRL Press, Oxford. (1995).
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15. S.M. Kingsman and A.J. Kingsman (1998) Genetic Engineering and Introduction to Gene Analysis and Exploitation in Eukaryotes by, Blackwell Scientific Publications, Oxford
16. PCR Technology - Principles and Applications for DNA Amplification by Henry A. Erlich (Ed.) Stockton Press. (1989).
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19. Recombinant DNA and Biotechnology: Guide for Teachers. 2<sup>nd</sup> Edition by Helen Kreuz. (2001). ASM Publications
20. Molecular Biotechnology: Principles and Applications of Recombinant DNA. 2<sup>nd</sup> Edition. (1998) by Bernard R. Glick and Jack J. Pastemak, ASM Publications.
21. From genes to clones by Winnaker.
22. Manipulations and expression of recombinant DNA by Robertson.
23. Gene targeting – A practical approach by Joyner.
24. Vedamurthy, A.B., and Mahesh, S. (2002) Biotechnology – IV including recombinant DNA technology, Environmental Biotechnology and Animal Cell Culture. New Age Publishers, New Delhi.

<b>Program code with title</b>	<b>BTCT 4.1 Genetic Engineering</b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Introduction to Genetic Engineering:</b> Student will understand the Scope and importance of Genetic engineering	<b>02 Hrs</b>
<b>Unit 2</b>	<b>Cloning Vectors:</b> Student will understand the different types of bacterial viral and fungal vectors and their properties and its importance in genetic engineering.	<b>08 Hrs</b>
<b>Unit 3</b>	<b>Tools of Genetic Engineering:</b> Student will gain the knowledge about the different enzymes used their mechanism and role in genetic engineering.	<b>05 Hrs</b>
<b>Unit 4</b>	<b>Cloning and Construction of gene Libraries:</b> Student will understand about the different type of library construction and screening using suitable vectors..	<b>05 Hrs</b>
<b>Unit 5</b>	<b>Selection, Screening and Analysis of Recombinants:</b> Students will get insight in to Blotting Techniques and different types of electrophoresis.	<b>06 Hrs</b>
<b>Unit 6</b>	<b>Labeling and Detection Techniques:</b> Student will understand the different methods of Labeling of DNA, RNA and Proteins.  Student will gain the knowledge about the DNA Sequencing	<b>04 Hrs</b>
<b>Unit 7</b>	<b>Transformation Techniques:</b> Student will understand the concept of transformation and transfection techniques and other methods of gene insertion.	<b>06 Hrs</b>
<b>Unit 8</b>	<b>Polymerase chain Reaction:</b> Student will understand the types and applications of Polymerase chain Reaction	<b>03 Hrs</b>
<b>Unit 9</b>	<b>Chemical Synthesis of genes:</b> : Student will understand the Different methods for Oligonucleotide synthesis and application, synthesis of complete gene.	<b>04 Hrs</b>
<b>Unit 10</b>	<b>Antisense and Ribozyme technology:</b> Student will understand the Molecular mechanism of antisense molecules and application of antisense and Ribozymes technologies.	<b>03 Hrs</b>
<b>Unit 11</b>	<b>Applications of Genetic engineering and rDNA technology:</b> Student will understand the use of transgenic organisms , recombinant molecules in health, pharmaceuticals, agriculture and industrial sectors, research labs for the welfare of human kind.	<b>04 Hrs</b>

## **BT CT 4.2 – PLANT BIOTECHNOLOGY**

**50 Hrs**

### **Unit 1**

**Plant tissue culture and media:** Introduction to Cell and Tissue culture. Tissue culture as a technique to produce novel plants and hybrids, Tissue culture media: (Composition and preparation). Initiation & maintenance of callus and suspension culture and single cell clones.

**04 Hrs**

### **Unit 2**

**Cell and Organogenesis:** Somatic embryogenesis, transfer and establishment of whole plants in soil. Shoot tip culture, rapid clonal propagation and production of virus free plants. Embryo culture and Embryo rescue. Anther, pollen and ovary culture for production of haploid plants and homozygous lines.

**06 Hrs**

### **Unit 3**

**Protoplast isolation, fusion and cryopreservation:** Selection of hybrid cells and regeneration of hybrid plants, Symmetric and asymmetric hybrid and cybrids. Cryopreservation, slow growth and DNA banking for germ plasm conservation

**05 Hrs**

### **Unit 4**

**Basic techniques in r-DNA technology:** Biolistics (Particle bombardment) Electroporation, microinjection and Agro bacterium mediated gene transfer. T-plasmid derived vector systems, structure and restriction site Mechanism of T-DNA transfer from Agrobacterium to plant cells. Marker and reporter genes used in plant system. Manipulation of gene expression in plants Isolation and uses of different promoters, production of marker free transgenic plants

**08 Hrs**

### **Unit 5**

**Plants transformation Technology:** Basis of tumor formation, hairy root, features of Ti and Ri plasmids, mechanisms of DNA transfer, role of virulence genes, use of Ti and Ri as vectors, Binary vectors, use of 35S and other promoters. Genetic markers, use of reporter gene with introns, use of scaffold attachment regions, methods of nuclear transformation, viral vectors and their applications multiple

gene transfers, vector-less or direct DNA transfer. Transformation of monocots, Trans gene stability and gene silencing.

**08 Hrs**

## **Unit 6**

**Application of plant transformation in plant productivity and performance:** Herbicide resistance, phosphinothricin, Glyphosate, sulfonyl urea, atrazine, insect resistance/ Bt genes, Non Bt like protease inhibitors, alpha amylase inhibitor, virus resistance coat protein mediated, nucleocapsid gene disease resistance, chitinase, 1-3 B glucanase, RJP antifungal proteins, thionins, PR proteins, nematode resistance, Abiotic stress, post-harvest losses, long self-life of fruits and flowers use of ACC synthase, polygalactouranase and ACC oxidase. Male sterile lines, bar and barnase systems, Carbohydrate composition and storage ADP glucose pyrophosphates

**08 Hrs**

## **Unit 7**

**Molecular marker aided breeding:** RFLP maps linkage analysis, RAPD markers. STS micro satellites SCAR (Sequence Characterized Amplified Regions) SSCP (Single strand conformational polymorphism) AFLP, QTL, map based cloning, molecular markers assisted selection, Molecular characterisation of homozygous and heterozygous for plant breeding.

**06 Hrs**

## **Unit 8**

**Plant genomics:** Arabidopsis thaliana (Mad-Box gene) as a model for plant genomics and Plant proteomics, Rice genome project, Genetic diversity and phylogenetic studies, Comparative genomics and analysis for selection of best species.

**05 Hrs**

## **PRACTICALS**

### **BT CP 4.5 Based on BTCT-4.2-Plant Biotechnology**

1. Aseptic culture techniques for establishment and maintenance of cultures
2. Preparation of stock solutions of MS basal medium and plant growth regulator stocks.
3. Isolation of Explant and maintenance of culture. Sub culture of callus, Organogenesis and Transfer of plants to soil.
4. Micropropagation by Proliferation of Auxiliary buds and by adventitious shoot proliferation.
5. Initiation and establishment of cell suspension cultures.

6. Anther culture for Haploid production.
7. Microspore culture for Haploid production.
8. Protoplast/ embryo isolation and culture.
9. Embryogenesis in cultured cells.
10. Preparation of Synthetic seeds.
11. *In vitro* fertilization and cultures of ovary/ovule.
12. Extraction and quantification of secondary metabolites from callus.
13. Histological preparation by Squash preparation of tissues to trace the path of differentiation.
14. Isolation of plant genomic DNA (C-TAB method) and Agarose electrophoresis.
15. PCR amplification of genomic DNA.
16. Preparation of competent cells
17. Transformation of protoplast by Electroporation.
18. Isolation of total RNA from plant.

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<b><u>Program code with title</u></b>	<b><u>BT ET 3.4 – PLANT AND ANIMAL TISSUE CULTURE</u></b>	
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<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Plant tissue culture and media:</b> Students will gain the knowledge about the Cell and Tissue culture technique and maintenance of callus and suspension culture.	<b>04 Hrs</b>
<b>Unit 2</b>	<b>Cell and Organogenesis:</b> Students will understand the Somatic embryogenesis, clonal propagation and embryo culture techniques..	<b>06 Hrs</b>
<b>Unit 3</b>	<b>Protoplast isolation, fusion and cryopreservation:</b> Students will gain knowledge about Selection of hybrid cells and regeneration of hybrid plants and about cryopreservation, and germ plasm conservation.	<b>05 Hrs</b>
<b>Unit 4</b>	<b>Basic techniques in r-DNA technology:</b> Students will understand the different methods of gene transfer and use of gene markers. Students will gain knowledge about Isolation and uses of different promoters, production of marker free transgenic plants.	<b>08 Hrs</b>
<b>Unit 5</b>	<b>Plants transformation Technology:</b> Students will understand the process of insertion of desired genes in to various vectors and their applications. Students will gain knowledge about the trans gene stability and gene silencing.	<b>08 Hrs</b>
<b>Unit 6</b>	<b>Application of plant transformation in plant productivity and performance:</b> Students will understand the process of introducing the resistant genes to increase the productivity of plants.	<b>08 Hrs</b>
<b>Unit 7</b>	<b>Molecular marker aided breeding:</b> Students will understand the use of markers and markers assisted selection, Molecular characterisation of homozygous and heterozygous for plant breeding	<b>06 Hrs</b>
<b>Unit 8</b>	<b>Plant genomics:</b> Students will understand the plant genomics and Plant proteomics of plants and Comparative genomics and analysis for selection of best plants.	<b>05 Hrs</b>

## **BT CT 4.3 – MEDICAL BIOTECHNOLOGY**

**50 Hrs**

### **Unit 1**

**Medical Biotechnology:** Scope and Importance, Medical Biotechnology' Indian scenario.

**02 Hrs**

### **Unit 2**

**Cancer Biology:** Types of tumors, pre-disposing factors, cellular changes involved in tumor formation genes associated with cancer (Oncogenes and Tumor suppressive genes). Tumor formation, promotion and progression, prevention of cancer, carcinogens, airborne, foodborne and human Papillomavirus, Methods of tumor detection, tumor markers, treatment of cancer chemotherapy, radiotherapy, immunotherapy and gene therapy.

**07 Hrs**

### **Unit 3**

**Microbial diseases in humans:** Mode of infection, symptoms, epidemiology and control measures of diseases caused by

**Viruses:** HIV, Hepatitis-B, Rabies, HSV-1, H1N1

**Bacteria:** Gonorrhea, Tuberculosis, Anthrax, B, Plague

**Fungi:** Aspergillosis, Histoplasmosis, Cryptococcosis

**Protozoa:** Malaria, Amoebiasis

**08 Hrs**

### **Unit 4**

**Diagnostics:** Immunological diagnostics-RIA, ELISA, Fluorescence immune assays, Immuno-electrophoresis and Hemagglutination assay, Molecular diagnostic methods- PCR, DNA Fingerprinting, DNA Microarray in forensic science and disease diagnosis.

**06 Hrs**

### **Unit 5**

**Stem cells:** Types, sources, properties, Induced pluripotent stem cells (IPSCs) and applications of stem cells in tissue repair, tissue engineering, Organ Printing and regenerative medicine. Embryonic stem cells and its preservation

**05 Hrs**

## **Unit 6**

**Human genome project and its applications:** Examples of genes identified with various human diseases, molecular detection of pre symptomatic genetic diseases, Importance in health care, pre-natal diagnosis, genetic manipulation and ethical implications.

**05 Hrs**

## **Unit 7**

**Gene therapy:** Human diseases targeted for gene therapy, Types vectors, nanotechnology based gene therapy and other delivery systems for gene therapy. *Ex-vivo* and *In-vivo* gene therapy, tissue of choice for gene therapy *In-vitro* gene therapy and gene therapy of genetic diseases e.g. Neurological, Metabolic disorders and Cystic fibrosis, gene therapy for Acquired diseases (ADA gene in SCID), Cardiovascular diseases, Cancer etc. Importance of humanized antibodies and plasminogen activating factor in treating thrombosis

**05 Hrs**

## **Unit 8**

**Nano-biotechnology:** Introduction, types and synthesis of nano-materials, Nano biosensors, nanoparticles in drug delivery and gene delivery, Quantum Dots, Nanoparticles in realtime monitoring and disease diagnostics and cancer therapy Risk potential of nano-materials.

**05 Hrs**

## **Unit 9**

**Pharmaco-biotechnology:** Role of biotechnology in the production of pharmaceutical products, Drug targeting, Monoclonal antibodies and their application in Medicine.

**04 Hrs**

## **Unit 10**

**Ethical issues involved in stem cell research:** Use of cell cultures as alternative for animal model for research, testing of drugs on human volunteers, use of animals for research and testing. Animal cloning, human cloning, ethical and social issues, organ transplantation and xeno transplantation

## PRACTICALS

### BT CP 4.6 Based on BT CT 4.3 Medical Biotechnology

1. Detection of malarial parasite from human blood sample.
2. Study antibiotic sensitivity test by using paper disc as well as agar cup plate method.
3. Anaerobic culture method for anaerobes of clinical importance.
4. Presumptive identification of pathogens using colony morphology on selective/differential/ selective-differential/ Enrichment media.
5. Isolation and characterization of clinically significant species of *Staphylococcus sp.*, *Streptococcus sp.*, *Corynebacterium sp.*, *Bacillus sp.*, *Nocardia sp.*, *Neisseria sp.*, *Candida sp.*, and *Cryptococcus sp.*, *Enterobacteriaceae sp.*, *Vibrio sp.*, *Pseudomonas sp.*, and *Aeromonas sp.*.
6. Drug susceptibility testing by various methods according to NCCLS.
7. Determinations of MIC for selected antibiotics (Kirby-Bauer method and Checker board method).
8. Preparation of culture media: Simple tissue culture methods for growing different pathogenic microorganisms.
9. Conventional methods for isolation and identification of pathogenic bacteria / fungi.
10. Lymphocyte viability test in Rat/Mice (Typhan blue Dye exclusion test).
11. Microbial flora of mouth and study of commensal flora of human body.
12. Bacteriological examination of Urine, Blood, Pus Samples from Hospitals.
13. Estimation of urine bacteria by Calibrated loop direct streak method.
14. Study of stem cell from embryonic fluids.
15. Study of different cancer cell lines
16. Mandatory visit to hospital and medical research centers.

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#### **BT CT 4.3 – MEDICAL BIOTECHNOLOGY**

<b>Program code with title</b>	<b><u>BT CT 4.3 – MEDICAL BIOTECHNOLOGY</u></b>	
<b>Units</b>	<b>Course Outcome</b>	<b>No of hours</b>
<b>Unit 1</b>	<b>Medical Biotechnology:</b> students will be able to classify medically important microorganisms, normal microbial flora and their significance.	<b>02 Hrs</b>
<b>Unit 2</b>	<b>Cancer Biology:</b> Students will be able to Types of tumors, Tumor formation, prevention of cancer, , Methods of tumor detection, tumor markers, treatment of cancer chemotherapy, radiotherapy, immunotherapy and gene therapy.	<b>07 Hrs</b>
<b>Unit 3</b>	<b>Microbial diseases in humans:</b> Students will be able to understand <b>Mode</b> of infection, symptoms, epidemiology and control measures of diseases caused by viruses, bacteria, fungi and protozoa.	<b>08Hrs</b>
<b>Unit 4</b>	<b>Diagnostics:</b> Students will be able to understand the different immunological, molecular diagnostic methods.	<b>08Hrs</b>
<b>Unit 5</b>	<b>Stem cells:</b> Students will be able to understand the Types, sources,	<b>06 Hrs</b>

	properties, stem cells. Embryonic stem cells and its preservation	
<b>Unit 6</b>	<b>Human genome project and its applications:</b> Students will be able to understand the genes for a various human diseases and its importance in health care.	<b>05Hrs</b>
<b>Unit 7</b>	<b>Gene therapy:</b> : Students will be able to understand the Human diseases targeted for gene therapy, gene therapy of genetic diseases Cardiovascular diseases, Cancer etc.	<b>05 Hrs</b>
<b>Unit 8</b>	<b>Nano-biotechnology</b> Students will be able to understand the Introduction, types and synthesis of nano-materials, Nanoparticles in realtime monitoring and disease diagnostics and cancer therapy Risk potential of nano-materials.	<b>05Hrs</b>
<b>Unit 9</b>	<b>Pharmaco-biotechnology:</b> Students will be able to understand the role of biotechnology in the production of pharmaceutical products	<b>04Hrs</b>
<b>Unit 10</b>	<b>Ethical issues involved in stem cell research:</b> Students will be able to understand the use of cell cultures, use of animals for research.	<b>03Hrs</b>



# KARNATAK UNIVERSITY, DHARWAD



"A" Grade  
NAAC Accredited

*Regulations and Syllabus*

*for*

*P.G. Department of Studies in*

**BOTANY**

(I to IV Semesters)

*Under Choice Based Credit System*

From

2008-09 & onwards

**1.4 Core paper (Ist Sem) .**

**w.e.f.2011-2012**

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- 2008-09

500 ಪ್ರತಿಗಳು

- ಮಾರಾಟಕ್ಕೆ 400 ಪ್ರತಿಗಳು (ಅನುಕ್ರಮ ಸಂಖ್ಯೆ ಹಾಗೂ ದರ ರೂ. 100/- ಮುದ್ರಿಸುವುದು)
- 100 ಪ್ರತಿಗಳ ಕಾರ್ಯಾಲಯದ ಉಪಯೋಗಕ್ಕೆ  
("ಕಾರ್ಯಾಲಯದ ಉಪಯೋಗಕ್ಕೆ" ಮುದ್ರಿಸುವುದು)

Regulations Governing Post-Graduate Programmes in the  
Faculty of Science & Technology under Choice Based Credit System  
(Framed under Section 44(1)(c) of the K. S.U. Act, 2000)

**1.0 Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Science & Technology under the Choice Based Credit System” in Karnatak University, Dharwad

**2.0. Commencement**

These Regulations shall come into force with effect from the academic year 2008-09.

**3.0. Definitions**

- a In these Regulations, unless otherwise provided:  
“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- b “Board of Studies” means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.
- c “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d Course Weightage” means number of credits assigned to a particular course.
- e “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g “Degree” means Post-Graduate Degree.
- h “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- k “Post Graduate Programme” means semesterised Master’s Degree Programmes

excluding P.G. Diploma.

- l “Specialization course” means advanced paper offered by a Department that a student of that Department can opt as a special course.

- m “Student” means the student admitted to programmes under (k).

- n “University” means Karnatak University, Dharwad.

#### **4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of the study for the Post-Graduate Degree programme shall extend over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

- 7.1 The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

- 7.2 There shall be three categories of courses namely, Compulsory Courses,

#### Specialization Courses and Open Elective Courses.

- 7.3 Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 7.4 In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.
- 7.5 Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centers and affiliated colleges, can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6 The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course, from 2 to 4; and for Open Elective Course, from 2 to 4. Wherever project work/ field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.
- 7.7 The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.
- 7.8 The students shall undertake project/field work during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.
- 7.9 The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10 The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure –Ia & Annexure-Ib.
- 7.11 The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.
- 8.0. **Attendance**
- 8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

- 8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours during the semester.
- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

- 9.1** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G.Centres/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks practical examination.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances at semester-end examinations.
- 9.1.4** The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-

end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2. Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centres where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centres.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3. Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

**9.4.1** Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25% / 30% / 50% and the Semester End Examination shall carry 75% / 70% / 50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table.

For courses carrying 25 % of marks for IA, the attendance marks shall be

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

**9.4.4** Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the department/Centres/Colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation/project work viva-voce shall be conducted by an internal and external examiner.

#### **10.0. Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

**11.0. Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 7.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 5.00	D
less than 40.00 %	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester =

Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester =  

$$\frac{\text{Sum of the CP of the I Sem} + \text{Sum of the CP of II Sem.}}{\text{Sum of the credits of the I Semester} + \text{II Semester}}$$

CGPA for the III and IV Semesters shall be computed accordingly.

- 12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

- 12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class to be awarded
7.5 to 10.0	First class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

**13. Miscellaneous:**

- a** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c** The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d** The procedural details may be given by the University from time to time.
- e** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

## Annexure-I

The Programme structure of the Master of Science Degree shall be as follows:

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem. I	Th :03 (04) =12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. II	Th :03 (04) =12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. III	Th :03 (04) =12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. IV	Th :03/04** (04) =12/16 Pra/Th:03/04** (02)=06/08 Pj <sup>#</sup> 01 (06) =06	24		-	24
Total	Th 12/13 (4) =48/52 Pra/Th 12/13(02)=24/26 Pj:1 (06)=06	78	03 (04)=12 Pra/Th*:03(02)=06	18	96

Note: Except for IV semester, the concerned Department shall offer one each of open elective theory and practical course **or** two \* open elective Theory courses for students of other science departments.

\* Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics  
Abbreviations: Th = Theory; Pra = Practical; Pj = Project;

## GRADE CARD

Programme : M.Sc. (.....)

Name of the candidate : .....

**Semester : IV**

Seat No.:

Month & Year:

Course	Course Code	Credit	IA Marks		Theory/ Practical		Max	Marks Obtained	Seme ster Grade Point	Credit Points
			Max	Obt	Max	Obt				
<b>Compulsory Courses</b>										
Course – I	XX CT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course – II	XX CT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course – III	XX CT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course – IV	XX CP 4.4	02	15	06	35	34	50	40	8.00	16.00
Course – V	XX CP 4.5	02	15	06	35	34	50	40	8.00	16.00
Course – VI	XX CP 4.6	02	15	06	35	34	50	40	8.00	16.00
Course – VII	XX CPJ <sup>#</sup> 4.7	06	25	20	125	100	150	120	8.00	48.00
<i>Or</i>										<i>or</i>
Course – VII	XX CT* 4.7	04	25	15	75	28	100	43	4.30	17.20
Course VIII*	XXCP <sup>+</sup> /CT <sup>Ψ</sup> 4.8	02	15	05	35	35	50	40	8.00	16.00
<b>Total</b>		24					600			200.00/ 185.00

XX refers to course abbreviations, 4.1 refers to IV semester course 1; e.g. CHI CT 1.1= Chemistry Inorganic compulsory theory 1.1

# except for Mathematics and Statistics ;\* For Statistics and mathematics; +Only for Statistics; <sup>Ψ</sup> only for Mathematics

**GPA for IV Semester = CP (IV Sem) / Credits (IV Sem) = 200/24.00 = 8.33**

$$\text{GPA for I Semester} = \text{CP (I Sem)} / \text{Credits (I Sem)}$$

$$\text{CGPA for I Semester} = \text{GPA for I Semester}$$

$$\text{CGPA for II Sem} = \frac{\text{CP (ISem)} + \text{CP (II Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits (III Sem)}}$$

$$\text{CGPA for the Programme} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)} + \text{CP (IV Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits (III Sem)} + \text{Credits (IV Sem)}}$$

(\*CP: Credit Points)

## Annexure – Ia

The Programme structure of the **M.Sc. (Computer Science)** shall be as follows:

Semester	No. of Compulsory & specialization courses (credits/course)	Total credits For compulsory & Specialization Courses	No. of open Elective course (credits/courses)	Total credits Of open Elective Course	Total credits For the semester
Sem – I	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – II	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – III	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – IV	Th: 05 (04) = 20 Pj: 01 (06) = 06	26	-----	-----	26
<b>Total</b>	Th: 20 (04) = 80 Pra: 03 (04) = 12 Pj: 01 (06) = 06	98	Th: 03 (04) = 12 Pra : 03 (02) = 06	18	116

**Note:** Except for IV semester, the concerned Department shall offer one each of open elective theory and practical course for students of other departments.

**Abbreviations:** Th = Theory; Pra = Practical; Pj = Project;

**GRADE CARD**  
**Programme : M.Sc. (Computer Science)**

**Name of the candidate:**  
**Seat No.:**

**Semester: I / II / III**  
**Month & Year:**

Courses	Course code	Credit	IA Marks		Theory/ Practical		Max. Marks	Marks Obtained	Semester Grade Point	Credit Point
			Max.	Obt	Max.	Obt.				
<b>Compulsory Courses</b>										
Course – I	CT X.1	4	25	15	75	45	100	60	6.00	24.00
Course – II	CT X.2	4	25	15	75	59	100	74	7.40	29.60
Course – III	CT X.3	4	25	15	75	50	100	65	6.50	26.00
Course – IV	CT X.4	4	25	15	75	45	100	60	6.00	24.00
Course – V	CT X.5	4	25	15	75	50	100	65	6.50	26.00
Course – VI	CP X.6	4	25	15	75	45	100	60	6.00	24.00
<b>Open Elective courses:</b>										
Course – VII	ET X.7	4	25	15	75	50	100	65	6.50	26.00
Course – VIII	ET X.8	2	10	05	40	35	50	40	8.00	16.00
<b>TOTAL</b>		<b>30</b>					<b>750</b>			<b>195.60</b>

**CT** : Core Theory

**CP** : Core Practical

**X** : Semester

## GRADE CARD

Programme : M.Sc. (Computer Science)

Name of the candidate:

Semester: **IV**

Seat No.:

Month & Year:

Courses	Course code	Credit	IA Marks		Viva - voce		Theory/ Practical		Max. Marks	Marks Obtained	Semester Grade Point	Credit Point
			Max	Obt	Max	Obt	Max	Obt				
<b>Compulsory Courses</b>												
Course – I	CT 4.1	4	25	15			75	45	100	60	6.00	24.00
Course – II	CT 4.2	4	25	15			75	59	100	74	7.40	29.60
Course – III	CT 4.3	4	25	15			75	50	100	65	6.50	26.00
<b>Course – IV</b>	<b>CPR 4.4</b>	<b>6</b>	<b>25</b>	<b>15</b>	<b>50</b>	<b>40</b>	<b>75</b>	<b>45</b>	<b>150</b>	<b>120</b>	<b>08.00</b>	<b>48.00</b>
Course – V	CT 4.5	4	25	15			75	50	100	65	6.50	26.00
Course – VI	CT 4.6	4	25	15			75	45	100	60	6.00	24.00
<b>Total</b>		<b>26</b>							<b>650</b>			<b>177.60</b>

**CT** : Core Theory

**CPR** : Core Project

GPA for I Semester =  $195.60/30 = 6.52$

CGPA for I Semester = GPA = 6.52

CGPA for II Semester =  $CP(I\text{ Sem}) + CP(II\text{ Sem})$

-----

Credits (I Sem) + Credit (II Sem)

CGPA for III Sem =  $CP(I\text{ Sem}) + CP(II\text{ Sem}) + CP(III\text{ Sem})$

-----

Credits (I Sem) + Credit (II Sem) + Credit (III Sem)

CGPA for the Programme =  $CP(I\text{ Sem}) + CP(II\text{ Sem}) + CP(III\text{ Sem}) + CP(IV\text{ Sem})$

-----

Credits (I Sem) + Credit (II Sem) + Credit (III Sem) + Credit (IV Sem)

## Annexure – Ib

The Programme structure of the **Master of Computer Applications (MCA)** shall be as follows:

Semester	No. of Compulsory & specialization courses (credits/course)	Total credits For compulsory & Specialization Courses	No. of open Elective course (credits/courses)	Total credits Of open Elective Course	Total credits For the semester
Sem – I	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – II	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – III	Th: 05 (04) = 20 Pra: 01 (04) = 04	24	Th: 01 (04) = 04 Pra: 01 (02) = 02	06	30
Sem – IV	Th: 05 (04) = 20 Pra: 01 (04) = 04 SR: 01 (02) = 02	26	-----	-----	26
Sem – V	Th: 05 (04) = 20 Pra: 01 (04) = 04 SR: 01 (02) = 02	26	-----	-----	26
Sem – VI	Pj: 01 (16) = 16	16	-----	-----	16
<b>Total</b>	Th: 25 (04) = 100 Pra: 05 (04) = 020 SR: 02 (02) = 004 Pj: 01 (16) = 016	140	03 (04) = 12  03 (02) = 06	18	158

**Note:** Except for IV, V and VI semester, the concerned Department shall offer one each of open elective theory and practical course or two \* open elective theory courses for students of other departments.

**Abbreviations:** Th = Theory; Pra = Practical; Pj = Project; SR = Seminar

**GRADE CARD**  
**Programme : MCA**

**Name of the candidate:**

**Semester: I / II / III**

**Seat No.**

**Month & Year**

Courses	Course code	Credit	IA Marks		Theory/ Practical		Max. Marks	Marks Obtained	Semester Grade Point	Credit Point
			Max	Obt	Max	Obt				
<b>Compulsory Courses</b>										
Course – I	CT X.1	4	25	15	75	45	100	60	6.00	24.00
Course – II	CT X.2	4	25	15	75	59	100	74	7.40	29.60
Course – III	CT X.3	4	25	15	75	50	100	65	6.50	26.00
Course – IV	CT X.4	4	25	15	75	45	100	60	6.00	24.00
Course – V	CT X.5	4	25	15	75	50	100	65	6.50	26.00
Course – VI	CP X.6	4	25	15	75	45	100	60	6.00	24.00
<b>Open Elective Courses :</b>										
Course – VII	ET X.7	4	25	15	75	50	100	65	6.50	26.00
Course – VIII	ET X.8	2	10	05	40	35	50	40	8.00	16.00
<b>TOTAL</b>		30					750			195.60

**CT** : Core Theory  
**CP** : Core Practical  
**CSR** : Core Seminar  
**X** : Semester

**GRADE CARD**  
**Programme : MCA**

**Name of the candidate:**  
**Seat No.:**

**Semester : IV/ V**  
**Month & Year**

Courses	Course code	Credit	IA Marks		Theory/ Practical		Max. Marks	Marks Obtained	Semester Grade Point	Credit Point
			Max	Obt	Max	Obt				
<b>Compulsory Courses</b>										
Course – I	CT X.1	4	25	15	75	45	100	60	6.00	24.00
Course – II	CT X.2	4	25	15	75	59	100	74	7.40	29.60
Course – III	CT X.3	4	25	15	75	50	100	65	6.50	26.00
Course – IV	CT X.4	4	25	15	75	45	100	60	6.00	24.00
Course – V	CT X.5	4	25	15	75	50	100	65	6.50	26.00
Course – VI	CP X.6	4	25	15	75	45	100	60	6.00	24.00
Course - VII	CSR X.7	2	--	--	--	--	50	40	8.00	16.00
<b>TOTAL</b>		26					650			169.60

**CT** : Core Theory

**CP** : Core Practical

**CSR** : Core Seminar

**X** : Semester

**GRADE CARD**  
**Programme : MCA**

**Name of the candidate:**

**Semester : VI**

**Seat No.:**

**Month & Year**

Courses	Course code	Credit	IA Marks		Desertion Work		Viva-voce Marks		Max. Marks	Marks Obtained	Sem-ester Grade Point	Credit Points
			Max	Obt	Max	Obt	Max	Obt				
<b>Compulsory Courses</b>												
Core Project	CPR 6.1	16	100	60	200	120	100	60	400	240	06.00	96.00
Total		16							400			96.00

$$\text{GPA for I Semester} = \frac{195.60}{30} = 6.52$$

$$\text{CGPA for I Semester} = \text{GPA} = 6.52$$

$$\text{CGPA for II Semester} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)}}{\text{Credits (I Sem)} + \text{Credit (II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)}}{\text{Credits (I Sem)} + \text{Credit (II Sem)} + \text{Credit (III Sem)}}$$

$$\text{CGPA for IV Sem} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)} + \text{CP (IV Sem)}}{\text{Credits (I Sem)} + \text{Credit (II Sem)} + \text{Credit (III Sem)} + \text{Credit (IV Sem)}}$$

$$\text{CGPA for the Programme} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)} + \text{CP (IV Sem)} + \text{CP (V Sem)} + \text{CP (VI Sem)}}{\text{Credits (I Sem)} + \text{Credit (II Sem)} + \text{Credit (III Sem)} + \text{Credit (IV Sem)} + \text{Credit (V Sem)} + \text{Credit (VI Sem)}}$$

## **P.G. DEPARTMENT OF STUDIES IN BOTANY**

### **INTRODUCTION:**

The Karnatak University, Dharwad introduced Post Graduate course in Botany as early as 1951 in Karnatak Science College, Dharwad and shifted to the independent building in the year 1966. The Department offered general course in Botany, such as Plant Systematics, Cryptogamic Botany, Mycology, Anatomy, Cell Biology, Plant breeding, Plant Physiology etc. Subsequently several new papers have been introduced like Microbiology, Plant Pathology, Developmental Biology, Biological Techniques, Biophysics, Biostatistics and Computer Applications etc.

The Department in addition to imparting general courses in Botany has 5 options for specialization at M. Sc-IV semester viz. i) Genetics, Molecular Biology and Plant Breeding, ii) Tissue Culture and Biotechnology, iii) Reproductive Physiology and Morphogenesis, iv) Mycology, Plant pathology and Microbiology and v) Biodiversity and Environmental Biology. The teaching programme is designed to give our students current awareness in the wide variety of subjects with in-depth study of Plant Biology. Consequently, many of our students successfully completed National Level Examination like NET of UGC/CSIR/GATE. The excellent training given to the students has helped them to be placed in National/International Research Laboratories and Colleges and Universities in the Country and Abroad. Till today over 1000 students have taken their M. Sc. degree. The Department is also offering one year M. Phil Course in the above specializations. So far 50 candidates have obtained their M. Phil Degree and 134 candidates have obtained Ph.D. degree under different specializations.

Revision of the syllabus for updating the curriculum will be normally done in a span of 5-6 years. Introduction of the semester system and revision of the syllabus was made with effect from 2001-2002. Present syllabus includes all the topics of Botany prescribed for UGC-CSIR NET Examination. By now students have cleared NET and have qualified the SLET.

### **RESEARCH ACTIVITIES AND RESEARCH FACILITIES :**

Members of the staff and Research Scholars of this Department are actively engaged in research in the different fields of Botany like Cytology, Genetics, Embryology, Phycology, Mycology, Plant Pathology, Histochemistry, Reproductive Biology, Tissue Culture, Plant Biotechnology, Plant Biochemistry, Phytodiversity and Environmental Biology.

Facilities for research in Molecular Genetics, Mutation Breeding, Reproductive Physiology, Morphogenesis, Hydrobiology, Mycology and Plant Pathology, Tissue Culture, Microbiology, Biotechnology, Phycology, Phytodiversity and Plant Biochemistry are available. Sophisticated instrumentation facilities like Gel documentation, Lyophilizer, UV spectrophotometer, Fermenter, Cold chamber, Research microscope, PCR machine, Cytrophotometer, Computer internet connection, LAN net work etc. are available. The Department has Glass house, Orchidarium, Green house, Experimental garden, Herbarium facilities and Botanic garden harboring indigenous and exotic plants.

The Department has two glass houses for growing and acclimatization of Orchids and other plant species of Western Ghats. The Botanic garden of Karnatak University is a member of Botanic Garden Conservation International an International Organization involved in promotion, development and maintenance of Botanic Gardens and Biodiversity. It has over 400 species of higher plants.

# **KARNATAK UNIVERSITY, DHARWAD**

## **Post Graduate Department of Studies in Botany**

### **SYLLABUS & ADMISSION RULES**

For

#### **M. Sc. (Botany)**

(Choice Based Credit System)

w.e.f. 2008-2009

### **Admission rules**

for

**M. Sc. (Botany) Degree Course under**

**Choice Based Credit System (CBCS)**

#### **1.1. Duration of the Course:**

The M. Sc. Degree Course is of two years duration, spread over four semesters each of four months duration.

#### **1.2 (A) Eligibility for Admission:**

B.Sc. Graduates of Karnatak University or of any other University recognized as equivalent there to with Botany as optional subject. The candidate should have obtained at least 45% of marks in optional subjects as well as in aggregate. Relaxation in respect of SC / ST / Cat-I etc. will be followed as per prevailing rules of the University.

#### **(B) Admission:**

- (i) **Intake:** 40 + 4 (but may vary from time to time with the permission from the University) for the first semester. This includes admission under enhanced fee structure. Other rules for admission are as per University notification from time to time.
- (ii) **Admission to other Semesters:** Students are allowed to take admissions to successive semesters under carry over benefit (COB) facility all the way from the first semester to fourth semester.

#### **2. Attendance:**

Every student must have at least 75% attendance in each of the courses (Theory & Practical) in each semester. Shortage of attendance will be dealt with as per the University rules from time to time.

### **3. Medium of Instruction:**

The medium of instruction shall be in English.

### **4. Scheme of Instructions:**

In the First Semesters 4 Core theory papers of 4 credits each second and third semester there will be 3 Core Theory Papers of 4 credits each. In addition, in the I semester there will be 4 Practical Papers of 2 credits each, II and III Semester there will be 3 Practical Papers of 2 credits each.

In IV Semester there will be 3 Core Theory Papers of 4 credits each including one special paper, 3 Practical Papers of 2 credits each and one project work of 6 credits.

In each of II, III Semesters there will be one Elective paper of 6 Credits. These elective papers have to be chosen by the students of other departments.

Our M. Sc. students have to take one elective of 6 Credits in each of II, III Semesters offered by other departments. Study tour of minimum of 5 days is compulsory.

### **5. Scheme of Evaluation:**

Examination will be conducted at the end of each semester.

Each Core theory paper of credits 4 will have an examination of 3 hours and carrying maximum of 75 marks. Each Core practical will have examination of 3 hours duration and carrying 35 marks.

For each theory / practical of 4 and 2 credits, there will be an internal assessment test carrying 25 and 15 marks respectively.

Each elective paper will have examination of 3 hours duration carrying 75 marks, and will have internal assessment test for 25.

**6.** All other rules and regulations not covered above are as per the University rules prevailing at that time.

## **M. Sc. COURSE IN BOTANY**

### **CHOICE BASED CREDIT SYSTEM**

**Course Structure and scheme of Examination for M. Sc. course in Botany  
M. Sc. Ist Semester**

Sl. No	Paper code no and Title	Credits	No of hrs/week /Theory/ Practical	Duration of Exam. In hrs Theory/ Practical	Internal Assessment Marks/ Theory/ Practical	Marks at the end of Exams	Total Marks
	<b>Core Subject</b>						
1	Bot. CT 1.1 Microbiology & Phycology	4	4	3	25	75	100
2	Bot. CT 1.2 Systematic Botany of Angiosperms	4	4	3	25	75	100
3	Bot. CT 1.3 Evol. Bio, Econ. Bot & Phy. geo	4	4	3	25	75	100
4	Bot. CT 1.4 Molecular Biology	4	4	3	25	75	100
	<b>Practicals</b>						
5	Bot. CP 1.1 Based on Bot. CT 1.1	2	4	4	15	35	50
6	Bot. CP 1.2 Based on Bot. CT 1.2	2	4	4	15	35	50
7	Bot. CP 1.3 Based on Bot. CT 1.3	2	4	4	15	35	50
8	Bot. CP 1.4 Based on Bot. CT 1.4	2	4	4	15	35	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>140</b>	<b>460</b>	<b>600</b>

**M. Sc. IInd Semester**

Sl. No	Paper code no and Title	Credits	No of hrs/week /Theory/ Practical	Duration of Exam. In hrs Theory/ Practical	Internal Assessment Marks/ Theory/ Practical	Marks at the end of Exams	Total Marks
--------	-------------------------	---------	-----------------------------------	--	--	---------------------------	-------------

	<b>Core Subject</b>						
1	Bot. CT 2.1 Ecology and Environmental Biology	4	4	3	25	75	100
2	Bot. C T 2.2 Concepts in Biochemistry and Biophysics	4	4	3	25	75	100
3	Bot. CT 2.3 Biotechnology, Computer applications and Biostatistics	4	4	3	25	75	100
	<b>Elective</b>						
4	Bot ET 2.4 Medicinal Plants	4	4	3	25	75	100
	<b>Practicals</b>						
5	Bot. CP2.1 Based on Bot. CT 2.1	2	4	4	15	35	50
6	Bot. CP2.2 Based on Bot. CT 2.2	2	4	4	15	35	50
7	Bot. CP 2.3 Based on Bot. CT 2.3	2	4	4	15	35	50
	Elective						
8	Bot. EP 2.4 Based on Bot ET2.4	2	4	4	15	35	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>140</b>	<b>460</b>	<b>600</b>

#### M. Sc.-IIIrd Semester

Sl. No	Paper code no and Title	Credits	No of hrs/week /Theory/ Practical	Duration of Exam. In hrs Theory/ Practical	Internal Assessment Marks/ Theory/ Practical	Marks at the end of Exams	Total Marks
	<b>Core Subject</b>						

1	Bot. CT3.1 Plant Physiology	4	4	3	25	75	100
2	Bot. C T3.2 Cell Biology and Genetics	4	4	3	25	75	100
3	Bot. CT3.3 Developmental Biology of Plants and Tissue Culture	4	4	3	25	75	100
	<b>Elective</b>						
4	Bot. ET3.4 Plant Biotechnology	4	4	3	25	75	100
	<b>Prcacticals</b>						
5	Bot. CP3.1 Based on Bot. CT 3.1	2	4	4	15	35	50
6	Bot. CP3.2 Based on Bot. CT 3.2	2	4	4	15	35	50
7	Bot. CP 3.3 Based on Bot. CT 3.3	2	4	4	15	35	50
	Elective						
8	Bot. EP 3.4 Based on Bot. ET 3.4	2	4	4	10	40	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>140</b>	<b>460</b>	<b>600</b>

**M. Sc-IVth Semester**

<b>Sl.No</b>	<b>Paper code no and Title</b>	<b>Credits</b>	<b>No of hrs/week /Theory/ Practical</b>	<b>Duration of Exam. In hrs Theory/ Practical</b>	<b>Internal Assessment Marks/ Theory/ Practical</b>	<b>Marks at the end of Exams</b>	<b>Total Marks</b>
	<b>Core Subject</b>						
1	Bot. CT4.1 Mycology and Plant Pathology	4	4	3	25	75	100
2	Bot. C T4.2 Plant Breeding and Plant Propagation	4	4	3	25	75	100
4.3.1	Bot. CT 4.3.1 Plant Tissue Culture	4	4	3	25	75	100
4.3.2	Bot. CT 4.3.2 Reproductive Biology of Higher Plants	4	4	3	25	75	100
4.3.3	Bot. CT 4.3.3 Applied Microbiology, Applied Mycology and Plant Pathology	4	4	3	25	75	100
4.3.4	Bot. CT 4.3.4 Phytodiversity and Environmental Biology	4	4	3	25	75	100
4	Bot. CT 4.4 Project	6	4	6 Dissertation evaluation 75 Marks	25	50 Marks Viva-Voce	150
	<b>Prcacticals</b>						
5	Bot. CP 4.1Based on Bot CT4.1	2	4	4	15	35	50
6	Bot. CP 4.2Based on Bot.CT4.2	2	4	4	15	35	50
7	Bot. CP 4.3.1/4.3.2/ 4.3.3/4.3.4 Based on Bot.CT4.3.1/4.3.2/ 4.3.3/4.3.4	2	4	4	15	35	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>140</b>	<b>460</b>	<b>600</b>

**M. Sc BOTANY**

## **FIRST SEMESTER**

Theory papers:

Bot. Core Theory	1.1 Microbiology and Phycology
Bot. Core Theory	1.2 Systematic Botany of Angiosperms
Bot. Core Theory	1.3 Evolutionary Biology, Economic Botany and Plant Geography
Bot. Core Theory	1.4 Molecular Biology

## **SECOND SEMESTER**

Theory papers:

Bot. Core Theory	2.1 Ecology and Environmental Biology
Bot. Core Theory	2.2 Concepts in Biochemistry and Biophysics
Bot. Core Theory	2.3 Biotechnology, Computer applications and
Biostatistics	
Elective Theory	2.4 Medicinal Plants

## **THIRD SEMESTER**

Theory papers:

Bot. Core Theory	3.1 Plant Physiology
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Bot. Core Theory	3.2 Cell Biology and Genetics
Bot. Core Theory	3.3 Developmental Biology of Plants and Tissue Culture
Elective Theory	3.4 Plant Biotechnology

#### **FOURTH SEMESTER**

Theory papers:

Bot.Core Theory	4.1 Mycology and Plant Pathology
Bot.Core Theory	4.2 Plant Breeding and Plant Propagation
<b>Bot. Core Theory</b>	<b>4.3 Special Papers</b> (Allocated on the basis of choice cum merit basis)
	4.3.1 Plant Tissue Culture
	4.3.2 Reproductive Biology of Higher Plants
	4.3.3 Applied Microbiology, Applied Mycology and Plant Pathology
	4.3.4 Phytodiversity and Environmental Biology
<b>Project</b>	4.4

#### **SEMESTER - I**

**Bot.CT-1.1 : MICROBIOLOGY AND PHYCOLOGY**

**MICROBIOLOGY:**

**Unit 1.** Diversity in structure and organization and life cycles other than Eubacteria: Mycoplasmas, Spirochaetes, Rickettsias, Archaeobacteria, Methanogens, Halobacteria, Cyanobacteria, Plant Viruses and Prions. 4hrs

**Unit 2.** Fungi: Introduction, general features, classifications and Reproduction. 3hrs

**Unit.3.** Microorganisms in the ecosystem: Psychrophilic, Mesophilic, Acodophilic and Thermophilic microorganisms. Distribution of microorganisms in fresh and marine water and their useful and harmful role. Distribution of microorganisms in Soil and its role in Soil formation, Soil fertility, Symbiotic and Non- Symbiotic nitrogen fixation of VAM fungi, Biopesticides and Silage. Microbiology of **Air**: Algae, Fungi, Bacteria and Lichens, Pollen grains and others, Aeroallergens and Aeroallergy. 5hrs

**Unit 4.** Microbial genetics: Recombination, transformation, conjugation, transduction and parasexuality. bacteriophage, lytic and lysogenic cycles. 5 hrs

**Unit 5.** Role of Microbes in Metabolic pathways, Photosynthetic pigments in Bacteria- Oxygenic and Anoxygenic photosynthesis. Anabolic process (biosynthetic) pathways, catabolic (degradative) pathways, Microbial degradation of Cellulose, Lignin, Starch, Fermentation pathways, Homolactic acid fermentation pathway. 4hrs

**Unit 6.** Immunology: Introduction, physical and mechanical factors, Biochemical factors, Genetic factors, Cellular factors, Active immunity (Natural- Artificial), Passive immunity (Natural- Artificial). Precipitin test, inflammation and interferon. Scope of Immunology: Application in medicine, Application in treatment of diseases, Application in blood grouping, Application in organ transplantation and tissue grafting. 5hrs

## REFERENCES

1. R.C. Dubey and Maheshwari.D.K.2002. A Text book of Microbiology, S.C.Chand and Company, Ltd. Ramnagar, New Delhi.
2. S.B. Sullia and Shantharam. S.1998. General Microbiology. Oxford and IBH publishing Co.Pvt.Ltd. New Delhi.
3. Sharma. P.D.1999. Microbiology and Plant Pathology. Rastogi publications. Meerut, India.
4. Ananthnarayan, R and Jayaram Panikar,C.K. 1986. Text book of Microbiology. Orient Longman ltd. New Delhi.
5. Allas, R.M. Microbiology: Fundamentals and Applications, Macmillan publishing co. New York.
6. Brook, T.D. Smith, D.W and Madigan, M.T. 1984. Biology of Microorganisms, 4<sup>th</sup> ed. Eaglewood Cliffts. N.J.Prentice- Hall. New Delhi.
7. Claus, William, G.1989. Understanding microbes. A laboratory text book for Microbiology. W.H.Freeman and Company. New York.

8. Jayaraman, J. 1985. Laboratory Manual of Biochemistry, Wiley Eastern Limited. New Delhi.
9. Ketchum, P.A. 1988. Microbiology, concepts and applications. John Wiley and Sons. New York.
10. Stainer, Roger, Y. Ingraham, John, L. Wheelis, Mark, L. and Painter, Page, R. 1990. Microbial World 5<sup>th</sup> edition. Prentice-Hall India, Pvt.Ltd. New Delhi.
11. Schlegel, H.G. 1986. General Microbiology. Cambridge University Press. London, 587pp.
12. Sharma, R. 2006. Text book of Microbiology. Mittal Publications. New Delhi. 305pp.
13. Reddy, S and Ram *et al.* 2007. Microbial Physiology. Scientific Publishers, Jodhpur, 385pp.

## **PHYCOLOGY:**

### **Unit 1. Basic characters of Algae:**

- a. Origin of algae
  - b. Pigments in algae and classification 3
- hrs.

### **Unit 2. The prokaryotic algae:**

- a. Structure and composition of prokaryotic algal cell
  - b. Distribution and morphology of prokaryotic algae
  - c. Reproduction in prokaryotic algae
  - d. Nitrogen fixation and economics of prokaryotic algae. 5
- hrs.

### **Unit 3. The Eukaryotic Algae:**

- a. Structure and composition of eucaryotic algal cell
  - b. Range of thallus construction in eucaryotic algae
  - c. Mode of reproduction in eucaryotic algae 4
- hrs.

### **Unit 4. Algae and water Pollution:**

- a. Phytoplankton and their classification
  - b. Algae as indicators of water quality
  - c. Algal blooms- causes and effect
  - d. Algae in water supplies and their control. 4
- hrs.

### **Unit 5. Ecology of marine algae:**

- a. Distribution of marine algae
  - b. Factors controlling growth and distribution 2
- hrs.

### **Unit 6. Cultivation of algae:**

- a. Mass cultivation of microalgae
- b. Cultivation of –i) *Porphyra*: Structure, reproduction and protocol for cultivation of *Porphyra* ii) Agarophytes: Requirements, methodology, harvesting and processing of

agarophytes.  
hrs.

5

#### **Unit 7. Biochemicals from algae:**

Pigments, enzymes, vitamins, antibiotics, essential fatty acids, polysaccharides, hydrocarbons, plant growth regulators, osmoregulators, biosurfactants, sterols, bioflocculants, aminoacids and liposomes.  
hrs.

2

#### **REFERENCES:**

- Fatma, T. 1999. Cyanobacterial and algal metabolism and environmental biotechnology.  
Narosa Pub. House, New Delhi.
- Kamat, N.D. 1982. Topics in Algae. Saikripa Prakashan, Aurangabad.
- Palmer, C.M. 1980. Algae and Water pollution. CHP Pub.
- Prescott, G.W. 1984. The Algae: A Review.
- Robert Edward Lee 1995. Phycology. Cambridge Univ. Press.
- Venkataraman, L.V. and E.W. Becker, 1985. Biotechnology and utilization of algae.  
The  
Indian experience. DST, New Delhi
- Verma B.N., A.N.Kargupta and S.K. Goyal 1998. Advances in Phycology. APC Pub.  
New  
Delhi

#### **Bot.CP-1.1: PRACTICALS (Based on Bot.CT1.1)**

##### **MICROBIOLOGY:**

1. Safety measures in microbiology laboratory.
2. Study of instruments: Hot air oven, Autoclave, Inoculation needles, petriplates, incubator, ultraviolet lamp, laminar flow hood.
3. Preparation of Culture media: PDA, CZA, Nutrient media, preparation of agar slants, method of inoculum transfer (pouring techniques).
4. Serial dilution technique.
5. Staining of Bacteria, Simple, Positive and Negative staining.
6. Microbial Examination by Petriplate expose method.
7. Rotrod sampler, leavening of Bread Yeast/ Fermentation of Yeast.
8. Observation of VAM fungi by root maceration technique.

##### **PHYCOLOGY:**

1. Thallus in prokaryotic algae
2. Thallus in eucaryotic algae
3. Phytoplankton and indicator algae
4. Marine algae
5. Enrichment culture of algae and enumeration
6. Separation of algal pigment.

#### **Bot.CT-1.2 : SYSTEMATIC BOTANY OF ANGIOSPERMS**

**Unit 1. Scope of systematic botany:**

Aims and objectives, Floras, Monographs, Floral diagram, Floral formulas. 1 hr

**Unit 2. Development and phases of classification:**

Pioneer phase, consolidation phase, Biosystematic phase, Alpha taxonomy, Beta taxonomy, Gamma taxonomy, Omega taxonomy, Serotaxonomy, Holotaxonomy. Horizontal classification and vertical classifications. 2 hrs

**Unit 3. Systems of classifications:**

General classification of plant kingdom based on evolution.  
Artificial classification- Linneous  
Natural classification- Bentham and Hooker  
Phylogenetic classification-  
a. Transitional phylogenetic system- Engler and Prantl  
b. Intentional phylogenetic system- Charles Bessey and John Hutchinson  
c. Contemporary phylogenetic system-Takhtajan, Robert Thorne, Cronquist, Dahlgren, Angiosperm phylogeny group (APG). 10 hrs

**Unit. 4. Taxonomic ranks and Numerical taxonomy:**

Concept of family, genus, species, intraspecific clones, Numerical taxonomy, aims and objectives. Advantages of Phenogram, cladogram, and dendrogram. 5 hrs

**Unit. 5. Taxonomic evidences:**

Anatomical, Embryological, Palynological, Chromosomal, Phytochemical and Molecular. 10 hrs

**Unit. 6. Plant nomenclature:**

Vernacular names and botanical names  
Principles of ICBN. Principles of priority  
Names of genus species, Hybrids, Type method author citation publication of names, nomina conservanda, names nova, names of cultivated plants, rejection of names effective and valid publications. Unified biological nomenclature biocode and phylocode 4 hrs

**Unit 7 Botanical Gardens and herbaria**

Nature and importance of Botanical garden in plants conservation, BSI and its role in plants conservation Herbarium collection and preparation of herbarium specimen and preservation method significance of herbarium. 4 hrs

**Unit 8 Salient features and systematic relationships of following families****Dicot Families:****a. polypetalous families:**

Ranunculaceae, Magnoliaceae, Capparaceae, Caryophyllaceae, Malvaceae, Tiliaceae, Sterculiaceae, Rhamnaceae, Sapindaceae, Rosaceae, Fabaceae

**b. Gamopetalous families:**

Apocynaceae, Bignoniaceae, Solanaceae, Scrophulariaceae.

**c. Monochlamydous families:**

Chenopodiaceae, Aizoaceae, Polygonaceae, Nyctaginaceae, Piperaceae, Lauraceae, Santalaceae, Loranthaceae, Urticaceae, Ulmaceae, Moraceae, Cannabinaceae.

### **Monocot families**

Pontederiaceae, Hydrocharitaceae, Amaryllidaceae, Commelinaceae, Arecaceae and Cyperaceae.

14 hrs

### **REFERENCES:**

1. Introduction to principles of plant taxonomy. By V. V. Sivarajan. C.U.P New York 1991.
2. Flowering plant- taxonomy and phylogeny. By B. Bhattacharya and BM Johri, Narasa Publishing House, New Delhi.1996
3. Current concepts in plant taxonomy. By V.H. Heywood and DN Moore, Academic Press London.1994
4. Taxonomy of Angisperms. By V.N. Naik. Tata Mc-Graw-Hill Publishing Company Ltd., New Delhi.1993
5. Experimental plant taxonomy. By S.K. Sachdeva and C.P. Malik. Kalyani publishers New Delhi.1986
6. Taxonomy of vascular plants. By G.H.M. Lawrence. Mc Millan, New York. 1959
- 7 . Principles of numerical taxonomy. By Sokal R.R. and Sneath P.H.A. W.H. Freeman, San Francisco.1963
8. Taxonomy, Phytogeography and evolution. By D.H. Valetni (ED) Academic press London
9. Plant geography.. By Martin C. Lant.
10. Introduction to plant geography. By Polunin
11. Taxonomy of Angiosperms. By V.N. Naik.
12. Systematic Botany of Angiosperm. By R.K. Datta.
13. Plant taxonomy. By O.P. Sharma
14. Taxonomy of flowering plants. By Bhattacharya.

### **CP-1.2 : PRACTICALS ( Based on CT 1.2)**

- 1) Description of specimen from locally available families
- 2) Location of key characters and use of keys at family, genus and species level.
- 3) Field trips within and around the campus.
- 4) Training in using floras and herbaria for identification of specimen describing in the class.
- 5) Study of pollen grains useful in plant taxonomy
- 6) Preparation of herbarium sheets of wild and cultivated plants.
- 7) Preparation of key for available taxa.
- 8) Calculation of similarity coefficient and preparation of dendrogram of different taxa.

### **Bot. CT.1.3 : EVOLUTIONARY BIOLOGY, ECONOMIC BOTANY AND PLANT GEOGRAPHY**

#### **EVOLUTIONARY BIOLOGY:**

**Unit 1. Origin of life:**

Abiogenesis, hypothesis of panspermia. Theory of chemical evolution .origin of life at molecular level. Miller experiment, protenoids, microsphere, RNA first model. 5 hrs

**Unit 2. Process of origin of life:**

Structure of cosmos, primitive earth, prebiotic synthesis, evolution of progeno. origin and evolution of RNA world, ribonucleoproteins, adoptive radiation in progenote. evolution of eukaryotes : a. endosymbiotic hypothesis, invagination of surface membrane, molecular evolution, evolution of proteins, insulin, haemoglobin, cytochrom c and neutral theory of protein evolution.

5 hrs

**Unit 3. Theories of Evolution:**

Lamarckism Neolamarckism, Darwinism, Neodarwinism, Germplasm theory, Mutation theory and Synthetic theory.

5 hrs

**Unit 4. Population genetics and evolution:**

Mendelian population, Gene pool, gene frequency, genetic drift, founder effect, genetic polymorphism. Hardyweinbergh law: genetics equilibrium and mechanism of speciation.

**Unit 5. Pattern of evolution in plants:**

5

hrs

Evolution of vegetative, reproductive structures in Algae, fungi, bryophytes, pteridophytes and spermatophytes.(Evolution of sporophyte in bryophytes).Stelar evolution in pteridophytes, heterospory and seed habit. Fossil forms- lepidodendron, lepidocarpon, stigaria etc

5

hrs

**ECONOMIC BOTANY:**

**Unit 6.** Cultivation and economic uses of food plants, drug plants, food adjuncts, timber plants, rubber plants, beverage plant ,oil plants, sugar cellulose and starch plants. 10 hrs

**Unit 7.** Plants as renewable source of energy.

01

hr

**Unit 8.** Conservation of economically important plant genetic resources.

01

hr

**PLANT GEOGRAGHY:**

**Unit 9. Principles of plants Geography.**

02

hrs

**Unit 10. Origin of Islands and continents:**

Pangea, panthalasa, Laurasia, gondwana land, plate tectonics and continental drift.

02hrs

**Unit 11. Centers of origin of Cultivated plants:**

Vavilov centers and zhukosky centers with plants in each region.

03

hrs

**Unit 12. Geography and plant distribution:**

Floristic region of world, phytogeographical region of India, Hansesen's classification Distribution of plants based on altitude and latitude. 04hrs

### **Unit 13. Plant distribution and plant migration:**

contism, dricontinism and endemic distribution. Age and area hypothesis, wills theroy, vicaridess and theroy of tolerance. Plant migration and barrier for plant migration.

03 hrs

### **REFERENCES :**

1. Evolution , By Strickberger, M.W.
2. Genes and Evolution, By Jha, A.P. 1993.
3. Organic evolution. By Lull, R.C 1976.
4. Organic evolution. By Arumugam N. 1992.
5. Diversity and Evolutionary biology of tropical flowers, By Endress, P.K. 1994.
6. The Geography o flowering plants . By Ronald Good, Longman, London 1974.
7. An introduction to plant ecology, Phytogeography, economical Botany to paleobotany. A.K. Ganguly and N.C. Kumar. Emkay Publications. New Delhi.
8. Economic Botany : A text book of useful plants and plant products. By Albert Hill. Tata Mc Graw Hill Publishing company Ltd. New Delhi.
9. Economic Botany. By B.P. Pandey S.Chand and Company Ltd New, Delhi.
10. Economic Botany. By S.Sen. New central Book Academy Calcutta.
11. A text book of Economic Botany. By V.Verma. Emkay publication , New Delhi.
12. Dictionary of Economic plants in India. By Maheshwari. P.W Umraosingh. ICAR,N. Delhi.
13. A text book of Biotechnology. By R.C. Dubey. S.Chand and Company Ltd.New Delhi.

### **Bot.CP-1.3 : PRACTICALS ( Based on Bot.CT 1.3)**

1. Models to be shown (fossils can be demonstrated)
2. Demonstration of models/Explanation of models.
3. Explanation of Hardyweinbergh law with some genetic problems.
4. Steles in Pteridophytes.
5. Sprophytes of Bryophytes.
6. Photographs of Evolutionary biologists.

### **Bot.CT-1.4 : MOLECULAR BIOLOGY**

**Unit 1.** . Organization of prokaryotic and eukaryotic genome, genome size and C-value paradox. – 4 h.

**Unit 2.** Unit of replication, enzymes involved, replication origin and replication fork, fidelity of

replication, extrachromosomal replicons, DNA damage and repair mechanisms, homologous and site-specific recombination. 6 h.

**Unit 3.** Genetic rearrangements in progenitor cells, oncogenes, tumor suppressor genes, cancer

and the cell cycle, virus-induced cancer, metastasis, interaction of cancer cells with normal cells, apoptosis, therapeutic interventions of uncontrolled cell growth. 6 h.

**Unit 4.** . Homologous and non-homologous recombination including transposition. 4 h.

**Unit 5.** Transgenic microbes, animals and plants, molecular approaches to diagnosis and strain

identification. Methods for analysis of gene expression at RNA and protein level, large

scale expression, such as micro array based techniques. 6

h.

**Unit 6.** Genomics and its application to health and agriculture, including gene therapy. DNA sequencing methods, strategies for genome sequencing. FISH and chromosome walk and jumps. DNA chips and genome evolution. 6

h.

**Unit 7** Protein sequencing methods, detection of post translation modification of proteins. Proteome and proteomics. 4

h.

**Unit 8..** Molecular markers: RFLP, RAPD and AFLP techniques. Marker assisted selection. 4 h.

**Unit 9.** Cells and molecules involved in innate and adaptive immunity, antigens, antigenicity

and immunogenicity. B and T cell epitopes, structure and function of antibody molecules. generation of antibody diversity, monoclonal antibodies, antibody engineering, antigen-antibody interactions, MHC molecules, antigen processing and presentation, activation and differentiation of B and T cells, B and T cell receptors, humoral and cell-mediated immune responses, primary and secondary immune modulation, the complement system, Toll-like receptors, cell-mediated effector functions. 6 h.

**Unit 10.** Mutagenesis, molecular basis of mutation. DNA repair mechanisms and evolutionary

significance. 2

h.

#### References:

1. Bruce Alberts, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, Peter Walter. Molecular Biology of the Cell. 2002. Fourth Edition, Garland Science Publishers, New York.
2. Harvey Lodish, Arnold Berk, Paul Matsudaira, Chris A. Kaiser, Monty Krieger, Matthew P. Scott, S. Lawrence Zipursky, James Darnell. 2004. Molecular Cell Biology, Fifth Edition, W. H. Freeman and Company, New York.
3. Benjamin Lewin, Genes VIII, 2004, Pearson Prentice Hall, New Jersey.
4. Dornell, J. Molecular Cell Biology, 2000. W. H. Freeman and Co., New York.
5. Karp, G. Cell and Molecular Biology: Concepts and Experiments, 2000. John Wiley and Sons, New York.

## **Bot. CP- 1.4 Practical: MOLECULAR BIOLOGY( Based on CT:1.4)**

1. Isolation of genomic DNA and quantification.
2. Restriction digestion of DNA and agarose electrophoresis.
3. PCR amplification and agarose electrophoresis.
4. Isolation of proteins and quantification.
5. Electrophoretic separation of proteins.
6. Agrobacterium mediated transformation.
7. Isolation and purification of plasmid DNA.

## **SEMESTER- II**

### **Bot.CT-2.1 : ECOLOGY AND ENVIRONMENTAL BIOLOGY**

#### **ECOLOGY:**

##### **Unit 1. Ecosystems:**

Principles and concept of ecosystems- Components, production verses decomposition, Homeostasis (xenobiotics).

Principles and concept of energy in ecosystems- Energy and limiting factors, concepts of productivity, measurements of productivity, food chain, food webs and trophic levels

Diversity and characters of major ecosystems – Aquatic (Marine and Freshwater), Terrestrial and Agricultural ecosystems 10 hrs.

##### **Unit 2. Biotic community and ecological niche-**

A. Concept of biotic community:

Size and structure of biotic community- Physiognomy, Life-forms, stratification, ecotones and concept of edge-effect.

B. Ecological succession- causes and patterns of succession, concept of climax.

C. Concept of ecological niches, species coexistence, overlapping and niche segregation.

2 hrs.

##### **Unit 3. Species Diversity-**

A. Patterns of diversity in a community, Diversity measurement and indices.

B. Global distribution of organisms, concept of islands, biodiversity hotspots.

C. Conservation of biodiversity. 6 hrs.

##### **Unit 4. Population biology:**

Spacing and population density, Natality and mortality. Life table, population growth curves, carrying capacity. Regulation of population size, co-evolution. 5 hrs

**Unit 5. Interactions among organisms:**

- A. Negative interactions. Inter specific competition, Predation, Parasitism and antibiosis.
  - B. Positive interaction- Commensalism, co-operation and mutualism.
  - C. Pollination Biology
  - D. Herbivores and plant defense mechanism.
- hrs.

5

**Unit 6. Impact on Biodiversity:****Anthropogenic impact-**

Eutrophication, Heavy metal pollution, Ozone depletion, greenhouse effect, Global warming and its effect, Acid rains. Pesticide, particulate and nuclear radiation. Solid wastes. Noise Pollution. Pest population and its biological control, invasive species and their effects on native species in aquatic and terrestrial ecosystems.

12 hrs.

**REFERENCES :**

- Odum, E.P. 1996. Fundamentals of Ecology, Saunders, Philadelphia. (First Indian Ed.)
- Chapman, J.L. and M.J. Reiss. 2000. Ecology Principles and Applications.
- Kormondy, E.J. 1996. Concepts of Ecology, Prentice Hall India, New Delhi.
- Agarwal S.b. and M. Agarwal 2000. Environmental Pollution and responses, CRC Press, London.

**Bot. CP- 2.1 : PRACTICALS (Based on CT 2.1)**

1. Study of vegetation by quadrat and line transect method. Determination of Importance Value Index (IVI).
2. Ecological Instruments: Thermometers, Anemometer, Altimeter, Barograph, Thermograph, Hair Hydograph, Psychrometer, Rain Guage.
3. Analysis of Water Sample: pH, Conductivity, Dissolved Oxygen, Carbonates and Bicarbonates, Chlorides, Free Carbon Dioxide, Hardness, Organic Matter.
4. Analysis of Soil samples: pH, Conductivity, Organic carbon, Moisture Equivalent, Capillary Power of soil, Percolation through soil, Saturation Capacity.
5. Estimation of Dust deposit on leaves.
6. Noise level measurements in different environment.
7. Measurement of productivity by light and dark bottle method.
8. Phytoplankton of freshwater habitats.

## **Bot.CT- 2.2 : CONCEPTS IN BIOCHEMISTRY AND BIOPHYSICS**

### **BIOCHEMISTRY:**

- Unit 1** Physical and chemical properties of water. Acid base chemistry, buffers, chemical bonding and bond energy in bimolecules 4-  
hrs
- Unit 2** Nucleotides and nucleic acids: structures of nucleotides and poly nucleotides. Chemical and physical properties of nucleic acids. Chemical synthesis of poly nucleotides. 4-  
hrs
- Unit 3** Amino acids- classification, properties, peptide bonds. 4-  
hrs
- Unit 4** Protein – Structures, Sequence, Conformation. 3-  
hrs
- Unit 5** Carbohydrates – Monosaccharide and Disaccharides. Structures of starch, cellulose, pectin and chitin. 4- hrs
- Unit 6** Lipids – classification and Chemical structures and physical properties of saturated and un saturated fatty acids. 4-  
hrs
- Unit 7** Enzymes – Nature and classification of enzymes. Enzymes kinetics, bisubstrate reaction. 5-  
hrs

### **BIOPHYSICS:**

- Unit 1** Atoms, bonds and molecules, basic Principle of diffusion, Osmosis and viscosity and their application in biology. 3-  
hrs
- Unit 2** Electromagnetic radiation – spectrum and light scattering, adsorption and emission of electromagnetic radiation by biomolecules. 4-  
hrs
- Unit 3** Fluorescence and phosphorescence of biomolecules – Theory of fluorescence, fluorescence detection. Spectroscopy applied to protein, nucleic acid and membranes. 5-  
hrs
- Unit 4** Nuclear magnetic resonance – Solid state NMR, magnetic resonance imaging, application of NMR in the study of protein, nucleic acid membranes and metabolism. 5-  
hrs
- Unit 5** Mass Spectrometry – Basic theory and instrumentation; Infrared spectroscopy basic theory and instrumentation. Laser - Knowledge of lasers, application in biology and Medicine . 5- hrs

## REFERENCES:

- Lehninger Principles of Biochemistry DL Nelson and MM Cox, Mac Millan Worth publisher, 2000.
- Fundamentals of Biochemistry. D. Voet, J.G. Voet, and C.W. Pratt, John Wiley and Sons 1999.
- Physical Biochemistry, K.E Van Holde, W.C. Johnson and P. Shing Ho, Prentice Hall International IN. 1998.
- Essential of Biophysics, P. Naryanan. New Agri International publisher, 2000.
- Modern Experimental Biochemistry, (3<sup>rd</sup> Edn.) R.Boyer, Benjamin Cumming, 2000.
- Practical Biochemistry, Principle and Technique (5<sup>th</sup> Edn.) K. Wilsen and J. Walker, Cambridge University press. 2000.

### Bot. CP - 2.2: PRACTICALS (Based on Bot. CT 2.2)

1. Extraction of chloroplast pigments and demonstration of their absorption spectra.
2. Extraction of seed proteins.
3. Determination of iodine –fats and oils
4. Estimation of proteins- spectrophotometer.
5. Estimation of Phospholipids.
6. UV and Visible spectra of biomolecules.
7. Fractionation of proteins by gel filtration.
8. Interpretation of IR and NMR Spectra of small molecules.

### Bot. CT- 2.3 : BIOTECHNOLOGY , COMPUTER APPLICATIONS AND BIOSTATISTICS

#### BIOTECHNOLOGY:

**Unit 1** Introduction, Aim and scope of Biotechnology. Extraction and purification of DNA from bacteria, Fungi and plants. Restriction digestion and electrophoretic separation. The restriction DNA fragments in physical maps. Southern, northern blotting and hybridization techniques.

6 hrs

**Unit 2** Methods of cloning: Use of DNA linkers and adaptors for cloning. Selection methods for recombinant vectors. Methods for clone identification. Studying the location of cloned gene. Identifying and studying of the translation product of cloned gene. 5 hrs

**Unit 3** Marker and reporter genes used in plant systems. Manipulation of gene expression in plants. Isolation and uses of different promoters.

2 hrs

**Unit 4** *Agrobacterium* mediated gene transfer. Ti plasmid derived vector systems structure and restriction sites. The mechanism of T-DNA transfer from *Agrobacterium* to plant cells. Bt-toxin gene transfer to plants. And Transgenic expression.

2 hrs

**Unit 5** Engineering herbicide resistant, insect resistant, disease resistant (Viral, bacterial, fungal) and stress (abiotic) tolerant plants. 6hrs

**Unit 6** Antisense strategies for genetic manipulation in plants. Development of antisense technology for commercial purpose with special reference to fruit ripening and delay of senescence in flowering. 2hrs

**Unit 7** Production of vaccines, antigens and antibodies from plants. 1hrs

**Unit 8** Biotechnological application with reference to alkaloid biosynthesis. 1hrs

**Unit 9** Fuel biotechnology: Bio-diesel from lipids and other hydrocarbons. Desirable and undesirable features of biofuels. 1hrs

**Unit 10** Environmental applications of plant biotechnology and Phytoremediation. 1hrs

## **REFERENCES:**

1. Brown, T.A. 1994. Gene cloning, Chapman and Hall publication. London.
2. Narayan, L.M. Moni, A., Selvaraj, A.M. and Padmalatha Singh. 1998. Molecular biology and Genetic engineering, Saras publication. Nagercoil. Kanyakumari.
3. Trehan, K. 1991. Biotechnology Wiley Eastern Ltd.
4. Papadiwal P.B. 1985. Biotechnology. Aurangabad.
5. Satagura Prasad, M.G. 2000. A text book of molecular biology and Biotechnology.
6. Keshav Trehan. 1990. Cell Biotechnology. Wiley Eastern Ltd. New Delhi.
7. Walkar John. M. and Guastri. 1989. Techniques in Molecular Biology. 2 editions. Croon Helus.

## **COMPUTER APPLICATIONS:**

**Unit 1** Knowledge of computer systems, hardware and software, CPU and other peripheral devices, software packages and programming language, scientific application packages. 3 hrs

**Unit 2** Awareness of Windows, documentation data analysis and presentation techniques using Windows programme. 2 hrs

**Unit 3** Computer and internet – The world wide web and local area network, information retrieval, communication using internet. Web data base directories, search engines, life science data bases, tools online and bioinformatics. 5 hrs

## **BIOSTATISTICS:**

**Unit 1** Principle and practice of statistical methods in biological research. 2 hrs

**Unit 2** Basic statistics measures of dispersion Measures of central tendencies (Mean, Median, Mode) Frequency of distribution, Standard deviation coefficient of

variation and standard error.

4 hrs

**Unit 3** Concept of probability – Probability distribution, binomial, poisson and normal distribution, the Chi-Square distribution. 4 hrs

**Unit 4** Tests of statistical significance – Hypothesis testing for a single population mean, difference between two population means, paired comparison. 5 hrs

**Unit 5** Regression and correlation – scatter diagram, simple linear regression and non-linear regression, correlation and correlation coefficient and application. One way analysis of variance, two – way analysis of variance and multivariate analysis of variance.

5 hrs

## REFERENCES:

- Balaam LN, Fundamental of Biometry, George Allen and Unwin Ltd.London, 1972.  
Bliss CI, Statistic in Biology Vol. I and II, McGraw-Hill. USA, 1970.  
Causton DR, A Biologist Mathematics, Edward Arnold (Publishers) Limited, London, 1977.  
Daniel WW, Biostatistics, 6<sup>th</sup> edition, John Wiley and Sons, New York, 1995.  
Daniel WW, Biostatistics, 7<sup>th</sup> edition, John Wiley and Sons, New York, 1995.  
Minieka E and Kurzeja ZD, Statistics for business with computer application, South Western College publishers, Australia,2001.

## Bot. CP- 2.3: PRACTICALS: (Based on CT 2.3)

## BIOTECHNOLOGY:

1. Isolation and estimation of DNA
2. Isolation and estimation of RNA
3. SDS polyacrylamide gel electrophoresis of seed proteins.
4. Immobilization of cells and enzymes
5. Chromatographic purification of RNA fragments
6. Demonstration of agarose gel electrophoresis of DNA fragments.
7. Growth characteristics of *E. coli* using plating and Turbido-metric method.

## COMPUTER APPLICATIONS AND BIOSTATISTICS

1. Determination of mean, median, mode, standard deviation and standard error from the given set of data.
2. Linear regression analysis, Analysis of variance.
3. Use of statistical packages for data analysis.
4. Data documentation analysis of windows.
5. Information retrieval and communication using internet.
6. Web data base directories and tools for biological science.

## Bot. ET- 2.4: MEDICINAL PLANTS

### Unit 1. Introduction to the Medicinal Plants:

#### Classification of drugs-

- a. Drugs from underground parts
- b. Drugs from Bark
- c. Drugs from stems & woods

- d. Drugs from Leaves
- e. Drugs from Flowers
- f. Drugs from Fruits & seeds
- g. Drugs from Lower plants 6 hrs.

#### **Unit 2 . Milestones in the study of medicinal plants in India:**

- a. Hortus Malabaricus
- b. Indian Medicinal Plants
- c. Indian Meteria Medica
- d. Poisonous plants of India
- e. Dictionary of folk medicines in India 8 hrs.

#### **Unit 3. Botany of medicinal plants:**

- a. Ethnomedicobotany and its scope
- b. Collection, identification and preservation of medicinal plants 5 hrs.

#### **Unit 4. Systems of medicines:**

- a. Evolution of systems of medicines
- b. Ayurveda system of medicine
- c. Siddha system of medicine
- d. Unani system of medicine
- e. Chinese system of medicine
- f. Tibetan system of medicine
- g. The Naturopathy and Aromatherapy
- h. The Homoeopathy 5 hrs.

#### **Unit 5. Indian Medicinal Plants Scenario:**

- a. Status and prospects of medicinal plants in India and Karnataka
- b. Stress on medicinal plants
- c. Conservation of medicinal plants 8 hrs.

#### **Unit 6. Medicinal plants and biotechnology:**

- a. Outlines of cell and Tissue culture of medicinal plants.
- b. Outlines of bioreactors and hairy root culture 6 hrs.

#### **Unit 7. Therapeutic properties of medicinal plants**

- a. Plants with antimicrobial properties
- b. Lectins and their applications
- c. Saponins and their applications. 6 hrs.

#### **Unit 8. Formulations of Traditional medicines:**

- a. Arishta and Asava
- b. Arka
- c. Avaleha and Paka
- d. Ghruta
- e. Churna
- f. Satva 3 hrs.

**Unit 9. Cultivation of important medicinal plants.** 3  
hrs.

**REFERENCES:**

- Anonymous 1978. The Ayurvedic Formulary of India. Govt. of India Pub.
- Farooqi, A.A., Khan, M.M. and Vasundhara, M. 1999. Production technology of medicinal and aromatic crops. Natural Remedies Pvt. Ltd., Bangalore.
- Jain. S.K. 1991. Dictionary of Indian folk medicine and ethnobotany. Deep publications, Paschim Vihar, New Delhi.
- Kameshwara Rao, C. 2000. Material for the Database of Medicinal Plants. Karnataka State Council for Science and Technology for the Department of Forests, Environment and Ecology, Govt. of Karnataka Pub.
- Kirtikar, K.R. and Basu B.D. 2001 (Repr.) Indian Medicinal Plants. Oriental Enterprises Uttaranchal.
- Manilal, K.S. 2001. Van Rheede's Hortus Malabaricus English Edition. Univ. of Kerala Pub.
- Nadkarni, K.M. 1976 (Revised Ed.) Indian Materia Medica. Popular Prakashan, Bombay.
- Sharma, O.P. 1996. Hill's Economic Botany. Tata McGraw Hill Pub. New Delhi.
- Yoganarasimhan, S.N. 1996. *Medicinal plants of India. Vol. I. Karnataka*. Interline pub. Pvt. Ltd. Bangalore.

**Bot. EP-2.4 :PRACTICALS (Based on Bot. ET 2.4)**

1. Identification of medicinal plants including herbarium preparation
2. Study of Drug parts- Morphology and Anatomy
3. Phytochemical analysis (Pharmacognostic studies):
  1. Crude extract of drug by soxhlet extractor
  2. Test for phytochemicals- depending on available chemicals.
4. Preparation of drugs as per traditional system of medicine.
5. Estimation of Biomass of medicinal plants.
6. Visit to a field to document medicinal plants.

**SEMESTER- III:**

**Bot. CT-3.1 : PLANT PHYSIOLOGY**

- Unit 1 Bioenergetics** – First and second law of thermodynamics. Relation between reduction potential and free energy change. 3-  
hrs
- Unit 2** Study of glycolysis and citric acid cycle metabolic regulation of glycolysis and citric acid cycle.. 3-  
hrs
- Unit 3** Oxidative phosphorylation and photophosphorylation. Electron transfer reaction in mitochondria, light absorption by chloroplast pigments. External manipulation of pH in isolated chloroplast and mitochondria and ADP phosphorylation. 10- hrs
- Unit 4 Nitrogen metabolism** –  
Uptake of nitrate and its reduction. Catalytic and genetic regulation of nitrate

reductase. Symbiotic nitrogen fixation. 5-  
hrs

**Unit 5** Carbohydrate biosynthesis and inter conversion photosynthetic carbon reduction cycle and its regulation. C-4 pathways and photorespiration. Biosynthesis of sucrose, starch and cellulose.

4- hrs

**Unit 6 Lipid metabolism –**

Fatty acid Biosynthesis and oxidation. Biosynthesis and catabolism of storage lipids. Biosynthesis and function of membrane lipids.

5- hrs

**Unit 7 Membrane transport –**

Organization of transport at plasma membrane and tonoplast, pumps carriers and ion channels, P-type and V-type ATPases , ABC transporters, measurement of membranes potential and channel current. Regulation of membrane transport in guard cells.

8-  
hrs

**Unit 8 Plant growth regulators :** Mechanism of action of Auxins, gibberellins, cytokinins,

ethylene, abscisic acid, jasmonic acid, triacontinol and salicylic acid. 10-  
hrs

## REFERENCES:

Fundamentals of Biochemistry. D. Voet, J.G. Voet, and C.W. Pratt, John Wiley and Sons 1999.

Physical Biochemistry, K.E Van Holde, W.C. Johnson and P. Shing Ho, Prentice Hall International IN. 1998.

Essential of Biophysics, P. Naryanan. New Agri International publisher, 2000.

Plant Biochemistry, P.M dey and J.B. Harborne, Harcourt Asia Ltd. Academic press, 1997.

Signal and Signal transduction pathways in plants. K. Palme (Ed.) Kluwer Academic publishers 1994.

Annual review of Plant Physiology and Plant Molecular Biology.

## Bot. CP- 3.1 : PRACTICALS (Based on CT 3.1)

1. Effect of time and enzyme concentration on the rate of enzyme action.
2. Effect of substrate concentration and pH on enzyme action.
3. Extraction of total lipids from plant tissue purification by column chromatography analysis by TLC
4. Determination of lipase activity in germinating seeds.
5. Determination of chlorophyll a/b ratio in C3 and C4 plants.
6. Crassulacean acid metabolism.
7. Estimation of proline from stressed plants.
8. Gibberellin induction of amylase activity in cereal grains.
9. Effect of light , K, Ca and some inhibitions and against stomatal opening.

10. Determination of Photosynthesis rates in C3 and C4 plants using IRGA.

## **Bot. CT- 3.2 : CELL BIOLOGY AND GENETICS**

### **CELL BIOLOGY:**

**Unit 1** Organization of prokaryotic and eukaryotic cell, plasma membrane – molecular organization, cell differentiation.

**Unit 2** Nucleus – microscopic and sub microscopic organization. Structure and function of nuclear membrane. Nucleolus- ultrastructure and role in ribosome synthesis. 5- hrs

**Unit 3** Eukaryotic Chromosome – chromatin, its chemical nature, macro molecular organization. Heterochromatin and its significance, special types of Chromosomes, polytene and lamp brush Chromosome. Sex Chromosome, Structural change in Chromosomes. Numerical changes in Chromosome. Euploidy, haploidy, polyploidy.

6-

hrs

**Unit 4** Cytoskeleton – Microtubules, Cilia, flagella, structure and function of ER, Golgi complex, mitochondria, Chloroplast, lysosome and peroxisome. 4-

hrs

**Unit 5** Mechanism of cell division Mitotic apparatus, cytokinesis, Chromosome movement,

molecular mechanisms of regulating mitotic events, meiotic stages, chromosome pairing, Chiasma formation. Cell signaling, Signaling pathways in plants. Molecular biology of signaling.

6- hrs

### **REFERENCES:**

Alberts, B. Bray, D. Lewis, J. Raff, M. Roberts, K. and Watson, J.D. 1994.

Molecular biology of the cell., 3<sup>rd</sup> Ed.

Garrett, R.H. and Gresham. C.M. 1995 : Molecular aspects of cell biology. Saunders publishers, New York.

Lodish, H. Berk, A., Zipursky, S.L. Matsudaira, P., Baltimore, D. Darnell, J. 2000.

Molecular cell biology. Freeman W.H. and Co. New York.

Cooper, G.M. 1997. The cell : A molecular approach. ASM press, USA .

Karp, G. 2000: Cell and molecular Biology: concepts of experiments. John Wiley and sons Inc. New York.

### **GENETICS**

#### **Unit I. Classical Genetics:**

a. Mendelism: Rediscovery of Mendel principles. Reasons for Mendel, character selected by Mendel. genotype, phenotype, back cross and test cross.

b. Multiple alleles: Self sterility in tobacco. Blood groups in man.

c. Gene interaction: Complementary genes (Flower colour in sweet pea) Albinism in maize (lethal genes in plants)

d. Multiple gene interaction: Colour of wheat kernel, corolla length in tobacco.

e. Linkage in sweet pea (coupling and repulsion) T series of linkage: differential

multiplication theory and chromosome theory of linkage and factors affecting linkage.

f. Chromosome mapping in maize and *Drosophila*.

g. Sex determination in plants.

i. Extra chromosomal inheritance (chloroplast, mitochondria and episome). 8 hrs

## **Unit II. Gene and gene concept:**

Structure of plant gene, function of gene, mutation of gene: Transition and transversion: silent mutation, frame-shift mutation, nonsense mutation and point mutation and role of mutation in evolution. Transposons, as elements, split genes, selfish genes.

### **Regulation of gene expression in prokaryotes:**

Concept of operon model and mechanism of operon model (structural genes, promoter genes, regulator genes and operator genes)

### **Regulation of gene expression in eukaryotes:**

Regulation, transcription, processing, translation, one gene and one enzyme hypothesis, one gene and one polypeptide hypothesis.

8 hrs

## **Unit III. Genetic engineering:**

Gene cloning recombinant DNA and PCR, vectors: plasmids, cosmids, molecular sensors restriction endonucleases and molecular sutures ligases. gene theory, gene banks DNA chips, cloning of *Nif* genes, isolation and introduction of *Nif* gene. Genetically modified plants and food.

9 hrs

## **REFERENCES:**

Tamarin, R.M. 2000 : Principles of Genetics,. 6<sup>th</sup> Ed. WMC. Brown Publ. Co. London.

Watson, J.D., Hopkins, N.H., Robert, J.W., Steitz, J.A. and Weiner, A.M. 1987: Molecular Biology of gene. 4<sup>th</sup> Ed. Benjamin. Publ. Co. New York.

Strickberger, M. W. 1995 : Genetics. 3<sup>rd</sup> Ed. Prentice Hall Inc. London.

Goodenough, U. 1990 : Genetics 4<sup>th</sup> Ed. Holt Saunders. Tokyo.

## **Bot. CP-3.2 : PRACTICALS (Based on CT 3.2)**

### **CELL BIOLOGY:**

1. Stains and dehydration grades for cytological studies.
2. Squash and smear preparations of mitotic and meiotic Chromosome, preparation of permanent slides.
3. Determination of Chromosome number at mitotic metaphase and diakinesis/metaphase I of meiosis.
4. Calculation of Chiasma frequency.
5. Isolation and separation of sub cellular organelles.
6. Identification of B – Chromosome. Polytene Chromosome in chironomus and fruit fly.

## GENETICS:

1. Culture techniques and handling of fruit flies.
2. Life cycle of *Drosophila melanogaster*.
3. Identification of male and female flies.
4. Observation of mutant flies.
5. Crossing experiments and simple mendelian inheritance in fruit flies.
6. Study of growth curve in *E. coli*.
7. Conjugation in *E. coli*.
8. Problems in Genetics.

## Bot. CT-3.3 : DEVELOPEMENTAL BIOLOGY OF PLANTS AND TISSUE CULTURE

### Unit 1. Polarity in plants:

- a. Acellular, (Dictyostelium)
- b. Unicellular, (Acetabularia, Fucus egg, Equisetum spore)
- c. Multicellular, (Root hair and stigma formation)
- d. Organ, (Dorsiventral leaf)
- e. Colonial, (Volvox colony).

07

hrs

### Unit 2. Apical meristem:

Ultra structure, Biochemical activities, Regeneration and denovo in culture, split and damage apices. Bud dormance, Gene expression in shoot apex and SAM mutants. Quiescent center, genetics of root development.

07

hrs

### Unit 3. Leaf primordium:

Phyllotaxis, Mechanism of leaf primordium initiation. Experimental model of modification of positioning, Genetics of phyllotaxy, plastochorns. Transition of reproductive phase, Phase change and developmental switching at the apex. Vernalization and changes in biochemical activity.

07 hrs

### Unit 4. Developmental patterns at the flowering apex.

ABC model, and specification of floral organs homeotic mutants, reversal of flowering,

Molecular aspects of MADS box genes during, flower development. Modification of gene action by growth substances, Cellular differentiation between floral organs.

Senescence- a general account.

06

hrs

### Unit 5. Androgenesis and Gynogenesis:

Ultrastructural, Histochemical, Genetical and Functional aspects. Concept of male and female germ unit and their significance.

### Unit 6. Pollination and Fertilization:

Structural, Functional aspects of pollen style stigma. Current view of double fertilization and development of endosperm and its function.

07 hrs

### Unit 7. Cellular and biochemical aspects of embryogenesis:

Gene activity during zygotic embryogenesis. Structure and function of embryo suspensor.

Photo-morphogenesis, Photoreceptors. Structure and function. Photo-responses and molecular mechanism. 06 hrs

**Unit 8. Plant tissue culture:**

Laboratory organization, Nutrient media, Sterilization techniques, Micropropagation, Cell suspension culture, Haploid production, Protoplast isolation and fusion. Cryopreservation, Production of synthetic seeds. *In vitro* production of zygotes. 10 hrs

**REFERENCES:**

1. Embryology of Angiosperms (1984) Ed. B.M. Johri Springer-verlag Publications
2. Introduction to the Embryology and Angiosperms by P. Maheshwari (1950) Mc Graw Hill NY.
3. Recent advances in the Embryology of Angiosperms Ed. P. Maheshwari (1963). Intl. Soc. Plant morphol. Delhi
4. The embryology of angiosperms (2000) by Bhojwani S.S. and Bhatnagar S.A. . Vikas publications house New Delhi
5. Pollen biology and biotechnology (2003) by K.R. Shivanna, Oxfard and IBH publishing house New Delhi
- 6 Fertilization in Angiosperms /seed plants (Molecular and Cytological) by Cristi.
7. Plant morphogenesis by Sinnott
8. Plant tissue culture by M.K. Razdhan

**Bot. CP 3.3 PRACTICALS (BASED ON Bot. CT 3.3)**

1. Development of Anther and ovule / Permanent slide preparation
2. Histochemical test of Anther and ovule at different stages of development
3. Preparation of Brewbaker or Kwakh medium for pollen germination
4. Hanging drop technique for pollen germination
5. Pollen acetolysis to study pollen exine ornamentation and aperture
6. Mounting of embryo and endosperms
7. Preparation of MS media for plant tissue culture
8. Inoculation of explants on a nutrient medium
9. Root apical and shoot apical meristem
10. Callus histology/cytology

**Bot. ET- 3.4 : PLANT BIOTECHNOLOGY :**

**Unit 1** Introduction: Definition Old and New Biotechnology. An interdisciplinary activity, Scope and importance, commercial potential, Biotechnology centers in India.  
3 hrs.

**Unit 2** Biofertilizers: Introduction, Types, Blue green algae, Sea weeds, Azolla, Vesicular arbuscular mycorrhizal fungi and Rhizobium. 6 hrs

**Unit 3** Industrial Biotechnology: Introduction, Industrial microbial products: Alcohol production (Beer), Antibiotics production (penicillin), production of Vitamins (Vitamin B<sub>12</sub>), production of Single Cell Protein, Algal protein: (Spirulina) Fungal protein: (Mushroom) and economic aspects.  
10 hrs

**Unit 4** Plant Tissue Culture: Introduction. Importance of plant tissue culture, Basic requirements for tissue culture laboratory, composition of tissue culture medium. Culture of plant tissues, Regeneration of plants, Root culture, meristem culture, Anther culture, Pollen culture. Role of tissue culture technology in crop improvements.  
10 hrs

**Unit 5** Biofuels: Introduction, Production of biogas, Structure of biogas plant, Biochemistry of methane production, Biogas research in India, Uses of biogas.  
5 hrs

**Unit 6** Plant Biotechnology Introduction, Somatic hybrids and cybrids, cytoplasmic gene transfer, gene transfer, Advantage and Limitations. 4 hrs

**Unit 7** Genetic Engineering: Introduction, Genetic Engineering of microorganisms, Vectors of gene cloning direct transformations, Microinjection, Nuclear transplantation, Isolation and cloning plasmid and Mitochondrial genes. Transgenic plants with *nif* genes. Improvement of seed proteins, production of disease free and disease resistant plants.  
12 hrs

#### REFERENCES:

1. Glazer, A.N and Nikaido. H. 1995. Microbial Biotechnology. W.H.Freeman And co. New York.
2. Glieck Barnard and Pasternak, Jack.J.1996. Molecular Biotechnology principles and application of recombinant DNA: Pavan publishers. New Delhi.
3. Kumar.H.C. 1992. Text book on Biotechnology. East west press. New York.
4. Walker.J.M and Gingold. W.B. 1989. Molecular Biology and Biotechnology. 2<sup>nd</sup> edition. Royal Society of chemistry, London.
5. Keshav Trehan.1990. Biotechnology. Wiley Eastern/td. New Delhi.
6. Gaurd.R.S. Gupta.G.D and Gukhade.S.B.2000. Practical Biotechnology: Nirali park ashan publishers. Pune.
7. Firn.R.K and Prave. P Biotechnology. 1988. Hanser Publisher publication. New York.
8. Dubey.H.C.1991. Fungi and Biotechnology. Today's and tomorrow's Printer and Publishers. New Delhi.

9. Stanbury. P.F and Whitaker.A. 1985. Principles and Fermentation technology, Pergaman press. Oxford.
10. Wiseman.A.1987. Hand book of enzyme Biotechnology. Ellis Horwood ltd. New York
11. Tejovathi.G, Vimala.Y and Rekha Bhadauria, 1996. A practical manual for plant Biotechnology. CBS publishers and distributors. New Delhi.
12. Narayanan. L.M., Selva Raj, A.M., Mani.A and Arumugam.N.1998. Molecular Biology and Genetic Engineering. Saras publication. Nagercoil. India.
13. Colin Ratledge and Bjorn Kristainsen.2004. Basic Biotechnology. Cambridge University press London.
14. Snyder.L. and Champness, W. 1997. Molecular Genetics of Bacteria. American Society for microbiology. Washington DC.
15. Asenjo, J.A.1990. Separation process in Biotechnology. Marcel Dakker, New York.

### **Bot. EP-3.4 : PRACTICALS (Based on ET 3.4)**

#### **PLANT BIOTECHNOLOGY**

1. Basic laboratory principles and techniques
2. Equipments and instruments.
3. Culture media: Simple media, Synthetic media, Complex media, Semi defined media, Special media, Enriched media.
4. Culture of Mushroom.
5. Mass culture of Spirulina.
6. Plant tissue culture techniques.
7. Isolation of DNA from plant materials.
8. Production of Synthetic Seeds.
9. Preparation of Wines from Grapes.
10. Experiment to demonstrate biogas production.

### **SEMESTER- IV**

#### **Bot. CT-4.1 MYCOLOGY AND PLANT PATHOLOGY:**

##### **MYCOLOGY**

##### **Unit 1 Biological feature of fungi –**

Structure, mobility, life cycle pattern in fungi, reproduction – Asexual and sexual.

10-

hrs

**Unit 2** Structure and types of soil. Biological population and its relation with mycoflora. Perdation, parasitism and antagonism. Rhizosphere, Rhizoplane and non- Rhizosphere

fungi. Ecosystem and fungal community. 8-  
hrs

**Unit 3 Fungal physiology –**

Nutrition of carbon nitrogen, mineral, vitamin and growth regulators. Metabolisms and biosynthesis of carbohydrates and non-carbohydrates and nitrogen. 4  
hrs

**Unit 4** Secondary metabolites and their role. Fungi as genetic organism for genetic study 4  
hrs

**PLANT PATHOLOGY**

**Unit 1 .** The concept of disease in plants, classification of plant disease, attack of pathogens mechanical forces, chemical weapons, enzymes. Microbial toxins and growth regulators. 8  
hrs

**Unit 2.** Plant defense mechanism against pathogens, genetics of plants disease epidemiology. 4  
hrs

**Unit 3.** Management and control of plant disease. 3  
hrs

**Unit 4** Application of Biotechnology in relation to plant pathology. 4  
hrs

**Unit 5.** Environmental factors that cause plant disease. 5  
hrs

**REFERENCES:**

- Burnett, JH (1983) fundamental of Mycology, William Clows and Sons, London .  
Subramanin CV (1991) Hyphomycetes, ICAR, New Delhi.  
Reynolds DR (1981) Ascomycetes systematics – The Luttrelian concept, Springer, Verlag, New York.  
Stevens, RB (1981) mycology Guide book, University of Washington Press, Washington.  
Ingold, CT (1971) fungal spores – their liberation and dispersal. Oxford Univ. Press, Oxford.  
Dickinson, CW and Pugh GJF (1974) Biology of plant litter decomposition. Vol I And II, Academic press London.  
Ainsworth and Sussman, AS (1965,1966,1968,1973) The fungi, An advanced Treatise, Vol I- IV, Academic press New York.  
Agarios, GN (1995) plant pathology, IV Edn Academic press Inc. London New York.  
Horsfall, JG and Cowling, EB (1977-80) Plant Disease, Vol – I to V Academic press New York.  
Rangaswamy, D (1988) Disease of crop plants in India, Prentice Hall India, Ltd New Delhi.  
Asada, Y, Bbushnell, NR Ouchi. S, and Vance, P (1982) Plant infection. The physiology and Biochemical basis, Springer Verlag, Berlin Nee York.

Kosuge, T and Nester, EN (1984) Plant microbe interaction – molecular and genetic perspectives, MacMillan, New York.

## **Bot. CP. 4.1 PRACTICALS (Based on CT 4.1)**

### **MYCOLOGY**

1. Vegetative organization in fungi.
2. Asexual reproduction in fungi.
3. Sexual reproduction in fungi.
4. Rhizosphere, Rhizoplane, phylloplane studies of fungi.
5. Fungal physiology – Growth and nutritional studies.

### **PLANT PATHOLOGY**

1. Disease of cereal crops.
  - a) Blast disease of Rice.
  - b) Yellow smut of wheat.
  - c) Loose smut of wheat.
  - d) Downy mildew of sorghum.
  - e) Anthraenose of sorghum
2. Disease of plantation crops.
  - a) Downy mildew of grapes.
  - b) Leaf rust of coffee.
  - c) Tikka disease of ground nut.
  - d) Late blight of potato.
3. Others -
  - a) Bean mosaic disease.
  - b) Sandal spike.
  - c) Tobacco mosaic virus disease.
  - d) Citrus canker.
  - e) Grass root sugarcane
  - f) Root knot of mulberry.
4. Isolation and inoculation of plant pathogens.
5. Estimation of spore production of fungal pathogens of leaves using Haemocytometer method.

Air dispersal of plant pathogens – an investigation using rotord sampler.

## **Bot. CT-4.2: PLANT BREEDING AND PLANT PROPAGATION**

### **PLANT BREEDING:**

#### **Unit 1. History and scope of plant breeding.**

5 Hrs

#### **Unit 2. Plant Genetic resources:**

- a. Importance and urgency.
- b. Sources of germplasm
- c. Systematic evaluation and utilization

d. Germplasm conservation	
e. Global and National organization for crop improvement	
f. Pattern of evolution in crop plants.	5
hrs	
<b>Unit 3. Conventional breeding methods:</b>	
a. Reproduction, Genetic basis, Sexual and crosspollination, Apomixis, Genetics induction and significance in plant breeding.	
b. Domestication, Plant introduction and acclimatization. Selection in self, cross pollinated and vegetative propagated plants.	
c. Hybridization: In self and cross pollinated plants. Vegetative propagated plants.	
d. Back cross: Technique and importance.	7
hrs.	
<b>Unit 4. Heterosis breeding</b>	
a. Inbreeding depression	
b. Homozygous and heterozygous balance	
c. Genetic basis of heterosis	
d. Heterosis and plant breeding	3
hrs.	
<b>Unit 5. Difference between production breeding to disease resistance</b>	
a. Types of resistance – Vertifolia effect, epiphytosis, vertical and horizontal resistance	
b. Genetics of post and parasite relation ship.	
c. Genetics of insect resistance	
d. Mechanism of drought resistance	
e. Genetics of drought resistance	
f. Breeding methods for disease insect and drought resistance	7
hrs.	
<b>Unit 6. Distant hybridization</b>	
a. Introduction history	
b. Barrier to the production of distant hybridization	
c. Techniques for production of distant hybrids.	
d. Sterility in distant hybrids.	
e. Consequence of segregation in distant hybrids.	
f. Importance of distant hybridization in crop improvement.	5
hrs.	
<b>Unit 7. Quality seeds.</b>	
a. Classes.	
b. Production	
c. Maintenance	
d. Development of seed industry	
e. The Indian seed act.	4
hrs.	
<b>PLANT PROPAGATION:</b>	
<b>Unit 1. Principles and concepts of plant propagation.</b>	1
hrs	

<b>Unit 2. Propagating structures :</b>	
Green house , shade house , net house, mist propagation unit, containers for growing plants.	2
hrs	
<b>Unit 3. Media for propagation –</b>	
Treatment of soil and soil mixtures, Fertilizers and sanitation	2
hrs	
<b>Unit 4. Plant nurseries –</b>	
Types, sites for their establishment, design and management.	2
hrs	
<b>Unit 5. Seed propagation –</b>	
Seed selection, testing and storage; principles and techniques, advantages and limitations; process of seed germination, seed dormancy, treatment to overcome pathogens. Seed viability tests, seed testing and seed certification (seed patent law). Hardening of seedlings.	
2 hrs	
<b>Unit 6. Vegetative propagation –</b>	
Advantage and limitations. Sources, selection and management of the vegetative propagation	4
hrs	
<b>Unit 7. Clones- Breeding of asexually propagated plants</b>	
Source production and viability and maintenance. Genetic variability. Techniques of propagation by cutting; types of cuttings, rooting media, factors influencing rooting, treating cuttings with growth regulators, leafy cuttings.	2
hrs	
<b>Unit 8. Propagation by specialized vegetative structures ;</b>	
Bulbs, tubers, corms, rhizomes, runners, suckers,	2
hrs	
<b>Unit 10. Layering and its natural modifications:</b>	
Types and procedures of layering; Factors affecting regeneration by layering.	2
hrs	
<b>Unit 11. Techniques of grafting and budding :</b>	
Objectives ,methods and limitations, stock-scion relationship; micro grafting and microbudding; graft incompatibility : tools and accessories required for cutting, grafting and budding.	
2 hrs	
<b>Unit 12. Propagation methods of some important plants :</b>	
Fruits and nuts; medicinal and aromatic plants; vegetables, ornamentals; succulents and cacti , house plants.	
2 hrs	
<b>Unit 13. Hydroponics:</b>	
A general account.	2
hrs	

#### REFERENCES:

Breeding of Asian plants. 1998. J.M. Poewman and Brothukar, I.B.H. New Delhi.  
 Breeding field crops 1999 J.M. Poehlman and D.A. Sleper Panima Publ. Crop New Delhi.

Plant Breeding 2000. B.D. Singh. Kalyani Publ. New Delhi.  
 Evolution of crop plants 1986. N.W. Simmonds (Ed). Longmann Sci. Tech. Pub. England  
 Apomixes and Plant breeding. S.S. Khoklov. Amerind. New York.  
 Plant Breeding 1994. J.R. Sharma. T.M. H. Publ. Comp New Delhi.  
 Heterosis 1983. Edi. R. Frankel and Bet Dagan. Springer Verlag. Berlin.  
 Plant breeding for pest and disease resistance 1978. E.G. Russel. Butterworth. London.  
 Advanced methods in plant breeding and biotechnology 1991. Ed. D.R. Murray. C.A.B. Iontr. U.K.  
 Plant breeding preparations 1979. Ed. J. Snee and AST. Hendriksen. Puduo. Wageningen, Netherlands.  
 Hartman, H.J. et.al., 1990 : Plant propagation . Principles and practices. Prentice Hall, New Delhi.  
 Schwalz. M. 1975 : Guide to commercial hydroponics. Israel Univerisity, Jerusalem.  
 Sharma, V.K. 1996 Plant Nurseries : Techniques, production and management. Indian Pub. New Delhi.  
 Sadhu, M.K. 1989 : Plant propagation. New Age Pub. New Delhi.

#### **Bot. CP- 4.2 : PRACTICALS : (Based on Bot. CT 4.2)**

1. Reproductive biology
  - a. Self, b. Cross pollinated plants, c. Vegetative reproduction
2. Hybridization : Emasculation, bagging and production of hybrids if possible apparent pollen fertility.
3. Origin, distribution and centers of diversity of crop plants: Wheat, Sorghum, Rice, Chilly, sugarcane, Cotton, Potato, Coffee, Sunflower and Ground nut.
4. Preparation of media- treatment of soil and soil mixtures.
5. Breaking of seed dormancy and growing seedlings after treating with hormones.
6. Propagate the bulbs (Lilium, tubers (Potato, Begonia), corms (Gladiolus), Rhizome (Canna) Sucker (Banana).
7. Different types of layering (Simple layering, Tit layering, serpentine layering, Air layering; stool layering).
8. Grafting experiments – Whip (or splice) grafting methods; side grafting; bark grafting, T-budding; Inverted T- budding; chip budding.
9. Demonstrate the experiments on the propagation of succulents by cutting and cacti by grafting.

#### **SPECIAL PAPERS:**

#### **Bot. CT-4.3.1. PLANT TISSUE CULTURE**

##### **TISSUE CULTURE:**

##### **Unit 1. Cellular toti potency –**

Cytodifferentiation, organogenesis, factors affecting organogenic differentiation. 2 hrs

##### **Unit 2. Somatic embryogenesis –**

Induction, development and maturation. Factors affecting somatic embryogenesis, applications of somatic embryogenesis and synthetic seeds. Molecular biology of somatic embryogenesis: induction, development, synchronizing somatic embryo

- development. Hormonal regulation of somatic embryogenesis. Late embryogenesis abundant (LEA) gene expression. Genes isolated from somatic embryos. Expression of 'non embryonic' genes during somatic embryogenesis. Somatic embryo as a genetic system.  
5 hrs
- Unit 3. Haploid production –**  
Androgenesis, anther and microspore culture, factors influencing anther/microspore culture, gynogenesis, production of haploids by wide hybridization. Applications. 4hrs
- Unit 4. Triploid production –**  
Methods and applications. 2 hrs
- Unit 5. In vitro pollination and fertilization –**  
Methods, factors affecting seed setting after in vitro pollinations, application. 2 hrs
- Unit 6. Zygotic embryo culture –**  
Techniques, culture requirements, applications. 2 hrs
- Unit 7. Somaclonal and gametoclonal variations:**  
Origin of somaclonal variation, mechanism underlying genetic variations, assessment of somaclonal variations. Isolation of variants – disease resistant lines, herbicide resistant lines, stress tolerant lines, applications. 4 hrs
- Unit 8. Protoplast isolation and culture –**  
Isolation, culture and regeneration of protoplasts. 4 hrs
- Unit 9. Somatic hybridization and cybridization –**  
Protoplast fusion methods, selection of hybrids and cybrids, assessment of hybridity. Molecular analysis of nuclear genes and organellar genes in the somatic hybrids/cybrids. Protoplasts as a tool in cell biology and biotechnology. 4 hrs
- Unit 10. Production of disease free plants-methods of virus elimination, eradication of pathogens other than viruses.**  
2 hrs
- Unit 11. Micro propagation:**  
Techniques, multiplication by axillary and apical shoots, multiplication by adventitious shoots, multiplication through callus cultures, factors influencing shoot multiplication and rooting. Acclimatization of plants transferred to soil. 4 hrs
- Unit 12. Production of secondary metabolites –**

Application of tissue culture for synthesis of useful compounds. Techniques of selecting cell lines for high yields of compounds of secondary metabolism. Mass cultivation of cells by bioreactors. Elicitor induced accumulation of products. 4 hrs

**Unit 13. Germplasm conservation –**  
Methods of conservation, cryopreservation.  
hrs

4

## REFERENCES:

- S. S. Bhojwani and M. K. Razdan. 1996. Plant tissue culture: Theory and Practice. Elsevier Publishers, Amsterdam.
- J. R. Reinert and Y. P. S. Bajaj. 1977. Applied and fundamental aspects of plant cell, tissue and organ culture. Springer-Verlag, Berlin.
- Y. P. S. Bajaj (Ed.) Biotechnology in agriculture and forestry. Various volumes published time to time. Springer-Verlag, Berlin.
- T. A. Thorpe. 1981. Plant tissue culture. Academic Press, New York.
- T. A. Thorpe (Ed.) 1995. Embryogenesis in plants. Kluwer Academic Publishers, Netherlands.
- S. K. Sen and K. L. Giles (Ed.) 1983. Plant cell culture in crop improvement. Plenum Press, New York.
- M. K. Razdan. 1993. An introduction to plant tissue culture, Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- S. S. Bhojwani. 1990. Plant tissue culture: Applications and limitations. Elsevier Publishers, Amsterdam.
- I. K. Vasil (Ed.) Cell culture and somatic cell genetics of plants. Various volumes. Academic Publishers, Orlando.
- R. A. Dixon and R. A. Gonzales (Ed.) 1994. Plant cell culture, a practical approach. Second Edition. Oxford University Press, Oxford.
- O. L. Gamborg and G. C. Phillips. 1995. Plant cell, tissue and organ culture, fundamental methods. Springer International student Edition.
- Molecular Biotechnology (2<sup>nd</sup> Edn.) B.R. Glick and J.J. Pasternak, ASM Press, Washington DC. 1998.
- Genes VII, B. Lewin, Oxford University, Press, 2000
- Gene cloning, T.A. Brown, Chapman and Hall Publ. 1994.

## Bot. CP-4.3.1 PRACTICALS : (Based on Bot. CT 4.3.1)

### PLANT TISSUE CULTURE

1. Micropropagation by proliferation of axillary bud.
2. Anther culture for haploid production.
3. Microspore culture for haploid production.

4. Protoplast isolation and culture.
5. Embryogenesis in cultured cells/tissues.
6. Preparation of synthetic seeds.
7. Extraction and quantification of secondary metabolites from callus.
8. PCR technique
9. Co-cultivation of leaf discs with *Agrobacterium* and study of GUS.

## **Bot. CT-4.3.2 : REPRODUCTIVE BIOLOGY OF HIGHER PLANTS**

**Unit 1. Introduction Reproductive biology** 1 hr

**Unit 2. Anther** – Composition and reorganization of cytoplasmic constituents in the meiocytes

during meiosis; Pollen formation : Structure and composition of pollen. The concept and significance of Male Germ Unit ; Formation of Generative and male cells in the pollen-their isolation, biochemistry, physiology and cytoskeletal organization. Complexity and specificity of sporophytic and gametophytic gene expression during anther development. Anther tapetum- Structure, composition and function. Pollen wall biology- Composition and function.

10 hrs.

**Unit 3. Pollen tube :**

Growth, composition chemotropism and cytoskeletal organization. 04 hrs.

**Unit 4. Ovule :**

Composition and cytoplasmic reorganization in the megasporocyte during meiosis; Megagametophyte- Structure, Composition and role of its constituent cells. The concept and significance of Female Germ Unit. Cytoskeletal organization of the megagametophyte cells. Expression of sporophytic and gametophytic specific genes during ovule and female gametophyte formation. Mutants that affect the development of pistil, ovule and female gametophyte.

10

hrs.

**Unit 5. Pollination :**

Structure, composition and function of stigma and style. Composition and role of stigmatic exudate and stylar matrix; Pollen-pistil interaction, Fertilization- Current outlook of double and preferential fertilization and their significance.

05hrs.

**Unit 6. *In vitro* fertilization and development of artificial zygotes and embryo through micromanipulation of male and female gametes.**

**Unit 7. Male sterility-**

Causes, biochemical and molecular aspects of cytoplasmic male sterility.

05hrs.

**Unit 8. Sexual incompatibility-**

Physiological and Biochemical mechanism of sporophytic and gametophytic self-incompatibility. Barriers of incompatibility

05hrs.

**Unit 9. Embryogenesis-**

Role of cellular and biochemical components during embryogenesis. Embryo suspensor- Biochemical, Physiological and Functional aspects. Regulation of gene activity during embryogenesis. Embryo mutants- lethal mutants, apical-basal mutants, pattern mutants and radial axis mutants.

05hrs.

#### **Unit 10. Endosperm-**

Biochemistry, Physiology and function.

05

hrs.

#### **References:**

1. Embryology of Angiosperms (1984) Ed. B.M. Johri Springer-verlag Publications
2. Introduction to the Embryology and Angiosperms by P. Maheshwari (1950) Mc Graw Hill NY.
3. Recent advances in the Embryology of Angiosperms Ed. P. Maheshwari (1963). Intl. Soc. Plant morphol. Delhi
4. The embryology of angiosperms (2000) by Bhojwani S.S. and Bhatnagar S.A. . Vikas publications house New Delhi
5. Pollen biology and biotechnology (2003) by K.R. Shivanna, Oxford and IBH publishing house New Delhi
- 6 Fertilization in Angiosperms /seed plants (Molecular and Cytological) by Cristi.
7. Plant morphogenesis by Sinnott
8. Plant tissue culture by M.K. Razdhan

#### **Bot. CP-4.3.2: PRACTICALS (Based on Bot CT 4.3.2)**

1. Preparation of thin sections to assess the cytoplasmic contents in the meiocytes during meiosis, tapetum and pollen, using carbohydrates, proteins and RNA test.
2. Preparation of thin sections of ovule to verify the chemical composition of female germ unit using carbohydrates, proteins and RNA tests.
3. Effect of Boron, calcium and volatile substances polluted gases on pollen germination and tube growth.
4. Experiment to know the chemotropic effects of calcium and /or pistillar tissues and pollen.
5. Composition of pollen tube and stigmatic papillae using cytochemical tests.
6. *In vivo* growth of pollen tube using appropriate stains.
7. Conduct the experiment on isolation of generative/male cells from the pollen using osmotic shock method (*Vicia faba*).
8. Isolate the embryo sac by using micromanipulation method.
9. Isolate the embryo suspensor and analyze the chemical composition in it by using cytochemical tests.
10. Microtome sections of ungerminated and germinated monocot/dicot plant embryos to show the chemical composition in the root apical meristem and shoot apical meristem.

11. Diagrammatic representation of different ovular mutants.
12. Diagrammatic representation to show the expression of different genes during the development of embryo in Arabidopsis or any other plant investigated.

**Bot. CT-4.3.3: APPLIED MICROBIOLOGY, APPLIED MYCOLOGY AND PLANT PATHOLOGY**

**APPLIED MICROBIOLOGY:**

**Unit 1 Agricultural Microbiology :** The rhizosphere, rhizosphere effect, Nitrogen fixation in the rhizosphere, growth promoting rhizobacteria, siderophores, mycorrhizae, Phosphate solubilizing bacteria and Actinorhizal symbiosis i.e.(Frankia induced nodulation).The new green revolution, gene exchange in bacteria, *Agrobacterium* mediated transfer of genes(Gene protection technology for plants) Anti body mediated resistance , Resistance due to inter-feron related genes, Manipulation of host genes for plant protection. Risks and Benefits.

4 hrs

**Unit 2 Industrial Microbiology:** Fomenters : Fermentation process, types of fermentation , alcoholic fermentation (Beer and Wine) , Organic acid fermentation (Citric acid) antibiotics production : (Penicillin) Enzymes (amylase),Production of steroid hormones, vaccines and production of Methane.

4 hrs

**Unit 3 Dairy Microbiology:** Sources of microbial contamination of milk , Types of microorganisms in milk- bacteria, fungi and yeast. Microbial examination of milk. Lactic acid production. Fermented dairy products. Methods of preservation of milk and milk products, pasteurization and sterilization.

4

hrs

**Unit 4 Environmental Microbiology :** Bio remediation, bio remediation of hydrocarbons, bio remediation of heavy metals, bio remediation of xenobiotics, Microbial leaching, Biomining , Bioleaching of copper , uranium and gold. Recovering of minerals from microorganisms, recovering of oil and single cell oil.

3 hrs

**Unit 5 Water Microbiology:** Types of water- Atmospheric water and Surface water, stored water and ground water, Microbial analysis of water, sanitary test for coliforms (presumptive test, confirmed test, completed test). IMViC test, purification of water sedimentation, filtration (slow sand filtration, rapid sand filtration) disinfection

3hrs

**Unit 6 Immunological Techniques:** Serological tests, precipitation of VDRL test for syphilis, ABO blood typing, Enzyme –linked immunosorbent assay (ELISA). Hybridoma technology, Radio immunoassay, Monoclonal antibodies , man made antibodies, production of antisera, vaccines and common immunization.

4 hrs

**APPLIED MYCOLOGY**

**Unit 1** Preservation and maintenance of cultures, Batch, synchronous, continuous, and phased culture and their applications.

6

hrs

**Unit 2** Mushroom production technology – advancement in technology of Mushroom cultivation with reference to strain improvement, wild edible mushrooms,

cultivated species in India and abroad.

6 hrs

**Unit 3** Non-industrial fungal metabolites, phytoalexins, hormones, pigments, lichen products and mycotoxins.

6 hrs

**Unit 4** Production of pharmaceutical products, fungal enzymes and their industrial applications. Production of single cell protein and feed stuffs

6

hrs

#### **PLANT PATHOLOGY:**

**Unit 1** Nature and concept of epidemiology of plant diseases. Inoculum production potential and distribution.

4 hrs

**Unit 2** Mechanism of infection, effect of environment on multiplication of pathogen and outbreak of disease.

4

hrs

**Unit 3** Defense mechanism systems in plants Biochemical and physiological changes in plants due to infection, Preventive measures – physical, chemical and biochemical methods.

6

hrs

**Unit 4** Plant disease forecasting, post harvest pathology, forest pathology and plant Quarantine.

6hrs

**Unit 5** Specific plant diseases – plant diseases caused by fungi, plant diseases caused by bacteria, virus, mycoplasma, nematodes, and parasitic higher plants.

6

hrs

#### **REFERENCE:**

#### **APPLIED MICROBIOLOGY**

1. Bisen, P.S. 1994. Frontiers in Microbial Technology. CBS. Publishers. New Delhi.
2. Rangaswami, G and Bagyaraj, D.J. 1996. Agricultural Microbiology 2<sup>nd</sup> edition. Prentice Hall of India (Pvt) Ltd. New Delhi.
3. Jay, J.M 1987. Modern Food Microbiology. American Public Health Association. Washington. CBS Publishers. New Delhi.
4. Waites, M.J. 1995. Industrial Microbiology. An introduction. Parima publishing corporation, New Delhi.
5. Demain, D. 1990. Manual of industrial microbiology and Biotechnology. Panima publishing corporation, New Delhi.
6. Pelczar, Jr. Chan, B.C.s and Krej, N.R. 1993. Microbiology. MC Graw Hill-Inc. New Delhi.
7. Prescott, L.M, Harley, J.P and Klein, D.A 1998. Microbiology W M C Brown Publishers. New Delhi.
8. Jerome, J. Perry and James, T. Staley. 1997. Microbiology. Dynamics and Diversity. Sannders College Publishing Co. USA.
9. Larry Mckane and Judykandel. 1986. Microbiology: essential and applications. Mc Graw Hill. Book Company Publication. New York.
10. Edward Alcame. 1997. Fundamentals of Microbiology. Benjamin Cumming Publishing Company, Canada.

11. Schlegel, H.S.1986. General microbiology, 6<sup>th</sup> Ed. Cambridge University Press London.
12. Freeman, J.E.1982. Advances in microbiology. Ed. Subba Rao, (N.S) Oxford and IBH Co. New Delhi.

### **APPLIED MYCOLOGY AND PLANT PATHOLOGY**

1. Hand book of Applied Mycology series Editor Dilip K. Arora
2. Volume 1 soil and plant edited by Dilip K. Arora Bharat Rai K.G. Mukerji, and gyu R. Knudsen Volume 2 Humans, Animals and Insects edited by Dilip K. Arora, Libero Ajello and K.G. Mukerji,
3. Volume 4 Biotechnology, edited by Dilip K. Arora, Richard P. Elnader , and K.G. Mukerji
4. Volume 5 Mycotoxins in ecological systems, edited by Deepak Bhatnagar, Eivind b. Lillehoj, and Dilip K. Arora,
5. J.E. Smith and D.R. Berry 1975. The Filamentous fungi. Volume I Industrial Mycology Edward Arnold London UK
6. J.E.Smith and D.R. Berry 1975. The Filamentous fungi. VolumeII Biosynthesis and metabolism Edward Arnold London UK
7. Agarios, GN (1995) plant pathology, IV Edn Academic press Inc. London New York.
8. Horsfall, JG and Cowling, EB (1977-80) Plant Disease, Vol – I to V Academic press New York.
9. Rangaswamy, D (1988) Disease of crop plants in India, Prentice Hall India, Ltd New Delhi.
10. Asada, Y, Bbushnell, NR Ouchi. S, and vance, P (1982) Plant infection. The physiology and Biochemical basis, Springer Verlag, Berlin Nee York.
11. Kosuge, T and Nester, EN (1984) Plant microbe interaction – molecular and genetic perspectives, MacMillan, New York.

### **Bot. CP-4.3.3: PRACTICALS (Based on Bot CT 4.3.3)** **APPLIED MICROBIOLOGY**

1. Study of diseases caused by Virus and Mycoplasm
2. study of rhizosphere microflora
3. study of phyllosphere microflora
4. Enumeration of micro organisms from spoiled vegetation
5. Examination of VAM in roots and isolation of VAM spores from rhizosphere soil.
6. Isolation and culturing of Rhizobium from root nodules in leguminous plants.
7. Microbial analysis of milk.

### **APPLIED MYCOLOGY:**

1. Stimulatory effect of plant extracts on spore germination of fungal pathogens.
2. Mushroom cultivation.
3. Paper chromatographic separation of amino acids from culture filtrates.
4. Detection and separation of mycotoxins by TLC.
5. Enzymatic reactions – degradation of carbohydrates.

### **PLANT PATHOLOGY:**

1. Market pathology of fruits, vegetables and seeds.
2. Qualitative and quantitative analysis of air borne pathogens.
3. Germination of powdery mildew conidia at different relative humidity levels.
4. Biochemical analysis of diseased plants.

## **Bot. CT 4.3.4 PHYTODIVERSITY AND ENVIRONMENTAL BIOLOGY**

### **PHYTODIVERSITY**

**Unit 1.** Introduction to phytodiversity and its classification- Genetic, specific and ecosystem diversity  
hrs. 2

**Unit 2. Floristic diversity in India:**  
a. Status of plant diversity  
b. Types of forests and their status  
c. Biogeographic zones of India.  
hrs. 6

**Unit 3. Climate and vegetation of Karnataka:**  
a. Floristics in Karnataka.  
b. Physiography, Geology, Soil and bioclimate of Karnataka  
c. Vegetation of Karnataka- A comparison of Western and Eastern Karnataka.  
d. A brief account of forest covers in Karnataka.  
hrs. 6

**Unit 4. Special phytodiversity centers:**  
a. Concept of Hot spots  
b. Hot spots in India  
c. Phytodiversity of the Western Ghats  
d. Mangrove ecosystems- Emphasis to Karnataka and Sunderbans.  
e. The Myristica swamps.  
f. The Tropical montane forests.  
hrs. 6

**Unit 5. Values and conservation of phytodiversity:**  
a. Ecological importance of species diversity.  
b. Uses of plants.  
c. Concept of RET plants.  
d. Ex situ and in situ conservation  
e. Biological Diversity Bill.  
hrs. 6

### **ENVIRONMENTAL BIOLOGY**

**Unit 1.** Structure and composition of Atmosphere, Lithosphere, Hydrosphere and Biosphere.  
Mass and energy transfer across the various interfaces. Material balance. 5  
hrs

**Unit 2.** Chemicals in Environment: 5  
hrs

- a. Air- Chemical composition of air, ambient air quality standards. Natural and anthropogenic sources of pollution. Primary and secondary pollutants. PAN, Smog, Acid rain and effects of pollutants on biota and materials.
- b. Water- Chemistry of water. Types, sources and effects of water pollutants. Water quality standards- Physico chemical and Biological.
- c. Soil- Structure and physico-chemical properties of soil. Soil pollution and control. Soil microorganisms and their function.

5 hrs

**Unit 3.** Environmental toxicology:

Definition, Toxic chemicals, their routes, bioaccumulation (xenobiotics), effects.

Pesticides in water. Biochemical aspects of arsenic, Cadmium, Lead and Mercury. 5 hrs

**Unit 4.** Environmental monitoring and management:

a. Physicochemical and biological monitoring

b. Remote sensing and geographical information system.

c. Biodegradation of pollutants- Role of microorganisms in the degradation of pollutants.

**Unit 5.** Environmental protection and conservation:

5

hrs

Environmental education and awareness. Environmental legislation ( a brief review of constitutional provisions and various environmental Protection Acts). Current environmental issues in India.

5

hrs

## REFERENCES

- Haywood, V.H. and R.T.Watson 1995. Global Biodiversity Assessment UNEP Cambridge Univ. Press.
- Krishnamurthy, K.V. 2004. An advanced textbook on Biodiversity Principles and Practice. Oxford and IBH Publishing Co. Pvt. Ltd.
- Mohan Pai, 2005. The Western Ghats. Margao, Goa.
- Negi, S.S. 1993. Biodiversity and its conservation in India. Indus publishing company, New Delhi.
- Rao, R.R. 1994. Biodiversity in India (Floristic Aspects) Bishen Singh Mahendra Pal Singh, Dehradun.
- Saldanha, C.J. 1984 - 1996. *Flora of Karnataka*. Vol.I. 1984, p.535; Vol.II. 1996, p.303. Oxford & IBH Pub. Co. New Delhi.
- Sharma, B.D., Singh, N.P., Raghavan, R.S. and Deshpande, U.R. 1984. *Flora of Karnataka Analysis*. Flora of India Series 2. BSI, Howrah Pub. pp.394.
- Singh, N.P. 1988. *Flora of Eastern Karnataka*. Vol.I. and II, Mittal Pub. Delhi-35. pp.783.
- Singh, V.P. and Odaki, K. 2004. Mangrove Ecosystem: Structure and Function. Scientific Publishers, Jodhpur.

## PRACTICALS Bot. CP.4.3.4 (Based on Bot. CT 4.3.4)

## PHYTODIVERSITY

1. Phytodiversity of wetland ecosystem-Freshwater Plankton Study: Measurement and Diversity.
2. Phytodiversity of Wetland ecosystem- Marine Plankton study.
3. Study of mangroves- morphological and anatomical.
4. Phytodiversity of terrestrial ecosystem:
  - a. Stomatal index
  - b. Study of bark and branching.
  - c. Study of vein-lets
5. Phytodiversity utilization:  
The agarophytes, biofertilizers, biopesticides, medicinal plants etc.

## **ENVIRONMENTAL BIOLOGY**

1. Water Analysis:
  - a. Estimation of BOD and COD
  - b. Estimation of PO<sub>4</sub>, SO<sub>4</sub> and NO<sub>3</sub>.
  - c. Estimation of Major Cations- Na, K, Ca, Mg and Salinity
2. Effect of DDT and other pesticides on primary production.
3. Effect of Industrial effluent/Heavy metals on seed germination and seedling growth.
4. Estimation of Chlorophyll, Proline, Ascorbic acid in leaves of plants growing in polluted and unpolluted areas.
  - a. Sampling and identification of air spora.
  - b. Estimation of heavy metal content of road side plants.
  - c. Field excursion to an industrial area to assess environmental impact.

## P.G. Department of Studies in Botany, KARNATAK UNIVERSITY, DHARWAD

Core papers	I Sem	Page No from - To
CT 1.4 Molecular Biology	Sem.	38-39
OEC 2.4 Medicinal Plants	II Sem	45-46
OEC ET 3.4 Plant biotechnology	III Sem	52-53
CT 4.4 Project	IV Sem.	
Based on special paper CT.4.3.1,4.3.2,4.3.3 and 4.3.4		60-67

Chairman

M.Sc. Chemistry  
(Inorganic, Organic, Physical and Analytical Chemistry)

Choice Based Credit System  
(CBCS)

*Revised Syllabus*  
(w.e.f. 2019-20)

**Specific Course Outcome (Inorganic Chemistry)**

<b>Paper code and name</b>	<b>PG75T101A: Inorganic Chemistry–I</b>
<b>COURSE OUTCOMES</b>	
After studying this paper, students would learn <ul style="list-style-type: none"><li>➤ Properties of ionic compounds.</li><li>➤ Relationship between radius ratio and structure of ionic compounds.</li><li>➤ Structure and bonding in covalent inorganic compounds, based on various bonding theories viz. VSEPR, VBT and MOT.</li><li>➤ Band theory and its use in classification of materials such as conductors, insulators and semiconductors.</li><li>➤ Basics of organometallic chemistry, viz. 18 and 16 electron rules.</li><li>➤ Synthesis, structure, bonding and reactions of representative organometallics.</li><li>➤ Bonding theories in coordination compounds viz. MOT</li><li>➤ Basics of electronic spectra and magnetism.</li><li>➤ Stability of metal complexes, with reference to nature of metal and ligand.</li><li>➤ Theories of acids and bases.</li><li>➤ Basics of solid state chemistry, crystallographic methods, crystal defects and band theory.</li></ul>	

## PARTICULARS

### UNIT-I

#### **Structures and Energetics of Ionic Crystals and Covalent Bonds:**

Ionic Bond: Properties of ionic compounds, crystal lattices, closed packed structures, coordination number of an ion, radius ratio rule, structures of crystal lattices- NaCl, CsCl, ZnS and rutile. Lattice energy: Born Lande equation, Born-Haber cycle, uses of Born-Haber type of calculations. Covalent character in ionic bonds, Fajan's rules, hydration energy and solubility of ionic solids.

Covalent Bond: Valence bond theory, resonance, hybridization and energetics of hybridization. VSEPR theory: Deduction of molecular shapes. MOT of homo and heteronuclear molecules and MO treatment for the molecules involving delocalized  $\pi$ -bonding ( $\text{CO}_3^{2-}$ ,  $\text{NO}_3^-$  and  $\text{CO}_2$ ).

Walsh diagrams and Bent's rule.

(12 Hours)

### UNIT-II

#### **Coordination Chemistry:**

Coordination numbers 2–10 and their geometries. Crystal field theory of coordination compounds: octahedral, square planar, tetrahedral, trigonal bipyramidal and square pyramidal fields, measurement of  $10 Dq$  and factors affecting it, CFSE, Spectrochemical series and Jahn–Teller effect.

Structural evidences for ligand field splitting: hydration, ligation and lattice energies. Evidences for covalency in M–L bonding. MO theory of coordination compounds: MO energy level diagrams for octahedral and tetrahedral complexes without and with  $\pi$ -bonding.

Electronic Spectra: Spectroscopic ground terms, Orgel diagrams for transition metal complexes ( $T_d$  &  $O_h$ ).

Magnetism: Types, spin moment, spin–orbit coupling.

(12 Hours)

### UNIT-III

#### **Stability of Metal Complexes, Concepts of Acids and Bases and Non-aqueous Solvents:**

Stability of complexes: Step-wise and overall formation constants, factors affecting stability of metal complexes, determination of stability constants of metal complexes by spectrophotometric and polarographic methods.

Concept of acids and bases: Theories of acids and bases, Bronsted and Lewis acids and bases, Lux–Flood theory, leveling effect of solvents, hardness and softness, HSAB concept and its applications.

Non-aqueous solvents: Classification of solvents, properties of non-aqueous solvents. Reactions in non-aqueous media: Liquid ammonia, anhydrous sulphuric acid, anhydrous HF, liquid sulphur dioxide. Super acids.

**(12 Hours)**

#### **UNIT–IV**

##### **Solid State Chemistry:**

Crystal lattice: Unit Cell, Miller indices and planes, X–ray diffraction method, molecular solids, hydrogen bonding, metallic, covalent and ionic solids; structural classification of binary and tertiary compounds, determination simple structure, spinel and perovskite structures.

Band theory, conductors, semiconductors and insulators, energy bands, intrinsic and extrinsic semiconductors.

Perfect and imperfect crystals, intrinsic and extrinsic defects, point–, line– and plane–defects. Vacancy, Schottky and Frenkel defects. Schottky and Frenkel defect formation, colourcentres, non–stoichiometry.

**(12 Hours)**

**Total 48 Hours**

##### ***Recommended Books:***

1. Inorganic Chemistry–Principles of Structure and Reactivity, 4<sup>th</sup>Edn–J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).
2. Shriver & Atkins’ Inorganic Chemistry, 5<sup>th</sup> Edn–P. Atkins, Tina Overton, J. Rourke, Mark Weller and F. Armstrong.Oxford University Press (2010)
3. Inorganic Chemistry, 2<sup>nd</sup>Edn. Catherine E. Housecroft and A.G. Sharpe, Pearson Prentice Hall (2005)
4. Concise Inorganic Chemistry–J. D. Lee, 5<sup>th</sup>Edn, New Age International (1996).
5. Solid State Chemistry and its Applications–A. R. West, John-Wiley and sons.

6. Solid state Chemistry–N. B. Hannay, Prentice-Hall of India Pvt. Ltd. New Delhi.

<b>Paper code and name</b>	<b>PG75P101A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
<p>➤ Student would learn to separate and determine the metal ions using gravimetric and volumetric methods such as</p> <ul style="list-style-type: none"> <li>❖ Fe(II) + Ni (II)</li> <li>❖ Fe(II) + Cu(II)</li> <li>❖ Zn(II) + Cu(II)</li> <li>❖ Zn(II) + Ni(II)</li> </ul> <p>➤ Students are also exposed to synthetic methodologies of the preparation of coordination compounds.</p>	

<b>PARTICULARS</b>
<ol style="list-style-type: none"> <li>Determination of iron in hematite ore using cerium(IV) solution (0.02M) as the titrant and gravimetric determination of insoluble residue.</li> <li>Determination of calcium and magnesium carbonates in dolomite ore using EDTA titration and gravimetric analysis of insoluble residue.</li> <li>Quantitative analysis of copper-nickel in alloy/mixture:             <ol style="list-style-type: none"> <li>Copper volumetrically using <math>\text{KIO}_3</math></li> <li>Nickel gravimetrically using DMG</li> </ol> </li> <li>Determination of lead and tin in a mixture: Analysis of solder using EDTA.</li> <li>Determination of Cr(III) and Fe(III) in a mixture: Kinetic masking.</li> <li>Quantitative determination of iron(III) gravimetrically and calcium(II) volumetrically in a mixture.</li> <li>Determination of iron(II) and nickel (II) in a mixture:             <ol style="list-style-type: none"> <li>Iron(II) volumetrically using <math>\text{K}_2\text{Cr}_2\text{O}_7</math> solution</li> <li>Nickel gravimetrically using DMG solution</li> </ol> </li> <li>Quantitative analysis of chloride and iodide in a mixture:             <ol style="list-style-type: none"> <li>Iodide volumetrically using <math>\text{KIO}_3</math></li> <li>Total halide gravimetrically</li> </ol> </li> <li>Preparation of complexes:             <ol style="list-style-type: none"> <li>Tris (thiourea) copper(I)sulphate monohydrate and</li> </ol> </li> </ol>

ii) Tris (oxalato) aluminate (III)

**Recommended Books:**

1. Fundamental of Analytical Chemistry, D.A. Skoog, D.M. West, Holler and Crouch 8th edition, 2005, Saunders College Publishing, New York.
2. Analytical Chemistry, G.D. Christian, 5th edition, 2001 John Wiley & Sons, Inc, India.
3. Vogel's Textbook of Quantitative Chemical Analysis, J. Mendham, R.C. Denney, J.D
4. Barnes and M.J.K. Thomas, 6th edition, Third Indian Reprint, 2003, Pearson Education Pvt. Ltd., New Delhi.
5. Practical Inorganic Chemistry– G. Pass and H. Sutcliffe, Chapman and Hall Ltd (1968)

<b>Paper code and name</b>	<b>PG75T201A:Inorganic Chemistry–II</b>
<b>COURSE OUTCOMES</b>	
After studying this paper, students would learn	
<ul style="list-style-type: none"><li>➤ Synthesis, properties and structures of compounds of non-transition elements such as B, Si, P, N, S, Halogens and Noble gases.</li><li>➤ Structure and Properties of interhalogen compounds, oxyacids.</li><li>➤ Synthesis, structure and bonding in transition metal organometallic compounds.</li><li>➤ Classification of molecules on the basis of point groups.</li><li>➤ Applications of group theory in chemical bonding and spectroscopy (IR and Raman).</li></ul>	

<b>PARTICULARS</b>
<b>UNIT–I</b>
<b>Chemistry of Non-Transition Elements:</b>
Alkali and alkaline earth metal complexes of crown ethers, cryptands and calixarenes and their biological importance.
Synthesis, properties and structures of boron, carbon and silicon compounds: Chemistry of higher boranes, classification, structures and MO description of bonding, framework electron counting, Wade's rules, chemistry of $B_5H_9$ , $B_{10}H_{14}$ and $B_nH_n^{2-}$ , boron nitride, borazines, carboranes, metalloboranes, metallocarboranes; silicates, silicones, graphite, graphene, carbon nanotubes and zeolites.

Hydrogen bonding and its influence on properties.

(12 Hours)

## UNIT-II

### Chemistry of Main Group Elements:

Nitrogen, phosphorous and sulphur compounds: Hydrides, oxides and oxy acids of nitrogen, phosphorous, sulphur and halogens. Phosphazines, phosphazene polymers, sulphur–nitrogen compounds: Binary sulphur nitrides:  $S_4N_4$ ,  $S_2N_2$  and  $(SN)_x$ . P–O and P–S cage compounds.

Chemistry of halogens and xenon: Interhalogens, psuedohalogens, polyhalide ions, oxyhalogen species. Xenon oxides and fluorides.

(12 Hours)

## UNIT-III

### Symmetry and Group Theory:

Molecular symmetry, representation of symmetry operation as matrices. Definition of groups, set of symmetry operations of molecules satisfying the condition of point groups. Representation, basis of representation, reducible and irreducible representation. The great orthogonality theorem, character tables. The direct product. Applications of group theory: Molecular vibrations; molecular vibration in symmetrical  $AB_2$ . Hybridisation (tetrahedral and trigonal planar geometries)

(12 Hours)

## UNIT-IV

### Organometallic Chemistry:

Organometallic compounds: Introduction, classification of organometallic compounds by bond type, nomenclature, classification of ligands  $\sigma$  and  $\pi$  ligands, hapticity of ligands, 18 and 16 electron rules, electron counting schemes. Ferrocene and ruthenocene: Preparation, structure and bonding. Complexes containing alkene and alkyne ligands: Preparation, structure and bonding. Carbene (Fischer and Schrock type) complexes: Synthesis, structure and bonding. The isolobal principles.

Use of organometallic reagents in hydrogenation, hydroformylation, isomerisation and polymerization reactions.

(12 Hours)

**Total: 48 Hours**

### *Recommended Books:*

1. Inorganic Chemistry–Principles of Structure and Reactivity, 4<sup>th</sup>Edn–J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).

2. Shriver & Atkins' Inorganic Chemistry, 5<sup>th</sup> Edn–P. Atkins, Tina Overton, J. Rourke, Mark Weller and F.Armstrong.Oxford University Press (2010)
3. Inorganic Chemistry, 2<sup>nd</sup>Edn. Catherine E. Housecroft and A.G. Sharpe, Pearson Prentice Hall (2005)
4. Concise Inorganic Chemistry–J. D. Lee, 5<sup>th</sup>Edn, New Age International (1996).
5. Chemical Applications of Group Theory, 2<sup>nd</sup>Edn-F. A. Cotton, Wiley Eastern Ltd ( ).
6. Symmetry and Spectroscopy of Molecules–K. Veera Reddy, New Age International, (2011).
7. Group Theory in Chemistry–M. S. Gopinathanan and V. Ramakrishnan, Vishal Publishing Co. (2007)
8. Organometallic Chemistry–A unified Approach, R.C. Mehrotra and A. Singh, 2<sup>nd</sup>Edn. New Age International (2011).
9. F.A.Cotton and G.Wilkinson : Advanced Inorganic Chemistry, Wiley, 1991.
10. Basic Organometallic Chemistry – B D Gupta and A J Elias, Universities Press (2013)

<b>Paper code and name</b>	<b>PG75P201A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
➤ Students would learn semi- micro qualitative analysis of salt mixtures, containing three cations and two anions viz. W, Pb, Cu, Cd, Mo, As, Fe, Cr, Ti, Zr, Ce, V, Ni, Zn, Co, Ca, Sr, Ba, Mg, K, Na, Li and halides, nitrate, sulphate, phosphate, oxalate, borate, acetate.	

<b>PARTICULARS</b>
<ol style="list-style-type: none"> <li>1. Semimicro qualitative inorganic analysis of a mixture containing three cations (including one less common cation such as W, Mo, Ti, Zr, Ce, V and Li) and two anions (one of them may or may not be interfering anion such as <math>\text{PO}_4^{3-}</math>, <math>\text{BO}_3^{3-}</math>, <math>\text{C}_2\text{O}_4^{2-}</math>, <math>\text{F}^-</math> and <math>\text{CH}_3\text{COO}^-</math>).</li> <li>2. Separation and determination of Zn and Mg on an anion exchanger.</li> <li>3. Demonstration experiment: Determination of iron as the 8–hydroxyquinolate by solvent extraction.</li> </ol> <p><b>Recommended Books:</b></p>

1. Vogel's Text Book of Quantitative Chemical Analysis(5<sup>th</sup> Ed), G.H.Jeffrey, J.Bassette, J.Mendham and R.C.Denny, Longman, 1999.
2. Vogel's Qualitative Inorganic Analysis(7<sup>th</sup> Ed), G.Svehla, Longman ( 2001)

<b>Paper code and name</b>	<b>PG75O201A: Applied Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
<ul style="list-style-type: none"> <li>➤ Separation techniques such as ion exchange and solvent extraction.</li> <li>➤ The principles and classification of chromatographic methods such as paper, thin layer, column and liquid chromatography.</li> <li>➤ Analysis of data using different techniques.</li> <li>➤ thermal methods of analysis</li> <li>➤ The essential role of trace metals in biological processes.</li> <li>➤ The transport and storage of dioxygen in Heame proteins.</li> <li>➤ The structure and functions of Heamoglobin, Myoglobin, Hemocyanin etc.</li> <li>➤ The structure and functions of metalloproteins in electron transport processes.</li> <li>➤ The principles of transition metal coordination complexes in understanding functions of biological systems.</li> <li>➤ The role of metals in medicines.</li> </ul>	

<b>PARTICULARS</b>
<p style="text-align: center;"><b>UNIT-I</b></p> <p><b>Data Analysis:</b></p> <p>Types of errors, accuracy and precision, methods of minimization of systematic errors, mean and standard deviation, distribution of random errors, reliability of results, comparison of results-Student t-test, F-test and chi-square test, significant figures, confidence intervals, method of least squares, calibration curve and standard addition method.</p> <p style="text-align: right;"><b>(12 Hours)</b></p> <p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Thermal Methods of Analysis and Inorganic Polymers:</b></p> <p>Thermal methods of analysis: Thermobalance, factors influencing thermogravimetric results, differntial thermal analysis: Instrumentation for differential thermal analysis (DTA) and differential scanning calorimetry (DSC). Applications of TG, DTA and DSC.</p> <p>Inorganic Polymers:Silicones, polyphosphazenes, synthesis, structure and applications.</p>

(12 Hours)

### UNIT–III

#### **Bioinorganic Chemistry:**

Metal ions in biological systems, deficiency of trace metal ions (Fe, Zn, Cu and Mn), metal ions and chelating agents in medicine: Treatment of toxicity due to inorganics (chelation therapy) and metal complexes as therapeutic agents.

Proteins and their functions: Heme proteins, oxygen uptake proteins-hemoglobin and myoglobin,

(12  
Hours)

### UNIT–IV

#### **Chromatography:**

Gas chromatography: Principles, instrumentation, stationary phases and types of carrier gases used in GC. Methods of sample injection, types of detectors, programmed temperature GC, plate and plate height theory in GC. Applications of GC and use of GC-MS in detection of samples.

(12 Hours)

**Total 48 hours**

#### ***Recommended Books:***

1. Vogel's Textbook of Quantitative Analysis. 6<sup>th</sup> Edition–J. Mendham, R. C. Denney, J. D. Branes and MJK Thomas. Publisher: Pearson Education.
2. Contemporary polymer Chemistry, Third edition–H. R. Allcock, F. W. Campe and J. E. Mark, Publisher: Pearson Education.
3. Inorganic Chemistry, 4<sup>th</sup> edn–J. E Huheey, R. L. Keiter and A. L. Keiter, Addison Wesley, 2000.
4. Inorganic Chemistry of Biological Processes, 2<sup>nd</sup> edn. –M. N. Hughes, Wiley, 1988.
5. Bioinorganic Chemistry–I. Bertini. H. B. Gray, S. J. Lippard and J. S. Valentine, Viva Books, 1998.
6. Bioinorganic Chemistry–A.K. Das, Books and Allied (P) Ltd, 2007.
7. Principles of Instrumental Analysis-Skoog, Holler and Nieman, Harcourt Afca, 2001.

8. Vogel's Text Book of Quantitative Inorganic Analysis., 4<sup>th</sup>Edn. –J. Bessett, R. C. Denney, G. H. Jeffery and J. Mendham, Longman Green and Company Ltd.
9. Quantitative Chemical Analysis, 6<sup>th</sup>Edn-D. C. Harris, W. H. Freeman and Company, New York, 2003.

<b>Paper code and name</b>	<b>PG75T301A: Advanced Coordination &amp; Bioinorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
After studying this paper, students would learn,	
<ul style="list-style-type: none"> <li>➤ To interpret the electronic spectra and magnetic properties of coordination compounds.</li> <li>➤ Indetail about the reaction mechanism of Inorganic metal complexes and to understand the substitution reaction mechanism along with the involvement of reactive intermediates.</li> <li>➤ Also, to understand their structure and reactivity through various inorganic reactions. This course gives idea about the way in which a reaction proceeds and its kinetics, especially for inorganic substitution reactions.</li> <li>➤ The essential role of trace metals in biological processes.</li> <li>➤ The transport and storage of dioxygen in Heame proteins.</li> <li>➤ The structure and functions of Heamoglobin, Myoglobin, Hemocyanin etc.</li> <li>➤ The structure and functions of metalloproteins in electron transport processes.</li> <li>➤ The principles of transition metal coordination complexes in understanding functions of biological systems.</li> <li>➤ The role of metals in medicines.</li> </ul>	

<b>PARTICULARS</b>
<p style="text-align: center;"><b>UNIT–I</b></p> <p><b>Electronic spectra and magnetic properties:</b></p> <p>Spectral properties of complexes: Term symbols for d<sup>n</sup> ions, spectroscopic ground states, selection rules, nature of spectral bands- band shapes, band intensities, band widths, spin-orbit coupling, Orgel diagrams, Tanabe–Sugano diagrams, Racah parameters, interpretation of spectra of octahedral, distorted octahedral, tetrahedral and square planar complexes, determination of 10Dq, B' and nephelauxetic parameterfrom absorption spectra of octahedral and tetrahedral complexes, charge transfer bands: Origin, types, and characteristics, intervalence charge–transfer bands.</p>

Magnetism: Determination of magnetic susceptibility (Gouy and Faraday methods), diamagnetic corrections, orbital contribution, ferro-ferri- and anti-ferro magnetism, Curie law, Curie-Weiss law, effect of temperature on dia-, para-, ferro- and anti-ferromagnetic compounds, temperature independent paramagnetism, effect of spin orbit coupling on spectral and magnetic properties and spin cross-over systems.

**(12 Hours)**

## **UNIT II: Inorganic reaction mechanisms**

Basic principles, lability, inertness, substitution reactions of octahedral complexes. Nature of substitution reactions: Theoretical approach to substitution mechanisms, mechanism of substitution reaction of complexes of cobalt: Acid hydrolysis and base hydrolysis of Co(III) complexes, substitution reactions of square planar complexes, reaction of Pt(II) complexes, trans-effect, theories of trans-effect, mechanism and kinetics of substitution of Pt(II) complexes. Electron tunneling hypothesis: Marcus-Hush theory, atom transfer reaction, one- and two-electron transfer. Inner sphere and outer sphere mechanisms.

**(12 Hours)**

## **UNIT-III**

### **Bioinorganic chemistry-I**

Metal ions in biological systems, essential and trace metals, disease due to metal deficiency and treatment: Iron, zinc, copper, manganese, sodium, potassium, magnesium and calcium. Metal complexes as therapeutic agents: Metal complexes in cancer therapy, metal complexes for the treatment of rheumatoid arthritis, vanadium in diabetes, metal complexes as radio diagnostic agents. Treatment of toxicity due to inorganics: Chelation therapy and requirements of a chelate/antidote. Mechanism of antidotes with poison rendering it inert: Arsenic, lead, mercury, iron, copper, plutonium, cyanide and carbon monoxide poisoning.

Ion transport across membranes and active transport of ions across biological membranes, ionophores.

Metal complexes in transmission of energy: Chlorophyll, photosystems-I and II in cleavage of water and model systems.

**(12 Hours)**

## **UNIT-IV**

### **Bioinorganic chemistry-II**

Transport and storage of dioxygen, heme proteins, oxygen uptake, functions of haemoglobin, myoglobin, hemerythrin and hemocyanins, synthetic oxygen carriers. Metal storage and transport: Ferritin, transferrin and ceruloplasmin. Electron transfer proteins:

Cytochromes, iron–sulphur proteins. Metalloproteins as enzymes: Carboxy peptidase, carbonic anhydrase, catalases, peroxidases, cytochrome P–450, cytochrome c–oxidase, superoxide dismutase, copper oxidases and vitamin B<sub>12</sub> coenzyme.

Biological nitrogen fixation, *in vivo*–and *in vitro*–nitrogen fixation.

**(12 Hours)**

**Total: 48 Hours**

***Recommended Books:***

1. Inorganic Chemistry-Principles of Structure and Reactivity, 4<sup>th</sup> Edn–J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).
2. Shriver & Atkins' Inorganic Chemistry, 5<sup>th</sup> Edn–P. Atkins, Tina Overton, J. Rourke, Mark Weller and F.Armstrong.Oxford University Press (2010)
3. Electronic absorption Spectroscopy and Related Techniques–D. N. Satyanarayana, OUP, 2001.
4. Concepts and models of Inorganic Chemistry–B.Douglas, D. McDaniel &J.Alexander, 3<sup>rd</sup>Edn. Wiley Student Edn.(2013).
5. Elements of Magnetochemistry–R. L. Dutta and A Syamal : Affiliated East-West, 1993.
6. Inorganic Chemistry of Biological Processes, (2<sup>nd</sup>edn.)–M. N. Hughes, Wiley, 1988.
7. Bioinorganic Chemistry–Asim K. Das, Books and Allied (P) Ltd, (2007).
8. Principles of Bioinorganic Chemistry–S. J. Lippard and J. M. Berga. Panima Publishing Corporation.

<b>Paper code and name</b>	<b>PG75T302A: Molecular Spectroscopy</b>
<b>COURSE OUTCOMES</b>	
After studying this paper, students would be able to	
<ul style="list-style-type: none"> <li>➤ apply IR, NMR, UV-Vis, EPR, NQR and Mossbauer spectroscopic techniques in solving the structures of organic and inorganic compounds.</li> <li>➤ interpret the spectroscopic data of unknown compounds.</li> </ul>	

- use these techniques in their future research work.
- solve the spectroscopic problems in NET/SET/GATE exams.

## PARTICULARS

### UNIT-I

#### **Introduction and Vibrational Spectroscopy:**

Basic concepts and Introduction: Properties of electromagnetic radiation, Wave property: Interference and diffraction. Particle property: Photoelectric effect. Regions of the electromagnetic spectrum, energies corresponding to various kinds of radiation. Interaction of electromagnetic radiation with matter (absorption, emission, transmission, reflection, dispersion, polarisation and scattering). General application. 2

#### **Hours**

Vibrational spectroscopy: Infrared spectroscopy: Vibrational energy levels, infrared spectra of diatomic and polyatomic molecules, normal modes of vibration, force constant, selection rules, anharmonicity, the vibration-rotation spectroscopy. Infrared spectra of simple molecules and coordination compounds, changes in infrared spectra of donor molecules upon coordination (N,N-dimethylacetamide, urea, DMSO, pyridine N-oxide, ammine, cyano, cyanato and thiocyanato complexes), mono and multinuclear carbonyl complexes, nitrosyls, phosphine and arsine complexes. Change in spectra accompanying change in symmetry upon coordination ( $\text{NO}_3^-$ ,  $\text{SO}_4^{2-}$ ,  $\text{NO}_2^-$ , and  $\text{ClO}_4^-$ ), hydrogen bonding. Instrumentation including FTIR.

Raman spectroscopy: Theory, relation with IR spectroscopy, resonance Raman stimulated hyper and inverse Raman effects. Experimental techniques, structure determination from IR and Raman spectra.

**(12 Hours)**

### UNIT-II

#### **Magnetic Resonance spectroscopy-I:**

Nuclear magnetic resonance spectroscopy: Magnetic properties of nuclei, population of energy levels, the Larmor precession, relaxation processes, chemical shift, shielding mechanism, spin-spin interactions, rules governing the interpretation of first order spectra, effect of chemical exchange on spectra. Analysis of complex NMR spectra,  $^1\text{H}$ -NMR spectra of organic molecules and complex metal ligands. Spin-systems: First order and second order patterns. Long range coupling : Spin decoupling, CIDNP and NOE. NMR shift reagents.

NMR studies of nuclei other than proton,  $^{13}\text{C}$ -NMR (including heteronuclear coupling with other nuclei viz.,  $^{19}\text{F}$  and  $^{31}\text{P}$ ): Broad band and off resonance, decoupling methods, use of  $^{13}\text{C}$ -NMR in structural determination of organic and inorganic molecules.  $^{19}\text{F}$ ,  $^{31}\text{P}$ ,  $^{11}\text{B}$ ,  $^{15}\text{N}$ . Spectra of paramagnetic complexes, contact shift, double resonance technique. Instrumentation including FT-NMR.

Correlation NMR spectroscopy:  $^1\text{H}$ - $^1\text{H}$  (COSY) and  $^{13}\text{C}$ - $^1\text{H}$  (HETEROCOSY) methods.

**(12 Hours)**

### **UNIT-III**

#### **Magnetic Resonance spectroscopy-II and Mössbauer Spectroscopy:**

Electron Paramagnetic Resonance (EPR) Spectroscopy: Basic principles, selection rules, intensity, width, position of spectral line, multiplet structure of EPR spectra, hyperfine interaction, spin-orbit coupling, zero-field splitting and Kramer's degeneracy, rules for interpreting spectra, factors affecting the magnitude of values. Instrumentation. Applications to the study of free radicals, coordination compounds, biological studies and rate of electron exchange reactions.

Nuclear Quadrupole Resonance (NQR) Spectroscopy: Quadrupole nuclei, quadrupole movement, electric field gradient, the NQR experiment, structural information from NQR spectra.

Mössbauer Spectroscopy: Introduction, principles, conditions for Mössbauer spectroscopy, parameters from Mossbauer spectra, isomer shifts, electric quadrupole interaction, magnetic interactions, Mossbauer spectrometer. Applications in structure determination of  $\text{Fe}_3(\text{CO})_{12}$ , Prussian blue, oxyhemerythrin, hexacyanoferrates, nitroprusside, tin halides.

**(12 Hours)**

### **UNIT-III**

#### **Electronic Spectroscopy and Mass Spectrometry:**

Electronic spectroscopy: Molecular electronic absorption spectroscopy (UV-Visible), electronic spectra of diatomic molecules, electronic transitions, selection rules, assignment of transition, band intensities, substituent and solvent effect and charge transfer transitions. Application to organic and inorganic molecules.

Photoelectron spectroscopy: Basic principles: Photo-electric effect, ionisation process, Koopman's theorem. Photoelectron spectra of simple molecules, ESCA and chemical information from ESCA. Instrumentation. Auger electron spectroscopy, basic ideas.

Mass Spectrometry: Ionization and mass analysis. Instrumentation. Methods of ionization: EI, CI, DI, SI methods.

Fragmentation: Principles, odd electron ( $OE^+$ ) and even electron ( $EE^+$ ) ions, molecular ion and base peak, nitrogen rule, metastable ions. Isotope effects in chloro and bromo compounds. Fragmentation of inorganic and organic compounds: (i) normal and branched alkanes. (ii) alkenes. (iii) benzene and its derivatives. (iv) alcohols. (v) aldehydes. (vi) ketones. (vii) acids. (viii) esters. (ix) ethers. (x) amines. (xi) nitro compounds. (xii) halo compounds.

**(12 Hours)**

**Total 48 Hours**

***Books Recommended:***

1. Fundamentals of Molecular Spectroscopy - C. N. Banwell.
2. Physical Methods in Chemistry - R. S. Drago, Saunders college.
3. Structural Methods in Inorganic Chemistry - E. A. Ebsworth, D. W. H. Rankin and S. Cradock, ELBS.
4. Infrared Spectra of Inorganic and Coordination Compounds - K. Nakamoto.
5. Infrared Spectroscopy - C. N. R. Rao.
6. Electron Absorption Spectroscopy and Selected Techniques - D. N. Satyanarayana, University Press India Ltd. Hyderabad.
7. Introduction to Spectroscopy - D. L. Pavia, G. M. Lampman and G. S. Kriz, Thomson Learning, Singapore (2001)
8. Spectroscopic Identification of organic compounds - R. M. Silverstein and F. X. Webster, 6<sup>th</sup> Edition, Wiley and Sons, India Ltd. (2006).
9. Interpretation of Mass Spectroscopy - McLafferty.

<b>Paper code and name</b>	<b>PG75T303A: Selected topics in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
After studying this paper, students would understand	
<ul style="list-style-type: none"> <li>➤ Synthesis, structure and bonding in metal carbonyl clusters.</li> <li>➤ Structure and bonding in metal halide clusters.</li> </ul>	

- Preparation, structure and bonding of metal nitrosyls,
- Chemistry of dinitrogen and dioxygen complexes.
- analysis of pesticides and insecticides.
- analysis of fuel and fertilisers.
- Chemistry of lanthanoids and actinoids
- Fluorescence, phosphorescence and photochemistry of transition metal complexes.

## PARTICULARS

### UNIT-I

#### **Metal Clusters:**

Metal  $\pi$ -acceptor complexes: Metal carbonyls, preparative methods, structure and bonding, vibrational spectra of metal carbonyls for bonding and structural elucidation, magnetic and X-ray evidences of structures, MO representation of bi- and tri-nuclear carbonyls, reactions of metal carbonyls. Metal carbonylates and carbonyl halides: Preparation and important reactions. Chemistry of metal nitrosyls: Preparation, structure and bonding, dinitrogen and dioxygen complexes. Metal-metal bonding in carbonyls and halides, evidences for M-M bonding, factors favouring M-M bond formation. Metal clusters: Bi-, tri-, tetra-, penta- and hexanuclear metal clusters and bonding in metal clusters.

**(12 Hours)**

### UNIT-II

#### **Lanthanides and actinides:**

Correlation of general properties of d-block elements with those of 4f and 5f elements.

Lanthanide series: Introduction, electronic structure, oxidation states, lanthanide contraction, abundance and extraction (solvent extraction and ion-exchange methods), lanthanides as shift reagents, chemical properties of compounds of lanthanides in II, III, and IV oxidation states. Magnetic properties, colour and spectra.

Actinides: Electronic structure and position in the periodic table, oxidation states, occurrence and synthesis of elements. Spectral and magnetic properties of compounds of actinides in comparison with those of lanthanides and d-block elements. Chemistry of separation of Np, Pu & Am from U & fission products. Uranium: Isotope separation/enrichment and chemistry of uranium salts.

**(12 Hours)**

### Unit–III

#### **Fuel analysis and agricultural chemistry:**

Fuels: Solid, liquid and gaseous fuels, ultimate and proximate analysis, calorific values, grading of coal. Liquid fuels: Flash point, aniline point, octane number and carbon residues. Gaseous fuels: Producer gas and water gas.

Analysis of soil: Inorganic and organic components of soil, collection and preparation of soil samples for analysis. Measurement of soil moisture, pH, total nitrogen, phosphorous, silica, lime, magnesia, manganese, sulphur and alkali salts.

Fertilizers: Fertilizer industries in India, manufacture of ammonia, ammonium salts, urea, nitrates, phosphates and superphosphates and mixed fertilizers.

(12 Hours)

### UNIT–IV

#### **Photoinorganic chemistry:**

Photochemical Reactions: Prompt and delayed reactions, quantum yield, laws of photochemistry, recapitulation of fluorescence and phosphorescence, d–d and charge transfer reactions. Excited states of metal complexes, energy transfer under conditions of weak interaction and strong interaction, exciplex formation. Conditions of the excited states to be useful as redox reactants: Photosubstitution, photooxidation, photoreduction and photochemical reactions of transition metal complexes including  $[\text{Ru}(\text{bipy})_3]^{2+}$  and  $[\text{Fe}(\text{bipy})_3]^{2+}$ . Application to photovoltaics: Water photolysis and carbon dioxide reduction. Solar energy conversion and storage.

(12 Hours)

#### **Recommended Books:**

1. Inorganic Chemistry–Principles of Structure and Reactivity, 4<sup>th</sup> Edn-J. E. Huheey, E.A. Keiter, R. L. Keiter and O.K. Medhi. Pearson Education (2009).
2. Shriver & Atkins' Inorganic Chemistry, 5<sup>th</sup> Edn-P. Atkins, Tina Overton, J. Rourke, Mark Weller and F.Armstrong.Oxford University Press (2010)
3. Concepts and models of Inorganic Chemistry-B.Douglas, D. McDaniel &J.Alexander, 3<sup>rd</sup>Edn. Wiley Student Edn.(2013).
4. Fundamentals of photochemistry–K. K. Rohatgi-Mukherjee, Revised Edn. New Age International.
5. Ferraudi G. L, Elements of Inorganic photochemistry, Wiley Eastern, 1988
6. Photochemistry and Photophysics of  $\text{Ru(II)}$  polypyridine complexes in the Bologna group. From early studies to recent developments, Coordination chemistry reviews, Vincenzo Balzani, Alberto Juris, 211, 97-115 ((2001).
7. F.A.Cotton and G.Wilkinson : Advanced Inorganic Chemistry, Wiley, 1991.

8. Environmental Chemistry–A. K. De (Wiley Eastern).
9. Environmental Chemistry–S. K. Banerji, ( Prentice Hall India), 1993.

<b>Paper code and name</b>	<b>G75P301A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
<ul style="list-style-type: none"> <li>➤ Students are exposed to different synthetic methodologies of coordination compounds.</li> <li>➤ Students are made to understand the characterization of prepared complexes by, various analytical methods viz. elemental analysis, metal percentage determination, chloride and sulphate determination etc.</li> <li>➤ Student would learn to establish the composition of coordination compounds.</li> <li>➤ Students are trained to scan, IR, NMR, UV-Vis spectra of prepared compounds and to interpret the observed spectra.</li> </ul>	

<b>PARTICULARS</b>
<p><b>I. Preparation of selected coordination compounds</b></p> <ol style="list-style-type: none"> <li>1. Bis(glycinato)copper(II) complex: cis-and trans-forms.</li> <li>2. Co(DMG)<sub>2</sub> model for Vit B<sub>12</sub> and reactions.</li> <li>3. Hexaamminecobalt(III) chloride</li> <li>4. Mercuric phenyl acetate</li> <li>5. Pentaamminechloridocobalt(III) chloride.</li> <li>6. Preparation of nitro- and nitrito-complexes. (examples for linkage isomers)</li> <li>7. Separation of optical isomers of cis-[Co(en)<sub>2</sub>Cl<sub>2</sub>]Cl.</li> <li>8. Tris(thiourea)copper(I) sulphate monohydrate.</li> <li>9. Hexaamminenickel(II) chloride.</li> <li>10. Mercury tetrathiocyanatocobaltate(II).</li> <li>11. Tris(acetylacetonato)manganese(III).</li> <li>12. Trans and cis-potassium dioxalatodiaquochromate(III).</li> <li>13. N, N-bis(salicylaldehyde)ethylenediaminecopper(II).</li> </ol> <p><b>II. Characterization</b></p> <ol style="list-style-type: none"> <li>1. Elemental analysis.</li> <li>2. N<sub>2</sub> analysis by Kjeldahl's method.</li> </ol>

3. Metal ion determination in above complexes.
4. Anion determination in above complexes.
5. IR, Electronic, NMR, Magnetic and CV studies wherever possible.
6. Interpretation of UV-VIS, IR and NMR spectra.

***Recommended Books:***

1. Vogel's Text Book of Quantitative Inorganic Analysis-J. Basett, R. C. Denney, H. Jeffery and J. Mendham, Longmans, Green and company Ltd.
2. Practical Inorganic Chemistry-G. Pass and H. Sutcliffe, Chapman and Hall Ltd. (1968).
3. General Chemistry Experiments-A. J. Elias, University Press.

<b>Paper code and name</b>	<b>PG75P302A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
<ul style="list-style-type: none"> <li>➤ Students are exposed to use the instruments such as, colorimeter, potentiometer, conductometer for the determination of metal ions/halides.</li> <li>➤ Students would learn to determine the composition of coordination complexes by colorimetry.</li> </ul>	

<b>PARTICULARS</b>
<p><b>Instrumental methods of analysis</b></p> <ol style="list-style-type: none"> <li>1. Colorimetry: (i) Determination of Fe using o-Phenanthroline, (ii) Determination of Zr using Alizarin red S, (iii) Determination of Ti by H<sub>2</sub>O<sub>2</sub> method, (iv) Determination of Mn / Cr / V in steel samples, (v) Job's method for Fe-1,10-phen complex, (vi) Mole ratio method-Zr + Alizarin red-S, (vii) Slope ratio method-Cu + en complex, (viii) Determination of stability constant of (7), (ix) Determination of pK<sub>a</sub> of an indicator (methyl red) in aqueous solution.</li> <li>2. Conductometry: (Cl<sup>-</sup>, Br<sup>-</sup>, I<sup>-</sup> and SO<sub>4</sub><sup>2-</sup>)</li> <li>3. Potentiometry: (Halide mixture and Co<sup>2+</sup> vs. ferricyanide)</li> <li>4. Electrogravimetric analysis (Cu and Ni mixture)</li> <li>5. Magnetic susceptibility determination</li> </ol> <p><b><i>Recommended book:</i></b></p> <ol style="list-style-type: none"> <li>1. Vogel's Text Book of Quantitative Inorganic Analysis-J. Basett, R. C. Denney, H. Jeffery and J. Mendham, Longmans, Green and company Ltd.</li> </ol>

<b>Paper code and name</b>	<b>PG75P303A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
Students are exposed to the analysis of food and drug by analysing.	
<ul style="list-style-type: none"> <li>➤ iodine in common salt.</li> <li>➤ calcium in milk powder.</li> <li>➤ vitamin-c in tablets.</li> <li>➤ iron in tablets.</li> <li>➤ aspirin content in tablets.</li> </ul>	

<b>Particulars</b>
<ol style="list-style-type: none"> <li>1. Determination of vitamin C in juice/tablet by titrimetric method.</li> <li>2. Fluorimetric determination of riboflavin (Vit B<sub>2</sub>) in tablets.</li> <li>3. Determination of iron in pharmaceuticals by visual and potentiometric titration using cerium(IV) sulphate.</li> <li>4. Determination of sulpha drugs by potentiometry using NaNO<sub>2</sub> and iodometric assay of penicillin.</li> <li>5. Assay of aspirin/cafeiene/phenacetin by spectrophoptmetry/titrimetry</li> <li>6. Determination of vitamin A in vanaspathi by UV spectrophotometry</li> <li>7. Analysis of a soil sample for (i) Available phosphorus by spectrophotometry, (ii) Nitrate-nitrogen/nitrite nitrogen/ammonia nitrogen by spectrophotometry, (iii) sodium and potassium by flame photometry.</li> <li>8. Analysis of fertilizers: Urea and super phosphates</li> </ol>
<b><i>Recommended Books:</i></b>
<ol style="list-style-type: none"> <li>1. Vogel's Text Book of Quantitative Inorganic Analysis-J. Bassett, R. C. Denney, G. H. Jaffery and J. Mandham, Longmans, Green and Company Ltd.</li> <li>2. Chemical analysis of foods and food products-Morris B. Jacobs (3rd Edn.), D. Van Nostrand Company. Inc.</li> <li>3. Standard methods of chemical analysis-F. J. Welcher (6th Edn., Vol. 3 Part-B), D. Van Nostrand Company, Inc. Indian, United States and European Pharmacopea.</li> <li>4. General Chemistry Experiments-A. J. Elias, University Press.</li> </ol>

<b>Paper code and name</b>	<b>PG75T401A: Instrumental Methods of Analysis.</b>
<b>COURSE OUTCOMES</b>	
<p>After studying this paper, students would understand the working principles and applications of various instrumental methods such as.</p> <ul style="list-style-type: none"> <li>➤ atomic absorption and emission spectroscopy</li> <li>➤ molecular luminescence spectroscopy</li> <li>➤ electrophoresis and gel filtration</li> <li>➤ coulometry and amperometry</li> <li>➤ ion selective electrodes</li> <li>➤ thermal methods of analysis</li> <li>➤ polarography, voltammetry and stripping analysis</li> <li>➤ light scattering methods</li> </ul>	

<b>PARTICULARS</b>
<p style="text-align: center;"><b>UNIT-I</b></p> <p><b>Optical methods:</b></p> <p>Atomic absorption spectrometry: Theory, instrumentation, different types of nebulizers, non flame techniques, electrothermalvapourisers, cold vapour AAS determination of mercury, interferences, differences between AAS and flame photometry and analytical applications of AAS.</p> <p>Emission spectroscopy: Inductively coupled plasma optical emission spectrometry, theory and applications.</p> <p>Molecular luminescence spectroscopy: Theoretical basis for fluorescence and phosphorescence, instrumentation, factors affecting fluorescence, its applications in quantitative analysis and in the study of biomolecules.</p> <p>X-ray fluorescence elemental analysis.</p> <p><b>(12 Hours)</b></p> <p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Analytical methods-I</b></p> <p>Coulometric methods of analysis: General discussion, coulometry at controlled potential, apparatus and general technique, applications, coulometric titrations (amperometriccoulometric): Principles, apparatus, comparison of coulometric titrations</p>

with conventional titrations, automatic coulometric titrations and applications.  
Amperometry: Principle, titrations, advantages and limitations. Applications.  
Ion selective electrodes: Glass ion selective electrodes, crystalline solid state ion selective electrodes, liquid-based ion selective electrodes and gas sensing electrodes.  
Supercritical fluid chromatography (SFC): Properties of supercritical fluids, instrumentation and operating variables, comparison of SFC with other types of chromatography. Applications.

**(12 Hours)**

### **UNIT-III**

#### **Analytical methods-II**

Polarography: Theory of classical polarography, polarograms, polarographic currents. Halfwave potential, oxygen interference, advantages and limitations. Pulse polarography. Applications of polarography.

Electrogravimetric analysis: Theory, apparatus, deposition and separation, electrolytic separation of metals, applications.

Electrophoresis: Theory and classification. Factors influencing the mobility-macromolecular size and charge, interaction with supporting electrolyte, pH and concentration discontinuities. Factors affecting electrophoretic phenomena-electrolysis, Electroosmosis, temperature and supporting media. Instrumentation. Methodology-preparation of gels-staining and destaining. Capillary electrophoresis methods - capillary zone electrophoresis, capillary gel electrophoresis.

Light-Scattering methods: Nephelometry and turbidometry-Principle, instrumentation and applications.

**(12 Hours)**

### **UNIT-IV**

#### **Analytical methods-III**

Thermal method of analysis: Introduction. Thermogravimetric analysis (TGA): Types of thermogravimetric analysis, principles, factors affecting the results, heating rate, furnace, instrument control/data handling. Instrumentation and applications.

Differential thermal analysis (DTA): Theory, variables affecting the DTA curves. Differences between TGA and DTA. General principles, instrumentation and applications.

Differential scanning calorimetry (DSC): Basic principle, differences between DTA and DSC. Instrumentation, power compensated DSC, Heat flux DSC. Applications.

Thermomechanical analysis. Dynamic mechanical analysis.

Voltammetry: Fundamentals of voltammetry. Cyclic voltammetry: Principles and

applications. Stripping analysis: Stripping voltammetry, basic principles, electrodes used for stripping analysis, apparatus for stripping analysis, applications, determination of lead in water by voltammetry.

**(12 Hours)**

**Total: 48 Hours**

***Recommended Books:***

1. Instrumental Analysis, D. A. Skoog, F. J. Holler and S.R.Crouch, Cengage Learning (2007).
2. Fundamental of Analytical Chemistry, D.A. Skoog, D.M. West, Holler and Crouch, 8<sup>th</sup> edition, Saunders College Publishing, New York (2005).
3. Analytical Chemistry, G.D. Christian, 6<sup>th</sup> edition, Wiley–India (2007).
4. Quantitative Analysis, R.A. Day and A.L. Underwood, 6th edition, PHI Learning PvtLtd.NewDelhi(2009).
5. Vogel's Textbook of Quantitative Chemical Analysis, J. Mendham, R.C. Denney, J.D.Barnes and M.J.K. Thomas, 6<sup>th</sup> edition, Third Indian Reprint, Pearson Education Pvt.Ltd.(2007).
6. Analytical Chemistry Principles, John H. Kennedy, 2<sup>nd</sup> edition, Saunders College Publishing, California(1990).
7. Instrumental Methods of Analysis by H.H. Willard, L.L. Merritt and J.A. Dean, 7<sup>th</sup> Edition,CBS Publishers, New Delhi, 1988.

Paper code and name	PG75T402A: Material, Nuclear and Environmental Chemistry
COURSE OUTCOMES	
<p>After studying this paper, students would receive the awareness of</p> <ul style="list-style-type: none"> <li>➤ nuclear reactions and use of nuclear energy in generating electricity.</li> <li>➤ safety measures to be adopted in handling radioactive materials.</li> <li>➤ Composition of atmosphere.</li> <li>➤ Various types of pollutants related to soil, water and air.</li> <li>➤ Use of chemistry in the betterment of society.</li> <li>➤ Nanomaterials and electron microscopes.</li> <li>➤ Synthetic methods for nanomaterials and carbon nanotubes.</li> <li>➤ Principle &amp; types of LED, LCD</li> <li>➤ The advantages and disadvantages of LED and LCD.</li> <li>➤ Properties of glass, ceramics and clay products.</li> </ul>	

PARTICULARS
<p style="text-align: center;"><b>Unit–I</b></p> <p><b>Nanomaterials and Electron Microscopies.</b></p>

Nanomaterials: Introduction, terminology, novel optical properties, nanolayers, carbon nanotubes, nanowires, quantum dots, nanocomposites, thin films, nanofoam, nanoclusters, smart nanostructures. Top-down and bottom-up fabrication: Solution-based and vapour-phase synthesis of nanomaterials, physical vapour deposition, chemical vapour deposition, sol-gel synthesis, combustion method and hydrothermal method.

One-dimensional control (CNT's and inorganic nanowires), two-dimensional control (quantum wells and solid-state superlattices) and three-dimensional control.

Electron microscopies: Scanning electron microscopy (SEM), transmission electron microscopy (TEM), scanning transmission electron microscopy (STEM). Scanning probe microscopies: Scanning tunneling microscopy (STM) and atomic force microscopy (AFM).

Nanosensors: Electrochemical sensors and biosensors.

**(12 Hours)**

## **UNIT-II**

### **Nuclear Chemistry:**

Nuclear reactions, nuclear fission and fusion, nuclear reactor, units of radiation energy, G-value. Chemical Dosimetry: Fricke and ceric sulphate dosimeters. Radiation chemistry of water. A brief introduction to radiolysis of liquids and solids.

Health and safety aspects: Biological effects of radiation, permissible exposure of radiation dose and radioactive waste management.

Radioanalytical techniques and isotopes: Radioactive techniques, tracer technique, neutron activation analysis, applications of radiation chemistry/isotopes (radiation synthesis, polymerization, medicine &, food irradiation). Radiometric titrations and  $^{14}\text{C}$  dating.

**(12 Hours)**

## **UNIT-III**

### **Air pollution and Water Pollution:**

Air pollutants, prevention and control, green house effect and acid rain. Carbon monoxide: Industrial and transportation sources.  $\text{SO}_x$ -sources, control technique, scrubbing, limestone injection process. Ozone hole and CFC's. Photochemical smog and PAN.  $\text{NO}_x$ : sources and  $\text{NO}_x$  control techniques. Particulates: Size distribution. Bhopal gas tragedy. Noise pollution.

Origin of waste water, types, water pollutants and their effects. Sources of water pollution: Domestic, industrial, agricultural soil and radioactive wastes as source of pollution. Measurement of colour, turbidity, total solids, acidity, alkalinity, hardness, sulphate, fluoride, phosphate and different forms of nitrogen in natural and polluted water.

Determination and significance of BOD, COD and TOC. Pesticides as water pollutants and analysis.

Toxic chemicals in the environment, impact of toxic chemicals on enzymes. Heavy metal pollution. Chemical speciation: Biochemical effects of heavy metals (Hg, As, Pb, Se).

**(12 Hours)**

#### **UNIT-IV**

##### **Chemistry of Selective Materials:**

Glasses, oxide glasses, bond type, viscosity, Zachariasen's rules, criteria of Sun and Rawson, chalcogenide glass, the photocopying process, glass ceramics, applications, ceramics—structures, mechanical properties and application, clay products, refractories, characterisation properties and applications.

LED: Principle, types, advantages and disadvantages of LED displays.

Liquid crystal display (LCD): Properties, twisted nematic field display, advantages and disadvantages of LCD, comparison of LCD & LED.

Shape memory alloys (SMA): Classification, working principles, non-linear optical materials and second harmonic generators.

**(12 Hours)**

**Total: 48 Hours**

<b>Paper code and name</b>	<b>PG75T403A: Organometallic and Solid State Chemistry</b>
<b>COURSE OUTCOMES</b>	
<p>Students would understand the</p> <ul style="list-style-type: none"> <li>➤ Metal ions as catalysts and their importance in synthetic procedures.</li> <li>➤ Catalysts in industrial applications such as, Wacker's process, Hydroformylation, Monsanto acetic acid synthesis, Water gas shift reaction, Fischer-Tropsch synthesis, Alkene polymerization, etc.</li> <li>➤ Structures of solids.</li> <li>➤ Optical properties of solids and their applications.</li> <li>➤ Magnetic properties of solids and their applications.</li> <li>➤ Phenomenon of superconductivity and its applications.</li> <li>➤ Alloys and phase diagrams.</li> </ul>	

#### **PARTICULARS**

## UNIT-I

### Organometallic Chemistry:

Chemistry of organometallic compounds with  $\pi$ -bonding ligands: Synthesis, structure, spectroscopy, reactions and bonding in metal-carbon  $\pi$ -bonded systems involving di-hapto to hexa-hapto ligands viz, olefins, acetylenes, allylic moieties, butadienes, cyclobutadienes, cyclopentadienes and arenes. Organometallic polymers.

(12 Hours)

## UNIT-II

### Fluxional behaviour of Organometallic Compounds:

Rates of rearrangement and techniques of study. Stereochemical non-rigidity in organometallic compounds, ring whizzing in  $\eta^1$ -Cp complexes, interchange of  $\eta^1$ - and  $\eta^5$ -Cp rings, allyl and allene complexes. Scrambling of carbonyl groups in metal carbonyls.

2 Hours

Homogeneous and heterogeneous catalysis involving metal complexes and organometallic complexes. Terminology in catalysis, oxidative additions and oxidative coupling reductive elimination, insertion reactions, hydrogenation of alkenes and related reactions, hydroformylation (Monsanto, Cativa and Wacker Processes), carbonylation, isomerisation and olefin polymerisation oligomerisation reactions. Water gas shift reaction.

8 Hours

Organometallic reagents in organic synthesis: Organo-iron, organo-copper and organo-palladium compounds.

8 Hours

(12 Hours)

## UNIT-III

### Solid State Chemistry:

Electrical properties: Survey of electrical properties and materials. 1 Hour

Super conductivity: Nature and properties of super conductivity materials, Meissner effect, type-I and II super conductors, theories, high temperature oxide super conductors, junction involving metal, super conductor and super conductor. Applications.

4 Hours

Ionic conductivity: Alkali halides-vacancy conduction. Silver chloride-interstitial conduction. Solid electrolytes:  $\beta$ -alumina, AgI and  $\text{Ag}^+$  ion solid electrolytes. Anion conductors, requirements for conductivity. Applications.

2 Hours

Magnetic properties: Mechanism of ferro- and anti-ferro magnetic ordering, selected examples of magnetic materials, their structures and properties, metals and alloys, transition metal oxides, spinels, garnets, ilmenites, perovskites, magnetoplumbites, applications and structure-property relation.

3 hours

Optical properties: Luminescence and phosphors, configurational coordinate model, some phosphor material, antistokes, phosphors and lasers.

2 Hours

(12 Hours)

#### UNIT-IV

**Mechanical Properties and Structural Transformation of Solids:**

Mechanical properties & dislocations in solids: Edge dislocations & screw dislocations.

Structural transformation of solids: Solid solutions, Hume–Rothery rules, substitutional solid solutions and interstitial solid solutions, solid solution mechanism, experimental methods for studying solid solutions (X-ray powder diffraction and density measurements).

Alloy systems: Phase diagrams, two and three component systems, study of alloy systems, steels with reference to iron, carbon systems and copper– zinc system.

**(12 Hours)**

**Total 48 Hours**

<b>Paper code and name</b>	<b>PG75D404A: Project Work</b>
<b>COURSE OUTCOMES</b>	
Project work is carried out by the students under the guidance of teachers in the department. A topic of research is chosen by the students, in consultation with the respective mentors.	
Students gather a complete knowledge in carrying out the research, which would help them in their higher studies (such as Ph.D programme) and in industrial career.	
Student may get a publication on successful completion of his/her project work.	

<b>PARTICULARS</b>
The project work may include in-plant training in industries/short term work in the department/other educational institutions/R&D organizations/data mining/review of current literature/theoretical methods/computer applications. Experimental work may involve studies on synthesis/measurements/study of properties/characterization by physical methods/activities for reported/unreported research or any suitable combination thereof.
In case of the students who would work outside the campus, the supervising staff member may visit to the work place at least once during the period and may be eligible for TA-DA as per the University rules.

<b>Paper code and name</b>	<b>PG75P401A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
Student would learn	
<ul style="list-style-type: none"> <li>➤ Cyclic voltammetric method.</li> <li>➤ Determination of fluoride content and acidity of water.</li> <li>➤ Ion exchange methods for purification of water.</li> <li>➤ Importance of TG–DTA in analysis of compounds.</li> <li>➤ Analysis of backing soda.</li> <li>➤ Determination of iron in food samples.</li> </ul>	

<b>PARTICULARS</b>
<ol style="list-style-type: none"> <li>1. Determination of available K/Na in soil by flame photometry</li> <li>2. Nephelometric/Turbidimetric determination of sulphate/phosphate.</li> <li>3. Cyclic voltammetric studies on potassium ferrocyanide/ potassium ferricyanide.</li> <li>4. TG–DTA studies of various hydrated solids-CuSO<sub>4</sub>.5H<sub>2</sub>O, CaC<sub>2</sub>O<sub>4</sub>.H<sub>2</sub>O and MgC<sub>2</sub>O<sub>4</sub> mixture.</li> <li>5. Determination of fluoride in drinking water by spectrophotometry.</li> <li>6. Estimation of total cation concentration in water by ion-exchange method.</li> <li>7. Determination of iron in mustard seed by spectrophotometry.</li> <li>8. Determination of copper by potentiometric titration using EDTA.</li> <li>9. Conductometric determination of total acidity of waste water.</li> <li>10. Analysis of copper/calcium by PFHS method</li> <li>11. Analysis of Na<sub>2</sub>CO<sub>3</sub> and NaHCO<sub>3</sub> in baking soda by acid base titration</li> </ol>
<b><i>Recommended Books:</i></b>
<ol style="list-style-type: none"> <li>1. Vogel's Text Book of Quantitative Inorganic Analysis-J. Bassett, R. C. Denney, G. H. Jaffery and J. Mandham, Longmans, Green and Company Ltd.</li> <li>2. Chemical analysis of foods and food products-Morris B. Jacobs (3rd Edn.), D. Van Nostrand Company, inc.</li> <li>3. Standard methods of chemical analysis-F. J. Welcher (6th Edn., Vol. 3 Part-B), D. Van Nostrand Company, Inc. Indian, United States and European Pharmacopea.</li> <li>4. General Chemistry Experiments-A. J. Elias, University Press.</li> </ol>

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<b>Paper code and name</b>	<b>PG75P402A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
<p>Students are trained to analyse water samples for the determination of</p> <ul style="list-style-type: none"> <li>➤ colour, pH, and temperature.</li> <li>➤ dissolved oxygen, COD, BOD and oxidising power.</li> <li>➤ chloride and sulphate ions.</li> <li>➤ calcium, magnesium ions.</li> <li>➤ temporary and permanent hardness.</li> <li>➤ Analysis of heavy metals in waste water and sea water.</li> <li>➤ Acid content in soft drinks.</li> <li>➤ Preparation and characterization of nanoparticles.</li> <li>➤ Analysis of glass and ceramics</li> </ul>	

<b>PARTICULARS</b>
<ol style="list-style-type: none"> <li>1. Determination of COD of a water sample.</li> <li>2. Determination of phosphates in detergents.</li> <li>3. Determination of dissolved oxygen (DO) by Winkler's method.</li> <li>4. Determination of nitrate &amp; nitrite in water samples and sea water.</li> <li>5. Analysis of heavy metals in waste water and sea water (Pb, Hg etc. by spectrophotometry).</li> <li>6. Determination of alkalinity of water samples.</li> <li>7. Determination of phosphoric acid content in soft drinks.</li> <li>8. Hardness of water by soap solution method</li> <li>9. Determination of TDS in water samples.</li> <li>10. Preparation and characterization of nanoparticles.</li> <li>11. Analysis of glass and ceramics</li> </ol> <p><b>References:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Text Book of Quantitative Inorganic Analysis–J. Bassett, R. C. Denney, G. H. Jaffery and J. Mandham, Longmans, Green and Company Ltd.</li> <li>2. Chemical analysis of foods and food products-Morris B. Jacobs (3rd Edn.), D. Van Nostrand Company, Inc.</li> </ol>

3. Standard methods of chemical analysis–F. J. Welcher (6th Edn., Vol. 3 Part–B), D. Van Nostrand Company, Inc. Indian, United States and European Pharmacopea.	
4. General Chemistry Experiments–A. J. Elias, University Press.	
<b>Paper code and name</b>	<b>PG75P403A: Lab Course in Inorganic Chemistry</b>
<b>COURSE OUTCOMES</b>	
Students are exposed to the analysis of industrial samples such as,	
<ul style="list-style-type: none"> <li>➤ Determination of total acidity in beverages.</li> <li>➤ Analysis of antacids.</li> <li>➤ Analysis of tablets.</li> <li>➤ Analysis of milk powder.</li> <li>➤ Analysis of cement.</li> <li>➤ Analysis of urine.</li> </ul>	

<b>PARTICULARS</b>
<ol style="list-style-type: none"> <li>Determination of total acidity of vinegar and wines by acid-base titration.</li> <li>Determination of calcium in calcium gluconate/calcium carbonate tablets/injections and of calcium in milk powder by EDTA titration.</li> <li>Determination of aluminium and magnesium in antacids by EDTA titration.</li> <li>Determination of saccharin in tablets by precipitation titration.</li> <li>Analysis of cement.</li> <li>Analysis of Type metal–Sn gravimetrically and Sb titrimetrically using <math>\text{KBrO}_3</math></li> <li>Determination of magnesium in milk of magnesium tablets by ion-exchange chromatography.</li> <li>Conductometric titration of sodium acetate with <math>\text{HCl}</math> and <math>\text{NH}_4\text{Cl}</math> with <math>\text{NaOH}</math>.</li> <li>Analysis of urine for (i) urea and uric acid by titrimetry and spectrophotometry (ii) Sulphate by precipitation titration after ion–exchange separation (iii) Sugar by Benedict’s reagent.</li> <li>Analysis of blood for (i) cholesterol by spectrophotometry and (ii) bicarbonate by acid–base titration</li> </ol>
<b>Recommended Books:</b>
<ol style="list-style-type: none"> <li>Vogel’s Text Book of Quantitative Inorganic Analysis–J. Bassett, R. C. Denney, G. H. Jaffery and J. Mandham, Longmans, Green and Company Ltd.</li> </ol>

2. Chemical analysis of foods and food products-Morris B. Jacobs (3rd Edn.), D. Van Nostrand Company, inc.
3. Standard methods of chemical analysis-F. J. Welcher (6th Edn., Vol. 3 Part-B), D. Van Nostrand Company, Inc. Indian, United States and European Pharmacopea.
4. General Chemistry Experiments-A. J. Elias, University Press.

## Specific Course Outcome (Organic Chemistry)

<b>Paper Code and Name</b>	<b>PG75T102B: ORGANIC CHEMISTRY-I</b>
<b>COURSE OUTCOMES</b>	
<p>The above course gives the requisite benefits to the students as-</p> <ul style="list-style-type: none"> <li>➤ The localized chemical bonding helps the students to understand the hybridization bond distance, bond angles, bond energies etc..to the modern ideas in chemical technology.</li> <li>➤ The study of reaction mechanism impart the internal energy changes in reaction as well as nature of the intermediate in the organic reactions.</li> <li>➤ In the study of organic reactions the exploration of stereochemistry and conformational analysis gives the ideas of structure of organic molecules and their enantiomers, diastereomers, e pimers etc.. to the student to get the depth knowledge about the organic molecules.</li> <li>➤ To study the internal energetic <math>\pi</math> electrons in the aromatic compounds the gives the ideas regarding nature of organic reactions to the modern temples called as industry to understand by the students.</li> <li>➤ To overall view the studies of concepts in the organic chemistry reveals that the most exciting organic reactions and their products called organic molecules are</li> </ul>	

exploited in various industries to explore the knowledge to the students.

## UNIT-I

### Bonding in Organic Molecules:

Localized chemical bonding: Hybridization index, bonding in cyclopropane, bond distances, bond angles, bond energies, bond polarity, dipole moment and calculation of heat of reactions.

Delocalised chemical bonding: Conjugation, cross conjugation, steric inhibition of resonance, hyperconjugation, tautomerism, valence tautomerism. Bonding in fullerenes.

Bonding weaker than covalent: Hydrogen bonding, EDA complexes, inclusion compounds, complexes of crown ethers, catenanes and rotaxanes.

Structure and reactivity: Brönsted-Lowry concept of organic acids, conjugate acids and bases, pH, pKa values. Electronic, steric, and solvent effects on their strengths. General and specific acid base catalysis, running scale of acidity. Lewis acids and bases. HSAB concept.

(12 Hours)

## UNIT-II

### Organic Reaction Mechanisms:

Classification of organic reactions: Meaning and importance of reaction mechanism. Methods of determination of reaction mechanisms: Kinetic methods, order and molecularity, mechanistic implications from rate laws.

Non-kinetic methods: Product identification, cross over experiments, study of intermediates, isotopic labeling, kinetic isotope effects and stereochemical studies.

Nucleophilic substitutions (aliphatic): Mechanisms of  $S_N2$ ,  $S_N1$  (rearrangements in  $S_N1$  reactions) and  $S_{Ni}$ ,  $S_{RN}1$  pathways. Effects of structure, leaving groups and ambident nucleophiles.

Elimination Reactions:  $E_2$ ,  $E_1$ ,  $E_1CB$  pathways. Stereochemistry, product proportions in dehydration of alcohols, alkyl halides (chiral and achiral), Hoffmann and Saytzeff rules. Substitution v/s elimination and pyrolytic eliminations.

(12 Hours)

## UNIT-III

### Stereochemistry and Conformational Analysis:

Elements of symmetry and chirality, optical isomerism, optical activity, specific rotation. molecules with one asymmetric center. Fischer, Wedge and 3D representations, DL and RS systems indicating configuration. Ring compounds, molecules with two chiral centers: Fischer, Saw-Horse, Newmann projections and their transformations.

Enantiomers, diastereomers, epimers, racemization, resolution. Stereochemical correlation. Pseudo-asymmetric compounds.

Geometrical isomerism: E-Z nomenclature, configuration of geometrical isomers and *syn*- &

*anti*– isomers.

Conformational analysis: Conformational study of n-Butane, ethylene, chlorohydrin, 1,2-dichloroethane, 2-aminoethanol, di- & tri-substituted cyclohexanones and Curtin–Hammett principle.

(12 Hours)

#### UNIT–IV

##### **Aromaticity:**

Aromaticity and Huckel's rule: HMO theory, energy level diagrams, möbius systems, benzenoid and non-benzenoid aromatic compounds. Tropones, tropolones, borazine and azulene.

Heterocyclic Systems: Systems of the type pyrrole, pyridines, pyrilium cation, ferrocene. alternant and non-alternant hydrocarbons. Aromaticity of charged rings (3-8 membered), non aromatic, anti-aromatic and homo aromatic systems.

Physical methods to study aromaticity: X-ray, UV and <sup>1</sup>H–NMR methods.

Ring current as criteria for aromaticity. Annulenes and heteroannulenes [10-18].

(12 Hours)

**Total 48 Hours**

##### **Books Recommended:**

1. Organic Chemistry–P. Y. Bruice, 7<sup>th</sup> Edition, Pearson Education Pvt. Ltd., New Delhi (2013).
2. Organic Chemistry–S. H. Pine, McGraw-Hill, London (1987).
3. Mechanism and Structure in Organic Chemistry–1965, by [E.S. Gould](#).
4. Organic Chemistry–[R. T. Morrison and R.T. Boyd](#), Prentice Hall, New Delhi (1994).
5. Organic Chemistry–T. W. Graham Solomons, 4<sup>th</sup> Edition, John Wiley and Sons (1988).
6. Organic Chemistry–G. M. Loudon, 4<sup>th</sup> Edition, Oxford University Press, New York (2002).
7. Organic Chemistry Volume–I, II–I. L. Finar, 6<sup>th</sup> Edition, ELBS London (2004).
8. Organic Chemistry–F.A. Carey, 4<sup>th</sup> Edition, McGraw Hill (2000).
9. Advanced Organic Chemistry, Reactions, Mechanism and Structure–J. March, 3<sup>rd</sup> Edition, Wiley Eastern Ltd. (2004).
10. Stereochemistry–Conformation and Mechanism–P. S. Kalsi, Wiley–Eastern Ltd, New Delhi (1992).

11. Guidebook to Mechanism in Organic Chemistry–P. Sykes. Orient Longman, London (2002).

12. Aromaticity–P. J. Garratt, McGraw Hill Book company (1971).

<b>Paper Code and Name</b>	<b>PG75P102B: LAB COURSE IN ORGANIC CHEMISTRY-I</b>
<b>COURSE OUTCOMES</b>	
<ul style="list-style-type: none"><li>➤ The theoretical study of the organic reactions are proved by the synthesis of targeted organic molecules for further application in various industries.</li><li>➤ The students shall understand the imaginary organic reactions through the synthetic study of internal mechanistic transformations of one organic molecule to the another organic molecule.</li></ul>	
<b>Preparation of the following organic compounds:</b> <ol style="list-style-type: none"><li>1. Benzoic acid and benzyl alcohol from benzaldehyde (Cannizarro reaction).</li><li>2. Cyclohexanone from cyclohexanol.</li><li>3. Reduction of <i>p</i>-nitrobenzaldehyde to <i>p</i>-nitrobenzylalcohol.</li><li>4. 2,4-Dinitrophenol from chlorobezene.</li><li>5. Benzil from benzaldehyde.</li><li>6. <i>m</i>-Nitroaniline from nitrobenzene.</li><li>7. <i>m</i>-Nitro benzoic acid from ethyl benzoate.</li><li>8. Benzanilide from benzophenone (Beckmann rearrangement).</li><li>9. <i>p</i>-Bromoaniline from acetanilide.</li><li>10. <i>p</i>-Nitroaniline from acetanilide.</li></ol>	
<b>Recommended Books:</b> <ol style="list-style-type: none"><li>1. Vogel's Textbook of Practical Organic Chemistry Revised–B.S.Furniss, A. J. Hannaford, P.W.G. Smith, A. R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li><li>2. A Hand book of Organic Chemistry–by H. T. Clarke.</li><li>3. A Laboratory Manual of Organic Chemistry by B. B. Dey and M. V. Govindachari.</li><li>4. Lab Experiments in Organic Chemistry–by Arun Sethi, New Age International Ltd. New Delhi. 2006.</li></ol>	

**Scheme of Examination:**

i. Duration of examination	: 04 hours
ii. Experiments	: 35 marks
iii. Viva-Voce & Journal	: 05 marks
iv. Internal assessment	: 10 marks
Total	: 50 marks

**Paper Code and Name****PG75T202B: ORGANIC CHEMISTRY-II****COURSE OUTCOMES**

The above course gives the benefits to the students as-

- The students will be able to understand the aliphatic and aromatic electrophilic substitutions and nucleophilic reaction mechanism. This gives an insight into the organic reactions.
- Advanced stereochemistry course makes the students to differentiate the prochiral and achiral molecules, enantiomers, homotopic and diastereotopic ligands.
- This course also helps the students to classify and understand the reactions of mono and disaccharides.
- The students are made aware of classification and reactions of five membered heterocycles.

## UNIT-I

### Reaction Mechanism:

Aliphatic electrophilic substitutions: Bimolecular pathways.  $S_E2$ ,  $S_E1$  and  $S_{Ei}$  mechanisms. Reactions involving double bond shifts,  $\alpha$ -halogenation of aldehydes, Ketones, aliphatic diazonium coupling, nitrosation at carbon bearing active hydrogen, mercury exchange reactions.

Aromatic electrophilic substitutions: Mechanisms of aromatic, nitration, sulphonation, halogenation, isotope effects, energy profile diagrams. Kinetic and thermodynamic control, amination and sulphonation, Hammond's Postulate, o/p ratio, ipso-substitution, Vilsmeier Haack, Pechmann and Fries rearrangement.

Aromatic nucleophilic substitutions:  $S_{NAr}$ ,  $S_{N1}$  and aryne pathways. Meisenheimer complexes, mechanism and synthetic applications of vicarious nucleophilic substitution (VNS), Von-Richter, Goldberg, Bucherer, Shiemann reactions and Smiles rearrangement.

(12 Hours)

## UNIT-II

### Advanced Stereochemistry:

Prochirality: Homotopic, enantiotopic and diastereotopic atoms, groups and faces.

Stereochemical descriptors: Application to reduction of carbonyl compounds, cyanohydrin formation, addition of water to alkenes.

Optical activity due to molecular dissymmetry: Allenes, spiranes, biphenyls, atropisomerism, molecular crowding.

Conformational analysis of cyclohexane, mono substituted and disubstituted (1,2, 1,3, 1,4) cyclohexanes. *cis*- and *trans*-decalins. Chirality of cyclohexanes.

(12 Hours)

## UNIT-III

### Carbohydrates:

Monosaccharides: Conformational representation of monosaccharides and their transformations. Determination of configuration of the monosaccharides, mechanism of mutarotation-base catalyzed isomerisation of aldoses and ketoses. Epimerisation, anomeric effect, glycosides, ether and ester derivatives of carbohydrates. Acetone, amino ( $\beta$ -D-glucosamine, galactosamine, N-acetylmuramic acid (NAMA), N-acetyl neuraminic acid (NANA) and deoxysugars. Oxidation and reduction reactions of carbohydrates.

Disaccharides: Structure elucidation of maltose, lactose, sucrose, gentiobiose and meliobiose.

Trisaccharides: Raffinose and melezitose.

Polysaccharides: Structure and degradation of starch, cellulose and glycogen.

(12 Hours)

#### UNIT-IV

Chemistry of heterocycles: Nomenclature of heterocyclic compounds: (i) Hantzsch–Widmann (ii) Replacement Nomenclature

Structure, synthesis, reactivity and chemical reactions of indole, quinoline, isoquinoline, thiazole, imidazole, benzimidazole, coumarin, chromones, flavones and isoflavones.

**(12 Hours)**

**Total 48 hrs**

***Recommended Books:***

1. Advanced Organic Chemistry part A and B–F. A. Carey and R. J. Sundberg, 4<sup>th</sup> Edition, Plenum Publishers (2000).
2. Advanced Organic Chemistry, Reactions, Mechanism and Structure–J March, 3<sup>rd</sup> Edition, Wiley Eastern Ltd. (2004).
3. Guide Book to Mechanism in Organic chemistry–Peter Sykes Oriant- Longman (1985).
4. Stereochemistry of Carbon Compounds–Eliel, Tata McGraw Hill, New Delhi (1976).
5. Stereochemistry of Organic Compounds, Principles and Applications – D. Nasipuri, Wiley Eastern Ltd (1992).
6. Organic Chemistry Vol–I, II, III–S. M. Mukherji, S. P. Singh and R. P. Kapoor, New Age International Ltd, New Delhi (2000).
7. Organic Chemistry Volume–I, II– I. L. Finar, 6<sup>th</sup> Edition, ELBS London (2004).
8. Chemistry of Carbohydrates–G. C. Percival.
9. Carbohydrates –Chemistry and Biochemistry –Pigman and Harton.
10. Heterocyclic Chemistry–T. L. Gilchrist, 3<sup>rd</sup> Edition, Pearson Education Delhi, (2005).
11. Heterocyclic Chemistry –J.A. Joule and G.F. Smith, 2<sup>nd</sup> Edition, Van Nostrand London (1978).
12. Heterocyclic Chemistry–R. K. Bansal, 3<sup>rd</sup> Edition, New–Age International, New Delhi, 2004.
13. [https://profiles.uonbi.ac.ke/sdereese/files/upc\\_213nomenclature\\_of\\_heterocyclic\\_compounds\\_0.pdf](https://profiles.uonbi.ac.ke/sdereese/files/upc_213nomenclature_of_heterocyclic_compounds_0.pdf)

<b>Paper Code and Name</b>	<b>PG75P202B: LAB COURSE ORGANIC CHEMISTRY</b>										
<b>COURSE OUTCOMES</b>											
<ul style="list-style-type: none"> <li>➤ The students understand the quantitative estimation of acid, amide , ester and glucose.</li> <li>➤ Students will understand how the molecular weight is determined by the base hydrochloride method.</li> <li>➤ The chemical transformation of organic compounds to the products by the preparation of derivative thus trains the students about synthetic organic chemistry.</li> </ul>											
<ol style="list-style-type: none"> <li>1. Quantitative Estimation of the following Organic compounds: (i) Acid (ii) Acid + Amide (iii) Acid + Ester (iv) Molecular weight determination by base hydrochloride method (v) Phenol (Bromometric method).</li> <li>2. Preparations of derivatives of heterocycles like coumarins, quinolines, benzimidazoles, benzoxazines, pyrazoles by convention, microwave and by sonication.</li> <li>3. Preparations based on functional group reactions of organic compounds like aldehydes, ketones, esters, phenols etc.</li> </ol> <p>Note: Any two of the above experiments will be prescribed for the examination.</p> <p><b>Scheme of Examination</b></p> <table border="0"> <tr> <td>i. Duration of examination</td><td>: 04 hours</td></tr> <tr> <td>ii. Experiments</td><td>: 35 marks</td></tr> <tr> <td>iii. Viva-Voce &amp; Journal</td><td>: 05 marks</td></tr> <tr> <td>iv. Internal assessment</td><td>: 10 marks</td></tr> <tr> <td>Total</td><td>: 50 marks</td></tr> </table> <p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Textbook of Practical Organic Chemistry Revised–B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>2. A Hand book of Organic Chemistry–H.T. Clarke.</li> <li>3. A Laboratory Manual of Organic Chemistry–B. B. Dey and M.V. Govindachari.</li> <li>4. Lab Experiments in Organic Chemistry–Arun. Sethi, New Age International Ltd. New Delhi. 2006.</li> <li>5. Experimental Organic Chemistry–L. M. Harwood, and C. J. Moody, Blackwell Scientific, London, 1989.</li> <li>6. Practical Organic Chemistry–W. Kemp, McGraw Hill, London, 1967.</li> </ol>		i. Duration of examination	: 04 hours	ii. Experiments	: 35 marks	iii. Viva-Voce & Journal	: 05 marks	iv. Internal assessment	: 10 marks	Total	: 50 marks
i. Duration of examination	: 04 hours										
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iv. Internal assessment	: 10 marks										
Total	: 50 marks										

<b>PG75T301B : ORGANIC SPECTROSCOPY</b>	No of teaching hours
<p>The above course gives important spectroscopic study and students are able to prove the structure of organic molecules as-</p> <p>➤ The students will be able to understand the structure of organic molecules after studying the theoretical and experimental study of spectroscopic techniques.</p>	
<p><b>Electronic and Vibrational Spectroscopy:</b>          Introduction, energy considerations, experimental methods, Beer–Lambert’s law, theory and classification of electronic transitions, terminology, substituent and solvent effects.          UV spectral study of alkenes, dienes, polyenes, carbonyl and aromatic compounds. Steric effects, isobestic points, model compounds and charge transfer bands.          Vibrational Spectroscopy: Introduction, experimental methods, units, notation and regions. FT–IR, sampling techniques, complementarity of IR and Raman. Fundamental vibrations, overtones, Fermi resonance, group frequencies, factors affecting group frequencies: Conjugation, inductive, resonance, steric effects. Mechanical coupling, applications of IR in the study of H–bonding, stereoisomerism and tautomerism.          Identification of the following organic compounds by IR: Alkanes, alkenes, alkynes, aromatic compounds, aldehydes, ketones, alcohols, thiols, acids, acid chlorides, amides, amines, esters, halides, nitro compounds, etc.</p>	<b>12</b>
<p style="text-align: center;"><b>UNIT–II</b></p> <p><b>Proton Magnetic Resonance Spectroscopy:</b>          Introduction, magnetic properties of nuclei, resonance condition. Field frequency diagram, precession of nuclei, relaxation. Instrumentation: CW and FT–NMR techniques. Sample handling.          Chemical shift, mechanism of shielding and deshielding in alkanes, alkyl halides, alkenes, aromatic compounds, carbonyl compounds and annulenes. Chemical shifts of different types of organic compounds. Empirical rules.          Equivalence of protons: Chemical and magnetic equivalence. Spin–spin coupling, geminal–vicinal coupling, relative intensities. Karplus equation–Curve. Spin–systems, first order and second order patterns. Long range coupling: Spin decoupling, CIDNP and NOE.          Lanthanide Shift reagents.          Proton attached to elements other than carbon (OH, NH and SH). Exchange phenomena and temperature effects.</p>	<b>12</b>
<p><b>Multi–Nuclear NMR and Correlation Spectroscopy:</b>  <sup>13</sup>C–NMR, broad band and off resonance decoupling methods of detection.  <sup>13</sup>C–chemical shifts of different classes of organic compounds: Alkanes, alkyl halides, alkenes, alcohols, ethers, carbonyl compounds and aromatic</p>	<b>12</b>

compounds. $^{13}\text{C}$ - $^1\text{H}$ coupling DEPT. Introductory aspects of $^{15}\text{N}$ -, $^{19}\text{F}$ -, $^{31}\text{P}$ -, $^{10}\text{B}$ -, $^{11}\text{B}$ -NMR. Correlation NMR Spectroscopy: Theory, pulse sequences. FT-methods. $^1\text{H}$ - $^1\text{H}$ (COSY) and $^{13}\text{C}$ - $^1\text{H}$ (HETEROCOSY) methods	
<b>Mass Spectrometry and Composite Problems:</b> Ionisation and mass analysis. Instrumentation, methods of ionization, EI, CI, DI, SI methods. Fragmentation: Principles, odd electron ( $\text{OE}^+$ ) and even electron ( $\text{EE}^+$ ) ions, molecular ion and base peak, nitrogen rule, metastable ions. Isotope effects in chloro and bromo compounds. Stevenson rule. Fragmentation of: (i) normal and branched alkanes. (ii) alkenes (iii) benzene and its derivatives (iv) alcohols (v) aldehydes (vi) ketones (vii) acids (viii) esters (ix) ethers (x) amines (xi) nitro compounds (xii) halo compounds (xii) peptides. McLafferty and McLafferty + 1 rearrangement. Calculation of molecular formula. Calculation of H-deficiency index. Composite problems: Applications of UV, IR, NMR and MS methods and chemical reactions in structure elucidation of organic compounds.	12
<b>PG75T302B : STEREOCHEMISTRY AND REACTION MECHANISM</b>	
The above course gives the benefits to the students as- <ul style="list-style-type: none"> <li>➤ Dynamic stereochemistry course makes the students to understand stereospecific and stereoselective reactions along with asymmetric synthesis.</li> <li>➤ Stereochemistry of compounds other than carbon are studied and makes the students to understand stereochemistry of cyclic, acyclic and other compounds containing hetero atoms.</li> <li>➤ The students are able to study the reaction mechanism of nucleophilic substitutions at allylic and triagonal carbon atom with stability of intermediates.</li> <li>➤ This course also helps the students to study addition and elimination reactions along with the stereochemistry products and their proportions in the organic reactions.</li> </ul>	
<b>UNIT-I</b>  <b>Dynamic Stereochemistry:</b> Stereoselectivity in organic synthesis, stereospecific and stereoselective reaction, principle of stereoselectivity, stereoselectivity in addition, elimination and substitution reaction. Asymmetric Synthesis: Chiral pool synthesis, enantioselectivity and diastereoselectivity in acyclic system, addition of nucleohphiles to carbonyl group, Cram's rule and Prelog's rule for diastereselection. 1,2-Addition predictions: Various outcomes using predictive models such	12

<p>as Cram chelate and Felkin-Anh.</p> <p>Chiral Auxiliaries: Chiral auxiliaries in aldol condensations and Diels-Alder reaction. Oxazolidinones and chiral sulphoxides.</p> <p>Chiral Reagents: Isopinocampheylboranes, BINOL and DIBAL.</p> <p>Chiral Catalysts: Calculation of enantiomeric excess, asymmetric epoxidation-Sharpless and Jacobsen Katsuki asymmetric epoxidation, epoxidation using dioxiranes.</p> <p>Stereochemistry of catalytic hydrogenation: Metal (Pd, Pt, Ni) catalyzed hydrogenation, diimide reduction, rhodium and Ruthenium catalysts with chiral phosphine ligands like (R)-PROPHOS, (R)-BINAP and (R, R)-DIOP. Asymmetric transformations, stereochemistry of carbene and nitrene addition.</p>	
<p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Stereochemistry of Compounds other than Carbon:</b></p> <p>Stereochemistry of nitrogen compounds: Quaternary ammonium salts, amines, tertiary amine oxides, oximes, determination of configuration of aldoximes and ketoximes, stereochemistry of compounds (cyclic and acyclic) containing nitrogen.</p> <p>Stereochemistry of Phosphorus compounds, arsenic, sulphur compounds and silicon compounds.</p>	<b>12</b>
<p style="text-align: center;"><b>UNIT-III</b></p> <p><b>Reaction Mechanism-I:</b></p> <p>Nucleophilic substitution at allylic and trigonal carbon atom, Tsuji-Trost reaction. Neighbouring group participation: Definition, participation of <math>\sigma</math>, <math>\pi</math> cyclopropane aromatic rings in nucleophilic substitution reaction. Nucleophilic substitution at silicon.</p> <p>Addition Reactions: Electrophilic addition across alkenes, <i>cis- and trans</i>-alkenes and dienes. Addition of nitrogen, oxygen and sulphur nucleophiles across carbonyl compounds.</p>	<b>12</b>
<p><b>Reactive Intermediates and Activating agents</b></p> <p>Reactive Intermediates: Formation, structure, stability and reactions of the following reactive intermediates: Carbocations (classical and non-classical), carbanions, carbenes (identification by <math>^1\text{H}</math> NMR and <math>^{13}\text{C}</math> NMR), carbenoids, free radicals (ESR of organic free radicals), nitrenes, ylides, Wittig and Tebbe olefination, enamines and Stork enamine reactions.</p> <p style="padding-left: 40px;">Applications of the following in organic synthesis: Acetyl chloride, antimony pentachloride, borontrifluoride etherate, copper (I) trifluoromethane sulphonate, ethylaluminium dichloride, lithium halides</p>	<b>12</b>

and lithium perchlorides	
<b>PG75T303B CHEMISTRY OF NATURAL PRODUCTS</b>	
<p>The above course gives the benefits to the students as-</p> <ul style="list-style-type: none"> <li>➤ The students understand the important steroidal hormones and their structure synthesis stereochemistry and spectral features.</li> <li>➤ The students will be aware of natural alkaloids and terpenes which are being exploited in pharmaceutical industry and perfumery industry along with photochemical synthesis of some important narcotic alkaloids.</li> <li>➤ In the ongoing teaching, the students are enabled to make more focus on Natural fatty acids and Prostaglandins which are having remarkable applications in various oleochemical and pharmaceutical industry,</li> <li>➤ This course also helps the students to understand the biomolecules such as nucleosides, nucleotides and peptides with amino acid sequences.</li> </ul> <p>To overall view, the studies of natural products reveal the structures of the most exciting biomolecules, natural fatty acids, prostaglandins and steroidal hormones</p>	<b>12</b>
<p><b>Steroids and Steroidal Hormones:</b>            Structure, synthesis, stereochemistry and spectral features of cholesterol and ergosterol.            Steroidal Hormones: Estrogenic hormones—estrone, androgenic hormones—androsterone, corpus luteum hormones—progesterone. Transformations in steroids and hormones</p>	<b>12</b>
<p><b>Plant Products:</b>            Structure, synthesis, stereochemistry and spectral properties (wherever applicable) of the following:</p> <p>Alkaloids: Papaverine, reserpine, morphine, lysergic acid, physostigmine, yohimbine. Photochemical synthesis of nuciferine, corydaline and tylophorine.</p> <p>Terpenoids: <math>\alpha</math>-Cadinene, zingiberene, <math>\alpha</math>-Pinene, gibberellic acid, camphor, caryophyllene, abietic acid and farnesol.</p>	<b>12</b>
<p><b>Prostaglandins and Lipids:</b>            Prostaglandins: Introduction, nomenclature, classification and biological</p>	<b>12</b>

<p>role of prostaglandins. Structure elucidation and stereochemistry of PGE<sub>1</sub>. Synthesis of prostaglandins by Corey and Stork routes.</p> <p>Lipids: Sphingolipids, phospholipids, cyanolipids and glycolipids, naturally occurring fatty acids and their triglycerides, essential fatty acids, unusual fatty acids, methods of isolation: Gunstone's partition method. Reactions of fatty acids: Fischer- and trans-esterification, oxidation, hydrogenation, margarine and acyl group transfer reactions. Analytical values: Cetane number. Applications of GC, IR, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR and MS techniques in the study of their structures.</p> <p>Emulsions and biodiesel.</p> <p>Oleochemicals and their applications in the synthesis of heterocycles</p>	
<p><b>Biomolecules:</b></p> <p>Structure and synthesis of nucleosides and nucleotides. Methods of formation of internucleotide bonds. Polynucleotides, structure, formation and hydrolysis products of DNA and RNA. Role of nucleic acids in protein synthesis. Genetic code.</p> <p>Peptide bond formation, structure and stereochemistry.</p> <p>Peptide linkage, primary structure of peptides. C-terminal amino acid determination (hydrazinolysis), N-terminal amino acid determination. Edman's and Sanger's method. Application of dansyl chloride, partial hydrolysis of peptides. Mass spectra of peptides. Synthesis of Peptides: Oxytocin, glutathione, Merrifield Solid phase peptide synthesis. Structure of proteins.</p> <p>Reaction and mechanism of biochemical reactions associated with thiamine pyrophosphate, pyridoxal phosphate, Vit B<sub>12</sub>, flavin and NADH.</p>	12
<p><b>PG75P301B: Lab Course in Organic Chemistry</b></p>	
<ul style="list-style-type: none"> <li>➤ The binary mixture analysis helps the students to understand the nature, physical properties and functional group of the unknown organic compounds.</li> <li>➤ This course also helps the students to know about separation and purification techniques.</li> </ul> <p><b>CHO(Pr)-3.4: LAB COURSE IN ORGANIC CHEMISTRY</b></p> <p>Identification of the nature, bulk separation, purification and qualitative analysis (using ether) of the binary mixture of the following classes: Acids, bases, phenols and neutral compounds (without derivatives).</p> <p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Textbook of Practical Organic Chemistry Revised by B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>2. A Hand book of Organic Chemistry by H. T. Clarke.</li> </ol>	

<p>3. A Laboratory Manual of Organic Chemistry by B. B. Dey and M. V. Govindachari.</p> <p>4. Lab Experiments in Organic Chemistry by Arun Sethi, New Age International Ltd. New Delhi. 2006.</p> <p><b>Scheme of Examination</b></p> <p>Duration of examination : 04 hours</p> <p>Experiments : 35 marks</p> <p>Journal and Viva : 05 marks</p> <p>Internal Assessment : 10 marks</p> <p>Total : 50 marks</p>	
<p><b>PG75P302B: LAB COURSE IN ORGANIC CHEMISTRY</b></p> <ul style="list-style-type: none"> <li>➤ The chemical transformations of organic compounds to the other products by preparation of derivatives which will train the students in the synthetic organic chemistry.</li> <li>➤ The students get the training in chromatographic techniques particularly in TLC and column chromatography.</li> </ul>	
<p>1. Applications of computers in structure, stereochemistry, mechanism and conformational studies of organic compounds.</p> <p>2. Chromatographic techniques: TLC and column chromatography.</p> <p>3. Preparation of derivatives.</p> <p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. Applications of Computers in Chemistry.–Raman</li> <li>2. Computers and Their Applications to Chemistry–Ramesh Kumari, Narosa Publishing House (2002)</li> <li>3. Vogel's Textbook of Practical Organic Chemistry Revised - B.S. Furniss, A. J. Hannaford, P. W. G. Smith, A. R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>4. A Hand book of Organic Chemistry–H. T. Clarke.</li> <li>5. A Laboratory Manual of Organic Chemistry - B. B. Dey and M.V. Govindachari.</li> <li>6. Lab Experiments in Organic Chemistry – by Arun Sethi, New Age International Ltd. New Delhi. 2006.</li> </ol> <p><b>Scheme of Examination</b></p> <p>Duration of examination : 04 hours</p>	

Experiments : 35 marks Journal and Viva : 05 marks Internal Assessment : 10 marks Total : 50 marks	
<p><b>PG75P303B: LAB COURSE IN ORGANIC CHEMISTRY</b></p> <ul style="list-style-type: none"> <li>➤ The students will learn the extraction methods for natural products and isolation methods.</li> <li>➤ Students will learn how to assign the structure of natural products by spectroscopic methods.</li> </ul> <p><b>Isolation, Characterization of Natural products:</b></p> <ol style="list-style-type: none"> <li>1. Cysteine from human hair.</li> <li>2. Hesperidine from orange peel.</li> <li>3. Caffeine from tea leaves.</li> <li>4. Myristine from nutmeg.</li> <li>5. Piperine from black pepper.</li> <li>6. Azelaic acid from castor oil.</li> <li>7. Lycopene from tomato.</li> </ol> <p><b><i>Recommended Books:</i></b></p> <ol style="list-style-type: none"> <li>1. Unitized Experiments in Organic Chemistry- Brewster and McEwen</li> <li>2. Vogel's Textbook of Practical Organic Chemistry Revised -B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>3. A Hand book of Organic Chemistry –H.T.Clarke.</li> <li>4. A Laboratory Manual of Organic Chemistry - B.B.Dey and M.V. Govindachari.</li> <li>5. Lab Experiments in Organic Chemistry –Arun. Sethi, New Age International Ltd. New Delhi. 2006.</li> <li>6. Natural products, A Laboratory Guide – R .Ikan Academic Press, London 1969.</li> <li>7. Chemistry of Natural Products, S. V. Bhat, B. A. Nagasampagi, M. Sivakumar, Narosa Publishers, 2010.</li> </ol> <p><b>Scheme of Examination</b></p> <p>Duration of examination : 04 hours</p>	

Experiments : 35 marks Journal and Viva : 05 marks Internal Assessment : 10 marks Total : 50 marks	
<b>CHOT-4.1 ORGANIC SYNTHESIS</b>	
<p>The above course gives the benefits to the students as-</p> <ul style="list-style-type: none"> <li>➤ The students are able to understand the retrosynthetic analysis to get a target and helps to make them for the research work.</li> <li>➤ The study of newer reagents and reactions make the students to recent development in the synthesis of most potential biomolecules.</li> </ul> <p>Studies on oxidations and reductions enable the students to differentiate the methods involved in the organic synthesis</p>	
<p style="text-align: center;"><b>UNIT – I</b></p> <p><b>Synthetic Design and retrosynthetic analysis:</b> Protecting groups in organic synthesis: Principle of protection, protection of hydroxyl (–OH), amino (–NH<sub>2</sub>, –NH), carboxylic (–COOH), carbonyl (RCOR') groups, their synthetic applications and methods of deprotection. Retrosynthetic analysis: Terminology, synthon, synthetic equivalent, functional group interconversion and disconnection approach, one group C–X and two group disconnections. Applications of C–C disconnection in the synthesis of substituted 1,1–, 1,2–, 1,3– and 1,4– bifunctional compounds. Retrosynthetic analysis and forward synthesis for alcohols, benzocaine, acetone cyanohydrin, <i>p</i>–methoxy acetophenone, 6–methyl quinoline, pirindol, 6–methoxy indole –3–acetic acid. Application to the synthesis of juvabione, taxol, longifolene, Prelog–Djerassi lactone.</p>	<b>12</b>
<p style="text-align: center;"><b>UNIT–II</b></p> <p><b>Oxidations and Reductions:</b> Oxidations: Oxidation of organic compounds using KMnO<sub>4</sub>, PCC, OsO<sub>4</sub>, CrO<sub>3</sub>, K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>, SeO<sub>2</sub>, Pb(OAc)<sub>4</sub>, HIO<sub>4</sub>, oxygen, Oppenauer oxidation, Swern oxidation, ozonolysis. Hydroboration– isomerisation and oxidation. Application in the synthesis of esters, E–Z alkenes, conjugated dienes, alkynes. Conditions: Catalytic oxidation and Pt, photosensitized oxidation of alkenes, oxidation with molecular oxygen, aromatization, silver based reagents. Reductions: Reduction of organic compounds using the following reagents: LiAlH<sub>4</sub>, NaBH<sub>4</sub>, lithium hydridoalkoxyaluminates, MPV reduction, catalytic hydrogenation, dissolving metal reduction (including acylation)</p>	<b>12</b>

condensation), Clemmensen reduction. Birch Reduction, Wolf–Kishner reduction (Huang–Minlon modification), Raney–Ni desulphurisation	
<p style="text-align: center;"><b>UNIT–III</b></p> <p><b>Newer Reactions:</b>            Mechanism and strategic applications of the following named reactions: Suzuki coupling, Prins reaction, Shapiro reaction, Mitsunobu reaction, Robinson annulation, Junjappa–Ila aromatic and heteroaromatic annulations, Pauson–Khand reaction, Simon–Smith reaction, Huisgen 1,3–dipolar cycloaddition reaction, O'Donnell Aminoacid synthesis, Heck arylation, Desmartin reaction, Houben–Hoesch reaction, Sonogashira reaction, Buchwald–Hartwig reaction.</p>	<b>12</b>
<p style="text-align: center;"><b>UNIT–IV</b></p> <p><b>Newer Reagents:</b>            Methods of preparation, mechanism of action and application of the following reagents in Organic synthesis: DCC, 1,3–dithiane (Corey–Seebach reaction), LDA, DDQ, Wilkinson catalyst, crown ethers, trimethyl silyl iodide, trimethyl silyl cyanide, hydrosilane, Iwanov reagent, Peterson reaction, Julia olefination, Woodward and Prevost hydroxylations, Lawesson's reagent</p>	<b>12</b>
<b>PG75T401B: PHOTOCHEMISTRY AND PERICYCLIC REACTIONS</b>	
<p>The above course gives the benefits to the students as-</p> <p>The students are able to understand the classifications and features of pericyclic reactions and are being useful in research work.</p> <ul style="list-style-type: none"> <li>➤ Students understand the molecular rearrangements, mechanistic pattern etc.</li> <li>➤ The biochemical mechanism is useful for students to study the biochemical reaction associated with enzymes and vitamins.</li> </ul>	
<p style="text-align: center;"><b>UNIT–I</b></p> <p><b>Organic Photochemistry:</b>            Bonding and antibonding orbitals, principles of photochemistry, photochemical processes, singlet and triplet states, energy transfer and photosensitisation, photochemical reactions, photoreduction, Photochemical fragmentation reactions: Norish type–I, type – II cleavages (Yang cyclisation)–di–pi methane rearrangement, optical pumping, photochemistry of cyclohexadienones, photo–Fries rearrangement, Paternò–Büchi reaction, photochemistry of alkenes, benzenes,</p>	

cyclohexanes and photochemistry of vision.	
<p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Pericyclic Reactions:</b>  Pericyclic reactions: Classification and features, molecular orbital symmetry, frontier orbitals of ethylene, 1,3-butadiene, 1,3,5-hexatriene and allyl systems.  Electrocyclic processes: Introduction, Woodward-Hoffmann rules for <math>4n</math>- and <math>(4n+2)-\pi</math> systems, stereochemistry under thermal and photochemical conditions.  Cycloaddition reactions: Introduction, supra facial and antra facial addition, [2+2] and [4+2] cycloaddition reaction (Diels-Alder reaction) FMO analysis under thermal and photochemical conditions.  Sigmatropic rearrangements: Classification, FMO approach for [1,3], [1,5] and [3,3] sigmatropic rearrangements, supra and antra facial hydrogen shifts. Walk, Claisen-Cope, oxy-Cope and aza-Cope rearrangements.  Vitamin-D group isomerizations</p>	
<p style="text-align: center;"><b>UNIT-III</b></p> <p><b>Molecular Rearrangement:</b>  Molecular Rearrangement: Classification and general mechanistic pattern for electrophile, free radical and nucleophile rearrangement. Mechanisms of the following rearrangement:  (i) C-C migration: Wagner-Meerwein, pinacol-pinacolone, dienone-phenol, benzilic, Favorskii, Sommelet-Hauser, Stevens, Smiles, Fritsch-Butenberg-Wiechell.  (ii) C-N migration: Benzidine rearrangement, Neber, Beckmann, Hofmann, Curtius, Lossen, Schmidt.  (iii) C-O migration: Baeyer-Villiger, Dakin, Payne (including <i>aza</i> and <i>thia</i>), hydroperoxide, Crigee, Rupe, Ferrier, Petasis, Bamford-Stevens.  (iv) O-C migration: Baker-Venkataraman, Fries and Wittig rearrangements.</p>	
<p style="text-align: center;"><b>UNIT-IV</b></p> <p><b>Organo-Lithium, -Magnesium, -Zinc, and -Tin Compounds:</b>  Organolithium and organomagnesium: Preparation, properties of organolithium and organomagnesium compounds and their uses in organic synthesis and in the preparation of organometallic compounds, Gilman reaction, LDA.  Organozinc compounds: Preparation, structure and bonding, applications in C-C bond forming reactions viz., Simmons-Smith reaction, Negishi coupling, Fukuyama coupling, Barbier reaction and zinc acetylides.</p>	
<b>PG75T403B HETEROCYCLIC AND MEDICINAL CHEMISTRY</b>	

<p>The above course gives the benefits to the students as-</p> <ul style="list-style-type: none"> <li>➤ The students are made aware of the classification, nomenclature and reactions of three, four and seven membered heterocycles.</li> <li>➤ The students are able to understand transformations, photochemistry and rearrangements of heterocycles.</li> <li>➤ This course also helps to the student to study modern theories of drug actions and SAR studies and chemotherapy.</li> </ul>	
<p><b>Heterocyclic Chemistry–I</b> Chemistry of three, four, and seven membered heterocycles with one heteroatom. Three membered: oxiranes, aziridines and thiranes. Four membered: oxetanes, azetidines and thietanes. Seven membered: oxepines, azepines and thiepinines.</p>	
<p><b>UNIT–II</b> <b>Heterocyclic Chemistry–II</b> Transformations, Photochemistry and rearrangement in heterocycles. Transformations of: (i) coumarins to benzofurans, (ii) sydnones to pyrazoles, (iii) chromones to pyrazoles (iv) furans to pyridines and (v) pyrroles to pyridines. Heterocycles in functional group transformations: (i) alkanes from thiophenes, (ii) cycloalkanes from pyrazolines, (iii) dienes from pyrroles (iv) alcohols from isoxazodiolines (v) esters from trichlorocyanuric acid, (vi) acetylenes from 1,2,3-selenadiazoles and (vii) deoxygenation of phenols tetrazoles. Rearrangements in heterocycles: (i) Dimroth rearrangement, (ii) Boulton–Katritzky rearrangement and (iii) Fischer Indole cyclisation.</p>	
<p style="text-align: center;"><b>UNIT–III</b></p> <p><b>Medicinal Chemistry–I:</b> Modern theories of drug action, concept of receptors, computer aided drug design, qualitative and quantitative SAR. Sulfa drugs: Sulfadiazines, sulfamethazines, sulfaguanidines, sulfaisoxozoles and sulfamerazine. Analgesics: Classification of narcotic and non–narcotic analgesics. Narcotic: Opium alkaloids, morphine, metopon, benzomorphan and phenazocine. Non–Narcotic: 4–Phenylpiperidines, pethidine, di–isopropylamines, methadone, pyrazolones and antipyrine. Anti–Fertility Drugs: Steroidal and non–steroidal compounds,</p>	

norethindrone, mestranil, norgestrol and non-steroidal antifertility drugs.	
<b>Medicinal Chemistry-II:</b> Antineoplastic agents: Nitrogen mustards, chlorabucil, sarcolycin dopan and cyclophosphomide. Pteridines: Amethopterin, pyrimidines, 5-fluorouracil, cis-platines, anti-platines, etc. Antibiotics: Structure, synthesis, stereochemistry and spectral features of the following antibiotics: natural penicillins, semisynthetic penicillins, patulin, chloramphenicol, steptomycin, structural features and uses of common antibiotic drugs. Norfloxacin, rifamycin and amoxycillin.	
<b>PG75D401B :PROJECT WORK</b> In this course students are exposed to extensive literature survey which will help them to understand the given research problem. <ul style="list-style-type: none"> <li>➤ The students will be exposed to the spectroscopic methods which will help them to synthesize the previously unknown molecules.</li> <li>➤ The outcome of research work is being published in the international journals of repute which makes students to inspire in the future research field.</li> </ul>	
<b>Preparation of Derivatives / Spectral Analysis</b>	
The project work may include in-plant training in Industries/short term work in the department/other educational institutions/R&D organizations/data mining/review of current literature/theoretical methods/computer applications. Experimental work may involve studies on synthesis/measurements/study of properties/characterization by physical methods/activities for reported/unreported research or any suitable combination thereof.	
<b>PG75P401B: LAB COURSE IN ORGANIC CHEMISTRY</b>	
<ul style="list-style-type: none"> <li>➤ The students will be trained in purification methods by column chromatographic techniques</li> </ul>	
Multi-step preparation of organic compounds involving various reactions like addition, elimination, oxidation, hydrolysis etc. and purification methods like distillation and crystallization.	

<p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Textbook of Practical Organic Chemistry Revised–B.S. Furniss, A. J. Hannaford, P.W.G. Smith, A. R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>2. A Hand book of Organic Chemistry–H. T. Clarke.</li> <li>3. A Laboratory Manual of Organic Chemistry–B. B. Dey and M. V. Govindachari.</li> <li>4. Lab Experiments in Organic Chemistry–Arun Sethi, New Age International Ltd. New Delhi. 2006.</li> </ol> <p><b>Scheme of Examination</b></p> <table> <tr> <td>Duration of examination</td> <td>: 04 hours</td> </tr> <tr> <td>Experiments</td> <td>: 35 marks</td> </tr> <tr> <td>Journal and Viva</td> <td>: 05 marks</td> </tr> <tr> <td>Internal Assessment</td> <td>: 10 marks</td> </tr> <tr> <td>Total</td> <td>: 50 marks</td> </tr> </table>	Duration of examination	: 04 hours	Experiments	: 35 marks	Journal and Viva	: 05 marks	Internal Assessment	: 10 marks	Total	: 50 marks	
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<b>PG75P402B : LAB COURSE IN ORGANIC CHEMISTRY</b>											
<ul style="list-style-type: none"> <li>➤ The Ternary mixtures analysis helps the students to study the nature, physical properties and functional group of the unknown organic compounds.</li> <li>➤ This course also helps the students to know about separation and purification techniques.</li> </ul>											
<p>Ternary mixture analysis (without derivatives). Qualitative analysis of three component mixture containing amino acids, low boiling liquids, nitrophenols etc.</p> <p><b>Books Recommended:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Textbook of Practical Organic Chemistry Revised–B.S. Furniss, A.J. Hannaford, P.W.G. Smith, A.R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>2. A Hand book of Organic Chemistry–H. T. Clarke.</li> <li>3. A Laboratory Manual of Organic Chemistry–B. B. Dey and M.V. Govindachari.</li> <li>4. Lab Experiments in Organic Chemistry–Arun Sethi, New Age International Ltd. New Delhi. 2006</li> </ol> <p><b>Scheme of Examination</b></p> <table> <tr> <td>Duration of examination</td> <td>: 04 hours</td> </tr> <tr> <td>Experiments</td> <td>: 35 marks</td> </tr> </table>	Duration of examination	: 04 hours	Experiments	: 35 marks							
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<b>PG75P403B : LAB COURSE IN ORGANIC CHEMISTRY</b>																	
<ul style="list-style-type: none"> <li>➤ The chemical transformations of organic compounds to the other products by preparation of derivatives which has trained the students in the synthetic organic chemistry.</li> <li>➤ Further students are beings exposed to prove the structure of organic molecules by spectroscopic methods.</li> <li>➤</li> </ul>																	
<p align="center"><b>Preparation of Derivatives / Spectral Analysis</b></p> <p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. Vogel's Textbook of Practical Organic Chemistry Revised - B. S. Furniss, A. J. Hannaford, P.W.G. Smith, A.R. Tatchell, 5<sup>th</sup> Edition, Addison Wesley Longman Limited, UK, 1997.</li> <li>2. A Hand book of Organic Chemistry–H. T. Clarke.</li> <li>3. A Laboratory Manual of Organic Chemistry - B. B. Dey and M. V. Govindachari.</li> <li>4. Lab Experiments in Organic Chemistry– y Arun Sethi, New Age International Ltd. New Delhi. 2006.</li> </ol> <p><b>Scheme of Examination</b></p> <table> <tr> <td>Duration of examination</td><td>: 04 hours</td><td></td></tr> <tr> <td>Experiments</td><td>: 35 marks</td><td></td></tr> <tr> <td>Journal and Viva</td><td>: 05 marks</td><td></td></tr> <tr> <td>Internal Assessment</td><td>: 10 marks</td><td></td></tr> <tr> <td>Total</td><td></td><td>: 50 marks</td></tr> </table>		Duration of examination	: 04 hours		Experiments	: 35 marks		Journal and Viva	: 05 marks		Internal Assessment	: 10 marks		Total		: 50 marks	
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## Specific course outcome (Physical Chemistry)

<b>Paper Code and Name</b>	<b>PG75T103C: PHYSICAL CHEMISTRY: QUANTUM CHEMISTRY, REACTION KINETICS, THERMODYNAMICS &amp; ELECTROCHEMISTRY AND INTRODUCTION TO POLYMERS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course helps students a better understanding to describing and predict the behaviour of matter at atomic and molecular level.
2.	At the end of this course, the students will learn, the kinetics and mechanism of reactions take place and also the significance of activation parameters.
3.	In this course, the students will learn, the energy of activation and entropy of a chemical reaction
4.	This course provides the fundamentals of polymers, their synthesis and degradation.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>Unit 1: Quantum Mechanics</b>	
Review of classical mechanics: Equation of motion for a particle, Newtonian, Lagrangian and Hamiltonian equations of motion, elementary wave motion. Operators, eigen values and expectation values, commuting operators, linear operator and Hermitian operators. Solutions of Schrödinger equations of a free particle, particle in a box problem: in one and three dimensions, degeneracy, reflection and penetration of a particle in a one-dimensional box of semi-infinite barrier, a particle in a box of finite walls. Rigid rotator, derivation of selection rules for transitions in rotating molecule, linear harmonic oscillator, Hermite polynomials. Equation for the hydrogen atom in spherical polar coordinates and an indication of the method of its solution, the quantum numbers and their significance. Hydrogen-like atoms, properties of the H-atom wave functions. Electronic energy states of H-atom. Many electron systems and the self-consistent field method. Electronic configurations in the periodic table. Pauli exclusion principle.	12 Hours

<b>UNIT-II: Reaction Kinetics:</b>	
<p>A critical account of collision and transition state theories.</p> <p>Kinetics and mechanism: Steady state approximation and simple examples relating kinetics to mechanism. Theories of Unimolecular reactions: RRKM theory. Isomerisation of methyl isocyanide. Chain Reactions, examples of chain reactions, general aspects of chain reactions. Chain-length, chain transfer reactions, chain inhibition, kinetics of branching chain reactions and explosion limits.</p>	12 Hours
<b>UNIT-III: Thermodynamics:</b>	
<p>Thermodynamic criteria for spontaneous chemical changes. Systems at (i) constant volume and temperature and (ii) constant pressure and temperature (derivation of <math>dA \leq 0</math> &amp; <math>dG \leq 0</math>). Dependence of free energy on pressure and temperature. Standard free energies and their determination. Relation between free energy change and equilibrium constant. Gibbs-Helmholtz equation and their different forms. The pressure dependence of free energy of non-ideal gases and fugacity. Standard state for non-ideal gas. Equilibrium constant for system of non-ideal gases. Lewis and Randall rule. Temperature dependence of free energy and equilibrium constants.</p> <p>Partial miscibility, activity and activity coefficients of components of solutions, partial molar quantities and their determinations. Gibbs-Duhem equation and the calculation of activity of a component in solutions. Duhem-Margules equation. Ternary systems and phase diagram of ternary systems.</p>	12 Hours
<b>UNIT-IV: Polymers :</b>	
<p>Review on basic concepts of polymers and their classifications. Homopolymers, copolymers, terpolymers, addition polymers and condensation polymers with examples. Comparison between addition polymers and condensation polymers. Tacticity with examples of polystyrene and PMMA. Elastomers, difference between elastomer and thermoplastic, approaches to increase processability.</p> <p>Techniques of free-radical polymerization: Bulk, solution, suspension, emulsion and precipitation polymerization.</p> <p>Reactions of vinyl polymers: Functional group reactions, ring-forming reactions and block &amp; graft copolymer formation. Crosslinking reactions: peroxide crosslinking, sulphur vulcanization, radiation crosslinking, photo crosslinking, electron beam crosslinking and miscellaneous crosslinking reactions. Polymer degradation: Chemical, thermal and radiation degradations.</p>	12 hours

<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Introduction to Quantum Chemistry by A. K. Chandra, Ed. 3, Tata McGraw Hill, New Delhi, 1988.</li> <li>2. Quantum Chemistry by R. K. Prasad, New Age International Publications, New Delhi, 1997.</li> <li>3. Quantum Chemistry by Eyring, Walter and Kimball, John-Wiley, New York.</li> <li>4. Physical Chemistry by G. M. Barrow, McGraw Hill, New York, 1996.</li> <li>5. Fundamentals of Physical Chemistry by Maron and Lando.</li> <li>6. Physical Chemistry by P. W. Atkins, ELBS, London, 1990 (Ed. 4).</li> <li>7. Physical Chemistry by K. Vamulapalli, Prentice Hall of India Pvt. Ltd., New Delhi, 1997.</li> <li>8. Physical Chemistry by Daniels and Alberty, Wiley, New York.</li> <li>9. Physical Chemistry Through Problems by S. K. Dogra and S Dogra, Wiley Eastern, New Delhi.</li> <li>10. A Text Book of Physical Chemistry by Samuel Glasstone, McMillan, London.</li> <li>11. Atomic Structure and Chemical Bonding by Manas Chanda, Tata McGraw Hill Publishing Co., New Delhi.</li> <li>12. Chemical Kinetics by K. J. Laidler, Tata McGraw Hill Publishing Co., New Delhi.</li> <li>13. Kinetics and Reaction Mechanisms by Frost and Pearson, Wiley, New York.</li> <li>14. Polymer Chemistry: An Introduction, Malcolm P. Stevens, Oxford University Press, 1999.</li> <li>15. Contemporary Polymer Chemistry, Harry R. Allcock and Frederick W. Lampe, Printice-Hall, 1981.</li> <li>16. Principles of Polymer Chemistry, P. Bahadur and N. V. Shastri, Narosa Publisher, 2002</li> <li>17. Polymer Chemistry: Properties and Applications, Andrew Peacock and Allison Calhoun, Hanser Publisher, 2006.</li> <li>18. Text Book of Polymer Chemistry, Fred W. Billmeyer, Jr., Wiley Publisher, 1984.</li> <li>19. Polymer Science, V. R. Gowariker, N. V. Viswanathan and Jayadev Sreedhar, New Age International Publisher, 2001.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG75P103C: LAB COURSE IN PHYSICAL CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course is designed in such a way that it provides a bridge to the students and attempts to make a link between their undergraduate experiments to master level.
2.	The aim is to make students gain familiarity with a variety of physicochemical measurement techniques of some basic physical chemistry experiments like spectrometry, conductometry, potentiometry, law etc.
3.	Also familiarize the students with general information and chemical mathematics, calibration of glassware's, concentration measures of solutions and treatment of experimental data

<b>PARTICULARS</b>	<b>Teaching Hours</b>
<p>1. General Information and Chemical mathematics: Calibration of glasswares, concentration measures of solutions- concept of normality, molarity, molality and mole fraction, preparation of standard solution. Treatment of Experimental data – Errors, type of errors, Accuracy and precision. Mean deviation, standard deviation, significant figures, Methods of average and least squares.</p> <p>2. Spectrophotometry: To obtain the absorption curve of <math>\text{KMnO}_4</math> solution on a colorimeter and hence verify Beer–Lamberts law.</p> <p>3. Potentiometry: Determination of the dissociation constant of dibasic acids (minimum two acids and titration with <math>\text{NaOH}</math>)</p> <p>4. Conductance: Simultaneous estimation of <math>\text{H}_2\text{C}_2\text{O}_4</math> and <math>\text{HCl}</math> in the mixture conductometrically by titrating with <math>\text{NaOH}</math>.</p> <p>5. Distribution law: Studying the distribution of benzoic acid between water and benzene and hence determine the degree of association of benzoic acid in benzene.</p>	

<p>6. Viscosity: Determination of viscosity average molecular weight of polystyrene in toluene by Ubbelohde Viscometer</p> <p>7. Thermochemistry: Determine the relative strength of <math>\text{CH}_3\text{COOH}</math> and <math>\text{ClCH}_2\text{COOH}</math> by calorimetric method.</p> <p>8. Reaction Kinetics: Determination of activation parameters of the reaction of acid hydrolysis of methyl acetate at two different temperatures.</p> <p>9. Cryoscopy: Determination of cryoscopic constant of benzene and nitrobenzene</p> <p>10. Refractometry: Analysis of a binary mixture (glycerol and water) by refractive indices measurement.</p>	
<p><b>REFERENCES</b></p> <ol style="list-style-type: none"> <li>1. Practical Physical Chemistry by A. M. James and F. E. Prichard, Longmans, London.</li> <li>2. Experiments in Physical Chemistry by Shoemaker and Garland, McGraw Hill, New York.</li> <li>3. Experiments in Physical Chemistry by Daniels, Alberty and Willams, McGraw Hill, New York.</li> <li>4. Experimental Physical Chemistry by W. G. Palmer, Cambridge University Press, London.</li> <li>5. Advanced Physico-Chemical experiments by J. Rose.</li> <li>6. Text Book of Physical Chemistry by S. Glasstone, , McGraw Hill, London.</li> <li>6. Text book of Quantitative Analysis by A. I. Vogel, ELBS, Harlow.</li> <li>7. Advanced Practical Physical Chemistry by J. B. Yadav, Goel Publishing House.</li> <li>8. Experimental Physical Chemistry by V. D. Athawale and Parul Mathur, New Age International Publishers.</li> <li>9. Advanced Physical Chemistry Experiments by Gurtu and Gurtu, Pragati Prakashan Educational Publishers, 3rd Edition 2007.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG75T203C: PHYSICAL CHEMISTRY–II MOLECULAR SPECTROSCOPY, ELECTRONIC SPECTROSCOPY, THERMODYNAMICS, REACTION KINETICS AND INTRODUCTION TO POLYMERS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course demonstrates the development of physical science.
2.	This course describes the arrangement of atoms and molecules in crystalline solids and also exhibits how crystalline solids show strong diffraction pattern when exposed to X-rays, neutron and electrons.
3.	This course helps to understand the solvent and ionic strength effects on kinetics of solutions and also about Stopped-Flow technique.
4.	This course helps in understanding the basics of redox reactions at surface of the electrode and also helpful in understanding the electric double layer at inter-phase region between the electrode and electrolyte.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>UNIT–I: Microwave Spectroscopy and X–ray Diffraction</b>	
<p>Microwave spectroscopy: Gaseous microwave spectra and rotational transitions: Study of inversion of ammonia and hindered rotations in molecules. Instrumentation. Stark effect in molecular spectra, first and second order Stark effects.</p> <p>X–ray diffraction: Origin and production of X-rays, interaction of X-rays with matter: Absorption, scattering and diffraction. Reciprocal lattice: Bragg's law in reciprocal space. Instrumentation: Sources, filters, monochromatic detectors. Crystal structure: Unit cell, lattices, planes and Miller indices. Debye-Scherrer powder methods and Weissenberg camera. Numerical problems.</p>	12 Hours
<b>UNIT–II: Reaction Kinetics:</b>	
<p>Kinetics in Solution: Effect of solvent, pressure and ionic strength for ion–ion, ion–neutral molecule type reactions and cage effects.</p> <p>Potential energy surfaces, methods employed in the construction of potential</p>	12 Hours

surfaces, calculating reactions.	
Fast Reactions: Techniques for fast reactions, flow methods, stopped flow technique, relaxation methods and flash photolysis. Numerical problems.	
<b>UNIT–III: Electrochemistry:</b>	
<p>Introduction to electrochemistry, Debye-Huckel and Bjerrum models and the corresponding theoretical expression for activity coefficient and Debye–Huckel–Onsagar theory of conductance of strong electrolytes.</p> <p>Electrochemistry of Solution: Activity of ions in solution, solvation number and their determination, ion-solvent interactions, ion-ion interactions and free energy of ions in solution and triple ion formation, conductance minima and free energy of ions in solution. Born model for calculating the free energy of ion-solvent interaction and its modifications. The enthalpy and entropy of ion–solvent interaction. Electrical double layer: Electrocapilarity, Lippman equation (surface excess), theories of electrical double layer: Helmholtz–Perrin, Gouy–Chapman and Stern theories. Effect of ions on zeta potential. Over potentials, exchange current density, derivation of Butler–volmer equation and Tafel plot.</p>	12 Hours
<b>UNIT–IV: Polymer chemistry</b>	
<p>Transitions in polymers: Definition of glass transition temperature (<math>T_g</math>) and flow temperature (<math>T_f</math>) and melting temperature (<math>T_m</math>), thermal behaviour of amorphous and crystalline polymers, factors affecting the <math>T_g</math>. Plasticizers, properties and their effect on <math>T_g</math> of PVC and diethylhexylsuccinate, efficiency of plasticizers, comparison of <math>T_g</math> and <math>T_m</math>. <math>T_g</math> of copolymers and polymer blends, relation between <math>T_g</math> and <math>T_m</math>.</p> <p>Polymer molecular weight: Number average and weight average molecular weights, polydispersity and molecular weight distribution in polymers. Numerical problems on determination of molecular weights.</p> <p>Kinetics of polymerization: Kinetics of free-radical addition polymerization, cationic polymerization, anionic polymerization, copolymerization and determination of reactivity ratios.</p> <p>Polymer synthesis: Ziegler–Natta polymerization (isotactic and syndiotactic) and its limitations. Metallocene catalysis polymerization (isotactic). Metathesis polymerization: Acyclic diene metathesis polymerization (ADMET) and ring opening metathesis polymerization (ROMP). Group transfer polymerization (GTP) and advantages of GTP.</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Fundamentals of Molecular Spectroscopy by C. N. Banwell, Tata McGraw Hill</li> <li>1. Publishing Co., New Delhi.</li> <li>2. An introduction to Molecular Spectroscopy by G. M. Barrow, McGraw</li> </ol>	

<p>Hill, New York.</p> <ol style="list-style-type: none"> <li>3. Molecular Spectra and Molecular Structure: I Spectra of Diatomic Molecules by G. Herzberg, Van Nostrand, Princeton.</li> <li>4. Physical Chemistry by P. W. Atkins, ELBS, London.</li> <li>6. Physical Chemistry by G. M. Barrow, McGraw Hill, New York.</li> <li>7. Atomic and Molecular Spectroscopy by M. C. Gupta, New Age International Publishers, New Delhi.</li> <li>8. Chemical Kinetics by K. J. Laidler, Tata McGraw Hill Publishing Co., New Delhi.</li> <li>9. Kinetics and Reaction Mechanisms by Frost and Pearson, Wiley, New York.</li> <li>10. Chemical Kinetics by K. J. Laidler, McGraw Hill, 1950.</li> <li>11. Kinetics and mechanism of chemical transformations by J. Rajaraman and J. Kuriacose, MacMillan.</li> <li>12. Theory of rate processes by S. Glasstone, K. J. Laidler and H. Eyring, McGraw-Hill, 1941.</li> <li>13. Theories of Chemical reaction Rates by K. J. Laidler, McGraw-Hill, 1969.</li> <li>14. Techniques of Organic by Weissberger(ed.), Interscience, Vol. VIII, 1963,</li> <li>15. Kinetics of Chemical Changes in Solution by E. S. Amis, MacMillan, 1948</li> <li>16. The Foundations of Chemical Kinetics by S. W. Benson, MacGraw-Hill, 1960.</li> <li>17. An Introduction to Electrochemistry by S. Glasstone, Van Nostrand, London</li> <li>18. A Text book of Electrochemistry by G.F.A. Kortum and J.O.M. Bockris, Elsevier, New York.</li> <li>19. Modern Electrochemistry by J.O.M. Bockris and A.K.N. Reddy Vol. I and Vol. II, Butterworths, London.</li> <li>20. Polymer Chemistry: An Introduction, Malcolm P. Stevens, Oxford University Press, 1999.</li> <li>21. Contemporary Polymer Chemistry, Harry R. Allcock and Frederick W. Lampe, Printice-Hall, 1981.</li> <li>22. Principles of Polymer Chemistry, P. Bahadur and N. V. Shastri, Narosa Publisher, 2002</li> <li>23. Polymer Chemistry: Properties and Applications, Andrew Peacock and Allison Calhoun, Hanser Publisher, 2006.</li> <li>24. Text Book of Polymer Chemistry, Fred W. Billmeyer, Jr., Wiley Publisher, 1984.</li> <li>25. Polymer Science, V. R. Gowariker, N. V. Viswanathan and Jayadev Sreedhar, New Age International Publisher, 2001.</li> </ol>	
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<b>Paper Code and Name</b>	<b>PG75P203C: LAB COURSE IN PHYSICAL CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
This lab course aims to develop further the skills and techniques gained during last semester experiments.	
1.	It consists of several experiments that use different techniques to explore fundamental concepts of solubility of a solute, cryoscopic determination of the degree of dissociation of a given strong electrolyte, spectrophotometry, conductance. Potentiometry, viscometry, etc.
2.	This course also helps the students to learn thermal behaviour of crystalline and amorphous polymers and also synthesis and kinetics of polymerization

<b>PARTICULARS</b>	<b>Teaching Hours</b>
<ol style="list-style-type: none"> <li>Solubility: Determine the heat of solution of a solute (e.g oxalic acid or benzoic acid) by solubility method.</li> <li>Coulometric titration: Titration of <math>I_2</math> against <math>Na_2S_2O_3</math>.</li> <li>Cryoscopy: Determination of the degree of dissociation of a given strong electrolyte and the determination of the number of ions present in the solute using cryoscopy method.</li> <li>Spectrophotometry: To obtain the absorption spectra of coloured complexes (Ferric-thiocyanate and Cupric-ammonia complexes) and hence verify the Beer-Lambert's law and estimation of metal ions in solution by spectrophotometry.</li> <li>Conductance: (i) Determination of equivalent conductance of a weak electrolyte at different concentrations and the applicability of Ostwald's law. (ii) Determination of equivalent conductance of a weak electrolyte from Kohlrausch's law.</li> <li>Potentiometry: Potentiometric determination of formal redox potential of <math>Fe^{2+}/Fe^{3+}</math> and <math>Ce^{4+}/Ce^{3+}</math> or <math>Cr^{6+}/Cr^{3+}</math> couples by titrating <math>Fe^{2+}</math> solution with <math>Ce^{4+}</math> or <math>Cr^{6+}</math>.</li> <li>Reaction Kinetics: Investigation of autocatalytic reaction between potassium permanganate and oxalic acid in the presence of <math>H_2SO_4</math>.</li> </ol>	

8. Viscosity: Determination of limiting viscosity number (Staudinger index) of polystyrene.	
9. pH metry: Titration of acetic acid against NaOH and hence determine the acid dissociation constant ( $K_a$ ).	
<b>REFERENCES</b>	
1. Findlay's Practical Physical Chemistry, 9th edition, revised by B. P. Levitt, Longman, London.	
2. Practical Physical Chemistry by A. M. James and F. E. Prichard, Longman, London.	
3. Experiments in Physical Chemistry by Shoemaker and Garland, McGraw Hill, New York.	
4. Experiments in Physical Chemistry by Daniels, Alberty and Williams McGraw Hill, New York.	
5. Laboratory Physical Chemistry by Oelke/M.A.C.T.L.A.C.	
6. Experimental Physical Chemistry by W. G. Palmer, C.U.P., London.	
7. Advanced Physico-Chemical Experiments by J. Rose.	
8. Text Book of Physical Chemistry by S. Glasstone, Macmillon and Co., London.	
9. Text Book of Quantitative Analysis by A. I. Vogel, ELBS, Harlow.	
10. Advanced Practical Physical Chemistry by J. B. Yadav. Goel Publishing House.	
11. Experimental Physical Chemistry by V. D. Athawale and Parul Mathur, New Age International Publishers.	
12. Advanced Physical Chemistry Experiments by Gurtu and Gurtu, Pragati Prakashan Educational Publishers, 3rd Edition, 2007.	

<b>Paper Code and Name</b>	<b>PG75T301C: QUANTUM MECHANICS, DIFFRACTION &amp; GROUP THEORY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course covers the application and solution of the Schrodinger equation in spherical polar coordinates and Schrodinger's equation for atoms of many electron systems.
2.	Elemental analysis by emission spectroscopy

3.	This course explains the locations of atoms and molecules in crystalline solids and also exhibits how crystalline solids show strong diffraction pattern when exposed to x-rays, neutrons and electrons.
4.	Group theory helps to know the structure and behaviour of molecules and crystals depending on their different symmetry.

PARTICULARS	Teaching Hours (Total. 48)
<b>UNIT–I: Quantum Mechanics:</b>	
Equation for hydrogen atom and its solutions, separation of variables, the $\phi$ , $\theta$ and radial equations, the problems of spherical symmetry.  Approximate methods in quantum mechanics: variation method and variation theorem, linear variation functions, secular equations and secular determinants. Application of variation method to hydrogen molecule ion, hydrogen molecule and normal helium atom.  Perturbation theory (first order and non-degenerate), application of perturbation theory to the helium atom.	12 Hours
<b>UNIT–II: Atomic Structure and Atomic Spectra:</b>	
A summary of the hydrogen spectrum. Alkali spectra and alkali like spectra, spark spectra and arc spectra. Moseley lines.  Helium and alkaline earth spectra. Multiplet structure of line spectra. Doublet structure of alkali spectra and compound doublets, triplets and singlets of alkaline earths and helium, prohibition of intercombinations. Multiplicities and term symbols.  Space Quantization: Zeeman effect, normal and anomalous Zeeman effects, Paschen–Back effect and Stark effect.	12 Hours
<b>UNIT–III: Symmetry Properties of Molecules and Group Theory</b>	
Introduction to symmetry, molecular symmetry, symmetry elements, symmetry operations and matrix method in symmetry. Molecular point groups: point groups identification of point groups, construction of group multiplication tables, symmetry species and point group character tables.  Reducible and irreducible representations, properties of irreducible representation, Mulliken symbolism rules for irreducible representation, structure of character tables, the standard reduction formula and the great orthogonality theorem. Normal mode analysis: number of normal modes of vibrational symmetry types, infrared and Raman activity, Rule of mutual	12 Hours

exclusion.	
<b>UNIT–IV: Diffraction Studies:</b>	
<p>X-ray diffraction: Reciprocal lattice, indexing of single crystal rotation photographs, determination of molecular parameters, the structure factor calculations, Fourier series and phase problems. Refinements of Fourier procedures and general concept of solution of structures.</p> <p>Neutron diffraction: Neutron diffraction and differences from X-ray diffraction.</p> <p>Electron diffraction: Theoretical principles, structure analysis: visual comparison of intensities, radial distribution function and its refinements. The rotating sector method.</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Quantum Mechaincs–L.T.Schiff, Prentice–Hall.</li> <li>2. Quantum Chemistry–H. Eyring, J. Walter and G. E. Kimball, John Wiley.</li> <li>3. Quantum Mechanics–An Introduction–H. L. Strauss, Prentice Hall of India.</li> <li>4. Quantum Mechanics–L. Pauling and E.B.Wilson, McGraw Hill.</li> <li>5. Contemporary Quantum Chemistry–J. Goodisman, Plenum/Rosetta.</li> <li>6. Quantum Chemistry–K. S. Pitzer, Prentice-Hall</li> <li>7. Introductory Quantum Mechanics-Valdimir Rojanstry.</li> <li>8. Quantum Chemistry–John P.Lowe.</li> <li>9. Quantum Chemistry –Ira N. Levine, Prentice Hall of India Pvt. Ltd.</li> <li>10. Quantum Chemistry–Donald A. McQuarrie, Viva Book Pvt. Ltd.</li> <li>11. Physical Chemistry–P.W. Atkins, Clarendon Press, Oxford, 1970.</li> <li>12. Molecular Quantum Mechanics–P.W.Atkins, Clarendon Press, Oxford, 1970.</li> <li>13. Introduction to Quantum Chemistry–J. M. Anderson.</li> <li>14. Introduction to Quantum Mechanics–R. H. Dicke, J. P. Wittke.</li> <li>15. Indroductory Quantum Chemistry–A. K. Chandra, Tata McGraw Hill, New Delhi 1994.</li> <li>16. Quantum Mechanics in Chemistry–M.W. Hanna.</li> <li>17. Quantum Chemistry–R .K. Prasad, New Age International Publishers, New Delhi.</li> <li>18. Atomic Spectra and Atomic structure–G. Herzberg, Van Nostrand</li> <li>19. Chemical Applications of Group Theory–F.A.Cotton, Wiley Eastern, New Delhi</li> <li>20. Molecular Symmetry–D.S.Schonlnd, Van Nostrand Comp.London,1965</li> <li>21. Symmetry in Chemistry–Jeffe and Orchin, Wiley Inter Science, NewYork.</li> <li>22. Symmetry, Orbitals and Spectra–Jeffe and Orchin, -Jefje and Orchin,</li> </ol>	

<p>Wiley Inter Science, New York, 1971.</p> <p>23. Electron Diffraction–T.B. Rymer, Methuen, London, 1970</p> <p>24. Neutron Diffraction–G.E.Becon</p> <p>25. Symmetry in Molecules–J.M.Hollar</p> <p>26. X-Ray Crystallography–Buerger</p> <p>27. Diffraction Methods–Wernard</p> <p>28. Chemical Crystallography–L.W.Bunn. N.Y.and Oxford, 1945</p> <p>29. Crystals and X–Rays K.landsdale, N.Y. 1945</p> <p>30. Crystal Structure Analysis–M.J.Berger, John Wiley and Sons, N.Y. 1960</p> <p>31. The Determination of Molecular Structure–P.J.Wheatley, Clarendon, Oxford, 1960</p> <p>32. Physical Chemistry–G.M.Barrow, McGraw Hill, New York, 1991</p> <p>33. X-ray Diffraction–D.B.Cullity, Mass Addison, Wesley, 1978.</p>	
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<b>Paper Code and Name</b>	<b>PG75P302C: SPECTROSCOPY &amp; VOLTAMMETRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course covers the theory that allows us to deduce the bond lengths and bond angles from rotational spectra experiments. Vibrational spectra provide information on bond lengths, bond strength and molecular geometry.

2.	NMR Technique is a powerful tool for the elucidation of molecular structure. Also, it helps us to gain insight into bonding and molecular structure.
3.	The EPR spectroscopy is helpful in elucidating the structures of paramagnetic complexes and CD and ORD spectra are useful in gross structural determination of organic compounds.
4.	Voltametric techniques are useful in understanding the type of reactions at electrode surface and quantitative determination of electroactive compounds.

PARTICULARS	Teaching Hours (Total. 48)
<b>UNIT-I: Rotational and Vibrational Spectroscopy</b>	
<p>Rotation of polyatomic molecules: classification of molecules, momental ellipsoid, energy levels of linear, symmetric, spherical and asymmetric top molecules and their symmetry properties. Selection rules. Thermal distribution of rotational energy levels. Infrared rotational spectra and non rigid rotor treatment.</p> <p>Vibration of molecules: Molecule as harmonic oscillator, vibrational eigen functions and eigen values. Hermite polynomials, calculation of transition of probabilities and selection rules. The anharmonic oscillator, energy levels, selection rules and IR spectra. Anharmonicity and Morse equations.</p> <p><b>Rotation-vibration spectra of polyatomic molecules: Rotation - vibration spectra, shapes of absorption bands in case of (i) linear, (ii) symmetric top, (iii) spherical top and (iv) asymmetric top, molecules. Isotopic effects. Applications of IR spectroscopy. Numerical problems on IR spectroscopy.</b></p>	12 Hours
<b>UNIT-II::Nuclear Magnetic Resonance-I:</b>	
<p>Magnetic properties of nuclei: concept of nuclear spin, interaction between spin and external magnetic field, energies and energy levels of nuclear spin states, population of energy levels. Larmor precession, relaxation processes and relaxation times, theoretical principles underlying NMR, experimental set up and instrumentation: continuous wave and pulsed Fourier transform technique in NMR.</p> <p>Concept of chemical shift, shielding and deshielding mechanisms, diamagnetic-anisotropy, ring currents.</p> <p>Spin-spin coupling, coupling constants and rules governing the interpretation of first order <math>^1\text{H}</math>-NMR spectra and elucidation of structure. Kinetic applications.</p>	12 Hours
<b>UNIT-III: Magnetic Resonance Spectroscopy-II and Optical Spectroscopy</b>	
Nuclear quadrupole resonance spectroscopy: Theory and instrumentation, effect of magnetic field on the spectra, relationship between electric field gradients and molecular structure. Applications. The interpretation of eQq	12 Hours

<p>data, effect of crystal lattices on the magnitude of <math>eQq</math>. Structural information from NQR spectra.</p> <p>Electron spin resonance spectroscopy: Introduction and theoretical principles. Intensity, frequency, position and representation of ESR absorptions. Hyperfine structure of ESR absorptions. Zero field splitting and Kramer's degeneracy. Instrumentation. Applications to the study of free radicals and compounds with unpaired electrons: ESR spectra of hydrogen and nitrogen atoms, semi-quinone ion, naphthalene negative ion, methyl radical and methyl substituted radicals. Measurements of distribution of unpaired electron density in radicals. Study of coordination compounds by ESR technique.</p> <p>Optical rotatory dispersion and circular dichroism: Simple theoretical account and instrumentation. Treatment of data, applications to gross structure determination, octant rule, determination of stereochemistry and absolute configuration.</p>	
<b>UNIT-IV: Voltammetry:</b>	
<p>Voltammetry: Principles, and instrumentation, voltammetric techniques: Linear sweep voltammetry, staircase and square wave voltammetry, anodic stripping voltammetry, cathodic stripping voltammetry, cyclic voltammetry, normal and differential pulse voltammetry and their theoretical aspects, electrodes, cells and their set-up. Electron transfer (ET) or charge transfer process: reversible ET, irreversible ET, quasi reversible ET and their diagnostic tests. Applications of voltammetric techniques.</p> <p>Polarography: Principles, dropping mercury electrode (DME), instrumentation, linear scan polarography, polarography currents, polarograms. Diffusion current at dropping electrodes, residual currents, advantages and disadvantages of dropping mercury electrode, current-sampled polarography, half wave potentials. Pulse polarography. Applications.</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Introduction to Molecular Spectroscopy—G.M.Barrow, McGraw Hill</li> <li>2. Physical Methods in Inorganic Chemistry-R. S. Drago East-West Press, New Delhi.</li> <li>3. Molecular Spectroscopy—J D. Graybeal. McGraw Hill</li> <li>4. Spectroscopy, Volume I,II,III Ed—B.P. Straughan and S. Walker Chapman Gall, 1976.</li> <li>5. Molecular Magnetic Resonance Spectroscopy—R.M.L.Bell and R.K. Harris</li> <li>6. Spectra of Diatomic Molecules, G. Hertzberg-D. Van Norstrand Co. Inc. Prenceton N.J. 1950</li> <li>7. Infrared and Raman Spectra of Polyatomic molecules—G.Hertzberg, D. Van Norstrand</li> </ol>	

<p>Co.Inc. Prenceton N.J. 1950</p> <p>8. Absorption Spectroscopy–R.P.Bauman.</p> <p>9. Molecular' Structure : A Physical Approach–J.C.D. Brand and J.C. Speakaman, Edward Arnold Ltd., London.</p> <p>10. Microwave Spectroscopy–J.M. Sugden and C.N. Kenny.</p> <p>11. Fundamentals of Molecular Spectroscopy–C. N.Banwell, Tata-Mcgraw Hill, New Delhi, 1975.</p> <p>12. Microwave Spectroscopy–D. Gordy, W.V.Smith and R.F.Trambarulo, John Wiley and Sons, N.Y. 1969.</p> <p>13. Molecular Vibrations–E.B.Wilson, J.C. Decius and P.G.Cross.</p> <p>14. Nuclear Magnetic Resonance–E.R.Andrew, Chambridge University Press, Cambridge, 1955.</p> <p>15. Nulcear Magentic Resonance–J.D. Roberts, McGraw Hill Book Co. N.Y. 1959.</p> <p>16. Microwave Spectroscopy–C.H. Townes and A.L. Schawlow, McGraw Hill Book Co. N.Y. 1955.</p> <p>17. Treatise on Physical Chemistry–H.S.Taylor and S. Glasstone, Vol. I and II, D.Van Nostrand, N.Y. 1957.</p> <p>18. Basic Principles of Spectroscopy–Raymand Chang. McGraw Hill, Kogakusha Tokyo, 1971.</p> <p>19. Theoretical Chemistry–S. Glasstone.</p> <p>20. Instrumental Methods of Analysis–Willard, Merit and Dean, Tata McGraw Hill, New Delhi, 1993.</p> <p>21. Introduction to Magnetic resonance–A Carrington and A.D. Mclachlan, Harper Rao.</p> <p>22. Electrochemical Methods: Fundamentals and Applications–A. J. Bard and L. R. Faulkner</p> <p>23. An Introduction to Electrochemistry by S. Glasstone, Van Nostrand, London</p> <p>24. A Text book of Electrochemistry by G.F.A. Kortum and J.O.M. Bockris, Elsevier, New York.</p> <p>25. Modern Electrochemistry by J.O.M. Bockris and A.K.N. Reddy Vol. I and Vol. II, Butterworths, London.</p>	
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<b>Paper Code and Name</b>	<b>PG75T303C:STATISTICAL MECHANICS AND POLYMER CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course provides methods for calculation of microscopic properties of many particle systems in terms of microscopic properties using statistical laws.
2.	This course provides the information of properties and applications of polymers in industry and biomedical field and also how electrochemical cell can be used to obtain the power.
3.	This course helps the students to understand how the polymer membranes are used in water and solvent purification technique and also provides utilization of information in various fields of science and Technology.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>UNIT-I: STATISTICAL MECHANICS &amp; POLYMER CHEMISTRY- I</b>	
Microscopic and macroscopic systems. Microstates and macrostates. Assemblies of independent localised and non-localised systems. Phase space or $\gamma$ -space and $\mu$ -space. Ensembles.  Classical statistics: Maxwell-Boltzmann distribution for ideal gases and mixture of gases. Determination of Lagrangian multipliers, alpha and beta.  Heat capacities of solids: Einstein's theory of heat capacity of solids, Debye's theory, characteristic temperature and use of Debye equation for the determination of heat capacity at low temperature.  Entropies and heat capacities of ortho-, para-hydrogen systems, comparison of third law entropies with statistical entropies.	12 Hours
<b>UNIT-II: Statistical Mechanics and Statistical Thermodynamics-II:</b>	
Quantum statistics: Bose-Einstein, Fermi-Dirac and comparison with Maxwell-Boltzmann statistics. Numerical problems.  Partition functions: Definition of partition function and separation of partition functions. Translational, Sackur-Tetrode equation, rotational, vibrational and electronic partition functions for monoatomic, diatomic and polyatomic gaseous molecules. Equipartition of energies.	12 Hours
<b>UNIT-III: Polymer Chemistry and Fuel cells:</b>	

<p>Dendrimers and hyper-branched polymers: introduction to dendrimers, methods of preparation, common properties and applications. Synthesis of polyamidoamines using divergent route and dendratic polyether macromolecules using convergent route. Hyper-branched polymers, preparation of aromatic polyesters by the self-condensation of 3, 5-bis (acetoxy)benzoic acid.</p> <p>Polymeric nonlinear optical: Materials, definition, classification of NLO materials, basic molecular characteristics of second-order NLO materials, types of second-order NLO materials with examples, schematic representation of experimental setup for the measurement of second harmonic generation (SHG). Preparation of polyimide from diamino NLO chromophores.</p> <p>Semiconducting polymers: basic criteria for semiconducting properties, electrochemical polymerization, precursor route to poly (p-phenylenevinylene) (PPV) and synthesis of poly (3-allylthiophene).</p> <p>Fuel cells: Introduction, difference between conventional cell and a fuel cell, limitations, advantages, types of fuel cells. Construction and working of hydrogen-oxygen and methanol-oxygen fuel cells. Applications of fuel cells.</p>	12 Hours
<b>UNIT-IV: Polymer Membrane Chemistry:</b>	
<p>Polymer membranes in separation science: mechanism of transport in polymeric membranes and rejection performance, and industrial applications of micro filtration (MF) and ultrafiltration (UF) membranes. Reverse osmosis (RO): principles of RO process and determination of its efficiency in terms of flow of water and salt. Preparation of polyamide and cellulose based RO membranes. Electrodialysis: principle of ED, working model of ED. Preparation of ion-exchange membranes grafted on polyethylene film using styrene and chloromethylstyrene. Preparation of styrene-divinyl benzene based ion exchange membranes. Preparation of anion exchange membranes using chloromethylated polysulfone and 4, 4'-bipyridine. Preparation of sulfonated poly(phosphazene) membrane. Preparation of ion exchange membrane using 4-vinyl pyridine and epichlorohydrin. Applications of Electrodialysis.</p> <p>Vinyl polymers (preparation, properties and commercial importance): polyethylene, polypropylene, polystyrene, polymethylmethacrilate, polyvinyl chloride, polytetrafluoroethylene. Polyesters: poly(ethylene terephthalate). Polyamides: aramides (Kevlar and Nomex), polyimides, polysulphone, polyurethanes, polyureas. Natural polymers: polyisoprenes, chitosan.</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Statistical Mechanics–N. Davidson, McGraw–Hill, 1962</li> <li>2. Introduction to Statistical Thermodynamics–M. Dole, Prentice Hill. 1954</li> </ol>	

<ol style="list-style-type: none"> <li>3. Statistical Thermodynamics–R. H. Fowler and E. A. Guggenheim, Cambridge University Press, 1939.</li> <li>4. An Introduction to Statistical Mechanics–T. L. Hall, Addison Wesley, 1960.</li> <li>5. Introduction to Statistical Mechanics–G. S. Rushbrook, Oxford University Press, 1949.</li> <li>6. Statistical Mechanics–J. E. Mayer and M. G. Mayer, John Willey, 1940.</li> <li>7. Textbook of Physical Chemistry by A. Singh and R. Singh, Campus Books International, New Delhi</li> <li>8. Polymer Chemistry: An Introduction- Malcolm P. Stevens, Oxford University Press, 1999.</li> <li>9. Contemporary Polymer Chemistry–Harry R. Allcock and Frederick W. Lampe, Printice-Hall, 1981.</li> <li>10. Principles of Polymer Chemistry–P. Bahadur and N. V. Shastri, Narosa Publisher, 2002</li> <li>11. Polymer Chemistry Properties and Applications–Andrew Peacock and Allison Calhoun, Hanser Publisher, 2006.</li> <li>12. Text Book of Polymer Chemistry–Fred W. Billmeyer, Jr., Wiley Publisher, 1984.</li> <li>13. Polymer Science–V.R. Gowariker, N. V. Viswanathan and Jayadev Sreedhar, New Age</li> <li>14. International Publisher, 2001</li> <li>15. Polymer Modifiers and Additives–John T. Lutz, Jr., Richard F. Grossman, (eds.), Marcel-Dekker, NY, 1989.</li> <li>16. An Introduction to the Mechanical Properties of Solid Polymers–I. M. Ward, D. W.</li> <li>17. Hadley, John Wiley &amp; Sons, 1993.Polymer Chemistry Properties and Applications, Andrew Peacock and Allison Calhoun, Hanser Publisher, 2006.</li> <li>18. Text Book of Polymer Chemistry, Fred W. Billmeyer, Jr., Wiley Publisher, 1984.</li> <li>19. Polymer Science, V. R. Gowariker, N. V. Viswanathan and Jayadev Sreedhar, New Age International Publisher, 2001</li> <li>20. Dendrimers and Dendron: Concepts, Synthesis and Applications, G. R. Newkome, C. N.</li> <li>21. Moorefield and F. Vogtle, Wiley–VCH Publisher, 2001.</li> <li>22. Special Plymers for Electronics and Optoelectronics, J. A. Chilton and M. T. Goosey, (eds.), Chapman and Hall, 1992</li> <li>23. Nonlinear Optics of Organic Molecules and Polymers, Hari Singh Nalwa and Seizo Miyata (eds.), CRC Press, 1997.</li> <li>24. Introduction to Nonlinear Optical Effects in Molecules and Polymers, P. N. Prasad and David J. Williams, Wiley and Sons, 1990.</li> <li>25. Liquid Crystalline Polymers, A. M. Donald, A. H. Windle, Cambridge</li> </ol>	
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University Press, 1992.	
26. Nonlinear Properties of Organic Molecules and Crystals Vol. 1, D. S. Chemla, J. Zyss (eds), Academic Press, Inc. (London), 1987.	
27. A text book of Physical Chemistry, A. Singh and R. Singh, Campus Books , New Delhi.	
28. Comprehensive Physical Chemistry, New Age International, New Delhi.	
29. Ion exchange membranes, methods and processes for production thereof and uses in specific application–T. Amimbhavi, P.V. Kulkarni, M.Y. Karidurganavar, <b>US Patent 6,814,865B1</b>	
30. Ion Exchange Membranes: Preparation, Properties and Applications–M. Y. Karidurganavar, A. A. Kittur, S. S. Kulkarni, Ion Exchange Technology–I, Springer.	

Paper Code and Name	PG75P301C: LAB COURSE IN PHYSICAL CHEMISTRY
COURSE OUTCOMES (COs)	
1.	This lab course is designed to expand and deepen the knowledge in the variety of experimental methods presented in physical chemistry laboratory previously.
2.	This lab is based on several sets of advanced experiments on various topics in physical chemistry including viscosity, verification of the Debye-Huckel-Onsager equation conductometrically, reaction kinetics, potentiometric estimation of a mixture of halides, cryoscopy, pH-metry, spectrophotometric estimation of metal ion. etc.

PARTICULARS	Teaching Hours
1. Viscosity: Determination of number average molecular weight by hydroxyl end group analysis.	
2. Conductance: Verification of the Debye-Huckel-Onsager equation for strong electrolytes.	
3. Reaction Kinetics: Studying the acid catalysed kinetics of oxidation of glycine by chloramine-T (CAT) and hence determination of order of reaction w.r.t. CAT and glycine and hence overall order of the reaction.	
4. Potentiometry: Potentiometric estimation of a mixture of halides, (KCl, KBr and KI) by titrating against AgNO <sub>3</sub>	

<ol style="list-style-type: none"> <li>5. Cryoscopy: Determination of the molecular weight of the given solute by the vacuum flask method.</li> <li>6. pH metry: Determine the acid and base dissociation constant of an amino acid and hence find its isoelectric point</li> <li>7. Refractometry: Analysis of a binary mixture (glycerol and water) by refractive indices measurement.</li> <li>8. Spectrophotometry: Individual and simultaneous estimation of Fe(III) and Cu(II) spectrophotometrically by titrating against EDTA.</li> <li>9. X-Ray diffraction: To determine the lattice constant and Bravais lattice using X-ray diffraction pattern.</li> <li>10. Zeeman effect: Study the Zeeman effect and determine <math>e/m</math> ratio of electron.</li> </ol>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Findlay's Practical Physical Chemistry, 9th edition, revised by B.P. Levitt.</li> <li>2. Practical Physical Chemistry by A.M. James and F.E. Prichard</li> <li>3. Experiments in Physical Chemistry by Shoemaker and Garland 4. Experiments in Physical Chemistry by Daniels, Alberty and Williams et.al.</li> <li>4. Laboratory Physical Chemistry by Oelke/ M.A.C.T.L.A.C.</li> <li>5. Experimental Physical Chemistry by W.G. Palamer</li> <li>6. Advanced Physico-chemical experiments by J. Rose</li> <li>7. Experimental Physical Chemistry by V.D. Athwale and Paul Mathur, New Age International Publishers.</li> <li>8. Text book of Physical Chemistry by S. Glasstone</li> <li>9. Text book of quantitative analysis by A. I. Vogel</li> <li>10. Advanced Practical Physical Chemistry by J. B. Yadhav, Goel Publishing house, Meerut.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG75P302C: LAB COURSE IN PHYSICAL CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
1.	This lab course is designed with the aim that student demonstrates capabilities such as experiment design and implementation with an emphasis on safety rules. demonstrating measurement capabilities, analysis and discussion, developing independent thinking abilities.
2.	This lab is based on the following set of advanced experiments on various topics in physical chemistry including adsorption, conductometric titration of moderately weak acid with strong base, determination of degree of hydrolysis of urea hydrochloride by studying kinetics of hydrolysis of methyl acetate using HCl and equinormal urea hydrochloride solutions, acid and base dissociation constants of an amino acid and its isoelectric point, etc.

<b>PARTICULARS</b>	<b>Teaching Hours</b>
<ol style="list-style-type: none"> <li>1. Surface Tension: Variation of surface tension of aqueous solutions of a liquid (n-propyl alcohol) with concentration and determination of limiting cross sectional area of the alcohol molecule.</li> <li>2. Adsorption: Investigation of adsorption of oxalic acid from aqueous solution by activated charcoal and examine the validity of Freundlich and Langmuir's adsorption isotherm.</li> <li>3. Conductance: Moderately weak acid like salicylic acid vs NaOH (Salt line method and alkali method).</li> <li>4. Reaction Kinetics: Determination of degree of hydrolysis of urea hydrochloride by studying kinetics of hydrolysis of methyl acetate using HCl and equinormal urea hydrochloride solutions.</li> <li>5. Potentiometry: (i) Acid and base dissociation constants of an amino acid and its isoelectric point and (ii) Mean ionic activity coefficient of hydrochloric acid at different concentrations using a concentration cell without transference: influence of ionic strength on the mean ionic activity coefficient.</li> <li>6. Refractometry: Variation of refractive index with composition of mixture (e.g., <math>\text{CCl}_4</math> and <math>\text{CH}_3\text{COOC}_2\text{H}_5</math>).</li> <li>7. Transport Number: Transference number of <math>\text{Ag}^+</math> and <math>\text{Cl}^-</math> ions by making boundary method.</li> </ol>	

<p>8. Viscosity: Determination of molecular weight of polyhexamethylene sebacamide (nylon 6, 10) by amine end group analysis.</p> <p>9. Optics: To determine the wavelength of He–Ne laser by measuring the fringe width from interference pattern.</p>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Findlay's Practical Physical Chemistry, 9th edition, revised by B. P. Levitt.</li> <li>2. Practical Physical Chemistry by A. M. James and F. E. Prichard.</li> <li>3. Experiments in Physical Chemistry by Shoemaker and Garland.</li> <li>4. Experiments in Physical Chemistry by Daniels, Alberty and Williams et.al.</li> <li>5. Laboratory Physical Chemistry by Oelke/ M.A.C.T.L.A.C.</li> <li>6. Experimental Physical Chemistry by W.G. Palamer</li> <li>7. Advanced Physico–Chemical Experiments by J. Rose</li> <li>8. Experimental Physical Chemistry by V .D. Athwale and Paul Mathur, New Age International Publishers.</li> <li>9. Text Book of Physical Chemistry by S. Glasstone</li> <li>10. Text Book of Quantitative Analysis by A. I. Vogel</li> </ol>	

<b>Paper Code and Name</b>	<b>PG75P303C: LAB COURSE IN PHYSICAL CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
1.	This lab course is designed to provide students with idea of scientific activity.
2.	This laboratory is based on several sets of experiments covering a wide range of topics in physical chemistry such as solubility study, the effect of addition of an electrolyte on the solubility of an organic acid. construction of phase diagram of three component system. studying the kinetics of saponification of ethyl acetate by _____ conductance _____ method. determination of step wise heat of neutralization of a poly basic acid. reaction kinetics of H <sub>2</sub> O <sub>2</sub> and HI: clock reaction, etc.

PARTICULARS	Teaching Hours
<ol style="list-style-type: none"> <li>1. Solubility: Study the effect of addition of an electrolyte (NaCl, KCl, Na<sub>2</sub>SO<sub>4</sub> and K<sub>2</sub>SO<sub>4</sub>) on the solubility of an organic acid (Benzoic acid or salicylic acid).</li> <li>2. Phase equilibria: Construction of phase diagram of three component system (water, benzene and ethanol or acetic acid, water and chloroform or benzene).</li> <li>3. Conductance: Studying the kinetics of saponification of ethyl acetate by conductance method and hence determine the rate constant.</li> <li>4. Thermochemistry: Determination of step wise heat of neutralization of a polybasic acid.</li> <li>5. Reaction Kinetics: Reaction kinetics of H<sub>2</sub>O<sub>2</sub> and HI: Clock reaction.</li> <li>6. Potentiometry: Potentiometric determination of stability constant of Cu<sup>2+</sup>–EDTA complex.</li> <li>7. Cryoscopy: Determination of degree of dissociation of given electrolytes (KCl, urea) using cryoscopy method.</li> <li>8. Refractometry: Molar refraction of a solid substance by dissolving it in a solvent.</li> <li>9. Solid state: Determine the curie temperature of ferromagnetic material.</li> <li>10. X-ray diffraction: Determine the linear position and inter planar spacing using X-Ray diffraction patterns.</li> </ol>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Findlay's Practical Physical Chemistry, 9th edition, revised by B.P.Levitt.</li> <li>2. Practical Physical Chemistry by A.M.James and F.E.Prichard</li> <li>3. Experiments in Physical Chemistry by Shoemaker and Garland</li> <li>4. Experiments in Physical Chemistry by Daniels, Alberty and Williams et.al.</li> <li>5. Laboratory Physical Chemistry by Oelke/ M.A.C.T.L.A.C.</li> </ol>	

6. Experimental Physical Chemistry by W.G. Palamer	
7. Advanced Physico–chemical experiments by J.Rose	
8. Experimental Physical Chemistry by V.D.Athwale and Paul Mathur, New Age International Publishers.	
9. Text book of Physical Chemistry by S.Glasstone	
10. Text book of quantitative analysis by A.I.Vogel	
11. Advanced Practical Physical Chemistry by J.B. Yadhav, Goel Publishing house, Meerut.	

<b>Paper Code and Name</b>	PG75T401C: QUANTUM MECHANICS AND SOLID-STATE CHEMISTRY
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course describes the quantum mechanical treatment of the molecules by using different theories.
2.	The course solid state chemistry provides the properties and applications of solids.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>UNIT–I: Chemical Bonding–I</b>	
Electronic structure of diatomic molecules. The Born–Oppenheimer approximation. Valence bond and molecular orbital theories of chemical bonding, comparison of the two theories. Applications of valence bond and molecular orbital theories to hydrogen molecule and hydrogen molecule ion. Improvements in the Hitler–London wave functions.  Bonding and antibonding molecular orbitals. Molecular orbital theory applied to homonuclear and heteronuclear diatomic molecules, molecular electron configuration and calculation of bond order.  Slater orbitals, Hartree–Fock self-consistent field method for many electron atoms. Configuration interaction and Rootham equations.	12 Hours
<b>UNIT- II: Chemical Bonding–II</b>	
Localized and non–localized molecular orbitals, hybridization and direct valence. Quantum mechanical treatment to $sp$ –, $sp^2$ – and $sp^3$ –hybridization and the geometry associated with $sp$ –, $sp^2$ – and $sp^3$ –orbitals.	12 Hours

Conjugated and aromatic molecules: Huckel molecular orbital theory and MO description of normal and cyclic butadienes, ethylene and aromatic molecules (benzene as an example), calculation of delocalization energies, fractional bond orders, charge density calculations and extended Huckel theory.	
<b>UNIT–III: Solid State Chemistry–I</b>	
<p>Introduction, properties of Solids: Malleability, ductility, elasticity, plasticity, brittleness hardness, enantiotropy, monotropy and isomorphism. Allotropy and polymorphism of solids. Bonding in solids: Ionic, covalent, metallic, molecular and hydrogen bonded crystals. Lattice energy of ionic crystals. Numerical problems.</p> <p>Imperfection in solids: Types of defects including Frenkel and Schottky defects, thermodynamics of Frenkel and Schottky defects.</p> <p>Reactivity in solid state: Introduction, thermodynamics, classification, experimental methods for the study, kinetic equation, energy of activation of solid-state reactions, diffusion mechanism in solid state reactions, factors affecting the reactivity of solids.</p>	12 Hours
<b>UNIT–IV: Solid State Chemistry–II</b>	
<p>Semiconductors: Bonding and conductivity, mechanism of conductivity, energy bands in semiconductors, impurity conductors, p–n and n–p–n junctions and importance of semiconductors.</p> <p>Superconductors: Occurrence of super conductivity, its destruction by magnetic fields, effect of I.R. and isotope effect, B.C.S. theory of superconductivity applications</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Quantum Mechaines–L.T.Schiff, Prentice–Hall.</li> <li>2. Quantum Chemistry–H. Eyring, J. Walter and G. E. Kimball, John Wiley.</li> <li>3. Quantum Mechanics–An Introduction- H. L. Strauss, Prentice Hall of India.</li> <li>4. Quantum Mechanics–L. Pauling and E.B.Wilson, McGraw Hill.</li> <li>5. Contemporary Quantum Chemistry–J. Goodisman, Plenum/Rosetta.</li> <li>6. Quantum Chemistry–K. S. Pitzer, Prentice–Hall</li> <li>7. Introductory Quantum Mechanics–Valdimir Rojanstry.</li> <li>8. Quantum Chemistry– John P.Lowe.</li> <li>9. Quantum Chemistry–Ira N. Levine, Prentice Hall of India Pvt. Ltd.</li> <li>10. Quantum Chemistry–Donald A. McQuarrie, Viva Book Pvt. Ltd.</li> <li>11. Physical Chemistry–P.W. Atkins, Clarendon Press, Oxford, 1970.</li> <li>12. Molecular Quantum Mechanics–P.W.Atkins, Clarendon Press, Oxford, 1970.</li> <li>13. Introduction to Quantum Chemistry–J. M. Anderson.</li> <li>14. Introduction to Quantum Mechanics–R. H. Dicke, J. P. Wittke.</li> <li>15. Indroductory Quantum Chemistry–A. K. Chandra, Tata McGraw Hill,</li> </ol>	

<p>New Delhi 1994.</p> <p>16. Quantum Mechanics in Chemistry–M.W. Hanna.</p> <p>17. Quantum Chemistry–R .K. Prasad, New Age International Publishers, New Delhi.</p> <p>18. Solid State Chemistry–N.B.Hanna</p> <p>19. Solid State Physics–A.J.Dekkar, Mac Millon, India Ltd.1993</p> <p>20. Solid State Chemistry–C.N.R.Rao, Cambridge, CUP</p> <p>21. Solid State Physics, Edited by R.Kube and Takeo Nagamiya McGraw Hill Book Co. Inc.</p> <p>22. Introduction to Solids–L.V.Azaroff, McGraw Hill, New York.</p> <p>23. Solid State Chemistry and its Applications–A. R. West, John Wiley 1998</p>	
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<b>Paper Code and Name</b>	<b>PG75T402C: CATALYSIS AND POLYMER CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	This course describes the reaction kinetics of homogeneous and heterogeneous catalyzed reactions and industrial applications.
2.	This course gives the different methods available for the polymer weight determination.
3.	This unit provides the information regarding thermal characterization techniques and method of polymer fabrication and synthesis of polymers.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>UNIT–I: Homogeneous Catalysis:</b>	
Homogeneous Catalysis: Introduction, general catalytic mechanism: equilibrium treatment and steady-state treatment, activation energies for catalysed reactions. Acid-Base catalysis: General acid–base catalysis, mechanism of acid-base catalysis, catalytic activity and acid-base strength, salt effects in acid-base catalysis and specific acid-base catalysis: Bronsted relation and linear free energy changes. Acidity functions: Zucker–Hammett hypothesis and Bunnett hypothesis.	12 Hours
Enzyme Catalysis: Influence of substrate concentration, pH, temperature and inhibitors, transient-phase kinetics. Mechanism of enzyme catalysis: Michaelis–Menten mechanism and Lineweaver–Burk plot.	
<b>UNIT–II: Adsorption and Heterogeneous Catalysis</b>	

<p>Adsorption: The phenomenon of adsorption and thermodynamics of adsorption, adsorption isotherms, Langmuir adsorption isotherm, Langmuir constant and Gibbs energy of adsorption, Langmuir adsorption with lateral interaction, BET adsorption isotherm, Freundlich isotherm and adsorption on heterogeneous surface.</p> <p>Heterogeneous catalysis: Catalysis at surfaces, mechanism of heterogeneous catalysis: Langmuir–Hinshelwood mechanism and Eley–Rideal mechanism. Transition–state theory of heterogeneous surface reaction: Rates of chemisorption, rates of desorption, unimolecular and bimolecular surface reactions. Industrial applications of heterogeneous catalysis. Comparison of homogenous and heterogeneous reaction rates.</p>	12 Hours
<b>UNIT–III: Polymer Rheology and Molecular Weight Determination:</b>	
<p>Rheological Properties: Introduction, Hook’s law, Newton’s equation and stress-strain behaviour in polymers.</p> <p>Measurements of average molecular weights: Osmometry, viscometry, light scattering, and gel permeation chromatography. Practical significance of polymer molecular weight and related numerical problems.</p>	12 Hours
<b>UNIT–IV: Thermal and Polymer Fabrication Techniques</b>	
<p>Thermal method of analysis: Introduction, thermal characterization techniques: Thermogravimetric analysis (TGA) and differential thermal analysis (DTA), introduction, experimental procedure, advantages and disadvantages of TGA/DTA. Differential scanning calorimetry (DSC): Introduction, experimental setup, heat capacity, glass transition temperature, crystallization, melting and determination of percent crystallinity.</p> <p>Methods of Polymer Fabrications: Fabrication of polymer films, solution casting, melt pressing, melt extrusion and bubble blown. Fabrication of shaped polymer objects: compression moulding, injection moulding, reaction injection moulding, blow moulding, extrusion moulding and calendaring. Spinning industrial polymers: Solution spinning and melt spinning</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Physical Chemistry by G. M. Barrow, McGraw Hill, New York, 1996.</li> <li>2. Fundamentals of Physical Chemistry by Maron and Lando.</li> <li>3. Physical Chemistry by P. W. Atkins, ELBS, London, 1990 (Ed. 4).</li> <li>4. Physical Chemistry by K. Vamulapalli, Prentice Hall of India Pvt. Ltd., New Delhi, 1997.</li> <li>5. Physical Chemistry by Daniels and Alberty, Wiley, New York.</li> <li>6. Physical Chemistry Through Problems by S. K. Dogra and S Dogra, Wiley Eastern, New Delhi.</li> <li>7. A Text Book of Physical Chemistry by Samuel Glasstone, McMillan, London.</li> </ol>	

8. Atomic Structure and Chemical Bonding by Manas Chanda, Tata McGraw Hill Publishing Co., New Delhi.
9. Chemical Kinetics by K. J. Laidler, Tata McGraw Hill Publishing Co., New Delhi.
10. Kinetics and Reaction Mechanisms by Frost and Pearson, Wiley, New York.
11. Chemical Kinetics, K. J. Laidler. McGraw-Hill 1950.
12. Theory of rate processes, S. Glasstone, K. J. Laidler and H. Eyring McGraw-Hill 1941.
13. Kinetics and Mechanism, A Frost and R. G. Pearson, John Wiley, 1953.
14. The foundations of Chemical Kinetics, S. W. Benson, McGraw-Hill, 1960.
15. Kinetics of Chemical Changes in Solution, E. S. Amis, McMillan, 1948.
16. The Kinetics of Chemical Change, C. N. Hinshelwood, Oxford, 1942.
17. Free Radical Mechanisms, E.W.R. Steacies, Reinhold, 1946.
18. Techniques of Organic Chemistry, Weissberger (Ed) Vol VIII, Investigations of Rates and Mechanism of Reactions Interscience, 1963.
19. Theories of Chemical Reactions Rates, K. J. Laidler, McGraw-Hill, 1969.
20. Comprehensive Physical Chemistry, New Age International, New Delhi.
21. Polymer Chemistry: An Introduction, Malcolm P. Stevens, Oxford University Press, 1999.
22. Contemporary Polymer Chemistry, Harry R. Allcock and Frederick W. Lampe, Printice-Hall, 1981.
23. Principles of Polymer Chemistry, P. Bahadur and N. V. Shastri, Narosa Publisher, 2002
24. Polymer Chemistry: Properties and Applications, Andrew Peacock and Allison Calhoun, Hanser Publisher, 2006.
25. Text Book of Polymer Chemistry, Fred W. Billmeyer, Jr., Wiley Publisher, 1984.
26. Polymer Science, V. R. Gowariker, N. V. Viswanathan and Jayadev Sreedhar, New Age International Publisher, 2001.
27. Membrane Technology in the Chemical Industry-S. P. Nunes and K. V. Peinemann (Eds.), Wiley-VCH Publisher, 2001.
28. Membranes for Industrial Wastewater Recovery and Reuse-Simon Judd and Bruce Jefferson (Eds.), Elsevier.
29. Membrane Processes, R. Rautenbach and R. Albrecht, Wiley and Sons, 1989.
30. A text book of Physical Chemistry, A. Singh and R. Singh, Campus Books, New Delhi.

<b>Paper Code and Name</b>	<b>PG75T403C: SPECTROSCOPY AND MICROSCOPY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
1.	The Raman spectroscopy is commonly used in chemistry to provide a structural fingerprint by which molecules can be identified.
2.	The mass spectrometry is helpful in determining the structure of a compound by observing its fragmentation and its uses in analytical laboratories.
3.	Photoelectron spectroscopy involves the study of the electronic structure of molecules. Mossbauer spectroscopy is used to study nuclear structure with the absorption and reemission of gamma rays.
4.	Microscopic techniques make it possible to assess the morphology, composition, physical properties, and dynamic behaviour of materials.

<b>PARTICULARS</b>	<b>Teaching Hours (Total. 48)</b>
<b>UNIT–I: Raman Spectroscopy:</b>	
<p>Introduction to scattering phenomenon, Raman effect: Theories of Raman effect (Classical and quantum theory). Concept of polarizability and polarizability ellipsoid. Rotational–Raman Spectra and vibrational–Raman spectra of Molecules.</p> <p>Symmetry selection rule and prohibition of inter–combination, influence of nuclear spin in case of homonuclear diatomic molecules, ortho– and para–modifications. Rotational–vibrational–Raman spectra, rule of mutual exclusion. Polarization of Raman lines and depolarization ratio. An introduction to Laser resonance Raman spectroscopy. Structure elucidation using combined Raman and infrared spectroscopy (e.g.H<sub>2</sub>O, N<sub>2</sub>O and CO<sub>2</sub>). Numerical problems.</p>	12 Hours
<b>UNIT–II: Mass Spectrometry:</b>	
<p>Mass Spectrometry: Introduction, theoretical principles and instrumentation: ionization and ionization methods (electron ionization, chemical ionization, desorption ionization and electron spray ionization techniques). Mass analyser (magnetic deflection and time of flight mass analyser).</p> <p>Metastable ions. Ionization and appearance potentials, experimental determination of ionization and appearance potential and applications in mass spectrometry.</p>	12 Hours

<p>Fragmentation: Principles, Stevenson rule, odd electron (<math>OE^+</math>) and even electron (<math>EE^+</math>) ions, molecular ion and base peak, fragmentation pattern and correlation with structure. Isotope effects in chloro and bromo compounds. McLafferty rearrangement.</p> <p>Nitrogen Rule. Application of mass spectrometry in structure diagnosis and determination of empirical molecular formula from the peak intensities of molecular ion and isotopic peaks. Numerical problems.</p>	
<b>UNIT–III: Photoelectron and Mössbauer Spectroscopy</b>	
<p>Photoelectron Spectroscopy: Introduction, photoelectric effect, instrumentation. Valence and binding energies, molecular term symbols, shift in energies due to chemical effects. Auger electron spectroscopy (AES), its advantages and limitations. Electron spectroscopy for chemical analysis (ESCA). Applications to free molecules and surfaces.</p> <p>Mössbauer Spectroscopy: Theoretical principles, Mössbauer effect, conditions for Mössbauer spectroscopy and instrumentation. Resonance line shifts, chemical shifts, electric quadrupole interactions and magnetic interactions. Applications of Mössbauer Spectroscopy</p>	12 Hours
<b>UNIT–IV: Microscopy:</b>	
<p>Introduction to Microscopy.</p> <p>Scanning electron microscopy (SEM): Introduction, principle and instrumentation, sample preparation, scanning process, image formation and applications of SEM.</p> <p>Transmission electron microscopy (TEM): Introduction, principle and instrumentation, sample preparation, advantages/disadvantages and applications of TEM.</p> <p>Atomic force microscopy (AFM): Introduction, principle, imaging modes, topographic image, advantages/disadvantages and applications of TEM.</p> <p>Attenuated total reflectance (ATR) spectroscopy: Introduction, principle, sampling method, crystal methods for ATR, factors affecting the spectrum, sampling: liquid and solid sampling. Applications.</p> <p>Photoacoustic spectroscopy: Introduction, principle, photoacoustic effect, advantages and limitations of photoacoustic spectroscopy, examples and applications of photoacoustic spectroscopy.</p>	12 hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Introduction to Molecular Spectroscopy–G. M. Barrow, McGraw Hill, New York.</li> <li>2. Physical Methods in Inorganic Chemistry–R. S. Drago, East-West Press, New Delhi</li> </ol>	

<ol style="list-style-type: none"> <li>3. Molecular Spectroscopy–J. D. Graybeal, McGraw Hill.</li> <li>4. Spectroscopy, Vol. I,II and III. Ed.–Walker and Straughan, Chapman Hall, 1976.</li> <li>5. Infrared and Raman Spectra of Polyatomic Molecules–G. Hertzberg, Van Nostrand, New York, 1954.</li> <li>6. Absorption Spectroscopy–R.P.Bauman, Wiley New York,1952.</li> <li>7. Introduction to Photoelectron Spectroscopy–P.K.Ghosh., John Wiley</li> <li>8. Photoelectron Spectroscopy–T.H.D. Eland. Butterworth, London, 1974.</li> <li>9. Fundamentals of Molecular spectroscopy–C.N.Banwell, Tata McGraw Hill, New York,1985.</li> <li>10. Magneto chemistry–P.Selwood , Interscience, New York, 1956.</li> <li>11. Techniques in Organic Chemistry, Vol.I. Interscience, 1963</li> <li>12. Mass Spectroscopy: Organic Applications-K.Beiman, McGraw Hill.</li> <li>13. Introduction to Mass Spectroscopy and its Applications–R.W. Kiser, Prentice Hall, Englewood–Cliff (NJ) 1965.</li> <li>14. Basic Principle of Spectroscopy–Raymond Chang, McGraw Hill Kogakusha, Tokyo, 1971.</li> <li>15. Physical Chemistry G.M.Barrow–McGraw Hill, New York, 1991.</li> <li>16. Instrumental Methods of Analysis–Willard, Merritt and Dean, Tata MacGraw Hill, New Delhi, 1993.</li> <li>17. Molecular Interpretation of Mass Spectroscopy–F. W. McLafferty and W. A. Benjamin.</li> <li>18. Molecular Spectroscopy–I.N.Levin, Interscience.</li> </ol>	
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<b>Paper Code and Name</b>	<b>PG75P401C: LAB COURSE IN PHYSICAL CHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
1.	This course is planned to familiarize and introduce the students to modern laboratory instrumentation and experimental techniques in physical chemistry.
2.	It consists of a number of experiments that use different techniques to explore fundamental concepts in variation of solubility of an organic acid, studying the kinetics of saponification of ethyl acetate by conductance method and hence determine the rate constant, thermochemistry. reaction kinetics, etc.

<b>PARTICULARS</b>	<b>Teaching Hours</b>
1. Viscosity: Viscosity of air by Rankine's method. 2. Solubility: Variation of solubility of $\text{Ca(OH)}_2$ in NaOH solution and hence determination of the solubility product of $\text{Ca(OH)}_2$ . 3. Thermochemistry: (i) Heat of reaction (precipitation/formation) of $\text{BaSO}_4$ . (ii) Heat of transition of Glauber's salt ( $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ ) 4. Surface Tension: Critical micelle concentration of a soap molecule. (e.g., Potassium laurate). 5. Potentiometry: Determination of degree of hydrolysis and $K_h$ of aniline hydrochloride 6. Polarimetry: Kinetics of inversion of sucrose and determination of catalytic coefficient. 7. Cryoscopy: Determination of activities of electrolytes and non-electrolytes using cryoscopy method. 8. Spectrophotometry: Investigation of complex formation between $\text{Fe}^{+3}$ and salicylic acid and determination of empirical formula, stability, $\Delta G$ value calculation and pH effects. 9. Glass transition temperature: Determination of glass transition temperature by dilatometer. 10. Solid state: To determine the electron-phonon coupling constant of copper	
<b>REFERENCES</b>	
1) Findlay's Practical Physical chemistry, 9th edition, revised by B.P. Levitt.	

2) Practical Physical Chemistry by A.M.James and F.E.Prichard 3) Experiments in Physical Chemistry by Shoemaker and garland 4) Experiments in Physical Chemistry by Daniels, Alberty and Williams et.al. 5) Laboratory Physical Chemistry by Oelke / M.A.C.T.L.A.C. 6) Experiments in Physical Chemistry by W.G.Palmer 7) Advanced Physico–Chemical experiments by J.Rose 8) Experimental Physical Chemistry by V.D.Athwale and Paul Mathur , New Age International Publishers. 9) Text Book of Physical Chemistry by S.Glasstone 10) Text Books of quantitative analysis by A.I.Vogel 11) Advanced Practical Physical Chemistry by J.B.Yadhav, Goel Publishing House, Meerut. 12) Computers and their applications to Chemistry, Ramesh Kumari, Narosa. 13) A Lab Manual of Polymers, S. M. Ashraf, Sharif Ahmed, Ufana Riaz, I.K. International New Delhi.	
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Paper Code and Name	PG75P402C: LAB COURSE IN PHYSICAL CHEMISTRY
COURSE OUTCOMES (COs)	
1.	This course is intended to acquaint the students with the practice of experimental physical chemistry and to provide an introduction to this area of modern scientific activity.
2.	This laboratory is based on several sets of experiments covering a wide range of topics in physical chemistry such as comparison of cleansing powers of two detergent samples, construction of phase diagram of three component system, cryoscopy, mobility of ions, influence of ionic strength on the solubility of $\text{CaSO}_4$ and determination of its thermodynamic solubility product and mean ionic activity.

PARTICULARS	Teaching Hours
<ol style="list-style-type: none"> <li>1. Surface Tension: Comparison of cleansing powers of two detergent samples.</li> <li>2. Phase Equilibria: Phase diagram of naphthalene &amp; diphenyl system, acetamide &amp; salicylic acid and picric acid and benzene systems.</li> <li>3. Conductance: Determination of the ionic conductance of <math>\text{Cu}^{2+}</math> at infinite dilution by Hittorf's method.</li> <li>4. Reaction Kinetics: Studying the kinetics of photodegradation of indigocarmine (IC) using <math>\text{ZnO/TiO}_2</math> as photocatalyst and study the effect of <math>\text{ZnO/TiO}_2</math> and IC on the rate of photodegradation.</li> <li>5. Potentiometry: Stability of the complex <math>\text{Ag}(\text{NH}_3)_2</math> (concentration cells)</li> <li>6. Solubility: Influence of ionic strength on the solubility of <math>\text{CaSO}_4</math> and determination of its thermodynamic solubility product and mean ionic activity.</li> <li>7. Cryoscopy: A study of complex formation between mercury and potassium halides using cryoscopy method.</li> <li>8. Mobilities of ions: Determination of the ionic conductance of <math>\text{Cu}^{2+}</math> at infinite dilution by Hittorf's method.</li> <li>9. Solid State: To determine the energy gap of semiconductor by resistivity measurement using four probe method.</li> <li>10. Potentiometry: Determination of Hammett constant of ortho-, meta- and para-amino/nitro benzoic acid by pH measurements.</li> </ol>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1) Findlay's Practical Physical chemistry, 9th edition, revised by B.P. Levitt.</li> <li>2) Practical Physical Chemistry by A. M. James and F. E. Prichard</li> <li>3) Experiments in Physical Chemistry by Shoemaker and Garland</li> <li>4) Experiments in Physical Chemistry by Daniels, Alberty and Williams.</li> <li>5) Laboratory Physical Chemistry by Oelke / M.A.C.T.L.A.C.</li> <li>6) Experiments in Physical Chemistry by W .G. Palmer</li> <li>7) Advanced Physico-Chemical Experiments by J .Rose</li> <li>8) Experimental Physical Chemistry by V. D. Athwale and Paul Mathur, New Age International Publishers.</li> <li>9) Text Book of Physical Chemistry by S. Glasstone</li> <li>10) Text Books of Quantitative Analysis by A. I. Vogel</li> <li>11) Advanced Practical Physical Chemistry by J. B. Yadhav, Goel Publishing</li> </ol>	

House, Meerut. 12) Computers and their applications to Chemistry, Ramesh Kumari, Narosa. 13) A Lab Manual of Polymers, S.M. Ashraf, Sharif Ahmed, Ufana Riaz, I.K. International New Delhi.	
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Paper Code and Name	PG75P403C: LAB COURSE IN PHYSICAL CHEMISTRY
COURSE OUTCOMES (COs)	
1.	This lab course is designed so that the students learn how to describe experimental results and analyse them quantitatively and develop the ability of scientific communications through written reports and frontal presentations
2.	The experiments include, determination of molecular surface energy and association factor, determination of formula of the complex formed between copper ions and ammonia by distribution method, kinetics of oxidation of 2-propanol by chromic acid and determination of Transport number of $\text{Ag}^+$ and $\text{NO}^-$ in solution (concentration cells).

PARTICULARS	Teaching Hours
1. Surface Tension: Molecular surface energy and association factor.	
2. Phase Equilibria: Formula of the complex formed between copper ions and ammonia by distribution method.	
3. Refractometry: Ionization constant of bromphenol blue.	
4. Reaction Kinetics: Kinetics of oxidation of 2-propanol by chromic acid and determination of effect of addition of $\text{Mn(II)}$ on the reaction rate.	
5. Reaction Kinetics: Studying the kinetics of reaction between CAT and indigocaramine spectrophotometrically and determination of rate constant	
6. Potentiometry: Transport number of $\text{Ag}^+$ and $\text{NO}_3^-$ in solution (concentration cells)	
7. Viscosity: Effect of temperature on the viscosity of the liquid Viscosity of	

<p>air by Rankine's method.</p> <p>8. Solid state: Determination of magnetic susceptibility of paramagnetic substance by Quinke's method</p> <p>9. Solid state: Determine the relative integrated intensities of ZnS by Debye Scherrer pattern.</p> <p>Computer applications: The students will be taught to operate a PC and how to run standard programs and packages such as MS-WORD, EXCEL, ORIGIN, SIGMA PLOT, CHEM SKETCH etc. and solve chemistry problems. Problems will be taken preferably from physical chemistry for plotting first and second derivative curves, linear plots etc. Problems from chemical kinetics, polymer chemistry, analytical chemistry, electrochemistry, spectroscopy etc. will be solved.</p>	
<p><b>REFERENCES</b></p>	
<ol style="list-style-type: none"> <li>1. Findlay's Practical Physical chemistry, 9th edition, revised by B.P. Levitt.</li> <li>2. Practical Physical Chemistry by A.M.James and F.E.Prichard.</li> <li>3. Experiments in Physical Chemistry by Shoemaker and garland.</li> <li>4. Experiments in Physical Chemistry by Daniels, Alberty and Williams et.al.</li> <li>5. Laboratory Physical Chemistry by Oelke / M.A.C.T.L.A.C.</li> <li>6. Experiments in Physical Chemistry by W.G.Palmer.</li> <li>7. Advanced Physico-Chemical experiments by J.Rose.</li> <li>8. Experimental Physical Chemistry by V.D.Athwale and Paul Mathur , New Age International Publishers.</li> <li>9. Text Book of Physical Chemistry by S.Glasstone.</li> <li>10. Text Books of quantitative analysis by A.I.Vogel.</li> <li>11. Advanced Practical Physical Chemistry by J.B.Yadhav, Goel Publishing House, Meerut.</li> <li>12. Computers and their applications to Chemistry, Ramesh Kumari, Narosa.</li> <li>13. A Lab Manual of Polymers, S.M. Ashraf, Sharif Ahmed, Ufana Riaz, I.K. International New Delhi.</li> </ol>	

## Specific Course Outcome (Analytical Chemistry)

<b>Paper Code and Name</b>	<b>PG75T104D: ANALYTICAL CHEMISTRY</b>
<p style="text-align: center;"><b>COURSE OUTCOMES</b></p> <p>After studying this paper, students will learn</p> <ul style="list-style-type: none"> <li>➤ The classification of analytical techniques, classical quantitative techniques (volumetry and gravimetry) with regard to minimization of errors, mechanism of precipitation and factors influencing precipitation, coprecipitation and post-precipitation, usage of organic reagents in gravimetric analysis,</li> <li>➤ Selection of suitable indicators in various titrimetric analysis such as neutralization reactions, redox reactions, complexometric reactions and precipitation reactions. The application of these titrimetric methods for inorganic analysis.</li> <li>➤ The classification and theory of various chromatographic methods such as column chromatography, TLC, HPLC, GC and Ion-exchange chromatography.</li> <li>➤ The applications, advantages and limitations of various chromatographic techniques.</li> <li>➤ Use of solvent extraction method in the quantitative determination of metal ions.</li> </ul>	
<p style="text-align: center;"><b>UNIT-I</b></p> <p><b>Language of Analytical Chemistry, Data Treatment and Gravimetric Analysis:</b></p> <p>Language of analytical chemistry: Definition of analysis, determination, measurement, techniques and methods. Classification of analytical techniques. Selection of an analytical method: Accuracy, precision, sensitivity, selectivity, robustness and ruggedness. Figures of merit of analytical methods: Sensitivity, detection limit and linear dynamic range.</p> <p>Errors and Treatment of analytical Data: Limitations of analytical methods—Errors: determinate and indeterminate errors, minimization of errors. Statistical treatment of finite samples, measures of central tendency and variability, mean, median, range, standard deviation and variance. Student's t-test, confidence interval of mean. Testing for significance and comparison of two means and two standard deviations. Comparison of an experimental mean and a true mean. Criteria for the rejection of an observation, Q-test. External standard calibration, the least squares methods, regression equation and correlation coefficient.</p> <p>Gravimetric analysis: Mechanism of precipitation, factors influencing precipitation, coprecipitation, postprecipitation and organic reagents used in gravimetry (oxime and dmg).</p> <p style="text-align: right;"><b>(12 Hours)</b></p>	
<p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Titrimetric Methods:</b></p> <p>Titrimetric Analysis: Principles of titrimetric analysis. Classification of reactions in titrimetry.</p>	

Titration curves for strong acid and strong base, weak acid and strong base and weak base and strong acid titrations. Titration curves, quantitative applications, selecting and standardizing a titrant, inorganic analysis, alkalinity, acidity and ammonium salts.

Complexometric titrations: Indicators for EDTA titrations, theory of common indicators, titration methods employing EDTA, direct, back and displacement titrations, indirect determinations, titration of mixtures using masking and demasking agents.

Redox Titrations: Balancing redox equations, calculation of the equilibrium constant of redox reactions, titration curves, theory of redox indicators, calculation of standard potentials, determination of chemical oxygen demand (COD) in natural and waste waters.

Precipitation titrations: Titration curves, titrants and standards, indicators for precipitation titrations involving silver nitrate, the Volhard, the Mohr and the fajan's methods

**(12 Hours)**

### **UNIT-III**

#### **Separation Methods-I:**

Fundamentals of chromatography: General description, definition, terms and parameters used in chromatography, classification of chromatographic methods, criteria for selection of stationary and mobile phase and nature of adsorbents.

Column chromatography: Theories, plate theory, rate theory, band broadening-eddy diffusion, longitudinal diffusion and resistance to mass transfer, column efficiency, Van Deemter's equation and its modern version, interrelationships, capacity factor, selectivity factor, column resolution, distribution constant and applications of conventional column chromatography, advantages and limitations.

Thin layer chromatography (TLC): Definition, mechanism, efficiency of TLC plates, methodology, selection of stationary and mobile phases, development, spray reagents, identification and detection, reproducibility of  $R_f$  values, qualitative and quantitative analysis.

High performance liquid chromatography (HPLC): Instrumentation, pumps, column packing, characteristics of liquid chromatographic detectors, UV and fluorescence detectors, advantages and applications.

**(12 Hours)**

### **UNIT-IV**

#### **Separation methods-II**

Gas chromatography (GC): Principle, instrumentation, columns, study of detectors, thermal conductivity, flame ionization and mass spectrometry, factors affecting separation, retention volume, retention time and applications.

Ion exchange chromatography (IEC): Definition, principle, requirements for ion-exchange resin, types of ion-exchange resins, resin properties-ion-exchange capacity and its determination, resin selectivity and factors affecting the selectivity, applications of IEC in purification and recovery processes.

Solvent extraction: Nernst partition law, efficiency and selectivity of extraction. Extraction systems: Extraction of covalent neutral molecules, extraction of uncharged metal chelates and synergic extraction, extraction of ion-association complexes-non chelated complexes and chelated complexes. Use of salting out agents. Methods of extraction–batch and continuous extractions. Applications (special emphasis on extraction of iron and copper).

**(12 Hours)**

**Total: 48 Hours**

***Recommended Books:***

1. Fundamental of Analytical Chemistry, D.A. Skoog, D.M. West, Holler and Crouch, 8<sup>th</sup> edition, Saunders College Publishing, New York (2005).
2. Analytical Chemistry, G.D. Christian, 6<sup>th</sup> edition, Wiley–India (2007).
3. Quantitative Analysis, R.A. Day and A.L. Underwood, 6th edition, PHI Learning Pvt Ltd. New Delhi(2009).
4. Vogel's Textbook of Quantitative Chemical Analysis, J. Mendham, R.C. Denney, J.D.Barnes and M.J.K. Thomas, 6<sup>th</sup> edition, Third Indian Reprint, Pearson Education Pvt. Ltd.(2007).
5. Analytical Chemistry Principles, John H. Kennedy, 2nd edition, Saunders College Publishing, California(1990).

Paper Code and Name	PG75P104D: LAB ANALYTICAL CHEMISTRY
COURSE OUTCOMES	
<p><b>I. Organic Chemistry Practical</b></p> <p>Quantitative analysis</p> <ol style="list-style-type: none"> <li>1. Titrimetric Estimation of amino acids.</li> <li>2. Estimation of glucose by Bertrand's method.</li> <li>3. Estimation of keto group.</li> <li>4. Iodine value of oil (Chloramine - T method)</li> <li>5. Estimation of Nitro group by reduction using SnCl<sub>2</sub>.</li> </ol> <p>Qualitative Analysis</p>	

Separation of binary mixture of organic compounds using ether and identification of separated compounds by systematic qualitative organic analysis.

Please Note: 1) Individual organic compounds are to be given after the candidate reports the nature of the mixture. 2) Ether insoluble acids and ether insoluble Neutral organic compounds may be given. 3) Low boiling liquids and Amino acids need not be given.

The following mixtures may be given.

1. Acid + Base
2. Acid + Neutral
3. Base + Neutral
4. Phenol + Acid
5. Base + Phenol

## **II. Physical Chemistry Practicals**

1. Determination of molecular radius of glycerol molecule by viscosity method.
2. Estimation of metal ions of ferric-thiocyanate and cupric-ammonia complexes by spectrophotometrically.
3. Determination of relative strength of acids (HCl and H<sub>2</sub>SO<sub>4</sub>) by studying the hydrolysis of methyl acetate.
4. Determination of dissociation constants of weak monobasic acids potentiometrically by titrating against NaOH.
5. Comparison of strengths of chloroacetic acid and acetic acid using conductometric method.
6. Determine the dissociation constant of acetic acid pH-metrically by titrating against NaOH.

### ***Recommended Books:***

1. Practical Physical Chemistry by A. M. James and F. E. Prichard, Longmans, London.
2. Experiments in Physical Chemistry by Shoemaker and Garland, McGraw Hill, New York.  
Experiments in Physical Chemistry by Daniels, Alberty and Williams, McGraw Hill, New York.
3. Experimental Physical Chemistry by W. G. Palmer, Cambridge University Press, London.
4. Advanced Physico-Chemical experiments by J. Rose. 6. Text Book of Physical Chemistry by S. Glasstone, , McGraw Hill, London.
5. Text book of Quantitative Analysis by A. I. Vogel, ELBS, Harlow.
6. Advanced Practical Physical Chemistry by J. B. Yadav, Goel Publishing House.
7. Experimental Physical Chemistry by V. D. Athawale and Parul Mathur, New Age International Publishers.

9. Advanced Physical Chemistry Experiments by Gurtu and Gurtu, Pragati Prakashan Educational Publishers, 3rd Edition 2007.

**Scheme of Examination:**

- |                            |            |
|----------------------------|------------|
| i. Duration of examination | : 04 hours |
| ii. Experiment             | : 35 marks |
| iii. Viva-Voce & Journal   | : 05 marks |
| iv. Internal assessment    | : 10 marks |
| Total                      | : 50 marks |

Paper Code and Name	PG75T301D: Instrumental Methods of Analysis.
<b>COURSE OUTCOMES (COs)</b>	
<p>After studying this paper, students will learn,</p> <ul style="list-style-type: none"> <li>➤ Principles, theory, instrumentation and analytical applications of various optical methods such as AAS, emission spectroscopy and molecular luminescence spectroscopy.</li> <li>➤ Principles, theory, instrumentations and analytical applications of coulometry, amperometry, polarygraphy, electrophoresis, electrogravimetry, supercritical fluid chromatography, voltammetry, nephelometry and turbidometry besides their advantages of each method.</li> <li>➤ The types and importance of ion-selective electrodes in selective determination.</li> <li>➤ The use of thermal methods such as TGA, DTA, and DSC for characterization of inorganic compounds, polymers, pharmaceutical etc.</li> </ul>	
<b>UNIT-I</b>	
<p><b>Optical Methods:</b></p> <p>Atomic absorption spectrometry: Theory, instrumentation, different types of nebulizers, non flame techniques, electrothermal vapouriser, cold vapour AAS determination of mercury, interferences, differences between AAS and flame photometry and analytical applications of AAS.</p> <p>Emission Spectroscopy: Inductively coupled plasma optical emission spectrometry–theory and applications.</p> <p>Molecular Luminescence Spectroscopy: Theoretical basis for fluorescence and phosphorescence, instrumentation, factors affecting fluorescence, its applications in quantitative analysis and in the study of biomolecules. X-ray fluorescence elemental analysis.</p>	
<b>(12 Hours)</b>	
<b>UNIT-II</b>	

### **Analytical methods–I**

Coulometric methods of analysis: General discussion, coulometry at controlled potential, apparatus and general technique, applications, coulometric titrations (amperometric coulometric): Principles, apparatus, comparison of coulometric titrations with conventional titrations, automatic coulometric titrations and applications.

Amperometry: Principle, titrations, advantages and limitations and applications.

Ion selective electrodes: Glass ion selective electrodes, crystalline solid state ion selective electrodes, liquid-based ion selective electrodes and gas sensing electrodes.

Supercritical fluid chromatography (SFC): Properties of supercritical fluids, instrumentation and operating variables, comparison of SFC with other types of chromatography and applications.

**(12 Hours)**

### **UNIT–III**

#### **Analytical methods–II:**

Polarography: Theory of classical polarography, polarograms, polarographic currents. Halfwave potential, oxygen interference, advantages and limitations. pulse polarography and applications of polarography.

Electrogravimetric analysis: Theory, apparatus, deposition and separation, electrolytic separation of metals and applications.

Electrophoresis: Theory and classification, factors influencing the mobility–macromolecular size and charge, interaction with supporting electrolyte, pH and concentration discontinuities. Factors affecting electrophoretic phenomena–electrolysis, electroosmosis, temperature and supporting media. Instrumentation. Methodology: Preparation of gels–staining and destaining. Capillary electrophoresis methods: Capillary zone electrophoresis and capillary gel electrophoresis.

Light–scattering methods: Nephelometry and turbidometry: Principle, instrumentation and applications.

**(12 Hours)**

### **UNIT–III**

#### **Analytical methods–III**

Thermal method of analysis: Introduction.

Thermogravimetric analysis (TGA): Types of thermogravimetric analysis, principles, factors affecting the results, heating rate, furnace, instrument control/data handling. Instrumentation and applications.

Differential thermal analysis (DTA): Theory, variables affecting the DTA curves, differences between TGA and DTA, general principles. Instrumentation and applications.

Differential scanning calorimetry (DSC): Basic principle, differences between DTA and DSC.

Instrumentation, power compensated DSC, heat flux DSC and applications.

Thermomechanical analysis and dynamic mechanical analysis.

Voltammetry: Fundamentals of voltammetry. Cyclic voltammetry: Principles and applications.

Stripping analysis: Stripping voltammetry, basic principles, electrodes used for stripping analysis, apparatus for stripping analysis, applications and determination of lead in water by voltammetry.

**(12 Hours)**

**Total 48 hours**

***Recommended Books:***

1. Instrumental Analysis, D. A. Skoog, F. J. Holler and S.R.Crouch, Cengage Learning (2007).
2. Fundamental of Analytical Chemistry, D.A. Skoog, D.M. West, Holler and Crouch, 8<sup>th</sup> edition, Saunders College Publishing, New York (2005).
3. Analytical Chemistry, G.D. Christian, 6<sup>th</sup> edition, Wiley-India (2007).
4. Quantitative Analysis, R.A. Day and A.L. Underwood, 6th edition, PHI Learning Pvt. Ltd. New Delhi(2009).
5. Vogel's Textbook of Quantitative Chemical Analysis, J. Mendham, R.C. Denney, J.D.Barnes and M.J.K. Thomas, 6<sup>th</sup> edition, Third Indian Reprint, Pearson Education Pvt.Ltd.(2007).
6. Analytical Chemistry Principles, John H. Kennedy, 2<sup>nd</sup> edition, Saunders College Publishing, California(1990).
7. Instrumental Methods of Analysis by H.H. Willard, L.L. Merritt and J.A. Dean, 7<sup>th</sup> Edition,CBS Publishers, New Delhi, 1988.

<b>Paper Code and Name</b>	<b>PG75T302D: MOLECULAR SPECTROSCOPY</b>
<b>COURSE OUTCOMES (COs)</b>	
After studying this paper, students will learn <ul style="list-style-type: none"><li>➤ Importance of interaction of electromagnetic radiation with matter.</li><li>➤ The principle, theory and instrumentation of various spectroscopic techniques.</li><li>➤ Application of different spectroscopic techniques (UV-Vis, IR, NMR, EPR, Mossbauer) in the structural elucidation of organic/Inorganic compounds, biomolecules etc.</li></ul>	

## UNIT-I

### Basic concepts, Electronic Spectroscopy and Mass Spectrometry:

Properties of electromagnetic radiation.

Wave property: Interference and diffraction. Particle property: Photoelectric effect.

Regions of the electromagnetic spectrum, energies corresponding to various kinds of radiation. Interaction of electromagnetic radiation with matter (absorption, emission, transmission, reflection, dispersion, polarisation and scattering). General application.

Electronic spectroscopy: Molecular electronic absorption spectroscopy (UV-Visible), electronic spectra of diatomic molecules, electronic transitions, selection rules, assignment of transition, band intensities, substituent and solvent effect and charge transfer transitions. Application to organic and inorganic molecules.

Mass Spectrometry: Ionization and mass analysis.

Fragmentation: Principles, odd electron ( $OE^+$ ) and even electron ( $EE^+$ ) ions, molecular ion and base peak, nitrogen rule, metastable ions. Isotope effects in chloro and bromo compounds. Fragmentation of inorganic and organic compounds

## UNIT-II

### Vibrational Spectroscopy:

Vibrational spectroscopy: Infrared spectroscopy: Vibrational energy levels, infrared spectra of diatomic and polyatomic molecules, normal modes of vibration, force constant, selection rules, anharmonicity, the vibration-rotation spectroscopy. Infrared spectra of simple molecules and coordination compounds, changes in infrared spectra of donor molecules upon coordination (N,N-dimethylacetamide, urea, DMSO, pyridine N-oxide, ammine, cyano, cyanato and thiocyanato complexes), mono and multinuclear carbonyl complexes, nitrosyls, phosphine and arsine complexes. Change in spectra accompanying change in symmetry upon coordination ( $NO_3^-$ ,  $SO_4^{2-}$ ,  $NO_2^-$ , and  $ClO_4^-$ ), hydrogen bonding. Instrumentation including FTIR.

Raman spectroscopy: Theory, relation with IR spectroscopy, resonance Raman stimulated hyper and inverse Raman effects. Experimental techniques, structure determination from IR and Raman spectra.

(12 Hours)

## UNIT-III

### Magnetic Resonance spectroscopy:

Nuclear magnetic resonance spectroscopy: Magnetic properties of nuclei, population of energy levels, the Larmor precession, relaxation processes, chemical shift, shielding mechanism, spin-spin interactions, rules governing the interpretation of first order spectra, effect of chemical exchange on spectra. Analysis of complex NMR spectra,  $^1H$ -NMR spectra of organic molecules and complex metal ligands. Spin-systems: First order and second order patterns.

Long range coupling : Spin decoupling, CIDNP and NOE. NMR shift reagents.  
NMR studies of nuclei other than proton,  $^{13}\text{C}$ -NMR (including heteronuclear coupling with other nuclei viz.,  $^{19}\text{F}$  and  $^{31}\text{P}$ ),  $^{19}\text{F}$ ,  $^{31}\text{P}$ ,  $^{11}\text{B}$ ,  $^{15}\text{N}$ . Spectra of paramagnetic complexes, contact shift, double resonance technique. Instrumentation including FT-NMR.

(12 Hours)

#### UNIT-IV

##### **Electron Paramagnetic Resonance and Mössbauer Spectroscopy:**

Electron Paramagnetic Resonance (EPR) Spectroscopy: Basic principles, selection rules, intensity, width, position of spectral line, multiplet structure of EPR spectra, hyperfine interaction, spin-orbit coupling, zero-field splitting and Kramer's degeneracy, rules for interpreting spectra, factors affecting the magnitude of values. Instrumentation. Applications to the study of free radicals, coordination compounds, biological studies and rate of electron exchange reactions.

Mössbauer Spectroscopy: Introduction, principles, conditions for Mössbauer spectroscopy, parameters from Mossbauer spectra, isomer shifts, electric quadrupole interaction, magnetic interactions, Mossbauer spectrometer. Applications in structure determination of  $\text{Fe}_3(\text{CO})_{12}$ , Prussian blue, oxyhemerythrin, hexacyanoferrates, nitropruside, tin halides.

(12 Hours)

**Total 48 Hours**

##### ***Books Recommended:***

10. Fundamentals of Molecular Spectroscopy - C. N. Banwell.
11. Physical Methods in Chemistry - R. S. Drago, Saunders college.
12. Structural Methods in Inorganic Chemistry - E. A. Ebsworth, D. W. H. Rankin and S. Craddock, ELBS.
13. Infrared Spectra of Inorganic and Coordination Compounds - K. Nakamoto.
14. Infrared Spectroscopy - C. N. R. Rao.
15. Electron Absorption Spectroscopy and Selected Techniques - D. N. Satyanarayana, University Press India Ltd. Hyderabad.
16. Introduction to Spectroscopy - D. L. Pavia, G. M. Lampman and G. S. Kriz, Thomson Learning, Singapore (2001)
17. Spectroscopic Identification of organic compounds - R. M. Silverstein and F. X. Webster, 6<sup>th</sup> Edition, Wiley and Sons, India Ltd. (2006).
18. Interpretation of Mass Spectroscopy - McLafferty.

<b>Paper Code and Name</b>	<b>PG75T303D: Selected Topics in Analytical Chemistry-I.</b>
<b>COURSE OUTCOMES (COs)</b>	
<p>After studying this paper, students will learn</p> <ul style="list-style-type: none"> <li>➤ Classification, properties and analytical and biological applications of different types of sensors</li> <li>➤ The importance of various elements in biological systems, their structural and functional roles such as dioxygen transportation and storage, electron transfer in different processes, metalloenzymes etc.</li> <li>➤ Use of metal complexes in medicine.</li> <li>➤ The overview, principles and types of automated systems and their advantages and disadvantages in the analysis.</li> <li>➤ Use of computer software programmes in chemistry for better understanding.</li> </ul>	

<b>Paper Code and Name</b>	<b>PG75P301D: Lab course in Analytical Chemistry–I</b>
<b>COURSE OUTCOMES</b>	
<p>After carrying out the experiments mentioned in this paper, students will learn</p> <ul style="list-style-type: none"> <li>➤ The hands on experience of various analytical instruments such as nephelometer/turbidometer (sulphate/phosphate content in ground water) and colorimeter (<math>\text{Ti}^{4+}</math> using <math>\text{H}_2\text{O}_2</math> and composition of <math>\text{Fe}(\text{phen})_3]2^+</math>), complexometric titration using EDTA (calcium in Milk and <math>\text{Fe}^{2+}/\text{Fe}^{3+}</math> in a mixture), and Ion-Exchange chromatography (chloride and Bromide; Cadmium and zinc). Upon acquiring the required knowledge as well as practical skills, the students can extend it for the analysis of different metal ions in different samples including soil, environmental, pharmaceutical etc samples.</li> </ul>	
<ol style="list-style-type: none"> <li>1. Nephelometric/turbidimetric determination of sulphate/phosphate in ground water samples.</li> <li>2. Determination of calcium in milk powder using EDTA.</li> <li>3. Separation and determination of chloride and bromide on an anion exchanger.</li> <li>4. Cation exchange chromatographic separation of cadmium and zinc and their estimation by</li> </ol>	

EDTA titration.

5. Analysis of a mixture of iron(II) and iron(III) by EDTA titration using pH control.
6. Evaluation of the composition of Fe(II)–1,10-phenanthroline complex by spectrophotometry.
7. Colorimetric determination of Ti(IV) using H<sub>2</sub>O<sub>2</sub>.

**Scheme of Examination:**

- |                            |            |
|----------------------------|------------|
| 1. Duration of Examination | : 4 hours  |
| 2. Experiment              | : 35 marks |
| 3. Viva-voce and Journal   | : 05 marks |
| 4. Internal assessment     | : 10 marks |
| Total                      | : 50 marks |

**Recommended Books:**

1. A text Book of Quantitative Inorganic Analysis–A.I Vogel
2. Vogel's Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery & Mendham
3. Colorimetric Determination of Traces of Metals–E.B Sandell.
4. Analytical Chemistry–G.D Christian, 4<sup>th</sup> ed, Wiley, 1986.

<b>Paper Code and Name</b>	<b>PG75P302D: Lab course in Analytical Chemistry-II</b>
<b>COURSE OUTCOMES</b>	
After carrying out the experiments mentioned in this paper, students will learn  The hands on experience in paper & column chromatography (separation of amino acids and plant pigments), conductometric titrations, visual and potentiometric titrations (iron in razor blade and pharmaceuticals), complexometric titrations (Al and Mg in antacid) and precipitation titration (saccharin in Tablets). Such knowledge is helpful to students to analyse a variety of samples in quality control/ quality assurance.	
<b>Chromatography:</b>  (i) Paper chromatography: Qualitative separation of amino acids in a given mixture (ii) Column chromatography: Separation of plant pigments  <b>2. Conductometric titrations:</b>  (i) Sodium acetate with HCl (ii) NH <sub>4</sub> Cl with NaOH (iii) HCl, CH <sub>3</sub> COOH and CuSO <sub>4</sub>	

3. Estimation of iron in razor-blade by potentiometric & visual titration using sodium vanadate.
4. Assay of iron in pharmaceutical preparation by visual & potentiometric titration by  $\text{Ce}(\text{SO}_4)_2$
5. Determination of aluminium and magnesium in antacids by EDTA titration.
6. Determination of saccharin in tablets by precipitation titration.

**Scheme of Examination:**

- |                            |            |
|----------------------------|------------|
| 1. Duration of Examination | : 4 hours  |
| 2. Experiment              | : 35 marks |
| 3. Viva-voce and Journal   | : 05 marks |
| 4. Internal assessment     | : 10 marks |
| Total                      | : 50 marks |

**Recommended Books:**

1. A text Book of Quantitative Inorganic Analysis–A.I Vogel
2. Vogel's Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery & Mendham
3. Colorimetric Determination of Traces of Metals–E.B Sandell.
4. Analytical Chemistry–G.D Christian, 4<sup>th</sup> ed, Wiley, 1986.

<b>Paper Code and Name</b>	<b>PG75P303D: Lab course in Analytical Chemistry – III</b>
<b>COURSE OUTCOMES</b>	
<p>After carrying out the experiments mentioned in this paper, students will be exposed to operate various instruments such as</p> <ul style="list-style-type: none"> <li>➤ Polarimeter used to study the optical isomers</li> <li>➤ Potentiometer used to analyze the halide mixture and iron</li> <li>➤ Conductometer used to analyze halide mixture and sulphate</li> <li>➤ pH meter used to determine the strength of acids and bases</li> <li>➤ spectrophotometer used to analyze the water sample</li> </ul> <p>The above exposure makes the students to carry out project works involving a variety of problems related to analysis</p>	
<ol style="list-style-type: none"> <li>1. <b>Polarimetry:</b> Determination of specific rotation of (i) cane Sugar solution (ii) cane sugar cane by inversion method (iii) cane sugar solution in presence of other sugar solution.</li> <li>2. <b>Potentiometric Titrations:</b> (i) analysis of mixture of halides (ii) determination of iron using potassium dichromate.</li> <li>3. <b>Conductometric Titrations:</b> (i) analysis of halides, (ii) determination of sulphates.</li> <li>4. <b>pH Metric titrations:</b> (i) Determination of strength of acids (ii) determination of strength of</li> </ol>	

commercial phosphoric acid ( $\text{H}_3\text{PO}_4$ ) by pH titration (iii) determination of soda ash in washing soda.

5. **Spectrophotometry:** Analysis of waste water for (i) phosphate by molybdenum blue method (ii) ammonia-nitrogen by Nessler's method OR nitrite-nitrogen by NEDA method.

**Scheme of Examination:**

- |                            |            |
|----------------------------|------------|
| 1. Duration of Examination | : 4 hours  |
| 2. Experiment              | : 35 marks |
| 3. Viva-voce and Journal   | : 05 marks |
| 4. Internal assessment     | : 10 marks |
| Total                      | : 50 marks |

**Recommended Books:**

1. A text Book of Quantitative Inorganic Analysis–A.I Vogel
2. Vogel's Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery & Mendham
3. Colorimetric Determination of Traces of Metals–E.B Sandell.
4. Analytical Chemistry–G.D Christian, 4<sup>th</sup> ed, Wiley, 1986.

<b>Paper Code and Name</b>	<b>PG75T401D: Pollution and Analysis</b>
<b>COURSE OUTCOMES (COs)</b>	
<p>After studying this paper , students will learn</p> <ul style="list-style-type: none"> <li>➤ causes for different types of pollution (soil, air, water, radiation and noise)and their hazardous effects on life and solutions for minimization of pollution.</li> <li>➤ Different methods of analysis to understand extent of pollution by determining pH organic matter and trace metals in soil; hardness, fluoride and dissolved oxygen in water; measurement of noise and analysis of radionuclides.</li> <li>➤ Analysis of pollutants present in soil, water &amp; air, and radioactive substances.</li> <li>➤ Determination of Chemical Oxygen Demand(COD) and Biological Oxygen Demand(BOD) using laboratory techniques.</li> </ul> <p>This training makes the students analyze air, water and soil samples by linking theory to practicals. They can also suggest suitable remedies to the concerned.</p>	
<b>UNIT–I</b>	
<p><b>Soil pollution and Analysis:</b></p> <p>Soil pollution: Acidification, salinisation, sodification, agrochemical pollution, urban and industrial pollution, effects of soil pollution and solutions for soil pollution.</p>	

Soil analysis: Preparation of laboratory sample, measurement of pH and conductivity, acidic and alkaline soil. Analysis of major constituents: Organic matter, nitrogen, sulphur, sodium, potassium and calcium. Analysis of trace elements: Copper, molybdenum, zinc and boron.

**(12 Hours)**

## **UNIT-II**

### **Air Pollution and Analysis:**

Air pollutants: Classification and properties of air pollutants, emission sources, major emissions from global sources. Behaviour and fate of air pollutants, wet precipitation, dry deposition, interaction at the earth's surface, chemical reactions in the atmosphere, photochemical smog, effects of air pollution on human health, vegetation and materials.

Air pollution sampling and measurement: Ambient air sampling, collection of gaseous and particulate air pollutants. Analysis of air pollutants: SO<sub>2</sub>-ambient air measurements, stack gas measurement chemiluminescent techniques, CO-NDIR, amperometric, FID & catalytic oxidation methods, Coulometric & chemiluminescent methods. Hydrocarbon measurement: Total and individual hydrocarbons by chromatographic methods, particulates optical & mass measurement methods.

**(12 Hours)**

## **UNIT-III**

### **Water Pollution and Analysis:**

Sources of water pollution, classification of water pollutants: Organic, inorganic, sediment, thermal and radioactive materials, effects and solutions. Analysis of water parameters: Hardness, carbonate, bicarbonate, chloride, sulphate, fluoride, sodium, potassium, iron, chromium, manganese, chlorine demand, dissolved oxygen, biochemical oxygen demand and chemical oxygen demand.

**(12 Hours)**

## **UNIT-IV**

### **Noise and Radiation Pollution and analysis:**

Noise pollution: Concept of sound, noise and hearing problems, measurement of noise, sources of noise, effects of noise pollution. Regulation and control rules 2000 for noise pollution.

Radiation Pollution: Sources, effects, protection from radiation pollution, disposal of radioactive waste. Analysis of radionuclides.

**(12 Hours)**

**Total: 48 Hours**

### ***Recommended Books:***

1. Environmental Chemistry, S.E. Manahan, CRC Press/ Lewis Publishers, 1994
2. Environmental Chemistry with Green Chemistry, A.K. Das, Books and Allied (P) Ltd, (2012)

3. Environmental Chemistry, A.K.Dey, New Age International,(P) Ltd, Publishers, New Delhi
4. Environmental Chemistry, B.K.Sharma, Goel Publishing House.
5. Environmental Science and Technology, S.E. Manahan, Lewis Publishers, New York
6. Environmental pollution analysis, S.M.Khopkar, New Age International,(P) Ltd, Publishers, New Delhi

<b>Paper Code and Name</b>	<b>PG75T402D: Quality control, Analysis of Food, Beverages and Pharmaceuticals</b>
<b>COURSE OUTCOMES</b>	
<p>After studying this paper , students will learn</p> <ul style="list-style-type: none"> <li>➤ Basic concepts of quality control and quality assurance</li> <li>➤ Importance of quality control in drugs, pharmaceuticals and raw materials</li> <li>➤ Law related case studies of quality control section in various industries</li> <li>➤ Classification and analysis of beverages, food preservative, adulterants, drugs, pharmaceuticals, dairy products and edible oils.</li> </ul> <p>This knowledge is very useful to students seeking jobs in industries in Quality assurance and quality control. The knowledge on analysis in clinical studies is useful to diagnose the ailments or deficiencies.</p>	
<p style="text-align: center;"><b>UNIT-I</b></p> <p><b>Quality Control:</b></p> <p>An introduction to quality control and quality assurance: Basic concepts, quality assurance, aspects of specification and tolerance, quality acceptance, sampling, reliability, cost aspects of quality decisions. Importance of quality control: Drugs and pharmaceuticals. Sources of impurities in pharmaceutical chemicals. Quality control in raw materials, production (in process), finished product. Current trends in quality control, ISO-9000 and ISO-14000 series. Laws related to quality control. Case studies of quality control in various industries such as plastics and polymers, fertilizers, agrochemicals, petrochemicals, dyes and pharmaceuticals.</p> <p style="text-align: right;"><b>(12 Hours)</b></p> <p style="text-align: center;"><b>UNIT-II</b></p> <p><b>Analysis of Beverages, Food Preservatives and Adulterants:</b></p> <p>Introduction: Soft drinks, alcoholic drinks, tea, coffee and fruit juices. Analysis of Caffeine in coffee and tannin in tea, detection of chicory in coffee, chloral hydrate in toddy. Estimation of methyl alcohol in alcoholic beverages, poisonous materials derived from containers. Food preservatives like sodium benzoate, sodium propionate, sodium sulphate, potassium metabisulphate (qualitative and quantitative analysis).</p>	

Food Adulterants: Artificial sweeteners like saccharin and dulcin, coal tar dyes and non-permitted colours and trace metals, detection and estimation.

**(12 Hours)**

### **UNIT-III**

#### **Drugs and Pharmaceutical Analysis:**

Antibiotics: Introduction, classification, structure elucidation, stereochemistry and reaction mechanism of penicillins, tetracycline and chloramphenicol.

Analysis of common drugs:

Analgesics: Aspirin and paracetamol. Anthelmintics: Mebendazole. Antiallergies: Chlorpheniramine maleate. Anti-inflammatory agents: Oxyphenbutazone. Antimalarials: primaquine phosphate. Antituberculosists: Isoniazid (INH). Narcotics: Nicotine, morphine. Sedatives: Diazepam. Vitamins: A, B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>, C & folic acid.

**(12 Hours)**

### **UNIT-IV**

#### **Analysis of dairy products and edible oils:**

Chemistry, principles and analysis of liquids (edible): (i) general composition of edible oils, qualitative tests to purity, rancidity of fats and oil, estimation of rancidity, hydrogenated fat, tests for common edible oils like groundnut oil, castor oil, cottonseed oil & mustard oil. Tests for adulterants like argemoss oil & mineral oils and (ii) analytical principles in the analysis of dairy products composition of milk and milk products, alcohol test, fermentation, dye reduction. Methylene blue and resazurin tests. Tests to distinguish between buffed oleomargarine, phosphate tests for efficacy of pasteurization. Analysis of fat content, mineral in milk and butter. Estimation of added water in milk.

**(12 Hours)**

**Total: 48 Hours**

#### ***Recommended Books:***

1. Analysis of Foods, H.E.Cox
2. Chemical Analysis of Foods, H.E.Cox
3. Foods: Facts and Principles; N. Shakuntala Many and S. Swamy, 4<sup>th</sup> Edtn., New Age International (1998)
4. Pharmaceutical analysis : Ed. By T.Higuchi and E.B. Hanssen, Wiley New York
5. Quantitative analysis of drugs: D.C.Garratt, Chappman and Hall, New York
6. Drugs and Pharmaceutical sciences Series; Marcel Dekkar, Vol. II, INC. New York

<b>Paper Code and Name</b>	<b>PG75T403D: Selected Topics in Analytical Chemistry – II</b>
<b>COURSE OUTCOMES</b>	
<p>After studying this paper , students will learn</p> <ul style="list-style-type: none"> <li>➤ Analysis of various biomedical samples, ores, minerals, fertilizers, metals, alloys and cement.</li> <li>➤ Types, composition and purification methods of crude oil.</li> <li>➤ Analysis of products and residues produced in refinery process of crude oil</li> <li>➤ Usage of various analytical techniques in the evaluation of crude oil and its product.</li> </ul> <p>The students will realise the importance of analysis and also the possible adulteration.</p>	
<p style="text-align: center;"><b>UNIT– I</b></p> <p><b>Analysis of Biomedical samples:</b></p> <p>Composition of body fluids and detection of abnormal levels of certain constituents leading to diagnosis of disease. Sample collection and preservation of physiological fluids, analytical methods for the constituents of physiological fluids (blood, serum, urine). Blood–estimation of glucose, cholesterol, urea, haemoglobin and bilirubin. Urine: Urea, uric acid, creatinine, calcium phosphate, sodium, potassium and chloride. Biological significance, analysis and assay of enzymes (pepsin, monoamine oxidase, tyrosinase), vitamins (thiamine, ascorbic acid, vitamin–A) and hormones (progesterone, oxytocin, insulin). Chemical, instrumental and biological assays to be discussed wherever necessary. Estimation of poisonous materials such as lead, mercury and arsenic in biological materials.</p> <p style="text-align: right;"><b>(12 Hours)</b></p>	
<p style="text-align: center;"><b>UNIT–II</b></p> <p><b>Analysis of Ores, Minerals and Fertilizers:</b></p> <p>Composition, properties and analysis of minerals and ores: Hematite, pyrolusite, dolomite, chromate, bauxite, limestone, zirconite, gypsum and epsom.</p> <p>Fertilizer analysis: Types, analysis of nitrogenous fertilizers, organic nitrogenous, phosphatic and potassic fertilizers.</p> <p>Pesticide and insecticide analysis: introduction, classification and analysis of DDT, gammexane, endosulphon, zinaf, ziram, malathian, thiram, thiometon, simazine &amp; chloridane.</p> <p style="text-align: right;"><b>(12 Hours)</b></p>	

### UNIT–III

#### **Metals, Alloys and Cement Analysis:**

Steel, Cu–Ni alloy, solder, bronze, brass, aluminum alloy, ferroalloys of silicon, molybdenum, chromium, titanium and vanadium. Analysis of structural materials: Cement and glass. Analysis of refractory materials: Fire clay, fluorspar. Analysis of cement

**(12 Hours)**

### UNIT–IV

#### **Analytical procedures in refineries:**

Types of crude oil (sweet and sour), composition of crude oil, causes for corrosion in refinery (sulfidic & naphthenic acid) crude oil refining, fractional distillation (atmospheric and vacuum distillation). Purification processes (merox, alkylation, reformulation, hydrotreating, cracking etc.). Products of refinery (naphtha, gasoline, diesel, furnace oil, lube oil etc.), residues of refining processes (sulfur, pet coke). Specifications of gasoline, jet fuel and diesel in India and abroad. Paraffins, iso-paraffins, olefins, naphthenes, aromatics.

Analytical techniques used in crude oil and products evaluation: True boiling point distillation, spectroscopic evaluation (NIR & FTIR), density, viscosity, cloud point, pour point, PIONA analysis in gasoline, simulated distillation, GC–MS, HPLC, cetane number and octane number .

**(12 Hours)**

**Total: 48 Hours**

#### ***Recommended Books:***

1. Technical methods of analysis: R.C.Griffin
2. Analytical Chemistry: Principles; J.H.Kennedy, 2<sup>nd</sup> Edn., Saunders, 1990
3. Principles of Instrumental methods of analysis: Skoog, Holler and Nieman, 5<sup>th</sup> Edn., Saunders 1998
4. Quantitative analysis: Day and Underwood, Prentice Hall, 1998
5. Fundamentals of petroleum refining: M.A.Fahim, T.A.Alsahhaf and Amal Elkilani, Elsevier Science, ISBN; 978–0–444–52785–1
6. Analytical methods in petroleum upstream applications. Etd., by Cesar Ovalles, Carl E. Rechsteiner Jr., CRC Press, Taylor and Francies Group
7. Industrial Chemistry: B.K.Sharma, Goel Publishing House
8. Quantitative analysis, An instrumental approach: Srivastava and Jain, S. Chand 1997
9. Biochemistry: The chemical reactions of living cells. D.E.Metzler, Academic Press.
10. Enzymes Chemistry: Impact and application Edn. Collin J.Suckling, Academic Press.

<b>Paper Code and Name</b>	<b>PG75D404D: PROJECT WORK</b>
<b>COURSE OUTCOMES (COs)</b>	
<p>During the project work, students will find new problems in the frontier areas of Research and work on them either in Industry/other educational institutions/R&amp;D organization/parent institution by applying the theoretical and practical knowledge gained during their M.Sc Course. This is the platform wherein the student can make use of his novel ideas to implement for the betterment of the society</p>	

<b>Paper Code and Name</b>	<b>PG75P401D: Instrumental Methods of Analysis.</b>										
<b>COURSE OUTCOMES (COs)</b>											
<ol style="list-style-type: none"> <li>1. Analysis of water for alkalinity and acidity by pH metric method</li> <li>2. Determination of strength of commercial phosphoric acid by pH titration</li> <li>3. Determination of ammonia in household cleaners by conductometric titrations.</li> <li>4. Determination of sodium and potassium in soil by flame photometry</li> <li>5. Determination of phosphate in domestic waste water by spectrophotometry.</li> <li>6. Analysis of mercury/lead in industrial effluents by spectrophotometry</li> <li>7. Determination of DO, BOD and COD of a waste water sample by titrimetry</li> <li>8. Determination of fluoride by spectrophotometric method</li> <li>9. Soil analysis</li> </ol> <p><b>Scheme of practical examination:</b></p> <table> <tr> <td>1. Duration of practical examination</td><td>: 4 hrs</td></tr> <tr> <td>2. Experiment</td><td>: 35 marks</td></tr> <tr> <td>3. Viva voce and Journal</td><td>: 05</td></tr> <tr> <td>4. Internal assessment</td><td>: 05</td></tr> <tr> <td>Total</td><td>: 50</td></tr> </table> <p><b>Recommended Books:</b></p> <ol style="list-style-type: none"> <li>1. A text Book of Quantitative Inorganic Analysis – A.I Vogel</li> <li>2. Vogel's Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery &amp; Mendham</li> <li>3. Colorimetric Determination of Traces of Metals – E.B Sandell.</li> <li>4. Analytical Chemistry, G.D. Christian, 5<sup>th</sup> edition, 2001 John Wiley &amp; Sons, Inc. India</li> </ol>		1. Duration of practical examination	: 4 hrs	2. Experiment	: 35 marks	3. Viva voce and Journal	: 05	4. Internal assessment	: 05	Total	: 50
1. Duration of practical examination	: 4 hrs										
2. Experiment	: 35 marks										
3. Viva voce and Journal	: 05										
4. Internal assessment	: 05										
Total	: 50										

<b>Paper Code and Name</b>	<b>PG75P402D: Instrumental Methods of Analysis.</b>
<b>COURSE OUTCOMES (COs)</b>	
1. Analysis of medicines: APC tablet, paracetamol, sulpha drugs by potentiometry/spectrophotometry/titrimetry 2. Assay of aspirin / caffeine / phenacetin by spectrophotometry 3. Determination of vitamin A in vanaspathi by UV spectrophotometry. 4. Isolation of casein and lactose from milk 5. Food analysis: Determination of iron in mustard sugar, phosphorus in peas, ascorbic acid in tomato, benzoic acid in food products 6. Determination of iodine value of an oil sample 7. Saponification of an oil sample	
<b>Scheme of practical examination:</b>	
1. Duration of practical examination	: 4 hrs
2. Experiment	: 35 marks
3. Viva voce and Journal	: 05
4. Internal assessment	: 05
Total	: 50
<b>Recommended Books:</b>	
1. A text Book of Quantitative Inorganic Analysis–A.I Vogel 2. Vogel’s Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery & Mendham 3. Colorimetric Determination of Traces of Metals–E.B Sandell. 4. Analytical Chemistry, G.D. Christian, 5 <sup>th</sup> edition, 2001 John Wiley & Sons, Inc. India	

<b>Paper Code and Name</b>	<b>PG75P403D: Instrumental Methods of Analysis.</b>
<b>COURSE OUTCOMES (COs)</b>	
1. Analysis of fertilizers: Urea, super phosphates 2. Analysis of pyrolusite ore 3. Analysis of alloys: cupronickel and bronze 4. Analysis of cement 5. Determination of (i) aluminium and magnesium in a mixture 6. Analysis of Stainless steel-Ni gravimetrically using DMG, Fe volumetrically using Ce(IV),	

Cr volumetrically by persulphate oxidation,

7. Analysis of body fluids: Determination of cholesterol, glucose in blood; uric acid, creatinine in urine .

**Scheme of practical examination:**

- |                                      |            |
|--------------------------------------|------------|
| 1. Duration of practical examination | : 4 hrs    |
| 2. Experiment                        | : 35 marks |
| 3. Viva voce and Journal             | : 05       |
| 4. Internal assessment               | : 05       |
| Total                                | : 50       |

***Recommended Books:***

1. A text Book of Quantitative Inorganic Analysis–A.I Vogel
2. Vogel's Text Book of Quantitative inorganic Analysis, Basset, Denney, Jeffery & Mendham
3. Colorimetric Determination of Traces of Metals – E.B Sandell.
4. Analytical Chemistry, G.D. Christian, 5<sup>th</sup> edition, 2001 John Wiley & Sons, Inc. India

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN CHEMISTRY**

**Ph.D. Course work**

**Course I: Research Methodology (Common to all)**

Total: 48 hrs

1. **Nature and Scope of research in Chemistry:** survey of literature (use of computer devices in literature survey, location of journals). Need of literature survey. Research areas, Theoretical and fundamental research, Inter disciplinary research.

8 hrs
2. **Research problem:** literature survey, choice of research problem, writing research papers/review article research proposal/ dissertation/ Synopsis, Thesis, Research journals in chemistry, significance of research publications in terms of impact factors, H-index etc, conferences, work-shops. Conventions (their organizations).

10hrs
3. **Intellectual Property Rights:** intellectual property rights: Concept and evolution. Law of designs. Law of copy rights and trademarks. Law of patents.

6hrs
4. **Application of Computers in Chemistry:** Software's used in chemical research (Chemdraw ultra, Chems sketch). Internet for Chemists: Online Search of chemical data bases and online journals. Search engines in chemical research viz. Sci-finder, Scopus, Beilstein cross fire etc.

8hrs
5. **Recent advances in Chemistry:** Outstanding discoveries and Nobel prizes in Chemistry during last five years.

7hrs
6. **Statistical treatment of analytical data:** Reliability of results-confidence interval. Estimation of detection of limits. Significant numbers. Comparison of results- Student's test, comparing the two means and standard deviation F-test, t-test and paired t-test and paired t-test. Rejection of a result: Q-test. Number of replication determination. Correlation and regression-correlation coefficient, linear regression.

9hrs

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN CHEMISTRY**

**Ph.D. Course work**

**Course II: Cognate/Core subject: Chemistry (Common to all)**

Total: 48hrs

1. **Separation techniques:** Chromatography in chemical research, Principle, theory application of thin layer chromatography, gas chromatography (GSC and GLC), HPLC application of GCMS.

8hrs
2. **Instrumental methods in chemical research:** Introduction, theory, instrumentation application of the following in the structural elucidation of organic compounds as well as in complexes.
  - i. IR/FTIR spectroscopy.
  - ii. UV/Visible spectroscopy.
  - iii.  $^1\text{H}$  and  $^{13}\text{C}$  NMR, ESR spectroscopy.
  - iv. Mossbauer spectroscopy and X-ray diffraction studies.

22hrs
3. **Thermal analysis:** Introduction, theory, instrumentation and applications of TGA, DTA and DSC.

5hrs
4. **Green Chemistry:** Biocycles, green chemistry in day today life, principles, synthetic methods, industrial applications.

7hrs
5. **Nanomaterials:** Introduction to 'nanomaterials, physical and chemical properties of nanomaterials, applications of nano technology.

6hrs

**KARNATAK UNIVERSITY, DHARWAD**  
**P.G. DEPARTMENT OF STUDIES IN CHEMISTRY**

**Course-work for Ph.D**

**PAPER –III(OPTIONAL)**

**Advanced coordination chemistry (Inorganic)**

**1.Ligand Systems:**

Novel ligand systems containing O,N, S, P as coordinating sites, cyclic and acyclic ligand systems, ligands with high denticity.

4hrs

**2.Preparations of coordination compounds:**

Preparative methods : Simple addition reactions, substitution reactions, oxidation-reductions, Thermal dissociation methods, Preparations in inert atmosphere, Reactions of coordinated ligands, Preparations involving trans and cis effects, other methods of preparing coordination compounds.

6hrs

**3. Theories of transition metal compounds:**

Crystal field theory: Crystal field splitting in weak field, strong field and intermediate field. Non- octahedral complexes, Tetrahedral complexes, square planar complexes, other stereo chemistries.

Molecular orbital theory: Introduction, Octahedral complexes, metal-ligand  $\sigma$  interactions, metal ligand  $\pi$  interactions. Tetrahedral complexes and complexes with other geometries.

8hrs

**4. Electronic spectra of transition metal complexes:**

Term symbols for  $d^n$  ions, spectroscopic ground states, selection rules. Spectral bands-band shapes, band width, band intensities. Effect of spin-orbit coupling, Orgel diagrams, Tanabe-Sugano diagrams, Racah parameters, Interpretation of spectra of octahedral, tetrahedral, square planar and other geometries. Charge transfer spectra, Intervalence charge transfer.

7hrs

**5. Magnetic properties of transition metal complexes:**

Introduction, classical magnetism, orbital contribution, orbital contribution reduction factor, spin-orbit coupling, diamagnetic corrections, magnetically non-dilute compounds. Spin equilibria.

5hrs

**6. f- electron system: Lanthanides and actinides:**

Electronic structure of the Lanthanide and actinide ions, spin-orbit coupling. Excited state of f-electron system. Electronic spectra of f-electron system, Crystal field and f-f intermediates. f-d and charge transfer transitions. Magnetism of Lanthanide and actinide ions

5hrs

**7. Other methods of studying coordination compounds:**

Vibrational spectroscopy, Resonance Raman spectroscopy, spectroscopic methods unique to optically active molecules.

NMR and Mossbauer Spectroscopy. Electron paramagnetic resonance spectroscopy. Photoelectron spectroscopy. Fluorescence. Molar Conductivities, Cyclic Voltammetry. X-ray crystallography.

15hrs

**8. Reaction mechanism in transition metal complexes:**

Energy profile of a reaction, inert and labile complexes, kinetics of octahedral substitution and mechanistic aspects. Acid hydrolysis, factors affecting acid hydrolysis, base hydrolysis, conjugate base mechanism and evidences in its favour. Anation reactions, Substitution reactions in square planar complexes, trans effect, mechanism of substitution. Electron transfer reactions- inner sphere and outer sphere reactions, complimentary and Non-complimentary reactions.

Photochemistry of metal complexes- types of photochemical reactions, photo substitution and photo redox reactions and solar energy conversions.

10hrs

**References:**

1. Physical Inorganic Chemistry, S. F. A. Kettle. Spectrum Publisher (1995).

2. Comprehensive Coordination Chemistry, Edited By G. Wilkison and Others Vol.1-7. Pergamon Press (1987).
3. Physical Methods in Inorganic Chemistry, R.S. Drago. Saunders College. (1996).
4. Fundamentals of Molecular Spectroscopy C.N. Banwell. Ind. E.M. McCash, Tata McGraw-Hill Ltd (2001)
5. Structural Methods in Inorganic Chemistry E.A. Ebsworth D.W.H. Rankin and S. Cradock, ELBS (1987).
6. Infrared Spectra of Inorganic and coordination compounds, K. Nakamoto. Wiley Interscience (1986).
7. Introduction to Spectroscopy, Pavia, Lampman and Kriz., Thomson Learning (2001).
8. Electronic Absorption Spectroscopy and Related Techniques, D.N. Satyanarayana, OUP, (2001).
9. Inorganic Reaction Mechanism- F. Basolo and R.G. Pearson, Wiley Eastern, (1979).
10. W.W. Porter Field : Inorganic Chemistry – A Unified Approach, Elsevier, (2005).

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN CHEMISTRY**  
**Ph.D Course Work**  
**Course III: Advanced Organic Synthesis (Organic) Optional**  
**Total : 48Hrs**

1. Synthesis of Sydnones, Coumarins, Chromones, Benzimidazoles, Indoles, Quinolines, thiazoles, Fused thiazoles, Oxadiazoles, thiadiazoles, imidazothidiazoles and their reactions (thermal, photochemical and rearrangements), oleochemicals and their applications
2. Heterocycles in biological systems and drugs: Imidazoles, NADH, Isoalloxazines, Pyridoxal, pteridines, folic acid, Vit - B<sub>12</sub> and their role in biological systems. Fatty acid metabolism and their biosynthesis.
3. Synthesis and mechanism of action of sulphapyridine, sulphathiazole, sulphamerazine, sulphamethazine, cephalosporins, ciprofloxacin, enosacin, nalidixic acid, rifampicin.
4. Newer reactions and reagents:

Newer reactions: Des - martin oxidation, Buchwald - Hartwig, Sonogashira and Stille cross Coupling reactions, Corey - Bakshi - Shibata reduction, Dimroth rearrangement, Heck arylation, Sharpless aminohydroxylation and dihydroxylation.

Newer reagents: NBS, DCC, Fermy's salt, LDA, DDQ, Wilkinson catalyst, Gillmann reagent.

5. Retrosynthetic analysis of functionalised aliphatic, aromatic and simple heterocyclic compounds involving single and multiple C-C and C-X disconnections. Concept of synthons, Synthetic equivalents, FGI, Functional group interconversions of aromatic and mono and biheterocyclic compounds involving oxidation, reduction, substitution, addition, elimination and rearrangement reactions.
6. Carbon - Carbon forming reactions: Application of acid, base and metal catalysed reactions of functionalized organic compounds involved in multistep synthesis.

**REFERENCE BOOKS AND WEBSITES:**

1. Modern Synthetic Reactions by H.O.House, W.A. Benzamin, INC, London(1972).
2. Biochemistry by D.E.Metzler, Academic Press, New York (1977).
3. Principles of Organic Synthesis by R.O.C. Norman, J.M.Coxon. 3rd Edition (2001), Nelson Thornes Cheltenham UK.
4. Organic Chemistry vol - I & II by I.L.Finar, Orient Longman (indian edition), 2005.
5. Organic chemistry by F.A.Carey 4th edition. McGraw Hill 2000 New York.
6. Heterocyclic chemistry by M.M. Jovles and smith 5th Edition, Wiley, 2010.
7. Strategic applications of named reactions in organic synthesis by Barbara Czako and Laszlo Kurti, Elsevier, 2005.
8. Modern methods of Organic synthesis by Carruthers.
9. Disconnection approach, Stuart Warren.

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN CHEMISTRY**

**Ph.D. Course work**

**Course III: Advanced Polymer Chemistry (Physical) Optional**

Total 48hrs

1. **Analytical Methods:** Types of errors. Mean value and standard deviation, standard deviation and probability. Methods of least squares. Calibration curves. Significant figures, significant figures in arithmetic, significant figure and graphs.  

9hrs
2. **Characterization and analysis of polymer surface:** Gel permeation chromatography (GPC), scanning electron microscopy (SEM), transmission electron microscopy (TEM), electron spectroscopy for chemical analysis (ESCA), atomic force microscopy (AFM), photo-acoustic spectroscopy (PAS) and attenuated total reflectance spectroscopy (ATR).  

10hrs
3. **Pervaporation:** An overview, history, definition, theory, sorption in membranes, diffusion in membranes, performance parameters, influence parameters, advantages and disadvantages, applications. Types of membranes, membrane modules, tubular modules, hollow fiber modules, plate and frame systems, spiral wound modules.  

10hrs
4. **Nonlinear optical materials:** Definition and history. Basic aspects of nonlinear optical phenomena, reaction between molecular and macroscopic properties, linear optical effects, nonlinear optical effects, second harmonic generation (SHG). Experimental methods: Kurtz-Perry powder technique, electric field induced second harmonic generation, Hyper-Rayleigh scattering, Maker fringe technique. Electric field poling methods, relaxation of SHG in poled polymers. Basic molecular characteristics of nonlinear optical (NLO) materials, second-order NLO materials, application of NLO materials.  

10hrs
5. **Drug delivery systems:** Concepts and system design, fundamental of rate-controlled drug delivery, oral/targeted drug delivery systems, micro- and nano-particles transdermal systems, nasal and ocular systems, protein and gene delivery systems, patient compliance, in-vitro and in-vivo testing of drug delivery system, drug-conjugates, micro-encapsulation.  

9hrs

**REFERENCES**

1. D. C. Harris, Quantitative Chemical Analysis, 5<sup>th</sup> Edition, W. H. Freeman and Company, New York, 1998.

2. D. A. Skoog, D. M. West, F. J. Holler, Analytical Chemistry, Harscourt Brace College Publishers, Landon 1994.

**KARNATAK UNIVERSITY, DHARWAD**

**DEPARTMENT OF STUDIES IN CHEMISTRY**

**Ph.D. Course work**

**Paper III: Polymer Blends**

**Total: 60 hrs**

1. **Concepts and Definitions:** Polymer, Monomer, Oligomer, Repeating Unit, Degree of Polymerization and Functionality. Copolymers-Random Copolymer. Alternating Copolymer, Graft Copolymer, Block Copolymer, Addition and Condensation, Organic and Inorganic, Homopolymer and Copolymers, Linear, Branched and Cross-linked Polymers. Thermoplastics and thermosets, Elastomers and fibres.  
12hrs
2. **Thermoplastics Materials and Rubber:** Introduction to thermoplastic and plasticisers-Poly (ethylene glycol) and Glycerol. **Thermoplastic Materials-** Vinyl Plastics-Poly(ethylene), Poly (vinyl chloride), Poly (vinyl acetate), Poly (ethylene vinyl acetate), Poly(propylene), Poly(styrene), Poly (vinyl alcohol), Poly (vinyl pyrrolidone), Fluorocarbon Thermoplastic: poly(tetrafluoroethylene). Cellulose Base Plastics – Cellulose acetate, Cellulose acetate butyrate, Cellulose acetate propionate, Polyamide-Nylon 6,6. **High Temperature Thermoplastics:** Poly(imides), Poly(sulphones), Poly (ether ether ketone). **Elastomers;** Natural Rubber, Vulcanization, Styrene-Butadiene Rubber, Butadiene Rubber, Butyl Rubber, Silicone Rubber.  
12hrs
3. **Thermosets:** Introduction. **Thermoset Materials:** Phenolics-Phenol Formaldehyde, Urea Formaldehyde, Melamine Formaldehyde. **Polyester resins** – Polyesters, Alkyd Resins. Polyurethanes, Epoxy Resins, Polyimides, Silicones.  
12hrs
4. **Preparation of Polymer Blends:** Definition of Polymer Blend. Advantage and Reasons of Blending, Polymers Blending technique's-melt Blending (Mixing), Latex Blending, Solution Blending. Types of Polymer Blends- Miscible Polymer Blend and immiscible Polymer Blend. Basic Thermodynamics. Blend Morphology.  
12hrs
5. **Characterization Technique: Techniques:Thermal Analysis Techniques-** Differential Scanning Calorimetry (DSC), Thermogravimetry Analysis (TGA), Microscopy Techniques- Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM) and Atomic Force Microscopy (AFM), Mechanical Behaviour-Universal Testing Machine (UTM), Amorphous and Crystallinity-XRD, Spectroscopy Technique-FT-IR.  
12hrs

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN CHEMISTRY**

**Ph.D. Course work**

**Paper-III (Optional)**

**Advanced Analytical Chemistry**

**1. Statistical Analysis: Evaluating the Data**

Evaluation of analytical data, precision and accuracy, normal distribution curve, graphical presentation of results, method of average, method of linear least square, statistical aid to hypothesis, t-test, F-test, chi-square test, rejection of data. Use of Excel sheets in the treatment of analytical data.

5hrs

**2. Electroanalytical techniques:**

Voltammetry: General Introduction, principle, instrumentation and applications of cyclic voltammetry, differential pulse voltammetry, square wave voltammetry and stripping voltammetry with special emphasis on the assay of bioactive compounds/drugs and/or their interactions with biomolecules (proteins and DNA).

Electrochemical sensors: Modified electrodes, types of modified electrodes, their fabrication, modified electrodes (with C<sub>60</sub>, CNTs, graphene, metal oxide nano particles) as voltammetric sensors and biosensors for analytical and binding applications.

10hrs

**3. Spectral methods of analysis**

i) Spectrofluorometry: Construction of Jablonski diagram, photophysical pathways of excited molecular system (radiative and non-radiative), phosphorescence, fluorescence quenching: quenching by excimer and exciplex emission, factors affecting quenching, Stern-Volmer and modified Stern-Volmer equation, Fluorescence resonance energy transfer between donor (protein) and acceptor (quencher) molecules. Types of quenching mechanisms and analytical applications of quenching with special emphasis on drug-protein and drug-DNA interactions,

and assay of drugs. Evaluation of binding and thermodynamic characteristics of interactions. Applications of fluorescence life time, synchronous and 3-D fluorescence.

14hrs

**ii).** Ultraviolet and visible spectroscopy: Introduction, laws of absorption, instrumentation, applications with emphasis on assay of drugs (anticancer, antihypertensive, antiallergic and anti-inflammatory).

4hrs

**iii).** FT-IR: Introduction, sampling technique, absorption of common functional groups, factors affecting IR bands, utility of FTIR in the study of biomolecular interactions.

**iv).** Circular dichroism: Fundamentals, CD curves and applications in the characterization of ligand-biomolecule interactions.

3hrs

**4.Recent advances in Analytical Chemistry:** Recent papers published in Talanta and Analytical Chemistry Journals during the last two years.

9hrs

## References

1. Instrumental Analysis-D. A. Skoog, F. J. Holler and S. R. Crouch, Cengage Learning (2010).
2. Analytical Chemistry-G.D. Christian, 5<sup>th</sup> ed., John Wiley & Sons, Inc, India (2001).
3. Instrumental methods of analysis, 7<sup>th</sup> Ed.-H.H. Willard, L.L. Merritt and J.J. Dean (1988).
4. Fundamental of Analytical Chemistry-D.A. Skoog, D.M. West, Holler and Crouch, 8<sup>th</sup> edition, Saunders College Publishing, New York (2005).
5. Principles of fluorescence spectroscopy-J. R. Lakowicz, 3<sup>rd</sup> Edition, Springer publication (2006).
6. Introduction to spectroscopy-D. L. Pavia, G. M. Lapman and G. S. Kriz, 3<sup>rd</sup> Edition, Thomson (2001).
7. Lehninger Principles of Biochemistry-A. L. Lehninger, M. Cox, D. L. Nelson, W. H. Freeman & Co. Publication (2005)

8. DNA structure and function- R. R. Sinden, Academic Press(2006).

9. [www.sciencedirect.com](http://www.sciencedirect.com)

10. [www.acs.org](http://www.acs.org)

# **KARNATAK UNIVERSITY, DHARWAD**



DEPARTMENT OF STUDIES IN COMMERCE

Regulations and Syllabi

For

MASTER OF COMMERCE

CHOICE BASED CREDIT SYSTEM

(M.Com CBCS)

( I to IV Semesters)

With effect from 2021-22 onwards

## **PART-A**

Regulations Governing Post-Graduate Programmes under Choice Based Credit System in the Faculty of Commerce, from 2021-2022

Master Degree Programme in Commerce (M.Com) Regulations Governing the Post Graduate Master Degree Programme under Choice Based Credit System (KU-CBCS)

*(Framed under Section 44(1)(c) of the K. S.U. Act, 2000)*

### **1.0 Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Commerce under the Choice Based Credit System,” in Karnatak University, Dharwad.

### **2.0 Commencement**

These Regulations shall come into force with effect from the academic year 2021-22.

### **3.0 Definitions**

In these Regulations, unless otherwise provided.

- A** “Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- B** “Board of Studies” means P.G. Board of Studies in Commerce, Karnatak University, Dharwad.
- C** “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- D** “Course Weightage” means number of credits assigned to a particular course.
- E** “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two Hrs of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- F** “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Average weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- G** “Degree” means Post-Graduate Degree.
- H** “Grade” is an index to indicate the performance of a student in the selected course. These

Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.

- I** “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- J** “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- K** “Post Graduate Programme” means semesterised Master’s Degree Programmes under CBCS in the Faculty of Commerce excluding P.G. Diploma, Post Graduate International Diploma.
- L** “Specialization course” means advanced paper offered by a Department that a student of that department can opt as a special course.
- M** “Student” means the student admitted to programmes under (k).
- N** “University” means Karnatak University, Dharwad.

#### **4.0 Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme **in Commerce** of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes **in Commerce** provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admission shall be as per the Govt. of Karnataka Reservation Policy and directions issued in this direction from time to time.

#### **5.0 Duration of the Programme**

The duration of study for all the P.G. Programmes shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0 Medium of Instruction and Evaluation**

The medium of instruction for all programmes except languages shall be English. However, the students may write the examinations in Kannada if so provided by the Board of Studies in Commerce (PG).

## **7.0 Programme Structure**

- 7.1** The students of Post-Graduate Programme shall study the courses as may be approved by the Board of Studies in Commerce (PG), Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.
- 7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.
- 7.5** a) The Department shall offer Open Elective courses for students of other Departments in second and third Semesters.
- b) The M.Com. students of the department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centers and affiliated colleges, can offer those Open Elective Courses which are approved or prescribed by the P.G. Department of Commerce on the main campus. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6** The credits for each of the Compulsory Courses shall be 4; for Specialization Course, 4; and for Open Elective Course, 4. The credits for the project work in the IV Semester shall be 2 for dissertation and 2 for Viva-Voce.
- 7.7** A student shall register for a minimum of 92 credits during the whole duration of the P.G. Programmes as stipulated in the General Regulations.
- 7.8** The students shall undertake project in the IV semester as a compulsory course.
- 7.9** The detailed programme structure for the M.Com. Course shall be as stated in Annexure –I.

## **8.0 Attendance**

- 8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4** A student shall be considered to have satisfied the required attendance for each course if

he/she has attended not less than 75 % of the total number of instructional Hrs during the semester.

- 8.5 There is no provision for condoning shortage of attendance.
- 8.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7 Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

- 9.1 There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the Department/P. G. Centres/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1 There shall be semester-end examination of 3 Hrs duration for the courses carrying 75 marks.
- 9.1.2 Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3 The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 9.1.4 The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results.
- 9.1.5 The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6 Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7 Candidates who desire to challenge the marks awarded to them, in the even semester examinations may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Department/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those circumstances where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centres.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester:**

- 9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

- 9.3.4 There shall be a project work in the fourth semester of the programme, the same shall be evaluated by both internal and external examiners.

#### 9.4 Evaluation

- 9.4.1 Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.
- 9.4.2 The IA component in a course shall carry 25% and the Semester End Examination shall carry 75%. Courses having 25% marks as internal assessment shall have 3 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.
- 9.4.3 Marks for attendance shall be awarded to the students as stipulated below :

Attendance (in percentage)	Marks
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1
75	No marks

- 9.4.4 Internal Assessment (IA) shall be based on written tests/ assignments/ seminars and /or any other instructional activity. However, the number of IA components per course per semester shall not be less than two.
- 9.4.5 The IA marks list shall be notified on the Department notice board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination.
- 9.4.6 The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.
- 9.4.7 There is no provision for seeking improvement of Internal Assessment marks.
- 9.4.8 The IA records, pertaining to Semester Examination, shall be preserved by the department/Centres/Colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.
- 9.4.9 The project viva-voce shall be conducted by an internal and external examiner.

#### 10.0 Maximum duration for completion of the Programme

- 10.1 A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.
- 10.2 Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

## 11.0 Declaration of Results

- 11.1 The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.
- 11.2 Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.
- 11.3 Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.
- 11.4 For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

## 12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average

- 12.1 The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 07.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 05.00	D
less than 40.00 %	Less than 4.00	F

- 12.2 Credit Point(CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.
- 12.3 The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.
- 12.4 The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points obtained in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

$$\text{CGPA for the I Semester} = \frac{\text{Sum of the CP of the I Semester}}{\text{Sum of the credits of the I Semester}}$$

$$\text{CGPA for the II Semester} = \frac{\text{Sum of the CP of the I Sem} + \text{Sum of the CP of II Sem.}}{\text{Sum of the credits of the I Semester} + \text{II Semester}}$$

CGPA for the III and IV Semesters shall be computed accordingly.

- 12.5 The Grade Card at each semester examination shall indicate the courses opted by the

student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

- 12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

<b>Cumulative Grade Point Average (CGPA)</b>	<b>Class to be awarded</b>
7.5 to 10.0	First class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

**13.0 Miscellaneous**

- A** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- B** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- C** The university shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- D** The procedural details may be given by the University from time to time.
- E** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter, shall be final.

## **PROJECT WORK**

### **BROAD GUIDELINES RELATING TO PROJECT WORK**

The student shall take up a project work in the elective selected by him/her during the IV Semester. The rationale behind the introduction of project work is to :

- a) Expose the students to various operational aspects of business organizations.
- b) Help them to sharpen their writing skills ; and
- c) Channelise their thinking towards the application of the concepts that are learnt in the course.

#### **The Project may be :**

- a) Comprehensive case study
- b) Inter-organizational study
- c) Field study

#### **Project Report :**

The information collected through project work has to be presented in an organized and structured way. The suggested pattern of the report is as under ;

##### **Chapter : I Introduction**

- Need of the Study
- Objectives
- Methodology

##### **Chapter : II Conceptual Frame work of the Problem selected**

##### **Chapter : III Background of the sample unit or size** (in case of case study or sample - based study)

##### **Chapter : IV Analysis of Data**

##### **Chapter : V Findings and suggestions**

##### **Bibliography**

The subject matter organized as above has to be neatly typed and submitted in the hard bound/spiral bond form. The ideal size of the report may be in the range of 50 to 60 pages.

#### **Submission of Project Report :**

Two copies of the Project Report shall be submitted to the Chairman, Department of Studies in Commerce through Local Head or Principal concerned.



## Annexure – I

### The programme structure for the M.Com. Degree

Semesters	Courses (Hrs)			Credits			Total credits
	Compulsory courses	Specialization courses	Open Elective courses (chosen from other Depts.)	Compulsory courses	Specialization courses	Open Elective courses	
<b>I</b>	<b>5 (4)</b>	<b>---</b>		<b>20</b>	<b>---</b>		<b>20</b>
<b>II</b>	<b>5 (4)</b>	<b>---</b>	<b>1(4)</b>	<b>20</b>	<b>---</b>	<b>04</b>	<b>24</b>
<b>III</b>	<b>2(4)</b>	<b>3(4)</b>	<b>1(4)</b>	<b>08</b>	<b>12</b>	<b>04</b>	<b>24</b>
<b>IV</b>	<b>2(4) 1(4) (Project report)</b>	<b>3(4)</b>		<b>12</b>	<b>12</b>		<b>24</b>
						<b>Total</b>	<b>92</b>

**Note: The Department shall offer at least one open elective course carrying four credits in second and third semesters for the students of other departments.**

## PART-B

### Detailed Course Structure of the M.Com Programme

PROGRAMME CODE	Subjects	Max. Marks		Total Marks	Hrs/ week	Credits
		IA	Sem. end Exam			
1 <sup>st</sup> Semester						
	Compulsory Courses					
PG63T101	Marketing Management	25	75	100	04	04
PG63T102	Financial Management	25	75	100	04	04
PG63T103	Organizational Behaviour	25	75	100	04	04
PG63T104	Strategic Management	25	75	100	04	04
PG63T105	Security Analysis and Portfolio Management	25	75	100	04	04
	Total marks/credits for the First Semester	125	375	500	20	20
2 <sup>nd</sup> Semester						
	Compulsory Courses					
PG63T201	<u>Financial Reporting Standards</u>	25	75	100	04	04
<b>PG63T202</b>	<u>Mergers and Acquisitions</u>	25	75	100	04	04
PG63T203	Business Research Methods	25	75	100	04	04
PG63T204	Strategic Human Resource Management	25	75	100	04	04
PG63T205	Economic Analysis for Managerial Decisions	25	75	100	04	04
PG63T206	Open Elective Course ( To be chosen from the courses offered by the other Departments)	25	75	100	04	04
	Total marks/credits for the Second Semester	150	450	600	24	24
	Open Elective Course ( meant for the students of other Departments) <u>Introduction to Business</u>	25	75	100	04	04
3 <sup>rd</sup> Semester						
	Compulsory Courses					
PG63T301	Accounting Information System	25	75	100	04	04
PG63T302	International Finance	25	75	100	04	04
	Specialization Groups					
Group A (Cost Management and Control )						
PG63T303A	Operations Management	25	75	100	04	04

PG63T304B	Cost Management	25	75	100	04	04
PG63T305C	Advanced Management Accounting	25	75	100	04	04
<b>Group B (Accounting and Taxation)</b>						
PG63T303A	Company Accounts	25	75	100	04	04
PG63T304B	Accounting for Specialized Institutions	25	75	100	04	04
PG63T305C	Corporate Tax Planning – I (Direct Taxes)	25	75	100	04	04
<b>Group C (Accounting &amp; Finance)</b>						
PG63T303A	Company Accounts	25	75	100	04	04
PG63T304B	Accounting for Specialized Institutions	25	75	100	04	04
PG63T305C	Basics of Derivatives	25	75	100	04	04
<b>Group D (Finance)</b>						
PG63T303A	Basics of Financial Econometrics	25	75	100	04	04
PG63T304B	Corporate Financial Risk Management	25	75	100	04	04
PG63T305C	Basics of Derivatives	25	75	100	04	04
<b>Group E (Banking and Finance)</b>						
PG63T303A	Principles of Bank Management	25	75	100	04	04
PG63T304B	Corporate Financial Risk Management	25	75	100	04	04
PG63T305C	Basics of Derivatives	25	75	100	04	04
PG63T306	<b>Open Elective Course</b> ( To be chosen from the courses offered by the other departments)	25	75	100	04	04
	<b>Total marks/credits for the Third Semester</b>	<b>150</b>	<b>450</b>	<b>600</b>	<b>24</b>	<b>24</b>

	<b>Open Elective Course</b> ( meant for the students of other Departments) <b><u>Digital Marketing</u></b>	25	75	100	04	04
<b>4<sup>th</sup> Semester</b>						
IV	<b>Compulsory Courses</b>					
PG63T401	Business Data Communication And Networking	25	75	100	04	04
PG63T402	Corporate Governance	25	75	100	04	04
	<b>Specialization Groups</b>					
<b>Group A (Cost Management &amp; Control )</b>						
PG63T403A	Strategic Cost Management	25	75	100	04	04
PG63T404B	Quantitative Methods for Cost Accountants	25	75	100	04	04
PG63T405C	<b><u>Cost and Management Audit</u></b>	25	75	100	04	04
PG63T406	Project Report and Viva Voce		50 50	100	-	04
<b>Group B (Accounting and Taxation)</b>						
PG63T403A	Contemporary Issues in Accounting	25	75	100	04	04
PG63T404B	Corporate Tax Planning – II (GST and Customs) *	25	75	100	04	04
PG63T405C	<b><u>International Taxation</u></b>	25	75	100	04	04
PG63T406	Project Report and Viva Voce		50 50	100	-	04
<b>Group C (Accounting &amp; Finance)</b>						
PG63T403A	Contemporary Issues in Accounting	25	75	100	04	04
PG63T404B	Business Analysis and Valuation	25	75	100	04	04
PG63T405C	<b><u>Project Finance</u></b>	25	75	100	04	04
PG63T406	Project Report and Viva Voce		50 50	100	-	04
<b>Group D ( Finance )</b>						
PG63T403A	Behavioural Finance	25	75	100	04	04
PG63T404B	Business Analysis and Valuation	25	75	100	04	04

PG63T405C	<b><u>Project Finance</u></b>	25	75	100	04	04
PG63T406	Project Report and Viva Voce		50 50	100	-	04
<b>Group E ( Banking and Finance )</b>						
PG63T403A	Financial Management of Commercial Banks	25	75	100	04	04
PG63T404B	Business Analysis and Valuation	25	75	100	04	04
PG63T405C	<b><u>Project Finance</u></b>	25	75	100	04	04
PG63T406	Project Report and Viva Voce		50 50	100	-	04
	<b>Total marks/credits for the Fourth Semester</b>	<b>125</b>	<b>475</b>	<b>600</b>	<b>24</b>	<b>24</b>
	<b>GRAND TOTAL (SEMESTER I,II,III&amp; IV)</b>	<b>550</b>	<b>1750</b>	<b>2300</b>	<b>88</b>	<b>92</b>

**Notes: 1. The syllabus of this paper shall be dealt in as per the current issues in GST and customs Laws for the relevant previous/academic year**  
**2.The students shall opt any one of the Specialization Groups in the III Semester and the same Specialization Group will be continued in the IV Semester.**

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Understand the knowledge of advanced commerce and Accounting education in the globalised era.
2. Learn the managerial skill and operational techniques to handle the marketing and financial resources and their by develop new services and facilities.
3. Learn logic behind Accounting techniques and its importance in the Finance and Accounting field and usage of knowledge about financial decisions in organisation.
4. Learn skill and competency to handle strategy in the various organisations along with human, capital, and other related resource management.
5. Impart knowledge of organisational behaviour, study of research tools techniques and understand the analysis of various economic decisions in business.

6. Learn effective use of different techniques of Cost, Taxation, Bank, Financial management along with computerised information system
7. Contribution to Commerce and Accounting field by inculcating research methodology, presentation skills and other necessary hard and soft core skills.

**PART-C**  
**Detailed Syllabi of M.Com Course**  
**M.COM. I - SEMESTER**

Paper Code and Name	PG63T101: Marketing Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO1	Learn marketing concepts and techniques and understand marketing strategies in modern technological era	
CO 2	Design, brand, pack and distribute innovative products in a market.	
CO 3	Price appropriately the products, services etc. so as to meet cost calculation and customers' requirements.	
CO 4	Design effective advertising and sales promotion strategies for different modes of marketing.	
CO 5	Analyze the marketing performance of organisations and design effective corrective measures.	
PARTICULARS		Teaching Hrs (Max. 64)
<b>Unit 1: Marketing Concepts and Tools:</b>		
Meaning and definition of marketing – scope of marketing-core marketing concepts – evaluation of marketing concepts and its stages – objectives of marketing – building customer satisfaction, value and retention; tasks of marketing management; developing marketing strategies and plans.		12 Hrs
<b>Unit 2: Marketing Environment and Scanning:</b>		
Concept and types of marketing environment; classification and influence of macro environment; marketing research – scope, importance and process; market segmentation – bases and effective segmentation criteria; consumer markets – influences and key psychological processes; buying decision process; analyzing business markets – organizational buying, participants and buying process		12 Hrs
<b>Unit 3: Product Strategy</b>		
Characteristics and Classification; Product design; product & brand relationship; packing, labeling, warranties and guarantees; new product design – types, challenges and process; branding - meaning and importance; brand positioning – developing and positioning; choosing specific POPs and PODs; approaches; brand equity – meaning, models, building and measurement.		14 Hrs

<b>Unit 4: Pricing and Distribution Strategies</b>	
significance & setting the price; pricing methods; promotional and differentiation pricing; designing and managing integrated marketing channels – meaning and importance; multichannel marketing – digital channels; channel design decision and channel management	14 Hrs
<b>Unit 5: Designing Marketing Communication</b>	
role and communication mix; process models; developing effective communication; developing and managing advertising programme; sales promotion; digital communication – online marketing, social media and mobile marketing – advantages and disadvantages Market-oriented strategic planning- corporate and division strategic planning – business strategic planning.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Philip Kotler and Kevin Keller, Marketing Management, Pearson Education, New Delhi.</li> <li>2. V S Ramaswamy, Marketing Management: A Strategic Decision Making Process, TMH, New Delhi.</li> <li>3. Rajan Saxena, Marketing Management, TMH, New Delhi.</li> <li>4. Gandhi, Marketing: A Managerial Introduction, TMH, New Delhi.</li> <li>5. William Stanton, Fundamentals of Marketing, TMH, New Delhi.</li> <li>6. Ramaswamy and Namakumari, Marketing Management, Macmillan, Delhi.</li> <li>7. J S Panwar, Marketing in the New Era, Response Books, Delhi.</li> <li>8. Majare, The Essence of Marketing, PHI, New Delhi.</li> <li>9. Paul Peter and James H Donnelly, Marketing Management, TMH, New Delhi.</li> <li>10. Mulins, Marketing Management, TMH, New Delhi.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T102: Financial Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Design an appropriate mix of equity and debt sources of capital.
CO 2	Perform the difficult task of cash flow forecasting in investment decisions and identify the most acceptable decisions
CO 3	Recommend balanced dividend pay-out ratio for the corporates.
CO 4	Ensure effective and efficient utilisation of working capital funds both in total and in parts.
CO 5	Enhance corporate value by sound financial management and to maximize the wealth of investors
<b>PARTICULARS</b>	
<b>Teaching Hrs (Max.)</b>	

	<b>64)</b>
<b>Unit 1: Financial Management:</b>	
An overview – nature, significance and scope of corporate financial management, objectives of finance function and agency theory, finance function and its relationship with other disciplines, risk-return trade-off; organization of finance function; recent trends and contemporary issues.	11 Hrs
<b>Unit 2: Leverages and Capital Structure Theories and Determinants:</b>	
Concept, types, importance and measurement of various leverages; concept of financial and capital structures; classification - theories of capital structure – NI, NOI, MM and traditional approaches; MM approach and corporate and personal income taxes; determinants of capital structure and capital structure practices of Indian companies.	14 Hrs
<b>Unit 3: Capital Budgeting Decisions</b>	
Concept, significance, nature and classification of capital budgeting decisions; cash flow computation – incremental approach; evaluation criteria-payback period, ARR, NPV, IRR and PI methods; NPV v/s IRR comparison, MIRR - capital rationing decisions; capital budgeting under risk and uncertainty – meaning of risk and uncertainty – methods of incorporating risk and uncertainty..	14 Hrs
<b>Unit 4: Dividend Decisions</b>	
Concepts and classification, legal provisions relating to dividends in India; dividend and market valuation – Walter’s Model, Gordon’s Model and MM approach; factors affecting dividend decision; dividend policies in practices of Indian companies	11 Hrs
<b>Unit 5: Working Capital Management</b>	
concepts, importance, classification and factors determining working capital, computation through operating cycle approach; Walker’s Four Part Theory of Working capital management; investment and financing policies – cash, inventory, receivables and payable management – concept, significance and methods of management.	14 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. I M Pandey, Financial Management, Vikas Publications, New Delhi.</li> <li>2. Khan and Jain, Financial Management, TMH, New Delhi.</li> <li>3. Prasanna Chandra, Financial Management, TMH, New Delhi.</li> <li>4. Damodaran, Corporate Finance, Wiley Publications, New Delhi.</li> <li>5. Brealey, Myers, Allen and Mohanty, Principles of Corporate Finance, TMH, New Delhi.</li> <li>6. Ross, Westerfield, Jaffe and Kakan, Corporate Finance, TMH, New Delhi.</li> <li>7. E F Brigham and Ehrhardt, Financial Management – Theory and Practice, Cengage Learning, New Delhi.</li> <li>8. Van Horne and Sanjay Dhamjia, Financial Management and Policy, Cengage Learning, New Delhi.</li> <li>9. Jonathan Berk, Peter Demarzo and Ashok Thampy, Financial Management, Pearson Education, New Delhi.</li> <li>10. Copeland, Weston Shastri and Katz, Financial Theory and Corporate Policy, Pearson Education, New Delhi.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T103: Organisational Behaviour</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Developing a compatible organisational behaviour and individual behaviour in business organisations	
CO 2	Designing effective techniques of enhancing satisfaction level of individuals	
CO 3	Creating innovative and effective organisational leaders	
CO 4	Resolve organisational conflicts amicably causing reduced hardships to organisation and employees	
CO 5	Designing effective stress management and change management approaches	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Introduction:</b>		
Concept, nature and importance of organization and organization theory – basic elements and types of organization; organizational behavior (OB) – concept, nature, importance and limitations; contributing disciplines to the field of organizational behavior; stage in the evaluation of OB; models of OB.		12 Hrs
<b>Unit 2: Individual Behaviour:</b>		
Foundations of individual behavior; values, attitudes, personality and emotions; methods of changing employee attitudes; values – concept, types and influence on human behavior; job satisfaction – concept, factors and outcomes.		12 Hrs
<b>Unit 3: Group Behaviour</b>		
Nature of groups; types and determinants of group behavior; process of group formation; group norms, group cohesiveness, small groups, team building.		14 Hrs
<b>Unit 4: Linkage between Behavior and Management Functions</b>		
Decision making – process of decision-making; policy formulation; Leadership – Concept and theories of leadership; leadership styles, directing and disciplining; Motivation – nature, importance, basic motivation process; theories relating to motivation; effective communication.		14 Hrs
<b>Unit 5: Organizational Conflict</b>		
Nature and implications of conflict; causes and effect; conflict resolution process and techniques; transactional analysis; work stress – coping the stress and change management.		12 Hrs
<b>Suggested Readings:</b>		
1. Robbins, Judge and Vohra, Organisational Behaviour, Pearson Education, New Delhi. 2. M Parikh and Rajen Gupta, Organizational Behaviour, TMH, New Delhi. 3. C B Gupta, Organisational Behaviour, Sultan Chand & Sons, New Delhi. 4. Uma Sekaran, Organisational Behaviour – Text and Cases, TMH, New Delhi. 5. K Ashwathappa and G Sudarshan Reddy, Organizational Behaviour – Text, Cases and Games, HPH, Mumbai. 6. Kalliath Brough and O Manimalla, Organizational Behaviour, TMH, New Delhi. 7. Ricky Griffin, Organizational Behaviour, Managing People and Organizations, Cengage Learning, New Delhi.		

8. Fred Luthans, Organizational Behaviour, TMH, New Delhi.	
9. Uday Narain Pareekh, Understanding Organisational Behaviour, Oxford University Press, New Delhi.	
10. Gupta N S, Organizational Theory and Behaviour, HPH, Mumbai.	

<b>Paper Code and Name</b>	<b>PG63T104: Strategic Management</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Enlightening the top echelons on the linkages between vision, mission and strategies	
CO 2	Develop strategies keeping core competencies acquired over the years	
CO 3	Develop competitive building blocks and design approaches to increase competitive advantage	
CO 4	Enlighten all stake holders on the linkages between strategy formulation, implementation and evaluation	
CO 5	Identify endogenous and exogenous forces influencing strategic decision making	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Strategic Management:</b>		
Concept of Strategy and Strategic Management; nature and scope of strategic management, types of strategies - intentional and emergent – functional classification; levels of strategic management, formal planning and strategic intent, strategic planning process, strategic management v/s operational management, GAP analysis.		12 Hrs
<b>Unit 2: Corporate Mission and Objectives:</b>		
Concept of mission and vision, constituents of corporate mission, stakeholders – goals and corporate mission; objectives – concept, hierarchy and importance of objectives setting, corporate governance and strategy, ethics in strategic management.		12 Hrs
<b>Unit 3: External and Internal Analysis</b>		
Concept of environment, types and importance environment analysis; PEST analysis; analysis of Michael Porter’s Five Forces Model, strategic groups and preparation of ETOP; internal analysis – concept of competitive advantage, generic building blocks, core competencies and competitive advantage – resources and capabilities; value chain analysis; internal factor analysis and preparation of SAP.		14 Hrs
<b>Unit 4: Strategy Formulation and Implementation</b>		
Strategic planning and approach to strategic formulation, developing alternative strategies, types of strategies; strategy activation, policies, organization structure, resources, commitment and corporate culture.		14 Hrs
<b>Unit 5: Strategic Evaluation and Control</b>		
Concept and purposes of strategic evaluation and analysis, GAP analysis; strategic control system; ROI, budgeting, auditing systems; feedback and information systems.		12 Hrs
<b>Suggested Readings:</b>		
1. Hill and Jones, Strategic Management– Text & Cases, Cengage Learning, New Delhi.		
2. John A Pearce,Richard Robinson and Amita Mital, Strategic Management – Formulation, Implementation and Control, TMH, New Delhi.		
3. Lawrence Jauch and William F Glueck, Business Policy and		

	Strategic Management, TMH, New Delhi.	
4.	Hitt, Ireland, Hoskisson and Manikuttu, Strategic Management, Cengage Learning, New Delhi	
5.	R Srinivasan, Strategic Management – The Indian Content, PHI, New Delhi.	
6.	Dess, Eisner, Lumpkin and McNamara, Strategic Management: Creating Competitive Advantages, TMH, New Delhi.	
7.	Upendra Kachru, Strategic Management, TMH, New Delhi.	
8.	Azar Kazmi, Strategic Management and Business Policy, TMH, New Delhi.	
9.	G Hamel and C K Prahalad, Competing for the Future, Free Press, New York.	
10.	M.E.Porter, Competitive Advantage, Free Press, New York.	

Paper Code and Name	PG63T105: Security Analysis and Portfolio Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Function as independent investment consultants and design investment plan based on one's requirements and resources	
CO 2	Develop valuation models for corporate stocks and bonds	
CO 3	Assist individual and firms in developing efficient investment portfolios	
CO 4	Identify by types and nature of investment alternative	
CO 5	Identify all variables – economic, industry, company and psychological variable influencing market valuation of scrips	
CO 6	Bring out the significance of regulatory performance of SEBI, PFRDA, IRDA stock exchanges etc	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Investment:		
Meaning, nature, objectives and scope; investment, speculation and gambling; investment plan; avenues of investment - marketable and non-marketable securities; development of debt and stock markets in India; stock trading mechanism; stock exchanges in India – demutualization and corporatisation – stock indices – meaning, types and methods of developing stock indices – BSE & NSE stock indices; financial regulation – meaning and importance; role of SEBI as a market regulator		12 Hrs
Unit 2: Security Analysis:		
Meaning and methods; Fundamental Analysis – meaning and importance; Economic Analysis- significance, process and determinants; Industry Analysis- industry life cycle analysis and Five-Forces Model; Company Analysis – nature, scope and methods of analysis; Technical Analysis – meaning and significance; fundamental analysis v/s technical analysis; Dow theory, classification of trends; chart types and patterns; technical indicators and evaluation of technical analysis – Efficient Market Hypothesis (EMH) – meaning and classification of EMH; random walk		12 Hrs

theory; testing of EMH; equity valuation – meaning and methods – accounting, cash flow and dividend valuation models; estimating return and risk of securities.	
<b>Unit 3: Portfolio Theory</b>	
Meaning and classification of portfolio theories – traditional and modern – assumptions; Modern Portfolio Theory of Markowitz – principles and assumptions – estimating return and risk of two-stock, three-stock and infinite stocks; determination of optimum portfolio; minimum variance portfolio; leveraged and unleveraged portfolios – capital allocation line and capital market line.	14 Hrs
<b>Unit 4: Sharpe's Single Index Model</b>	
Meaning of single factor and single index models –assumptions and estimating return and risk; development of optimum portfolio; Asset Pricing Model – meaning and types; - Capital Assets Pricing Model of William Sharpe – assumptions – systematic and unsystematic risks - security market line and characteristic line – estimating beta and alpha of efficient portfolio; market portfolio, empirical evidence on CAPM.; Arbitrage Pricing Theory and Multi-Factor Models – meaning, assumptions, and estimating return and risk of portfolio – beta coefficients for macro-factors; arbitrage opportunity.	14 Hrs
<b>Unit 5: Portfolio Revision and Performance Evaluation</b>	
Portfolio Revision and Performance Evaluation – Meaning and Necessity of Portfolio revision; evaluation methods - Rate of Return and risk – variability and beta – performance measures – Treynor Measure, Sharpe Measure, Jensen Measure – $M^2$ Measure, Fama's Measure of Net Selectivity Method.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Prasanna Chandra, Investments Analysis and Portfolio Management, TMH, New Delhi.</li> <li>2. Punithavathy Pandian, Security Analysis and Portfolio Meangement, HPH, Mumbai.</li> <li>3. Ranghanathan, Security Analysis and Portfolio Management, Pearson Publications, New Delhi.</li> <li>4. Fisher D E and Ronald Jordon, Security Analysis and Portfolio Management, Pearson Education, New Delhi.</li> <li>5. Francis, Investments, TMH, New Delhi.</li> <li>6. Bodie, Kane, Marcus and Mohanty, Investments, TMH, New Delhi.</li> <li>7. Graham and Dodd, Security Analysis, TMH, New Delhi.</li> <li>8. Reilly and Brown, Investment Analysis and Portfolio Management, Pearson Publication, New Delhi.</li> <li>9. Herbert Mayo, Investments: An Introduction, Cengage Learning, New Delhi.</li> <li>10. Copeland, Weston, Shastri and Katz, Financial Theory and Corporate Policy, Pearson Education, New Delhi.</li> </ol>	

## **M.COM II SEMESTER**

<b>Paper Code and Name</b>	<b>PG63T201: Financial Reporting Standards</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Develop skills in translating financial statements as per Indian GAAPs into US GAAPs and IFRS	
CO 2	Identify the gaps in Ind Accounting Standards and IFRS	
CO 3	Enable the student to act as independent practitioner and resolve complex accounting issues	
CO 4	Develop professional knowledge and expertise in resolving corporate accounting issues	
CO 5	Structure the effective reporting mechanism among businesses	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Financial Reporting;</b>		
Concept, nature and scope of financial reporting; purposes and users of financial reports; qualities of financial reports, types of financial reports, major issues involved in financial reporting, accounting frauds,- misstatement and restatement and impact on reporting; Framework for preparation and presentation of financial statements- scope and application, users, objectives, underlying assumptions, characteristics, elements, recognition and measurements.		12 Hrs
<b>Unit 2: Indian Accounting Standards (IND AS);</b>		
Introduction, Meaning, objectives, types, significance of Indian accounting standards, development of accounting standards in India and the world over-USA and UK, IFRS and Ind AS, applicability, Carve-outs/carve-in; first time adjustment and transition adjustments; Ind AS (Ind AS 2, 7).; Meaning, scope, coverage, applicability, recognition, measurement and disclosure and problems relating to these IAS		12 Hrs
<b>Unit 3: Ind AS( 12, 16, 19, 21, 23);</b>		
Meaning, scope, coverage, applicability, recognition, measurement and disclosure and problems relating to these IAS		14 Hrs
<b>Unit 4: Ind AS(28, 33, 36, 38, 40);</b>		
Meaning, scope, coverage, applicability, recognition, measurement and disclosure and problems relating to these IAS		14 Hrs
<b>Unit 5: Ind AS (102, 105, 109, 110, ,113) ;</b>		
Meaning, scope, coverage, applicability, recognition, measurement and disclosure and problems relating to these IAS		12 Hrs
<b>Suggested Readings:</b>		
1. D.S.Rawat; Students' Guide to Ind AS, coverage IFRS, Taxmann Publication, New Delhi. 2. Rajakumar S Adukia; Hand book on Indian Accounting Standards(Ind AS) converged global accounting standards, Taxmann Publication, New Delhi 3. D.S.Rawat; Students Guide to Financial Reporting with applicable Ind As coverage IFRS, Taxmann Publication, New Delhi. 4. Praveen Sharma and Kapileshwar Bhalla;Financial Reporting, Taxmann		

Publication, New Delhi. 5. Dolphy D Souza and Vishal Banasal; India AS, Taxmann Publication, New Delhi. 6. G.Shekhar and Sarvana Prashant, CCH Indian Books. 7. B.D.Chattarajee; Illustrated Guide to Indian Accounting Standards (Ind AS), Taxmann Publication, New Delhi. 8. Kamal Garg; Practical Guide to Ind AS, Bharat Law House Pvt Ltd. 9. M.P.Vijayakumar; First Lessons in Financial Reporting, Snow White Publication, Mumbai. 10. Charles H Gibson; Financial Reporting and Analysis, Cenage Learning, New Delhi 11. L.S.Porwal; Accounting Theory; Tata Mcgraw Hill, New Delhi. 12. Andrew Higson; Corporate Financial Reporting-Theory and Practice, Sage Publication, New Delhi. 13. Barrie Elliot and Jamie Elliot; Financial Accounting and Reporting, PHI New Delhi	
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Paper Code and Name	PG63T202: Mergers and Acquisitions	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Work as independent consultant on various dimensions of mergers	
CO 2	Create suitable valuation approaches for firms involved in M&As and suitable exchange ratios.	
CO 3	Structure M&A deals after undertaking due diligence	
CO 4	Develop a proper blend of financial and legal measures to thwart hostile takeovers	
CO 5	Design effective exit and entry strategies in restructuring corporate activities	
PARTICULARS		Teaching Hrs (Max. 64)
<b>Unit 1: Mergers and Acquisitions;</b>		
Meaning, types and motives for mergers; merger waves – meaning, classification and reasons; industrial shocks and industrial clustering in mergers; theories of corporate mergers - efficiency theories, information and signaling, agency problems and managerialism etc; measurement of cost and benefits of mergers; sources and measurement of value creation in mergers		12 Hrs
<b>Unit 2: Valuation and Financing of Mergers:</b>		
Merger Process – Steps involved and characteristics of target companies–due diligence process – target valuation methods; determination of stock exchange ratio – book value, EPS and MPS methods –usefulness of P/E ratio; methods of payment;		12 Hrs
<b>Unit 3: Legal process of mergers in India:</b>		
Merger failures – meaning, reasons and strategies to control merger failures; methods of analysis of post-merger performance; analysis of merger trends and failures in India.		14 Hrs
<b>Unit 4: Market for Corporate Control:</b>		
Meaning, objectives and types of takeovers; open offer v/s tender offer; SEBI's		14 Hrs

takeover code – meaning, objectives and broad takeover guidelines of SEBI; takeover defenses-need, types and effect of takeover defenses; takeovers in India and defenses employed; financing of takeovers.	
<b>Unit 5: Other forms of restructuring;</b>	
Restructuring-meaning, reasons and significance of corporate restructuring; forms of restructuring –expansion, sell-offs, corporate control and changes in ownership structure; sources and measurement of value creation in corporate restructuring; corporate restructuring in India-private and public sector enterprises; effects of restructuring.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. J.F. Weston, K S Chung &amp; S E Hoag, Mergers Restructuring and Corporate Control, PHI, New Delhi.</li> <li>2. J.F. Weston, Mitchell and Mulherin, Takeovers, Restructuring and Corporate Governance, Pearson Publications, New Delhi.</li> <li>3. Patrick Gaughan, Mergers, Acquisitions and Corporate Restructuring, John Wiley, New Delhi.</li> <li>4. Robert F Bruner, Applied Mergers and Acquisitions, John Wiley Publications, New Delhi.</li> <li>5. Donald M DePamphilis, Mergers, Acquisitions and Other Restructuring, Elsevier, New Delhi.</li> <li>6. Amy L Pablo and Mansour Javidan, Mergers and Acquisitions, Blackwell Publications, New Delhi.</li> <li>7. Sudi Sudarsham, Creating Value through Mergers and Acquisitions, Pearson Education New Delhi.</li> <li>8. I M Pandey, Financial Management, Vikas Publications, New Delhi.</li> <li>9. Khan and Jain, Financial Management, TMH, New Delhi,</li> <li>10. Prasanna Chandra, Financial Management, TMH, New Delhi.</li> </ol>	

Paper Code and Name	PG63T203: Business Research Methods	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design an effective business analysis report based on internal and external data sources	
CO 2	Develop the regression models based on individual business characteristics	
CO 3	Put business performance to rigorous statistical analysis to identify trends and causative relationship	
CO 4	Create a reporting mechanism	
CO 5	Prepare questionnaires, schedules, etc. to elicit responses to quires	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Business Research:		
A theoretical framework: concept of business research, importance of research in business decisions, business research process, business research design		12 Hrs

<b>Unit 2: Data collection in business research:</b>	
Methods and techniques of data collection, sampling and sampling design, questionnaire designing and development, attitude measurement and scaling	12 Hrs
<b>Unit 3: Organisation of business research:</b>	
Defining business research problem, formulation of hypotheses, testing of hypotheses, experimental design	14 Hrs
<b>Unit 4: Data processing and analysis in business research:</b>	
Coding tabulation, data presentation, description and inferences from sample data, analysis of association. Multivariate analysis regression analysis, discriminant analysis, factor analysis, cluster analysis and multi-dimensional scaling.	14 Hrs
<b>Unit 5: Report writing and presentation in business research:</b>	
Substance of report writing and presentation, presentation of business research reports.	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. William G. Zikmund and Atanu Adhikari, Business Research Methods, Cengage Publications, New Delhi.</li> <li>2. Prahalad Mishra, Business Research Methods, Oxford University Press, New Delhi.</li> <li>3. Uma Sekaran and Roger Bougie, Research Methods for Business, Wiley Publications, New Delhi.</li> <li>4. Donald Cooper, Pamela Schindler and J K Sharma, Business Research Methods, TMH, New Delhi.</li> <li>5. Naval Bajpai, Business Research Methods, Pearson Publications, New Delhi.</li> <li>6. John C Carr, Atanu Adhikari, Mitch Griffin and Barry Babin, Business Research Methods, Cengage Publications, New Delhi.</li> <li>7. Clover Vernon T. and Howard Basley, Business Research Methods, Ohio Grid Publishing, Columbus.</li> <li>8. Michel V.P., Research Methodology in Management, Himalaya, Bombay.</li> <li>9. Emory C. William, Business Research Methods, Macmillan Publishing Co., New York.</li> <li>10. Alan Bryman and Emma Bell, Business Research Methods, Oxford University Press, New Delhi</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T204: Strategic Human Resource Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Work as an independent consultant in designing a suitable strategy for HRM
CO 2	Contribute in developing linkages between structure and HRM
CO 3	Develop an effective and highly rewarding comparative strategy
CO 4	Develop suitable training, development etc methods to strategize employees
CO 5	Enlighten top executives on linkages between global and domestic HRM

PARTICULARS	Teaching Hrs (Max. 64)
<b>Unit 1: Introduction</b>	
Meaning, definition, objectives, scope and advantages of strategic HRM; strategic HRM v/s traditional HRM; evolution of SHRM – globalization; approaches to SHRM – universalist and contingency approaches; strategic role of HR function; foundations of SHRM – Resource based view and Institutional Perspective; Strategic framework for HRM; matching HR Strategy with business strategies; HR Strategies – meaning, purpose, nature, types, developing, implementing and evaluating HR Strategies; HR Responsibilities and Roles; competitive challenges in SHRM.	12 Hrs
<b>Unit 2: Strategic HR Planning :</b>	
Temporary v/s permanent employees; internal v/s external recruiting; methods of recruiting – selection, interviewing and testing; strategic training and development – benefits, planning and strategising training; organisational development – strategic HRD – philosophy and elements; organizational and individual learning strategies;	10 Hrs
<b>Unit 3: Strategic Performance Management:</b>	
Meaning, objectives, purpose, and process of performance management and performance appraisal; methods of performance appraisal – 360 degree, balanced scorecard; elements of effective performance appraisal system; Strategic Knowledge Management-building knowledge management into strategy framework, knowledge sharing; Strategic approach to industrial relations, outsourcing & its HR implications	10 Hrs
<b>Unit 4: Reward/Compensation Strategy:</b>	
Meaning, need, characteristics, basis, content, guiding principles and developing reward/compensation strategies; legal issues in compensation; executive compensation; SHRM and Talent Management, Employee Relations and Engagement – strategic dimensions of talent management, process, development and evaluating talent management strategy; employment relations – perspective, methods and legal regulation; implementing employee voice; employee engagement – meaning, outcomes and consequences of engagement	12 Hrs
<b>Unit 5: Global human resource management:</b>	
Difference between global HRM & domestic HRM; strategic HR issues in global assignments – expatriates selection & repatriation; building a multicultural organization- multinational organization, strategic choice, leadership & strategic issues in international assignment	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Agarwala Tanuja, Strategic Human Resource Management, Oxford University Press, New Delhi.</li> <li>2. Dhar, Rajib Lochan. (2008). Strategic Human Resource Management, Excel Books, New Delhi.</li> <li>3. Tapomoy Deb, Strategic Human Resource Management, Atlantic Publishers, New Delhi.</li> <li>4. Rajib Lochan Dhar, Strategic Human Resource Management, Excel Books, New Delhi.</li> <li>5. Mohsin Shaikh, Essentials of Strategic Human Resource Management, Banyan Tree Consulting, Pune.</li> <li>6. Armstrong, Michael &amp; Baron Angela, Handbook of Strategic HRM, Jaico Publishing House, New Delhi.</li> </ol>	

7. Mello, Jeffrey A, Strategic Human Resource Management, Cengage Publications, New Delhi.	
8. Regis, Richard, Strategic Human Resource Management & Development, Excel Books, New Delhi	
9. Charles Greer, Strategic Human Resource Management – A General Management Approach, Pearson Education, New Delhi.	
10 Catherine Truss, David Mankin and Clare Kelliher, Strategic Human Resource Management, Oxford University Press, New Delhi	

Paper Code and Name	PG63T205: Economic Analysis for Managerial Decisions	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Equip students on micro and macro-economic analysis and forecasting models	
CO 2	Generate cost and price reports	
CO 3	Develop an effective and highly rewarding comparative strategy	
CO 4	Design suitable technology strategies and plant location	
CO 5	Create a knowledge base on micro and macro-economic variables influencing operations varied business organisation	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Introduction		
Meaning and definition of managerial economics – Nature and Scope – Objectives of the firm- Economics and Decision-making-Functional Relationships- Total average and marginal- Economic models-Calculus and managerial economics		12 Hrs
Unit 2: Demand Theory and Analysis :		
Determinants of market demand- Market Demand and Firm Demand- Market Demand Equation- Total and Marginal Revenue Price Elasticity- Income Elasticity – Cross Elasticity- Demand Forecasts and Techniques of Forecasting		10 Hrs
Unit 3: Production and Cost Theory & Analysis:		
Production Function- Production with one variable input- production with two input variables- Economies of Scale-Estimating Production function-Economic concept of Cost- Short-run and Long-run cost functions-Estimating cost functions		10 Hrs
Unit 4: Market Structure and Pricing Decisions:		
Market structure – perfect market-monopoly-monopolistic – oligopoly-monopsony-oligopsony structure-pricing decisions- price discrimination		10 Hrs
Unit 5: Technological Change and Location Theory :		
Technological change in global economy- Impact of Technological change on Production function, productivity and economic growth- Location of the firm in the global economy- basic location principles- market area determination – Threshold Analysis		10 Hrs
Suggested Readings:		
1. H L Ahuja, Managerial Economics – Analysis of Managerial Decision Making, S Chand Publications, New Delhi.		

2. D N Diwedi, Managerial Economics, S Chand Publications, New Delhi. 3. P L Mehta, Managerial Economics, Sultan Chand & Sons, New Delhi. 4. Varshney and Maheswari, Managerial Economics, Sultan Chand & Sons, New Delhi. 5. Jae Shim, Economic Analysis for Business and Strategic Decisions, Financial World Publishing, New York. 6. Robert Waschik, Tim Fisher and David Prentice, Managerial Economics – A Strategic Perspective, Routledge Publications, New Delhi. 7. Keith Wright and Allen, Managerial Economics: Theory Applications and Cases, Viva Books, New Delhi. 8. Dominick Salvatore, Managerial Economics - Principles and Worldwide Applications, Oxford University Publications, New Delhi. 9. Mark Hirschey, Managerial Economics, Cengage Learning India, New Delhi. 10. Thomas, Maurice and Sarkar, Managerial Economics, Tata McGraw Hill Publications, New Delhi.	
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<b>Paper Code and Name</b>	<b>PG63T206: Open Elective Course- 2.6: Introduction to Business</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Equip students on different forms of business organisation	
CO 2	Understand students on significance of business environment	
CO 3	Develop an	
CO 4	Design suitable technology	
CO 5	Create a knowledge base	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Introduction</b>		
Meaning, definition, features, nature and significance of business ; types of businesses – manufacturing, merchandising and service organizations; forms of business organizations – sole trading, partnership firm and joint stock companies ; meaning, features and significance, promotion and incorporation of companies ; types of companies, regulation of companies – nature and features of companies act ; co-operative form of business – meaning, need, features and significance ; types and establishment of co-operative societies.		12 Hrs
<b>Unit 2: Business Environment :</b>		
meaning , features, nature and significance of business environment ; types of business environment – political, legal, social, economic and cultural environment ; environmental scanning and mapping ; social and ethical responsibility of business ; environmental effects and control		10 Hrs
<b>Unit 3: Role of Government and its institutions :</b>		
Industrial licensing and policies – meaning and developments of central and state industrial policies ; promotion of industries – industrial areas and industrial estates –		12 Hrs

meaning and importance, special economic zones ; regional backwardness and industrial development ; role of district industries centre ; rebates and subsidies ; tax holidays	
<b>Unit 4: Management and Governance of Companies :</b>	
Management – meaning, concept, features, nature, significance and functions of management ; planning, organizing, directing and controlling – meaning and features ; family management in India ; role of professional managers ; Governance of Corporate Entities – meaning, concept, features, nature, and significance of corporate governance ; governance committees in India	12 Hrs
<b>Unit 5: Financing of Business :</b>	
Meaning and importance of financing ; seed capital, venture capital and private equity – meaning and importance ; sources of capital – short-term, medium-term and long-term; role of commercial banks in financing business organizations ; financing by SFCs – meaning, nature, objectives and functioning of SFCs ; refinancing by SIDBI	10 Hrs
<b>Suggested Readings:</b>	
1) R.P. Maheshwari, Principles of Business Studies, Piyush Publishers, New-Delhi. 2) Waterman and Ramsingh, Principles of Business, Macmillan Publications, New-Delhi. 3) James Burrow, Brad Kleindl and Kenneth Everard, Business Principles and Management, Cengage Learning, New-Delhi. 4) Koontz Harold, Weinrich and Anasari, Principles of Management, Tata McGraw Hill Publications, New-Delhi. 5) C. B. Gupta, Principles and Practice of Management, Sultan Chand & Sons, New-Delhi. 6) N. Balasubramaniam, Corporate Board and Governance, Sterling Publishers, New-Delhi. 7) A C Fernando, Corporate Governance, Pearson Education, New-Delhi. 8) Francis Cherunilam, Business Environment – Text and Cases, Himalaya Publishing House, Bangalore. 9) K Ashwatappa, Essentials of Business Environment, Himalaya Publishing House, Bangalore. 10) S. N. Maheswari, Financial Management, Sultan Chand & Sons, New-Delhi.	

### M.COM. III – SEMESTER

Paper Code and Name	PG63T301: Accounting Information System	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design information system in business integrating all key activities.	
CO 2	Adopt suitable software as required by Business decisions.	
CO 3	Develop E-Commerce business by suitable adoption of E-commerce framework	
CO 4	Generate periodical financial statements, with the use of recording system	
CO 5	Strengthening Tally ERP in business activities	
PARTICULARS		Teaching Hrs (Max.

	<b>64)</b>
<b>Unit 1: Business Information Systems</b>	
Power of digital systems, purpose of information systems; data, information and information systems, computer equipment for information systems; types of information systems; components, activities and resources of information systems; information systems in business functions – accounting, finance, engineering, SCM, CRM, HRM, ERP; strategic uses of information systems – creating and maintaining strategic information systems;	12 Hrs
<b>Unit 2: System Development Process and Computer Software:</b>	
System analysis, design, implementation and maintenance; Business Software – meaning and types of software; business application software – software suites and integrated packages; system software - operating systems and functions.	12 Hrs
<b>Unit 3: Introduction to E-commerce:</b>	
Introduction an Overview, Electronic Commerce – Cutting edge, Electronic Commerce Framework, Electronic Payment Systems, Electronic Cash, Smart Cards and Electronic Payment Systems, Credit Card Based Electronic Payment Systems, Risks and Electronic Payment Systems.	10 Hrs
<b>Unit 4: Transaction Processing :</b>	
Transaction cycle, accounting records, file structures, documentation techniques; transaction processing models; revenue cycles – revenue cycle activities and physical systems; sales order processing and cash receipts systems; POS systems; expenditure cycle – purchase and cash disbursement activities; basic and advanced technology expenditure cycle; integrated purchases and cash processing system; payroll– physical payroll system; fixed asset systems; conversion cycle – world-class environment and lean manufacturing; accounting in lean manufacturing environment.	12 Hrs
<b>Unit 5: Practicals with accounting software's :</b>	
Tally ERP-9 - Introduction, processing transactions in tally, business organizations double entry book keeping, inventory basics, POS invoicing TDS, TCS, & GST processing in tally, processing payroll functions in management controls, other utilities Security Control Backup & Restore of company and user creation, report generation	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. James O'Brien, George M Marakas and Ramesh Behl, Management Information Systems, New Delhi.</li> <li>2. James A Hall, Accounting Information Systems, Cengage Publications, New Delhi.</li> <li>3. Effy Oz, Management Information Systems, Cengage Publications, New Delhi.</li> <li>4. Marshall B Romney and Paul Steinbart, Accounting Information Systems; PHI, New Delhi.</li> <li>5. Jones and Rama, Accounting Information Systems – A Business Process Approach, Cengage Publications, New Delhi.</li> <li>6. Joseph Wilkinson and Michael Cerullo, Accounting Information Systems,</li> </ol>	

John Wiley Publications, New Delhi.	
7. James Bockholdt, Accounting Information System, TMH, New Delhi.	
8. Robert Hurt, Accounting Information Systems, TMH, New Delhi.	
9. Leslie Turner and Andrea Weickgenannt, Accounting Information Systems – The Processes and Controls, John Wiley Publications, New Delhi.	
10. Mark Simkin, Carolyn Norman and Jacob Rose, Core Concepts of Accounting Information Systems, John Wiley Publications, New Delhi.	

Paper Code and Name	PG63T302: International Finance	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Function as an independent executive discharging the responsibilities of international business organisation	
CO 2	2. Assist business in dealing foreign exchange transactions	
CO 3	Develop a comprehensive risk management strategy incorporating internal and external techniques	
CO 4	Undertake an evaluation of international capital budgeting decisions.	
CO 5	Design cost efficient and value maximising capital structure for multi national corporations.	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: International financial management:		
Meaning and objectives, global financial manager – functions of financial management – scope –Relationship to domestic financial management.		12 Hrs
Unit 2: Environment of international financial management:		
Multinational/ transnational corporations – foreign exchange market – dealers in foreign exchange market, foreign exchange transactions, sale and purchase transactions – spot and forward transactions, hedging, speculation and arbitrage operations, equilibrium in foreign exchange market.		10 Hrs
Unit 3: Financing foreign operations:		
Corporate sources and uses of funds, national capital markets, Euro markets, special financial vehicles, interest rate and currency swaps, debt, equity swaps, internal leasing, designing global financing strategy.		12 Hrs
Unit 4: International capital budgeting:		
Basics of capital budgeting, issues, foreign project appraisal – political risk analysis, growth options and project evaluation. Multinational working capital management, short-term financing, objectives and options, borrowing strategy and exchange risk management, current assets management strategy		10 Hrs
Unit 5: Foreign exchange risk management:		
Foreign exchange risk and exposure, types of foreign exchange risks, transaction, transaction and economic exposure – internal and external techniques of foreign exchange risk management		10 Hrs
Suggested Readings:		
1. P G Apte, International Financial Management, PHI, New Delhi.		
2. Milind Sathye, Larry Rose, Larissa Allen and Raw Weston, International		

Financial Management, Wiley India Publications, New Delhi. 3. P K Jain, J Peyrard and Surendra Yadav, International Financial Management, Trinity Press, New Delhi. 4. Buckley Adrian, Multinational Finance, PHI, New Delhi 5. Alan Shapiro, Multinational Financial Management, Wiley Publications, New Delhi. 6. C Jeevanandan, Foreign Exchange and Risk Management, Sultan Chand & Sons, New Delhi. 7. Imad Moosa, International Finance, TMH, New Delhi. 8. Eiteman, Stonehill and Moffett, Multinational Business Finance, Pearson Publications, New Delhi. 9. Jeff Madhura, International Financial Management, Cengage Publications, New Delhi. 10. Cheol Eun, International Financial Management, TMH, New Delhi.	
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**SPECIALISATION GROUP - A: Operations/ Production Management**

Paper Code and Name	PG63T303A: Operations/ Production Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop suitable operations management strategy	
CO 2	Identify cost efficient plant locations	
CO 3	Design products and services keeping marketing requirements.	
CO 4	Identify suitable statistical quality control methods l.	
CO 5	Underscore the significance and design suitable supply chain management system.	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Operations/ Production Management:		
Introduction, meaning and definition, objectives, nature and context of operations management, relationship between strategic management and operations management, operations strategy and competitiveness		12 Hrs
Unit 2: Plant Locational Planning:		
Stages in the selection of planning, selection of locality and selection of site, determinants of plant location, plant location theories, qualitative and quantitative models for plant location, locational break-even analysis.		12 Hrs
Unit 3: Product Design and Process Selection:		
Product design and process selection for manufacturing operations and service operations, waiting line management, quality management, statistical quality control methods.		10 Hrs

<b>Unit 4: Design of Facilities and Jobs:</b>	
Strategic capacity planning linear programming, just in time production systems, facility location, facility layout, job design, and work measurement, learning curves, wage incentives, production control techniques, measurement of productivity	10 Hrs
<b>Unit 5: Supply Chain Management:</b>	
Forecasting, aggregate planning, inventory systems for dependent and independent demand, material revising the system, business process re-engineering, synchronous manufacturing and theory of constraints.	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Elwood Buffa and Rakesh Sarin, Modern Production/Operations Management, Wiley India Publications, New Delhi.</li> <li>2. K Aswathappa and S Bhatt, Production and Operations Management, HPH, Mumbai.</li> <li>3. S A Chunnawalla and D R Patel, Production and Operations Management, HPH, Mumbai.</li> <li>4. S Chary, Production and Operations Management, TMH, New Delhi.</li> <li>5. K C Jain, P L Verma and Kartikey, Production and Operations Management, Dreamtech Press, Mumbai.</li> <li>6. B Mahadevan, Operations Management – Theory and Practice, Pearson Education, New Delhi.</li> <li>7. Sushil Gupta and Martin Starr, Production and Operations Management, CRC Press, New York.</li> <li>8. Rusell and Taylor, Operations Management, Wiley Publications, New Delhi. Jay Heizer and Barry Render, Operations Management, Pearson Education, New Delhi.</li> <li>9. William J Stevenson, Operations Management, TMH, New Delhi.</li> </ol>	

Paper Code and Name	PG63T303B: Cost Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design a suitable combination of internal and external cost management techniques.	
CO 2	Design integrated and comprehensive system of recording cost and financial transactions.	
CO 3	Broden management understanding of element-wise cost management techniques.	
CO 4	Design a suitable method for accounting of cost in joint and by product manufacturing operations.	
CO 5	Generate effective cost management reports to serve managerial decision making.	
Unit 1 Introduction-		
concept, features, objectives and importance of cost management; factors affecting cost management; financial accounting v/s cost management; cost accounting v/s cost management; uses of cost management; techniques of cost		12 Hrs

management-traditional and contemporary techniques-bench marking, JIT, TQM, FMT, outsourcing, theory of constraints, etc. Cost management practices in Corporate India.	
<b>Unit 2 Accounting Systems for recording of Costs</b>	
-Non-integral and Integral systems of recording of costs; costing profit and loss account; reconciliation of cost and financial profits.	10 Hrs
<b>Unit 3: Cost Management Issues in Elements of Cost-</b>	
material cost management-design, purchase, storage, issues and inventory management; techniques of inventory control; labour cost management –time keeping and booking, idle time and overtime, labour turnover; compensation and incentive schemes; labour efficiency evaluation; Overhead cost management-significance; departmentalization, recovery methods, under and over absorption; capacity costs.	10 Hrs
<b>Unit 4: Product Costing Systems-</b>	
job costing-cost flow, and cost tracking in job order systems; job costing in service industries; process costing-characteristics of process costing system; flow of costs in process costing; equivalent units- FIFO and average methods.	12 Hrs
<b>Unit 5: Joint and By-product Costing-</b>	
meaning and distinction between joint products and by-products; methods of allocating joint costs; point of separation and further processing decisions; accounting for by-products; effect of joint products on cost control and decision making.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. S N Maheswari, Cost and Management Accounting, Sultan Chand &amp; Sons, New Delhi.</li> <li>2. Jain and Narang, Advanced Cost Accounting, Kalyani Publishers, Ludhiana.</li> <li>3. Colin Drury, Management and Cost Accounting, Cengage Publications, New Delhi.</li> <li>4. M N Arora, Cost and Management Accounting, Vikas Publications, New Delhi.</li> <li>5. Kaplan and Atkinson, Advanced Management Accounting, Pearson Education, New Delhi.</li> <li>6. Edward Blocher, Chen, Cokins and Thomas Lin, Cost Management – A Strategic Emphasis, TMH, New Delhi.</li> <li>7. Hilton, Maher and Selto, Cost Management – Strategies for Business Decisions, TMH, New Delhi.</li> <li>8. Hansen and Mowen, Cost Management – Accounting and Control, Cengage Publications, New DelhiHornegren, Foster and Datar,</li> <li>9. Cost Accounting – A Managerial Emphasis,Cecily Raiborn and Michael Kinney, Cost Accounting Principles, Cengage Publications, New Delhi</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T303C: Advanced Management Accounting</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Design accounting system from insurance entities in India keeping in view the legal provisions	
CO 2	Design exhaustive accounting system for all types of power generation and distribution entities.	
CO 3	Design system of recording banking related transactions.	
CO 4	Design suitable system for early detection and management of overview accounts.	
CO 5	Design accounting software for start ups and unicorns involved in hotels , hospital and education institutions	
<b>Unit 1 Management Accounting-</b>		
Meaning and significance of management accounting; decision-making process-pull and push system of information; Strategic Management Accounting (SMA) – evolution, meaning, significance and scope; traditional management accounting v/s SMA, application of SMA; Balanced Scorecard (BSC) – Evolution, meaning, preparation, benefits and limitations of balanced score card; SMA and BSC application in Indian Industries		12 Hrs
<b>Unit 2 Budget and Budgetary Control -</b>		
Meaning and objectives of budget, budgeting and budgetary control; pre-requisites of budgeting process-budget period, budget committee and budget factor; classification and preparation of functional and master budgets; cash budget; fixed and flexible budgeting process – methods involved in preparing flexible budget; performance, programme and zero-base budgeting methods; advantages and limitations of budgeting; activity based budgeting; practical problems.		10 Hrs
<b>Unit 3: Standard Costing System</b>		
Meaning, objectives and significance of standard costing, industries of application; budgetary control v/s standard costing; pre-requisites of standard costing system – standards committee, types and fixation of standard costs; analysis of variances – material, labour, overhead, sales and profit variances; reconciliation of profits; disposal and accounting treatment of variances; investigation of variances; reporting of variances; practical problems		10 Hrs
<b>Unit 4: Divisional Performance Analysis</b>		
Decentralized organizations and responsibility centres – cost, revenue, profit and investment centres; measuring the performance of investment centre-ROI, residual income and EVA methods; measuring income and invested capital; issues involved in divisional performance evaluation; rewarding performance of managers.		12 Hrs
<b>Unit 5: Transfer Pricing-</b>		
Meaning, objectives, importance and methods of transfer pricing; external market price, negotiated transfer prices; standard v/s actual costs; choosing right transfer pricing methods; tax issues in transfer pricing; transfer pricing in the service industry.		10 Hrs
<b>Suggested Readings:</b>		

<ol style="list-style-type: none"> <li>1. Edward Blocher, Chen, Cokins and Thomas Lin, Cost Management – A Strategic Emphasis, TMH, New Delhi.</li> <li>2. Hilton, Maher and Selto, Cost Management – Strategies for Business Decisions, TMH, New Delhi.</li> <li>3. Hansen and Mowen, Cost Management – Accounting and Control, Cengage Publications, New Delhi</li> <li>4. Horngren, Foster and Datar, Cost Accounting – A Managerial Emphasis, PHI, New Delhi.</li> <li>5. Colin Drury, Management and Cost Accounting, Cengage Publications, New Delhi.</li> <li>6. Cecily Raiborn and M Kinney, Cost Accounting Principles, Cengage Publications, New Delhi.</li> <li>7. Jain and Narang, Advanced Cost Accounting, Kalyani Publishers, Ludhiana.</li> <li>8. Robert Kaplan and Anthony Atkinson, Advanced Management Accounting, Pearson Education, New Delhi.</li> <li>9. Tom Groot and Frank Selto, Advanced Management Accounting, Pearson Education, New Delhi.</li> <li>10. Robert N Anthony and Govindarajan, Management Control Systems, TMH, New Delhi.</li> </ol>	
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## SPECIALISATION GROUP – B: ACCOUNTING AND TAXATION

<b>Paper Code and Name</b>	<b>PG63T304A: Company Accounts</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Design effective and efficient accounting methods for corporate keeping in view legal requirements.	
CO 2	Design suitable accounting methods for computing managerial remuneration and advisable profits.	
CO 3	Undertake the process of recording all M&A transactions.	
CO 4	Integrate subsidiary financial accounts with parents company.	
CO 5	Generate statements summarizing Liquidation effects on wealth shareholders.	
PARTICULARS	Teaching Hrs (Max. 64)	
<b>Unit 1 Company Final Accounts</b>		
:Legal provisions relating to maintenance of annual accounts by corporate entities in India; meaning and measurement of divisible profits; provisions and computation of managerial remuneration, transfer of profits to reserves and payment of dividend out of reserve rules; preparation of vertical form of financial statements.		12 Hrs

<b>Unit 2 Valuation of Goodwill and Shares: -</b>	
Concept and classification of goodwill, objectives and methods of valuation of goodwill; share valuation – need and methods of valuation;	10 Hrs
<b>Unit 3 Accounting for Mergers and Amalgamations -</b>	
AS 14 - Accounting for Amalgamations – classification and methods of accounting accounting treatment of inter-corporate sale, purchase, owings, stocks and investments in M&As; accounting for internal reconstruction – alteration of capital v/s reduction of capital; disposal of capital reduction.	12 Hrs
<b>Unit 4: Liquidation of Companies:</b>	
Meaning and types of liquidation; liquidation v/s winding up of companies; preparation of statement of affairs and deficiency accounts; preparation of liquidators' financial statement of account and List-B Contributories Statement.	12 Hrs
<b>Unit 5: Group Accounts</b>	
:Nature, need and significance of group accounts; preparation of consolidated financial statements –pre-acquisition and post-acquisition profits; accounting for unrealized profits and inter-company transactions; chain and cross holdings treatment – single and multiple subsidiaries; preparation of consolidated profit and loss account; accounting standard recommendations relating to consolidation of group accounts.	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. S.N.Maheshwari and S K Maheswari, Advanced Accountancy, Vol. II, Vikas Publications, New Delhi.</li> <li>2. Jain and Narang, Advanced Accountancy, Vol. II, Kalyani Publishers, Ludhiana,</li> <li>3. Gupta and Radhaswami, Advanced Accountancy, Vol. II, Sultan Chand New Delhi.</li> <li>4. Shukla and Grewal, Advanced Accounts, Vol. II, S. Chand and Co., New Delhi</li> <li>5. Hrishikesh Chakraborty, Advanced Accounts, Oxford, New Delhi.</li> <li>6. Praveen Sharma, Advanced Accountancy, Pooja Law Publishing House, New Delhi.</li> <li>7. Ashok Shegal and Deepak Shegal, Advanced Accounting – Vol. II, Taxmann Publications, New Delhi.</li> <li>8. S.K.Paul, Advanced Accounts, World Press, Calcutta.</li> <li>9. M Hanif and A Mukherjee, Advanced Accounting Vol. II, TMH, New Delhi.</li> <li>10. D Chandra Bose, Advanced Accounting – Vol. 2, PHI, New Delhi.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T304B: Accounting for Specialised Institutions</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Design accounting system from insurance entities in India keeping in view the legal provisions	
CO 2	Design exhaustive accounting system for all types of power generation and distribution entities.	
CO 3	Design system of recording banking related transactions.	
CO 4	Design suitable system for early detection and management of overview accounts.	
CO 5	Design accounting software for start ups and unicorns involved in hotels , hospital and education institutions.	
<b>Unit 1 Accounting for Insurance Companies:</b>		
Legal provisions as per Insurance Act 1938, LIC Act 1956 and GIC Act; IRDA Act and provisions relating to final accounts; revenue accounts and final accounts of life and non-life insurance companies; life assurance fund, valuation balance sheet and dividend distribution.		12 Hrs
<b>Unit 2 Double Account System:</b>		
Meaning of double account system; single account v/s double account system; advantages and disadvantages of double account system; maintenance of records and registers; annual accounts of electricity companies.		12 Hrs
<b>Unit 3 Accounts of Banking Companies –</b>		
Nature, scope and provisions relating to final accounts of Banking Companies as per Banking Regulation Act, 1949 and its amendments; prudential norms, classification of assets and measurement of capital adequacy ratio and provisioning requirements; preparation of annual financial statements		10 Hrs
<b>Unit 4: Accounting for Hotels –</b>		
nature, objectives and significance of hotel accounting; visitors’ ledger; methods of accounting and preparation of final accounts of hotel undertakings; Accounting for Hospitals – Need and significance of hospital accounting; forms of balance sheet, income statement-capital and revenue expenditure, adjustments		12 Hrs
<b>Unit 5: Accounts for Educational Institutions –</b>		
significance of accounting for educational institutions- special features of educational institutions.accounting; accounting for government grants, classification of accounts; Preparation of final accounts of educational institutions- income and expenditure a/c and Balance Sheet.		10 Hrs
<b>Suggested Readings:</b>		
1. S N Maheshwari and S K Maheswari, Advanced Accountancy, Vol. II, Vikas Publications, New Delhi. 2. Jain and Narang, Advanced Accountancy, Vol. II, Kalyani Publishers, Ludhiana, 3. Gupta and Radhaswami, Advanced Accountancy, Vol. II, Sultan Chand New		

Delhi.	
4. Shukla and Grewal, Advanced Accounts, Vol. II, S. Chand and Co., New Delhi	
5. Hrishikesh Chakraborty, Advanced Accounts, Oxford, New Delhi.	
6. Praveen Sharma, Advanced Accountancy, Pooja Law Publishing House, New Delhi.	
7. Ashok Shegal and Deepak Shegal, Advanced Accounting – Vol. II, Taxmann Publications, New Delhi.	
8. S.K.Paul, Advanced Accounts, World Press, Calcutta.	
9. M Hanif and A Mukherjee, Advanced Accounting, Vol. II, TMH, New Delhi.	
10. D Chandra Bose, Advanced Accounting – Vol. 2, PHI, New Delhi.	

Paper Code and Name	PG63T304C: Corporate Tax Planning (Direct Taxes) –I	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop a strong base of knowledge among existing tax practitioners	
CO 2	Develop a band of professional maning taxation related issues at organization level.	
CO 3	Identify tax minimization opportunities	
CO 4	Integrate tax planning strategies with corporate financing decisions	
CO 5	Design compensation packages economizing the total tax oatgo.	
	Teaching Hrs (Max. 64)	
Unit 1 Corporate tax planning:		
Meaning and objectives, scope of corporate tax planning, tax planning, tax avoidance and tax evasion, types of companies, residential status of a company and tax incidence, areas for corporate tax planning, tax management, assessment of income, filing of returns.		12 Hrs
Unit 2 Taxation of companies:		
Computation of income under the heads, of income applicable to corporate assesses, set off and carry forward of losses, deductions available in respect of gross total income, computation of taxable income, tax liability of a company.		12 Hrs
Unit 3 Tax planning and promotion of a company:		
Tax planning with reference to setting up of a new business, location of new business, nature of business, forms of organization, tax planning in respect of newly established industrial undertakings in free trade zones, newly established 100% export oriented undertakings, tax planning in respect of industrial undertakings, engaged in infrastructural development or other activities.		12 Hrs
Unit 4: Tax planning and corporate financial decisions :		
Tax planning vis-a-vis corporate capital structure, investment decision, dividend sion, issue of bonus share, tax planning and merger or demerger decisions, tax planning		12 Hrs

reference to other managerial decisions, purchase of assets out of owned funds or out of owned funds, own or lease, purchase by installments or hire, sale of assets used for scientific research work, make or buy, shutdown or continue.	
<b>Unit 5: Need and Tax planning and employees' remuneration:</b>	
Formulation of an ideal wage policy or salary package for employees, provision for various perquisites and facilities, tax incidence of a wage policy in the hands of employees, deduction of tax at source.	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Vinod Singhania and Monika Singhania, Corporate Tax Planning &amp; Business Tax Procedure, Taxmann Publications, New Delhi.</li> <li>2. Vinod Singhania and Kapil Singhania, Direct Tax Law and Practice, Taxman Publications, New Delhi.</li> <li>3. Manoharan and Hari, Direct Tax Laws, Snow White Publications, New Delhi.</li> <li>4. Girish Ahuja and Ravi Gupta, Direct Tax Law – Theory &amp; Practice, Bharat Law House, New Delhi.</li> <li>5. T G Suresh, Direct Tax Laws, CCH India, New Delhi.</li> <li>6. Monica Duggal, Corporate Tax Planning, New Age, New Delhi.</li> <li>7. Lall, B.B., Direct Taxes, Konark, New Delhi.</li> <li>8. Mehrotra and Goyal, Direct Taxes – Tax Planning and Management, Sahitya Bhavan Publications, Agra.</li> <li>9. Dinkar Pagare, Tax Laws, Sultan Chand, New Delhi.</li> <li>10. Lakhotia, Corporate Tax Planning, Lakhotia, New Delhi.</li> </ol>	

## SPECIALISATION GROUP – C: ACCOUNTING AND FINANCE

<b>Paper Code and Name</b>	<b>PG63T305A: Basics of Financial Derivatives</b>		
<b>COURSE OUTCOMES (COs)</b>			
After completing this paper, the students will be able to:			
CO 1	Develop professional who can be involved in regulation and process of derivatives trading.		
CO 2	Develop the forward and future heading strategies.		
CO 3	Broden the understanding of basic and advanced option pricing models.		
CO 4	Develop and implement options trading strategy.		
CO 5	Develop professional managing swap transactions.		
<b>Unit 1</b> Introduction to Derivatives –			
Definition and Origin of Derivatives; Derivative Markets and Instruments – Basic Derivatives – Forwards, Futures, and Options; Derivative Terminologies; uses of			12 Hrs

derivatives; Growth of Derivatives in India – stock, commodity and currency derivatives; Process of derivative trading; Regulation of Derivative Trading in India and Role of SEBI in the Development of Derivative Trading.	
<b>Unit 2</b> Forwards and Futures –	
Structure of Forwards and Futures Markets; Forward Contracts – Futures Exchanges and Contracts; Types of Futures; Mechanics of Future Trading; Major Characteristics; Trading Process; Price Quotations; Hedging and Speculation with Commodity Futures, Interest Rate Futures, Currency Futures and Stock Index Futures, Principles of Pricing Forwards, Futures and Options on Futures Contracts; Forwards and Futures Hedging, Pricing of Index Futures Contracts – Stock Index Arbitrage.	12 Hrs
<b>Unit 3</b> Options –	
Option Pricing; Principles of Call and Put Option Pricing; Binomial and Black-Scholes Option Pricing Models; Factors Affecting Option Prices; Basic and Advanced Option Strategies; Types of Options – Interest Rate Options; Currency Options and Trading Strategies; Option Pricing Models; Complex Investment Strategies, Covered Call Writing, Protective Put, Straddles and Strangles, Spreads–Evaluation of Option Based Investment Strategies; Risk Associated with Options; Options Sensitivities.	12 Hrs
<b>Unit 4:</b> Swaps and Interest rate Forwards and Options;	
Evolution of Swap Market; Interest Rate Swaps, Currency Swaps and Equity Swaps, Swap Terminology; Motivations Underlying Swaps; Mechanics of Swap Transactions; Valuation and Application of Swaps. Forward Rate Agreements – Interest Rate Options Interest rate Swaptions and Forwards; Interest Rate Derivatives	10 Hrs
<b>Unit 5:</b> : Commodity Derivatives	
Evolution of Commodity Derivative Markets in India; Products, Participants, Functions and Instruments Available for Trading; Pricing of Commodity Futures; Hedging, Speculation, Arbitrage Trading; Clearing and Settlement, Risk Management and Regulatory Framework.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. N R Parasuraman, Fundamentals of Financial Derivatives, Wiley Publications, New Delhi.</li> <li>2. Sundaram and Das, Derivatives – Principles and Practice, TMH, New Delhi.</li> <li>3. Sunil Parmeswaran, Fundamentals of Financial Instruments, Wiley Publications, New Delhi.</li> <li>4. Janakiraman, Derivatives and Risk Management, Pearson Educations, New Delhi.</li> <li>5. S L Gupta, Financial Derivatives, PHI, New Delhi.</li> <li>6. Hull C J and Basu Sankarshan, Options, Futures and Other Derivatives, Pearson Education, New Delhi,</li> <li>7. Kolb R W, Futures, Options and Swaps, Blackwell Publishers, New Delhi.</li> <li>8. Kumar S S, Financial Derivatives, PHI, New Delhi</li> <li>9. O P Agarwal, Financial Derivatives and Risk Management, HPH, New Delhi.</li> </ol>	

10. Stulz M R, Risk Management and Derivatives, Cengage Learning, New Delhi.	
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<b>Paper Code and Name</b>	<b>PG63T305B: Basics of Financial Econometrics</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Understand the concept of Forward and Future markets and its impact on Financial decisions	
CO 2	Learn various regression model, usage of SPSS and MS Excel in regression model and implications on decision	
CO 3	Develop models on various financial decisions based on time series and forecasting techniques	
CO 4	Develop solutions to simultaneous equation to real life situation	
CO 5	Impact of decisions with respect to types of non-linear models and testing for non-linearity	
<b>Unit 1</b> Structure of Forwards and Futures Markets; Forward Contracts –		
Futures Exchanges and Contracts; Types of Futures; Mechanics of Future Trading; Major Characteristics; Trading Process; Price Quotations; Hedging and Speculation with Commodity Futures, Interest Rate Futures, Currency Futures and Stock Index Futures, Principles of Pricing Forwards, Futures and Options on Futures Contracts; Forwards and Futures Hedging, Pricing of Index Futures Contracts – Stock Index Arbitrage.		12 Hrs
<b>Unit 2</b> Regression Model –		
meaning and significance; simple and classical regression model – assumption and properties of OLS estimator; t-test and significance level; precision and standard error; multiple linear regression – constant term, parameters, F-test; goodness of fit statistics; hedonic pricing models; diagnostic test – assumptions and multicollinearity; heteroscedasticity and autocorrelation; Durbin-Watson and Breusch Godfrey tests distinction; Use of SPSS and MS Excel in regression model.		12 Hrs
<b>Unit 3</b> Univariate Time Series Modelling and Forecasting –		
notation and concepts; moving average processes, auto regressive processes; partial autocorrelation processes; ARMA processes – building ARMA models –Box-Jenkins approach – exponential smoothing and forecasting in econometrics; Use of SPSS and MS Excel in Univariate Modelling.		12 Hrs
<b>Unit 4:</b> Multivariate Models –		
single equation v/s systems-based approach to building models; cause and consequence and solutions to simultaneous equation bias; structural model; methods of estimating simultaneous equations model; Vector Autoregressive Models (VAR) advantages and disadvantages of VAR; Use of SPSS and MS Excel		10 Hrs

<b>Unit 5: Modelling Volatility and Correlation –</b>	
types of non-linear models and testing for non-linearity; models for volatility – historical volatility, Exponentially Weighted Moving Average (EWMA) models – Auto Regressive Models – ARCH models; Generalised ARCH (GARCH) models – estimating ARCH and GARCH; Use of SPSS and MS Excel.	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Damodar N Gujarati, Porter Dawn and Sangeetha Gunasekar, Basic Econometrics, TMH, New Delhi.</li> <li>2. Chris Brooks, Introductory Econometrics for Finance, Cambridge University Press, New Delhi</li> <li>3. Banniga, Introduction to Financial Econometrics, Princeton University Press, New York.</li> <li>4. Wooldridge Jeffery, Introductory Econometrics, Thomson Learning, New Delhi.</li> <li>5. Neeraj Hatekar, Principles of Econometrics, An Introduction, Sage Publications, New Delhi.</li> <li>6. Fan and Yao, The Elements of Financial Econometrics, Princeton University Press.</li> <li>7. William H Greene, Econometric Analysis, Pearson Publications, New Delhi.</li> <li>8. Rachev, Mitnik, Fabozzi, Focardi and Jasic, Financial Econometrics, Wiley Publications, New York.</li> <li>9. Christopher Dougherty, Introduction to Econometrics, Oxford University Press, New Delhi.</li> <li>10. Studenmund, A. H, Using Econometrics: A Practical Guide, Addison Publications, New Delhi</li> </ol>	

Paper Code and Name	PG63T305C: Corporate Financial Risk Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop professionals capable of measuring and managing financial risk	
CO 2	Design effective framework for the risk management	
CO 3	Identify risk-return relationships of various investment alternatives	
CO 4	Design and implement value at risk approaches	
CO 5	Formulate effective adoption of methods of real options in corporate financial decisions	
Unit 1 Introduction –		
Meaning and definition of risk and risk management; need, scope and significance of financial risk management; conventional and modern view of risk management; relation between risk management, firm performance and valuation; types of risks and risk management approaches; risk management framework–risk profile and risk		12 Hrs

management policy; measurement of risk – risk and returns of financial assets – Markowitz revolution – mean-variance framework; CAPM; APT and Multi-Factor models.	
<b>Unit 2 Risk Assessment Tools and Techniques –</b>	
Risk Adjusted Value – Discounted Cash Flow (DCF) approaches – DCF value of an asset, risk adjusted discount rates, certainty-equivalent cash flows, hybrid model; post valuation risk adjustment – rationale, downside risks and upside risks; disadvantages of post valuation adjustments; Relative Valuation Approaches – basis and risk adjustment; DCF v/s Relative Valuation.	12 Hrs
<b>Unit 3 Probabilistic Approaches –</b>	
Scenario Analysis – best case/worst case; Multiple Scenario Analysis; Decision Tree – steps and usefulness; risk adjusted value & decision tree; Simulation – steps and uses; simulations with constraints; issues and risk adjusted value and simulation; comparing probabilistic approach – complement or replacement.	12 Hrs
<b>Unit 4: Value at Risk (VaR) –</b>	
Meaning and history of VaR; measuring VaR – variance-covariance method; historical simulation, Monte Carlo Simulation – comparing approaches; limitations of VaR; extension of VaR; VaR as an assessment tool.	12 Hrs
<b>Unit 5: Real Options –</b>	
Essence of real options; real options, risk adjusted value and probabilistic assessments; real option example – option to delay on investment; option to expand, option to abandon an investment; caveats on real options; real options in a risk management framework; option pay offs; determinants of option value – option pricing models – Binomial and Black-Scholes model.	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Aswath Damodaran, Strategic Risk Taking – A Framework for Risk Management, Wiley Publications, Pearson Education, New Delhi.</li> <li>2. Sanjeev Sharma, Financial Engineering and Risk Management, Random Publications, New Delhi.</li> <li>3. S Prasad Rao, G V Satya Sekhar, Financial Engineering, Risk Management and Financial Institutions, Dreamtech Publications, New Delhi.</li> <li>4. J Hampton, The AMA Handbook of Financial Risk Management, AMA Publications, New York.</li> <li>5. Karen A Horcher, Essentials of Financial Risk Management, Wiley India Publications, New Delhi.</li> <li>6. Peter F Christoffersen, Elements of Financial Risk Management, Academic Press, New York.</li> <li>7. Raul, Mishra, Patra, Nanda and Jena, Financial Risk Management, Excel Books, New Delhi.</li> <li>8. Dun &amp; Bradstreet, Financial Risk Management, TMH, New Delhi.</li> <li>9. D K Sharma, Financial Risk Management, Centrum Press, New Delhi.</li> <li>10. Roy L Nersesian, Corporate Financial Risk Management, Jaico Book</li> </ol>	

House, New Delhi.	
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## SPECIALISATION GROUP – E: BANKING & FINANCE

Paper Code and Name	PG63T306A: Principles of Bank Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop the individual with comprehensive knowledge of banking operation who would work at various positions of banking decision-making hierarchy.	
CO 2	Formulate tools for matching assets and liabilities time sequence to avoid the risk of illiquidity.	
CO 3	Identify all endogenous and exogenous variables influencing bank’s lending and deposits policies and adopt management methods.	
CO 4	Design suitable methods of rating of banking customers for banking functions	
CO 5	Design systems of monitoring loan beneficiary performance and recovery process	
Unit 1 Bank Management:		
Concept and objectives, Facets of bank management, functions of Bank Management – planning, organizing, controlling, coordinating and communication.		12 Hrs
Unit 2 Management of Liquidity:		
of Liquidity Management, Priorities in the employment of bank funds, Problems of resource allocation.		10 Hrs
Unit 3 Management of Primary and Secondary Reserves:		
Nature of Primary reserves, secondary reserves, Factors influencing, estimating liquidity needs.		12 Hrs
Unit 4: Management of credit:		
Principles of sound bank lending, Factors influencing loan policy in a bank, Credit appraisal and follow-up actions.		12 Hrs
Unit 5: Management of Profitability:		
Profit planning, measures to improve profitability, Management of investments, Management of deposits		10 Hrs
Suggested Readings:		
1. VC Joshi & V V Joshi, Managing Indian Banks, Response Books, New Delhi 2. Halen Woodruffee, Services Marketing, Macmillan, New Delhi. 3. Rajeev K. Seth, Marketing of Banking services, Macmillan Publications, New Delhi.		

4. R M Srivastava, Management of Indian Financial Institutions, HPH, Mumbai. 5. P Subba Rao, Principles & Practice of Bank Management, HPH, Mumbai. 6. M Bhole, Financial Institutions & Markets, TMH, New Delhi 7. H R Machiraju, Indian Financial System, Vikas Publications, New Delhi 8. R M Srivastava, Management of Commercial Banks, Pragati Books, Meerut. 9. K C Shekar, Theory and Practice of Banking, Vikas, Delhi 10. Vasant Desai, Indian Financial System, Himalaya, Mumbai	
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**(Meant for Students of other departments)**

Paper Code and Name	PG63T307: (OPEN ELECTIVE COURSE) Digital Marketing	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop individual capable of rendering services in digital activity	
CO 2	Design appropriate product, promotion and pricing strategies	
CO 3	Formulate policies for effective combination of social marketing channels	
CO 4	Identify the profile of various users groups and integrate with networking models	
CO 5	Equip learners on security and ethical issues in use of digital marketing issues.	
<b>Unit 1 Digital Marketing –</b>		
Meaning, Understanding digital marketing process, Evolution of Digital Marketing from traditional to modern era, Role of Internet; current trends, Drivers of the new marketing environment, Digital Marketing Mix		12 Hrs
<b>Unit 2 Mobile Marketing</b>		
Meaning, Advantages and disadvantages of mobile marketing, Mobile Advertising, Forms of Mobile Marketing.		12 Hrs
<b>Unit 3 Social Media Marketing I –</b>		
Meaning, understanding existing social media platforms, penetration & characteristics; Face book Marketing-meaning, Best practices for Face book advertising, Understanding Face book best practices.		10 Hrs
<b>Unit 4: Social Media Marketing II-</b>		
LinkedIn Marketing: - Introduction and Importance of LinkedIn Marketing, Twitter Marketing: - Introduction to Twitter Marketing, how twitter Marketing is different than other forms of digital marketing, Digital Marketing Strategies through Instagram and Snap chat.		12 Hrs
<b>Unit 5: Email Marketing:</b>		
Advantages and disadvantages of Email marketing, Types of email marketing, setting up email marketing account, Best platforms to do email marketing.		10 Hrs
<b>Suggested Readings:</b>		
1. Seema Gupta Digital Marketing Mc-Graw Hill 1 st Edition – 2017		

2. Ian Dodson The Art of Digital Marketing Wiley Latest Edition 3. Puneet Singh Bhatia Fundamentals of Digital Marketing Pearson 1 st Edition – 2017 4. Vandana Ahuja Digital Marketing Oxford University Press Latest Edition 5. Philip Kotler Marketing 4.0: – Moving from Traditional to Digital Wiley 2017 6. Melissa S. Barker   Donald I. Barker   Nicholas F. Bormann   Debra Zahay   Mary Lou Roberts Social Media Marketing: A Strategic Approach Cengage Latest Edition 7. Ward Hanson , KirthiKaly anam Internet Marketing & ecommerce Cengage Latest Edition. 8. Roberts andZahay Internet Marketing: Integrating Online & Offline Strategies Cengage Latest Edition 9. Dr.Ragavendra K. and Shruthi P. Digital Marketing Himalaya Publishing House Pvt. Ltd. Latest Edition 10. Prof. Nitin C. Kamat, Mr.ChinmayNitinK amat Digital Social Media Marketing Himalaya Publishing House Pvt. Ltd. Latest Edition.	
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## M.COM. IV SEMESTER

Paper Code and Name	PG63T401: Business Communication and Networking	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design suitable analogue and digital modals for data communication	
CO 2	Integrate wired and wireless media for effective communication	
CO 3	Develop individuals capable of developing network topologies and network devices	
CO 4	Identify relative merits and demerits of wire wireless communication	
CO 5	Develop system capable of reduces errors in communication	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Fundamental of data communication and networking:		
Introduction – Data Communication, Networks, Internet, Intranet, Protocols, OSI & TCP/IP Models Addressing. Physical Layer – Signals, Analog, Digital, Analog VS Digital, Transmission impairment, Data Rate Limits, Performance. Digital Transmission – Line Coding (Umipolar, Polar, Biphase), Block Coding (4B/5B Encoding), Analog to digital conversion, PCM, Transmission Modes		12 Hrs
Unit 2: Transmission media and switching:		
Transmission Media – Guided and Unguided. Comparison between wired and wireless media Switching – Switching, Circuit-Switched Circuit Switching Networks, Concepts, Control Signalling, Soft switch Architecture, Packet switching, Pocketsize, X.25, Frame Relay, ATM, Message Switching. Address mapping – static mapping, dynamic mapping. ARP- need, methods, need of RARP and ICMP. Definition of fragmentation and reassembly		10 Hrs
Unit 3: Network topologies and network devices:		
Introduction to Topology, The Technical Connotation of Topology, What are the Basic		12 Hrs

Types of Topology. How Is the Physical Topology Classified? An Overview of network, Types of network, need and concept of network devices. Connecting Devices-discussion on Routers, switches, repeaters, Bridges, Switches and Gateways. Ways of accessing the internet- Dial-up access, SLIP, PPP, leased lines, DSL basics, internet access by cable. Modems-basics, types, operation, applications	
<b>Unit 4: Error detection, correction in wire wireless communication:</b>	
Error correction & detection. Types of errors. Detection VS Correction, Block Coding, Hamming Distance, Wired LAN – LLC. MAC, Ethernet, Ethernet frame, Addressing, Concept of MBase, V Ethernet, Bridged, Switched, Full Duplex Ethernet, Concept of Fast and Gigabit Ethernet Wireless LAN- Introduction to WLAN (Architecture Hidden Exposed Station Problem) Introduction to Bluetooth & Architecture, Cellular telephony, Concept of 3G, 4G, 5G cellular telephony	10 Hrs
<b>Unit 5: Network management technology:</b>	
Introduction to system and network security, security attacks, security services and mechanisms, Security at Application Layer, Firewalls and their types. DMZ, Limitations of firewalls, Intruders, Intrusion detection (Host based, Networked, Distributed), Viruses and related threats, virus countermeasures. Denial of service attacks, Hacking, Security policies and plan, Strategies for a secure network	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Data Communications and Networks- 2nd edition -Achyut S Godbole- and Atul Kahate Tata McGraw-Hill</li> <li>2. Data Communications &amp; Networking – 5th Edition- B A Forouzan- Tata McGraw-Hill.</li> <li>3. Computer Networks- 4th Edition- Andrew S Tanenbaum- Pearson-Prentice Hall</li> <li>4. Computer Networking - James F. Kurose &amp; Keith W. Ross- PEARSON</li> <li>5. Computer Communications and Networking Technologies - Michael A. Gallo &amp; William M. Hancock BROOKS&amp;COLE.</li> <li>6. Computer Networks and Internets -Douglas E. Comer- PEARSON.</li> <li>7. Data and Computer Communications- Eighth Edition- William Stallings- Pearson Education.</li> <li>8. Refer the course contents at NPTEL website of IIT Khargapur of course- Communication Networks and Switching.</li> <li>9. Network Security Bible, 2nd edition, Eric Cole, Wiley Publishers. Data communication and networks –James Irvine and David Harley- Publishers: Wiley India</li> </ol>	

Paper Code and Name	PG63T402: Corporate Governance
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Design effective monitoring mechanisms for reducing agency related issues
CO 2	Underline to the management on the relative significance of ownership structure and governance performance
CO 3	Develop appropriate compensative plans to attract to retain and motivate managers capable of exemplary performance
CO 4	Develop effective borrowings methods of non-compliance corporate governance codes
CO 5	Compare and corporate governance standards to design an appropriate code

PARTICULARS	Teaching Hrs (Max. 64)
<b>Unit 1: Introduction:</b>	
Meaning and significance of corporate governance; governance v/s management; governance v/s accounting; Agency Conflict – reasons and types of agency conflict; mechanisms for resolving agency conflict – internal governance mechanisms – concentrated ownership, block shareholders, managerial compensation and ownership, financial policy, organizational structure, etc., and external governance mechanisms - role of judiciary, media, shareholders activism, gatekeepers, etc; theories of corporate governance-agency theory, stewardship theory etc; corporate governance models – US/UK model, European model and Japanese Model; linkages between corporate governance and economic development.	12 Hrs
<b>Unit 2: Corporate Governance in India:</b>	
Evolution and Growth of Corporations in India; ownership pattern of Indian Companies - family-managed and widely-held; governance models in India - managing agency model, business-house model and US/UK model; evolution of business houses/groups and classification; pyramid structure of ownership and tunneling; progress of governance in India; governance standards in public sector enterprises, banking and insurance companies	10 Hrs
<b>Unit 3: Corporate Boards :</b>	
Meaning, role and responsibilities and types of corporate boards; legal powers boards in India; board functions – traditional and strategic; theories relating to strategic role of boards and functions; determinants of board effectiveness-size, composition, information, compensation, meetings and evaluation of board performance; role and functions of board chairman; duties and responsibilities of directors; Socrates directors – meaning and principles; board dynamics; succession planning; role and responsibilities of CEOs vis-à-vis governance	12 Hrs
<b>Unit 4: Board Committees :</b>	
Need, objectives, types, number and functions of board committees-audit, compensation, nomination, environment, risk, strategic committees, etc.; requirements for effective board committees; determinants of board committees in companies; linkage between board committees and governance standards	12 Hrs
<b>Unit 5: Governance Committees:</b>	
Committees in UK - Cadbury, Hampel, Greenbury, Smith and Combined Code; Kings Committee recommendations, OECD principles of governance; Governance Committees in India - CII, Birla, Naresh Chandra and Narayan Murthy Committees - major recommendations; listing agreement and clause-49; role of SEBI in enforcement of governance code; extent of compliance of governance code in India	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. N Balasubramanian, Corporate Governance and Stewardship, TMH, New Delhi</li> <li>2. N Balasubramaniam, Corporate Boards and Governance, Sterling Publishers, New Delhi.</li> <li>3. A C Fernando, Corporate Governance – Principles, Policies and Practices, Pearson Education, New Delhi.</li> <li>4. Jayati Sarkar and Subrata Sarkar, Corporate Governance in India, Sage Publications, New Delhi.</li> <li>5. Subash Chandra Das, Corporate Governance in India, PHI, New Delhi.</li> </ol>	

6. Swami Parthasarathy, Corporate Governance: Principles, Mechanisms and Practice, Dreamtech, New Delhi 7. Thomas Clarke, International Corporate Governance, Routledge Publishers, London. 8. Donald Chew & Gillan, Corporate Governance at the Crossroads: A Book of Readings; McGraw Hill, New York. 9. Robert Monks and Nell Minnow, Corporate Governance, Blackwell Publishing, Singapore. 10. Soloman and Soloman, Corporate Governance and Accountability, Wiley Publications, New Delhi	
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## SPECIALISATION GROUP - A: COST MANAGEMENT AND CONTROL

Paper Code and Name	PG63T403A: Strategic Cost Management	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Develop individuals with advanced Knowledge of strategic cost management capable of serving corporates	
CO 2	Design algorithm of implementing activity-based costing in business activities	
CO 3	Identify factors having bearing on cost elements in various phases of product life cycle	
CO 4	Monitor the operations of just in time and integrate it with logistic management	
CO 5	Coordinate on the linkages among various parts involved in strategic cost methods	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Activity based costing:		
Inadequacies of traditional methods of overhead absorption, concept of ABC, Kaplan and Cooper’s approach to ABC, cost drivers and cost pools, main activities and its cost drivers, allocation of overhead under ABC – characteristics, steps, implementation and benefits of ABC system.		12 Hrs
Unit 2: Learning Curve Model:		
Concept and phases of learning curve, graphical representation, learning curve applications and factors affecting learning curve, experience curve		10 Hrs
Unit 3: Life cycle costing:		
Concept and characteristics, activities and phases in product life cycle short product and extension of product life cycle, Turning Point Indices in product life cycle		12 Hrs
Unit 4: Just in time approach:		
Concept, philosophy of JIT, sources of waste, aims and objectives of JIT, features and methodology in implementation of JIT, planning for adoption and limitations of JIT costing		10 Hrs
Unit 5: Target Costing and throughput accounting:		
Target costing- meaning, definitions, scope, significance of target costing; throughput		12 Hrs

accounting- meaning, definitions, scope and significance of throughput accounting	
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. S P Jain and K L Narang, Advanced Cost Accounting, Kalyani Publications, Ludhiana.</li> <li>2. Colin Drury, Cost and Management Accounting, Cengage Publications, New Delhi.</li> <li>3. Ravi M Kishore, Business Strategy and Strategic Cost Management, Taxmann Publications, New Delhi.</li> <li>4. Robert Kaplan and Anthony Atkinson, Advanced Management Accounting, PHI, New Delhi.</li> <li>5. Horngren, Foster and Datar, Cost Accounting: A Managerial Emphasis, PHI, New Delhi.</li> <li>6. Edward Blocher, Cost Management: A Strategic Emphasis, TMH, New Delhi.</li> <li>7. Hilton, Cost Management, TMH, New Delhi.</li> <li>8. Shank and Govindraj, Strategic Cost Management, Simon and Schuster, New York.</li> <li>9. Kanhaiya Singh, Management Accounting: Concepts and Strategic Costing Decisions, Wiley India Pvt Ltd, New Delhi.</li> <li>10. Lin Thomas, Cases and Readings in Strategic Cost Management, McGraw Hill Publications, New York</li> </ol>	

Paper Code and Name	PG63T403B: Quantitative Methods for Cost Accountants:	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design effective cost minimisation and optimisation	
CO 2	Identify areas of applicability's of assignment techniques	
CO 3	Develop PERT and CPM network models for business entities involved in project implementation	
CO 4	Priorities quantitative techniques based on cost and performance standards	
CO 5	Chalk out areas of applicability of linear programming models	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Introduction:		
Meaning and definition of quantitative techniques, linkage between business decision making and quantitative techniques, different quantitative techniques, areas for application of quantitative techniques in business		12 Hrs
Unit 2: Linear programming:		
Meaning and objectives of linear programming, application areas, assumptions of linear programming, application of linear programming technique for profit maximization and cost minimization problems, graphic and simplex methods, duality		12 Hrs

and post-optimality analysis	
<b>Unit 3: Transportation technique:</b>	
Meaning and objectives, areas for application, formulation of transportation problems, steps involved in finding the optimal solution, methods of obtaining initial solution, methods of testing optimality of feasible solution, unbalanced transportation problem, degeneracy in transportation problem	14 Hrs
<b>Unit 4: Assignment technique:</b>	
Meaning and objectives, areas of application, peculiarities of assignment problems, methods solving an assignment problem, complete enumeration method, simplex method, transportation method, and Hungarian method, constrained assignment problem, unbalanced assignment problem, assignment problem and minimization case, traveling salesman problem	14 Hrs
<b>Unit 5: Techniques for project cost management:</b>	
Drawing an arrow network and numbering the events, estimation of jobs, duration and concept of critical path and probability consideration, assumptions in PERT analysis, crashing a network and determining of project cost trade off, scheduling a network with various constraints like manpower, equipment, etc	12Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. N D Vohra, Quantitative Techniques for Management, TMH, New Delhi.</li> <li>2. M P Gupta and R B Khanna, Quantitative Techniques for Decision Making, PHI, New Delhi.</li> <li>3. J K Sharma, Quantitative Techniques for Management, Trinity Press, New Delhi.</li> <li>4. Satyadevi C, Quantitative Techniques, S Chand &amp; Sons, New Delhi.</li> <li>5. P C Tulsian and Vishal Pandey, Quantitative Techniques – Theory and Problems, Pearson Education, New Delhi.</li> <li>6. Jaisankar S, Quantitative Techniques for Management, Excel Books, New Delhi.</li> <li>7. Levin and Kark Patrika, Quantitative Approaches to Management, TMH, International edition, Singapore.</li> <li>8. Barry Render, Ralph Stair and Michael Hanna, Quantitative Techniques for Management, Pearson Education, New Delhi.</li> <li>9. Ramanath and R Shringi, Quantitative Techniques for Management, HPH, Mumbai.</li> <li>10. Leonard W.Hein, The Quantitative Approaches to Management Decisions, PHI, New Delhi</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T403C: COST AND MANAGEMENT AUDIT:</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Design appropriate blend of cost and management programme
CO 2	Generate cost audit for wider circulation among the members of management team
CO 3	Undertake or resolve basis in business entities corporate social cost benefit analyses

CO 4	Chalk in programmes for effective implementations of internal audit programme	
CO 5	Design audit programme of NGOs, SHGs, Municipalities etc and compete audit programmes	
PARTICULARS		Teaching Hrs (Max. 64)
<b>Unit 1: Cost Audit:</b>		
Nature, Scope, utility and Advantages of Cost Audit; Companies (Cost Records & Audit) Rules, 2014. Professional Ethics, Misconduct, Offences and Penalties; Format of Cost Audit Report – XBRL – Salient Features Section Reporting issues under Cost Audit, cost auditing and assurance standards		12 Hrs
<b>Unit 2: Cost Accounting Standards:</b>		
meaning, objectives, significance, generally accepted costing principles, cost accounting standard board, cost accounting standard setting process, cost accounting standards, (1, 3,6,7,8,9,10, and 11)		10 Hrs
<b>Unit 3: Management Audit:</b>		
Meaning, Nature, Scope, utility, Energy Audit, Efficiency Audit, Propriety Audit and Systems Audit . Evaluation of Corporate Image - Corporate Development Audit – Impact of environmental pollution, Social Cost Benefit Analysis, Corporate Social Audit and Safety audit		12 Hrs
<b>Unit 4: Internal Audit:</b>		
Concept of Internal Audit, Operational Audit and other related issues ; Provisions of Internal Audit under Companies Act, 2013; Audit Planning, Audit Programme, Audit working papers . Receivables Audit, Reporting to Management		10 Hrs
<b>Unit 5: Audit of Services and Local Bodies:</b>		
Audit of Hospitals, Hotels, educational Institutions, Co-operative Societies, Self Help Groups, Non-Governmental Organizations (NGOs), corporations, municipalities, Panchayats		12 Hrs
<b>Suggested Readings:</b>		
<ol style="list-style-type: none"> <li>1. Jain Abhishek G, Cost and Management Audit, Himalaya Publishing House (HPH), New delhi</li> <li>2. Robert Kaplan and Anthony Atkinson, Advanced Management Accounting, PHI, New Delhi.</li> <li>3. Arora M.N., Cost Management, Himalaya Publishing House (HPH), New delhi</li> <li>4. Saxena, V/ Vashist, C., Advanced Cost &amp; Management Accounting, Sultan Chand &amp; Sons</li> <li>5. Colin Drury, Cost and Management Accounting, Cengage Publications, New Delhi</li> <li>6. Edward Blocher, Cost Management: A Strategic Emphasis, TMH, New Delhi.</li> <li>7. Pandey I.M., Management Accounting, Vikas Publications, New Delhi.</li> <li>8. Kanhaiya Singh, Management Accounting: Concepts and Strategic Costing Decisions, Wiley India Pvt Ltd, New Delhi.</li> <li>9. Cost and Management Audit by J.G. Tikha, ENCOMS BOMBAY</li> <li>10. Cost and Management Audit by Datta Chowdary</li> </ol>		

## SPECIALIZATION GROUP - B: ACCOUNTING AND TAXATION

<b>Paper Code and Name</b>	<b>PG63T404A: Contemporary Issues in Accounting:</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Design effective methods of accounting for price level changes	
CO 2	Develop professional capable of accounting for human resource in financial statements	
CO 3	Develop effective system of identifying majoring recording and reporting of social and environmental performance	
CO 4	Educate top echelons of business entities on the relative significance of socio environmental performance	
CO 5	Design appropriate error detection mechanisms and effective management	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Inflation Accounting:</b>		
Limitations of historical Cost accounting; meaning, objectives and methods of accounting for inflation-CPP and CCA methods – measurement of net monetary gain, COSA, gearing adjustment and preparation of Annual Accounts as per CPP and CCA; Guidance note of ICAI on price level accounting		12 Hrs
<b>Unit 2: Human Resource Accounting (HRA):</b>		
Meaning, objectives, significance and development of HRA; issues involved in HRA; methods for valuation of human resources; accounting methods as developed for HRA; HRA practices in the World and in India		10 Hrs
<b>Unit 3: Social and Environmental Accounting:</b>		
- meaning, objectives and significance of social accounting; theories of social accounting; process and scope, concepts of social accounting theory; recent developments in social accounting– GRI, UN Global Compact, Accountability Assurance Standard, Social Responsible Index, ISO 26000 – Standard on CSR; CSR reporting in India and in the World; preparation of Social Cost Benefit Analysis; Social Audit; Environmental Accounting – definition, meaning, objectives, significance and classification; TBL Reporting; EFA - Recognition and Accounting for Environmental Assets, Liabilities and Contingent Liabilities; EMA – cost classification and uses of EMA; GRI Guidelines and Measurement; EA in India; concept, methods and application of shadow pricing; carbon credit and carbon accounting - meaning and development; environmental audit		12 Hrs
<b>Unit 4: Accounting for Intangibles:</b>		
Meaning, objectives, economic significance and classification of intangibles; valuation and accounting methods; AS – 26 and its application in accounting for Intangibles in India; meaning, objectives, significance and methods of brand accounting and valuation; concept, meaning, objectives and significance of measurement of Organizational Capital and Intellectual Capital.		10 Hrs

<b>Unit 5: Creative Accounting :</b>	
Meaning, definitions, causes, techniques, extent and effects of creative accounting, ethical issues involved in creative accounting; determinants of creative accounting practices; detecting and control of creative accounting; creative accounting practices in India – Role of SEBI, stock exchanges, SFIO, etc., Forensic Accounting- meaning, objectives and role of forensic accounting	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. S N Maheswari and S K Maheswari, Advanced Accounting – Vol II, Vikas Publications, New Delhi.</li> <li>2. R L Gupta and Radhaswamy, Advanced Accounting – Vol 2, Sultan Chand &amp; Sons, New Delhi.</li> <li>3. S K Chakravarthy, Topics in Accounting and Finance, OUP, New Delhi.</li> <li>4. Shashi Gupta and Arun Mehra, Contemporary Issues in Accounting, Kalyani Publishers, Ludhiana.</li> <li>5. Thomas G Evans, Accounting Theory: Contemporary Accounting Issues, Cengage Learning, New Delhi.</li> <li>6. Arunkumar Bose and Malayendu Saha, Studies in Accounting and Finance – Contemporary Issues and Debates, Pearson Education, New Delhi.</li> <li>7. N P Agarwal and S C Jain, Contemporary Issues in Accounting, RBSA Publishers, Delhi.</li> <li>8. Eric Flamholtz, Human Resource Accounting: Advances in Concepts, Methods Applications, Springer Publications, New York.</li> <li>9. Naser, Creative Financial Accounting – Its nature and Use, Pearson Education, London.</li> <li>10. Griffiths Ian, New Creative Accounting – How to Make Your Profits What You Want them to be; Macmillan Publications, New York</li> </ol>	

Paper Code and Name	PG63T404B: Corporate Tax Planning (GST and Customs)–II:	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Identify the structure and modalities involved in levying of GST regime.	
CO 2	Develop individuals capable of managing GST regime in business entities.	
CO 3	Generate input tax credit reforms and device process of recouping the same.	
CO 4	Generate GST returns on a regular basis and upload the same.	
CO 5	Properly account for GST related transactions and incorporate data generated in management reports.	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Introduction :		
Meaning, scope and significance of GST; principles of subsumation and taxes subsumed; classification of goods and services and GST rates; GST model in India – CGST, SGST and IGST; GST Administration in India – GST Council - functions and challenges; GST Network – objectives structure, administration and functions; operational aspects of GST–process of registration for manufacturer, service provider and dealer, etc; amendment and cancellation of registration; tax invoice, credit and		12 Hrs

debit notes; accounts and records; filing of returns – forms, time schedule; assessment, payment of tax	
<b>Unit 2: Levy and Collection of Tax (HRA):</b>	
CGST Act, 2017 – levy and collection of central and state GST, composition levy, taxable person, power to grant exemption from tax; Time and Value of Supply – time of supply of goods and services; change in rate of tax in respect of supply of goods or services; value of taxable supply; Illustrative problems	12 Hrs
<b>Unit 3: Valuation of Goods and Services under GST:</b>	
Introduction to valuation under GST, meaning and types of consideration; valuation rules; other cases for valuation of supply, imported services and goods; valuation for discount; transaction value – meaning and condition; inclusive and exclusive discount; methods of valuation – computed value, residual value method; rejection of declared value; Illustrative problems	10 Hrs
<b>Unit 4: Input Tax Credit System:</b>	
Introduction, meaning of Input Tax Credit, eligibility and conditions for taking Input Tax Credit – CGST, SGST and IGST; recovery of Input Tax Credit and interest thereon, taking input tax credit in respect of inputs sent for job work, reverse charge, manner of distribution of credit by input; service distributor; Illustrative problems	10 Hrs
<b>Unit 5: Tax Planning and Customs Duty:</b>	
– Scope and coverage of customs law, nature, types, classification, rates and valuation of customs duty; exemptions, remissions, demand, recovery and refunds in customs, export schemes, duty drawbacks, types of valuation for Customs Duty – tariff value, transaction value; methods of valuation; general provisions about baggage	12 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Keshav Garg, GST Ready Reckoner, Bharat Law House, Delhi.</li> <li>2. V S Datey, GST Ready Reckoner, Taxmann's Publications, New Delhi.</li> <li>3. Raman Singla and Pallavi Singla, Simplified Approach to GST – A Ready Referencer, Young Global Publications, Delhi.</li> <li>4. S S Gupta, GST – Law and Practice, Taxmann's Publications, New Delhi</li> <li>5. Rajat Mohan, Illustrated Guide to GST, Bharat Law House, Delhi.</li> <li>6. Anjali Agarwal, GST: Impact on the Indian Economy, New Century Publications, Delhi.</li> <li>7. Rakesh Garg and Sandeep Garg, GST Laws Manual: Acts, Rules and Forms, Bloomsbury India, New Delhi.</li> <li>8. Atul Kumar Gupta, GST – Concept and Roadmap, LexisNexis Publications, New Delhi.</li> <li>9. The Central Goods and Services Tax Act and Rules, 2017.</li> <li>10. The Karnataka Goods and Services Tax Act, 2017, Karnataka Law Journal Publications, Bangalore.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG63T404C: International Taxation:</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Design an appropriate system of international taxation so as to avoid double taxation and other issues.
CO 2	Devise effective relief measures to ameliorate the effect of double taxation.
CO 3	Generate management reports on the effects of harmful tax practices.

CO 4	Coordinate with both national and international levels regulating agencies on taxation.	
CO 5	Develop system of integrating of domestic taxation with international taxation matters at company and national levels.	
PARTICULARS		Teaching Hrs (Max. 64)
<b>Unit 1: Basic principles of International Tax Law :</b>		
- Jurisdiction to Tax; limits on tax Jurisdiction; Taxes and Tax systems- practices in Exercising tax Jurisdiction, Use of residence, domicile, citizenship as connecting factors, determination of residence of individuals and corporations; sources of income and gains, issues due to change of residence/citizenship		12 Hrs
<b>Unit 2: International Double Taxation:</b>		
- Causes of international double taxation/Conflicts of residence and source, conflicting definitions of connecting factors, other causes; Methods of relief from international double taxation/ relief by credit, relief by exemption and other methods		12 Hrs
<b>Unit 3: Transfer pricing and Double Taxation Conventions (DTCs):</b>		
- approaches to the determination of profits of branches and associated enterprises- Unitary taxation (Global formulary apportionment), arms length approaches, OECD transfer pricing guidelines		10 Hrs
<b>Unit 4: International Tax avoidance:</b>		
- Tax heavens; approaches to identification of tax heavens- blacklists, whitelists, graylists, work of OECD forum on harmful tax practices, features of most commonly used tax heavens, domestic law approaches to international tax avoidance		12 Hrs
<b>Unit 5: Indirect taxes and international Taxation:</b>		
- Origin and destination basis for indirect taxes, GATT and GATS rules and limitations in border tax adjustments, WTO rules and taxes, cross border mergers- issues and solutions		10 Hrs
<b>Suggested Readings:</b>		
<ol style="list-style-type: none"> <li>1. Williams, David W., Trends in International Taxation, (Amsterdam, International Bureau of Fiscal Documentation, 1991) [ISBN: 90.70125-53.6]</li> <li>2. Baker, Philip, Double Taxation Conventions and International Tax Law, (London, Sweet &amp; Maxwell, 3rd edition, loose-leaf, 2001) [ISBN: 0-421-67360-5]</li> <li>3. Ogley, Adrian, Principles of International Taxation (London, Intertax Publishing, 1993) [ISBN 0 952 0442 0 X]</li> <li>4. Qureshi, Asif, The Public International Law of Taxation: Text, Cases and Materials (London, Kluwer Law International, 1994) [ISBN 1 85333 950 4]</li> <li>5. Rohatgi, Roy Basic International Taxation – Volume 1 (Principles) (Taxmann Allied Services PVT Ltd) [ISBN 817496732X]</li> <li>6. Vogel, Klaus, Double Taxation Conventions, (London, Kluwer Law International, 3rd edition, 1997) [ISBN: 978-0-906524-06-0]</li> <li>7. Tolley's International Corporate Tax Planning (London, Tolley's Publishing 2002) [ISBN: 0-7545- 1339-4]</li> <li>8. Miller, A &amp; Oats, L, Principles of International Taxation (Tottel Publishing 2009,) [ISBN 1847663214] £79.80. Available from <a href="http://www.tottelpublishing.com">www.tottelpublishing.com</a> and <a href="http://www.amazon.co.uk">www.amazon.co.uk</a></li> <li>9. Russo, R (Editor), Finnerty, CJ (Author), Merks, P (Author), Pettricone M, (Author), Fundamentals of International Tax Planning (IBFD July, 2007)</li> </ol>		

<p>[ISBN 978-90-8722-016-7] available from <a href="http://www.ibfd.org">www.ibfd.org</a></p> <p>10. Vinod Singhania and Kapil Singhania, Direct Tax Law and Practice, Taxman Publications, New Delhi.</p> <p>11. Manoharan and Hari, Direct Tax Laws, Snow White Publications, New Delhi.</p> <p>12. Mehrotra and Goyal, Direct Taxes – Tax Planning and Management, Sahitya Bhavan Publications, Agra.</p> <p>13. Dinkar Pagare, Tax Laws, Sultan Chand, New Delhi</p>	
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## SPECIALISATION GROUP - C: ACCOUNTING AND FINANCE

Paper Code and Name	PG63T405: Business Analysis and Valuation:	
COURSE OUTCOMES (COs)		
After completing this paper, the students will be able to:		
CO 1	Design appropriate business valuation models keeping in mind the nature and size of business.	
CO 2	Develop linkages between industry analysis, competitive strategy analysis and corporate strategy analysis.	
CO 3	Equip in individuals all the linkages between cashflow, discount rate and value of the firm.	
CO 4	Devise accounting reports to be used in managerial decision making.	
CO 5	Develop comparative valuation models applicable to multitude actions of business managers	
PARTICULARS		Teaching Hrs (Max. 64)
Unit 1: Introduction:		
Concept and objectives of business valuation; types of business valuation – assets, liabilities, earnings, securities valuation; uses of valuation; approaches to valuation – book value, liquidation, replacement and break-up value; cash flow and dividend discount models; P/E multiples, pitfalls in valuation – bias, uncertainty and complexity		12 Hrs
Unit 2: Business Valuation Tools:		
Strategy Analysis – industry analysis – industry structure and profitability; Porter’s Five-Forces Mode; competitive strategy analysis – sources of competitive advantage; corporate strategy analysis – sources of value creation; accounting analysis – framework for financial reporting; factors influencing accounting quality; steps in accounting analysis; pitfalls in accounting analysis; implementing accounting analysis		10 Hrs
Unit 3: Estimating Discount Rate and Cash Flows:		
Estimating Weighted Average Cost of Capital – cost of debt, cost of preferred stock and cost of equity; selection of weights; measuring cash flows – earnings – adjustments, tax effect, reinvestment needs, changes in working capital; equity cash flows – dividends; estimating growth rate and terminal value		12 Hrs
Unit 4: Discounted Cash Flow Models:		
Dividend discount models – Gordon, two-stage and three-stage growth models; free cash flow to equity models; free cash flow v/s dividend discount models; firm		12 Hrs

valuation – free cash flows to all claim holders model and adjusted present value approach – two stage and three stage approach; excess return models – economic value added; capital structure and firm value; relative valuation – earnings multiples, book value or replacement value multiples, revenue multiples, sector-specific multiples; equity multiples – P/E multiples, price to book ratio, price to sales ratio	
<b>Unit 5: Valuation Applications:</b>	
Security analysis – meaning and objectives; approaches and process of security analysis; credit analysis – meaning, objectives and process; mergers and acquisitions – reasons and acquisition pricing – value of synergy; corporate financing policies – debt and dividend policies – cost of distress; value of control – meaning and approaches; employee equity options and compensation; valuation of intangibles	10 Hrs
<b>Suggested Readings:</b>	
<ol style="list-style-type: none"> <li>1. Palepu, Healy and Bernard, Business Analysis and Valuation, Cengage Learning, New Delhi.</li> <li>2. Prasanna Chandra, Corporate Valuation and Value Creation, TMH, New Delhi.</li> <li>3. Erik Peek, Business Analysis and Valuation, Cengage Learning, New Delhi.</li> <li>4. Aswath Damodaran, Damodaran on Valuation, John Wiley Publications, New Delhi.</li> <li>5. Shannon P Pratt, Business Valuation – Discounts and Premiums, John Wiley, New Delhi.</li> <li>6. Wayne Loneragan, Valuation of Businesses Shares &amp; Other Equity, Viva Books, New Delhi.</li> <li>7. Enrique R Arzac, Valuation for Mergers, Buyouts and Restructuring, John Wiley, New Delhi.</li> <li>8. Sudipto Bhattacharya, Theory of Valuation, World Scientific British Library, Mumbai.</li> <li>9. Adamson and Adamson, Valuation of Company Shares and Business, Law Book Company, Allahabad.</li> <li>10. Mercer, Business Valuation, John Wiley, New Delhi</li> </ol>	

### SPECIALISATION GROUP- D: FINANCE GROUP

Paper Code and Name	PG63T406: Behavioral Finance:
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	Develop professionals integrating financial and psychical variables in stock market activities
CO 2	Develop models of monitoring psychological factors and minimising negative effect
CO 3	Conduct tests on investor behaviour and undertake surveys to incorporate the behavioural aspects if investing in policy making
CO 4	Generate management reports on real time bases on behavioural effects
CO 5	Device systems categorising investing class on behavioural aspects based on personal

	and other traits and integrate the same in corporate financial action	
PARTICULARS		Teaching Hrs (Max. 64)
<b>Unit 1: Rise of Rational Market Hypothesis:</b>		
Modern corporate finance, portfolio theory, CAPM, random walk theory & EMH; impact on Wall Street and Corporations; challenge of behaviouralists – deviation from rationality, possibility of beating the market, etc; emergence of behavioural finance – meaning and significance; foundations of rational finance		12 Hrs
<b>Unit 2: Foundations of Behavioural Finance:</b>		
– Heuristics and Biases – Two Systems Approach; familiarity and related heuristics; biases, hyperbolic discounting; self-deception – overconfidence – forms and causes; success equation; Prospect Theory and Mental Accounting		10 Hrs
<b>Unit 3: Foundations of Behaviour Finance :</b>		
EMH – theoretical foundations and challenges to EMH; emotional factors and social forces – theories of emotion; types and dimensions of emotion; social influence on investment and consumption; neuroscientific and evolutionary perspective – brain basics, Adaptive Market Hypothesis		12 Hrs
<b>Unit 4: Behavioural Aspects of Investing :</b>		
Investor behavior – Behavioural Portfolio Theory – basic ingredients; market outcomes – size effect, seasonality, momentum and reversal; post-earnings announcement drift, equity premium puzzle, Behavioural Asset Pricing Model; Value Investing – central tenets, evidence, prospects and academic research on Value Investing		10 Hrs
<b>Unit 5: Behavioural Corporate Finance:</b>		
Rational managers with irrational investor approach; valuation, capital budgeting, capital structure, dividend and mergers and acquisition; building a smart organization – challenges, accounting, financial planning, incentives, information sharing and group processes; other insights – noise and performance, stock as a complex adaptive system; animal spirits and Halo Effect		10 Hrs
<b>Suggested Readings:</b>		
<ol style="list-style-type: none"> <li>1. Prasanna Chandra, Behavioural Finance, TMH, New Delhi.</li> <li>2. Suchitra Singh and Shilpa Bahl, Behavioural Finance, Vikas Publications, New Delhi.</li> <li>3. Lucy Ackert and Richard Deaves, Understanding Behavioural Finance, Cengage Learning, New Delhi.</li> <li>4. M M Sulphey, Behavioural Finance, PHI, New Delhi.</li> <li>5. William Forbes, Behavioural Finance, Wiley India, New Delhi.</li> <li>6. Shefrin, Hersh, A Behavioral Approach to Asset Pricing, Elsevier Academic Press.</li> <li>7. Montier, James, Behavioural Finance- Insights into Irrational Minds and Markets, John Wiley &amp; Sons, Ltd.</li> <li>8. Parag Parikh, Value Investing and Behavioural Finance, TMH, New Delhi.</li> <li>9. Edwin Burton and Sunit N Shah, Behavioural Finance, John Wiley, New Delhi.</li> <li>11. Kadir C Yalcin, Behavioural Finance, Lambert Academy Publications, New</li> </ol>		

Delhi.	
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<b>Paper Code and Name</b>	<b>PG63T407: Project Finance:</b>	
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Develop professionals capable of managing effective execution and control of project plans.	
CO 2	Design system of forewarning cost and time overview	
CO 3	Develop individuals capable of generating management reports at various stages of project management.	
CO 4	Generate reports for decision making on various mechanisms of project financing.	
CO 5	Devise effective blend of financial and organisational control techniques for timely completion of projects	
<b>PARTICULARS</b>		<b>Teaching Hrs (Max. 64)</b>
<b>Unit 1: Introduction:</b>		
Meaning of Projects and types of projects; generation and screening of project idea; objectives of project planning, monitoring and control- need, phases, project construction alternatives, control requirement and functions. Project life cycle; project manager, turnkey projects		12 Hrs
<b>Unit 2: Project Preparation:</b>		
Technical feasibility, estimation of costs, demand analysis and - commercial viability; risk analysis, collaboration agreements; financial planning; estimation of fund requirements, sources of funds; loan syndication for the projects, tax considerations in project preparation and the legal aspects		10 Hrs
<b>Unit 3: Project Appraisal:</b>		
Business Criterion of growth, liquidity and profitability, social cost - benefit analysis in public and project sectors, investment criterion and choice of techniques; estimation of shadow prices and social discount rate		12 Hrs
<b>Unit 4: Network Techniques for Project Management:</b>		
Development of project network; time estimation; determination of critical path, scheduling when resources are limited; PERT & CPM Models; Network cost system		10 Hrs
<b>Unit 5: Project Review and Control:</b>		
Initial review- control of project in progress and post audit; performance evaluation; abandonment analysis; behavioural issues in project abandonment; Project direction-co-ordination and control, project performance control- schedule control and cost control - performance indicators- performance improvement		12 Hrs
<b>Suggested Readings:</b>		
1. Prasanna Chandra, Projects - Planning, Analysis, Selection, Implementation and Review, TMH, New Delhi. 2. Clifford Gray, Project Management – Managerial Process, TMH, New Delhi. 3. Khanna S, Project Evaluation and Cost Overruns, Bharat Law House, New Delhi.		

4. Bharesh M Patel, Project Management, Vikas Publications, New Delhi. 5. Vasant Desai, Project Management, HPH, Mumbai. 6. Choudary S, Project Management, TMH, New Delhi. 7. Narendra Singh, Project Management and Control, HPH, Mumbai. 8. Pouliquen L Y, Risk Analysis in Project Appraisal, John Hopkins Press, California. 9. Murdick R G and Deming D D, The Management of Capital Expenditures, McGraw Hill, New York. 10. DL Olson, Introduction to Information System Project Management, TMH, New Delhi.	
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# KARNATAK UNIVERSITY, DHARWAD



## POST – GRADUATE DEPARTMENT OF STUDIES IN COMMERCE

### Regulations and Syllabi of the P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) ( I to II Semesters)

## **Preamble:**

**The world** is witnessing a significant innovation in entrepreneurial activities. It is intriguing as to the germination and establishment these newer forms of business entities and their survival in the context of highly competitive business world. These innovative entities continue to arrive and survive.

The traditional commerce or business syllabi are devoid of all these contemporary world of new business forms emerging and as a result the student community is deprived of keeping themselves abreast of this business phenomenon. Resistance to change is also a reason for the existing undergraduate or post-graduate commerce curriculum to be stationary. However, it was felt that this gap in knowledge of the contemporary business phenomenon has to be bridged and the young learners should exit the frontals of University Education System equipped with the contemporary developments and contribute to the survival of these units and to further the entrepreneurial innovation.

The crux of the survival of all these newer forms of business entities like start-ups, unicorns, etc is the method of financing. The newer entities are seeking all creative and innovative ideas in financing. The Indian business tycoons like Mr Ratan Tata, Mr Ajiz Premiji, etc are mentoring the new born entities.

Against this background, the present Post-Graduate Diploma Programme in Entrepreneurial Finance (PGDEF) is designed by the University to enable the commerce graduates to add to their kitty the wherewithals to survive in competitive world and be tremendous useful to the business community and society at large. The programme is add-on and can be completed along with the Post-Graduate Course in Commerce or even otherwise also.

# PART-A

## Regulations Governing Post-Graduate Diploma in Entrepreneurial Finance

### (PGDEF) Programme (PGDEF)

#### Under the

#### Faculty of Commerce

*(Framed under Section 44(1)(c) of the K. S.U. Act, 2000)*

#### 1.0 Title

These Regulations shall be called “Regulations Governing the Post Graduate Diploma in Entrepreneurial Finance Programme (PGDEF),” Karnatak University, Dharwad.

#### 2.0 Commencement

These Regulations shall come into effect from the date of assent by His Excellency, the Chancellor of the University.

#### 3.0 Definitions

In these Regulations, unless otherwise provided:

- A “**Academic Council**” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- B “**Board of Studies**” means P.G. Board of Studies in Commerce, Karnatak University, Dharwad.
- C **Course** means paper, which the student admitted to P.G. Diploma in Entrepreneurial Finance Programme (PGDEF), should successfully complete to receive the Post Graduate Diploma of Entrepreneurial Finance Programme.
- D “**Student**” means the candidate admitted to P.G. Diploma in Entrepreneurial Finance Programme (PGDEF).
- E “**University**” means Karnatak University, Dharwad.

#### 4.0 Minimum Eligibility for Admission

A candidate, who has successfully completed Bachelor’s Degree programme in **Commerce** of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time. Admission shall be as per the Govt. of Karnataka Reservation Policy and directions issued in this direction from time to time.

## **5.0 Duration of the Programme**

The duration of P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) shall be year duration comprising of two semesters.

## **6.0 Medium of Instruction and Evaluation**

The medium of instruction for P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) shall be in English. However, the students may write the examinations in Kannada if so provided by the Board of Studies in Commerce (PG).

## **7.0 Programme Structure**

7.1 The students of P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) shall study the courses as may be approved by the Board of Studies in Commerce (PG), Faculty and the Academic Council of the University from time to time subject to minimum and maximum marks as outlined in these regulations.

7.2 The detailed programme structure for P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) shall be as stated in Annexure –I.

## **8.0 Attendance**

8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.

8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

8.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

8.4 A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours during the semester.

8.5 There is no provision for condoning shortage of attendance.

8.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.

## **9.0 Examination**

9.1 There shall be an examination at the end of each semester conducted by the University.

9.1.1 There shall be semester-end examination of 3 hours duration for the courses carrying 75 marks.

9.1.2 Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and

shall also pay the fees prescribed.

- 9.1.3 The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for subsequent appearances and semester-end examinations.
- 9.1.4 The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results.
- 9.1.5 The programme is a fully carry-over system. A candidate reappearing for either the first or second semester examinations shall be permitted to take examinations as and when they are conducted.
- 9.1.6 Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7 Candidates who desire to challenge the marks awarded to them in the semester end examinations may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 First semester**

- 9.2.1 There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 9.2.2 The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3 The office of the Registrar Evaluation shall dispatch the question papers to the Department/ P G Centres/ Colleges who shall conduct the Examinations according to the schedule announced by the University.
- 9.2.4 The Chairperson of the Department/ Administrator of the P. G. Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts for first semester.
- 9.2.5 Answer scripts shall be valued by the examiners appointed by the University. However, in those circumstances where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6 There shall be single valuation for first semester. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on marks list.
- 9.2.7 The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centres.

9.2.8 The Office of the Registrar Evaluation shall process and announce the results.

### 9.3 **Second Semester:**

9.3.1 There shall be a Board of Examiners to set, scrutinise and approve question papers.

9.3.2 As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.

9.3.3 Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

### 9.4 **Evaluation**

9.4.1 Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

9.4.2 The IA component in a course shall carry 25% and the Semester End Examination shall carry 75%. Courses having 25% marks as internal assessment shall have 3 marks allotted to attendance.

9.4.3 Marks for attendance shall be awarded to the students as stipulated below :

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1
75	No marks

9.4.4 Internal Assessment (IA) shall be based on written tests/ assignments/ seminars and /or any other instructional activity. However, the number of IA components per course per semester shall not be less than two.

9.4.5 The IA marks list shall be notified on the Department notice board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination.

9.4.6 The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

9.4.7 There is no provision for seeking improvement of Internal Assessment marks.

9.4.8 The IA records, pertaining to Semester Examination, shall be preserved by the department/Centres/Colleges for a period of one year from the date of semester

examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**10.0 Maximum duration for completion of the Programme**

- 10.1 A candidate admitted to P.G. Diploma in Entrepreneurial Finance Programme (PGDEF) shall complete it within a period, which is double the duration of the programme from the date of admission.
- 10.2 Whenever the syllabi are revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabi.

**11.0 Declaration of Results**

- 11.1 The minimum marks for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 50% of the marks in the semester-end examination. There is no minimum for the IA marks.
- 11.2 Candidates shall secure a minimum of 50% in aggregate in all courses of the programme in each semester to successfully complete the programme.
- 11.4 For the purpose of announcing the results, the aggregate of the marks secured by a candidate in two semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time or had applied for improvement of results.
- 11.5 The grading of candidates at the examination shall be as follows:

<b>Percentage of Marks</b>	<b>Class</b>
70.00 % and above	First class with Distinction
60.00 to 69.99%	First Class
50.00 to 59.99%	Second Class
Below 50%	Fail

# Annexure – I

## PART-B

### Detailed Course Structure of the Post Graduate Diploma in Entrepreneurial Finance Programme (PGDEF)

Semester	Subjects	Max. Marks		Total Marks	Hrs/ week
		IA	Sem. end Exam		
1 <sup>st</sup> Semester					
I	Compulsory Courses				
DP63T101	Principles of Entrepreneurship	25	75	100	04
DP63T102	Innovation and Entrepreneurship	25	75	100	04
DP63T103	Entrepreneurial Accounting	25	75	100	04
DP63T104	Corporate Finance-I	25	75	100	04
DP63T105	Entrepreneurial Finance-I	25	75	100	04
	Total Marks for the First Semester	125	375	500	20
2 <sup>nd</sup> Semester					
II	Compulsory Courses				
DP63T201	Corporate Finance-II	25	75	100	04
DP63T202	Entrepreneurial Finance-II	25	75	100	04
DP63T203	Capital Market Financing of SMEs	25	75	100	04
DP63T204	Startup valuation Methods	25	75	100	04
DP63T205	Cost Accounting for Entrepreneurs	25	75	100	04
	Total Marks for the Second Semester	125	375	500	20
	GRAND TOTAL (SEMESTER I & II)	250	750	1000	40

**Notes:** All Courses are compulsory

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Understand the knowledge of various aspects of entrepreneurial finance
2. Learn the managerial skill to handle different resources and Finance management as specific resources
3. Learn logic behind Entrepreneurial Accounting and finance techniques, Capital Market Finance and Cost accounting techniques and start up valuation model

# POST GRADUATE DIPLOMA IN ENTREPRENEURIAL FINANCE

## FIRST SEMESTER

### PAPER -WISE DETAILED CONTENTS

<b>Paper Code and Name</b>	<b>DP63T101 Principles of Entrepreneurship</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Develop individuals Knowledge relating to principles of entrepreneurship
CO 2	Impart skill on creative and innovative thinking on entrepreneurship
CO 3	Monitor the operations of entrepreneurship process
CO 4	Identify factors having bearing on institutional support for entrepreneurship
CO 5	Coordinate on knowledge of entrepreneurship opportunities in start ups

<b>DP63T101 Principles of Entrepreneurship</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>	
Meaning and concept of entrepreneurship; types of entrepreneur; need and significance; entrepreneur v/s intrapreneur; history of entrepreneurship development, role of entrepreneurship in economic development; myths about entrepreneurship; process of entrepreneurship; start-ups and their stages; agencies involved in development of entrepreneurship; entrepreneurship in Indian scenario.	12 Hours
<b>Unit 2: The Entrepreneur:</b>	
Why to become entrepreneur, the skills/traits required to be an entrepreneur; creative and design thinking; the entrepreneur decision process; skill gap analysis and role models; mentors and support system; entrepreneurial success stories	8 Hours
<b>Unit 3: Entrepreneurship Process :</b>	
Self-Assessment of skills and qualities; generation of ideas; assessment – micro and macro economic and market environment; feasibility study; business plan preparation, execution of business plan; role of networking in entrepreneurship.	6 Hours
<b>Unit 4: Institutional Support:</b>	
meaning, objectives, significance of institutional support for entrepreneurship; Institutional support in India – at central level and state level; training; establishment,	

marketing, financing, research and development , etc support for entrepreneurship development in India; policy framework for the development of entrepreneurship.	
<b>Unit 5: Entrepreneurship in Start-Ups:</b>	
meaning and significance of start-up entrepreneurial activities; start-ups v/s entrepreneur; economic contribution of start-ups entities; risks involved in start-ups; unicorns – concept and development; growth of start-ups and unicorn start-ups in India; Start-ups India Initiative -Scheme of Central Government; women entrepreneurship and women entrepreneurship in start-ups;	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Arya Kumar, Entrepreneurship: Creating and Leading Entrepreneurial Organization; Pearson, New Delhi</li> <li>2. Khanka S S, Entrepreneurship Development, S Chand, New Delhi</li> <li>3. Robert Hisrich and Michael Peters, Entrepreneurship, McGraw Hill, New Delhi</li> <li>4. David H Holt, Entrepreneurship: New Venture Creation, Pearson, New Delhi</li> <li>5. Poonam Gandhi, Entrepreneurship, Global Publications, New Delhi</li> <li>6. T V Rao and Donald Kuratko, Entrepreneurship – A South Asian Perspective, Cengage, New Delhi</li> <li>7. Sharma Sangeeta, Entrepreneurship Development, Prentice Hall, New Delhi</li> </ol>	

<b>Paper Code</b>	<b>DP63T102 Innovation and Entrepreneurship</b>
<b>and Name</b>	
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Develop individuals Knowledge of innovation and entrepreneurship
CO 2	Understand different classifications of innovation and entrepreneurship opportunities
CO 3	Knowledge about different business models and start up
CO 4	Understanding knowledge about Board and board meetings
CO 5	Knowledge on rewarding system

<b>DP63T102 Innovation and Entrepreneurship</b>		<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>		
Concept of innovation, objectives, need and significance of innovation; relationship between innovation and entrepreneurship growth and developments; benefits of innovation to business, employees, customers and society;		12 Hours
<b>Unit 2: Classification of innovation:</b>		
Incremental, disruptive, architectural and radical; innovation models – employee innovation, customers, partner/supplier, competitor and public innovation; Oslo's classification – organizational, process, product, marketing and eco-innovation.		8 Hours
<b>Unit 3: Entrepreneurial Opportunities:</b>		
Opportunities, discovery/creation, pattern identification and recognition for venture creation; prototype and exemplar models; reverse engineering; innovation process and decision-making – entrepreneurial ecosystem, ideation, development and exploitation of opportunities; negotiation, decision-making process and approaches; effectuation and causation		6 Hours
<b>Unit 4: Crafting Business Models and Lean Start-ups:</b>		
Introduction to business models; creative value propositions-conventional, industry logic, value innovation logic; customer focussed innovation; analyzing and building business models, introduction to lean start-ups, business pitching.		
<b>Unit 5: Nurturing Innovation:</b>		
meaning, objectives, need and significance; innovation environment; Board, Board Chairman and CEO responsibilities in developing creative and learning organization; developing structure to identify and evaluate ideas; learning from competitors; developing reward system – methods of rewarding		
<b>References:</b>		
<ol style="list-style-type: none"> <li>1. Peter Drucker, Innovation and Entrepreneurship, Routledge.</li> <li>2. John R Bessant and Joe Tidd, Innovation and Entrepreneurship, Wiley, New Delhi</li> <li>3. Ken Banks, Social Entrepreneurship and Innovation, Kogan Page,</li> <li>4. Pamela Ryan, Impact Imperative: Innovation, Entrepreneurship and Investing to Transform the Future, Greenleaf Book Group Press.</li> <li>5. Paul Burns, Corporate Entrepreneurship and Innovation, Red Globe Press.</li> <li>6. Carter S and D Joes Evans, Enterprise and Small Business – Principles, Practice and Policy, Pearson, New Delhi.</li> <li>7. Verstraete T and Laffitte E J, A Business Model of Entrepreneurship, Edward Elgar Publications.</li> <li>8. Blank Steve, The Start-Up Owner's Manual: The Step by Step Guide for Building a Great Company, K &amp; S Ranch publication.</li> </ol>		

9. Ries Eric, The Lean Start-up; How Constant Innovation Creates Radically Success Business, Penguin books Ltd.

Charles Matthews, Innovation and Entrepreneurship: Competency Framework, Routledge.

<b>Paper Code and Name</b>	<b>DP63T103</b> Entrepreneurial Accounting
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand and learn skill on managerial application of accounting information
CO 2	Learn to maintain books of records and preparation of financial statements in entrepreneurial entities
CO 3	Understand the significance of ratio analysis and types of accounting ratios
CO 4	Understanding various asset management and Knowledge on rewarding system

<b>DP63T103</b> Entrepreneurial Accounting	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>	
Accounting as an information system; managerial application of accounting information; accounting concepts and conventions; accounting standards and their applicability to MSMEs	12 Hours
<b>Unit 2: Accounting cycle:</b>	
Recording, classifying and summarizing and generation of accounting statements of entrepreneurial entities – interim and annual financial statements;	8 Hours
<b>Unit 3: Cash Flow Analysis:</b>	
Meaning and classification of cash flow – operating investing and financing cash flows; measuring operating cash flows; funds from operations and cash from operations; computation of cash flows	6 Hours
<b>Unit 4: Ratio Analysis:</b>	
Meaning, objectives and significance of ratio analysis; types of accounting ratios; historical and budgeted ratios; computation of functional financial ratios – liquidity,	

structural, efficiency and profitability ratios; limitations of ratio analysis.	
<b>Unit 5: Nurturing Innovation:</b>	
Comparison between traditional and contemporary measurement of operating performance; measuring Operating Performance and Prediction - Return on cash adjusted assets, return on sales, return on market value of assets, cash flow return on assets; use of percentage change to detect abnormal operating performance; time adjusted and inflation adjusted ratios; Prediction of industrial sickness through ratios – univariate and multivariate models – Altman’s and L C Gupta models.	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Frank J Fabozzi, Entrepreneurial Finance and Accounting for High-Tech Companies, MIT Press</li> <li>2. Tycho Press, Accounting for Small Business Owners, Tycho Press, Berkeley, California</li> <li>3. Gregory Becker, Accounting Principles: The Ultimate Beginner’s Guide to Accounting,</li> </ol>	

<b>Paper Code and Name</b>	<b>DP63T104 Corporate Finance – I</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Develop basic knowledge of corporate finance
CO 2	Design effective framework for the leverage analysis in start-up and SMEs
CO 3	Identify risk-return relationships of various investment alternatives
CO 4	Design and implement value at risk approaches

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Basics of Corporate Finance:</b>	
Concept of Finance and Business Finance; emergence of corporate finance and reasons for its growth; nature and scope of finance function; objectives of finance function – profit maximization v/s wealth maximization; financial decisions and risk-	12 Hours

return trade-off; finance function in start-up and SMEs	
<b>Unit 2: Leverage Analysis and Capital Structure Decision:</b>	
Concept of Leverage and Classification – Significance and Measurement of Operating, Financial and Total Leverage; leverage analysis in start-up and SMEs	8 Hours
<b>Unit 3: Designing Optimum Capital Structure:</b>	
Theoretical Explanation – Net Income and Net Operating Approaches; MM Model, Traditional Approach, Trade-off models, pecking order hypothesis and signalling hypothesis; determinants of capital structure decision; capital structure decisions in Start-up and SMEs	6 Hours
<b>Unit 4: Capital Budgeting Decisions:</b>	
Concept of Capital Budgeting – features, significance and types of capital budgeting decisions; measurement of project's cash inflows and outflows; evaluation criteria – accounting rate of return, payback methods; discounted cash flow methods – NPV, IRR, PI, NTV; Conflict between NPV and IRR – cross rate and MIRR; multiple IRRs; capital rationing Decisions; complex investment projects; capital budgeting in start-up and SMEs.	
<b>Unit 5: Capital Budgeting Decisions under Risk and Uncertainty:</b>	
– Concept of risk and uncertainty and comparison; methods of incorporating risk/uncertainty – traditional and statistical methods; decision – tree method; risk or uncertainty in start-ups and SMEs	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Pandey I M, Financial Management, Vikas Publications, New Delhi</li> <li>2. M Y Khan and P K Jain, Financial Management, McGraw Hill, New Delhi</li> <li>3. Prasanna Chandra, Financial Management, McGraw Hill, New Delhi</li> <li>4. Damodaran, Corporate Finance, Wiley Publications, New Delhi</li> <li>5. Brealey, Myers, Allen and Mohanty, Principles of Corporate Finance, McGraw Hill, New Delhi</li> <li>6. Ross, Westerfield, Jaffe and Kakan, Corporate Finance, McGraw Hill, New Delhi</li> <li>7. Brigham and Ehrhardt, Financial Management – Theory and Practice, Cengage, New Delhi</li> </ol>	

<b>Paper Code</b>	<b>DP63T105 Entrepreneurial Finance - I</b>
<b>and Name</b>	

<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand the concept of Entrepreneurial Finance
CO 2	Knowledge about significance Start-up Financing
CO 3	Learn financial aspects of a business plan and due diligence to the entrepreneur
CO 4	Learn to understand Financial Planning and Forecasting on budgeting
CO 5	Understand history of venture capital financing and Learn the factors considered before investing

<b>DP63T105 Entrepreneurial Finance - I</b>		<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>		
Concept of Entrepreneurial Finance, objectives, nature, scope and importance; role of entrepreneurial finance; entrepreneurial finance v/s corporate finance; growth of entrepreneurial finance in US, UK and other western countries;		12 Hours
<b>Unit 2: Start-up Financing:</b>		
– Meaning and significance; traditional small business financing options – debt financing, government sources of small business loans and equity financing; rollover retirement funds to start or finance business; new sources of debt and equity financing; stages of venture life cycle; sources of financing to MSMEs		8 Hours
<b>Unit 3: Business Planning:</b>		
Difference between various plans of new ventures and established small business; purpose and importance of business plans; elements of sound business plan; financial aspects of a business plan; due diligence to the entrepreneur and outside investors; implementation and revision of business plan; reasons for failure of business plan		6 Hours
<b>Unit 4: Financial Planning and Forecasting:</b>		
Concept of financial planning and process of financial planning; preparation of cash budget; sales budget and sales forecast; interrelationship between planning, budgeting and forecasting; projecting financial needs, break even analysis and financial forecasting; determinants of MSMEs financing needs		
<b>Unit 5: Venture Capital:</b>		
Meaning, objectives and nature of venture capital; advantages and disadvantages of		

venture capital; history of venture capital financing; organizing venture capital firms; factors considered before investing; securities involved in venture financing – common stocks, convertible bonds, convertibles preferred, warrants and options; pre-investment stage –deal flow, selection and evaluation; investment stage –ownership structure and contracting; post-investment stage – behaviour growth and success/failure; venture life cycle ad financing through venture life cycle	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Marco Da Rin and Thomas Hellman, Fundamentals of Entrepreneurial Finance, Oxford University Press, Oxford</li> <li>2. Simon Hulme and Chris Drew, Entrepreneurial Finance, Red Globe Press.</li> <li>3. Phillip Adelman and Alan Marks, Entrepreneurial Finance, Pearson, New Delhi</li> <li>4. Chris Leach and Ronald Melicher, Entrepreneurial Finance, Cengage, New Delhi.</li> <li>5. Smith J K, Smith R L and Bliss R T, 2011, Entrepreneurial Finance: Strategy, Valuation and Deal Structure, Stanford, Stanford University Press, 2011.</li> <li>6. Abor J Y, Introduction to Entrepreneurial Finance, Palgrave Macmillan</li> <li>7. Klonowski, Strategic Entrepreneurial Finance: From Value Creation to Realization, Routledge</li> <li>8. Alhabeeba M J, Entrepreneurial Finance: Fundamentals of Financial Planning and Management for Small Business, Hoboken, New Jersey</li> <li>9. Frank J Fabozzi, Entrepreneurial Finance and Accounting for High-Tech Companies, MIT Press</li> </ol>	

## POST GRADUATE DIPLOMA IN ENTREPRENEURIAL FINANCE

### SECOND SEMESTER

#### PAPER -WISE DETAILED CONTENTS

<b>Paper Code and Name</b>	<b>DP63T201 Corporate Finance – II</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand the significance and types of Cost of Capital and Measurement
CO 2	Learn about dividend theories and Working Capital Management Decisions

CO 3	Develop skill on inventory management techniques
CO 4	Study on the determination of the optimum cash balance

<b>DP63T201 Corporate Finance – II</b>		<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Cost of Capital and Measurement :</b>		
Concept, significance and types of cost of capital; cost of specific source of capital – debt, preference, retained earnings and external equity; overall cost of capital – book value weights, market value weights and marginal weights; cost of capital in start-ups and SMEs		12 Hours
<b>Unit 2: Dividend Decisions :</b>		
pay-out and retention ratios and market value behaviour; dividend theories – Walter’s, Gordon’s and MM models; residual theory; determinants of dividend decisions; stock dividends and stock splits; dividend decision in start-ups and SMEs		8 Hours
<b>Unit 3: Working Capital Management Decisions :</b>		
Concepts of working capital and need; types of working capital; investment and financing working capital – liquidity and profitability tangle; determinants of working capital and computation – operating cycle approach to measurement; WCM practices in Start-ups and SMEs		6 Hours
<b>Unit 4: Inventory, Debtors and Payables Management :</b>		
Meaning and objectives of holding inventories; inventory management techniques; analysis of investment in inventory and inventory control techniques; receivables management – credit policy and optimum credit policy; monitoring receivables and factoring; payables management - meaning and cost of credit; techniques of payables management;		
<b>Unit 5: Cash Management Practices:</b>		
– Facets of Cash Management and motives for holding cash; cash planning – cash forecasting and budgeting – short-term cash forecasts and long-term cash forecasting; determining the optimum cash balance; investing surplus cash in marketable securities; cash management practices in start-ups and SMEs		
<b>References:</b>		
<ol style="list-style-type: none"> <li>1. Pandey I M, Financial Management, Vikas Publications, New Delhi</li> <li>2. M Y Khan and P K Jain, Financial Management, McGraw Hill, New Delhi</li> <li>3. Prasanna Chandra, Financial Management, McGraw Hill, New Delhi</li> <li>4. Damodaran, Corporate Finance, Wiley Publications, New Delhi</li> <li>5. Brealey, Myers, Allen and Mohanty, Principles of Corporate Finance, McGraw Hill, New Delhi</li> </ol>		

6. Ross, Westerfield, Jaffe and Kakan, Corporate Finance, McGraw Hill, New Delhi
7. Brigham and Ehrhardt, Financial Management – Theory and Practice, Cengage, New Delhi

<b>Paper Code and Name</b>	<b>DP63T202 Entrepreneurial Finance - II</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand the concept of Mentor financing, Angel financing,
CO 2	Knowledge about Crowd funding
CO 3	Learn concept relating to seed financing structure and mezzanine debt, mezzanine tools and Revenue-based Financing
CO 4	Develop knowledge on investment in private equity categories

<b>DP63T202 Entrepreneurial Finance - II</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Mentor Financing:</b>	
What do mentors do? Characteristics of good mentor; how to find a mentor; what to look for in a mentor; nurturing the mentoring relationship, learning from a mentor through apprenticeship	12 Hours
<b>Unit 2: Angel Financing:</b>	
Meaning and Significance of angel investing; characteristics of business angels; etymology and origin; source and extent of funding; investment profile; superangel – meaning and features; useful tips on getting funds from business angels	8 Hours
<b>Unit 3: Crowd Funding:</b>	
Meaning, history and types of crowd funding; reward based equity, software value token, debt-based, duration based; role of crowd funding; platforms – meaning and services; significant campaign; benefits and risks involved in crowd funding; crowd sourcing – definition and historical examples	6 Hours
<b>Unit 4: Seed Financing :</b>	
Meaning, usage and significance;; seed capital v/s venture capital; Mezzanine Financing – Meaning and structure; uses; mezzanine debt; mezzanine tools; Revenue-based Financing or Royalty-Based Financing (RBF): Meaning and history; RBF v/s	

bank financing; working of RBF, application of RBF; RBF qualifications and application process; RBF v/s venture capital; pros and cons of RBF; RBF v/s conventional loans	
<b>Unit 5: Private Equity and Buy Outs:</b>	
Meaning and key features; history and development; investment in private equity categories – investor categories; direct v/s indirect investment; private equity market; private equity v/s hedge funds; private equity in the 1980s, 1990s and in 2000s; Buy-outs – meaning, history and role of buyouts in financing start-ups; variations in buyouts – LBOs, MBOs, Buy and Built, Recaps, Secondary Buyouts; Public to Private; issue of high risk bonds (junk bonds); restrictions on issue of junk bonds; growth of junk bonds market the world over	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Marco Da Rin and Thomas Hellman, Fundamentals of Entrepreneurial Finance, Oxford University Press, Oxford</li> <li>2. Simon Hulme and Chris Drew, Entrepreneurial Finance, Red Globe Press.</li> <li>3. Phillip Adelman and Alan Marks, Entrepreneurial Finance, Pearson, New Delhi</li> <li>4. Chris Leach and Ronald Melicher, Entrepreneurial Finance, Cengage, New Delhi.</li> <li>5. Smith J K, Smith R L and Bliss R T, 2011, Entrepreneurial Finance: Strategy, Valuation and Deal Structure, Stanford, Stanford University Press, 2011.</li> <li>6. Abor J Y, Introduction to Entrepreneurial Finance, Palgrave Macmillan</li> <li>7. Klonowski, Strategic Entrepreneurial Finance: From Value Creation to Realization, Routledge</li> <li>8. Alhabeeba M J, Entrepreneurial Finance: Fundamentals of Financial Planning and Management for Small Business, Hoboken, New Jersey</li> <li>9. Frank J Fabozzi, Entrepreneurial Finance and Accounting for High-Tech Companies, MIT Press</li> </ol>	

<b>Paper Code</b>	<b>DP63T203 Capital Market Financing of SMEs</b>
<b>and Name</b>	
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand the concepts of SMEs Financing
CO 2	Develop linkages between SME equity markets, SME listing in IPOs,BSE and NSE market
CO 3	Equip in individuals to get knowledge about Debt market

CO 4	Broden the understanding of basic and advanced knowledge about SEBI
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DP63T203 Capital Market Financing of SMEs		Teaching Hours (Max. 64)
<b>Unit 1: Introduction to SMEs Financing:</b>		
Meaning and functions of capital markets; Capital market and its constituents; need and significance of capital market financing; sources of financing MSMEs; problems involved in raising funds in capital market; SMEs Capital Markets – meaning and historical background; types of SME capital markets – exchange market – domestic market and international market; non-exchange market form – OTC market; market for unlisted SME shares.		12 Hours
<b>Unit 2: SME Equity Markets:</b>		
Meaning and establishment of independent SME stock exchanges; Alternative Investment Market (AIM); platform; board; SMEs Stock Exchanges in India by BSE and NSE – establishment, objectives and functioning; challenges involved in development of SME stock exchanges		8 Hours
<b>Unit 3: Benefits of SME Listing:</b>		
SEBI norms for listing; eligibility criteria; modes of listing, difference from main board listing; global comparison; SMEs and IPOs – listed SMEs and Current IPOs; standardised lot size for SME exchange; SME listing agreement; direct listing on BSE SME Platform; migration from SME Exchange to main board		6 Hours
<b>Unit 4: SMEs Debt Market :</b>		
meaning and historical background; need and significance; types of SMEs Bond Instruments – SME collective note, SMEs joint bond and SME private placement bond		
<b>Unit 5: Regulatory Structure:</b>		
Need and significance of regulatory structure – SEBI (Issue of Capital and Disclosure Requirement) Regulation 2009 (SEBI ICDR Regulations); ICDR Regulations applicable to SMEs; market makers obligations; market makers and SEBI guidelines		
<b>References:</b>		
<ol style="list-style-type: none"> <li>1. Simon Hulme and Chris Drew, Entrepreneurial Finance, Red Globe Press.</li> <li>2. Phillip Adelman and Alan Marks, Entrepreneurial Finance, Pearson, New Delhi</li> <li>3. Frank J Fabozzi, Entrepreneurial Finance and Accounting for High-Tech Companies, MIT Press</li> <li>4. Chris Leach and Ronald Melicher, Entrepreneurial Finance, Cengage, New Delhi.</li> <li>5. Smith J K, Smith R L and Bliss R T, 2011, Entrepreneurial Finance: Strategy, Valuation and Deal Structure, Stanford, Stanford University Press, 2011.</li> <li>6. Abor J Y, Introduction to Entrepreneurial Finance, Palgrave Macmillan</li> <li>7. Klonowski, Strategic Entrepreneurial Finance: From Value Creation to Realization, Routledge</li> <li>8. Alhabeeba M J, Entrepreneurial Finance: Fundamentals of Financial Planning and</li> </ol>		

Management for Small Business, Hoboken, New Jersey  
 9. Marco Da Rin and Thomas Hellman, Fundamentals of Entrepreneurial Finance, Oxford University Press, Oxford

<b>Paper Code and Name</b>	<b>DP63T204 Start-Up Valuation Methods</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Develop professional who can be involved in regulation and process of valuation of start-ups.
CO 2	Develop the knowledge about discounted cash flow methods of start-up models.
CO 3	Broden the understanding of basic and advanced other valuation methods.
CO 4	Develop and implement Real World Start-up Valuation Models
CO 5	Understand Entrepreneurs' Perspective on Value and opportunity Cost and choosing entrepreneurship

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>	
Concept and objectives of valuation; business valuation – meaning and objectives; foundations of new venture valuations – myths about new venture valuation; challenges involved in valuation of start-ups; overview of valuation models	12 Hours
<b>Unit 2: Valuation in Practice :</b>	
Criteria for selecting start-up valuation models; implementing the continuing value concept; Discounted Cash Flow Methods – meaning and measurement of cash flows; two stage and three-stage growth models; free cash flow to equity models; free cash flow to all stakeholders and adjusted present value approach; excess return models – economic value added; capital structure and firm value	8 Hours
<b>Unit 3: Other Valuation Methods :</b>	
Relative Valuation Methods – earnings multiples; book value or replacement value, revenue multiples; the Berkus Method, Scorecard Valuation Method; Cost-to-Duplication Method; Risk Factor Summation Method; Venture Capital Method; First	6 Hours

Chicago Method	
<b>Unit 4: Real World Start-up Valuation Models :</b>	
Standard Earnings Multiple Method; Human Capital Plus Market Value Method; Exit Method, Customer-Based Valuation Model; Comparison Valuation Method; Combo Platter Method; etc	
<b>Unit 5: Entrepreneurs' Perspective on Value:</b>	
Opportunity Cost and choosing entrepreneurship; entrepreneur as on under diversified investor; factors influencing entrepreneurs cost of capital; valuing partial commitment investment; implementing partial commitment; short cuts and extensions; benefits of diversification	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Murat Akkaya, Start-Up Valuation: Theories, Models and Future,</li> <li>2. Antonella Puca, Early Stage Valuation, Wiley Publications, New Delhi.</li> <li>3. Christopher Mercer and Travis Harms, Business Valuation – An Integrated Theory, Wiley Publications, New Delhi.</li> <li>4. Ashwath Damodaran, Damodaran on Valuation, Wiley Publications, New Delhi</li> <li>5. Palepu, Healy and Bernard, Business Analysis and Valuation, Cengage Learning, New Delhi</li> </ol>	

<b>Paper Code and Name</b>	<b>DP63T205 Cost Accounting for Entrepreneurs</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Understand the knowledge of managerial applications of cost accounting
CO 2	Design different classifications of cost accounting
CO 3	Broaden management understanding of analysis and measurement of cost management techniques.
CO 4	Design a suitable method for accounting of cost in organisations
CO 5	Generate effective cost management reports to serve managerial decision making relating to budgetary control and standard costing

PARTICULARS	Teaching Hours (Max. 64)
<b>Unit 1: Introduction:</b>	
Concept of Cost Accounting – meaning, nature and characteristics; functions of cost accounting; managerial applications; financial accounting v/s cost and management accounting; techniques of cost accounting	12 Hours
<b>Unit 2: Cost Concept and Classification;</b>	
meaning of cost and classification – element-wise, behaviour, functional, traceability, controllability, etc., managerial classification of cost – implied or opportunity cost, sunk cost, etc., managerial uses of cost classification in start-ups and SMEs	8 Hours
<b>Unit 3: Product/Service Costing Methods and their applications in start-ups and SMEs:</b>	
concept of output, job and operating costing methods – cost accumulation, analysis and measurement of unit cost; process costing – features, computation of gain or loss and measurement of unit cost	6 Hours
<b>Unit 4: Marginal Costing and Break-even Analysis :</b>	
meaning, nature and assumptions of marginal cost; marginal costing v/s absorption costing; marginal costing equation; managerial applications of marginal costing; break-even analysis – meaning, nature and assumptions, contribution margin ratio and managerial applications of breakeven analysis; merits and demerits of marginal costing	
<b>Unit 5: Budgetary Control and Standard Costing Techniques :</b>	
Concept of budget and budgetary control; budget process; preparation of various functional budgets and variance analysis; flexible budgeting; standard costing system – concept of standard cost and standard costing; developing cost standards for various elements of cost and analysis of variances; application in start-ups and SMEs	
<b>References:</b> <ol style="list-style-type: none"> <li>1. S P Jain and K L Narang, Advanced Cost Accounting, Kalyani Publishers Ludhiana</li> <li>2. M N Arora, Cost Accounting, Vikas Publications, New Delhi</li> <li>3. S N Maheswari, Cost and Management Accounting, Sultan Chand, New Delhi</li> <li>4. Babatosh Banerjee, Cost Accounting – Theory and Practice, Prentice Hall, New Delhi.</li> <li>5. Ravi M Kishore, Cost Accounting, Taxmann Publications, New Delhi</li> <li>6. Colin Drury, Cost and Management Accounting, Cengage, New Delhi.</li> <li>7. Horngren, Foster and Datar, Cost Accounting: A Managerial Emphasis, Prentice Hall, New Delhi.</li> </ol>	

<b>Paper Code and Name</b>	<b>PH63T101 Research Methodology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Develop knowledge base in identifying relative advantages of alternative research method.
CO 2	Develop intellectual abilities of designing research scheme suiting conflicting stakeholder interest.
CO 3	Equip abilities of designing and developing alternative models of data manipulation.
CO 4	Enhance abilities of data analysis and interpretation.
CO 5	Build acumen of effective report preparation and presentation.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Research Methodology: An Introduction</b>	
Meaning objectives and types of research significance of research basics of applied research Social Science Research and difficulties research process criteria of good research	12 Hours
<b>Unit 2: Sampling Techniques &amp; Its Methods:</b>	
Meaning and significance nature of sampling population v/s sampling, sampling size sampling frame cluster sampling methods of sampling probability sampling simple random sampling stratified random sampling cluster Sampling and multistage sampling and non probability sampling deliberate sampling convenience sampling snowball sampling find quota sampling sampling error	8 Hours
<b>Unit 3: Research Methods:</b>	
Introduction experiment and surveys collection of primary data difference between questionnaire and schedule methods of data collection Primary and secondary observation experimentation interviewing surveys are questionnaires content analysis methods of collecting secondary data Tools and techniques	6 Hours
<b>Unit 4: Hypotheses Testing:</b>	
Meaning of hypothesis and reason for developing hypothesis null and alternative hypothesis hypothesis framing Type 1 and type 2 error level of significance procedure for hypothesis testing power of testing limitation of the test of hypothesis	
<b>Unit 5: Interpretation and Report Writing:</b>	
Meaning of interpretation techniques of interpretation report writing and its significance process of report writing layout of the Research report types of reports.	
<b>References:</b>	
1. CR Kothari and Gaurav Garg ,Research methodology New Age International Publication New Delhi 2. 2.Ranjeet Kumar research methodology of sage Publication-2005	

<b>Paper Code and Name</b>	<b>PH63T102 CONTEMPORARY ISSUES IN BUSINESS RESEARCH</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO1	Identify relative advantages of alternative data source.
CO 2	Design effective means of measuring event performance.
CO 3	Design the effective methods of measuring operating performance.
CO 4	Develop intellectual abilities of incorporating econometric models in business research.
CO 5	Optimise the use of alternative econometric test to enhance the quality of research reports.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction:</b>	
Meaning , nature and managerial value or business research, applied and basic business research, types of business research -explorative, descriptive, causal. experiments, Stages In the business research; contemporary research issues in business - procurement. operations, marketing, HR, finance, Governance. etc Formulation of business research problem	12 Hours
<b>Unit 2: Sources of data in business research:</b>	
Primary sources or Data sampling size of sample and response rate types of sampling techniques sampling error case studies need and significance silent features of effective interview schedule and questionnaire development of interview schedule and questionnaires rating scale field studies types of secondary data time series data cross section data longitudinal of micro panel data sources of secondary data internet government Agencies International Agencies private organisation or an individual accuracy of data measurement scale of variables ratio scale interval scale ordinal scale nominal scale	8 Hours
<b>Unit 3: Financial Analysis Tools:</b>	
Financial data adjustment development of trends and percentage as common size and comparative financial statements nature and classifications of financial ratios measuring operating performance return on cash adjustment acids return on sales return on market value of assets cash flow return on assets use of percentage change to detect at normal operating performance I am adjustment and inflationary adjustment ratio DU point analysis, Measurement of financial productivity ratio analysis in service sector banks spread analysis and car Carmel analysis ratio analysis in insurance power transportation hospitals educational institutions detecting abnormal operational performance	6 Hours
<b>Unit 4: Event Study Methodology :-</b>	
Concept and Significance of event studies; announcement and estimation period, model specification and computation of stock returns in the short run; detecting long run abnormal stock returns-long run CAR, Three factor model and	

BHAR model; control-" approach, calendar time approach; scope and intercept estimation; AAR and CAR testing significance; standardised AA (SAR)	
<b>Unit 5: Basics of Econometrics :</b>	
Meaning and importance of Econometrics; types of econometrics; methodology of econometrics; application of regression analysis to business research - some basic ideas of two-variable and three-variable models; multiple regression analysis - meaning and its assumptions; meaning of dummy variable, multi-collinearity, heteroscedasticity and autocorrelation; panel data regression models	
<b>References:</b> <ol style="list-style-type: none"> <li>1. Damodar Gujarati, Dinesh Porter and Sangeetha Gunasekar, BASIC Econometrics, McGraw Hill, New Delhi.</li> <li>2. George Tsiros Schleifer, Essential of Financial Analysis. John Wiley Publications. New Delhi</li> <li>3. Frank Fabozzi, Financial Management and Analysis, Wiley Publications, New Delhi</li> <li>4. Robert C Higgins, Analysis for Financial Management, McGraw Hill, New Delhi.</li> <li>5. Simon Benninga, Financial Modelling. MIT Press, New York</li> </ol>	

# KARNATAK UNIVERSITY, DHARWAD



Regulations and Syllabus (Revised)

for

P.G. Department of Studies

M.A/M.Sc. IN CRIMINOLOGY AND FORENSIC  
SCIENCE

I to IV Semesters

Choice Based Credit System (CBCS)  
(New Scheme)



With effect from 2015- 2016  
(Revised 2018-19)

**KARNATAK UNIVERSITY, DHARWAD**  
**Department of Studies in Criminology and Forensic Science**  
.....

**Faculty Members**

01. Dr. G. S. Venumadhava  
M. A., M.Phil., Ph.D.

Associate Professor  
&  
Chairman

02. Dr. Dinesh J. Narayankar  
M. A., M.Phil., Ph.D. (LL.B (Spl))

Assistant Professor

03. Dr. Tanushri N. Anchan  
Ph.D.

Assistant Professor

M.A.,

## Course: Post Graduation in Criminology and Forensic Science

**Objectives of the Course:** The course is designed to acquaint students with the nature of Crime and its treatment & prevention. In recent years, the concept of crime has undergone considerable change. Sophisticated methods have been designed by unscrupulous members of society to commit crimes.

The perpetrators of crime include persons in high places, public officials, criminal gangs who have come on the scene which indulge in smuggling, illegal human trafficking and drugs, boot legging, book making, child abuse etc., communal disturbances leading to the large scale destruction of life and property have become quite common. These developments have necessitated a re-examination of our pre-conceived notions regarding causes of crime and methods used for its prevention and control.

The course dwells on the methods of punishment and their efficacy and examines several alternatives to imprisonment, like probation, conditional release, parole and communication of sentences.

Further, it would help them to avail all options to inculcate those areas of knowledge in the day-today police work.

Indeed, the need to pursue the constitutional and legally ordained tasks by the police in a systematic and scientific manner is most felt in the area of Crime Investigation and it is here that the police outfits have to put the knowledge and skill of science in the process of gathering evidence towards upholding the rule of law.

There is a great need to infuse amongst them the urge to invoke science in all their role and goal endeavors and to make them realize that application of scientific style is not only the correct and valid procedure besides being simpler and humane. From that desirable angle the theme of the seminar becomes very relevant.

With that noble objective in mind, we thought that it would be proper as well as appropriate that selected cases of investigation where science was full availed and further the variety and sweep of science must be brought to the knowledge of the layman, besides focusing the attention amongst the public the significance of the issue.

Innovative urge coupled by methodical way of analyzing facts and materials available, reconstructing a crime scene has been getting an increasingly firmer and reliable foundation and thus we have the application of science to the enforcement of Rule of Law.

Illustrations and so many other details so provided, it will enthuse especially the investigation personals at various levels in the state to emulate the ideas and inculcate a real and lasting urge to tackle all their crime detecting tasks by applying all available strategies and methods of investigation.

Further, it is also necessary to infuse amongst the common people the awareness of the subject especially with regard to preserving the scene of crime as such a step helps immensely in crime fighting.

Projects are especially designed for students to focuses on the natural phenomenon in the society and alternative means to reciprocate them in proper way.

The objective is to develop among students a greater understanding of social costs of crime and the effective ways of lessening them.

SUMMARY OF THE CREDITS FOR THE COURSE OF MASTER'S IN CRIMINOLOGY AND FORENSIC SCIENCE

SEMESTER-I

NO.05	COMPULSARY COURSES	20	CREDITS
NO.NIL	SPECIALIZATION COURSES	00	CREDITS
NO.NIL	OPEN ELECTIVE COURSES	00	CREDITS
PRACTICALS -----□		04	CREDITS

SEMESTER-II

NO.04	COMPULSARY COURSES	16	CREDITS
NO.NIL	SPECIALIZATION COURSES	00	CREDITS
NO.01	OPEN ELECTIVE COURSES	04	CREDITS
PRACTICALS -----□		04	CREDITS

SEMESTER-III

NO.04	COMPULSARY COURSES	16	CREDITS
NO.02	SPECIALIZATION COURSES	04	CREDITS
NO.01	OPEN ELECTIVE COURSES	04	CREDITS
FIELD WORK & INTERNSHIP/BLOCK PLACEMENT □		04	CREDITS

SEMESTER-IV

NO.05	COMPULSARY COURSES	20	CREDITS
NO.02	SPECIALIZATION COURSES	04	CREDITS
NO.NIL	OPEN ELECTIVE COURSES	00	CREDITS
PROJECT WORK -----□		04	CREDITS
TOTAL CREDITS-----□		104	CREDITS

**SEMESTER WISE CREDIT DISTRIBUTION**

CATEGORY	MINIMUM CREDIT TO BE COVERED				TOTAL CREDITS
	SEM-I	SEM-II	SEM-III	SEM-IV	
COMPULSARY SUBJECTS (THEORY)	20	16	16	20	72
COMPULSARY SUBJECTS LAB BASED PRACTICALS &FIELD BASED PRACTICALS (LOCAL INSTITUTION VISITS/ INTERNSHIP/ BLOCK PLACEMENT/ PROJEC WORK)	04	04	04	04	16
SPECIALIZATION SUBJECTS	--	--	04	04	08
OPEN ELECTIVE COURSES	--	04	04	--	08
TOTAL	24	24	28	28	104

KARNATAK UNIVERSITY DHARWAD  
Syllabus of M.A. /M.Sc. in Criminology and Forensic Science

Semester System Course under the Choice Based Credit Scheme (KU-CBCS)

With effect from 2015-16 onwards;

GENERAL REGULATIONS

1. Eligibility condition: students who seek admission to the M.A. /M.Sc degree in Criminology and Forensic Science must possess any degree of this University or any other recognized university as equivalent there to by this university shall be eligible for admission to post-graduate programmes under the K.U.CBCS Scheme, provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the university and as per ordinance.
2. The M.A. /M.Sc. Semester under CBCS in Criminology and Forensic Science degree course extends for a period of two years [4-semesters]. There will an examination at the end of the each semester.
3. In order to eligible for the M.A./ M.Sc degree course a candidate has to complete the prescribed semesters under CBCS Study, including theory, practical's, internship/block placement, field work, projects etc for a duration of two years.
4. Medium of instruction shall be English for all the subjects in M.A. / M.Sc Criminology and Forensic Science course.
5. There shall be three categories of courses viz. Compulsory course, Specialization course and Open elective course. Compulsory and Specialization courses are from the P.G. department of Criminology and Forensic Science. The open electives are the courses offered for the other Social Science department students.
6. There shall be internal assessment for each paper of 25 marks for each semester and practical's also.
7. Each compulsory, specialization and elective course will have four credits. At the end of the 4<sup>th</sup> semester student has to undertake project work / dissertation of the fieldwork done.

8. The student shall register for minimum of 22 credits and maximum of 26 credits per semester. The student has to clear the minimum credits per semester.
9. Evaluation of Field-Work and Internship/Block Placement shall be done on the basis of reports submitted by the students, and the receiving supervisor from the faculty allotted to the students, besides the viva-voce examination held at the end of the IIIrd semester.

A maximum of 25 Marks (10+12+3 for tests and attendance) is awarded for Internal Assessment. The concerned faculty supervisor, to whom the students are assigned, shall assess the performance of the students and allot the internal assessment marks for the Field Visit. The remaining 25 Marks shall be allotted to the report submitted regarding the details of the institutions visited.

Completion of an internship with any Criminology or Forensic Science affiliated institution is compulsory. This internship has to be undertaken by the students at the end of M.A/M.Sc II semester [During Vacation]. A detailed report of the internship undertaken along with the certification of the institution the student worked for, should be submitted to the Chairperson of the department which shall carry 25 marks. The intake capacity for the M.A. / M.Sc semester CBCS course is 20 students every year. Enhanced payment seats will be available as per the university rules.

10. The intake capacity for the M.A. / M.Sc semester CBCS course is 20 students every year. Enhanced payment seats (10) will be available as per the university rules.
11. The students shall be considered to have satisfied the requirement of attendance if he/she has attended not less than 75% of total number of classes held till the end of the semester. Each paper shall be taken as a unit for calculating the attendance. Each student will have to sign his/her attendance for every hour of teaching in each paper. The course teacher shall submit monthly attendance report to the Chairman at the end of every month. The Chairman of the Department shall notify the attendance of every student on the notice Board of the Department during the second week of subsequent month. The Chairman of the Department shall send the attendance information to the Registrar from time to time, at the end of every month and end of the every semester, the detailed statement of attendance. In order to encourage regularity in attendance a maximum of three marks shall be awarded to the students as shown below.

Marks for Attendance in each Paper / Course.

Percentage of Attendance	Internal Assessment Marks
Above 90	03 Marks
Above 80 & up to 90	02 Marks
Above 75 & 80	01 Marks

Below 75	No Marks
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Note: If the fraction is more than 50, the percentage of attendance shall be rounded off to the next higher number.

If student do not satisfy the requirement attendance of 75% in each paper they shall not be permitted to appear for the semester end examination. Such candidates may seek admission fresh to the given semester  
Evaluation:

Evaluation of the papers will have two components

I) Internal Assessment and II)  
Semester end Examination.

Internal assessment shall consist of two components

Two written tests 10+12 Marks each = 22 Marks

Attendance = 03 Marks

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25 Marks

01. Attendance rules for granting semester terms as per the rules of the university.
02. Fees, Application form for admission scholarship, Library and Cultural activities as per rules of the university.

**POST GRADUATE PROGRAMME- CHOICE BASED CREIT SCHEME (CBCS)**  
**M.A. /M.Sc. in Criminology and Forensic Science**  
**Course outline**

<b>PG33</b>	<b>MA/MSc - CRIMINOLOGY &amp; FORENSIC SCIENCE</b>
<b>Programme Specific Outcomes</b>	
After graduating from the programme students can	
PSO 1. identify the key stages of criminology and criminal justice processes, and at each stage, locate the core institutions involved and the key roles performed by those who inhabit them.	
PSO 2. summarize and differentiate the major theories about crime, criminalization, and victimization. Correction and punishments, then apply theories to critically analyze contemporary injustices.	
PSO 3. describe the differences between popular perceptions of criminal justice institutions and the lived realities of victims, criminals, and justice workers, criminogenic needs of offenders correction.	
PSO 4. recognize how social forces affect the perception and pursuit of justice in India and around the world, factors contributing to commission of crime, preventive measures of crime.	
PSO 5. critically assess how power and privilege impact law making and law enforcement, nepotism politicians and people in higher socio economic status.	
PSO 6. use criminological and forensic theories, methods, or investigative techniques to assess patterns of crime, criminalization, and victimization and to establish justification for a course of action.	
PSO 7. through written or oral communication, describe differential impacts on diverse members of society and provide sustained, focused justifications for the value of diversity for a more just society. Determines cause for offences through scientific evaluation of crime.	
PSO 8. Apply the Laboratory skills to participate in the career needs of Forensic community. Become trained in the laboratory skills of different division of Forensic Science. Be able to work with different Research & Development organizations across the world.	
PSO 9. apply collaborative skills, ethical reasoning, analytic skills, research technique and knowledge about crime to address an injustice, and advance causes of justice	
PSO 10. pursue advanced professional training and/or a meaningful justice-related career in law enforcement agencies, private detectives, forensic science laboratory, vigilance department, legal advocacy etc.	

Semester – I

Course code	Subject Detail	Marks IA	Max Marks	Total Marks	Hrs/Week	Credits
	Compulsory Subjects					
PG33T101	Criminology	25	75	100	4hrs	4
PG33T102	Theories of Crime	25	75	100	4hrs	4
PG33T103	Forensic Science	25	75	100	4hrs	4
PG33T104	Research Methodology	25	75	100	4hrs	4
PG33T105	Criminal Justice System & Juvenile Justice System	25	75	100	4hrs	4
PG33P106	Lab based Course (Practical's) Forensic Science	25	75	100	8hrs	4
	Total Marks/Credit for I Semester	150	450	600	28hrs//Week	24

Semester –II

Course code	Subject Detail	Marks IA	Max Marks	Total Marks	Hrs/Week	Credits
	Compulsory Subjects					
PG33T201	Contemporary Crimes	25	75	100	4hrs	4
PG33T202	Police Administration & Police Science	25	75	100	4hrs	4
PG33T203	Forensic Medicine & Toxicology	25	75	100	4hrs	4
PG33T204	Statistical Methods	25	75	100	4hrs	4
PG33P205	Lab Based Course (Practical's) Police Science	25	75	100	8hrs	4
	Open Elective Course					
PG33T206O	Introduction to Police Science	25	75	100	4hrs	4
	Total Marks/Credits for II Semester	150	450	600	28hrs/week	24

## Semester – III

Course code	Subject Detail	Marks IA	Max Marks	Total Marks	Hrs/Week	Credits
	Compulsory Subjects					
PG33T301	Forensic Psychology	25	75	100	4hrs	4
PG33T302	Crime Against Women & Children	25	75	100	4hrs	4
PG33T303	Penology & Correctional Administration	25	75	100	4hrs	4
PG33T304	Forensic Documents	25	75	100	4hrs	4
	Field Based Course					
PG33F305V	Local Institutional Visits&Internship/Block Placement	25	75	100	6hrs	4
	Specialization Paper	-	-	-	-	-
PG33T306SA	Fingerprints OR	25	75	100	4hrs	4
PG33T306SB	Corporate Crimes	25	75	100	4hrs	4
	Open Elective Course					
PG33T307O	Fundamental of Forensic Science	25	75	100	4hrs	4
	Total Marks/Credits for III Semester	175	525	700	30Hrs/Week	28

## Semester – IV

Course code	Subject Detail	Marks IA	Max Marks	Total Marks	Hrs/Week	Credits
	Compulsory Subjects					
PG33T401	Forensic Ballistics	25	75	100	4hrs	4
PG33T402	Criminal Law	25	75	100	4hrs	4
PG33T403	Victimology & Victim Assistance	25	75	100	4hrs	4
PG33T404	Private Detective & Security Management	25	75	100	4hrs	4
PG33T405	Cyber Crimes& Cyber Laws	25	75	100	4hrs	4
	Specialization Paper					

PG33T406SA	Investigative Journalism OR	25	75	100	4hrs	4
PG33T406SB	Human Rights	25	75	100	4hrs	4
PG33F407D	Dissertation	25(viva)	75(report)	100	6hrs	4
	Total Marks/Credits for IV Semester	175	525	700	30Hrs/week	28

PG33T101	SEMESTER - I
CRIMINOLOGY	
Course outcomes	
<p>After successfully completing this course students</p> <p>CO 1. are able to use and understand the subject matter of criminology</p> <p>CO 2. have a general understating regarding evolution of the criminology, criminal law and crime</p> <p>CO 3. are able critically evaluate trends in crime</p> <p>CO 4. have begun to think critically about cause for crime and preventive measures and role of society, family and law endorsement in prevention of criminal activities.</p> <p>CO 5. understand the basic details of various aspects of criminology and criminal justice.</p>	

PG33T101	CRIMINOLOGY
Unit – I: Introduction of Criminology	
a. Definition of criminology: Social, psychological and legal approaches.	
b. Nature & scope of criminology.	
c. Relation with other social sciences.	
d. Relevance of criminology to contemporary society.	
Unit – II: Introduction of Crime	
a. Meaning, Definition & Nature of crime.	
b. Crime in: Ancient, Medieval society & Modern society	

c. Characteristic of Crime; Crime, Sin and Vice
d. Classification of Crime
i. IPC
ii. Statistical
iii. American
iv. British Common Law
Unit – III: Criminal
a. Meaning & Definition
b. Classification
i. Cesare Lombroso
ii. M.J .Sethna
iii. Havelock Ellis
iv. Handerson

c. Types of Criminals- General Idea
i. Professional Criminals
ii. Habitual Criminals
iii. White Collar Criminals
Unit – IV: Crime Trends
a. NCRB and its role
b. Crimes under Special and Local Law
c. Crimes against Person
d. Crimes against Property
e. Crimes against weaker section with special reference to Women and Children
Unit – V: Causes & Prevention of Crime

a. Causes of Crimes
i. Social Causes
ii. Psychological Causes
iii. Economic Causes
iv. Biological Causes
v. Geographical Causes and etc...
b. Prevention of Crimes
i. The role of Family
ii. The role of Society
iii. The role of Police
iv. The role of NGOs
Suggested Readings
1. Ahuja Ram, 2000, Criminology, Rawat Publications, New Delhi.
2. Barns H.E. and Teeters N. K. – New Horizons in Criminology, Prentice Hall of India Pvt. Ltd., New Delhi, 1966
3. Cavan R. S. - Criminology , Thomas Y. Crowell Company, New York, 1962
4. Paranjape N. V - Criminology and Penology, Central Law Publications, Allahabad, 2005
5. Reckless Walter C. – The Crime Problem, Vakils, Feffer and Simons Pvt. Ltd., Bombay, 1970
6. Sethana J. M. J. – Society and the Criminal, N. M. Tripathi Pvt. Ltd., Bombay, 1989
7. Siddique Ahmed – Criminology Problems and Perspectives, III Edn., Eastern Book Company, Lucknow, 1993.
8. Srivatsava S. S. – Criminology and Criminal Administration, Central Law Agency Allahabad, 2002
9. Sutherland Edwin H. and Crassey D.R.– Principles of Criminology, Times of India Press, Bombay, 1965

10. Vadakumchery James – Criminology and Penology, Kairali Book International, Trivandrum, 1983

PG33T102	SEMESTER - I
THEORIES OF CRIME	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand evolution and functions of schools of criminology and its pioneers.</p> <p>CO 2. will have a general understanding regarding different domains helping criminology to build up theories.</p> <p>CO 3. are able to analyze the role of criminological theories in evaluating crimes</p> <p>CO 4. will have better understanding regarding sociological theories, social process theories and radical approach in critical evaluation of crime.</p> <p>CO 5. gives a detailed background of theoretical evolution of crime and criminal behavior for a better comprehension of current crime prevention and deterrence techniques.</p>	

PG33T102	THEORIES OF CRIME
Unit- I: Pre-classical, Classical, and Neo-classical schools	
a. Pre classical ideas – Demonology.	
b. Classical theories – Ideas of Bentham and Beccaria.	
c. Neo - classical theories – Golly Garaud and Rossi	
Unit –II: Positivism in Criminology	
a. Morphological theories – Cesare Lombroso, Enrico Ferri, Rafael Garafalo.	
b. Biological theories – Family-Genetics. Chromosomes and Genes, Study of twins and family trees-Kallikas, Jukes.	
c. Anthropological theories – Kretschmer Constitution Hooton, Sheldon.	
d. Endocrinological Approaches.	
Unit -III: Sociological Theories	

a. Cartographic School- Adolf Quetlet, Peter Kropotkin.
b. Culture Conflict Theory – Thorsten Sellin.
c. Chicago School of Crime – Ecology of Crime – Social Disorganization, Crime, unemployment Poverty, Broken homes.
d. Social Structure and Anomie theory – Emile Durkhiem, Robert K Merton.
e. Social Learning – Differential Association Theory – EH Sutherland – Differential Opportunity, Differential Identification and White Collar crime
f. Containment Theory – Reckless and Denitz.
Unit -IV: Social Processes Theories
a. Labeling Theory – Edwin Lemert and Becker
b. Shame and Re-integrative Theory – Braithwite.
c. Rational Choice Theory – Cornis& Clarke
d. Routine Activity Theory – Cohen & Felson.
e. Psychological Theories – Psychoanalytical Theories, Personality Theories, Mental Retardation, Psychosis and Psychoneurosis.
Unit - V: Radical Approach
a. Development of Radical Criminology: Meaning, Scope and Relevance.
b. Left Radical View – Richard Quinney, Erickson
c. Critical Criminology – Tailor, Walton and Young.
d. Multi-Factor Approach
Suggested Readings
1. Ahuja Ram, 2000, Criminology, Rawat Publications.
2. Akers, Ronald. L and Sellers. Christine S, 2004 Criminological Theories Introduction, Evaluation and application, Roxbury Pub. Com.

3. Brien, Martin O, 2008, Criminology, Routledge Publishers.
4. Burke, Roger Hopkins 2003, Introduction to criminological theory Lawman (India) Pvt. Ltd.
5. Mamoria, C.B. 1961, Social Problems and Social Disorganization in India, Kitab Mahal Allahabad.
6. Paranjape N.V., 2009, Criminology and Penology, Central Law Publications.
7. Qadri, S.M.A. 2005, Criminology, Eastern Book Company.
8. Schmalleger. Frank, 1999, Criminal Justice today, Prentice Hall, New Jersey.
9. Siegal Larry, J. 2000, Criminology, Wadsworth Thomson Learning.
10. Sutherland E.H., 1968, Principles of Criminology (6th Edition), Times of India Press, Bombay.

PG33T103	SEMESTER - I
FORENSIC SCIENCE	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand the origin of forensic science as a subject of critical crime analysis. Will understand the different branches been helping hand for forensic science in probing crime.</p> <p>CO 2. will obtain knowledge regarding forensic science laboratories its functions and administration.</p> <p>CO 3. have a general understating regarding different types of body fluids and its medico legal importance. Gain knowledge regarding conclusive evidences like fingerprint and DNA.</p> <p>CO 4. are able to know the specification and difference between counterfeit and genuine currency notes its making process and its examination.</p> <p>CO 5. are able critically evaluate vocal anatomy related to speaker identification in ransom extortion and kidnapping cases.</p>	

## Unit –I: Introduction to Forensic Science

- a. Meaning, Definition, Scope, History and Development of Forensic Science.
- b. Pioneers in Forensic Science & their Contribution to the field of Forensic Science.
- c. Principles, Methods and Various Sections of Forensic Science Laboratory like,
- d. Forensic, Toxicology, Serology, Finger Print, Arson and Explosion,
- e. DNA Test, Document Analysis and Voice Examination a brief Explanation.
- f. State and Central Forensic Science Laboratories.

## Unit –II: Medico-Legal Importance of Body Fluids &amp; Hair Etc.

- a. Blood, Semen, Saliva and their tests.
- b. Inheritance of Blood Group and DNA tests.
- c. Identification and Traces of Human Hair and Structure.
- d. Identification and Traces of Animal Hair and Structure.
- e. Identification and Traces of Fiber, Paint, Soil, Cigarette and Beedi.

## Unit –III: Finger Print&amp; Foot Print

- a. History, Meaning and Develop of Finger Prints.
- b. Patterns, Ridges and Characteristics of Finger Prints and its Importance.
- c. Primary and Single Digit Classification, Counting and its Importance.
- d. Developing, Lifting, Comparison and Identification of Chance and Latent Finger Prints.
- e. Developing, Lifting, Comparison of Foot Print, Track Prints, Walking Picture, Surface and Sunken Foot Prints.
- f. Trace Marks, Skid Marks, Development, Lifting and Comparison.

## Unit –IV: Counterfeit Currency Notes

- a. Bank Note Printing : Lithography, Intaglio, Letterpress

b. Security features of Currency Notes
i. Substrate features      ii. Design features
iii. Ink features                  iv. Shiny features
c. Counterfeit Methods : Individual Working Method and Half Tone Technique
d. Examining Counterfeit Notes
i. Paper Examination
ii. Print Quality and Color
iii. Feature checks and Security marks
iv. Process to Detect Fake notes.
Unit –V: Speaker identification and Tape Authentication
a. Voice production theory- vocal anatomy, Speech signal processing & pattern recognition- basic factors of sound in speech, acoustic characteristics of speech signal,
b. Fourier analysis, frequency & time domain representation of speech signal, analogue to digital signal and conversion,
c. Fast Fourier transform, quantization, digitization and speech enhancement, analysis of audio-video signal for authenticity, Introduction to the techniques of pattern recognition and comparison
Suggested readings
1. Ashok. M, Naya Vignana Mattu Police Vignana. ( Kannada)
2. Brenner, John C, 2000, Forensic Science, An Illustrated Dictionary, CRC Press, USA.
3. Handbook of Forensic Science, Karnataka Police Academy.
4. Mordby, J Deed Reckoning – The Art of Forensic science Detection, CRC Press LLC, Boca Raton FL, CRC Press (2000)
5. Nabar, B. S. Forensic Science, (2000)
6. Nanda B. B, 2001, Forensic Science in India, Select Publishers, New Delhi.

7. Saferstein: Criminalistics – An Introduction to Forensic Science, Prentice hall Inc. USA 91995)
8. Sharma B R: Forensic Science in Criminal Investigation and trials. (2010)
9. Sharma, B. R. 1990, Forensic Science in Criminal Investigation and Trials, Central Law Agency, Allahabad.
10. Sharma, J. D., 1988, Forensic Science and Toxicology, Lawyers Home, Indore.

PG33T104	SEMESTER - I
RESEARCH METHODOLOGY	
Course outcomes	
After successfully completing this course students	
CO 1. are able to use and understand meaning and characteristics of criminological research. Including steps involving in underrating research.	
CO 2. have a general understating regarding types of research methods, formation of hypothesis and research design.	
CO 3. are able critically evaluate hypothesis testing and sample selection.	
CO 4. have begun to think critically about research report writing purpose and characteristics of a research report and research methodology.	
CO 5. are trained in managing research and analysis.	

PG33T104	RESEARCH METHODOLOGY
Unit – I: Introduction	
a. Meaning, Definitions, Nature, Scope, Characteristics, Purpose and Summary of Research	
b. Major Steps in Social Research	
c. Motivating factors of Social Research	
d. Natural and Social Science Assumptions	
e. Difficulties in the way of Social Research	
Unit –II: Scientific Attitude and Theory Formation	
a. Meaning and Definitions	
b. Theory Formation:	
i. Utility of Theory	
ii. Formation of Research Problems, Selecting of Topic, Place etc.	
iii. Inductive and Deductive Reasoning Theory	

c. Types of Research Methods
d. Types of Social Research Studies
Unit – III: Hypotheses and Research Design
a. Hypotheses: Meaning, Definitions, Importance, Characteristics, Types and Sources of Hypotheses
b. Difficulties in formulation of Hypotheses
c. Test of Hypotheses
d. Research Design: Introduction, Meaning, and Definitions
e. Types of Research Design
Unit – IV: Sampling
a. Meaning, Definitions, Importance of Sampling
b. Types of Sampling: Probability or Random Sampling and Non Probability Sampling, Precaution Sampling,
c. Advantages and Disadvantages of Sampling Methods
d. Characteristics of good sample
e. Merits and Demerits of Random Sampling Method
Unit – V: Report writing
a. Social Research Report Preparation
b. Purpose of the Report/Major Steps
c. Definitions, Contents of a Report
d. Characteristics of good Report
e. Types of Report Writing
f. Precautions, Conclusion
Suggested Readings

1. Bailey Carol A. 1996, A Guide to Field Research, Pine Forge Press, California.
2. Choudhary, C.M. 1998, Research Methodology, Sublime Publications, Jaipur
3. Coolican, Hugh, 1990, Research Methods and statics in Psychology, Hodder & Stoughton, London.
4. Hagan, Frank E, 1982, Research Methods in Criminal Justice and Criminology, Mamillian Co. New York.
5. M. Mood and Gravel, 2004, introduction to the theory of statics, Mc Graw Hill Book Company.
6. Maxfield, Michael G & Babbie, Earl, 2000, Research Methods for Criminal Justice and Criminology, 3rd edition, Wadsworth Thomson Learning.
7. Methods in Behavioral Research, 1981, Cozby, Paul C. Mayfield Publishing co., London.
8. Rubbin, Allenn& Babbie, Earl. 1993, Research Methods for Social Work, 2 <sup>nd</sup> , edition, Brooks/Cole Publishing Company, California.
9. Sessan, Klaus & Kerner, Hans Jurgen, 1991, Developments in Crime and Crime Control Research, German Studies on victims, Offenders and the Publi, Springer-Verlag Publications.
10. Spiegel R. Murray, 2004, Theory and Problems of statistics, Mc Graw Hill Book Company.

PG33T105	SEMESTER - I
CRIMINAL JUSTICE SYSTEM& JUVENILE JUSTICE SYSTEM	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand the evolution and types of criminal justice system</p> <p>CO 2. have a general understating regarding police administration, its hierarchy and objectives.</p> <p>CO 3. are able critically evaluate the functions of judicial system, correctional administration, prosecution and procedures of policy making.</p> <p>CO 4. Have better understating regarding juvenile justice system acts related to its functions, authorities for juvenile administration.</p> <p>CO 5. have begun to think critically about cause for youth deviance, alienation of youth and preventive measures for youth crime and recent trend in youth crime.</p>	

PG33T105 CRIMINAL JUSTICE SYSTEM& JUVENILE JUSTICE SYSTEM
Unit -I: Introduction to Criminal Justice System
a. Criminal Justice System: Meaning, Purpose and Social Relevance
b. Legislative Process and Criminal Justice System.
c. Historical Evolution – Overview of Criminal Justice Sectors National and International Perspective.
d. Accusatorial and Inquisitorial Systems of Criminal Justice System.
e. Co-ordination in Criminal Justice System.
Unit -II: Police System
a. Organization set up of Indian Police in Modern Society
b. Objective of Police System.
i. Maintenance of Law and Order
ii. Investigation of Crimes

iii. Protection of Life
iv. Production of Property Rights
v. Prevention of Crime
c. Functions of Police Organizations interface with the community, Executive, prosecution and judiciary. Police Image.

Unit -III: Judicial System & Prosecution System
a. Importance of judicial system in modern society.
b. Judicial Administration in India. Presiding Officer, Prosecutor and Defense Counsel.
c. Salient Feature of India Judicial System: Independence, Public and Fair Trial.
d. Fundamental Elements in Judicial Functioning: Due Process, Speedy Trials and Access to Justice.
e. Meaning, Purpose and Relevance of Prosecution
f. Prosecution Organization in the States
g. Relationship between Police and Prosecution
h. Prosecution in Lower Court and Prosecution in Appellate Court.
Unit -IV: Correctional System
a. Historical Development of Prison
b. Objectives of Imprisonment
c. Types of Prisons
d. Prison Organization in India
e. Modernization of Prisons
Unit -V: Juvenile Justice System& Children in need of Care and Protection
a. Salient features of JJ Act 2000 and Amended Act 2006. Model rules.
b. CWCs and JJBs

c. Institutions for Juveniles/children
d. The role of police with reference to children – SJPU, Child Welfare Officer.
e. Street Children & Child Labor
f. Child Abuse-physical, Psychological and Sexual
g. Child Trafficking & Children in Disturbed Areas-Identity, Livelihood
h. POCSO – Prevention of Children from Sexual Offences Act
Unit- VI: Children in Conflict with Law
a. Youth Deviance-Recent Trends-Pornography, MMS, Date Rapes, Ragging and Sexual Harassment.
b. Youth Violence-State Response-State Violence
c. Juvenile Gangs, Status Offence
d. Youth Alienation and Crimes
Suggested Readings
1. Ahuja Ram, 2000, Criminology, Rawat Publications, Delhi.
2. Albanese Jay S. 2000, Criminal Justice Allyn and Bacon.
3. Banerjee. D, 2005, Central Police Organizations Part I and Part II, Allied Publishers Pvt. Ltd.
4. Commonwealth Secretariat, 2002, Crime and Social Justice, London.
5. Introduction to Criminal Justice, Goodyear Publishing Company. Inc.
6. Mehrajud-din Mir. 1984, Crime and Criminal Justice System in India, Deepand Deep Publications, New Delhi.
7. Misra, K.K., 1887, Police Administration in Ancient India, K.K. Publications.
8. Paranjape NV, 2007, Criminology and Penology 2nd edition, Central Law Publications, Allahabad.
9. Sharma, P.D., 1985, Police and Criminal Justice Administration in India. Uppal Publishing House in Delhi.

10. Srivastava Aparna, 1999, Policing in the 21st Century, Indian Institute of Police Administration.

PG33P106	SEMESTER - I
LAB BASED PRACTICALS- FORENSIC SCIENCE	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to use and understand the practical application of forensic science in criminal investigation.</p> <p>CO 2. have a general understating regarding fingerprints, footprints and its types and classification and analytical methods.</p> <p>CO 3. are able evaluate the questioned documents and glass fracture examination methods in crime investigation.</p> <p>CO 4. have better understating regarding examination of currency notes, and methods of hair and fibers identification.</p> <p>CO 5. have begun to think critically about preliminary and confirmatory examination of blood sample and acquire knowledge about blood grouping.</p>	

PG33P106	LAB BASED PRACTICALS- FORENSIC SCIENCE
Simulated Crime Scene Exercise on:	
1. Finger Prints: Henry's Primary, Secondary, Sub-Secondary and Final Classification. Development of latent finger prints, Lifting, Preservation and Comparison of finger prints.	
2. Lifting and tracing footprints.	
3. Examination of Questioned Documents and Identification of Handwriting and Typescripts.	
4. Examination of Glass Fracture & tool marks	
5. Physical and instrumental examination of currency notes & coins.	
6. Morphological Examination of Hair and Fiber.	
7. Identification of Human and Animal Hair.	
8. Blood Test: Benzedine, Phenolphthalein, Haemin Crystal Test, Microscopic and Blood Grouping.	

*Evaluation of Practical Journal
** Viva-Voce

PG33T201	SEMESTER - II
CONTEMPORARY CRIMES	
Course outcomes	
After successfully completing this course students	
CO 1. are able to and understand the tends and types of economic crimes, organized crimes and its farms.	
CO 2. have a general understating regarding legislation for organized crimes, types of terrorism and its causes.	
CO 3. are able evaluate the effects of terrorism on society, acquire knowledge regarding cybercrime its nature and types.	
CO 4. have better understating regarding preventive measures of cybercrimes, and IT acts and legislative procedures for cyber criminals.	
CO 5. have begun to think critically about environmental crimes wild life protection and prosecution of criminals, and the role of police & public in prevention of contemporary crimes.	

PG33T201	CONTEMPORARY CRIMES
Unit – I: Economic Crimes	
a. Nature, Meaning and Forms	
b. Tax-Evasion	
c. Accounting Fraud & Money laundering	
d. Misbranding and Adulteration	
e. Corruption & Bribery	
f. NDPS Act	
Unit – II: Organized Crimes	

a. Meaning, definition, nature and forms of Organized Crime
b. Organized crime Syndicates.
c. Investigation prosecution and punishment of organized crime offenders
d. Relevant Legislations
Unit – III: Terrorism
a. Concept, Nature and Forms of Terrorism and Hijacking
b. Causes of Terrorism
c. Investigation, prosecution and punishment under Anti-Terrorism laws.
d. National and International linkages of Terrorism
Unit – IV: Cyber Criminology
a. Concept, Nature and Types of Cyber Crimes
b. Software Piracy
c. Cyber Attack, Identity Theft, Internet Fraud, Hacking, Spam, Cyber Terrorism: Technical and Legal aspects.
d. Prevention Strategies: Cyber Security, Awareness Generation, Detection, Reporting
e. Legal Measures: Prosecution and Sentencing
Unit – V: Environmental Crimes
a. Nature, Significance and Forms
b. Offence under Wild Life (Protection) Act.
c. Offence under Environment (Protection) Act.
d. Social and Legal Measures for Controlling Crime.
e. Green Bench
Suggested Readings
1. Chinnard, Marshall B, 1983, Corporate Ethics and crime, Sage Publications.

2. Clinard B and Yeager C Pater, 1980, Corporate Crime Mc Millan Publishing Co.
3. Gandhirajan CK, 2004, Organized Crime, A.P.H. Publishing Corporation, Delhi.
4. Ghosh Murari, 1979, Black Money: The case of India, Subarna Rekha, Calcutta.
5. Karnatak Organised Crimes (Prevention) Act (KOCA)
6. Lal Bhure, 2002, Terrorism Inc. The lethal Cocktail of ISI, Taliban and Ai, Qauda, Siddhart Pub.
7. Lyman, Michall D, and Potter, Gary W, 1997, Organized Crime, Prentice Hall, Inc. New Jersey.
8. Narang A.S and Srivastava, Pramila, 2001, Terrorism: The Global perspective Kaniska Publishors, Delhi.
9. Padhy, Prafullah, 2006, Organized Crime, Isha Books, Delhi.
10. Paranjapa NV, 2001, Criminology and Penology 2nd edition, Central Law Publication Allahabad.

PG33T202	SEMESTER - II
POLICE ADMINISTRATION & POLICE SCIENCE	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand the historical development of police, its role in contemporary India. CO 2. have a general understating regarding organization and hierarchy of police department. CO 3. are able appraise the training process and acts related to police administration, CO 4. have better understating regarding police investigation, procedures and powers of police. CO 5. have begun to think critically about police image, public opinion on police administration , community policing and the measures for easy administration of police.	

## Unit –I: Police Administration

- a. History of Police and Policing in Modern India
- b. Role of Police in Independent India
- c. Constitutional provisions regarding police in India

## Unit - II: Organization and Structure of Police

- a. Types of Police Organization
  - i. State Police
  - ii. Civil Police
  - iii. Armed and other branches
  - iv. District Police
  - v. Police Station
- b. Crime record statistics (State level and National level)
- c. International Co-operation in Police
- d. International Criminal Police Organization
- e. Police in Police Stations

f. Investigation under letter rogatory

g. Central Police Organizations

h. Police Reforms and Modernization

## Unit - III: Training and Orientation

- a. Recruitment and Training of Police
  - i. Police Act of 1861 – Recent State enactments
  - ii. Police Reforms in Independent India since 3rd National Police Commission
- b. Recommendations (NPC), 1979.

i. State Police Reform Commission
ii. National Police Commission Report : Dharma Vira
iii. Police Report in 1990s Riberio Committee Report,
iv. Padmanabaiah Committee Report,
v. NH Vohra Committee Report PIL by Sh. Prakash Singh (Ex DGP, BSF)
vi. Police establishment Board.
Unit - IV: Police Investigation: Procedures and Function
a. Recording of F.I.R, Case Diary, Charge Sheet and Dying Declaration.
b. Executive powers and duties of police officers in the investigation of crime
c. Inspection of Scene of crime, Sketching, Collection, Preservation and Transportation of Physical Clues to Expert.
d. Investigation of crimes and relations with Courts/Magistrate Specialties of Investigation.
i. Homicides
ii. Property Offences
iii. Crimes against women
iv. Economic Offences
v. Communal violence
vi. Custodial violence
e. Use of technology in crime investigation.
f. Citizen's rights during investigation.
Unit - V: Police Image
a. Dimensions of Police accountability in India
i. Courts
ii. Executive Magistrates
iii. State Government
iv. CAO

v. Citizens/Community
b. Police public relations in India and abroad
i. Peace Committee
ii. Village Police system
iii. Koban (Japan)
iv. Police Board (UK)
v. Sheriff (USA mode)
c. Participation of public in crime prevention
d. Programmes for redressal of Public grievances.
Suggested Readings
1. Banerjee, D, 2005, Central Police Organization, Part I & Part II, Allied Publishers. Pvt. Ltd.,
2. Doval Ajit and Lal BR, 2010, Manas Police Security Year Book 2010-2011, Manas Publications.
3. Earle Howard H. 1970, Police Community relations, Charles C. Thomas Publisher.
4. Ghosh Gautam, 2007 Police Accountability at the Cutting Edge Level, APH Publishing Corporation.
5. Gupta, Anandswarup, 2007, Crime and Police in India, Sahitya Bhavan, Agra.
6. Indian Police Journal published by Bureau of Police Research and Development.
7. James, Vadckumchery, 1998, Crime, Police and Correction, APH Publishing C., New Delhi.
8. Justice Mallimath Committee on Criminal Justice Reforms, Universal Law Pub, 2003.
9. Singh SoibamIbocha, 2007 Community Polciing, Akansha Publishing House, New Delhi
10. Srivastava Aparna, 1999, Role of Police in Changing Society, APH Publishing House.

PG33T203	SEMESTER - II
FORENSIC MEDICINE & TOXICOLOGY	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand and use the knowledge of forensic medicine , its legal importance.</p> <p>CO 2. have a general understating of wounds, injuries, types of death and its medico legal importance's.</p> <p>CO 3. are able appraise the types of poisons and roots of administering poison.</p> <p>CO 4. have better understating regarding effects of poisoning, function and fatal dose of poisons.</p> <p>CO 5. have begun to think critically about forensic medicine and toxicology in apprehension of criminal, investigation and evaluation methods.</p>	

PG33T203	FORENSIC MEDICINE & TOXICOLOGY
Unit - I: Forensic Medicine	
a. Meaning, Definition, Nature and Scope.	
b. Inquest Coroners, Magistrate and Police.	
i. Identification of Dead and Living Person.	
ii. Medico-Legal Autopsy.	
iii. Identification of Decomposed and Mutilated Bodies.	
iv. Super Imposition.	
Unit – II : Medico-Legal Importance of Wounds, Injuries and Death	
a. Types, Modes and Signs of Death.	

i. Medico-Legal Importance of Death.
ii. Medico-Legal Importance of Violent Deaths.
b. Wounds and Injuries, Meaning, Types
i. Medico-Legal Importance of Wounds and Injuries.
ii. Defense Wounds.
iii. Wounds and Injuries in Rape Cases.
c. Abortion and Infanticide, Meaning, Causes and Classification.
d. Determination of Age, Sex and Height through Bones.

e. Medico-Legal Laboratory Services.
Unit – III: Taxonomy of Poisons
a. Meaning, Definition, Nature, Scope, Medico-Legal Importance of Toxicology.
b. Classification of Poisons.
i. Corrosives ii. Irritants
iii. Inorganic iv. Mechanical
v. Organic vi. Neurotics, etc...
Unit – IV: Medico-Legal Importance of poisons
a. Routes of Administration and Elimination.
b. Actions of Poisons.
c. Factors Modifying the Actions of Poisons.
d. Evidence of Poisoning.
e. Antidotes and Stomach Wash Tube.
f. Isolation, Identification and Estimation of Poison from Viscera.
Unit – V: Function and Fatal Dose of Poisons
a. Characteristics of Poison, Fatal Dose, Fatal Period.

b. Post-Mortem Appearance and Analysis of the Following Poison (Autopsy Examination).	
i. Arsenic	ii. Opium
iii. Bhang	iv. Potassium Cyanide
v. Endrine	vi. Strychnous NuxYomica
vii. Snake Poison	viii. Pesticide
Suggested Readings	
1. Subrahmanyam B.V; Modi's Medical jurisprudence, Lexis Nexis butterworth, (1988)	
2. Byrd J H & Castner JL; Forensic Entomology, The utility of Anthopods in legal Investigation, CRC Press USA(2000)	
3. Catts E.P & Haskell NH; Entomology & death- A procedural guide, Joyce's print shop (1990)	
4. Dubey R. C.& D.K. Maheshwari, ; A text book of microbiology, S.Chand& company ltd, (2006)	
5. Gordon I & Shapiro H.A.; Forensic medicine, Longman group ltd., (1982)	
6. Guharaj P.V.& R. Chandran; Forensic medicine, Orient Longman Pvt ltd., (1982)	
7. Lahiri S.K.; Elements of medical jurisprudence, Prabasi press, (1973)	
8. Mant A.K.; Taylor's principles & practice of medical jurisprudence, Wingking Tong co. ltd., (2003)	
9. Nandy; Principals of forensic medicine, New central book agency, (1995)	
10. Rama Rao P.V.; Essentials of microbiology, CBS Publications, (2004)	

PG33T204	SEMESTER - II
STATISTICAL METHODS	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the knowledge of statistics in crime evaluation and criminological research. CO 2. have a general understanding of methods of data collection and interpretation of data. CO 3. are able to comprehend measures of central tendency and dispersion. CO 4. have better understanding regarding correlation, hypothesis and regression. CO 5. have begun to think critically about statistical methods in criminal investigation and case analysis, hypothesis testing and its importance.	

PG33T204	STATISTICAL METHODS
Unit – I: Introduction: Statistics and Data Collection	
a. Definition, Meaning and Scope	
b. Observation: Controlled Observation	
c. Simple / Un-Controlled Observation	
d. Participant Observation and Non Participant Observation	
e. Merits and De-Merits of Observation	
Unit – II: Methods of Data Collection	
a. Questionnaire Method: Definitions, Objectives, and Types	
b. Merits and De-Merits of Questionnaire Method	
c. Interview Method: Definition, Types, Limitations, Characteristics,	
d. Merits and De-Merits of Interview Method	
e. Case Study Method: Characteristics, Sources of Information	
Unit – III: Interpretation	

a. Meaning of Interpretation, Technical Interpretation,
b. Data: Finding, Classification, Codification, Tabulation and Generalization
c. Tabulation of Grouped and Un-Grouped Data
d. Measures of Central Tendency: Mean, Median and Mode
e. Examples
Unit – IV: Measurement and Rating Scales
a. Meaning, Definitions, Importance and Purposes of Scaling
b. Measures of Dispersion: Mean Deviation and Standard Deviation
c. Measures of Dispersion: Quartile Deviation and Range
d. Measures of Dispersion: Co-efficient Range
e. Examples
Unit – V: Correlation, Regression and Hypothesis Testing
a. Karl Pearson's Correlation Co-efficient Range
b. Rank Correlation and Regression
c. Scatter Diagram and Chi-Square Test
d. Hypotheses Testing: t-Test and z-Test
e. Examples
Suggested Readings
1. Adler, P. (1985) <i>Wheeling and Dealing: An Ethnography of an Upper-Level Drug Dealing and Smuggling Community</i> . Washington DC: Columbia University Press.
2. Adler, P. and Adler, P. (1995) 'The demography of ethnography', <i>Journal of Contemporary Ethnography</i> , 24: 3–29.
3. Adams, C. (2000) 'Suspect data: arresting research', in R. King and E. Wincup (eds), <i>Doing Research on Crime and Justice</i> . Oxford: Oxford University Press.
4. Advisory Council on the Misuse of Drugs (1988) <i>Aids and Drug Misuse Part 1</i> . London: HMSO.

5. Anderson, N. (1923) The Hobo: The Sociology of Homeless Men. Chicago, IL: University of Chicago Press.
6. Leik, R K. (1997). Experimental design and the analysis of variance. Thousand Oaks, CA: Pine Forge Press.
7. Ghosh, B.N., Scientific Methods and Social Research, New Delhi: Sterling Publishers Pvt. Ltd., 1982.
8. Gopal, M.H., Research Reporting in Social Sciences, Dharwad: Karnatak University, 1965.
9. Spiegel R. Murray, 2004, Theory and Problems of statistics, Mc Graw Hill Book Company.
10. Thakur, Devendra, 2003, Research Methodology in Social Sciences, Deep & Deep Publications, New Delhi.

PG33P205	SEMESTER - II
LAB BASED PRACTICALS - POLICE SCIENCE	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the knowledge of police science in criminal investigation. CO 2. have a general understanding of FIR making, handling, packing of evidence, preservation of evidence and forwarding for examination. CO 3. are able to comprehend case study of homicide, house breaking, accidental death. CO 4. have better understanding regarding IQ test, perception and test of attention. CO 5. have begun to think critically about importance of collection and preservation of evidences, general guidelines for crime scene evaluation.	

PG33P205	LAB BASED PRACTICALS-POLICE SCIENCE
1. Police Science: FIR, Scene of Crime, Search, Panchnama, Inspection, Sketching, Report Writing, Photographing, Evaluation of Evidence, Physical Clues, Reconstruction of Scene of Crime; Handling, Packing and Forwarding the Physical clues to concern expert.	

2. Case Studies: Murder/ Homicide, Theft, House Breaking, Scene of Traffic Accident, Poisoning Cases, Accidental Deaths and Injuries Cases.
3. Psychological Practical: Sensation, Perception, Attention, Illusions, Memory, Imagination and I.Q. Assessment.
4. Collection and Preservation of Evidence:
o General guidelines for lifting of crime scene exhibits.
o Photography and sketching of crime scene.
o Collection of evidence in case of rape and murder.
o Collection of clues in Hit & run accident case including marking of skidmarks and other examinations.
o Cases involving firearms
*Evaluation of Practical Journal
** Viva-Voce

PG33T206O	SEMESTER - II
INTRODUCTION TO POLICE SCIENCE (Open Elective Course)	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the knowledge of police science in criminal investigation. CO 2. have a general understanding of organization and hierarchy of police department. CO 3. are able to comprehend powers and functions of police in crime investigation, evidence analysis and evaluation. CO 4. have begun to think critically about importance of crime investigation and measures used in prevention of crime. CO 5. students interested in working for police departments receive a complete understanding of the functioning and administration of policing.	

PG33T2060	INTRODUCTION TO POLICE SCIENCE (Open Elective Course)
Unit - I: Introduction to Police Administration	
a. Meaning and Concept of the Police	
b. History of Police Administration	
c. Development of Police System	
d. Recruitment and Training of Police Personal	
e. Karnataka Police Act-1963	
Unit - II: Organization Set-up of Police	
a. Central Police System	
b. State Police System	
c. Special Investigation Wings CBI, Interpol, COD Etc.	
d. Lokayukta	
Unit - III: Police Station and its work	
a. Recording of F.I.R. Case –Diary, Dying declaration	
b. Charge Sheet	
c. Town and Rural Police System	
d. Traffic Police	
e. Women Police	
Unit - IV: Investigation of Crime	
a. Scene of Crime-Meaning, Types and Procedure	
b. Physical clues-Meaning and Importance	
c. Investigation of Cognizable and Non-cognizable offences	
i. Murder, Rape ,Robbery, Dacoity	

ii. Investigation of Traffic Accidents
iii. 3 I's of Investigation
Unit – V: Prevention of Crime
a. Beat, Patrolling and Surveillance its Meaning and Importance
b. Community Policing
c. Importance of 144 Section of Cr.P.C.
Suggested Readings
1. Karnataka Police Manual, KP Act 1963 motor vehicle Act
2. Lyman M. D“ Criminal Investigation” Prentice Hall New Jecy 1999
3. Mathur K.M.“ Police in India” problems and perspectives Gian Publishing House New Delhi 1991
4. Ramanujam- “Prevention and Detection of Crime”.Madras Book Agency.
5. Sing Joginder“ Inside Indian Police” Gyan Publication New Delhi 2002
6. Srivatsav V. P. “Indian police” Law and Reality Manas Publications New Delhi 1997.
7. Saini Kamal “Police Investigations” Deep & Deep publications New Delhi
8. Becker, G. S., 1968. Crime and punishment: An economic approach. In: The economic dimensions of crime. Springer,
9. Bhalotra, S., Clots-Figueras, I., 2014. Health and the political agency of women. American Economic Journal: Economic Policy
10. Bindler, A., Hjalmarsson, R., 2017. Prisons, recidivism and the age–crime profile. Economics Letters

PG33T301	SEMESTER - III
FORENSIC PSYCHOLOGY	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand and use the knowledge of domestic violence, its characteristics and witness protection in forensic psychological view point.</p> <p>CO 2. have a general understanding of professional practice, forensic consultancy and supervision, the use of cognitive interviewing techniques in criminal investigation.</p> <p>CO 3. are able to comprehend cases related to suicide and aggression , preventive measures and risk assessment.</p> <p>CO 4. have begun to think critically about application of forensic psychology in crime investigation &amp; courtroom, narco-analysis and brain fingerprinting in providing justice and extracting truth, diagnosing and treating sexual offenders.</p> <p>CO 5. students interested in working as consultants in policing, court trails are supported through this course.</p>	

PG33T301	FORENSIC PSYCHOLOGY
Unit -I: Psychology and Legal System	
a. Definitions of crime,	
b. Defining Forensic Psychology,	
c. Psychology and the legal process interaction,	
d. Fundamental distinction between psychology and law,	
e. Functioning of Domestic courts,	
f. Family law issues, custody & adoption,	
g. Domestic violence charter and witness protection.	
Unit –II: Professional Practice	
a. Forensic Consultancy and Supervision	

b. The psychologist as a consultant
c. Core competences
d. Roles and application to forensic settings
e. Conducting investigations
f. The use of cognitive interviewing techniques Communicating effectively
g. Presenting evidence and providing feedback

h. Consultancy in practice: Demonstrating the consultancy skills needed using the Negotiation Adviser role as an illustration
Unit - III: Forensic Risk Assessment
a. Introduction to risk assessment,
b. Definition, methodology;
c. Risk assessment of suicides,
d. Risk assessment of violence.
Unit –IV: Application of Psychology in Investigation & Courtroom
e. Child witness in court,
f. Giving of expert testimony,
g. Eyewitness testimony,
h. Forensic lie detection,
i. Narcoanalysis and Brain Fingerprinting,
j. Interviewing techniques,
k. Offender profiling.
Unit -V: Violent and Sexual offenders: Intervention
a. Effective treatment approaches for offenders across the lifespan.
b. Interventions: Punishment, diversions, and alternative routes to crime prevention.

c. Psychotherapy with criminal offenders.
d. Diagnosing and treating sexual offenders.
Suggested Readings
1. Blackburn, R., The Psychology of Criminal Conduct: Theory, Research and Practice. Chichester:Wiley, 1993
2. Bull, R. and Carson, D., Handbook of Psychology in Legal Contexts. Chichester: Wile, 1998.
3. Canter, D. and Alison, L. (Eds.), Interviewing and Deception. London: Ashgate, 1999.
4. Dennis, I., The Law of Evidence. London: Sweet and Maxwell, 2002.
5. Farrington, D., Hawkins, K. and Lloyd-Bostock, S., Psychology, Law and Legal Processes. London: MacMilan, 1979.
6. Fisher, R. and Geiselman, R., Memory Enhancing Techniques for Investigative Interviewing: The Cognitive Interview. Charles C. Thomas: Illinois, 1992.
7. Fridd, N., Weddle, S., Levene, S. and Fookes, R., Basic practice in Courts, Tribunals and Inquiries. London: Sweet and Maxwell, 1993.
8. Gordon, L. and Lippit, R., The consulting Process in Action. Jossey-Bass: London, 1994.
9. Gudjonsson, G., The Psychology of Interrogations and Confessions. Chichester: Wiley, 2002.
10. Hodgkins, S. and Muller-Isberner, R. (Eds), Violence, Crime and Mentally Disordered Offenders: Concepts and Methods for Effective Treatment and Prevention. Chichester: Wiley, 2000.

PG33T302	SEMESTER - III
CRIME AGAINST WOMEN & CHILDREN	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand status of women and trends in crime against women in present scenario. CO 2. have a general understanding of different type of crimes against women. CO 3. are able to comprehend laws related to women protection, crime against children, abuses and trafficking. CO 4. have begun to think critically about children legal provisions, and preventive measures for crime against children and women. CO 5. the course provides information and training regarding support and assistance to sufferers of crime against women and children.	

PG33T302	CRIME AGAINST WOMEN & CHILDREN
Unit -I: Introduction to Crime against Women & Children	
a. Status of Women under Indian context	
b. Current crime trend against women in India and across the globe.	
c. Current crime trend against children in India and across the globe.	
d. Antecedents of crimes against women.	
e. Causes of crimes against children.	
Unit -II: Crime against Women	
a. Social crimes against women – Female feticide& infanticide, Child marriage, Dowry, Sati, Domestic violence, illegal termination of pregnancy, Acid Attacks	
b. Sexual offences against women – Rape, molestation, incest, sexual harassment at work, Pornography	
c. Other Offences – Illegal trafficking, forced prostitution, stalking, Kidnapping & abduction.	
Unit -III: Social Legislations relating to Women	

a. Maternal Termination Pregnancy Act, Prenatal Diagnostic Law.
b. Prevention of Commission of Sati Act, Prevention of Immoral Trafficking Act.
c. Dowry Prohibition Act, Prohibition of Indecent representation of women.
d. The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013
e. Protection of Women from Domestic Violence Act, 2005 and Women-Related Legislations
Unit -IV: Issues of Children in India
a. Abuse – Physical, Emotional, Psychological and Sexual Abuse
b. Labor & Street Offences – Begging, forceful labor on streets and other industries, institutions, drug pedaling and boot legging etc.
c. Trafficking, forced prostitution and engaging in child pornography.
Unit -V: Legal Provisions for Children
a. Juvenile Justice Care and Protection ACT (JJACT)
b. POCSO
c. Role of Governmental and Non-governmental Organizations
d. Role of Criminal Justice System in Prevention of Crime against children
Suggested Readings
1. Chawla M “Gender Justice” Deep and Deep Publication Pvt Ltd. 2006
2. Goal A “Violence Protective Measures for Women Development and Empowerment” Deep and Deep Publications Pvt Ltd. 2004
3. International Solidarity Network “ Knowing Our Rights” An inprint of kali for Women 2006
4. Kaushik P “Womens Right” Bookwell Publication 2007

5. Lyman, Michael D, 1997, Organized Crime, Prentice Hall, Upper Saddle River 1997, Understanding Organized Crime in Global Perspective: A reader, Sage Publications, California.
6. Mishra P “Domestic Violence Against Women” Deep and Deep Publication Pvt Ltd. 2007
7. Nash, Jay Robert, 1992, World Encyclopedias of Organized Crime, Paragon House, New York.
8. Paranjape, N V, 2005, Criminology & Penology, Central Law Publications
9. Pace, Denny F, 1975, Organized Crime: Concept and Control, Prentice Hall Englewood Cliffs
10. Rao N “ Good Women Do Not Inherit land” Social Science Press and Orient Black Swan 2008

PG33T303	SEMESTER - III
PENOLOGY & CORRECTIONAL ADMINISTRATION	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand forms of punishment, historical development of penology and theories based on punishment. CO 2. have a general understanding of different type prisons, prison administration and concepts of reformation. CO 3. are able to comprehend correctional laws, types of correctional institutions and judicial provisions. CO 4. have begun to think critically about non institutional treatment of inmates, the role of prison and society in correction of inmates. CO 5. it trains the learners and equips them in connecting the prison functioning of the past to the present for improvisation.	

PG33T303	PENOLOGY & CORRECTIONAL ADMINISTRATION
Unit – I: Introduction to Penology & Correctional Administration	
a. Meaning, Definition & Scope of Penology	

b. Development of Correctional Administration
c. Nature, meaning and importance of punishment
d. Forms of punishment in ancient, medieval and modern times
e. Theories of punishment
Unit -II: Prison System
a. Meaning & Definition of prison
b. Prisons in ancient, medieval and modern times
c. Types of prisoners
d. Prison Reforms : Role of inquiry committees and commissions
e. Prison administration
Unit – III: Prison Legislations
a. History and evolution of prison legislations in India
b. Prisons Act.
c. Prisoners Act : Transfer of Prisoners Act
d. Jail Manuals
Unit – IV: Institutionalized form of Treatment
a. Meaning and purpose
b. Types of Institutions
c. Adult institutions
i. Juvenile institutions
ii. Children’s homes
iii. Open institutions
d. Correctional programmes, counseling and psychological services
e. Vocational training and work programme : Classification

i. Educational and literacy
ii. Religious sessions
iii. Therapeutic treatment
iv. Games, recreation and other
f. Remission, temporary release, pre-mature release and after care services.
g. Role of NGO's
Unit - V: Non Institutional Form of Treatment
a. Meaning, purpose and importance
b. Types of non-institutional treatment
c. Probation, meaning, scope and legal provisions under probation of offenders Act and other laws.
d. Parole, meaning scope and legal provisions
e. After care and rehabilitation services
f. Role of NGO's in supervision and rehabilitation
g. Difference between institutional and non-institutional form of treatment.
Suggested Readings
1. Barns H.E. and Teeters N. K. – New Horizons in Criminology, Prentice Hall of India Pvt. Ltd., New Delhi, 1966
2. Government of Karnataka Publications and Government of India Reports-Prison Manual, Prison Act, Probation of Offenders Act, Juvenile Justice Act and Mulla Committee report on Prison Reform
3. Paranjape N. V - Criminology and Penology, Central Law Publications, Allahabad, 2005
4. Reckless C. Walter – The Crime Problem, Vakils, Feffer and Simons Pvt. Ltd., Bombay, 1970
5. Siddique Ahmed – Criminology Problems and Perspectives, III Edn., Eastern Book Company, Lucknow, 1993.
6. Srivatsava S. S. – Criminology and Criminal Administration, Central Law Agency Allahabad, 2002
7. Sutherland E.H. and Crassey D.R.– Principles of Criminology, Times of India Press, Bombay, 1965

8. Vadakumchery James – Criminology and Penology, Kairali Book International, Trivandrum, 1983
9. Rutherford, A; Prisons and the Process of Justice, Oxford: Oxford University Press(1984)
10. Ryan, M. Penal Policy and Political Culture, Winchester: Waterside Press (2005)

PG33T304	SEMESTER - III
FORENSIC DOCUMENTS	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the knowledge of forensic document in analyzing questioned documents, its application, classification and types of examination.	
CO 2. have a general understanding of various types of documents and its general - individual characteristics and procedure in handling forgery cases.	
CO 3. are able to comprehend examination of type writers and procedures used, examination process of security documents, analyzing its nature and features.	
CO 4. have begun to think critically about advancements in forensic document examination recent trend and techniques used.	
CO 5. The role of forensic document examiner in providing acceptable report of document analysis.	

PG33T304	FORENSIC DOCUMENTS
Unit - I: Document Examination –Introduction &Overview	
a. Scope & application in Crime Investigation	
b. Various Indian Laws with reference to Indian Penal Code & Indian Evidence Act.	
c. Nature & Problems of Forensic Document Examination.	
d. Preservation, Packing & Marking of Documents.	
e. Development & Classification of Handwritings and Classification of Forensic Documents.	

Unit - II: Principles of Handwriting Examination
a. Various writing features, terminologies, definitions, general characteristics, individual characteristics of handwriting.
b. Variations- Natural & disguised, Principles of handwriting identifications, comparison process.
c. Preliminary examination of documents, effect of age, illness, posture, emotions, Ink analysis and writing instrument on handwriting.
Unit - III: Document Forgery & Alterations
a. Examination of signatures & built up document. Identification of writer of forged writings /signatures.

b. Importance of tremors in identification.
c. Examination and identification of anonymous letter and its writer.
d. Detection & decipherment of alterations & erasures including additions, overwriting, obliterations.

Unit - IV: Mechanical Impressions & Security Documents
a. Examination of type writings and their identification, working, examination of manual, cheque writers, identification of typist of manual type writers
b. Examination of security docs including currency notes, travel documents, passports, visas. Identity cards, different types of security features and their examination including water marks and security printing.

Unit – V: Advances in Documents Examination & Quality Assurances
a. Advances in Forensic Document Examination, Introduction to Computer Forensics, edocument and digital signatures.
b. Final examination and report writing, opinion writing and writing of reasons for opinion, Importance of no opinion or qualified opinions
c. Marking of photographs and their presentation, Preparation of juxtapose charts in support of reasons and Case Studies.

Suggested reading:
1. Albert S. Osborn; Questioned Documents, 2nd Ed., universal Law Pub., Delhi (1998).
2. Albert S Osborn; the Problem of Proof, 2nd Ed., Universal Law Pub. Delhi (1998)
3. Charles C. Thomas; I.S.Q.D. Identification System for Questioned Documents, Billy Prior Bates Springfield, Illinois, USA (1971)
4. Morris Ron N; Forensic Handwriting Identification, Acad Press, London (2001) \
5. Kurtz Sheila; Graphotypes a new Plant on Handwriting Analysis, Crown Pub. Inc., USA (1983)
6. Lerinson Jay; Questioned Documents, Acad Press, London (2001)
7. Ellen Davin; Questioned Documents – Scientific Examination, Taylor & Francis, Washington (1997)
8. Andrea Mc Nichol, Jeffrey A Nelson; Handwriting Analysis Putting it to work for you, Jaico Books, Delhi (1994)
9. ManaharLotia-All about Modern Printers: Introduction-BPB Publication, New Delhi.
10. Wilson R. Harrison; Suspect Documents Their Scientific Examination, Universal Law Pub. Delhi Indian Reprint (2001)

PG33F305V	SEMESTER - III
FIELD VISITS – LOCAL INSTITUTIONS VISITS	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the real life experience of different correctional institutions. CO 2. have a general understanding of juvenile institutions and committees with its powers, types of prisons and its functions, judicial institutions its power and functions, special units of police and its functions. CO 3. are able to comprehend the role of all correctional, judicial and juvenile institutions in reformation of offenders. CO 4. have begun to think critically about the practical reality of the administration of institutions and get exposure to actual functions of correctional institution. CO 5. could able to have knowledge regarding administration and hierarchy of institutions.	

## UNIT-I

- 1) Visit to Prison Institution
- 2) Visit to Sate Home for Men
- 3) Visit to Sate Home for Women.
- 4) Visit to Observation Home.

## UNIT-II

- 1) Child welfare Committee
- 2) Visit to Juvenile Home (Recreation)
- 3) Visit to Juvenile justice Board
- 4) Visit to Juvenile Special Home.

## UNIT-III

- 1) Visit to Court Proceeding
- 2) Visit to Civil Court.
- 3) Visit to Criminal Court.
- 4) Visit to Lokayukta Office.

## UNIT-IV

- 1) Visit to Local Police Station
- 2) Visit to S. P. Office.
- 3) Visit to NGOs.

## UNIT-V

- 1) Local Crime Record Bureau.
- 2) Visit to After-Care Services.
- 3) Visit to Hospital for Post-Mortem Cases.

<input type="checkbox"/> Attendance for the visit to all the institutions is compulsory.
<input type="checkbox"/> At the end of the semester the students' are expected to submit a concise report with the details of their experiences and observations on each visit carried out.
<input type="checkbox"/> An internal assessment for 25 Marks shall be conducted during the III <sup>rd</sup> Semester.

PG33F305I	SEMESTER - III
INTERNSHIP/BLOCK PLACEMENT	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand and use the field knowledge pertaining to different concepts in criminology and forensic science. CO 2. have a general understanding of specified concepts students opt for, will get exposure to research methodology used in accomplishing the opted research topic. CO 3. are able to comprehend different methods used for research work, recent trends in criminology and forensic science research. CO 4. have begun to think critically about problems of crime, new and advanced methods could be used in prevention and detection of crime, legal provisions for adopting the outcome of the research in crime investigation. CO 5. have a better interaction with experienced officials and seek specialized guidance.	

PG33F305I	INTERNSHIP/BLOCK PLACEMENT
<input type="checkbox"/> This part of the programme is introduced to enable the students to utilize their vacation between the semesters productively and acquire practical skills on the classroom information provided. This component is to help them have direct hands on experience in the field concerning the related subject area.	

- The students will have to work in institutions like NGOs, Forensic Labs, B.P.R & D., Police Stations, Women and Children Welfare Department, Police Training Centre or other institutions allied with Criminal Justice System (Subject to Permission Procured) during the month of June and July as a part of the Internship Program. The student is expected to work closely with the workers of the institution and record their learning experiences and submit a weekly report to the Department. Towards the end of the IIIrd Semester the students shall have to submit an Internship/Block Placement Report on the institution they were placed in.

- The performance of the students in the program shall be assessed based on the Internship/Placement report they submit (25 Marks) and a Viva-Voce examination (25 Marks) towards the end of the IIIrd Semester by a committee consisting of the Chairperson of the Department and Examiners. The Total Marks allotted to Internship/Block Placement Program shall be 50 Marks.

PG33T306SA	SEMESTER - III
FINGERPRINTS – (specialization)	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand the role fingerprint in crime investigation CO 2. have a general understanding of fingerprint classification, different types of fingerprints and fingerprint recording methods. CO 3. are able to comprehend different methods of development of fingerprints, and forms of ridge characteristics and analysis. CO 4. have begun to think critically about judicial value of fingerprints, importance of fingerprints in identifying culprits. CO 5. training in the updating system of fingerprint analysis.	

PG33T306SA	FINGERPRINTS – (specialization)
Unit-I: Introduction	
a. Meaning, Scope and its Importance of Fingerprints in Criminal Investigation.	
b. Historical Development of Finger Prints.	

c. Individuality of Finger Prints.
Unit-II: Finger Prints Classification System
a. Types of Finger Print Patterns and its Definition.
b. Basic Finger Print Patterns.
c. Classification of Finger Prints, 10 Digits and Single Digits etc.
d. Recording of Finger Prints.
Unit-III: Search, Preservation and Collection of Fingerprints
a. Scene of Crime Prints and Searching
i. Visible Prints
ii. Plastic Prints
iii. Latent Prints
b. Searching of Latent Prints, Their Collection and Preservation.
c. Finger Prints of Deceased Person.
Unit-IV: Methods of Developing Latent Prints
a. Developing of Latent Prints: - Physical Methods and Chemical Methods.
b. Physical Methods and Usage of various Powders.
c. Chemical Methods and Their Types.
d. Other Methods of Finger Print Development
i) Laser Method                      ii) Electronographic Method etc.
Unit-V: Identification and Comparison
a. Types of Ridge Characteristics.
b. Comparison of Chance, Latent Print with Suspect Finger Prints.
c. Ridge Counting System and Matching Points of Ridge Characteristics.
d. Evidential Value of Finger Prints in the Court of Law.

e. Submission of the evidentiary report to the Court of Law.
Suggested Readings
1. B.S. Nabar., Forensic Science in Crime Investigation, 3 <sup>rd</sup> Edn., Asia Law House, Hyderabad
2. Barry, A.J. Fisher; Techniques of Crime Scene Investigation, 7th Ed, CRC Press, NY, 2003.
3. Bennett, W.W. & Karen, M.Hass, Criminal Investigative, 6th Ed. Worsworth Thompson Learning, 2001.
4. Forensic Science, An Introduction to Criminalsities. By Peter R.De Forest, R.E. Gaensslen and Henry C. Lee.
5. Forensic Science in Criminal Investigation and Trials, By Sharma. B. R.
6. Saferstein R. "Criminalsities: - An Introduction to Forensic Science".
7. Akhil Vij, Anoop Namboodiri, " Learning Minutiae Neighborhoods: A New Binary Representation for Matching Fingerprints", 2014
8. E. Zhu, J. Yin, G. Zhang, Fingerprint matching based on global alignment of multiple reference minutiae, Pattern Recogn. (2005)
9. D. Wan, J. Zhou, Fingerprint recognition using model-based density map, IEEE Trans. Image Process.(2006)
10. Wertheim K, Maceo A (2002) The critical stage of friction ridge and pattern formation. J for Ident

OR

<b>PG33T306SB</b>	<b>SEMESTER - III</b>
<b>CORPORATE CRIMES</b>	
Course outcomes	
After successfully completing this course students	

- CO 1. are able to understand nature and types of corporate frauds,
- CO 2. have a general understanding of characteristics, trends in corporate frauds.
- CO 3. are able to comprehend fraud in banking sectors, types of insurance frauds.
- CO 4. have begun to think critically about preventive measures, causes of corporate frauds, and effects on economy of the nation.
- CO 5. Training in the current system of corporate frauds and overcoming the same.

PG33T306SB	CORPORATE CRIMES
Unit I– Introduction	
a. Meaning, Definition & Nature of Corporate Frauds	
b. Types of Corporate Frauds	
i. Bankruptcy related Frauds	
ii. Exploiting assets & scams	
iii. Mortgage Frauds	
iv. Share Sale Frauds	
c. Role of Depositories & Role of Clearing Corporation in Corporate Frauds	
Unit II – Corporate Fraud	
a. Meaning & Definition of Fraud	
b. Types of Fraud:- Individual & Corporate	
c. Characteristics of Fraud	
d. Trends of Scams: National & Global Perspective	
Unit III – Fraud in Banking Sector	
a. Definition & Scope of Fraud in Banking Sector	
b. Banking Impersonation	
c. Types of Frauds	
i. Fraud against Accounts	

ii. Fraud against Card (Debit/Credit )
iii. Electronic Fraud
iv. Miscellaneous Fraud
d. Role of Vigilance officer in Prevention of Bank Frauds
e. Role of Investigation in Bank Frauds
Unit IV – Insurance Frauds
a. Definition , Nature & Scope of Insurance
b. Losses due to Insurance Frauds
c. Types of Insurance Frauds
i. Property Insurance
ii. Motor Insurance
iii. Health Insurance
d. Role of Investigation in Insurance Frauds
Unit – V: Prevention of Corporate Crimes
a. Regulation and Supervision
b. Corporate Governance
c. Co-operation with the Private Sector
d. Suspicious Transaction Reporting
Suggested Readings
1. Anabui, Farhad and Kakabadse, Andrew, 2004, Corporate sabotage, Jaico PublishingHouse.
2. Blum Richard H, 1972, Deleivers and Deceived, Charles, C. Thomas Publishers.
3. Bologna, Jack, 1984, Corporate Fraud, Butterworth Publishers.
4. Celia Wells, “Corporations and Criminal Responsibility”.
5. Essential Commodities Act, 1955, 2005, Universal Law Publishing Co. Pvt. Ltd.

6. Ghosh Murrain, 1979, Black money – The case for India, Subarna Rekha, Calcutta.
7. Green Timothy, 1977, The Smuggling Business, Aldus Books, London. internationally, Kogan Pagr Ltd.
8. Lal Bhure, 2003, Money Laundering: An insight into the dark world of Financial Frauds, Siddharth Publications.
9. Nabhi's Income Tax Guidelines and Mini Ready Reeckoner, 2009, Anabhi Publication Bare Acts:
10. Pitchandi Nand Sivamurthy A, 1985, Insurance Frauds, The Indian Soccity ofCriminology, Department of Psychology, Madras.

PG33T307O	SEMESTER - III
FUNDAMENTALS OF FORENSIC SCIENCE (open elective course)	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand nature purpose of forensic science, techniques used in forensic investigation of crime. CO 2. have a general understanding of, types of forensic laboratories, divisions and functions of forensic laboratories, biological and physical evidences, its collection, preservation and forwarding methods. CO 3. are able to cogitate the importance of fingerprints and footprints in crime investigation, procedure involved in analyzing case from available physical evidences. CO 4. have begun to think critically about questioned documents, its importance in establishing relativity to alteration in the documents. CO 5. are trained in crime scene analysis.	

PG33T307O	FUNDAMENTALS OF FORENSIC SCIENCE (open elective course)
Unit- I: Introduction	
a. Definition, nature and purpose of Forensic Science	
b. Functions of the Forensic Science Laboratories	
c. Techniques for investigation of crime	

Unit- II: Divisions of Forensic Science
a. Forensic Chemistry and Toxicology
b. Finger Print, Forensic Ballistics
c. Forensic aspects of arson and explosion
d. DNA Test
e. Documentation Examination
f. Voice Pattern Analysis
Unit -III: Body Fluids
a. Blood, semen, Saliva and its importance
b. Importance of blood grouping
c. Importance of DNA
d. Collecting, Preserving & Forwarding of Physical Clues to Forensic Laboratories
Unit- IV: Finger Prints & Footprint
a. Meaning, Importance and development, Classification of Finger print
b. Ridge Characteristics and its importance
c. Importance of Lifting and Comparison of Finger Prints
d. Foot Print : Lifting, Comparison, & Classification
Unit – V: Questioned Documents
a. Meaning & importance of Questioned Documents
b. Characteristic and Principles of Handwriting
c. Identification of Handwriting
d. Importance of Typescript & their Identification
Suggested Readings

1. Barry, A.J. Fisher; Techniques of Crime Scene Investigation, 7th Ed, CRC Press, NY, 2003.
2. Bennett, W.W. & Karen, M. Hass, Criminal Investigative, 6th Ed. Worsworth Thompson Learning, 2001.
3. Houck, M.M. & Siegel, JA; Fundamentals of Forensic Science, Academic Press, London, 2006.
4. James, SH and Nordby, J.J., Forensic Science- An Introduction to Scientific and investigative Techniques, CRC Press, USA (2003)
5. Mordby J. Deed Reckoning; The Art of Forensic Detection, CRC Press NY, 2003.
6. Nanda B.B and Tewari, R.k. Forensic Science in India- A vision for the Twenty First Century, Select publisher, N. Delhi, 2001.
7. Nabar B.S., Forensic Science in Crime Investigation, 3 <sup>rd</sup> Edn., Asia Law House, Hyderabad
8. Saferstein R; Criminalistics- An Introduction of Forensic Science, Prentice Hall Inc, USA,2007.
9. Sharma, B.R., Forensic Science in Criminal Investigation & Trials, Universal Publishing Co., New Delhi, 2003
10. Swansan, CR, Terrbles, L&Taylor,R.W.;. Police Administration, Prentice Hall, USA, 1998.

PG33T401	SEMESTER - IV
FORENSIC BALLISTICS	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand and analyze the knowledge of ballistics in identifying criminal, components of firearms and its fictional aspects.</p> <p>CO 2. have a general understanding of different types of ballistics, ammunitions used, and types propellants and its compositions.</p> <p>CO 3. are able to comprehend forms of ballistics, analytical patterns of ballistics and its effects.</p> <p>CO 4. have begun to think critically about various types of marks produced by firearms, its identification and classification, different investigative techniques used for firearm crime analysis.</p> <p>CO 5. training in study of explosives.</p>	

PG33T401	FORENSIC BALLISTICS
Unit – I Classification & Characteristics of Ballistics	
a. History & Development, classification of firearms	
b. Various components of small arms, different automatic mechanisms used in small firearms.	
c. Projectile, Velocity determination	
d. Identification of Origin	
Unit –II Ammunition & Identification	
a. Types of ammunitions, classifications, constructional features of different types of cartridges, types of primer and priming composition.	
b. Propellants and their composition	
c. Various types of bullets and compositional aspects.	
d. Manufacture of firearms, various processes associated with manufacture of ammunitions.	

Unit – III Internal, Intermediate and External Ballistics
a. Ballistics – Definition of Internal, Intermediate and External
b. Internal Ballistics – Definition, Ignition of propellants, factors affecting internal ballistics, lock time, ignition time, erosion, corrosion and gas cutting, theory of recoil.
c. Intermediate ballistics – Definitions, effects on the motion of projectile and firearms, gas flow field near the muzzle flash, blast, and silencer.
d. External Ballistics
Unit –IV Tool marks and Identification
a. Tool marks – Types of tool marks, compressions, striated, ejective marks, individual; and pertinent characteristics.
b. Principles and practice of Identification of firearms, ammunition and their components, types of marks produced during the firing process, measurement of rifling details, process of matching and non-matching characteristics of evidence and test cartridge cases and bullets, writing of reports, effect of human decomposition on bullet striations.
c. Determination of range of firing, burning, scorching, blackening, tattooing, gunshot residue distribution, determinants of range of firing, characteristics of the shot, factors affecting these phenomena, IR photography of tattooing around gunshot holes.
Unit – V Investigation of Ballistics
a. Crimes committed by firearms, various types of visible/invisible physical evidence available in crime involving firearms.
b. Photography/ Videography/sketching of crime scene; location, documentation, collection, preservation and forwarding of physical evidence, maintaining the authenticity and integrity of physical evidence,
c. Various legal requirements in the handling of clue materials, various precautions to be taken while handling the physical evidence.
d. Various problems including medico-legal problems arising in crime involving firearms, chain of custody.

Suggested Readings
1. Burrard; The Identification of Firearms and Forensic Ballistics, Herbert Jenkins, London, (1956)
2. Ezell; Smallarm Today, Stackpole Books, Harrisburg, Pa,(1988)
3. Gunther and Gunther; The Identification of Firearms, New York, (1935)
4. Heard, B.J; Handbook of Firearms and Ballistics, John Wiley, England, (1997)
5. Hogg, I.V; The Cartridge guide – A Smallarms Ammunition Identification Mannual, The Stackpole publishing Co., Harrisburg, Pa,(1982)
6. Muller and Olson; Smallarms Lexicon & Encyclopedia, Shooter’s Bible Inc. NJ, (1968)
7. Nonte, Jr, Firearms Encyclopedia, Wolfe Publishing Limited, London, (1973)
8. Sharma, B.R.; Firearms in Criminal Investigation & Trials, Universal Law Publishing Co Pvt Ltd, New Delhi, 4th Edn, (2011).
9. Smith and Smith; Book of Rifles, Stackpole Books, Harrisburg, Pa,(1972)
10. Whelen; Smallarms Design and Ballistics, Vol II, Smallarms Technical Publishing Comopany, USA, (1946).

PG33T402	SEMESTER - IV
CRIMINAL LAW	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand principles of criminal law, various sections of Indian Penal Code. CO 2. have a general understanding of right to private defense, procedure of criminal investigation and prosecution. CO 3. are able to comprehend criminal trial, prosecution, warrant of arrest, and other important criminal procedures. CO 4. have begun to think critically about judicial and constitutional provisions, fair trial, parole probation. CO 5. are able to understand the powers and duties of police and courts.	

PG33T402	CRIMINAL LAW
Unit -I: General Principles and specific Offences	
a. Elements of Criminal liability	
b. Principles of group liability (Section 149, 34, 109, 120B IPC)	
c. Offences against person (IPC) Homicide, Kidnapping Abduction, Rape.	
d. Offence against property (Theft, Robbery, Dacoity and Cheating, Criminal Breach of Trust).	
Unit -II: General Exception	
a. Right to Private Defence against Person.	
b. Right to Private Defence against Property	
c. Insanity and Intoxication	
d. Necessity and Mistake	
Unit -III: Criminal Investigation and Prosecution	

a. FIR, Investigation, Arrest and Charge Sheet
b. Custody, Remand and Bail
c. Prosecution
d. Process to Ensure Attendance Summon, Warrant, Search Warrant.
Unit -IV: Criminal Trial
a. Summon Trials, Warrant Trials and Sessions Trial
b. Right to Accused (pre-sentence hearing Sec 235(2). 248)2_, fair/speedy
c. Trial, Right against self-incrimination.
d. Rights of Victims (Plea Bargaining and Victim Participation).
e. Free Legal Aid.
f. Punishments under IPC.
Unit -V: Evidence law: Scope and relevance
a. Relevancy and admissibility of facts
b. Relevancy of confessions and dying declarations
c. Appreciating expert evidence in court
d. Burden of proof.
Suggested Reading
1. Acharya N.K., 2007, Landmark Judgment of Supreme Court 1950-2006, Asia Law House, Hyderabad.
2. All India Reporter Published by All India Reporter Pvt. Ltd, Nagpur.
3. BasuDuraga Das, 2005, Introduction to Constitution of India. 19th Edu., Wadhwa and Company Law Publishers.
4. Code of Criminal Procedure, 1973. Cr.P.C Act 2001 with State Amendments Bare Act with short Notes, Universal Law Pub. Co. Pvt. Ltd., 2003.
5. Criminal Law Journal Published by All India Reporter Pvt. Ltd. Nagpur.

6. Crimes published by Vinod Publications Pvt. Ltd.
7. Gaur, KD, 1999, Criminal Law and Procedure (cases) 3rd Edition, Butterworth Tripathi Publications.
8. IPC (45 of 1860) with State Amendments and Bare Act with short note, Universal Law Pub. Co. Pvt. Ltd.
9. Indian Evidence Act, 1972 (1 of 1872)
10. Ratan Lal and Dhirajlal, 2002, Indian Penal Code, Wadhwa and Company Pub.

PG33T403	SEMESTER - IV
VICITMIOLOGY & VICITIM ASSISTANCE	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand concept of Victimology, nature and theories pertaining to Victimology, psychological and criminological perspective of Victimology. CO 2. have a general understanding of UN declaration, judicial responses, policies for victim assistance, various patterns of victimization. CO 3. are able to comprehend victim compensation, forms of victims, handling procedure of various types of victims. CO 4. have begun to think critically about providing justice to the victim under the purview of criminal law. CO 5. procedural aspects of prevention of victimization, after care service for victim of different crimes, judicial and psychological supports.	

PG33T403	VICITMIOLOGY & VICITIM ASSISTANCE
Unit -I: Introduction to Victimology	
a. Victim and Victimization : Concept, Nature &Theories	
b. Historical Development of Victimology	

c. Key Concepts in Victimology: Victim Precipitation, Victimization Proneness, Victim Responsiveness, Victim Psychology
d. Psycho-dynamics of Victimization
e. Primary Victimization, Secondary Victimization, Tertiary Victimization, Victim Vulnerability
f. Victimless Crimes
Unit – II: National and International Concern for Victims of Crime
a. U.N. Declaration on Basic Principles of Justice for Victims of Crime and Abuse of Power (1985)
b. World Society of Victimology
c. National Policy Concerns for Victims of Crime- Communal Strife, Caste Violence etc
d. State Initiatives and Crime Victims

e. Judicial Response
Unit – III : Patterns of Victimization
a. Victims of Crime
b. Victims of Abuse of Power
c. Women Victims – Dowry, Battered women, Rape and other kind of sexual harassment
d. Child Victims
e. Victims of group violence.
Unit – IV: Victim Compensation
a. Restitution
b. Ex-Gratia Grant
c. Compensation by Insurance Companies
d. Compensation for Victims of Crime and abuse of power
e. Victim Compensation- An International Perspective

Unit – V: Victim Assistance
a. Role of citizens and voluntary organizations
b. Preventing Victimization
c. Assisting victims during crime investigation and trial
d. Legal aid to victims of crime – Counseling, guidance and rehabilitation of special kinds of victims of crime and child abuse
e. National Organization for Victim Assistance (NOVA), USA & Victim Witness Assistance Programs (V W A)
f. Introduction to Restorative Justice System
Suggested readings
1. Devasia, V.V, 192, Criminology, Victim logy and Corrections, Ashish Publishing House, New Delhi
2. Drapkin Israel and Viano, Emilio, 1973, Victimology: A new focus Lexington Books.
3. Geiser, Robert. L, 1979, Hidden Victims, Beacon Press, Boston.
4. Parsonage, William H, 1979, Perspectives on Victimology, Sage Publications
5. Rajan, V.N, 1981, Victimology in India: An Introductory Study, Allied Publishers, New Delhi.
6. Schur, Edwin, M, 1965, Crimes without victims, Prentice Hall. Inc.
7. Shapland, Joanna, Willmore Jon, Duff Peter, 1985, Gower Publishing Company Ltd.
8. Singh Makkar, S.P, 1993, Global perspectives in Victimology, ABC Publications, Jalandar.
9. Sparks, Richard F, Genn, Hezel G, Dodd, David. J, 197, Surveying victims, John Wiley and Sons’ Ltd.
10. Walklate, Sandra, 1989, Victim logy: The victim and the criminal justice process, Unwin Hyman Ltd.

PG33T404	SEMESTER - IV
PRIVATE DETECTIVE & SECURITY MANAGEMENT	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand development of private detectives, types of investigators, powers and functions of investigative agencies.</p> <p>CO 2. have a general understanding of security management, risk management, principle on loss control. Aviation security, hostage situation and negotiation.</p> <p>CO 3. are able to comprehend disaster management, rescue and relief operation, accidental fire extinguishing techniques, role and functions of fire brigade in emergency.</p> <p>CO 4. have begun to think critically about modern security maintenance measures, use of advanced security devices, gaining knowledge regarding computer data security.</p> <p>CO 5. are trained in industrial security.</p>	

PG33T404	PRIVATE DETECTIVE & SECURITY MANAGEMENT
Unit-I: Introduction	
a. Meaning, Definition& Scope	
b. Types of Investigators	
c. Comparing Law Enforcement & Private Detectives	
d. Power/Responsibility and Danger/Risk of Being a Private Detective	
Unit – II: Introduction to Security Management	
a. Meaning, Concept, Evolution & Importance.	
b. Security Programmes.	
i. System & Elements	
ii. Series of Operational Measures against Security Hazards.	
iii. Physical, Personal & information Security.	

iv. Security Officer, Hardware's & Alarm, Procedures & Controls
c. Security Programmes Planning.
i. Specific Planning Principles on Loss Control Efforts.
ii. Security Planned Development.
iii. Risk Management.

Unit-III: Civil Aviation Security
a. Role and Importance
b. Action Plan to Protect and Secure Airports, Aircrafts, Vital Installation, Passengers and other Materials.
c. Security Management of Hijacking, & Sabotage,
d. Bombs and Bomb Threat.
e. Hostage & Negotiation.
Unit-IV: Security and Disaster Management
a. Meaning and Types of Disaster
b. Anti-Disaster Management/ Committee
c. Warning and Evaluation Plans.
d. Head Count and Its Importance in Emergency.
e. Rescue and Relief Operation.
Unit-V: Fire Brigade and Safety
a. Meaning, Importance of Fire Brigade, Fire Fighting.
b. Fire Types & its Extinguishers.
c. Various Physical and Chemical Equipments for Dousing Fire.
d. Basic Training of Fire Extinguisher to Security and other Employees.
e. Role and Functions of Fire Brigade in Emergency.

f. Rescue of Victims and Salvage of Property.
Unit-VI: Modern Industrial Security Devices
a. Access Control System: - Meaning and Importance and Types.
b. Interior Protection: C.C. TV System, Internal Theft.
c. External Protection: External Theft, Robbery & Dacoit.
d. Strike & Security.
e. Computer Data Security.
Suggested Readings
1. Anderson ., “Bank Security”.
2. FaulFaque., “Security Investigation Handbook”
3. John., “Fundamentals of Training for Security Officers”
4. Private Security Regulation (Bill) 2005.
5. Peel., “Story of Private Security”
6. Strobi., “Crime Prevention through Physical Security”
7. Brown, Mary E. 1991. “A General Model of Information-Seeking Behavior.” Proceedings of the ASIS Annual Meeting. ASIS
8. Foster, Allen. 2004. “A Nonlinear Model of Information-Seeking Behavior.” Journal of the American Society for Information Science and Technology.
9. Friedman, Lawrence M. 1994. “True Detective.” Studies in Law, Politics and Society.
10. Gill, Martin and Jerry Hart. 1997. “Policing As A Business: The Organisation And structure Of Private Investigation.” Policing and Society.

PG33T405	SEMESTER - IV
CYBER CRIMES AND CYBER LAWS	
Course outcomes	
After successfully completing this course students	
<p>CO 1. are able to understand, characteristics, types of cybercrimes, its meaning and historical development.</p> <p>CO 2. have a general understanding of crimes upon computer and types of crimes committed by using computers.</p> <p>CO 3. are able to comprehend investigating techniques of cybercrimes, search seizure and protection evidence in cybercrimes.</p> <p>CO 4. have begun to think critically about Sections of IT act, role of cyber police in protection of intellectual properties and preventive measures of cybercrimes.</p> <p>CO 5. are equipped to handle and prevent basic forms of cyber offences.</p>	

PG33T405	CYBER CRIMES AND CYBER LAWS
Unit-I: Introduction to Cyber Crime	
a. Meaning, Definition of the Cyber Crime.	
b. Historical development of Computer related crimes.	
c. Scope and extension of Cyber Crime.	
d. Types of Cyber Crime.	
e. Characteristics of Cyber Crime and Cyber Criminal.	
Unit-II: Understanding of Computer	
a. Computer as an Object: Unauthorized access, Possession of information, Transferring Virus.	
b. Computer as a Subject: Sabotage of computer systems or computer networks. Theft of data/information,	
c. Computer as an Instrument: Facilitating crimes	
d. Computer as an Incidental.	

Unit-III: Investigation of Cyber Crime
a. Perpetrators and Victims of Cyber Crime.
b. Modus Operandi of Cyber Crime.
c. Investigations of Cyber Crime.
d. Raid kid and Investigation Tools.
e. Safeguarding the evidence in crime scene.
Unit-IV: Search, Seizure, Preservation and Packing
a. Preparing for Search and Completing the Search.
b. Precaution during Search and Seizure.
c. Packing, Transportation and Storing the Seized Computers.
d. Guidelines for Preserving and Submitting Computer Hardware Evidence (CPU).
Unit-V: Relevant Section of IT Act 2000, ITAA 2008 and Punishment
a. Tampering with Computer Source Documents.
b. Hacking with Computer System.
c. Publishing of Information which is obscene in Electronic form.
d. Protected System and Penalty for Misrepresentation.
e. Breach of Confidentiality and Privacy.
f. Laws relating to Cyber crime; Salient features of IT Amendment Act-2008,
g. Amendments arising due to enactment of IT Amendment Act-2008 in IPC, Cr.P.C., I.E.A.
Suggested Readings
1. Moore, R. (2005) "Cyber crime: Investigating High-Technology Computer Crime," Cleveland, Mississippi: Anderson Publishing.

2. Halder, D., & Jaishankar, K. (2011) Cyber crime and the Victimization of Women: Laws, Rights, and Regulations. Hershey, PA, USA: IGI Global. ISBN 978-1-60960-830-9
3. Jump up^ "Cyber Warfare and the Crime of Aggression: The Need For Individual Accountability On Tomorrow'S Battlefield". Law.duke.edu. Retrieved 2011-11-10.
4. Jump up^ "Section 18.2-152.7:1". Code of Virginia. Legislative Information System of Virginia. Retrieved 2008-11-27.
5. Susan W. Brenner, Cybercrime: Criminal Threats from Cyberspace, ABC-CLIO, 2010, pp. 91
6. David Mann and Mike Sutton (2011-11-06). "Netcrime". Bjc.oxfordjournals.org. Retrieved 2011-11-10.
7. Gupta and Agarwal., Cyber Law;2012, Premier Publication Company, Allahabad.
8. Hoffman, L.: Cryptography Policy and Technology Trends.
9. Information Technology Act 2005 & IT Act Amendment, 2008
10. Paranjape N.V., Cyber Crimes and Law; 2010, Central law Agency, Allahabad.

PG33T406SA	SEMESTER - IV
INVESTIGATIVE JOURNALISM (specialization paper)	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand the investigative journalism, various forms of media, and forensic journalism. CO 2. have a general understanding regarding theories of reporting, types and objectives. CO 3. are able to comprehend types of investigation, policy related to criminal justice, and international perspective of investigative journalism. CO 4. have begun to think critically about investigating journalism, its role in identification of culprit, preventive measures of criminal acts. CO 5. will understand its role in identification of culprit, preventive measures of criminal acts.	

PG33T406SA	INVESTIGATIVE JOURNALISM (specialization paper)
Unit - I: Introduction	

a. Definition, nature and scope of journalism
b. Fundamentals of reporting, editing and writing policies and legislations relating to journalism
c. Various forms of media- print, electronic (broadcast) media – radio, television, internet
d. Forensic journalism: scene of crime, clues of crime, correlate with other evidences, drawing conclusion.
Unit - II: Theories of Reporting
a. Report writing- techniques and styles of writing for various types of media, editing and concise writing.
b. Objectivity in Reporting,
c. Interpretative Reporting,
d. Investigative Reporting Advocacy and
e. Development Reporting.
Unit - III: Investigation and the Criminal Justice Process
a. Investigating the politicians - The law to legislative coverage and privilege
b. Investigating the enforcers
c. Investigating the departmental mismanagement in recruitment, training, promotions and transfers
d. Investigating the illegal arrests and detentions
e. Practice of human rights violations
f. Investigating the judicial system- The relating to contempt and defamation
g. Investigating the correctional system- Existing prison culture, administration, riots, prisoner's unrest, corruption in prison and prison offences.
Unit - IV: International Models on Investigative Journalism
a. Photography- Importance of photography in crime investigation

b. Documents -Primary documents, secondary documents
c. Evidences- Primary Evidence and Secondary Evidence
d. Bugging- Types of cameras, positioning and sound receivers and recording
e. Crime Analysis-mapping, drawing conclusions (International models on investigations and its application has to be explained with already unraveled actual cases)
Unit - V: Crime Reporting, Editing, Report Writing
a. Functions of crime reporter- Reporters contacts, networks of investigator journalists, maintaining, rewarding and handling sources; ethical issues in handling sources.
b. Searching evidence, interviewing experts and victims, evaluating sources, weighing evidences, verifying facts and reporting.
c. Crime reporting types- crime reporting in print media and electronic media
d. Investigative reporting, court procedures reporting, speedy reporting, interpretative reporting, depth reporting.
Suggested Readings
1. Campbell & Westley 'How to Report and write the news'
2. Charmley M.V. 'Reporting'
3. M'c Dougal 'Interpretative Reporting'
4. Ravindram 'Handbook of Reporting & Editing'
5. Rosalin Muraskin 'Crime and Media: Headlines vs Reality' Prentice Hall; 1 edition
6. Ray Surrete 'Media, Crime and Criminal justice System: Images, Realities and Policies
7. Srivastatva K.M. 'News Reporting & Editing'
8. Yvonne Jewkes 'Media & Crime (Key Approaches to Criminology)'SAGE Publications Ltd; Second Edition
9. Banerjee, I. 2002. The locals strike back? Media globalization and localization in the new Asian television landscape. Gazette: The International Journal for Communication Studies,
10. Bhatt, S.C. 1996. Satellite invasion of India, New Delhi: Gyan Publishing House.

OR

PG33T406SB	SEMESTER - IV
HUMAN RIGHTS	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand nature and scope of human rights, theories related to human rights. CO 2. have a general understanding of universal declaration of human rights. CO 3. are able to comprehend preventive measures of violation of human rights, Human Rights Organization, Commission of Committees. CO 4. have begun to think critically about constitutional provisions of human rights, powers and functions of NHRC and SHRC recommendations. CO 5. understand the national and international relevance of Human Rights.	

PG33T406SB	HUMAN RIGHTS
Unit-I: Human Rights in the Criminal Justice Administration	
a. Meaning, Nature and Scope of Human Rights	
b. Theories of Human Rights.	
c. Historical Development of Human Rights.	
d. Universal Declaration of Human Rights 1948.	
e. Human Rights and Criminal Justice System in India.	
Unit-II: Provisions of Human Rights	
a. International Convention- U.N Charter and Universal Declaration of Human Rights.	
b. International Bill of Human Rights.	
c. International Covenant on Civil and Political Rights.	
d. International Covenant on Economic, Social and Cultural Rights	

Unit-III: Human Rights and the Constitution of India
a. Relevant Provision under Cr. P. C (Sec 50, 54, 56 to 58, 167,300 & 303,304,322,436,437& 438.)
b. Indian Evidence Act. (Sec, 24 to 26, 112,114 & 133)
c. Human Rights issues in India.
d. Specific Rights
i. Right to Life, Liberty & Equality , Right to Fair Hearing in the Court, Right to Freedom from torture & other Cruel and Inhuman Degrading Treatment, Right of the Child.
ii. Women's Rights.
iii. Prisoners Right.
iv. Victims Right.
Unit-IV: Protection of Human Rights
a. Preventive Measures for the Protection of Human Rights.
b. Human Rights Organization, Commission of Committees.
c. State Human Rights Commission.
d. Role of Central & State Government in Formation of Committee Members.
Unit-V: Powers, Functions of NHRC and SHRC
a. Powers and Functions of SHRC
b. Recent Cases Dealt by NHRC & SHRC
c. Recommendation of NHRC & SHRC
Suggested Readings
1. Awasti, S. K, 2004, Law Relating to Protection of Human Rights.
2. Naseema, C. (2008). Human Rights Education Theory and Practice. Shipra Publications, Delhi.
3. Naseema, C. (2012). Human Rights Education Conceptual and Pedagogical Aspects. Kaniska Publishers Distributors, New Delhi.

4. Ruhela, S.P. & Nayak, R.K. (2011).Value Education and Human Rights Education. Neelkamal Publications Pvt.Ltd.
5. Ghosh, S. &Mohan, R. (2016). Education in Emerging Indian Society the Challenges and Issues. PHI Learning Private Limited.
6. Puar, S.S. (2012). Right to Education Act: A Critical Analysis. International Journal of Educational and Psychological Research (IJEPR)
7. Viswanath, M. (2014). Right to Education using Human Rights Based Approach: A Policy Perspective for India. IOSR Journal of Humanities and Social Science (IOSRJHSS)
8. Mahapatra, N. (2012).Role of Education in Promotion andProtection of Human Rights, Odisha Review,
9. The Constitution of India, Govt. of India, Ministry of Law and Justice.
10. Gupta, M. & Lata, P. (2013).Protection of Child Rights in India: Role of Teachers and Parents, Educationia Confab,
11. Naseema, C. (2008). Human Rights Education Theory and Practice. Shipra Publications, Delhi.

PG33F407D	SEMESTER - IV
PROJECT WORK/ DISSERTATION	
Course outcomes	
After successfully completing this course students	
CO 1. are able to understand different concepts of criminology and forensic science. CO 2. have a general understanding regarding research methods in criminology and forensic science. CO 3. are able to comprehend different fields in criminogenic research, forensic application of the study and selection of research topics from different criminological and forensic fields. CO 4. have begun to think critically about selection of topic, sampling and research design. CO 5. Able to understand the importance of research and its applicability to criminal justice and forensic science.	

PG33F407D	PROJECT WORK/DISSERTATION
o For Dissertation, each student shall select one research topic compulsory with the consultation of your concerned faculty.	

o This Dissertation shall carry 100 marks and 4 credits. 75 marks for Dissertation/ Fieldwork study and 25 marks for viva. The completed work shall be submitted at least two weeks prior the concluding of 4 <sup>th</sup> Semester.
Objectives
1. Knowledge from the program is applied to the development of Research Skills.
2. Applying Particular theoretical perspectives to specific area of crime and the Institutions of crime control.
3. Developing an in-depth Dissertation on a Specific area of theory or research.
4. Designing Research Strategies into the Understanding of Crime.
5. All the Students shall take this Paper Compulsorily and work under a Faculty Guide.

## **Fake news and Crime**

**Credit :04**

**60 hours**

### **Module:1 News media**

- Introduction to News media
- Meaning, Definition, scope
- Types of media
- New media
- Electronic and print media
- Social medias

### **Module:2 Fake news**

- Meaning and definition of fake news
- Types of Fake news
- Source of fake news
- Motivation for fake news
- Verification of fake news

### **Module:3 Digital media**

- Electronic media
- Types of Digital media
- Characteristics of Digital media
- Importance of digital news for the current scenario
- Social media

### **Module: 4 Media and society**

- Interdependency of the society
- News and its impact on the society
- Social media and attitude of society
- Various problems caused by fake news

### **Module 5: control**

- Laws in India related to fake news
- Techniques to detect fake news
- Necessity of awareness about disinformation
- Role of Educational institute and other organisation to prevent the problem
- International guidelines related to fake news

## **PH.D. COURSEWORK**

### **PAPER III – AREA OF SPECIALIZATION**

#### **QUESTIONED DOCUMENTS**

##### **Unit I: Introduction to Questioned Documents**

- Definition, Types, Principles and Preliminary examination of documents
- Reproduction of documents through photographic and mechanical means and their examination
- Scope and application in Investigation of crime
- Evidentiary value of questioned documents
- Case studies involving documents in investigation
- Linguistics, stylistics, forensic stylistics- Definition, Methodology, Use in personal identification, Application in different Indian vernacular languages, Limitations, Case studies

##### **Unit II: Questioned Document Analysis**

- Hand writing analysis
- Examination of Alterations such as Erasures, Obliterations & Additions
- Indentations, Secret writings and Charred documents
- Age of documents
- Examination of Typescripts, printed matter, (types of printers) including currency notes and lottery tickets. Mechanical impressions
- Examination of Credit Cards and Similar materials

##### **Unit III: Evidentiary value of Inks**

- Inks – Historical development
- Types and composition of inks
- Inks, Papers and their scientific examinations with modern methods
- Influencing factors on ink analysis

##### **Unit IV: Ink analysis with advanced technology**

- Ink technology

- Physical and non-destructive techniques: ESDA, Projectina, Video Spectral Comparator, UV-IR Illuminating chamber, Transmitted light source, Oblique light source, digital camera, optical instruments, Compound and Stereo Microscope.
- Chemical and destructive techniques – TLC, HPLC, HPTLC, capillary electrophoresis

### **Unit V: Statistical applications in ink analysis**

- Understanding how statistics can address forensic science (chemometric methods)
- Application of multivariate statistics (PCA and HCA)
- Pearson correlation, cluster dendogram, PLS-DA (PLS Discriminant analysis), etc

### **Suggested readings**

1. Sharma, B. R. (1990), Forensic Science in Criminal Investigation and Trials, Central Law Agency, New Delhi
2. Osborn, A. S. (1998) Questioned Documents, Universal Law Pu
3. Levinson, L. (2001) Questioned Document: A Lawyer's Handbook, Academic Press, Great Britain
4. Hilton, O. (1982) Scientific Examination of Questioned Documents, Elsevier, New York
5. Brunelle, R. L., & Crawford, K. R. (2003) Advances in the Forensic Analysis and Dating of Writing Ink, Charles C Thomas Publication Limited
6. Miranda, M. D. (2016). Forensic Analysis of Tattoos and Tattoo Inks, CRC Press
7. Vastrick, T. W. (2004) Forensic Document Examination Techniques, Inst of Internal Auditors
8. Koppenhaver, K. M. (2007) Forensic Document Examination: Principles and Practice, Humana, Germany

## **PhD COURSE WORK SYALLBUS**

### **PAPER-III Area of research**

### **FORENSIC PSYCHOLOGY**

#### **UNIT-I: Psychology and legal system**

1. Introduction to Psychology and forensic Psychology.
2. Psychology and legal process interaction.
3. Relationship between criminology, psychology and forensic science.
4. Fundamental distinction between psychology and law.

#### **UNIT-II: Forensic Risk Assessment**

1. Introduction to risk assessment.
2. Definition, types of risk assessment.
3. Risk assessment in various cases. (Disaster, suicides, violence, domestic violence, accidents).

#### **UNIT-III: Industrial Psychology**

1. Definitions of Organizational Behaviour, History, Hawthorne studies, fundamentals of organizational behavior.
2. Dynamics of people and organization, Theoretical frameworks. Models and Approaches of organizational behavior.
3. Foundations of Individual Behaviour.
4. Leadership, Power and Meaning and Importance.
5. Coping with Organizational Life.

#### **UNIT-IV: Disaster Management.**

1. Introduction on Disaster
2. Risk and Vulnerability Analysis.
3. Disaster Preparedness and Response.

#### **UNIT-V: Application of psychology in personnel health**

1. Introduction to Counseling: Definition; Concept; Scope; Characteristics of a Good Counselor; Ethics in Counseling
2. Approaches to Counseling: Psychoanalysis; Behaviouristic; Humanistic; Cognitive
3. Application of Counseling: Family set up; Educational set up; Organizational set up; Clinical set up
4. Types of Counseling: Individual Counseling; Group Counseling; Family Counseling; Premarital and Marital Counseling; Career Counseling

#### **Suggested readings:**

1. Bruce A. Arrigo and Stacey L. Shipley (2005), Introduction to Forensic Psychology, Elsevier Academic Press publications.
2. Professor David Canter (2012), Forensic Psychology for Dummies, John Wiley & Sons, Ltd, Chichester, West Sussex, England.
3. David Canter (2010), Forensic Psychology: A Very Short Introduction, The moral rights of the author have been asserted Database right Oxford University Press
4. Marc J. Ackerman (2010), Essentials of Psychological Assessment Series, John Wiley & Sons, Inc., Hoboken, New Jersey.
5. W. Nick Carter (2008), Disaster Management A Disaster Manager's Handbook, Asian Development Bank.
6. Dr. A.K. Singh, Handbook on Disaster Management, Regional Centre for Urban and Environmental Studies Lucknow University Campus, Lucknow



KARNATAK UNIVERSITY,  
DHARWAD  
Academic Section (S&T),  
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Nagar, Dharwad

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Mail ID:  
stacademicsection@gmail.com

No. KU/Aca(S&T)/SSK-193/Comp.Sc.(UG/PG)/2016-17/ 140 Dated: 15 MAY 2017

**NOTIFICATION**

**Sub:** Regarding, Revision of PGDCA Syllabus w.e.f. 2017-18 & onwards.

- Ref:** 1) BOS Res. No.15 dated 5.10.2016  
2) Science Faculty Res. No. 15 dated 12.1.2017  
3) AC Res. No. 44 dated 25.3.2017  
4) Vice-Chancellor's order dated: 12.05.2017

\*\*\*\*

Adverting to the above it is hereby notified to the Chairman, Department of studies in Computer Science, principal of concerned affiliated degree colleges coming under the jurisdiction of Karnatak University, Dharwad that the PGDCA Syllabus is revised w.e.f. 2017-18 & onwards.

Hence the contents of this notification may please be brought to the notice of the student and all concerned.

The said syllabus is displayed on our University website i.e. [www.kud.ac.in](http://www.kud.ac.in). Academic Folder

**REGISTRAR**

**To,**

1. The Chairman, BOS in Computer Science (UG/PG), PG Dept. of Computer Science, K.U. Dharwad for information.
2. The Registrar,(Evaluation), K.U. Dharwad.

**Copy f.w.cs. to:**

1. Dr. (Smt) Pancharatna, Dean Faculty Science, P.G. Dept. of Zoology, K.U. Dharwad,
2. The Principal of concerned affiliated degree colleges coming under the jurisdiction of Karnatak University, Dharwad

**Copy to :**

1. P.S. to Vice-Chancellor, K.U. Dharwad.
2. S.A. to Registrar, K.U. Dharwad.
3. O.S., Academic(P.G) Section, K.U. Dharwad.
4. O.S., Exam (UG Branch) Section, K.U. Dharwad.
5. O.S., Exam Confdl/QP/GAD/ CDC Section, K.U. Dharwad.
6. Office File



# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations governing one-year P.G. Diploma In Computer Applications**

### **PREAMBLE**

**INTRODUCTION:** The area of Computer Science and its applications is advancing rapidly, especially during the last few years. In view of the present developments in the area and needs of job market, the Board of Studies in Computer Science, decided to revise the present syllabus of PGDCA course.

### **OBJECTIVES**

To train students in various aspects of Computer applications  
To provide diverse and fulfilling career options in computer applications.

### **COURSE OFFERED**

One year P.G. Diploma course in Computer Application (concurrent course)

### **COURSE STRUCTURE:**

#### **1. Title:**

The course shall be called P.G. Diploma in computer Applications (PGDCA)

#### **2. Duration:**

This course is extended over a period of one academic year with two semesters. Each semester will have 16 weeks duration.

#### **3. Eligibility:**

A candidate who has passed the Bachelor's degree examination with a minimum of 45% marks in any discipline is eligible for admission to the course. In case of SC/ST students the relaxation for eligibility condition shall be as fixed by the University from time to time.

#### **4. Medium of Instruction:**

The medium of instruction will be in English only.

#### **5. Hours of Instruction:**

There shall be four hours per week for every theory & practical papers.

#### **6. Number of papers:**

Each semester will have a total of 600 marks consisting theory and practical.

#### **7. Attendance:**

A student shall obtain a minimum of 75% of the total instruction/practical hours in each paper/practical as per the University regulations.

A student who does not satisfy the above requirement of attendance shall not be eligible to appear for the examination and should seek fresh admission to the semester.

#### **8. Scheme of Examination:**

The board of examiners will scrutinize and approve the question papers set by the paper setters selected from a panel of examiners.

There shall be single valuation for theory and practical examination. Marks shall be awarded for theory and practical examinations.

There shall be a University examination at the end of each semester. Each semester examination will have theory and practical as prescribed.

The composition of the marks shall be as under:

Each theory paper and practical will have 80 marks for the semester examination and 20 marks for Internal Assessment.

Duration of the theory examination shall be of three hours.

The question Paper format shall be as follows:

The Question Paper shall consists of two parts. Answering five full questions choosing at least two question from each part.

Each full question carrying 16 marks. Full question may divided into sub questions.

**9. Internal Assessment marks:**

Each theory/practical paper will have 20 marks for Internal Assessment.

No minimum marks are prescribed for Internal Assessment.

Internal Assessment marks once awarded will hold good even if a candidate reappears for the examination.

**10. Declaration of results.**

The grading of successful candidate at the examination shall be as follows:

Percentage marks	Class
70.00 to 100.00 %	First Class with Distinction
60.00 to 69.99 %	First Class
50.00 to 59.99 %	Second Class
Below 50%	Fail

**Scheme of Study and Examination for P.G. Diploma in Computer Science Applications**  
(Not under CBCS Scheme)  
(PGDCA) (With effect from 2017-2018 onwards)

**SEMESTER-I**

Sl. No	Subject Code	Subjects	Lecture Hrs/w	Practical Hrs/w	Duration Theory/Practical Exam Hrs.	Marks		Total Marks
						Exam	IA	
1	PGDCA 1.1	Introduction to Office Automation	4	-	3	80	20	100
2	PGDCA 1.2	C Programming	4	-	3	80	20	100
3	PGDCA 1.3	Windows Operating System	4	-	3	80	20	100
4	PGDCA 1.4	Office Automation Lab	-	02	3	80	20	100
5	PGDCA 1.5	C-Programming Lab	-	02	3	80	20	100
6	PGDCA 1.6	Operating System Lab	-	02	3	80	20	100
		<b>Total</b>	12	06	-	480	120	600

**SEMESTER-II**

Sl. No	Subject Code	Subjects	Lecture Hrs/w	Practical Hrs/w	Duration Theory/Practical Exam Hrs.	Marks		Total Marks
						Exam	IA	
1	PGDCA 2.1	Page Maker & Adobe Photoshop	4	-	3	80	20	100
2	PGDCA 2.2	Corel Draw	4	-	3	80	20	100
3	PGDCA 2.3	Tally & SPSS	4	-	3	80	20	100
4	PGDCA 2.4	Page Maker & Adobe Photoshop Lab	-	02	3	80	20	100
5	PGDCA 2.5	Corel Draw Lab	-	02	3	80	20	100
6	PGDCA 2.6	Tally & SPSS Lab	-	02	3	80	20	100
		<b>Total</b>	12	06	-	480	120	600

## **PG Diploma in Computer Application**

### **PROGRAM OUTCOMES (PO)**

PO1: It will equip the students with skills required for designing, developing applications in Information Technology.

PO2: Students will be able to learn the latest trends in various subjects of computers & information technology.

PO3: The PG Diploma is aimed at graduates with a computing background and provides a detailed coverage of the key concepts and challenges in data and resource protection and computer software security.

PO4: To give hands on to students while developing real life IT application as part of the study.

PO5: To train graduate students in basic computer technology concepts and information technology applications.

PO6: Design and develop applications to analyze and solve all computer science related problems.

### **PROGRAM SPECIFIC OUTCOMES (PSO)**

PSO1: To expose the students to open Source technologies so that they become familiar with it and can seek appropriate opportunity in trade and industry.

PSO2: Able to provide socially acceptable technical solutions to real world problems with the application of modern and appropriate programming techniques.

PSO3: Design applications for any desired needs with appropriate considerations for any specific need on societal and industrial aspects.

## PGDCA 1.1 INTRODUCTION TO OFFICE AUTOMATION

Total Hours: 48

### Course Outcome

Upon Completion of the course, the students will be able to

- To provide an in-depth training in use of office automation, internet and internet tools.
- The course also helps the candidates to get acquainted with IT.
- Learning Outcomes: After completion of the course, students would be able to documents, spreadsheets, make small presentations and would be acquainted with internet.

### UNIT-I

**Introduction to computers:** Anatomy of Computer System, Hardware and Software Components, Memory unit: Types of memory, ROM, RAM, types of RAM & ROM, Introduction to cache and virtual memory.

[2 Hours]

### UNIT-II

**MS-word:** Introduction, what is Word-Processing, Important Features of MS-Word, Creating and Editing a documents, Entering Text in the documents, Moving Around the documents, Formatting a Document

**Formatting A Document:** Format and align text, Line and paragraph spacing, add bulleted and numbered lists, add borders and shading, Changing the Layout of a Document.

Using Editing and Proofing Tools: Spell and grammar check, Shortcut Menus, Find and replace text.

Working with Tables: Insert a table, convert a table to text, Navigate and select text in a table, resize parts of a table, align text in a table, format a table, Insert and delete columns and rows, Borders and shading, Merge table cells.

[20 Hours]

### UNIT-III

**MS-Excel:** The Basics Creating a New Workbook Navigating in Excel Moving the Cell Pointer Using Excel Menus Using Excel Toolbars: Hiding, Displaying, and Moving Toolbars Entering Values in a Worksheet and Selecting a Cell Range, saving a Workbook & Reopening a saved workbook

**Formatting a Worksheet:** Formatting Fonts & Values Adjusting Row Height and Column Width, Changing Cell Alignment, Adding Borders, Applying Colors and Patterns, Using the Format Painter, Using AutoFormat Merging Cells, Rotating Text and using AutoFit

**Managing your workbooks:** Inserting and Deleting Worksheets Renaming and Moving Worksheets, protecting a Workbook Hiding Columns, Rows and Sheets, Entering Date Values and using AutoComplete

**Formulas:** Creating a basic Formula Calculating Value Totals with AutoSum Editing & Copying Formulas Fixing Errors in Your Formulas

**Creating & Working with Charts:** Creating a Chart Moving and Resizing a Chart Formatting and Editing Objects in a Chart, working with Pie Charts Adding Titles, Gridlines, and a Data Table Formatting a Data Series and Chart Axis Annotating a Chart Working with 3-D Charts.

[20 Hours]

### UNIT-IV

**PowerPoint:** What's New in PowerPoint, Understanding the PowerPoint Program Screen.

**Presentation:** Creating a New Presentation, Inserting and Deleting a Slide and Selecting a Layout Opening a Presentation, Navigating a Presentation Using Undo, Redo and Repeat Saving a Presentation.

**Inserting and Editing Text:** Inserting Text Editing Text, Cutting, Copying, and Pasting Text, Moving and Copying Text with the Mouse, Checking Your Spelling, Finding and Replacing Text Inserting Symbols and Special Characters

**Formatting Text:** Changing Font Type, Changing Font Size, Changing Font Color, Changing Font Style, Using the Font Dialog Box, Using the Format Painter Using WordArt. Formatting a Presentation: Using Document Themes, Changing the Background of a Slide Rearranging Slides Adding Headers and Footers Using the Slide Master Working with Bulleted and Numbered Lists Changing Paragraph Alignment and Line Spacing Working with Tabs and Indents.

**Working with Objects:** Inserting Clip Art Inserting Pictures and Graphics Files Formatting Pictures and Graphics Inserting Shapes Formatting Shapes Resize, Applying Special Effects to Objects Grouping Objects.

**Working with Tables:** Creating a Table, Adjusting Column Width and Row Height, Inserting and Deleting Rows and Columns, Merging and Splitting Cells, Working with Borders and Shading Applying a Table Style.

**[6 Hours]**

***REFERENCES:***

1. Programming in C, P.B. Kotur.
2. Office Automation Concepts and Tools by Tsichritzis, D. (Ed.)
3. Microsoft Office 2016 by Joan Lambert.

## PGDCA 1.2 C PROGRAMMING

Total Hours: 48]

### Course Outcome

Upon Completion of the course, the students will be able to

- Able to implement the algorithms and draw flowcharts for solving Mathematical and Engineering problems.
- Demonstrate an understanding of computer programming language concepts.
- To be able to develop C programs on linux platform

### UNIT-I

**Introduction to Programming Paradigms:** Evolution of programming languages, Structured programming, Procedural programming, object oriented programming, Functional programming and Logic programming, compilation process, object code, source code, executable code, fundamentals of algorithms, flow charts.

[10Hours]

### UNIT-II

**Fundamentals:** C character set Identifiers & Keywords, data types, constants, variables and arrays, declarations, expressions, statements, symbolic constants

**Data types:** Properties of type and objects, data objects, variables and constants, data types, specification and implementations of elementary data types, declaration, type checking and type conversion, assignment and initialization, structured data types-vectors and arrays, records, lists, character strings, files and input-output.

[12 Hours]

### UNIT-III

**Operators and Expressions:** Arithmetic operators, unary operators, relational and logical operators, assignment operators, conditional operators, Library functions.

[8 Hours]

### UNIT-IV

**Control Statements:** Branching, Looping, Nested control structures, switch break, continue statements, comma operator, go to statement.

**Functions:** Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion.

[8 Hours]

### UNIT-V

**Arrays:** Defining and processing, one-dimensional Array, Multidimensional Array declaration and their applications, Passing arrays to a function.

**String:** String variables, declaring & initializing string variables, reading & writing strings, string Functions - concatenation, comparison, copy, length implementing the above functions without using built-in string functions, arithmetic operations on characters, programming examples.

[10 Hours]

### REFERENCES:

1. Programming Languages, Design and Implementation, Pratt, T.W., PHI
2. Programming with C, Gottfried, Schaum's Series, TMH Publications.
3. Programming in ANSI C, E. Balaguruswamy, TMH Publications.
4. Computer Programming C.V. Rajmaman, PHI

5. Let us C - Yashwant Kanetkar, BPB Publications
6. Programming Languages, Concepts and Constructs, Ravi Sethi, Addison Wiley.

## PGDCA 1.3 WINDOWS OPERATING SYSTEM

Total Hours: 48

### Course Outcome

Upon Completion of the course, the students will be able to

- Understand the basic components of a computer operating system, and the interactions among the various components.
- The course will cover an introduction on the policies for scheduling, deadlocks, memory management, synchronization, system calls, and file systems

### UNIT-I

**Windows Overview:** History, understanding the OS architecture, Graphics interface, Benefits, Screen attributes: icons and bars, Mouse vs. keyboard input, Features and accessories of the Windows program, Objects and their properties.

[8 Hours]

### UNIT-II

**Installing Windows:** Exploring OS Editions, Planning Clean Installs vs. Upgrades, Understanding Installation Types, Using Virtualized Installations

**Program management:** Creating, saving and editing documents, Concurrent execution of programs, Sharing data between programs

**Folder and file management:** Working with files, Naming files, Copying and moving files, Deleting files, Managing folders a. Creating, Viewing, Expanding and collapsing.

[10 Hours]

### UNIT-III

**Managing the Desktop:** Understanding Desktop Features, Working with Gadgets, Changing Display Settings, Creating Shortcuts

**Control panel:** Customizing screens, Screen colors, Pattern, Spacing icons, selecting time/date, Customizing printing, changing the print queue, configuring the printer(s), Adding printers.

**Working with fonts:** changing, removing, adding, Customizing mouse and keyboard use, System properties and the device manager.

[10 Hours]

### UNIT-IV

**Management tools:** DOS sessions, Explorer, Memory configuration, Safe mode

**Device Management:** Understanding Device Drivers, Exploring Plug-and-Play Operations, Connecting and Managing Devices, Using Disk Defragmenter, Performing a Disk Cleanup, Scheduling Tasks.

**Managing Applications:** Planning for Local and Network Applications, Install and uninstall applications, Configuring and Removing Applications, Using Group Policy for Application Control, Understanding Application Virtualization, The Difference between Services and Standard Applications.

[10 Hours]

### UNIT-V

**Controlling Malware:** Understanding Malware Types, Planning for Malware Protection, Understanding Microsoft Protection Methods

**Backup and Recovery:** Planning for Backups, Testing Recovery Processes, Working with System Restore, Using Recovery Boot Options.

**Windows Update:** Understanding Hotfixes and Service Packs, Planning for Windows Update and Microsoft Update.

[10 Hours]

**REFERENCES:**

1. Operating Systems: Internals and Design Principles by William Stallings, Fifth Edition Prentice Hall.
2. Microsoft Windows Operating System Essentials by Tom Carpenter Sybex Publishers.
3. An Introduction to Windows Operating System by Einar Krogh
4. Microsoft Windows Security Essentials 1st Edition by Darril Gibson

## **PGDCA 2.1 PAGE MAKER AND ADOBE PHOTOSHOP**

Total Hours: 48

### **Course Outcome**

Upon Completion of the course, the students will be able to

- This class provides you with the concepts and skills to use Adobe Page Maker effectively.
- Our goal is to make sure your class meets your objectives, not ours.
- Courses that relate to this class: Adobe Illustrator and Adobe Photo-shop.

## **PAGE MAKER**

### **UNIT I**

**Introduction:** Introduction to Page Maker Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns, formatting text.

[10 Hours]

### **UNIT-II**

**Master Pages & customization:** Master Pages and Stories, Story Editor, Menu Commands and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor.

[10 Hours]

## **ADOBE PHOTOSHOP**

### **UNIT-III**

**Introduction:** Introduction to Adobe Photoshop & Documents, Various Graphic Files and Extensions, Vector Image and Raster Images, Various Colour Modes and Models.

[10 Hours]

### **UNIT-IV**

**Layers & Filters:** Introduction to Screen and Work Area, Photoshop Tools & Palettes , Layers Palette ,Working with Layers , New Layer via Cut , New Layer via Copy ,Working with Images, The Filter Menu, Filter Gallery , Extract Filter,Noise Filters, Sketch Filters.

[10 Hours]

### **UNIT -V**

**Printing and Customization:** Import, Export, Automate, Printing, Customize Workspace, Creating an Action.

**[8 Hours]**

***REFERENCES:***

1. PageMaker(R) 7: The Complete Reference By Carolyn Connally
2. Adobe PageMaker By [Barnabas Crist Bal](#)
3. Desktop Publishing Using PageMaker 6.0 Windows By [Julia C. Bradley](#)
4. Photoshop 7: The Complete Reference By [Laurie Ulrich-Fuller](#)
5. The Adobe Photoshop Layer By [Richard Lynch](#)
6. Introduction To Adobe Photoshop By [Abigail J Morley](#)

## PGDCA 2.2 Corel DRAW

Total Hours: 48

### Course Outcome

Upon Completion of the course, the students will be able to

- Have sufficed knowledge about the entire software.
- He will be well versed with drawing grids, segments, using rulers, coloring, manipulating effects, moderating shapes etc.

### UNIT-I

**Introduction to CorelDRAW:** Use and importance in Designing, Various Graphic Files and File Extensions ,Vector Image and Raster Images , Introduction to Screen and Work Area.

[10 Hours]

### UNIT-II

**Introduction to Tools of CorelDRAW:** Managing Palettes ,Working with Images, Patterns and Textures ,Working with Shapes, Colours and Fills ,Image Rasterisation and Editing, Transformation Menu.

[10 Hours]

### UNIT-III

**CorelDRAW Files:** Coreldraw Files and supporting documents, Import and Export of Files and File formats Page Setup and Designing, Using Styles and Templates, Working with Text, Formatting Text, Text Attributes.

[10 Hours]

### UNIT-IV

**Page Layout and Layers:** Designing Different Page Layouts, Column Layout, Special Effect to Objects and Texts, Contour Tool ,Layout for News Paper and Magazines, Working with Layers Hiding/Showing Layers - Deleting Layers, Masking Layers.

[10 Hours]

### UNIT-V

**Printing and Customization:** Preparation of Visiting Cards & Invitation Cards, Shaping Dockers & Logo Design Introduction Brochure & Books, Introduction to Magazine Designing, Web Photo Gallery Printing.

[8 Hours]

### REFERENCES:

1. CorelDraw x5 Unleashed, Foster D. Coburn III
2. CorelDraw The Official Guide By Gary David Bouton
3. CorelDRAW [Jesse Russell Ronald Cohn](#).
4. Corel Draw Graphics Suite X4 Training Guide - Corel Draw Version by [Mc Sharma](#)

## PGDCA 2.3 TALLY AND SPSS

Total Hours: 48

### Course Outcome

Upon Completion of the course, the students will be able to

- MS Paint
- Photoshop
- PageMaker
- Adobe Photoshop CC
- Adobe creative team, Adobe press

### TALLY

#### Unit-I

**Manual Accounting:** Accounting, Need for accounting, Types of accounts, Rules of debit & credit, Accounting principles or standards, Accounting concepts, Accounting conventions, Accounting system, Recording transactions in journal, Ledger (Classifying), Trial balance, Final Accounts, Trading & P/L statement, Balance sheet, Adjustment Entries, Summary.

[8 Hours]

#### UNIT-II

**Computerized Accounting:** Installing Tally – Requirements & procedure for installing tally, Education mode, Changing default settings through tally. Opening screen of tally, Creating Company, shutting a company, Altering/Modifying existing Company, Buttons on the button Panel

**Accounting Information:** Menu related to accounts, Groups, Managing Groups, Creating new group & sub group, Displaying, altering & deleting a group, Creating, Displaying & altering multiple groups.

**Ledgers:** Displaying, altering & deleting single and Multiple Ledgers.

[8 Hours]

#### UNIT-III

**Cost categories & Cost centers:** Creating, Displaying, Altering & Deleting a cost category and cost centers, Vouchers in Tally, Inventory information, stock categories, stock item, Multiple Stocks, Multiple Godowns, reports and internet capabilities.

[8 Hours]

### SPSS

#### UNIT-IV

**Introduction to PASW:** Menus, Tool Bar, Dialogue Box, Designate Window, Basic steps for performing any Statistical Procedure

**Data Management:** Creating a Data File, Defining Variables, Entering & Saving Data, Opening an existing Data File, Inserting Variables, Inserting Cases, Identifying Duplicate Cases, Identifying Unusual Cases, Sorting Cases, Merging a File: Add Cases, For Adding Variables, Data Aggregation, Splitting File, Selecting Cases, Listing Cases.

[8 Hours]

#### UNIT-V

**Data Transformation:** Computing a New Variable, Recoding Variables, Types of measurement Scales, Descriptive Statistics, Crosstabs.

**Describing Data Graphically:** Line Chart, Pie Chart, Bar Chart, Histogram and the Standard Normal

Curve, Box Plot, Scatter Diagram, P-P Plot, Q-Q Plot, Chart Builder, Formatting Charts.

[8 Hours]

#### UNIT-IV

**One Sample t-Test:** Hypothesis testing, Independent Sample t-Test, Sample t-Test, Procedure for Testing for Differences in Means between Groups, Interpretation of Null Results.

**Nonparametric statistics:** Runs Test, Chi-Square Test, Mann-Whitney U Test, Wilcoxon Signed Rank

Test, Kruskal-wallis Test.

[8 Hours]

#### **REFERENCES:**

1. Tally ERP 9 by [Asok K. Nadhani](#) , BPB Publishers
2. Computerized Accounting Using Tally.ERP 9 by Tally Education Private Limited.
3. SPSS in Simple Steps by Kiran Pandya Smruti Bulsari Sanjay Sinha, Dreamtech press (2011)
4. SPSS: A User-Friendly Approach by Jeffery E. Aspelmeier, Thomas W. Pierce ,Worth Publishers (2009)
5. Statistical Methods for Practice and research: A Guide to Data Analysis using SPSS 0002 edition 2009
6. A Visual Approach to SPSS for windows: A Guide to SPSS 17.0 by Leonard D.Stern, Pearson 2009

KARNATAKUNIVERSITY, DHARWAD



*Regulations and Syllabus*  
*for*  
*P.G. Studies in*  
**MASTER OF COMPUTER**  
**APPLICATIONS**  
*(M.C.A.)*  
**(I-IV Semester)**



**Revised Syllabus**

*Under*  
*Choice Based Credit System (CBCS)*  
From  
2020-21 onwards

**Regulations Governing Post-Graduate Programmes in the  
Faculty of Science & Technology under Choice Based Credit System**  
(Framed under Section 44(1))(c) Of the K.S.U.Act.2000)

**1.0 Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Science & Technology under Choice Based Credit System” in Karnatak University, Dharwad

**2.0 Commencement**

These Regulations shall come into force with effect from the academic year 2020-21.

**3.0 Definitions**

- a In these Regulations, unless otherwise provided;  
“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- b “Board of studies means P. G. Board of studies of the University, Adhoc/Combined and Steering Committees of International Diploma programmes in the discipline/subjects concerned.
- c “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d Course Weightage “means number of credits assigned to a particular course.
- e “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regard the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f “Cumulative Grade Point Average(CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g “Degree” means Post-Graduate Degree.
- h “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i “Grade Point Average”(GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j “Open Elective Course “means a paper offered by a Department to the students of other Departments.
- k “Post Graduate Programme“ means semester wise Master’s Degree Programme’s excluding P. G. Diploma.
- l “Specialization course” means advanced paper offered by a Department that a student of that Department can opt a special course.

m “Student” means the student admitted to programmes under (k).

n “University “means Karnatak University, Dharwad.

#### **4.0 Minimum Eligibility for Admission**

A candidate who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent there to by this university, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the university from time to time and Government of Karnataka (Karnataka Examination Authority), Bangalore.

Admission shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0 Duration of the programme**

The duration of the study for the Post-Graduate Degree programme shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However the student, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programmer with due approval from the Registrar. Candidates shall no register for any other regular course other than diploma and certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0 Medium of Instruction and Evaluation**

The medium of instruction shall be in English.

#### **7.0 Programme Structure**

**7.1** The student of Post –Graduate programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time minimum and maximum credits as outlined in these regulations.

**7.2** There shall be three categories of courses namely, compulsory courses, specialization Courses and Open Elective Courses.

**7.3** Each programme shall have a set of compulsory courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned programme that a student must complete to get the concerned degree.

**7.4** In those programmes that offer specialization courses, the student shall choose the prescribed number of specialization courses offered within the Department

**7.5** Each Department shall offer Open Elective courses for students of other Departments, The students of a Department shall choose Open Elective courses from among those prescribed by the university and selected by the Department from time to time. P.G. Centers and affiliated colleges can offer those open Elective Course, which are approved or prescribed by their Parent Department of the University. Such open Elective courses shall be taught by qualified teachers approved by the University.

**7.6** The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course, from 2 to 4; and for Open Elective Course, from 2 to 4, wherever project work/field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.

**7.7** The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M Sc. Computer Science the minimum credits are 116.

- 7.8 The student shall undertake project/field work during the programme as a compulsory course or in lieu of Specialization Course or open Elective Course if so specified by the concerned Board of Studies.
- 7.9 The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10 The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure-IA, Annexure-Ib.
- 7.11 The Open Elective courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

## **8.0 Attendance**

- 8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching /practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4 A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75% of the number of instructional hours during the semester.
- 8.5 There is no provision for condoning shortage of attendance.
- 8.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7 Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

- 9.1 There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Department/P.G. Centers/Colleges. The even semester examination shall be conducted by the University.
- 9.1.1 Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks practical examination.
- 9.1.2 Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application from through the proper channel and shall also pay the fees prescribed.
- 9.1.3 The office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1<sup>st</sup> semester-end examination. That will be the Register Number to the candidate for all subsequent appearance at semester-end examinations.
- 9.1.4 The answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5 The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester)

- 9.1.6** Candidate who have failed, remained absent or opted for improvement in any course/courses shall appear for such course/courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fees to the Registrar (Evaluation) within 15 day from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise and approve question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Department/P.G.Center/Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/Administrator of the P.G. Center/Principal of the College shall appoint one of their full time courses teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the officer of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Officer at the conclusion of the valuation at the respective centers.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other University/Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The Marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.  
Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.
- 9.3.4** Wherever dissertation/project work is prescribed in the even semesters of the programme, the same shall be evaluated by both internal and external examiners. The valuation shall be as prescribed by the concerned Board of Studies.
- 9.3.5** In case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4 Evaluation**

**9.4.1** Each Course shall have two evaluation components – Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25% / 30% / 50% and the Semester End Examination shall carry 75% / 70% / 50% respectively, as the case may be. Courses have 25% & 30%/50% marks as internal assessment shall have 3/5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table

For courses carrying 25% of marks for IA, the attendance marks shall be

<b>Attendance (in Percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

Internal Assessment (IA) shall be based on written tests, practical and seminars.

**9.4.4** However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The test shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the department/Centers/Colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation/project work viva-voce shall be conducted by an internal and external examiner.

#### **10.0 Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

#### **11.0 Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a program in each semester to successfully complete the program.

**11.3** Candidates shall earn the prescribed number of credits for the program to qualify for the PG Degree.

- 11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the program in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average.**

- 12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 07.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 05.00	D
less than 40.00 %	Less than 4.00	F

- 12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

- 12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

- 12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester / Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Semester + Sum of the CP of II Semester / Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly.

- 12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class To Be Awarded
7.5 to 10.0	First Class With Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

**13. Miscellaneous:**

- a.** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b.** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c.** The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d.** The procedural details may be given by the University from time to time.
- e.** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

## Annexure-I

**The Program structure of the Master of Science Degree shall be as follows:**

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem. I	Th :03 (04) =12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. II	Th :03 (04) =12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. III	Th:03(04)=12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. IV	Th :03/04** (04) =12/16 Pra/Th: 03/04* *(02)=06/08 Pj <sup>#</sup> 01 (06) =06	24		-	24
Total	Th 12/13 (4) =48/52 Pra/Th 12/13(02)= 24/26 Pj: 1 (06)=06	78	03 (04)=12 Pra/Th*:03(02)=06	18	96

**Note:** Except for IV semester, the concerned Department shall offer one each of open elective theory and practical course or two \* open elective Theory courses for students of other science departments. \* Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics Abbreviations: Th = Theory; Pra = Practical; Pj = Project

GRADE CARD										
Program: MCA (.....)										
Name of the candidate:			Semester:IV							
Seat No:			Month & Year:							
Course	Course Code	Credit	IA Marks		Theory/ Practical		Max	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt				
Course - I	XX CT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	XX CT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	XX CT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course - IV	XX CP 4.4	02	15	06	35	34	50	40	8.00	16.00
<b>Total</b>		<b>14</b>					<b>350</b>			

XX refers to course abbreviations. 4.1 refers to IV semester course 1; e.g. CHI CT 1.1= Chemistry Inorganic compulsory theory 1.1

# except for Mathematics and Statistics; \* For Statistics and mathematics; +Only for Statistics; ^only for Mathematics

**GPA for IV Semester = CP (IV Sem) / Credits (IV Sem) = 200 / 24.00 = 8.33**

GPA for I Semester = CP (I Sem) / Credits (I Sem)

CGPA for I Semester = GPA for I Semester CP (ISem) + CP (IISem)

CGPA for II Semester= CP(I SEM)+CP(II SEM)

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Credit(I Sem)+ Credit(II Sem)

CGPA for III Semester= CP(I SEM)+CP(II SEM)+CP(III SEM)

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Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)

CGPA for the program = CP(I SEM)+CP(II SEM)+CP(III SEM)+CP(IV Sem)

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Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)+ Credit(IV Sem)

(\*CP:Credit Points)

## Annexure-1a

The program structure of the **MC**A shall be as follows:

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open Elective course	Total credits for the semester
Sem. I	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem. II	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem. III	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra: 01(02)=02	06	30
Sem. IV	Th :05 (04) =20Pra:01(06)=06	26	-----	-----	26
Total	Th 20 (04) =80 Pra 03(04)=12 Pj : 1 (06)=06	98	Th:03 (04)=12 Pra:03(02)=06	18	116

**Note:** Except for I and IV semester, the concerned Department shall offer one each of open elective theory and practical for students of other science departments.

**Abbreviations:** Th = Theory; Pra = Practical; Pj = Project;

## GRADE CARD

<p align="center"><b>Program: MCA</b></p>	
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Name of the candidate: \_\_\_\_\_ Semester: I/II/III

Name of the candidate: \_\_\_\_\_ Semester: I/II/III

<b>Seat No:</b>	<b>Month &amp; Year:</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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Courses		Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
<b>Compulsory Courses</b>											
				<b>Max</b>	<b>Obt</b>	<b>Max</b>	<b>Obt</b>				
Course - I		CT X.1	04	25	15	75	45	100	60	6.00	24.00
Course - II		CT X.2	04	25	15	75	59	100	74	7.40	29.60
Course - III		CT X.3	04	25	15	75	50	100	65	6.50	26.00
Course - IV		CT X.4	04	25	15	75	45	100	60	6.00	24.00
Course - V		CT X.5	04	25	15	75	50	100	65	6.50	26.00
Course - VI		CT X.6	04	25	15	75	45	100	60	6.00	24.00
<b>Open elective courses:</b>											
Course - VII		ET X.7	04	25	15	75	50	100	65	6.50	26.00
Course - VIII		ET X.8	02	10	05	40	35	50	40	8.00	16.00
<b>Total</b>			<b>30</b>					<b>750</b>			<b>195.60</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>X:Semester</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>X:Semester</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>X:Semester</b>

<b>GRADE CARD</b>	
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Program: MCA
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<b>Name of the candidate:</b>	<b>Semester:IV</b>
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<b>Name of the candidate:</b>	<b>Semester:IV</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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Course	Course Code	Credit	IA Marks		Viva-voce		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt	Max	Obt				
Course - I	CT 4.1	04	25	15			75	45	100	60	6.00	24.00
Course - II	CT 4.2	04	25	15			75	59	100	74	7.40	29.60
Course - III	CT 4.3	04	25	15			75	50	100	65	6.50	26.00
Course - IV	CPR 4.4	06	25	15	50	40	75	45	150	120	8.00	48.00
Course - V	CT 4.5	04	25	15			75	50	100	65	6.50	26.00
Course - VI	CT 4.6	04	25	15			75	45	100	60	6.00	24.00
Total		26							650			177.60

CT: Core Theory	
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**CP: Core Project**

**CGPA for I Semester =  $195.60/30=6.52$**

CGPA for I Semester =  $195.60/30=6.52$   
CGPA for I Semester=GPA=6.52

$$\text{CGPA for II Semester} = \text{CP(I SEM)} + \text{CP(II SEM)}$$

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**Credit(I Sem)+ Credit(II Sem)**

$$\text{CGPA for III Semester} = \text{CP(I SEM)} + \text{CP(II SEM)} + \text{CP(III SEM)}$$

**Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)**

$$\text{CGPA for the program} = \text{CP(I SEM)} + \text{CP(II SEM)} + \text{CP(III SEM)} + \text{CP(IV Sem)}$$

**Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)+ Credit(IV Sem)**

Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)+ Credit(IV Sem)  
(\*CP:Credit Points)

## Annexure-1b

The program structure of the **Master of Computer Applications (MCA)** shall be as follows:

Semester	No.ofcompulsory & Specialization courses (credits/course)	Total credits for compulsory &Specializa tion courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem.I	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.II	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.III	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.IV	Th :05 (04) =20 Pra:01(04)=04 SR:01(02)=02	26	-----	-----	26
Total	Th:20 (04) =80 Pra:05(04)=020 SR:02(02)=004 Pj:1 (16)=016	98	Th:03 (04)=12 Pra:03(02)=06	18	116

**Note:**Except for I and IV semester, the concerned Department shall offer one each of open elective theory and practical for students of other science departments.

**Abbreviations:**Th = Theory; Pra = Practical; Pj = Project;

<b>GRADE CARD</b>
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<p><b>Program: MCA</b></p>
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Name of the candidate: \_\_\_\_\_ Semester: I/II/III

Name of the candidate: \_\_\_\_\_ Semester: I/II/III

<b>Seat No:</b>	<b>Month &amp; Year:</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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Courses	Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point	
Compulsory Courses			Max	Obt	Max	Obt					
	Course - I	CT X.1	04	25	15	75	45	100	60	6.00	24.00
	Course - II	CT X.2	04	25	15	75	59	100	74	7.40	29.60
	Course - III	CT X.3	04	25	15	75	50	100	65	6.50	26.00
	Course - IV	CT X.4	04	25	15	75	45	100	60	6.00	24.00
	Course - V	CT X.5	04	25	15	75	50	100	65	6.50	26.00
	Course - VI	CT X.6	04	25	15	75	45	100	60	6.00	24.00
Open elective courses:											
Course - VII	ET X.7	04	25	15	75	50	100	65	6.50	26.00	
Course - VIII	ET X.8	02	10	05	40	35	50	40	8.00	16.00	
Total		30					750			195.60	

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>CSR: Core Seminar</b>
<b>X:Semester</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>CSR: Core Seminar</b>
<b>X:Semester</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>CSR: Core Seminar</b>
<b>X:Semester</b>

<b>CT: Core Theory</b>
<b>CP: Core Practical</b>
<b>CSR: Core Seminar</b>
<b>X:Semester</b>

GRADE CARD										
Program: MCA										
Name of the candidate:								Semester: IV		
Seat No:								Month & Year:		
Courses	Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt				
Course - I	CT X.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	CT X.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	CT X.3	04	25	15	75	50	100	65	6.50	26.00
Course - IV	CT X.4	04	25	15	75	45	100	60	6.00	24.00
Course - V	CT X.5	04	25	15	75	50	100	65	6.50	26.00
Course - VI	CP X.6	04	25	15	75	45	100	60	6.00	24.00
Course - VII	CSR X.7	02	---	---	---	---	50	40	8.00	16.00
<b>Total</b>		<b>26</b>					<b>650</b>			<b>169.60</b>
<b>CT: Core Theory</b>										
<b>CP: Core Practical</b>										
<b>CSR: Core Seminar</b>										
<b>X:Semester</b>										

**Programme Outcomes (PO):**

<b>Programme Outcomes</b>	
<b>PO1</b>	Apply knowledge of Computing fundamentals, Computing specialization, Mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.
<b>PO2</b>	Identify, formulate, and solve complex Computing problems reaching substantiated conclusions using fundamental principles of Mathematics, Computing sciences, and relevant domain disciplines.
<b>PO3</b>	Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration to societal, and environmental considerations.
<b>PO4</b>	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.
<b>PO5</b>	Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
<b>PO6</b>	Understand and commit to professional ethics and information security, responsibilities, and norms of professional computing practice.
<b>PO7</b>	Recognize the need, and have the ability, to engage in independent learning for continual development as a Computing professional.
<b>PO8</b>	Demonstrate knowledge and understanding of computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
<b>PO9</b>	Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.
<b>PO10</b>	Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.
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**Programme Specific Outcome (PSO):**

<b>Program Specific Outcome (PSOs)</b>	
PSO1	Gain the knowledge of computer programs/computer-based systems in the areas related to algorithms, networking, web design, database systems, data mining, artificial intelligence, IoT, Finite Automata and advanced java and operating system.
PSO2	Acquire professional skills and knowledge of software design and testing methods which will help to work as software engineer.
PSO3	Provide effective and efficient real time solutions using acquired knowledge in various domains.
PSO4	To make graduates understand cross cultural, societal, professional, legal and ethical issues prevailing in industry.
PSO5	Develop the ability to communicate ideas effectively.
PSO6	They will possess leadership and managerial skills with best professional ethical practices and social concern and will be able to communicate technical information effectively, both orally and in writing.
PSO7	Design and develop various application software projects to meet the demands of IT industry using modern software tools like php, java, net beans, .NET framework, mysql and spss.
PSO8	The subjects in the syllabus help the students to prepare for NET and KSET exams, so that they can join teaching profession or research work.
PSO9	The students can work on academic projects.

## SEMESTER - I

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
I	MCA 1.1	Digital Logic and Computer Design	4	4	3	25	75	100
	MCA 1.2	Discrete Mathematical Structures	4	4	3	25	75	100
	MCA 1.3	Introduction to Algorithms	4	4	3	25	75	100
	MCA 1.4	Data structures using C	4	4	3	25	75	100
	MCA 1.5	Algorithms Lab	4	4	3	25	75	100
	MCA 1.6	Data structures Lab	4	4	3	25	75	100
		<b>Total</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>150</b>	<b>450</b>	<b>600</b>

## SEMESTER - II

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
II	MCA 2.1	Probability and Statistics	4	4	3	25	75	100
	MCA 2.2	Computer Networks	4	4	3	25	75	100
	MCA 2.3	Python Programming	4	4	3	25	75	100
	MCA 2.4	Database Management System	4	4	3	25	75	100
	MCA 2.5	Python Programming Lab	4	4	3	25	75	100
	MCA 2.6	DBMS Lab (Using My SQL)	4	4	3	25	75	100
	<b>Open Elective</b>							
	OEC 2.7	Computer Concepts and Office Automation	4	4	3	25	75	100
		<b>Total</b>	<b>28</b>	<b>28</b>	<b>21</b>	<b>175</b>	<b>525</b>	<b>700</b>

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
III	MCA 3.1	Design and Analysis of Algorithms	4	4	3	25	75	100
	MCA 3.2	<b>Core Theory Electives-I</b>	4	4	3	25	75	100
	MCA 3.3	Data Mining	4	4	3	25	75	100
	MCA 3.4	Web Technologies	4	4	3	25	75	100
	MCA 3.5	Data Mining Lab	4	4	3	25	75	100
	MCA 3.6	Web Technologies Lab	4	4	3	25	75	100
	<b>Open Elective</b>							
	OEC 3.7	SPSS Software	4	4	3	25	75	100
		<b>Total</b>	<b>28</b>	<b>28</b>	<b>21</b>	<b>175</b>	<b>525</b>	<b>700</b>

#### Core Theory Electives-I:

Subject Code	Elective Title
MCA 3.2 A	Linear Algebra
MCA 3.2 B	Operating System Concepts
MCA 3.2 C	Computer Graphics
MCA 3.2 D	Mobile Computing
MCA 3.2 E	Cloud Computing
MCA 3.2 F	Business Intelligence Systems

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
IV	MCA 4.1	Software Engineering	4	4	3	25	75	100
	MCA 4.2	<b>Core Theory Electives-II</b>	4	4	3	25	75	100
	MCA 4.3	Artificial Intelligence and Machine Learning	4	4	3	25	75	100
	MCA 4.4	Operation Research	4	4	3	25	75	100
	MCA 4.5	Project	4	4	3	25	75	100
	MCA 4.6	Artificial Intelligence and Machine Learning Lab	4	4	3	25	75	100
		<b>Total</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>150</b>	<b>450</b>	<b>600</b>

#### Core Theory Electives-II:

Subject Code	Elective Title
MCA 4.2 A	Computer Vision
MCA 4.2 B	Internet of Things (IoT)
MCA 4.2 C	Mobile Communications
MCA 4.2 D	Deep learning
MCA 4.2 E	Information Security and Cryptography
MCA 4.2 F	Soft Computing

**KARNATAK UNIVERSITY, DHARWAD**  
**Department of Computer Science**  
**Programme outcomes, Programme Specific Outcomes and Course Outcomes.**  
**Master of Computer Application (MCA)**

**Programme Outcomes (PO):**

<b>Programme Outcomes</b>	
<b>PO1</b>	Apply knowledge of Computing fundamentals, Computing specialization, Mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.
<b>PO2</b>	Identify, formulate, and solve complex Computing problems reaching substantiated conclusions using fundamental principles of Mathematics, Computing sciences, and relevant domain disciplines.
<b>PO3</b>	Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration to societal, and environmental considerations.
<b>PO4</b>	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.
<b>PO5</b>	Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
<b>PO6</b>	Understand and commit to professional ethics and information security, responsibilities, and norms of professional computing practice.
<b>PO7</b>	Recognize the need, and have the ability, to engage in independent learning for continual development as a Computing professional.
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PSO8	The subjects in the syllabus help the students to prepare for NET and KSET exams, so that they can join teaching profession or research work.
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## MCA 1.1: Digital Logic and Computer Design

Total Hours: 48

### Course Outcome

**Course Code: MCA 1.1**      **Course Name: Digital Logic and Computer Design**

Upon Completion of the course, the students will be able to

- Introduce the concept of digital and binary systems.
- To design and analyze combinational logic circuits.
- To design and analyze sequential logic circuits.
- To learn the system design and memory organization

### Unit-I

**10 Hrs**

**Number Systems:** binary, octal hexadecimal, number base conversion, addition, subtraction of binary numbers, one's and two's complements, positive and negative numbers, character codes ASCH, EBCDIC.

**Boolean algebra and Logic gates:** Axiomatic definition of Boolean algebra, Basic theorems and properties, Boolean functions, canonical and standard forms, logic functions using gates and design of combinational circuits.

### Unit-II

**10 Hrs**

**Simplification of Boolean functions:** Karnaugh maps, product of sums, sum of products, simplification, NAND and NOR implementation, don't care condition.

**Combinational and Sequential logic:** Adders, subtractors, code, converters, decoder multiplexer, flip-flops, shift registers, counters.

### Unit-III

**10 Hrs**

**Processor Logic Design:** Processor organization, arithmetic logic unit, design of arithmetic and logic circuits, design of arithmetic logic unit, status registers, design of shifter, processor unit, design of accumulator.

**Control Logic Design:** Processor Organization, Hardware control micro program control, control of processor unit, PLA control, micro program sequencer, computer design.

### Unit- IV

**10 Hrs**

**Micro – computer System Design:** Microcomputer organization, microprocessor organization, instructions and addressing modes, subroutines and interrupts, memory organization, input-output interface, programmed input-output, input – output processor, input – output device characteristics, direct memory access (DMA).

**Unit-V****8 Hrs**

**Memory Organization:** Serial access, random access memories (RAM), read only memories (ROM), virtual memory, cache memory.

**Introduction to 8085 Assembly Language Programming:** The 8085 Programming model, Instruction classification, Instruction format, How to write, Assemble and Execute a simple program, Overview of the 8085 Instruction set.

***References:***

1. Digital Logic and Computer Design, Morris Mano, PHI
2. Digital Computer Fundamentals, Bartee, T.C., MC Graw Hill
3. Computer Architecture and Organization, Tanenbaum A.S., Mc Graw Hill
4. Computer Architecture and Organization, hayes, J.P., Mc Graw Hill
5. Introduction to Microprocessors, Gaonkar, Tata Mc Graw Hill
6. Digital Computer Electronics Malvino & Brown Shird Education, TMH.

## MCA 1.2: Discrete Mathematical Structures

### Course Outcome

Upon Completion of the course, the students will be able to

- Comprehend and evaluate mathematical arguments revolving around computation.
- Understand the basics of Combinations and Permutations.
- Understand the basics of Graphs and Trees to real world applications.
- Represent relations matrices and digraphs.

Total Hours : 48

#### Unit-I

**10Hrs**

**The Foundations: Logic and Proofs:** Propositional Logic, Applications of Propositional Logic, Propositional Equivalences, Predicates and Quantifiers, Nested Quantifiers, Rules of Inference, Introduction to Proofs, Proof Methods and Strategy

#### Unit-II

**10Hrs**

**Basic Structures: Sets, Functions, Sequences, Sums, and Matrices:** Sets, Set Operations, Functions, Sequences and Summations, Matrices.

#### Unit-III

**10Hrs**

**Induction and Recursion:** Mathematical Induction, Strong Induction and Well-Ordering, Recursive Definitions and Structural Induction, Recursive Algorithms, Program Correctness.

**Advanced Counting Techniques:** Applications of Recurrence Relations, Solving Linear Recurrence, Relations, Divide-and-Conquer Algorithms and Recurrence Relations, Generating Functions, Inclusion-Exclusion, Applications of Inclusion-Exclusion.

#### Unit-IV

**08Hrs**

**Relations :** Relations and Their Properties, n-ary Relations and Their Applications, Representing Relations, Closures of Relations, Equivalence Relations, Partial Orderings.

#### Unit-V

**10 Hrs**

**Graphs:** Graphs and Graph Models, Graph Terminology and Special Types of Graphs, Representing Graphs and Graph Isomorphism, Connectivity, Euler and Hamilton Paths, Shortest-Path Problems, Planar Graphs, Graph Coloring.

**Trees:** Introduction to Trees, Applications of Trees, Tree Traversal, Spanning Trees, Minimum Spanning Trees.

#### Reference Book:

1. Discrete Mathematics and Its Applications, Kenneth H. Rosen: Seventh Edition, 2012.

2. Discrete Mathematical Structure, Bernard Kolman, Robert C. Busby, Sharon Ross, 2003.
3. Graph Theory with Applications to Engg& Comp. Sci.: Narsingh Deo-PHI 1986
4. Discrete and Combinatorial Mathematics Ralph P. Grimaldi, B. V. Ramana, Pearson, Education, 5 Edition
5. Discrete Mathematical Structures. Trembley and Manohar.

## **MCA 1.3: Introduction to Algorithms**

Total Hours : 48

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Understand the difference between program and algorithms.
- Learn how to write the algorithms.
- Understand the importance of algorithms.

### **Unit-I:**

**10 hrs**

#### **Introduction to Computer Problem Solving**

Introduction, The Problem-solving Aspect, Top- down Design, Implementation of Algorithms, Program Verification, The Efficiency of Algorithms, The Analysis of Algorithms.

#### **Fundamental Algorithms**

Introduction, Exchange of Values of Two Variables, Counting, Summation of a Set of Numbers, Factorial Computation, Sine Function Computation, Generation of the Fibonacci sequence, Reversing the Digits of an Integer, Base Conversion, Character to Number Conversion

### **Unit-II:**

**10hrs**

#### **Factoring Methods**

Introduction, Finding the Square Root of a Number, The Smallest Division of an Integer, The Greatest Common Divisor of Two Integers, Generating Prime Numbers, Computing the Prime Factors of an Integer, Generation of Pseudo-random Numbers, Raising a Number to a large Power, Computing the  $n$ th Fibonacci number

### **Unit-III:**

**10hrs**

#### **Array Techniques**

Introduction, Array Order Reversal, Array Counting or Histogram Ming, Finding the Maximum Number in a Set, Removal of Duplicates from an Ordered Array, Partitioning an Array, Finding the  $k$ th Smallest Element, Longest Monotone Subsequence

### **Unit-IV:**

**10hrs**

#### **Merging, Sorting and Searching**

Introduction, the Two-way Merge, Sorting by Selection, Sorting by Exchange, Sorting by Insertion, Sorting by Diminishing Increment, Sorting by Partitioning, Binary Search.

### **Unit-V:**

**08 hrs**

#### **Dynamic Data Structure Algorithms**

Introduction, Stack Operations, Queue Addition and Deletion, Linked List Search, LinkedList Insertion and Deletion, Binary Tree Search, Binary Tree Insertion and Deletion.

#### **Recursive Algorithms**

Introduction, Binary Tree Traversal, Recursive Quick sort, Towers of Hanoi Problem, Sample Generation, Combination Generation, Permutation Generation.

**Reference:**

1. How To Solve It By Computer by R. G. Dromey, Fifteenth Ed 2014
2. Algorithms and Data Structures: N. Wirth 1985 Oberon version: August 2004.
3. Algorithmic graph theory by Alan Gibbons, Cambridge University Press.
4. Introduction to Algorithms, by T. Cormen , C. Leiserson , R. Rivest , C Stein, 3Ed. International Edition, MIT Press,2009.
5. Graph Theory : Modeling, Applications and Algorithms by Geir Agnarsson,1<sup>st</sup> Edition,2008.

## **MCA 1.4: Data Structures using C**

**Total hours :48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Learn to analyze algorithms and algorithm correctness.
- Learn to summarize searching and sorting techniques.
- Learn to describe stack, queue and linked list operation.
- Learn to have knowledge of tree and graphs concepts.

### **Unit- I INTRODUCTION TO DATA STRUCTURES**

08Hrs

Basic concepts: Introduction to data structures, classification of data structures, operations on data structures; Searching techniques: Linear search and Binary search; Sorting techniques: Bubble sort, selection sort, insertion sort and comparison of sorting techniques.

### **Unit II - II LINEAR DATA STRUCTURES**

10 Hrs

Stacks: Primitive operations, implementation of stacks using Arrays, applications of stacks, arithmetic expression conversion and evaluation; Queues: Primitive operations; Implementation of queues using Arrays, applications of linear queue, circular queue and double ended queue (deque).

### **Unit - III LINKED LISTS**

12 Hrs

Linked lists: Introduction, singly linked list, representation of a linked list in memory, Types of linked lists: Single linked lists, Circular linked lists, doubly linked lists; operations on a single linked list; Applications of linked lists: Polynomial representation and sparse matrix manipulation.

### **Unit - IV NON LINEAR DATA STRUCTURES**

10 Hrs

Trees: Basic concept, binary tree, binary tree representation, array and linked representations, binary tree traversal, binary tree variants, application of trees; Graphs: Basic concept, graph terminology, graph implementation, graph traversals, Application of graphs, Priority Queue.

### **Unit - V Binary search tree and HASHING**

08 Hrs

Binary search trees, properties and operations; Balanced search trees: AVL trees; Introduction to M-Way search trees, B trees; Hashing and collision: Introduction, hash tables, hash functions, collisions, applications of hashing.

### **References:**

1. S. Lipschutz, "Data Structures", Tata McGraw Hill Education, 1st Edition, 2008.
2. D. Samanta, "Classic Data Structures", PHI Learning, 2nd Edition, 2004.

### **Web References:**

1. [https://www.tutorialspoint.com/data\\_structures\\_algorithms/algorithms\\_basics.h  
tm](https://www.tutorialspoint.com/data_structures_algorithms/algorithms_basics.htm)
2. <https://www.codechef.com/certification/data-structures-and-algorithms/prepare>
3. <https://www.cs.auckland.ac.nz/software/AlgAnim/dsToC.html>  
<https://online-learning.harvard.edu/course/data-structures-and-algorithms>

## MCA 2.1: PROBABILITY AND STATISTICS

Total Hours : 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Understanding the basic probability axioms and rules.
- Understanding to derive the probability density function of transformations of random variables and use these techniques to generate data from various distributions.
- Understanding to translate real-world problems into probability models.
- Understanding to calculate probabilities of absorption and expected hitting times for discrete time Markov chains.

Unit I:

8hrs.

**Probability :** Sample space and Events - Probability -The Axioms of probability - some Elementary Theorems - Conditional probability -Baye's Theorem - Random variables – Discrete and continuous probability distributions.

Unit II:

10hrs.

**Distributions** Binomial, Poisson and normal Distributions, related properties. Sampling Distributions – Sampling Distribution of means.

UNIT III:

8 hrs.

**Estimation** Point Estimation - Interval Estimation – Introduction to student's t-distribution - Confidence interval for Single Mean and Single Proportion (Large and Small samples).

Unit IV:

14hrs.

**Testing of Hypothesis-I :**Testing of hypothesis-Introduction- Null hypothesis-Alternative hypothesis- Type I and Type II errors – Critical region. Test of hypotheses for Single Mean (Large and small samples) - Test of hypotheses for Single Proportion (Large and small samples).**Testing of Hypothesis-II:** Tests of hypotheses for difference of Means (Large and Small samples) - Tests of hypotheses for difference of proportions(Large samples) – Introduction to Chi-Square distribution and Goodness of Fit.

Unit V:

8hrs.

**Correlation & Regression:** Coefficient of correlation- Regression Coefficient- The lines of regression- The rank correlation.

### References

1. Probability & Statistics, T.K.V.Iyengar, B. Krishna Gandhi & Others, 3ed, S.Chand & Co, 2011
2. Probability & Statistics, D. K. Murugesan, P. Guru Swamy, 1ed, Anuradha Publications, 2011

3. Probability & Statistics for Engineers, G.S.S. Bhishma Rao, 2ed, Scitech Publications, 2005
4. Probability & Statistics for Engineers, Miller, John E. Freund, 8ed, Prentice Hall of India, 2010
5. A first course in Probability & Statistics, B.L.S. Prakasa Rao, 1ed, World Scientific, 2010
6. Fundamentals of Mathematical Statistics, S.C. Gupta, V.K. Kapoor, 11 ed, S. Chand & Co., 2003

## MCA 2.2: COMPUTER NETWORKS

Total Hours : 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Understanding the network protocols.
- Understanding the network architecture and its components.
- To learn the different encoding and decoding mechanisms involved in different types of transmission media and to measure the transmission impairments.
- Understand different wireless and mobile networks concepts.

### UNIT-I:

10hrs

**Foundation-** Building a Network, Applications, Requirements, Architecture, Software, Performance.

**Direct Links-** Connecting to a Network, Technology Landscape, Encoding, Framing, Error Detection, Reliable Transmission, Multi-Access Networks

### UNIT-II:

10hrs

**Internetworking:** Switching Basics, Switched Ethernet, Spanning Tree Algorithm, Broadcast and Multicast, Virtual LANs (VLANs), What Is an Internetwork? Service Model, Global Addresses, Datagram Forwarding in IP, Subnetting and Classless Addressing, Address Translation (ARP), Host Configuration (DHCP), Error Reporting (ICMP), Virtual Networks and Tunnels, Routing- Network as a Graph, Distance-Vector (RIP), Link State (OSPF), Metrics

### UNIT-III:

10hrs

**Global Internet-** Routing Areas, Inter-domain Routing (BGP)

**IP Version 6-** Historical Perspective, Addresses and Routing, Packet Format, Advanced Capabilities

**Multicast-** Multicast Addresses, Multicast Routing (DVMRP, PIM, MSDP)

**Multiprotocol Label Switching-** Destination-Based Forwarding, Explicit Routing, Virtual Private Networks and Tunnels

### UNIT-IV:

10hrs

**Simple Demultiplexor (UDP)**

**Reliable Byte Stream (TCP)-** End-to-End Issues, Segment Format, Connection Establishment and Termination, Sliding Window Revisited, Triggering Transmission, Adaptive Retransmission

**Remote Procedure Call-** RPC Fundamentals

**Transport for Real-Time (RTP)-** Requirements, RTP Design, Control Protocol

**Congestion Control- TCP Congestion Control**

**UNIT-V:****08hrs**

**Applications-Traditional Applications-** Electronic Mail (SMTP, MIME, IMAP), World Wide Web (HTTP), Web Services

**Multimedia Applications-** Session Control and Call Control (SDP, SIP, H.323), Resource Allocation for Multimedia Applications

**Reference books:**

1. Larry Peterson, "Computer Networks- A system approach", 5<sup>th</sup> edition, Elsevier
2. Kurose and Rose, "Computer Networking- A top down approach", 6<sup>th</sup> edition, Pearson, 2013
3. Andrew Tanenbaum, "Computer Networks", Prentice Hall
4. Behrouz Forouzan, "Data Communications and Networking", 4<sup>th</sup> edition, McGraw Hill, 2017

## **MCA 2.3: PYTHON PROGRAMMING**

**Total 48hrs.**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

1. Acquire programming skills in core Python.
2. Acquire Object Oriented Skills in Python
3. Develop the skill of designing Graphical user Interfaces in Python
4. Develop the ability to write database applications in Python

### **Unit-I**

12hrs.

**INTRODUCTION TO PYTHON PROGRAMMING:** Python interpreter and interactive mode; values and types variables, expressions, statements, tuple assignment, Order of operations, comments, debugging; modules and functions: function Calls, adding new functions, Definitions and Uses, flow of execution, parameters and arguments, Fruitful functions. Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, range, break, continue, pass; recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays.

### **Unit-II**

12hrs.

**LISTS, TUPLES, DICTIONARIES:** Lists: Traversing a List, list operations, list slices, list methods, Map, Filter and Reduce, list loop, mutability, aliasing, cloning lists, list parameters; Dictionaries: operations and methods; advanced list processing - list comprehension; Tuples: tuple assignment, tuple as return value.

### **Unit-III**

07hrs.

**FILES, MODULES, PACKAGES:** Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages: PANDAS, NUMPY, SCIKIT-LEARN;

### **Unit-IV**

10hrs.

**CLASSES AND OBJECTS:** Introduction, Defining Classes, Creating Objects, Data Abstraction and Hiding through Classes, Class method and self argument, Class Constructor (init() Method), Data Members, Calling a Class Method from another Class Method, Class Methods and Static Methods, Inheritance, Types of Inheritance, Abstract Classes and Interfaces, Operator Overloading, Overriding Methods.

### **Unit-V**

07hrs.

**Multithreading, GUI Programming, Graphics, Plotting and Web Programming:** Multithreading-Introduction, Threading Module (Creating a Thread, Synchronizing Threads) GUI Programming with tkinter Package, Simple Graphics using Turtle, Plotting Graphs in Python, Web Programming using Python.

### **REFERENCES:**

1. Allen B. Downey, ``Think Python: How to Think Like a Computer Scientist,,,,, 2nd edition, Updated for Python 3, Shroff/O.,Reilly Publishers, 2016
2. Guido van Rossum and Fred L. Drake Jr, —An Introduction to Python – Revised and updated for Python 3.2, Network Theory Ltd., 2011.

3. John V Guttag, —Introduction to Computation and Programming Using Python,,,,, Revised and expanded Edition, MIT Press , 2013
4. Robert Sedgewick, Kevin Wayne, Robert Dondero, —Introduction to Programming in Python: An Inter-disciplinary Approach, Pearson India Education Services Pvt. Ltd., 2016.

## **MCA 2.4: DATABASE MANAGEMENT SYSTEM**

**Total hours: 48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Analyze the asymptotic performance of algorithms.
- Apply important algorithmic design paradigms and methods of analysis.
- Ability to analyze the performance of *algorithms*.
- Ability to choose appropriate *algorithm* design techniques for solving problems.

### **UNIT-I INTRODUCTION TO DBMS**

10Hrs

Introduction, characteristics of database, advantages of DBMS over file processing system, A Brief History of Database Applications. Database softwares (microsoft SQL server, oracle RDBMS, MySQL) Data Models, Schemas, and Instances; Three-Schema Architecture and Data Independence; Database Languages and Interfaces; Centralized and Client/Server Architectures for DBMS.

### **UNIT-II DATA MODELING**

10 Hrs

Entity-Relationship Diagram, Relational Model - Constraints, Languages, Design, and Programming, Relational Database Schemas, Update Operations and Dealing with Constraint Violations; Relational Algebra and Relational Calculus; Codd Rules.

### **Unit-III: Enhanced Data Models**

12 Hrs

Temporal Database Concepts, Multimedia Databases, Deductive Databases, XML and Internet Databases; Mobile Databases, Geographic Information Systems, Genome Data Management, Distributed Databases and Client-Server Architectures.

### **UNIT-IV SQL AND NOSQL**

08 Hrs

Data Definition and Data Types; Constraints, Queries, Insert, Delete, and Update Statements; Views, Stored Procedures and Functions; Database Triggers, SQL Injection. NOSQL: NOSQL and Query Optimization; Different NOSQL Products, Querying and Managing NOSQL; Indexing and Ordering Data Sets; NOSQL in Cloud.

### **UNIT -V NORMALIZATION FOR RELATIONAL DATABASES**

08 Hrs

Functional Dependencies and Normalization; Algorithms for Query Processing and Optimization; Transaction Processing, Concurrency Control Techniques, Database Recovery Techniques, Object and Object-Relational Databases; Database Security and Authorization.

### **References:**

1. "Database System Concepts" by Silberschatz, Korth, Sudarshan, 4th Edition, McGraw Hill Publication.
2. "Database Systems, Concepts, Design and Applications" by S.K.Singh, Pearson Education.
3. "Database Management Systems" by Raghu Ramakrishnan, Johannes Gehrke, McGraw Hill Publication.

4. “Fundamentals of Database Systems” by Elmsari, Navathe, 5th Edition, Pearson Education (2008).

## **MCA OEC 2.7: Computer Concepts and Office Automation**

Total Hours: 48

Upon Completion of the course, the students will be able to

- Understand different Computer Peripherals.
- Understand and apply different Software components.
- Learn about Microsoft office software and its applications.

### **Unit-I**

**10 Hrs**

**Basics:** History and generations of Computer, Types of Computer, Organization of Computer System, Hardware and Software Components, Memory unit: Types of memory, ROM, RAM, types of RAM & ROM, Introduction to cache and virtual memory.

### **Unit-II**

**10 Hrs**

**Number system:** Binary Octal, Hexa-decimal, Number base conversion, Binary addition, Subtraction, One's and Two's compliment, Character codes – ASCII, EBCDIC.

### **Unit-III**

**10 Hrs**

**Operating System:** Types of operating system, Functions, Introduction to DOS and WINDOWS operating system.

**Software:** Types of languages, Types of software (System and Application software).

### **Unit-IV**

**10 Hrs**

**Network and Internet:** History and evolution of Computer Network, Types of network (LAN, MAN & WAN), Internet and its applications.

### **Unit-V**

**08 Hrs**

**Office Automation:** Working with MS-Word, MS-Excel and MS-POWER POINT

### **Reference:**

1. Computer Concepts & C Programming, P.B.Kottur, Sapna Book House Bangalore 2009
2. Computer Fundamentals, V. Rajaraman, Prentice Hall of India, 2008
3. Computer Fundamental P.K. Sinha, Prentice Hall of India, 6th Edition, 1992
4. Fundamentals of Information Technology second edition, Alexis Leon, 2009
5. Microsoft Office-Complete reference, Curt Simmons, Mc Graw Hill, 2003

## MCA 3.1: Design and Analysis of Algorithms

Total Hours : 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Analyze the asymptotic performance of algorithms.
- Apply important algorithmic design paradigms and methods of analysis.
- Ability to analyze the performance of *algorithms*.
- Ability to choose appropriate *algorithm* design techniques for solving problems.

### Unit-I:

12 hrs

**Introduction:** What is an algorithm?, Fundamentals of Algorithmic Problem Solving, Important Problem Types, Fundamental data Structures.

**Fundamentals of the Analysis of Algorithm Efficiency:** Analysis Framework, Asymptotic Notations and Basic efficiency classes, Mathematical analysis of Recursive and Non-recursive algorithms.

**Brute Force and Exhaustive Search:** Selection Sort and Bubble Sort, Sequential Search and Brute-Force String Matching, Depth-First Search and Breadth-First Search

### Unit-II:

8 hrs

#### Decrease-and-Conquer

Insertion Sort, Topological sorting, Algorithms for Generating Combinatorial Objects, Binary Search.

#### Divide-and-Conquer

Merge sort, Quick sort, Binary tree Traversals and related properties, Multiplication of large integers, Strassen's Matrix Multiplication

### Unit-III:

10 hrs

#### Space and Time Tradeoffs

Sorting by Counting, Input Enhancement in String Matching, Hashing.

### Unit-IV:

10 hrs

#### Dynamic Programming

Computing a binomial coefficient, Warshall's and Floyd's Algorithms, The Knapsack Problem and Memory Functions.

### Unit-V:

08 hrs

**Greedy Technique** Prim's Algorithm, Kruskal's Algorithm, Dijkstra's Algorithm.

#### Limitations of Algorithm Power

Lower-Bound Arguments, Decision Trees, P, NP and NP-Complete Problems.

### Reference Books:

1. Introduction to the Design and Analysis of Algorithms, 3<sup>rd</sup> Edition, by Anany Levitin, Pearson, 2012,

2. Introduction to Algorithms, , 3Ed, by T. Cormen , C. Leiserson , R. Rivest , C Stein. International Edition, MIT Press, 2009.
3. Fundamentals of Computer Algorithms, *Ellis Horowitz; Sartaj Sahni; SanguthevarRajasekaran, Universitypress*, 2008.
4. Algorithm Design, Michael T Goodrich and Roberto Tamassia, Wiley India.
5. Introduction to Design and Analysis of Algorithms “R C T Lee, S S Tseng, R C, Chang, Y T Tsai, A Strategic Approach, Tata McGraw Hill.

### **MCA 3.3: Data Mining**

Total Hours: 48

#### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Data preprocessing and data quality.
- Modeling and designing of data warehouses.
- apply Algorithms for data mining.
- Ability to apply acquired knowledge for understanding data and select suitable methods for data analysis.

#### **Unit-I**

**10 Hrs**

Data mining – Motivation – Importance - DM Vs KDD - DM Architecture - Data Types – DM Tasks –DM System Classification - Primitives of DM - Data Mining Query Language - DM Metrics - DM Applications - DM Issues – Social Implications of DM

#### **Unit-II**

**10 Hrs**

Data Preprocessing: Summarization - Data cleaning - Data Integration and Transformation - Data Reduction - Discretization and Concept Hierarchy Generation

#### **Unit-III**

**10 Hrs**

Mining Frequent Patterns – Frequent Item set Mining Methods. Classification: Classification by Decision Tree Induction – Bayesian Classification – Rule based Classification - Prediction– Accuracy and Error Measures

#### **Unit-IV**

**10 Hrs**

Cluster Analysis – Types of Data in Cluster Analysis – Categorization of clustering Methods – Partition Methods - Outlier Analysis – Mining Data Streams – Social Network Analysis – Mining the World Wide Web

#### **Unit-V**

**8 Hrs**

Data Warehousing: OLTP Vs OLAP - Multidimensional Data Model -DW Architecture Efficient Processing of OLAP queries - Metadata repository – DWH Implementation – OLAM

#### **References:**

1. Jiawei Han, Micheline Kamber, "Data Mining: Concepts and Techniques", 3rd Edition, Elsevier India Private Limited, 2012.
2. Margaret H. Dunham, "Data Mining: Introductory and Advanced Topics", Pearson Education, 2012.
3. K.P.Soman, Shyam Diwakar, V. Ajay, "Insight into Data Mining Theory & Practice, Prentice
4. Hall India, 2012 5. G.H.Gupta, "Introduction to Data Mining with Case Studies", 2nd Edition, PHI.
5. Ralph Kimball, Margy Ross "The Data Warehouse Toolkit: The Complete Guide to Dimensional Modeling", 3rd Edition, Wiley, Jul 2013

## MCA 3.4: WEB TECHNOLOGIES

**Total Hours : 48**

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Students are able to develop a dynamic webpage by the use of java script and DHTML.
- Students will be able to write a well formed / valid XML document.
- Students will be able to connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.
- Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.
- Students will be able to write a server side java application called JSP to catch form data sent from client and store it on database.

### Unit-I:

**10 hrs**

Web essentials – W3C - clients – servers - communication – markup languages – XHTML – simple XHTML pages style sheets – CSS

### Unit-II:

**12 hrs**

**Client side programming:** Introduction to Java script, Basic Syntax, Variables and Data types, Statements, Operators, Literals, Functions, Objects, Arrays, Built-in objects, Java script debuggers.

**Host objects Browsers and the DOM:** Introduction to Document Object Model, DOM history and levels, Intrinsic Event Handling, Modifying Element Style, The Document tree, DOM Event handling.

### Unit-III:

**12 hrs**

**Server side programming:** (Java servlets) - Servlet Architecture Overview, A “Hello World!” Servlet, Servlet Generating Dynamic Content, Servlet lifecycle, Parameter Data, Sessions, Cookies, URL Rewriting, Other Servlet capabilities, Data Storage, Servlets and Concurrency.

**Separating Programming and Presentation (JSP Technology):** Introduction to Java Server Pages, JSP and Servlets, Running JSP Applications, Basic JSP, Java Beans Classes and JSP, Tag Libraries and Files, Support for the Model – View Controller Paradigm.

### Unit-IV:

**07 hrs**

**Representing Web Data:** XML, XML document and Vocabularies, XML Declaration, XML Namespaces, Java Script and XML: Ajax, DOM based XML processing, Event-oriented Parsing: SAX, Transforming XML Documents, Selecting XML Data: XPath Template-based Transformation: XSLT, Displaying XML Documents in browsers.

### Unit-V:

**07 hrs**

**Web Services:** JAX-RPC, WSDL, XML Schema and SOAP: Web Service Concepts, Writing a Java Web Service, Writing a Java Web Service Client, Describing Web Services: WSDL, Representing Data Types: XML Schema, Communicating Object Data: SOAP.

Databases and Java Servlets, Databases and JSP

### References

1. Jeffrey C Jackson, “Web Technology – A computer Science perspective”, Person Education, 2007.
2. Chris Bates, “Web Programming – Building Internet Applications”, “Wiley India, 2006.

## MCA OEC 3.7: SPSS Software

Total Hours: 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Understand how to start SPSS.
- Define a variety of statistical variables.
- Enter basic data into SPSS and carry out a statistical analysis that can test hypotheses.

### UNIT-I

10Hrs

**Table of Contents:** Overview of PASW Statistics, Introduction to PASW: Menus, Tool Bar, Dialogue Box, Designate Window, Basic Steps for performing any Statistical Procedure

**Data Management:** Creating a Data File, Defining Variables, Entering the Data, Saving Data, Opening an existing Data File, Inserting Variables, Inserting Cases, Identifying Duplicate Cases, Identifying Unusual Cases, Sorting Cases, Merging a File: Add Cases, For Adding Variables, Data Aggregation, Splitting File, Selecting Cases, Listing Cases

### UNIT-II

10Hrs

**Data Transformation:** Computing a New Variable, Recoding Variables, Automatic Recode, Visual Binning, Rank Cases

**Describing Data Numerically:** Types of Measurement Scales, Summary Measures, Frequencies, Descriptive Statistics, Explore, Crosstabs

### UNIT-III

10Hrs

**Describing Data Graphically:** Line Chart, Pie Chart, Bar Chart, Histogram and the Standard Normal Curve, Box Plot, Scatter Diagram, P-P Plot, Q-Q Plot, Chart Builder, Formatting Charts

### UNIT-IV

10Hrs

**One Sample t-Test :** Hypothesis Testing, Steps in Hypothesis Testing, Assumptions of Hypothesis Testing, Testing for Population Mean, Statistical and Practical Significance

**Independent Sample t-Test:** Assumptions of Independent Sample t-Test, Procedure for Testing for Differences in Means between Groups, Interpretation of Null Results, Effect Size

### UNIT-V

08Hrs

**Nonparametric Statistics:** Runs Test, Chi-Square Test, Mann-Whitney U Test, Wilcoxon Signed Rank Test, Kruskal-Wallis Test

### References

1. SPSS In Simple Steps by Kiran Pandya SmrutiBulsari Sanjay Sinha, Dreamtech Press (2011)

2. Applied Statistics with SPSS by Eelko Huizingh, New ed Edition, Sage Publications (CA) (2007)
3. SPSS: A User-Friendly Approach by Jeffery E. Aspelmeier, Thomas W. Pierce, Worth Publishers (2009)
4. Statistical Methods For Practice And Research : A Guide To Data Analysis Using SPSS 0002 Edition, Response Books (2009)
5. A Visual Approach to SPSS for Windows: A Guide to SPSS 17.0, by Leonard D. Stern, Pearson (2009)

## MCA 4.1:Software Engineering

Total Hours : 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Learn the phases of software development.
- Develop process models and process system models.
- Gather, understand, analyze and specify requirements.
- Develop architectural diagram, and implement by following coding principles.
- Apply testing strategies and handle software product maintenance issues.

### Unit-I

10 Hrs

**The Product and The Process:** Evolving role of software, software characteristics and components, Crisis, Software Myths, Software Engineering-A Layered Technology, Software process, linear sequential model, Prototyping model, RAD model, Evolutionary software process model.

**Project Management Concepts:** The Management Spectrum, The People, The Product, The Process, and The Project .W5HH Principle.

**Software Process and Project Metrics:** Measures, Metric Indicators, Metric in process and the Project Domains ,Software Measurement, Metrics for software quality.

### Unit-II

10 Hrs

**Software Project Planning:** Project Planning Objectives, Software Project Estimation, decomposition Techniques, Empirical Estimation Models.

**Risk Analysis and Management:** Software Risks, Risk Identification, Risk Projection, Risk Refinement and Risk Mitigation, Monitoring, and Management.

### Unit-III

10Hrs

**Analysis Concepts and Principles:** Requirement analysis, communication techniques, analysis principles, software prototyping and specification.

**Analysis Modeling:** Elements of analysis model, data modeling, functional modeling, behavioral modeling, the mechanics of structured analysis, data dictionary, other classical analysis methods.

### Unit-IV

10hrs

**Design Concepts and Principles:** Software design and software engineering design process, design principles, design concepts, design methods, data design, architectural design and process, transform and transaction mappings, design post processing, architectural design optimization, interface design, procedural design.

### Unit-V

08 hrs

**Software Testing Techniques and Strategies:** Fundamentals, Test case design, White box testing, Basis path testing, Control structure testing, Black box testing, Software testing strategies.

**Software Configuration Management:** Configuration management, maintenance costs, maintenance side effects, maintenance tissues.

**Software Quality Assurance:** Quality Concepts, Software Quality Assurance, FTR, ISO 9001, ISO-9002, ISO-9003, Introduction to CASE, DOD standard 2167 A.

**REFERENCES:**

1. Software Engineering, Fifth Edition, Roger - Pressman, McGraw Hill.
2. Software Engineering , Ian Sommerville, International Computer Science, Series
3. Software Engineering, Schooma, McGraw Hill
4. Object Oriented Design and Analysis, Booch, Benjamin / Cummings,
5. Software Engineering: A Practitioner's Approach 7<sup>th</sup> Edition, Roger – Pressman, Tata McGraw - Hill Education (2010)

## **MCA 4.3: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

**Total Hours : 48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Fundamental understanding of the history of artificial intelligence (AI) and its foundations. Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.
- Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.

### **Unit-I:**

**12 hrs**

Introduction: Introduction to AI applications and AI techniques, Production systems, control strategies, reasoning - forward and backward chaining. Intelligent Agents: Definitions of a rational agent, reflex, model-based, goal-based, and utility-based agents, the environment in which a particular agent operates.

### **Unit-II:**

**12 hrs**

Searching Techniques and Game Playing: Breadth first search, depth first search, iterative deepening, uniform cost search, hill climbing, simulated annealing, genetic algorithm search, heuristic search, Best first search, A\* algorithm, AO\* algorithm, Minimax and game trees, refining minimax, Alpha - Beta pruning, constraint satisfaction.

### **Unit-III:**

**10 hrs**

Knowledge Representation: First order predicate calculus, resolution, unification, natural deduction system, refutation, logic programming, PROLOG, semantic networks, frame system, value inheritance, conceptual dependency, Ontologies. Planning: basic representation for planning, symbolic-centralized vs. reactive-distributed, partial order planning algorithm.

### **Unit-IV:**

**07 hrs**

Machine learning: Introduction to different types of learning, Supervised and Unsupervised learning — Reinforcement learning- Basics of Neural network models.

### **Unit-V:**

**07 hrs**

Applications of Artificial Intelligence- Natural Language Processing, Speech recognition, Computer vision, Expert systems.

### **REFERENCE:**

1. S. Russell and P. Norvig, Artificial Intelligence: A Modern Approach (3rd ed.), Pearson Education, 2010.
2. Elaine Rich and Kelvin Knight, Artificial Intelligence, Tata McGraw Hill, 2002.
3. Nils J Nilson, Artificial Intelligence: A New Synthesis, Morgan Kaufmann Publishers, Inc., San Francisco, California, 2000.

## **MCA 4.4: OPERATION RESEARCH**

**Total Hours : 48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Formulate and solve problems as networks and graphs.
- Develop linear programming (LP) models for shortest path, maximum flow, minimal spanning tree, critical path, minimum cost flow, and transportation problems.
- Solve the problems using special solution algorithms.

### **UnitI**

**10hrs**

Introduction: History, Definitions, Features of Operation Research, Models and modeling in OR, Methods for solving OR models, Advantages of OR Study. Linear Programming: Structure of Linear programming model, General Mathematical model of LPP, guidelines on linear programming models, Examples of LP model formulation.

### **UnitII**

**12hrs**

Linear programming: Graphical solution Methods of LP problems, Simplex algorithm(Maximization case), Simplex algorithm (Minimization case): two phase and Big-M method. Duality in Linear programming

### **Unit III**

**10hrs**

Transportation Problem : Mathematical model of transportation problem, The transportation algorithm, NWCM, LCM, VAM, Test for optimality, variations in Transportation problem.

### **UnitIV**

**10hrs**

Assignment Problem: Mathematical models of Assignment Problem, Hungarian method for solving Assignment problem. Network Models: Scope and definition of Network models, minimal spanning tree algorithm, TSP as a network model, project management :CPM and PERT.

### **UnitV**

**6hrs**

Decision Theory and Decision Trees : Steps in decision making, Types of Decision making environment Decision making under uncertainty, Decision making under risk, Posterior probabilities and Bayesian Analysis, Decision Tree Analysis.

### **References :**

1. Sharma J.K, Operations Research, Theory and Applications, McMillan IndiaLtd.
2. HamdyA. Taha, Operations Research, 8/e, PearsonEducation.

3. Filet B. E., Introduction to Operation Research : A Computer Oriented Algorithm Approach
4. Gillet B.E, Introduction to Operations Research, TMH.
5. Chandrasekhar Salimath and Bhupenderparashar, Operation Research, University Press, 2014

### **CORE THEORY ELECTIVES: I**

<b>Subject Code</b>	<b>Elective Title</b>
MCA 3.2A	Linear Algebra
MCA 3.2B	Operating System Concepts
MCA 3.2C	Computer Graphics
MCA 3.2D	Mobile Computing
MCA 3.2E	Cloud Computing
MCA 3.2F	Business Intelligence Systems

**MCA 3.2A: LINEAR ALGEBRA**  
**Total hours-48**

**Course Outcomes:**

Upon Completion of the course, the students will be able to

- Solve systems of linear equations
- Use matrix algebra and the related matrices to linear transformations
- Compute and use determinants
- Compute and use eigenvectors and eigenvalues
- linear dependence and independence and spanning
- Familiar with the notion of a linear transformation and its matrix.

**Unit-I**

**12hrs**

**Introduction to Vector:** Vector and linear combination, Length and Dot products, Matrices.

**Solving Linear Equations:** Vectors and linear equations, The idea of elimination, Elimination using matrices, Rules for matrix, Inverse Matrices, Elimination=Factorization:  $A=LU$ , Transposes and permutations.

**Unit-II**

**12hrs**

**Vector Spaces and Subspaces:** Spaces of Vectors, The Null space of A, The Complete Solution to  $Ax=b$ , Independence, Basis and Dimension, Dimension of the Four Subspaces.

**Unit-III**

**10hrs**

**Orthogonality:** Orthogonality of the four subspaces, Projections, Least squares approximations, Orthogonal bases and Gram-Submidt.

**Determinants:** The properties of Determinants, Permutations and Cofactors, Cramer's Rule, Inverses, and Volumes.

**Unit-IV**

**07hrs**

**Eigenvalues and Eigenvectors:** Introduction to Eigenvalues, Diagonalizing a Matrix, Systems of Differential equations, Symmetric Matrices, Positive Definite Matrices.

**Unit-V**

**07hrs**

**Single Value Decomposition (SVD):** Image processing by Linear Algebra, Bases and Matrices in the SVD, Principal Component Analysis (PCA by SVD), The Geometry of the SVD.

**REFERENCES:**

- 1) Introduction to Linear Algebra by Gilbert Strang (5<sup>th</sup> edition), Wellesley – Cambridge press, 2016
- 2) Linear Algebra by Kenneth Hoffman and Ray Kunze (2<sup>nd</sup> edition), Prentice-Hall, 1971
- 3) Introduction to Linear Algebra by Thomas A Whitelaw, (2<sup>nd</sup> edition), Chapman& Hall/ CRC, 2018
- 4) Introduction to Linear Algebra with applications by Jim De Franza& Daniel Gagliardi, Waveland Press.

## MCA 3.2B: Operating System Concepts

Total hours: 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Understanding the concepts of Allocate Main Memory based on various memory management techniques
- Compare Memory allocation techniques, page replacement policies for dynamic memory management.
- Schedule CPU time using scheduling algorithm for processors. Compare various scheduling algorithms

### Unit-I

10Hrs

**Introduction:** Operating system concepts, types of operating system—Batch, interactive, time sharing, real time and distributed operating systems. Operating system services, system calls, system components, system programs.

**Process Management:** Processes—process scheduling, operation on processors, co-operating process threads, interprocess communication, concept of critical section problem and solution, semaphores and implementation.

### Unit-II

10Hrs

**CPU Scheduling:** Scheduling criteria and scheduling algorithms, multiple processor scheduling.

**Deadlock:** Deadlock

problem, characterization, prevention, avoidance, detection, recovery, combined approach to deadlock handling.

### Unit-III

10 Hrs

**Memory Management:** Logical and physical address, swapping overlays, contiguous allocation, paging segmentation, segmentation with paging, virtual memory—demand paging and page replacement algorithms.

### Unit-IV

10 Hrs

**Disk and Drum Scheduling:** Physical characteristics FCFS, Shortest seek time first, SCAN scheduling, selection of disk scheduling algorithm, sector queuing.

### Unit-V

08Hrs

**File System:** Files, access method, directory structure, protection and file system implementation, allocation methods.

**Protection:** Goals, mechanism and policies, domain of protection, access matrix and its implementation, dynamic protection structure, revocation, security.

### REFERENCES:

1. Operating systems Concepts, Peterson, J. and Sliverschatz, McGraw Hill. 2006
2. Operating system, Madnick, S.E. Donovan J.J., McGraw Hill.

3.     OperatingsystemPrinciples,BrinchHansenP.,PHI.
4.     A logicalDesignofOperating systems,ShawA.,PHI
5.     Operatingsystems,MilanMilenkovic,McGrawHill.
6.     FundamentalsofOperatingsystem, includingcasestudies,Sridhar.R.,:MS-DOS,UNIX&OS/2,DynaramPublications.
7.     Windows3.1ACompleteTutorial,GalgotiaPublicationPvt.,Ltd.,Subhash Mehta.
8.     SystemsProgrammingandOperatingsystem,McGrawHill.

## MCA3.2C:Computer Graphics

TotalHours:48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- Using algorithms for scan conversion and filling of basic objects and their comparative analysis.
- Use of geometric transformations on graphics objects and their application in composite form.

### Unit-I

10Hrs

**Introduction:** Computer graphics and its applications in various fields. Hardware system for graphics working of different input devices, visual display devices and hard copy device. Introduction to different coordinate systems.

**Raster Scan display:** Concepts of resolution, aspect ratio, refresh rate and frame buffer.  
**Random scan displays:** Concepts of display file and display file interpreted comparison between raster scan and random scan. Implementation of graphics in 'C' language and study of various graphics functions.

### Unit-II

10Hrs

**Line drawing methods:** DDA algorithm and Bresenham's algorithm for different scope conditions, midpoint method for line generation. Two-dimensional transformation: Mathematical treatment of basic transformations such as translation, scaling and rotation. Development of composite transformation matrices using homogeneous coordinates. General fixed point scaling and pivot point rotation.

**Clipping:** Study of Cohen-Sutherland line clipping procedure and Sutherland-Hodgman polygon clipping procedure.

**Windows and viewports:** Derivation of generalized window to viewport transformation matrix. Introduction to interrupt-driven programming in 'C' and interacting with the mouse.

### Unit-III

10 hrs

**Three-dimensional Computer Graphics:** Introduction to left and right hand coordinate systems. Basic 3D transformation. Hidden line removal. Projection: Study of orthographic and oblique parallel transformation equations for them.

### Unit-IV

10 Hrs

**Graphic software standards:** GKS and PHIGS. Study of various attributes of output primitives such as line attributes, area fill attributes and character attributes.

**Graphics Software Study:** DirectX and OpenGL

### Unit-V

08Hrs

**Segments:** Concepts and advantages. Segment table various operations on segments. Data structures for the display file array on segment, linked list and paging schemes.

**Miscellaneous topics** – Brief introduction to Bezier curves and their application, fractal morphing and animation.

### REFERENCE:

1. Newman and Sproull: Principles of Interactive Computer Graphics McGraw Hill, 1996.

2. S.Harrington:ComputergraphicsMcGrawHill,1997.
3. YeshwantKanetkar:Graphicsunder“C”BPB,1995.
4. YeshwantKanetkar:CPearlsBPB,1996.
5. HearnDonaldPaulingBaker.M:ComputerGraphicsEEEEPHI,1998

## **MCA 3.2D: MOBILE COMPUTING**

**Total hours: 48**

**Upon Completion of the course, the students will be able to**

- To get familiar with various generations of mobile communications.
- To understand the concept of cellular communication.
- To understand the basics of wireless communication.
- Knowledge of GSM mobile communication standard, its architecture, logical channels, advantages and limitations.

### **UNIT-1**

**10hrs**

#### **Mobile Computing Architecture: An Overview**

Mobile IP, Cellular and WLAN Wi-Fi IEEE 802.11X Networks, Ad Hoc Networks, Wireless Personal Area Network, Mobile Enterprise Network, Mobile Cloud Network, Mobile Computing, Mobile Computing Operating System, Mobile Computing Architecture, Design Considerations for Mobile Computing, Mobile Computing and the Apps, Limitations of Mobile Devices, Security Issues

### **UNIT-2**

**10hrs**

#### **Mobile Client Devices and Pervasive Computing**

Moving beyond Desktops, Pervasive Computing, Mobile Devices-Classifications and Characteristics, Tablet and e-Book Reader, Smart Identification Devices: Smart Cards, Labels, and Tokens, RFID, Smart Sensors, Actuators, and Mobile Robotic Systems, Smart Home and Appliances, Limitations and Devices Design Constraints, Automotive Systems

### **UNIT-3**

**10hrs**

#### **Second-generation Architecture—GSM, GPRS, and Others**

GSM Services, GSM System Architecture, Call Routing, Public Land Mobile Network (PLMN) Interface, GSM Subscriber Addresses and Identities, Protocols, Localization, Call Handling, Handover, Security, Introduction to SMS, General Packet Radio Service, High-speed Circuit-switched Data

### **UNIT-4**

**10hrs**

#### **Wireless Medium Access Control, CDMA, 3G, WiMax, 4G and 5G Networks**

Modulation, Medium Access Control, Exposed and Hidden Terminal Problem, Near and Far Terminal Problem, and Power Control for Medium Access, MAC Algorithms, WLAN and CAMA/CA Wireless Protocols, Applications of 3G Mobile Services, 3G Mobile Services: IMT2000 and UMTs, CDMA 2000: 3G, WCDMA 3G, OFDM, High-speed Packet Access, Long-term Evolution and WiMax 16E, 4G Networks: HS-OFDM, LTE Advanced and WiMax 16M, Upcoming 5G Network Features

### **UNIT-5**

**08hrs**

#### **Mobile IP Network Layer**

Mobile IP, Packet Delivery and Handover Management, Location Management, Registration, IP Header: Encapsulation and Routes Optimization, Mobility Binding, Tunneling, and Reverse Tunneling, Dynamic Host Configuration Protocol, Cellular IP, Mobile IP with IPv6, Voice over IP, IP Security

#### **Reference Books:**

1. Raj Kamal, "Mobile Computing", 3<sup>rd</sup> edition, oxford University press.

2. Pattnaik, “Fundamentals of mobile computing”, 2<sup>nd</sup> edition, PHI
3. Uwe Hansmann, “Principles of mobile computing”, 2<sup>nd</sup> edition, Springer international, 2014

## **MCA 3.2E Cloud Computing**

**Total hours: 48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Identify the technical foundations of cloud systems architectures.
- Analyze the problems and solutions to cloud application problems.
- Apply principles of best practice in cloud application design and management.
- Identify and define technical challenges for cloud applications and assess their importance.

### **Unit –I: New Computing Paradigms and Services**

08Hrs

Edge computing, Grid computing, Utility computing, Distributed computing, Cloud computing and its history and evolution

### **Unit –II: Introduction to Cloud Computing**

10 Hrs

Cloud Computing Architectural Framework, Cloud Deployment Models, private, public and hybrid, Challenges in adapting a cloud in the context of i) Security issues ii) Bandwidth and iii) Integration issues, Virtualization in Cloud Computing, Parallelization in Cloud Computing, Security for Cloud Computing, Cloud Economics

### **Unit-III : Cloud source Service Models**

10 Hrs

Software as a Service (SaaS), Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Seven Business Models for cloud, five-layer cloud service stack, compute and storage cloud services case studies Jeff Bezos and Amazon

### **Unit -IV : Foundational Elements of Cloud Computing**

10 Hrs

Virtualization, Browser as a platform, Introduction to Web 2.0, Introduction to Autonomic Systems, Service Level Agreements, Cloud Computing architecture and industry frameworks such as MapReduce.

### **Unit –V: Cloud Computing Practices**

10 Hrs

Virtualization, Cloud Computing Operating System, Creating Windows servers on the cloud, Creating Linux servers on the cloud, Deploying applications on the cloud, Major cloud solutions.

### **References:**

1. Rajkumar Buyya, James Broberg, Andrzej M. Goscinski, Cloud Computing: Principles and Paradigms, Wiley, 2013
2. Tim Mather, Subra Kumaraswamy, and Shahed Latif, "Cloud Security and Privacy", Oreilly, 2009
3. Barrie Sosinsky, "Cloud Computing Bible", Wiley-India, 2011
4. Kai Hwang, Geoffrey C Fox, Jack G Dongarra, "Distributed and Cloud Computing: From Parallel Processing to the Internet of Things", Morgan Kaufmann Publishers, 2013.
5. Ronald L. Krutz, Russell Dean Vines, "Cloud Security: A Comprehensive Guide to Secure Cloud Computing", Wiley-India, 2010

6. John W.Rittinghouse and James F.Ransome, “Cloud Computing: Implementation, Management, and Security”, CRC Press, 2010.
7. Rajkumar Buyya, ChirstianVecchiola, S.ThamaraiSelvi, ”Mastering Cloud Computing” , Tata McGraw Hill, 2013

## **MCA 3.2F: BUSINESS INTELLIGENCE SYSTEMS**

**Total hours: 48**

### **Course Outcomes:**

Upon Completion of the course, the students will be able to

- Introduce the concepts and components of Business Intelligence (BI)
- Evaluate the technologies that make up BI (data warehousing, OLAP)
- Define how BI will help an organization and whether it will help yours
- Identify the technological architecture that makes up BI systems
- Plan the implementation of a BI system

### **Unit-I**

**12hrs.**

Decision support and Business intelligence-Changing Business environment and computerized decision support, managerial decision making and support for decision making-DSS concept and framework Business intelligence-Major tools and techniques of managerial decision support –BI architecture.

### **Unit-II**

**12hrs.**

Essentials of Business Intelligence-Origin and drivers of business intelligence, successful BI implementation ,characteristics of BI-Architecting the data ,Enterprise Data model and its Benefits, Granularity of Data in Data warehouse and role of Metadata

### **Unit-III**

**10hrs.**

Advanced Data Warehousing principles- Data Warehousing architecture, DW development, real time DW and DW Administration and security issues-Visualization of Dimension model-Star, snowflake and other advanced models-Aggregated Fact Tables-Relational DBMS Support for Dimensional Modelling-Advanced Topics in Dimensional Modelling-Selecting a Modelling Tool-Populating Data Warehouse.

### **Unit-IV**

**07hrs.**

Dimensional modelling in BI environment-Dimensional Modelling-Modelling considerations-Dimensional model design life cycle-Case studies-Business Analytics and data visualization-Business analytics overview, reports and queries, Advanced Business Analytics, data visualization Real time BI, Business analytics and web intelligence-Structure of mathematical models for decision support and visual interactive simulation.

### **Unit-V**

**07hrs.**

Business performance Management-Business Intelligence Applications: Marketing models, Logistic and production models and Data Development analysis.

### **REFERENCES:**

1. E Turban, J E Aronson, Teng pend Liang and Ramesh Sharada, “Decision Support and Business Intelligence”, 8<sup>th</sup> Edition, pearson Education, 2009.
2. Dan Volitich,”IBM Cognos Business Intelligence”, TMH ,2008.
3. Chuck Bullard.,DirkHerreman, Don Schau,RhondaBell,EunsaengKim,annValencic,”Data Modelling Techniques for Data Warehousing”, IBM Corporation,1999

### Core Theory Electives-II

Subject Code	Elective Title
MCA 4.2A	Computer Vision
MCA 4.2B	Internet of Things (IoT)
MCA 4.2C	Mobile Communications
MCA 4.2D	Deep learning
MCA 4.2E	Information Security and Cryptography
MCA 4.2F	Soft Computing

**MCA4.2A:Computer Vision**  
**Total Hours : 48**

**Course Outcomes:**

Upon Completion of the course, the students will be able to

- identify basic concepts, terminology, theories, models and methods in the field of computer vision,
- describe known principles of human visual system,
- describe basic methods of computer vision related to multi-scale representation, edge detection and detection of other primitives, stereo, motion and object recognition,
- suggest a design of a computer vision system for a specific problem

**Unit- I:**

**12hrs**

**Introduction and image processing** : What is computer vision? History of computer vision, Photometric image formation, the digital camera, Image processing: Point operators, Linear filtering, Neighbor hood operators.

**Unit -II:**

**10 hrs**

**Feature detection and matching** : Feature detectors, feature descriptors, feature tracking, edge detection, edge linking, Lines: successive approximation, Hough transform, vanishing points, Application: Rectangel detection.

**Unit-III :**

**10 hrs**

**Segmentation** : Active contours: snakes, Dynamic snakes and condensation, Scissors, Level Sets. Split and merge : Watershed, Region splitting(divisive clustering), Region merging (agglomerative clustering) Graph-based segmentation.

**Unit-IV :**

**8 hrs**

**Color Image processing:** color fundamentals, color models, Pseudo color image processing, color transformations, color image smoothing and sharpening, Image segmentation based on color.

**Unit-V:**

**8 hrs**

**Recognition** : Object detection, Face recognition, Instance recognition, category recognition, context and scene understanding

**References :**

1. Richard Szeliski, Computer Vision: Algorithms and Applications, Springer-Verlag London Limited 2011.
2. D. A. Forsyth, J. Ponce, Computer Vision: A Modern Approach, Pearson Education, 2003.
3. Rafael C. Gonzalez, Richard E. Woods, Digital Image Processing, Pearson Education, 2013.
4. Anil K. Jain, Fundamentals of Digital image processing, Prentice-Hall of India Pvt Ltd., 1997.
5. Milan Sonka, Vaclav Hlavac, Roger Boyle, Image processing, Analysis and Machine vision, Cengage Learning: 4<sup>th</sup> edition, 2014.

## MCA 4.2B: INTERNET OF THINGS (IoT)

Total Hours: 48

### Course Outcomes:

Upon Completion of the course, the students will be able to

- explain the definition and usage of the term “Internet of Things” in different contexts
- understand the key components that make up an IoT system
- differentiate between the levels of the IoT stack and be familiar with the key technologies and protocols employed at each layer of the stack
- apply the knowledge and skills acquired during the course to build and test a complete, working IoT system involving prototyping, programming and data analysis
- understand where the IoT concept fits within the broader ICT industry and possible future trends

### Unit-1

10hrs

Introduction to IoT: what is IOT? Genesis of IoT and digitization, IOT impact, Convergence of IT and OT, IOT challenges.

**IoT Network Architecture and Design:** Drivers behind New Network Architectures, IoT architecture drivers, Comparing IoT Architectures, A Simplified IoT Architecture, The Core IoT Functional Stack, IoT data management and compute stack

### Unit-2

10hrs

**Engineering IoT networks:** Smart Objects: The “Things” in IoT, Sensors, Actuators, and Smart Objects, Wireless Sensor Networks (WSNs), Communication Protocols for Wireless Sensor Networks, Connecting Smart Objects, Communications Criteria, IoT Access Technologies.

### Unit-3

10hrs

**IP as the IoT Network Layer:** The Business Case for IP, The Need for Optimization, IP versions, Optimizing IP for IoT, header compression, Fragmentation, Mesh addressing, 6TiSCH, RPL, Authentication and encryption on constrained nodes.

### Unit-4

10hrs

**Application Protocols for IoT:** The Transport Layer, IoT Application Transport Methods, Application Layer Protocol Not Present, SCADA, A Little Background on SCADA, Adapting SCADA for IP, Tunneling Legacy SCADA over IP Networks, SCADA Protocol Translation, SCADA Transport over LLNs with MAP-T, Generic Web-Based Protocols, IoT Application Layer Protocols, CoAP

### Unit-5

08hrs

**Data and Analytics for IoT:** An Introduction to Data Analytics for IoT, Structured Versus Unstructured Data, Data in Motion Versus Data at Rest, Machine Learning Overview, Supervised Learning, Unsupervised Learning, Machine Learning and Getting Intelligence from Big Data, Predictive Analytics, Big Data Analytics Tools and Technology, Edge Analytics Core Functions, Network Analytics

### References:

1. David Hanes, “IoT Fundamentals”, Ciscopress.com, 2017

2. Adrian McEwen, “ Designing Internet of things”, wiley, 2014
3. Samuel greengard, “The internet of things”, MIT press, 2015
4. Cuno Pfister, “ Getting started with internet of things”, O’Reilly, 2011

## **MCA 4.2C: MOBILE COMMUNICATIONS**

**Total Hours : 48**

### **Course Outcome:**

Upon Completion of the course, the students will be able to

- explain the basic physical and technical settings functioning of mobile communications systems,
- describe the basic principles of mobile communication system.
- conduct field experiments and measurements, and measurements in the laboratory on actual components, devices, equipment and systems,
- interpret the collected data and measurement results,
- describe the development and implementation of mobile communication systems,
- test mobile communication equipment for the technical functionality.

### **Unit-1**

**10hrs**

Introduction and overview of wireless communication: Wireless Comes of Age 2, The Global Cellular Network, The Mobile Device Revolution, Future Trends, The Trouble With Wireless, Signals for Conveying Information, Analog and Digital Data Transmission, Channel Capacity, Transmission Media, Spectrum Considerations, Line-Of-Sight Transmission, Fading in the Mobile Environment, Channel Correction Mechanisms, Digital Signal Encoding Techniques, Coding and Error Control, Orthogonal Frequency Division Multiplexing (OFDM)

### **Unit-2**

**10hrs**

Signal Encoding Techniques and error control: Signal Encoding Criteria, Digital Data, Analog Signals, Analog Data, Analog Signals, Analog Data, Digital Signals, Orthogonal Frequency Division Multiplexing, Orthogonal Frequency Division Multiple Access (OFDMA), Single-Carrier FDMA, Error Detection, Block Error Correction Codes, Convolutional Codes, Automatic Repeat Request

### **Unit-3**

**10hrs**

Wireless LAN Technology - Overview and Motivation, IEEE 802 Architecture, IEEE 802.11 Architecture and Services, IEEE 802.11 Medium Access Control, IEEE 802.11 Physical Layers, Gigabit Wi-Fi 356  
Bluetooth and IEEE 802.15- The Internet of Things, Bluetooth Motivation and Overview, Bluetooth Specifications, Bluetooth High Speed and Bluetooth Smart, IEEE 802.15, ZigBee

### **Unit-4**

**10hrs**

Cellular Wireless Networks :  
Principles of Cellular Networks, First-Generation Analog, Second-Generation TDMA, Second-Generation CDMA, Third-Generation Systems, Approach to 4G, LTE Architecture, Evolved Packet Core.

### **Unit-5**

**08hrs**

Mobile Applications and Mobile IP - Mobile Application Platforms, Mobile App Development, Mobile Application Deployment, Mobile IP

### **References:**

1. Cory Beard and William Stallings, “wireless communication networks and system”, Pearson, 2016
2. Jochen Schiller, “Mobile Communication”, Addison-wesley, 2016
3. Gordon stuber, “Principles of Mobile Communication”, Springer, 2013

## MCA 4.2D: DEEP LEARNING

**Total Hours : 48**

### **Course Outcome:**

Upon Completion of the course, the students will be able to

- Recognize the characteristics of deep learning models that are useful to solve real-world problems.
- Understand different methodologies to create application using deep nets.
- Identify and apply appropriate deep learning algorithms for analyzing the data for variety of problems.
- Implement different deep learning algorithms
- Design the test procedures to assess the efficacy of the developed model.
- Combine several models in to gain better results

Unit I : 10hrs

**Introduction** : Historical context and motivation for deep learning; basic supervised classification task, optimizing logistic classifier using gradient descent, stochastic gradient descent, momentum, and adaptive sub-gradient method.

Unit II : 10hrs

**Neural Networks** : Feed forward neural networks, deep networks, regularizing a deep network, model exploration, and hyperparameter tuning.

Unit III : 8hrs

**Optimization for training deep models** : Challenges in Neural Network optimization, Basic Algorithms, Parameter Initialization Strategies, Algorithm with Adaptive Learning Rates, Approximate second order Methods, Optimization Strategies and Meta-Algorithms.

Unit IV : 12hrs

**Convolutional Networks and Sequence Modeling** : Motivation, Convolution operation, Pooling, Variants of the Basic Convolution Function, Structured outputs, Efficient Convolution Algorithms. Sequence Modeling: Recurrent Nets Unfolding computational graphs, recurrent neural networks (RNNs), bidirectional RNNs, encoder-decoder sequence to sequence architectures, deep recurrent networks, Recursive neural networks .

Unit V: 8hrs

**Autoencoders**: Undercomplete autoencoders, regularized autoencoders, sparse autoencoders, denoising autoencoders, representational power, layer, size, and depth of autoencoders, stochastic encoders and decoders, denoising autoencoders, Learning manifolds with Autoencoders, Applications of Autoencoders.

### **References :**

1. Ian Goodfellow, YoshuaBengio, Aaron Courville, “Deep Learning”, MIT Press, 2016.
2. Jeff Heaton, “Deep Learning and Neural Networks”, Heaton Research Inc, 2015.

3. Deng & Yu, “Deep Learning: Methods and Applications”, Now Publishers, 2013.
4. Nikhil Buduma, Nicholas Locascio, “Fundamentals of Deep Learning: Designing NextGeneration Machine Intelligence Algorithms”, O'ReillyMedia, 2017.
5. Mindy L Hall, “Deep Learning”, VDM Verlag, 2011.

## **MCA 4.2E: INFORMATION SECURITY AND CRYPTOGRAPHY**

**Total Hours: 48**

### **Course Outcome:**

Upon Completion of the course, the students will be able to

- To Understand Basics Of Cryptography And Network Security.
- To Be Able To Secure A Message Over Insecure Channel By Various Means.
- To Learn About How To Maintain The Confidentiality, Integrity And Availability Of A Data.
- To Understand Various Protocols For Network Security To Protect Against The Threats In The Networks.

### **Unit – I : Basics of Information Security**

10Hrs

Information Security Overview, Threat and Attack Vectors, Types of Attacks, Common Vulnerabilities and Exposure (CVE), Security Attacks, Fundamentals of Information Security, Computer Security Concerns, Information Security Measures.

### **Unit –II Information Security Policies, Procedures**

08 Hrs

Information Security Policies-Necessity-Key Elements and Characteristics, Security Policy Implementation, Configuration, Security Standards-Guidelines and Frameworks

### **Unit-III : Encryption techniques**

12 Hrs

Classical Encryption Techniques Symmetric Cipher Model- Cryptography, Cryptanalysis and Brute-Force Attack, Block Ciphers and the Data Encryption Standard - Block Cipher Structure- Stream Ciphers and Block Ciphers, Feistel Cipher Structure, The Data Encryption Standard-Encryption and Decryption, Advanced Encryption Standard (AES), International Data Encryption Algorithm(IDEA).

### **Unit –IV : Public Key Encryption**

08 Hrs

Characteristics of Public Key System; RSA Technique – Encryption-Method; Key Exchange; Diffie-Hellman Scheme; Cryptographic Hash Functions; Digital Signature – Properties of Digital Signature, Certificates; Certificate Authorities.

### **Unit-V : IP and Web Security**

10 Hrs

IP security: Overview - Architecture – Authentication Header - Encapsulating Security Payload - Key management – Web security: Web security considerations – Secure Socket Layer and Transport Layer Security – Secure electronic transaction – Web issues.

### **References:**

1. Cryptography and Network Security - Principles and Practice: William Stallings, Pearson Education, 6th Edition.
2. Cryptography and Network Security: AtulKahate, McGraw Hill, 3<sup>rd</sup> Edition.
3. Cryptography and Network Security: C K Shyamala, N Harini, Dr T R Padmanabhan,Wiley India, 1st Edition.
4. Cryptography and Network Security :ForouzanMukhopadhyay, McGraw Hill, 3rd Edition.

5. Information Security, Principles, and Practice: Mark Stamp, Wiley India.
6. Principles of Computer Security: WM. Arthur Conklin, Greg White, TMH.
7. Introduction to Network Security: Neal Krawetz, CENGAGE Learning.
8. Network Security and Cryptography: Bernard Menezes, CENGAGE Learning.

### **MCA4.2F: SOFT COMPUTING**

**Total Hours: 48**

#### **Course Outcome:**

Upon Completion of the course, the students will be able to

- Learn About Soft Computing Techniques and Their Applications
- Analyze Various Neural Network Architectures
- Understand Perceptron's and Counter Propagation Networks.
- Define The Fuzzy Systems
- Analyze The Genetic Algorithms and Their Applications.

#### **Unit-I**

**10hrs**

Soft Computing and its Techniques, Soft Computing versus Hard Computing, Applications of Soft Computing in the current industry.

#### **Unit-II**

**12hrs**

Neural Network (NN), Biological foundation of Neural Network, Neural Model and Network Architectures, Perceptron Learning, Supervised Hebbian Learning, Back-propagation, Associative Learning, Competitive Networks, Hopfield Network, Computing with Neural Nets and applications of Neural Network.

#### **Unit-III**

**10hrs**

Fuzzy sets, Operations on Fuzzy sets, Fuzzy Relations, Fuzzy Measures, Applications of Fuzzy Set Theory to different branches of Science and Engineering.

#### **Unit-IV**

**10hrsNeuro**

Fuzzy and Soft Computing, Adaptive Neuro-Fuzzy Inference System Architecture, Hybrid Learning Algorithm, Learning methods that Cross-fertilize ANFIS and RBFN.

#### **Unit-V**

**05hrs**

Coactive Neuro Fuzzy Modeling, Framework Neuron Functions for Adaptive Networks, Neuro Fuzzy Spectrum, Hybridization of other techniques.

#### **References:**

1. J.S.R.Jang, C.T.Sun and E.Mizutani, Neuro-Fuzzy and Soft Computing, PHI, 2004.
2. J.Freeman and D.Skapura, Neural Networks: Algorithms, Applications and Programming Techniques, Addison-Wesley, 1991.
3. G.J.Klir and B.Yuan, Fuzzy Sets and Fuzzy Logic: Theory and Applications, Prentice-Hall, 1995.

4. S.Rajasekaran and G.A.V.Pai, Neural Networks, Fuzzy Logic and Genetic Algorithms, PHI, 2003.

KARNATAK UNIVERSITY, DHARWAD



*Regulations and Syllabus*  
*for*  
*P.G. Studies in*  
**MASTER OF COMPUTER SCIENCE**  
*(M.Sc. (CS))*  
**(I-IV Semester)**



**Revised Syllabus**  
*Under*  
*Choice Based Credit System (CBCS)*  
From  
2021-22 onwards

**Regulations Governing Post-Graduate Programmes in the  
Faculty of Science & Technology under Choice Based Credit System**  
(Framed under Section 44(1))(c) Of the K.S.U.Act.2000)

**1.0 Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Science & Technology under Choice Based Credit System” in Karnatak University, Dharwad

**2.0 Commencement**

These Regulations shall come into force with effect from the academic year 2021-22.

**3.0 Definitions**

a In these Regulations, unless otherwise provided;

“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.

b “Board of studies means P. G. Board of studies of the University, Adhoc/Combined and Steering Committees of International Diploma programmes in the discipline/subjects concerned.

c “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.

d Course Weightage “means number of credits assigned to a particular course.

e “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regard the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.

f “Cumulative Grade Point Average(CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.

g “Degree” means Post-Graduate Degree.

h “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.

i “Grade Point Average”(GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.

j “Open Elective Course “means a paper offered by a Department to the students of other Departments.

- k “Post Graduate Programme“ means semesterised Master’s Degree Programmes excluding P. G. Diploma.
- l “Specialization course” means advanced paper offered by a Department that a student of that Department can opt a special course.
- m “Student” means the student admitted to programmes under (k).
- n “University “means Karnatak University, Dharwad.

#### **4.0 Minimum Eligibility for Admission**

A candidate who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent there to by this university, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the university from time to time.

Admission shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0 Duration of the programme**

The duration of the study for the Post-Graduate Degree programme shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However the student, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programmer with due approval from the Registrar. Candidates shall no register for any other regular course other than diploma and certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0 Medium of Instruction and Evaluation**

The medium of instruction shall be English.

#### **7.0 Programme Structure**

- 7.1** The student of Post –Graduate programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time minimum and maximum credits as outlined in these regulations.
- 7.2** There shall be three categories of courses namely, compulsory courses, specialization Courses and Open Elective Courses.
- 7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned programme that a student must complete to get the concerned degree.

- 7.4 In those programmes that offer specialization courses, the student shall choose the prescribed number of specialization courses offered within the Department
- 7.5 Each Department shall offer Open Elective courses for students of other Departments, The students of a Department shall choose Open Elective courses from among those prescribed by the university and selected by the Department from time to time. P.G. Centers and affiliated colleges can offer those open Elective Course, which are approved or prescribed by their Parent Department of the University. Such open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6 The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course, from 2 to 4; and for Open Elective Course, from 2 to 4, wherever project work/field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.
- 7.7 The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M Sc. Computer Science the minimum credits are 116.
- 7.8 The student shall undertake project/field work during the programme as a compulsory course or in lieu of Specialization Course or open Elective Course if so specified by the concerned Board of Studies.
- 7.9 The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10 The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I,Annexure-IA,Annexure-Ib.
- 7.11 The Open Elective courses generally will have practical component, unless otherwise specified by the respective Board of Studies .The number of students admitted to the course shall commensurate with the availability of infrastructure.

## **8.0 Attendance**

- 8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching /practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4 A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75% of the number of instructional hours during the semester.

- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

- 9.1** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Department/P.G. Centers/Colleges. The even semester examination shall be conducted by the University.
- 9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks practical examination.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application from through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1<sup>st</sup> semester-end examination. That will be the Register Number to the candidate for all subsequent appearance at semester-end examinations.
- 9.1.4** The answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester)
- 9.1.6** Candidate who have failed, remained absent or opted for improvement in any course/courses shall appear for such course/courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fees to the Registrar (Evaluation) within 15 day from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise and approve question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Department/P.G. Center/Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/Administrator of the P.G. Center/Principal of the College shall appoint one of their full time courses teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the officer of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Officer at the conclusion of the valuation at the respective centers.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other University/Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The Marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/project work is prescribed in the even semesters of the programme, the same shall be evaluated by both internal and external examiners. The valuation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4 Evaluation**

**9.4.1** Each Course shall have two evaluation components – Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25% / 30% / 50% and the Semester End Examination shall carry 75% / 70% / 50% respectively, as the case may be. Courses have 25% & 30%/50% marks as internal assessment shall have 3/5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table

For courses carrying 25% of marks for IA, the attendance marks shall be

<b>Attendance (in Percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

Internal Assessment (IA) shall be based on written tests, practical and seminars.

**9.4.4** However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The test shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the department/Centers/Colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation/project work viva-voce shall be conducted by an internal and external examiner.

**10.0 Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

**11.0. Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a program in each semester to successfully complete the program.

**11.3** Candidates shall earn the prescribed number of credits for the program to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the program in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 07.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 05.00	D
less than 40.00 %	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester / Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Semester + Sum of the CP of II Semester / Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly.

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class To Be Awarded
7.5 to 10.0	First Class With Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

### **13. Miscellaneous:**

- a.** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b.** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c.** The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d.** The procedural details may be given by the University from time to time.
- e.** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

## Annexure-I

The Program structure of the Master of Science Degree shall be as follows:

Semester	No.of compulsory& Specialization courses (credits/course)	Total credits for compulsory &Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem. I	Th :03 (04) =12  Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. II	Th :03 (04) =12  Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. III	Th:03(04)=12 Pra/Th*:03 (02)=06	18	Th :01 (04) =04 Pra/Th*:01(02)=02	06	24
Sem. IV	Th :03/04** (04) =12/16  Pra/Th: 03/04* *(02)=06/08 Pj <sup>#</sup> 01 (06) =06	24		-	24
Total	Th 12/13 (4) =48/52  Pra/Th 12/13(02)= 24/26  Pj : 1 (06) =06	78	03 (04)=12 Pra/Th*:03(02)=06	18	96

**Note:** Except for IV semester, the concerned Department shall offer one each of open elective theory and practical course or two \* open elective Theory courses for students of other science departments. \* Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics Abbreviations: Th = Theory; Pra = Practical; Pj = Project

<b>GRADE CARD</b>										
<b>Program: M.Sc. (.....)</b>										
<b>Name of the candidate:</b>					<b>Semester:IV</b>					
<b>Seat No:</b>								<b>Month &amp; Year:</b>		
Course	Course Code	Credit	IA Marks		Theory/ Practical		Max	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt				
Course - I	XX CT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	XX CT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	XX CT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course - IV	XX CP 4.4	02	15	06	35	34	50	40	8.00	16.00
<b>Total</b>		<b>14</b>					<b>350</b>			

XX refers to course abbreviations. 4.1 refers to IV semester course 1; e.g. CHI CT 1.1= Chemistry Inorganic compulsory theory 1.1

# except for Mathematics and Statistics;\* For Statistics and mathematics; +Only for Statistics;^only for Mathematics

**GPA for IV Semester = CP (IV Sem) / Credits (IV Sem) = 200 /24.00 = 8.33**

GPA for I Semester = CP (I Sem) / Credits (I Sem)

CGPA for I Semester = GPA for I Semester CP (ISem) + CP (IISem)

CGPA for II Semester= CP(I SEM)+CP(II SEM)

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Credit(I Sem)+ Credit(II Sem)

CGPA for III Semester= CP(I SEM)+CP(II SEM)+CP(III SEM)

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Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)

CGPA for the program = CP(I SEM)+CP(II SEM)+CP(III SEM)+CP(IV Sem)

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Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)+ Credit(IV Sem)

(\*CP:Credit Points)

## Annexure-1a

The program structure of the **M.Sc. (Computer Science)** shall be as follows:

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open Elective course	Total credits for the semester
Sem. I	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem. II	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem. III	Th :05 (04) =20Pra:01(04)=04	24	Th :01 (04) =04 Pra: 01(02)=02	06	30
Sem. IV	Th :05 (04) =20Pra:01(06)=06	26	-----	-----	26
Total	Th 20 (04) =80  Pra 03(04)=12  Pj:1 (06)=06	98	Th:03 (04)=12  Pra:03(02)=06	18	116

**Note:** Except for I and IV semester, the concerned Department shall offer one each of open elective theory and practical for students of other science departments.

**Abbreviations:** Th = Theory; Pra = Practical; Pj = Project;

# GRADE CARD

**Program: M.Sc. (Computer Science)**

**Name of the candidate:**

Semester: I/II/III

**Seat No:**

**Month & Year:**

Courses	Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt				
Course - I	CT X.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	CT X.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	CT X.3	04	25	15	75	50	100	65	6.50	26.00
Course - IV	CT X.4	04	25	15	75	45	100	60	6.00	24.00
Course - V	CT X.5	04	25	15	75	50	100	65	6.50	26.00
Course - VI	CT X.6	04	25	15	75	45	100	60	6.00	24.00

**Open elective courses:**

Course - VII	ET X.7	04	25	15	75	50	100	65	6.50	26.00
Course - VIII	ET X.8	02	10	05	40	35	50	40	8.00	16.00
<b>Total</b>		<b>30</b>					<b>750</b>			<b>195.60</b>

## CT: Core Theory

**CP: Core Practical**

**X:Semester**

## GRADE CARD

<p align="center"><b>Program: M.Sc. (Computer Science)</b></p>	
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<b>Name of the candidate:</b>	<b>Semester:IV</b>
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<b>Name of the candidate:</b>	<b>Semester:IV</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
-----------------	--------------------------

Course	Course Code	Credit	IA Marks		Viva-voce		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt	Max	Obt				
Course - I	CT 4.1	04	25	15			75	45	100	60	6.00	24.00
Course - II	CT 4.2	04	25	15			75	59	100	74	7.40	29.60
Course - III	CT 4.3	04	25	15			75	50	100	65	6.50	26.00
Course - IV	CPR 4.4	06	25	15	50	40	75	45	150	120	8.00	48.00
Course - V	CT 4.5	04	25	15			75	50	100	65	6.50	26.00
Course - VI	CT 4.6	04	25	15			75	45	100	60	6.00	24.00
Total		26							650			177.60

CT: Core Theory									
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**CP: Core Project**

**CGPA for I Semester =  $195.60/30=6.52$**

**CGPA for I Semester=GPA=6.52**

$$\text{CGPA for II Semester} = \frac{\text{CP(I SEM)} + \text{CP(II SEM)}}{2}$$

**Credit(I Sem)+ Credit(II Sem)**

$$\text{CGPA for III Semester} = \text{CP(I SEM)} + \text{CP(II SEM)} + \text{CP(III SEM)}$$

**Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)**

**CGPA for the program = CP(I SEM)+CP(II SEM)+CP(III SEM)+CP(IV Sem)**

**Credit(I Sem)+ Credit(II Sem) +Credit(III Sem)+ Credit(IV Sem)**  
**(\*CP:Credit Points)**

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## Annexure-1b

The program structure of the **M.Sc.(Computer Science)** shall be as follows:

Semester	No.of compulsory& Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem.I	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.II	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.III	Th :05 (04) =20 Pra:01(04)=04	24	Th :01 (04) =04 Pra:01(02)=02	06	30
Sem.IV	Th :05 (04) =20 Pra:01(04)=04 SR:01(02)=02	26	-----	-----	26
Total	Th:20 (04) =80 Pra:05(04)=020 SR:02(02)=004 Pj:1 (16)=016	98	Th:03 (04)=12 Pra:03(02)=06	18	116

**Note:** Except for I and IV semester, the concerned Department shall offer one each of open elective theory and practical for students of other science departments.

**Abbreviations:** Th = Theory; Pra = Practical; Pj = Project;

# GRADE CARD

<p align="center"><b>Program: M.Sc.(Computer Science)</b></p>	
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Name of the candidate: \_\_\_\_\_ Semester: I/II/III

Name of the candidate: \_\_\_\_\_ Semester: I/II/III

<b>Seat No:</b>	<b>Month &amp; Year:</b>
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<b>Seat No:</b>	<b>Month &amp; Year:</b>
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Courses	Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
<b>Compulsory Courses</b>			<b>Max</b>	<b>Obt</b>	<b>Max</b>	<b>Obt</b>				
Course - I	CT X.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	CT X.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	CT X.3	04	25	15	75	50	100	65	6.50	26.00
Course - IV	CT X.4	04	25	15	75	45	100	60	6.00	24.00
Course - V	CT X.5	04	25	15	75	50	100	65	6.50	26.00
Course - VI	CT X.6	04	25	15	75	45	100	60	6.00	24.00

<p><b>Open elective courses:</b></p>
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Course - VII	ET X.7	04	25	15	75	50	100	65	6.50	26.00
Course - VIII	ET X.8	02	10	05	40	35	50	40	8.00	16.00
<b>Total</b>		<b>30</b>					<b>750</b>			<b>195.60</b>

CT: Core Theory	CP: Core Practical	CSR: Core Seminar	X:Semester

CT: Core Theory	CP: Core Practical	CSR: Core Seminar	X:Semester

CT: Core Theory	CP: Core Practical	CSR: Core Seminar	X:Semester

CT: Core Theory	CP: Core Practical	CSR: Core Seminar	X:Semester
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# GRADE CARD

**Program: M.Sc.(Computer Science)**

**Name of the candidate:**

**Semester: IV****Seat No:**

**Month & Year:**

Courses	Course Code	Credit	IA Marks		Theory/ Practical		Max Marks	Marks Obtained	Semester Grade Point	Credit Point
Compulsory Courses			Max	Obt	Max	Obt				
Course - I	CT X.1	04	25	15	75	45	100	60	6.00	24.00
Course - II	CT X.2	04	25	15	75	59	100	74	7.40	29.60
Course - III	CT X.3	04	25	15	75	50	100	65	6.50	26.00
Course - IV	CT X.4	04	25	15	75	45	100	60	6.00	24.00
Course - V	CT X.5	04	25	15	75	50	100	65	6.50	26.00
Course - VI	CP X.6	04	25	15	75	45	100	60	6.00	24.00
Course - VII	CSR X.7	02	---	---	---	---	50	40	8.00	16.00
Total		26					650			169.60

## CT: Core Theory

**CP: Core Practical**

## CSR: Core Seminar

**X:Semester**

## SEMESTER – I

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
I	M.Sc.1.1	Computer Organizations and Architecture	4	4	3	25	75	100
	M.Sc.1.2	Theory of Computation	4	4	3	25	75	100
	M.Sc.1.3	Data Structures using C	4	4	3	25	75	100
	M.Sc.1.4	Probability and Statistics	4	4	3	25	75	100
	M.Sc.1.5	Data Structures using C Lab	4	4	3	25	75	100
	M.Sc.1.6	Probability and Statistics Lab	4	4	3	25	75	100
		<b>Total</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>150</b>	<b>450</b>	<b>600</b>

## SEMESTER – II

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
II	M.Sc.2.1	Computer Networks	4	4	3	25	75	100
	M.Sc.2.2	Linear Algebra	4	4	3	25	75	100
	M.Sc.2.3	Database Management System	4	4	3	25	75	100
	M.Sc.2.4	Python Programming	4	4	3	25	75	100
	M.Sc.2.5	DBMS Lab (using My SQL)	4	4	3	25	75	100
	M.Sc.2.6	Python Programming Lab	4	4	3	25	75	100
	<b>Open Elective</b>							
	OEC 2.7	Computer Concepts and Office Automation	4	4	3	25	75	100
		<b>Total</b>	<b>28</b>	<b>28</b>	<b>21</b>	<b>175</b>	<b>525</b>	<b>700</b>

### SEMESTER - III

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
III	M.Sc.3.1	Design and Analysis of Algorithms	4	4	3	25	75	100
	M.Sc.3.2	Core Theory Electives-I	4	4	3	25	75	100
	M.Sc.3.3	Web Technologies	4	4	3	25	75	100
	M.Sc.3.4	Artificial Intelligence and Machine Learning	4	4	3	25	75	100
	M.Sc.3.5	Web Tech. Lab	4	4	3	25	75	100
	M.Sc.3.6	Artificial Intelligence and Machine Learning Lab	4	4	3	25	75	100
	<b>Open Elective</b>							
	OEC 3.7	SPSS Software	4	4	3	25	75	100
		<b>Total</b>	<b>28</b>	<b>28</b>	<b>21</b>	<b>175</b>	<b>525</b>	<b>700</b>

#### Core Theory Electives-I:

Subject Code	Elective Title
M.Sc.3.2 A	Operating System Concepts
M.Sc.3.2 B	Computer Vision
M.Sc.3.2 C	Mobile Computing
M.Sc.3.2 D	Business Intelligence Systems
M.Sc.3.2 E	Computer Graphics

### SEMESTER - IV

Sem. No.	Paper Code	Paper Title	Credits	No. of Hrs/Week Theory/ Practical	Duration of exam In Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
IV	M.Sc.4.1	Software Engineering	4	4	3	25	75	100
	M.Sc.4.2	<b>Core Theory Electives-II</b>	4	4	3	25	75	100
	M.Sc.4.3	Data Mining	4	4	3	25	75	100
	M.Sc.4.4	Operation Research	4	4	3	25	75	100
	M.Sc.4.5	Data Mining Lab	4	4	3	25	75	100
	M.Sc.4.6	Project	4	4	3	25	75	100
		<b>Total</b>	<b>24</b>	<b>24</b>	<b>18</b>	<b>150</b>	<b>450</b>	<b>600</b>

#### Core Theory Electives-II:

Subject Code	Elective Title
M.Sc.4.2 A	Cloud Computing
M.Sc.4.2 B	Internet of Things (IoT)
M.Sc.4.2 C	Mobile Communications
M.Sc.4.2 D	Deep learning
M.Sc.4.2 E	Information Security and Cryptography
M.Sc.4.2 F	Soft Computing

## M.Sc.1.1: COMPUTER ORGANIZATIONS AND ARCHITECTURE

Total Hours: 48

Upon Completion of the course, the students will be able to

- Explain the concepts of binary numbers, computer instructions and peripheral devices.
- Able to solve number conversions and Boolean expressions.
- Analyze the functions of combinational logic, instruction formats and basics of memory.
- Evaluate the importance of logic gates, flip-flops and addressing modes.
- Capable of design the digital circuits using logic gates.
- Build combinational and sequential logic circuit.
- Identify the components of register, input/output and memory organizations.

### Unit-I

10 Hrs

**Number Systems:** binary, octal hexadecimal, number base conversion, addition, subtraction of binary numbers, one's and two's complements, positive and negative numbers, character codes ASCH, EBCDIC.

**Boolean algebra and Logic gates:** Axiomatic definition of Boolean algebra, Basic theorems and properties, Boolean functions, canonical and standard forms, logic functions using gates and design of combinational circuits.

### Unit-II

10 Hrs

**Simplification of Boolean functions:** Karnaugh maps, product of sums, sum of products, simplification, NAND and NOR implementation, don't care condition.

**Combinational and Sequential logic:** Adders, subtractors, code, converters, decoder multiplexer, flip-flops, shift registers, counters.

### Unit-III

10 Hrs

**Processor Logic Design:** Processor organization, arithmetic logic unit, design of arithmetic and logic circuits, design of arithmetic logic unit, status registers, design of shifter, processor unit, design of accumulator.

**Control Logic Design:** Processor Organization, Hardware control micro program control, control of processor unit, PLA control, micro program sequencer, computer design.

### Unit-IV

10 Hrs

**Micro – computer System Design:** Microcomputer organization, microprocessor organization, instructions and addressing modes, subroutines and interrupts, memory organization, input-output interface, programmed input-output, input – output processor, input – output device characteristics, direct memory access (DMA).

### Unit-V

8 Hrs

**Memory Organization:** Serial access, random access memories (RAM), read only memories (ROM), virtual memory, cache memory.

**Introduction to 8085 Assembly Language Programming:** The 8085 Programming model, Instruction classification, Instruction format, How to write, Assemble and Execute a simple program, Overview of the 8085 Instruction set.

***References:***

1. Digital Logic and Computer Design, Morris Mano, PHI
2. Digital Computer Fundamentals, Bartee, T.C., MC Graw Hill
3. Computer Architecture and Organization, Tanenbaum A.S., Mc Graw Hill
4. Computer Architecture and Organization, hayes, J.P., Mc Graw Hill
5. Introduction to Microprocessors, Gaonkar, Tata Mc Graw Hill
6. Digital Computer Electronics Malvino & Brown Shird Education, TMH.

## M.Sc.1.2: THEORY OF COMPUTATION

Total Hours: 48

Upon Completion of the course, the students will be able to

- Discuss key notions of computation, such as algorithm, computability, decidability, reducibility, and complexity, through problem solving.
- Explain the models of computation, including formal languages, grammars and automata, and their connections.
- Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars.
- Solve computational problems regarding their computability and complexity and prove the basic results of the theory of computation.

### Unit-I

10Hrs

**Introduction To Finite Automata:** Introduction to Finite Automata, the central concepts of Automata theory, deterministic finite automata, non-deterministic finite automata, an application. Finite automata with Epsilon-transitions.

### Unit-II

10 Hrs

**Regular Expressions and Languages, Properties Of Regular Languages:** Regular expression, Finite Automata and Regular Expressions, Applications of Regular Expressions, Proving languages not to be regular, Closure properties of Regular languages, Decision properties of Regular languages. Equivalence and minimization of automata.

### Unit-III

10 Hrs

**Context-Free Grammars And Languages:** Context-free grammars. Parse trees, Applications, Ambiguity in grammars and languages.

**Pushdown Automata:** Definition of the Pushdown automata, The languages of a PDA, Equivalence of PDA's and CFG's, Deterministic Pushdown Automata.

### Unit-IV

10Hrs

**Properties Of Context-Free Languages:** Normal forms for CFGs, The pumping lemma for CFGs, Closure properties of CFLs.

**Introduction To Turing Machines:** Problems that computers cannot solve. The Turing Machine, Programming techniques for Turing Machines, Extensions to the basic Turing Machine, Restricted Turing Machines, Turing Machine and Computers.

### Unit-V

08 Hrs

**Un decidability:** A Language that is not recursively enumerable, An Undecidable problem that is RE, Post's Correspondence problem. Other un decidable problems.

***References:***

1. J.P. Hopcroft, Rajeev Motwani, J.D. Ullman, Introduction to automata Theory, Languages and Computation, II edition, Pearson Education, 2001.
2. Introduction to Formal Languages and Automata, Peter Linz, Narosa Publ.
3. Languages & Machine An Introduction to Computer Science, Thomds A Sud Kamp, Addison Wesley.
4. Elements of theory of Computation, H.R. Lewis, Shistor H, Papadimitroce, Prentice Hall, New Delhi 199
5. Introduction to Language and Theory of Computation, John Mastin TMH New Delhi, 1998.
6. Theory Of Computation, Rajesh K Shukla,Cengage \ Delmar Learning India Pvt, 1, 2009

## MSc 1.3: DATA STRUCTURES USING C

Total Hours: 48

Upon Completion of the course, the students will be able to

- Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms.
- Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs.
- Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs.
- Demonstrate different methods for traversing trees.
- Compare alternative implementations of data structures with respect to performance.
- Compare and contrast the benefits of dynamic and static data structures implementations.
- Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack.
- Design and implement an appropriate hashing function for an application.
- Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

### **Unit- I INTRODUCTION TO DATA STRUCTURES**

**08Hrs**

Basic concepts: Introduction to data structures, classification of data structures, operations on data structures; Searching techniques: Linear search and Binary search; Sorting techniques: Bubble sort, selection sort, insertion sort and comparison of sorting techniques.

### **Unit - II LINEAR DATA STRUCTURES**

**10 Hrs**

Stacks: Primitive operations, implementation of stacks using Arrays, applications of stacks, arithmetic expression conversion and evaluation; Queues: Primitive operations; Implementation of queues using Arrays, applications of linear queue, circular queue and double ended queue (deque).

### **Unit - III LINKED LISTS**

**12 Hrs**

Linked lists: Introduction, singly linked list, representation of a linked list in memory, Types of linked lists: Single linked lists Circular linked lists, doubly linked lists; operations on a single linked list; Applications of linked lists: Polynomial representation and sparse matrix manipulation.

### **Unit - IV NON LINEAR DATA STRUCTURES**

**10 Hrs**

Trees: Basic concept, binary tree, binary tree representation, array and linked representations, binary tree traversal, binary tree variants, application of trees; Graphs: Basic concept, graph terminology, graph implementation, graph traversals, Application of graphs, Priority Queue.

### **Unit - V Binary search tree and HASHING**

**08Hrs**

Binary search trees, properties and operations; Balanced search trees: AVL trees; Introduction to M-Way search trees, B trees; Hashing and collision: Introduction, hash tables, hash functions, collisions, applications of hashing.

**References:**

1. S. Lipschutz, "Data Structures", Tata McGraw Hill Education, 1st Edition, 2008.
2. D. Samanta, "Classic Data Structures", PHI Learning, 2nd Edition, 2004.

**Web References:**

1. [https://www.tutorialspoint.com/data\\_structures\\_algorithms/algorithms\\_basics.htm](https://www.tutorialspoint.com/data_structures_algorithms/algorithms_basics.htm)
2. <https://www.codechef.com/certification/data-structures-and-algorithms/prepare>
3. <https://www.cs.auckland.ac.nz/software/AlgAnim/dsToC.html>
4. <https://online-learning.harvard.edu/course/data-structures-and-algorithms>

**M.Sc. 1.4: PROBABILITY AND STATISTICS**  
**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Able to understand the basic knowledge on fundamental probability concepts, including random variable, probability of an event, additive rules and conditional probability
- Able to understand the concept of Bayes' theorem
- Able to understand the basic statistical concepts and measures
- Able to develop the concept of the central limit theorem
- Able to understand several well-known distributions, including Binomial, Geometrical, Negative Binomial, Pascal, Normal and Exponential Distribution
- Able to understand the concepts of various parameter estimation methods.
- Able to perform hypotheses testing Skills
- Able to apply the central limit theorem to sampling distribution
- Able to use estimation technique to determine point estimates confidence interval and sample size.
- Able to apply the appropriate Chi-Squared test for independence and goodness of fit
- Able to perform and analyze hypotheses tests of means, proportions and variances using both one-and two-sample data sets.
- Able to solve problems independently
- Able to appreciate the diversity of the applications of central limit theorem
- Able to appreciate the diversity of the applications of hypothesis testing

Unit I: 8hrs.

**Probability:** Sample space and Events - Probability -The Axioms of probability - some Elementary Theorems - Conditional probability -Baye's Theorem - Random variables – Discrete and continuous probability distributions.

Unit II: 10hrs.

**Distributions Binomial,** Poisson and normal Distributions, related properties. Sampling Distributions – Sampling Distribution of means.

**UNIT III:** 8 hrs.

**Estimation** Point Estimation - Interval Estimation – Introduction to student's t-distribution - Confidence interval for Single Mean and Single Proportion (Large and Small samples).

Unit IV: 14hrs.

**Testing of Hypothesis-I** : Testing of hypothesis-Introduction- Null hypothesis-Alternative hypothesis- Type I and Type II errors – Critical region. Test of hypotheses for Single Mean (Large and small samples) - Test of hypotheses for Single Proportion (Large and small samples). **Testing of Hypothesis-II**: Tests of hypotheses for difference of Means (Large and Small samples) - Tests of hypotheses for difference of proportions(Large samples) – Introduction to Chi-Square distribution and Goodness of Fit.

Unit V: 8hrs.

**Correlation & Regression**: Coefficient of correlation- Regression Coefficient- The lines of regression- The rank correlation.

## References

1. Probability & Statistics, T.K.V.Iyengar, B. Krishna Gandhi & Others, 3ed, S.Chand & Co, 2011
2. Probability & Statistics, D. K. Murugesan, P. Guru Swamy, 1ed, Anuradha Publications, 2011
3. Probability & Statistics for Engineers, G.S.S. Bhishma Rao, 2ed, Scitech Publications, 2005
4. Probability & Statistics for Engineers, Miller, John E. Freund, 8ed, Prentice Hall of India, 2010
5. A first course in Probability & Statistics, B.L.S.Prakasa Rao, 1ed, World Scientific, 2010
6. Fundamentals of Mathematical Statistics, S.C. Gupta, V.K.Kapoor, 11 ed, S.Chand & Co., 2003

## M.Sc. 2.1: COMPUTER NETWORKS

Total Hours: 48

Upon Completion of the course, the students will be able to

- Describe the functions of each layer in OSI and TCP/IP model.
- Explain the functions of Application layer and Presentation layer paradigms and Protocols.
- Describe the Session layer design issues and Transport layer services.
- Classify the routing protocols and analyze how to assign the IP addresses for the given network.
- Describe the functions of data link layer and explain the protocols.
- Explain the types of transmission media with real time applications

### UNIT-I:

10hrs

**Foundation-** Building a Network, Applications, Requirements, Architecture, Software, Performance.

**Direct Links-** Connecting to a Network, Technology Landscape, Encoding, Framing, Error Detection, Reliable Transmission, Multi-Access Networks

### UNIT-II:

10hrs

**Internetworking:** Switching Basics, Switched Ethernet, Spanning Tree Algorithm, Broadcast and Multicast, Virtual LANs (VLANs), What Is an Internetwork? Service Model, Global Addresses, Datagram Forwarding in IP, Subnetting and Classless Addressing, Address Translation (ARP), Host Configuration (DHCP), Error Reporting (ICMP), Virtual Networks and Tunnels, Routing- Network as a Graph, Distance-Vector (RIP), Link State (OSPF), Metrics

### UNIT-III:

10hrs

**Global Internet-** Routing Areas, Inter-domain Routing (BGP)

**IP Version 6-** Historical Perspective, Addresses and Routing, Packet Format, Advanced Capabilities

**Multicast-** Multicast Addresses, Multicast Routing (DVMRP, PIM, MSDP)

**Multiprotocol Label Switching-** Destination-Based Forwarding, Explicit Routing, Virtual Private Networks and Tunnels

### UNIT-IV:

10hrs

**Simple Demultiplexor (UDP)**

**Reliable Byte Stream (TCP)-** End-to-End Issues, Segment Format, Connection Establishment and Termination, Sliding Window Revisited, Triggering Transmission, Adaptive Retransmission

**Remote Procedure Call-** RPC Fundamentals

**Transport for Real-Time (RTP)-** Requirements, RTP Design, Control Protocol

**Congestion Control-** TCP Congestion Control

### UNIT-V:

08hrs

**Applications-Traditional Applications-** Electronic Mail (SMTP, MIME, IMAP), World Wide Web (HTTP), Web Services

**Multimedia Applications-** Session Control and Call Control (SDP, SIP, H.323), Resource Allocation for Multimedia Applications

**Reference books:**

1. Larry Peterson, “Computer Networks- A system approach”, 5<sup>th</sup> edition, Elsevier
2. Kurose and Rose, “Computer Networking- A top down approach”, 6<sup>th</sup> edition, Pearson, 2013
3. Andrew Tanenbaum, “Computer Networks”, Prentice Hall
4. Behrouz Forouzan, “Data Communications and Networking”, 4<sup>th</sup> edition, McGraw Hill, 2017

## M.Sc. 2.2: LINEAR ALGEBRA

Total Hours: 48

Upon Completion of the course, the students will be able to

- Solve systems of linear equations
- Analyze vectors in  $R^n$  geometrically and algebraically.
- Recognize the concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces,
- Use matrix algebra and the related.
- Matrices to linear transformations, Compute and use determinants, Compute and use eigenvectors and eigenvalues.
- Find the eigenvalues and eigenvectors of a square matrix using the characteristic polynomial and will know how to diagonalize a matrix when this is possible;
- Understand the basic ideas of vector algebra: linear dependence and independence and spanning;
- Familiar with the notion of a linear transformation and its matrix.
- Find the change-of-basis matrix with respect to two bases of a vector space.

### Unit – I

12hrs.

**Introduction to Vector:** Vector and linear combination, Length and Dot products, Matrices.

**Solving Linear Equations:** Vectors and linear equations, the idea of elimination, Elimination using matrices, Rules for matrix, Inverse Matrices, Elimination=Factorization:  $A=LU$ , Transposes and permutations.

### Unit-II

12hrs.

**Vector Spaces and Subspaces:** Spaces of Vectors, The Null space of A, The Complete Solution to  $Ax=b$ , Independence, Basis and Dimension, Dimension of the Four Subspaces.

**Orthogonality:** Orthogonality of the four subspaces, Projections, Least squares approximations, Orthogonal bases and Gram-Submidt.

### Unit-III

10hrs.

**Determinants:** The properties of Determinants, Permutations and Cofactors, Cramer's Rule, Inverses, and Volumes.

### Unit-IV

7hrs.

**Eigen values and Eigenvectors:** Introduction to Eigenvalues, Diagonalizing a Matrix, Systems of Differential equations, Symmetric Matrices, Positive Definite Matrices.

**Unit-V** 7hrs.

**Single Value Decomposition (SVD):** Image processing by Linear Algebra, Bases and Matrices in the SVD, Principal Component Analysis (PCA by SVD), The Geometry of the SVD.

**REFERENCES:**

- 1) Introduction to Linear Algebra by Gilbert Strang (5<sup>th</sup> edition), Wellesley – Cambridge press, 2016
- 2) Linear Algebra by Kenneth Hoffman and Ray Kunze (2<sup>nd</sup> edition), Prentice-Hall, 1971
- 3) Introduction to Linear Algebra by Thomas A Whitelaw, (2<sup>nd</sup> edition), Champman & Hall/ CRC, 2018
- 4) Introduction to Linear Algebra with applications by Jim De Franza & Daniel Gagliardi, Waveland Press.

## **M.Sc 2.3: DATA BASE MANAGEMENT SYSTEM**

Upon Completion of the course, the students will be able to

- Explain the features of database management systems and Relational database.
- Design conceptual models of a database using ER modeling for real life applications and also construct queries in Relational Algebra.
- Create and populate a RDBMS for a real life application, with constraints and keys, using SQL.
- Retrieve any type of information from a data base by formulating complex queries in SQL.
- Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database.
- Build indexing mechanisms for efficient retrieval of information from a database.

### **UNIT-I INTRODUCTION TO DBMS**

10Hrs

Introduction, characteristics of database, advantages of DBMS over file processing system, A Brief History of Database Applications. Database softwares (microsoft SQL server, oracle RDBMS, MySQL) Data Models, Schemas, and Instances; Three-Schema Architecture and Data Independence; Database Languages and Interfaces; Centralized and Client/Server Architectures for DBMS.

### **UNIT-II DATA MODELING**

10 Hrs

Entity-Relationship Diagram, Relational Model - Constraints, Languages, Design, and Programming, Relational Database Schemas, Update Operations and Dealing with Constraint Violations; Relational Algebra and Relational Calculus; Cod Rules.

### **Unit-III: Enhanced Data Models**

12 Hrs

Temporal Database Concepts, Multimedia Databases, Deductive Databases, XML and Internet Databases; Mobile Databases, Geographic Information Systems, Genome Data Management, Distributed Databases and Client-Server Architectures.

### **UNIT-IV SQL AND NOSQL**

08 Hrs

Data Definition and Data Types; Constraints, Queries, Insert, Delete, and Update Statements; Views, Stored Procedures and Functions; Database Triggers, SQL Injection. NOSQL: NOSQL and Query Optimization; Different NOSQL Products, Querying and Managing NOSQL; Indexing and Ordering Data Sets; NOSQL in Cloud.

### **UNIT -V NORMALIZATION FOR RELATIONAL DATABASES**

08 Hrs

Functional Dependencies and Normalization; Algorithms for Query Processing and Optimization; Transaction Processing, Concurrency Control Techniques, Database Recovery Techniques, Object and Object-Relational Databases; Database Security and Authorization.

#### **References:**

1. "Database System Concepts" by Silberschatz, Korth, Sudarshan, 4th Edition, McGraw Hill Publication.

2. “Database Systems, Concepts, Design and Applications” by S.K.Singh, Pearson Education.
3. “Database Management Systems” by Raghu Ramakrishnan, Johannes Gehrke, McGraw Hill Publication.
4. “Fundamentals of Database Systems” by Elmsari, Navathe, 5th Edition, Pearson Education (2008).

## **M.Sc.2.4: PYTHON PROGRAMMING**

**Total 48hrs.**

Upon successful completion of this course, the student will be able to:

- Define and demonstrate the use of built-in data structures “lists” and “dictionary”.
- Design and implement a program to solve a real world problem.
- Design and implement GUI application and how to handle exceptions and files.
- Make database connectivity in python programming language

### **Unit-I**

**12hrs.**

**INTRODUCTION TO PYTHON PROGRAMMING:** Python interpreter and interactive mode; values and types variables, expressions, statements, tuple assignment, Order of operations, comments, debugging; modules and functions: function Calls, adding new functions, Definitions and Uses, flow of execution, parameters and arguments, Fruitful functions. Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, range, break, continue, pass; recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays.

### **Unit-II**

**12hrs.**

**LISTS, TUPLES, DICTIONARIES:** Lists: Traversing a List, list operations, list slices, list methods, Map, Filter and Reduce, list loop, mutability, aliasing, cloning lists, list parameters; Dictionaries: operations and methods; advanced list processing - list comprehension; Tuples: tuple assignment, tuple as return value.

### **Unit-III**

**07hrs.**

**FILES, MODULES, PACKAGES:** Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages: PANDAS, NUMPY, SCIKIT-LEARN;

### **Unit-IV**

**10hrs.**

**CLASSES AND OBJECTS:** Introduction, Defining Classes, Creating Objects, Data Abstraction and Hiding through Classes, Class method and self argument, Class Constructor (init() Method), Data Members, Calling a Class Method from another Class Method, Class Methods and Static Methods, Inheritance, Types of Inheritance, Abstract Classes and Interfaces, Operator Overloading, Overriding Methods.

### **Unit-V**

**07hrs.**

**Multithreading, GUI Programming, Graphics, Plotting and Web Programming:** Multithreading-Introduction, Threading Module (Creating a Thread, Synchronizing Threads) GUI Programming with tkinter Package, Simple Graphics using Turtle, Plotting Graphs in Python, Web Programming using Python.

## **REFERENCES:**

1. Allen B. Downey, ``Think Python: How to Think Like a Computer Scientist,,,,, 2nd edition, Updated for Python 3, Shroff/O,,Reilly Publishers, 2016
2. Guido van Rossum and Fred L. Drake Jr, —An Introduction to Python – Revised and updated for Python 3.2, Network Theory Ltd., 2011.
3. John V Guttag, —Introduction to Computation and Programming Using Python,,,,, Revised and expanded Edition, MIT Press , 2013
4. Robert Sedgewick, Kevin Wayne, Robert Dondero, —Introduction to Programming in Python: An Inter-disciplinary Approach, Pearson India Education Services Pvt. Ltd., 2016.

## **M.Sc. OEC 2.7: COMPUTER CONCEPTS AND OFFICE AUTOMATION**

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Understanding the concepts of computers and the use of MS office packages.
- Identify the role of MS-word and its potential application in real-life context.
- Knowledge in the application of various menus and their uses in MS office packages.
- Having hands-on training on the use of MS-Excel and MS-Power Point
- Learnt to create simple database applications.

### **Unit-I 10 Hrs**

**Basics:** History and generations of Computer, Types of Computer, Organization of Computer System, Hardware and Software Components, Memory unit: Types of memory, ROM, RAM, types of RAM & ROM, Introduction to cache and virtual memory.

### **Unit-II 10 Hrs**

**Number system:** Binary Octal, Hexa-decimal, Number base conversion, Binary addition, Subtraction, One's and Two's compliment, Character codes – ASCII, EBCDIC.

### **Unit-III 10 Hrs**

**Operating System:** Types of operating system, Functions, Introduction to DOS and WINDOWS operating system.

**Software:** Types of languages, Types of software (System and Application software).

### **Unit-IV 10 Hrs**

**Network and Internet:** History and evolution of Computer Network, Types of network (LAN, MAN & WAN), Internet and its applications.

### **Unit-V 08 Hrs**

**Office Automation:** Working with MS-Word, MS-Excel and MS-POWER POINT

#### **References:**

1. Computer Concepts & C Programming, P.B.Kottur, Sapna Book House Bangalore 2009
2. Computer Fundamentals, V. Rajaraman, Prentice Hall of India, 2008
3. Computer Fundamental P.K. Sinha, Prentice Hall of India, 6th Edition, 1992
4. Fundamentals of Information Technology second edition, Alexis Leon, 2009
5. Microsoft Office-Complete reference, Curt Simmons, Mc Graw Hill, 2003

## M.Sc. 3.1: DESIGN AND ANALYSIS OF ALGORITHMS

Total Hours: 48

Upon Completion of the course, the students will be able to

- Choose appropriate advanced data structure for given problem.
- Calculate complexity.
- Select appropriate design techniques to solve real world problems.
- Apply the dynamic programming technique to solve the problems.
- Apply the greedy programming technique to solve the problems.
- Select a proper pattern matching algorithm for given problem

### Unit-I:

12 hrs

**Introduction:** What is an algorithm?, Fundamentals of Algorithmic Problem Solving, Important Problem Types, Fundamental data Structures.

**Fundamentals of the Analysis of Algorithm Efficiency:** Analysis Framework, Asymptotic Notations and Basic efficiency classes, Mathematical analysis of Recursive and Non-recursive algorithms.

**Brute Force and Exhaustive Search:** Selection Sort and Bubble Sort, Sequential Search and Brute-Force String Matching, Depth-First Search and Breadth-First Search

### Unit-II:

8 hrs

#### Decrease-and-Conquer

Insertion Sort, Topological sorting, Algorithms for Generating Combinatorial Objects, Binary Search.

#### Divide-and-Conquer

Merge sort, Quick sort, Binary tree Traversals and related properties, Multiplication of large integers, Strassen's Matrix Multiplication

### Unit-III:

10 hrs

#### Space and Time Tradeoffs

Sorting by Counting, Input Enhancement in String Matching, Hashing.

### Unit-IV:

10 hrs

#### Dynamic Programming

Computing a binomial coefficient, Warshall's and Floyd's Algorithms, The Knapsack Problem and Memory Functions.

### Unit-V:

08 hrs

**Greedy Technique** Prim's Algorithm, Kruskal's Algorithm, Dijkstra's Algorithm.

#### Limitations of Algorithm Power

Lower-Bound Arguments, Decision Trees, P, NP and NP-Complete Problems.

### References:

1. Introduction to the Design and Analysis of Algorithms, 3<sup>rd</sup> Edition, by Anany Levitin, Pearson, 2012,
2. Introduction to Algorithms, , 3Ed, by T. Cormen , C. Leiserson , R. Rivest , C Stein. International Edition, MIT Press, 2009.

3. Fundamentals of Computer Algorithms, *Ellis Horowitz; Sartaj Sahni; Sanguthevar Rajasekaran, Universitypress*, 2008.
4. Algorithm Design, Michael T Goodrich and Roberto Tamassia, Wiley India.
5. Introduction to Design and Analysis of Algorithms “R C T Lee, S S Tseng, R C, Chang, Y T Tsai, A Strategic Approach, Tata McGraw Hill.

### M.Sc. 3.3: WEB TECHNOLOGIES

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Students are able to develop a dynamic webpage by the use of java script and DHTML.
- Students will be able to write a well formed / valid XML document.
- Students will be able to connect a java program to a DBMS and perform insert, update and delete operations on DBMS table.
- Students will be able to write a server side java application called Servlet to catch form data sent from client, process it and store it on database.
- Students will be able to write a server side java application called JSP to catch form data sent from client and store it on database.
- Students will be able to write web services.

#### **Unit-I:**

**10 hrs**

Web essentials – W3C - clients – servers - communication – markup languages – XHTML – simple XHTML pages style sheets – CSS

#### **Unit-II:**

**12 hrs**

**Client side programming:** Introduction to Java script, Basic Syntax, Variables and Data types, Statements, Operators, Literals, Functions, Objects, Arrays, Built-in objects, Java script debuggers.

**Host objects Browsers and the DOM:** Introduction to Document Object Model, DOM history and levels, Intrinsic Event Handling, Modifying Element Style, The Document tree, DOM Event handling.

#### **Unit-III:**

**12 hrs**

**Server side programming:** (Java servlets) - Servlet Architecture Overview, A “Hello World!” Servlet, Servlet Generating Dynamic Content, Servlet lifecycle, Parameter Data, Sessions, Cookies, URL Rewriting, Other Servlet capabilities, Data Storage, Servlets and Concurrency.

**Separating Programming and Presentation (JSP Technology):** Introduction to Java Server Pages, JSP and Servlets, Running JSP Applications, Basic JSP, Java Beans Classes and JSP, Tag Libraries and Files, Support for the Model – View Controller Paradigm.

#### **Unit-IV:**

**07 hrs**

**Representing Web Data:** XML, XML document and Vocabularies, XML Declaration, XML Namespaces, Java Script and XML: Ajax, DOM based XML processing, Event-oriented Parsing: SAX, Transforming XML Documents, Selecting XML Data: XPath Template-based Transformation: XSLT, Displaying XML Documents in browsers.

#### **Unit-V:**

**07 hrs**

**Web Services:** JAX-RPC, WSDL, XML Schema and SOAP: Web Service Concepts, Writing a Java Web Service, Writing a Java Web Service Client, Describing Web Services: WSDL, Representing Data Types: XML Schema, Communicating Object Data: SOAP. Databases and Java Servlets, Databases and JSP

#### **References**

1. Jeffrey C Jackson, "Web Technology – A computer Science perspective", Person Education, 2007.
2. Chris Bates, "Web Programming – Building Internet Applications", "Wiley India, 2006.

### **M.Sc. 3.4: Artificial Intelligence and Machine Learning**

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Apply artificial intelligence techniques, including search heuristics, knowledge representation, planning and reasoning
- Describe the key components of the artificial intelligence (AI) field
- Explain search strategies and solve problems by applying a suitable search method analyze and apply knowledge representation
- Describe and list the key aspects of planning in artificial intelligence
- Analyze and apply probability theorem and Bayesian networks
- Describe the key aspects of intelligent agents
- Differentiate the key aspects of evolutionary computation, including genetic algorithms and genetic programming
- Describe the key aspects of machine learning
- Analyze problem specifications and derive appropriate solution techniques for them
- Design and implement appropriate solutions for search problems and for planning problems

#### **Unit-I:**

**12 hrs**

Introduction: Introduction to AI applications and AI techniques, Production systems, control strategies, reasoning - forward and backward chaining. Intelligent Agents: Definitions of a rational agent, reflex, model-based, goal-based, and utility-based agents, the environment in which a particular agent operates.

#### **Unit-II:**

**12 hrs**

Searching Techniques and Game Playing: Breadth first search, depth first search, iterative deepening, uniform cost search, hill climbing, simulated annealing, genetic algorithm search, heuristic search, Best first search, A\* algorithm, AO\* algorithm, Minimax and game trees, refining minimax, Alpha - Beta pruning, constraint satisfaction.

#### **Unit-III:**

**10 hrs**

Knowledge Representation: First order predicate calculus, resolution, unification, natural deduction system, refutation, logic programming, PROLOG, semantic networks, frame system, value inheritance, conceptual dependency, Ontologies. Planning: basic representation for planning, symbolic-centralized vs. reactive-distributed, partial order planning algorithm.

#### **Unit-IV:**

**07 hrs**

Machine learning: Introduction to different types of learning, Supervised and Unsupervised learning — Reinforcement learning- Basics of Neural network models.

#### **Unit-V:**

**07 hrs**

Applications of Artificial Intelligence- Natural Language Processing, Speech recognition, Computer vision, Expert systems.

References:

1. S. Russell and P. Norvig, Artificial Intelligence: A Modern Approach (3rd ed.), Pearson Education, 2010.
2. Elaine Rich and Kelvin Knight, Artificial Intelligence, Tata McGraw Hill, 2002.
3. Nils J Nilson, Artificial Intelligence: A New Synthesis, Morgan Kaufmann Publishers, Inc., San Francisco, California, 2000.
4. R. Akerkar, Introduction to Artificial Intelligence, Prentice-Hall of India, 2005.
5. Dan W. Patterson, Introduction to Artificial Intelligence and Expert Systems, Prentice Hall of India, 2006.
6. Nils J. Nilson, Principles of Artificial Intelligence, Narosa Publishing House, 2001.
7. W.F. Clocksin and C.S. Mellish, Programming in PROLOG, Narosa Publishing House, 5th edition, 2003.
8. Saroj Kaushik, Logic and Prolog Programming, New Age International Publisher, 2006.

## M.Sc. OEC 3.7: SPSS SOFTWARE

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Be comfortable using SPSS as a data analysis tool
- Understand how to work with SPSS
- Understand how to learn to use new features of SPSS on their own
- Understand how to acquire information (samples)
- Understand how to enter and reorganize information within SPSS
- Understand how to effectively summarize research finds using SPSS
- Through the use of appropriate indexes and tables
- Choose charts to successfully highlight their research results
- Understand and interpret charts
- Understand the basic principles behind inferential statistics
- Carry out inferential statistical analysis using SPSS
- Integrate information and build models
- Edit SPSS output
- Use SPSS output to produce scientifically sound research reports

### **UNIT-I 10Hrs**

#### **Table of Contents**

Overview of PASW Statistics, Introduction to PASW: Menus, Tool Bar, Dialogue Box, Designate Window, Basic Steps for performing any Statistical Procedure

#### **Data Management**

Creating a Data File, Defining Variables, Entering the Data, Saving Data, Opening an existing Data File, Inserting Variables, Inserting Cases, Identifying Duplicate Cases, Identifying Unusual Cases, Sorting Cases, Merging a File: Add Cases, For Adding Variables, Data Aggregation, Splitting File, Selecting Cases, Listing Cases

### **UNIT-II 10Hrs**

#### **Data Transformation**

Computing a New Variable, Recoding Variables, Automatic Recode, Visual Binning, Rank Cases

#### **Describing Data Numerically**

Types of Measurement Scales, Summary Measures, Frequencies, Descriptive Statistics, Explore, Crosstabs

### **UNIT-III 10Hrs**

#### **Describing Data Graphically**

Line Chart, Pie Chart, Bar Chart, Histogram and the Standard Normal Curve, Box Plot, Scatter Diagram, P-P Plot, Q-Q Plot, Chart Builder, Formatting Charts

### **UNIT-IV 10Hrs**

#### **One Sample t-Test**

Hypothesis Testing, Steps in Hypothesis Testing, Assumptions of Hypothesis Testing, Testing for Population Mean, Statistical and Practical Significance

### **Independent Sample t-Test**

Assumptions of Independent Sample t-Test, Procedure for Testing for Differences in Means between Groups, Interpretation of Null Results, Effect Size

### **UNIT-V**

**08Hrs**

### **Nonparametric Statistics**

Runs Test, Chi-Square Test, Mann-Whitney U Test, Wilcoxon Signed Rank Test, Kruskal-Wallis Test

### **References:**

1. SPSS In Simple Steps byKiran Pandya Smruti Bulsari Sanjay Sinha, Dreamtech Press (2011)
2. Applied Statistics with SPSS byEelko Huizingh, New ed Edition, Sage Publications (CA) (2007)
3. SPSS: A User-Friendly Approach by Jeffery E. Aspelmeier, Thomas W. Pierce , Worth Publishers (2009)
4. Statistical Methods For Practice And Research : A Guide To Data Analysis Using SPSS 0002 Edition, Response Books (2009)
5. A Visual Approach to SPSS for Windows: A Guide to SPSS 17.0,by Leonard D. Stern, Pearson (2009)

## M.Sc.4.1: SOFTWARE ENGINEERING

Total Hours: 48

Upon successful completion of this course, the students will be able to

- Define various software application domains and remember different process model used in software development.
- Explain needs for software specifications also they can classify different types of software requirements and their gathering techniques.
- Convert the requirements model into the design model and demonstrate use of software and user interface design principles.
- Distinguish among SCM and SQA and can classify different testing strategies and tactics and compare them.
- Justify role of SDLC in Software Project Development and they can evaluate importance of Software Engineering in PLC.
- Generate project schedule and can construct, design and develop network diagram for different.

### Unit-I

10 Hrs

**The Product and The Process:** Evolving role of software, software characteristics and components, Crisis, Software Myths, Software Engineering-A Layered Technology, Software process, linear sequential model, Prototyping model, RAD model, Evolutionary software process model.

**Project Management Concepts:** The Management Spectrum, The People, The Product, The Process, and The Project .W5HH Principle.

**Software Process and Project Metrics:** Measures, Metric Indicators, Metric in process and the Project Domains ,Software Measurement, Metrics for software quality.

### Unit-II

10 Hrs

**Software Project Planning:** Project Planning Objectives, Software Project Estimation, decomposition Techniques, Empirical Estimation Models.

**Risk Analysis and Management:** Software Risks, Risk Identification, Risk Projection, Risk Refinement and Risk Mitigation, Monitoring, and Management.

### Unit-III

10Hrs

**Analysis Concepts and Principles:** Requirement analysis, communication techniques, analysis principles, software prototyping and specification.

**Analysis Modeling:** Elements of analysis model, data modeling, functional modeling, behavioral modeling, the mechanics of structured analysis, data dictionary, other classical analysis methods.

### Unit-IV

10hrs

**Design Concepts and Principles:** Software design and software engineering design process, design principles, design concepts, design methods, data design, architectural design and process, transform and transaction mappings, design post processing, architectural design optimization, interface design, procedural design.

### Unit-V

08 hrs

**Software Testing Techniques and Strategies:** Fundamentals, Test case design, White box testing, Basis path testing, Control structure testing, Black box testing, Software testing strategies.

**Software Configuration Management:** Configuration management, maintenance costs, maintenance side effects, maintenance tissues.

**Software Quality Assurance:** Quality Concepts, Software Quality Assurance, FTR, ISO 9001, ISO-9002, ISO-9003, Introduction to CASE, DOD standard 2167 A.

***REFERENCES:***

1. Software Engineering, Fifth Edition, Roger - Pressman, McGraw Hill.
2. Software Engineering , Ian Sommerville, International Computer Science, Series
3. Software Engineering, Schooma, McGraw Hill
4. Object Oriented Design and Analysis, Booch, Benjamin / Cummings,
5. Software Engineering: A Practitioner's Approach 7<sup>th</sup> Edition, Roger – Pressman, Tata McGraw - Hill Education (2010)

## M. Sc 4.3: DATA MINING

Total Hours: 48

Upon successful completion of this course, the students will be able to

- Understand Data Warehouse fundamentals, Data Mining Principles
- Design data warehouse with dimensional modelling and apply OLAP operations.
- Identify appropriate data mining algorithms to solve real world problems
- Compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining
- Describe complex data types with respect to spatial and web mining.
- Benefit the user experiences towards research and innovation.

### Unit-I

10 Hrs

Data mining – Motivation – Importance - DM Vs KDD - DM Architecture - Data Types – DM Tasks – DM System Classification - Primitives of DM - Data Mining Query Language - DM Metrics - DM Applications - DM Issues – Social Implications of DM

### Unit-II

10 Hrs

Data Preprocessing: Summarization - Data cleaning - Data Integration and Transformation - Data Reduction - Discretization and Concept Hierarchy Generation

### Unit-III

10 Hrs

Mining Frequent Patterns – Frequent Item set Mining Methods. Classification: Classification by Decision Tree Induction – Bayesian Classification – Rule based Classification - Prediction– Accuracy and Error Measures

### Unit-IV

10 Hrs

Cluster Analysis – Types of Data in Cluster Analysis – Categorization of clustering Methods – Partition Methods - Outlier Analysis – Mining Data Streams – Social Network Analysis – Mining the World Wide Web

### Unit-V

8 Hrs

Data Warehousing: OLTP Vs OLAP - Multidimensional Data Model -DW Architecture Efficient Processing of OLAP queries - Metadata repository – DWH Implementation – OLAM

### References:

1. Jiawei Han, Micheline Kamber, "Data Mining: Concepts and Techniques", 3rd Edition, Elsevier India Private Limited, 2012.
2. Margaret H. Dunham, "Data Mining: Introductory and Advanced Topics", Pearson Education, 2012.
3. K.P.Soman, Shyam Diwakar, V.Ajay, "Insight into Data Mining Theory & Practice, Prentice
4. Hall India, 2012 5. G.H.Gupta, "Introduction to Data Mining with Case Studies", 2nd Edition, PHI.

5. Ralph Kimball, Margy Ross “The Data Warehouse Toolkit: The Complete Guide to Dimensional Modeling”, 3rd Edition ,wiley , Jul 2013

## **M.Sc.4.4: OPERATION RESEARCH**

**Total Hours: 48**

Upon successful completion of this course, the students will be able to

- Formulate a real-world problem as a mathematical programming model
- Understand the theoretical workings of the simplex method for linear programming and perform iterations of it by hand
- Understand the relationship between a linear program and its dual, including strong duality and complementary slackness
- Perform sensitivity analysis to determine the direction and magnitude of change of a model's optimal solution as the data change
- Solve specialized linear programming problems like the transportation and assignment problems
- Solve network models like the shortest path, minimum spanning tree, and maximum flow problems
- Understand the applications of, basic methods for, and challenges in integer programming
- Understand how to model and solve problems using dynamic programming
- Model a dynamic system as a queuing model and compute important performance measures
- Learn optimality conditions for single- and multiple-variable unconstrained and constrained non-linear optimization problems, and corresponding solution methodologies

**Unit- I** **10hrs.**  
Introduction: History, Definitions, Features of Operation Research, Models and modeling in OR, Methods for solving OR models, Advantages of OR Study. Linear Programming: Structure of Linear programming model, General Mathematical model of LPP, guidelines on linear programming models, Examples of LP model formulation.

**Unit- II** **12hrs.**  
Linear programming: Graphical solution Methods of LP problems, Simplex algorithm(Maximization case), Simplex algorithm (Minimization case): two phase and Big-M method. Duality in Linear programming

**Unit- III** **10hrs.**  
Transportation Problem : Mathematical model of transportation problem, The transportation algorithm, NWCM, LCM, VAM, Test for optimality, variations in Transportation problem.

**Unit -IV** **10hrs.**  
Assignment Problem: Mathematical models of Assignment Problem, Hungarian method for solving Assignment problem. Network Models: Scope and definition of Network models, minimal spanning tree algorithm, TSP as a network model, project management :CPM and PERT.

**Unit- V****6hrs.**

Decision Theory and Decision Trees : Steps in decision making, Types of Decision making environment Decision making under uncertainty, Decision making under risk, Posterior probabilities and Bayesian Analysis, Decision Tree Analysis.

**References:**

1. Sharma J.K, Operations Research, Theory and Applications, McMillan India Ltd.
2. Hamdy A. Taha, Operations Research, 8/e, Pearson Education.
3. Filet B. E, Introduction to Operation Research : A Computer Oriented Algorithm Approach
4. Gillet B.E, Introduction to Operations Research, TMH.
5. Chandrasekhar Salimath and Bhupender parashar, Operation Research, University Press, 2014

**Core Theory Electives: I**

<b>Paper Code</b>	<b>Paper Title</b>
M.Sc.3.2 A	Operating System Concepts
M.Sc.3.2 B	Computer Vision
M.Sc.3.2 C	Mobile Computing
M.Sc.3.2 D	Business Intelligence Systems
M.Sc.3.2 E	Computer Graphics

## M. Sc 3.2A: Operating System Concepts

Total Hours: 48

Upon Completion of the course, the students will be able to

- Describe the important computer system resources and the role of operating system in their management policies and algorithms.
- Understand the process management policies and scheduling of processes by CPU
- Evaluate the requirement for process synchronization and coordination handled by operating system
- Describe and analyze the memory management and its allocation policies.
- Identify use and evaluate the storage management policies with respect to different storage management technologies.
- Identify the need to create the special purpose operating system.

### Unit-I

10 Hrs

**Introduction:** Operating system concepts, types of operating system – Batch, interactive, time sharing, real time and distributed operating systems. Operating system services, system calls, system components, system programs.

**Process Management:** Processes-process scheduling, operation on processors, co- operating process threads, interprocess communication, concept of critical section problem and solution, semaphores and implementation.

### Unit-II

10 Hrs

**CPU Scheduling:** Scheduling criteria and scheduling algorithms, multiple processor scheduling.

**Deadlock:** Deadlock problem, characterization, prevention, avoidance, detection, recovery, combined approach to deadlock handling.

### Unit-III

10 Hrs

**Memory Management:** Logical and physical address, swapping overlays, contiguous allocation, paging segmentation, segmentation with paging, virtual memory-demand paging page replacement algorithms.

### Unit-IV

10 Hrs

**Disk and Drum Scheduling:** Physical characteristics FCFS, Shortest seek time first, SCAN scheduling, selection of disk scheduling algorithm, sector queuing.

### Unit-V

08 Hrs

**File System:** Files, access method, directory structure, protection and file system implementation, allocation methods.

**Protection:** Goals, mechanism and policies, domain of protection, access matrix and its implementation, dynamic protection structure, revocation, security.

**REFERENCES:**

1. Operating systems Concepts, Peterson, J. and Sliberschatz, McGraw Hill.2006
2. Operating system, Madnick, S.E. Donovan J.J., McGraw Hill.
3. Operating system Principles, Brinch Hansen P., PHI.
4. A logical Design of Operating systems, Shaw A., PHI
5. Operating systems, Milan Milenkovic, McGraw Hill.
6. Fundamentals of Operating system, including case studies, Sridhar. R.,:MS- DOS, UNIX & OS/2, Dynaram Publications.
7. Windows 3.1 A Complete Tutorial, Galgotia Publication Pvt., Ltd., Subhash Mehta.
8. Systems Programming and Operating system, McGraw Hill.

## M.Sc. 3.2B: COMPUTER VISION

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- identify basic concepts, terminology, theories, models and methods in the field of computer vision,
- describe known principles of human visual system,
- describe basic methods of computer vision related to multi-scale representation, edge detection and detection of other primitives, stereo, motion and object recognition,
- suggest a design of a computer vision system for a specific problem

### **Unit- I:**

**12hrs**

**Introduction and image processing:** What is computer vision? History of computer vision, Photometric image formation, the digital camera, Image processing: Point operators, Linear filtering, Neighbor hood operators.

### **Unit -II:**

**10 hrs**

**Feature detection and matching:** Feature detectors, feature descriptors, feature tracking, edge detection, edge linking, Lines: successive approximation, Hough transform, vanishing points, Application: Rectangel detection.

### **Unit-III:**

**10 hrs**

**Segmentation:** Active contours: snakes, Dynamic snakes and condensation, Scissors, Level Sets. Split and merge: Watershed, Region splitting (divisive clustering), and Region merging (agglomerative clustering) Graph-based segmentation.

### **Unit-IV:**

**8 hrs**

**Color Image processing:** color fundamentals, color models, Pseudo color image processing, color transformations, color image smoothing and sharpening, Image segmentation based on color.

### **Unit-V:**

**8 hrs**

**Recognition:** Object detection, Face recognition, Instance recognition, category recognition, context and scene understanding

### **References:**

1. Richard Szeliski, Computer Vision: Algorithms and Applications, Springer-Verlag London Limited 2011.
2. D. A. Forsyth, J. Ponce, Computer Vision: A Modern Approach, Pearson Education, 2003.
3. Rafael C. Gonzalez, Richard E. Woods, Digital Image Processing, Pearson Education, 2013.
4. Anil K. Jain, Fundamentals of Digital image processing, Prentice-Hall of India Pvt Ltd., 1997.
5. Milan Sonka, Vaclav Hlavac, Roger Boyle, Image processing, Analysis and Machine vision, Cengage Learning: 4<sup>th</sup> edition, 2014.

## M. Sc 3.2C: MOBILE COMPUTING

Upon Completion of the course, the students will be able to

- Explain the principles and theories of mobile computing technologies.
- Describe infrastructures and technologies of mobile computing technologies.
- List applications in different domains that mobile computing offers to the public, employees, and businesses.
- Describe the possible future of mobile computing technologies and applications.

### UNIT-1

10hrs

#### Mobile Computing Architecture: An Overview

Mobile IP, Cellular and WLAN Wi-Fi IEEE 802.11X Networks, Ad Hoc Networks, Wireless Personal Area Network, Mobile Enterprise Network, Mobile Cloud Network, Mobile Computing, Mobile Computing Operating System, Mobile Computing Architecture, Design Considerations for Mobile Computing, Mobile Computing and the Apps, Limitations of Mobile Devices, Security Issues

### UNIT-2

10hrs

#### Mobile Client Devices and Pervasive Computing

Moving beyond Desktops, Pervasive Computing, Mobile Devices-Classifications and Characteristics, Tablet and e-Book Reader, Smart Identification Devices: Smart Cards, Labels, and Tokens, RFID, Smart Sensors, Actuators, and Mobile Robotic Systems, Smart Home and Appliances, Limitations and Devices Design Constraints, Automotive Systems

### UNIT-3

10hrs

#### Second-generation Architecture—GSM, GPRS, and Others

GSM Services, GSM System Architecture, Call Routing, Public Land Mobile Network (PLMN) Interface, GSM Subscriber Addresses and Identities, Protocols, Localization, Call Handling, Handover, Security, Introduction to SMS, General Packet Radio Service, High-speed Circuit-switched Data

### UNIT-4

10hrs

#### Wireless Medium Access Control, CDMA, 3G, WiMax, 4G and 5G Networks

Modulation, Medium Access Control, Exposed and Hidden Terminal Problem, Near and Far Terminal Problem, and Power Control for Medium Access, MAC Algorithms, WLAN and CAMA/CA Wireless Protocols, Applications of 3G Mobile Services, 3G Mobile Services: IMT2000 and UMTs, CDMA 2000: 3G, WCDMA 3G, OFDM, High-speed Packet Access, Long-term Evolution and WiMax 16E, 4G Networks: HS-OFDM, LTE Advanced and WiMax 16M, Upcoming 5G Network Features

### UNIT-5

08hrs

#### Mobile IP Network Layer

Mobile IP, Packet Delivery and Handover Management, Location Management, Registration, IP Header: Encapsulation and Routes Optimization, Mobility Binding, Tunneling, and Reverse Tunneling, Dynamic Host Configuration Protocol, Cellular IP, Mobile IP with IPv6, Voice over IP, IP Security

**Reference Books:**

1. Raj Kamal, “Mobile Computing”, 3<sup>rd</sup> edition, oxford University press.
2. Pattnaik, “Fundamentals of mobile computing”, 2<sup>nd</sup> edition, PHI
3. Uwe Hansmann, “Principles of mobile computing”, 2<sup>nd</sup> edition, Springer international, 2014

## **M. Sc 3.2D: BUSINESS INTELLIGENCE SYSTEMS**

**Total hours: 48**

Upon Completion of the course, the students will be able to

- Describe the concepts and components of Business Intelligence (BI).
- Critically evaluate use of BI for supporting decision making in an organization.
- Understand and use the technologies and tools that make up BI (e.g. Data warehousing, Data reporting and use of online analytical processing (OLAP)).
- Understand and design the technological architecture that underpins BI systems.
- Plan the implementation of a BI system.

Unit-I 12hrs.

Decision support and Business intelligence-Changing Business environment and computerized decision support, managerial decision making and support for decision making-DSS concept and framework Business intelligence-Major tools and techniques of managerial decision support –BI architecture.

Unit-II 12hrs.

Essentials of Business Intelligence-Origin and drivers of business intelligence, successful BI implementation ,characteristics of BI-Architecting the data ,Enterprise Data model and its Benefits, Granularity of Data in Data warehouse and role of Metadata

Unit-III 10hrs.

Advanced Data Warehousing principles- Data Warehousing architecture, DW development, real time DW and DW Administration and security issues-Visualization of Dimension model-Star, snowflake and other advanced models-Aggregated Fact Tables-Relational DBMS Support for Dimensional Modelling-Advanced Topics in Dimensional Modelling-Selecting a Modelling Tool-Populating Data Warehouse.

Unit-IV 07hrs.

Dimensional modelling in BI environment-Dimensional Modelling-Modelling considerations-Dimensional model design life cycle-Case studies-Business Analytics and data visualization-Business analytics overview, reports and queries, Advanced Business Analytics, data visualization Real time BI, Business analytics and web intelligence-Structure of mathematical models for decision support and visual interactive simulation.

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Unit-V 07hrs.

REFERENCES:

1. E Turban, J E Aronson, Teng pend Liang and Ramesh Sharada, "Decision Support and Business Intelligence", 8<sup>th</sup> Edition, pearson Education, 2009.
2. Dan Volitich,"IBM Cognos Business Intelligence", TMH ,2008.
3. Chuck Bullard.,Dirk Herreman, Don Schau,Rhonda Bell,Eunsaeng Kim,ann Valencic,"Data Modelling Techniques for Data Warehousing", IBM Corporation,1999

## M.Sc. 3.2E: Computer Graphics

Total Hours: 48

Upon successful completion of this course, the students will be able to

- Explain the core concepts of computer graphics, including viewing, projection, perspective, modelling and transformation in two and three dimensions,
- Apply the concepts of color models, lighting and shading models, textures, hidden surface elimination, anti-aliasing, and rendering,
- Interpret the mathematical foundation of the concepts of computer graphics,
- Describe the fundamentals of animation, parametric curves and surfaces, and spotlighting, identify a typical graphics pipeline and
- Apply graphics programming techniques to design and create computer graphics.

### Unit-I

10 Hrs

**Introduction:** Computer graphics and its applications in various fields. Hardware system for graphics working of different input devices, visual display devices and hard copy device. Introduction to different coordinate systems.

**Raster Scan display:** Concepts of resolution, aspect ratio refresh rate and frame buffer.

**Random scan displays:** Concepts of display file and display file interpreted comparison between raster scan and random scan. Implementation of graphics in 'C' language and study of various graphics functions.

### Unit-II

10 Hrs

**Line drawing methods:** DDA algorithm and Bresenham's algorithm for different slope conditions, midpoint method for line generation. Two-dimensional transformation: Mathematical treatment of basic transformation such as translation scaling and rotation. Development of composite transformation matrices using homogeneous coordinates. General fixed point scaling and pivot point rotation.

**Clipping:** Study of Cohen Sutherland line clipping procedure and Sutherland hodgmen polygon clipping procedure.

**Windows and view ports:** Derivation of generalized window to view port transformation matrix. Introduction to interrupt driven programming in 'C' and interacting with the mouse.

### Unit-III

10 hrs

**Three-dimensional Computer Graphics:** Introduction to left and right hand coordinate systems. Basic 3D transformation. Hidden line removal. **Projection:** Study of orthographic and oblique parallel transformation equations for them.

### Unit-IV

10 Hrs

**Graphic software standards:** GKS and PHIGS. Study of various attributes of output primitives such as line attributes, area fill attributes and character attributes.

**Graphics Software Study:** DirectX and Open GL

### Unit-V

08 Hrs

**Segments:** Concepts and advantages. Segment table various operations on segments.

Data structures for the display file arrays on segment, linked list and paging schemes M  
**Miscellaneous topics** – Brief introduction to Bezier curves and their application,  
fractal morphing and animation.

**REFERENCE:**

1. Newman and Sproull: Principles of Interactive Computer Graphics McGraw Hill, 1996.
2. S. Harrington: Computer graphics McGraw Hill, 1997.
3. YeshwantKanetkar: Graphics under “C” BPB, 1995.
4. YeshwantKanetkar: C Pearls BPB, 1996.
5. Hearn Donald Pauling Baker .M: Computer Graphics EEE PHI, 1998

**Core Theory Electives-II:**

Subject Code	Elective Title
M.Sc.4.2 A	Cloud Computing
M.Sc.4.2 B	Internet of Things (IoT)
M.Sc.4.2 C	Mobile Communications
M.Sc.4.2 D	Deep learning
M.Sc.4.2 E	Information Security and Cryptography
M.Sc.4.2 F	Soft Computing

## M.Sc 4.2A CLOUD COMPUTING

Total Hours: 48

Upon Completion of the course, the students will be able to

- Describe the principles of Parallel and Distributed Computing and evolution of cloud computing from existing technologies
- Implement different types of Virtualization technologies and Service Oriented Architecture systems
- Elucidate the concepts of NIST Cloud Computing architecture and its design challenges
- Analyze the issues in Resource provisioning and Security governance in clouds
- Choose among various cloud technologies for implementing applications CO6 Install and use current cloud technologies

### Unit –I: New Computing Paradigms and Services

08Hrs

Edge computing, Grid computing, Utility computing, Distributed computing, Cloud computing and its history and evolution

### Unit –II: Introduction to Cloud Computing

10 Hrs

Cloud Computing Architectural Framework, Cloud Deployment Models, private, public and hybrid, Challenges in adapting a cloud in the context of i) Security issues ii) Bandwidth and iii) Integration issues, Virtualization in Cloud Computing, Parallelization in Cloud Computing, Security for Cloud Computing, Cloud Economics

### Unit-III : Cloud source Service Models

10 Hrs

Software as a Service (SaaS), Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Seven Business Models for cloud, five-layer cloud service stack, compute and storage cloud services case studies Jeff Bezos and Amazon

### Unit -IV : Foundational Elements of Cloud Computing

10 Hrs

Virtualization, Browser as a platform, Introduction to Web 2.0, Introduction to Autonomic Systems, Service Level Agreements, Cloud Computing architecture and industry frameworks such as MapReduce.

### Unit –V: Cloud Computing Practices

10 Hrs

Virtualization, Cloud Computing Operating System, Creating Windows servers on the cloud, Creating Linux servers on the cloud, Deploying applications on the cloud, Major cloud solutions.

**References:**

1. Rajkumar Buyya, James Broberg, Andrzej M. Goscinski, Cloud Computing: Principles and Paradigms, Wiley, 2013
2. Tim Mather, Subra Kumaraswamy, and Shahed Latif,” Cloud Security and Privacy”,Oreilly,2009
3. Barrie Sosinsky, “Cloud Computing Bible” , Wiley-India, 2011
4. Kai Hwang, Geoffrey C Fox, Jack G Dongarra, “Distributed and Cloud Computing: From Parallel Processing to the Internet of Things”, Morgan Kaufmann Publishers,2013.
5. Ronald L. Krutz, Russell Dean Vines,"Cloud Security: A Comprehensive Guide to Secure Cloud Computing”, Wiley-India, 2010
6. John W.Rittinghouse and James F.Ransome, “Cloud Computing: Implementation, Management, and Security”, CRC Press, 2010.
7. Rajkumar Buyya,Chirstian Vecchiola,S.Thamarai Selvi,”Mastering Cloud Computing” , Tata McGraw Hill,2013

## M.Sc. 4.2B: INTERNET OF THINGS (IoT)

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Interpret the impact and challenges posed by IoT networks leading to new architectural models.
- Compare and contrast the deployment of smart objects and the technologies to connect them to network.
- Appraise the role of IoT protocols for efficient network communication.
- Elaborate the need for Data Analytics and Security in IoT.
- Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

### Unit-1

**10hrs**

Introduction to IoT: what is IOT? Genesis of IoT and digitization, IOT impact, Convergence of IT and OT, IOT challenges.

**IoT Network Architecture and Design:** Drivers behind New Network Architectures, IoT architecture drivers, Comparing IoT Architectures, A Simplified IoT Architecture, The Core IoT Functional Stack, IoT data management and compute stack

### Unit-2

**10hrs**

**Engineering IoT networks:** Smart Objects: The “Things” in IoT, Sensors, Actuators, and Smart Objects, Wireless Sensor Networks (WSNs), Communication Protocols for Wireless Sensor Networks, Connecting Smart Objects, Communications Criteria, IoT Access Technologies.

### Unit-3

**10hrs**

**IP as the IoT Network Layer:** The Business Case for IP, The Need for Optimization, IP versions, Optimizing IP for IoT, header compression, Fragmentation, Mesh addressing, 6TiSCH, RPL, Authentication and encryption on constrained nodes.

### Unit-4

**10hrs**

**Application Protocols for IoT:** The Transport Layer, IoT Application Transport Methods, Application Layer Protocol Not Present, SCADA, A Little Background on SCADA, Adapting SCADA for IP, Tunneling Legacy SCADA over IP Networks, SCADA Protocol Translation, SCADA Transport over LLNs with MAP-T, Generic Web-Based Protocols, IoT Application Layer Protocols , CoAP

### Unit-5

**08hrs**

**Data and Analytics for IoT:** An Introduction to Data Analytics for IoT, Structured Versus Unstructured Data, Data in Motion Versus Data at Rest, Machine Learning Overview, Supervised Learning, Unsupervised Learning, Machine Learning and Getting Intelligence

from Big Data, Predictive Analytics, Big Data Analytics Tools and Technology, Edge Analytics Core Functions, Network Analytics

References:

1. David Hanes, “IoT Fundamentals”, Ciscopress.com, 2017
2. Adrian McEwen, “ Designing Internet of things”, wiley, 2014
3. Samuel greengard, “The internet of things”, MIT press, 2015
4. Cuno Pfister, “ Getting started with internet of things”, O’Reilly, 2011

## M.Sc.4.2C: MOBILE COMMUNICATIONS

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- To get aware of historical development of different wireless technologies
- To get familiar with key concepts of wireless networks, standards, technologies and their basic operations
- To learn about various wireless local area network standard, design and analyse various medium access
- To learn how to evaluate MAC and network protocols using network simulation software tools.
- The students should get familiar with the wireless/mobile market and the future needs and challenges
- Understand the concepts, applications of wireless sensor networks, Bluetooth and Zigbee

### Unit-1

**10hrs**

*Introduction and overview of wireless communication*

Wireless Comes of Age 2, The Global Cellular Network, The Mobile Device Revolution , Future Trends, The Trouble With Wireless, Signals for Conveying Information, Analog and Digital Data Transmission, Channel Capacity, Transmission Media, Spectrum Considerations, Line-Of-Sight Transmission, Fading in the Mobile Environment, Channel Correction Mechanisms, Digital Signal Encoding Techniques, Coding and Error Control, Orthogonal Frequency Division Multiplexing (OFDM)

### Unit-2

**10hrs**

*Signal Encoding Techniques and error control*

Signal Encoding Criteria, Digital Data, Analog Signals, Analog Data, Analog Signals, Analog Data, Digital Signals, Orthogonal Frequency Division Multiplexing, Orthogonal Frequency Division Multiple Access (OFDMA), Single-Carrier FDMA, Error Detection , Block Error Correction Codes, Convolutional Codes, Automatic Repeat Request

### Unit-3

**10hrs**

*Wireless LAN Technology - Overview and Motivation, IEEE 802 Architecture, IEEE 802.11 Architecture and Services, IEEE 802.11 Medium Access Control, IEEE 802.11 Physical Layers, Gigabit Wi-Fi 356*

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*Bluetooth and IEEE 802.15- The Internet of Things, Bluetooth Motivation and Overview, Bluetooth Specifications, Bluetooth High Speed and Bluetooth Smart, IEEE 802.15, ZigBee*

**Unit-4** **10hrs**

*Cellular Wireless Networks*

Principles of Cellular Networks, First-Generation Analog, Second-Generation TDMA, Second-Generation CDMA, Third-Generation Systems, Approach to 4G, LTE Architecture, Evolved Packet Core.

**Unit-5** **08hrs**

*Mobile Applications and Mobile IP* - Mobile Application Platforms, Mobile App Development, Mobile Application Deployment, Mobile IP

**References:**

1. Cory Beard and William Stallings, “wireless communication networks and system”, Pearson, 2016
2. Jochen Schiller, “Mobile Communication”, Addison-wesley, 2016
3. Gordon stuber, “Principles of Mobile Communication”, Springer, 2013

## M.Sc.4.2D: DEEP LEARNING

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Identify the deep learning algorithms which are more appropriate for various types of learning tasks in various domains.
- Implement deep learning algorithms and solve real-world problems.

### Unit- I

**10hrs**

**Introduction:** Historical context and motivation for deep learning; basic supervised classification task, optimizing logistic classifier using gradient descent, stochastic gradient descent, momentum, and adaptive sub-gradient method.

### Unit- II

**10hrs**

**Neural Networks:** Feed forward neural networks, deep networks, regularizing a deep network, model exploration, and hyperparameter tuning.

### Unit-III

**8hrs.**

**Optimization for training deep models:** Challenges in Neural Network optimization, Basic Algorithms, Parameter Initialization Strategies, Algorithm with Adaptive Learning Rates, Approximate second order Methods, Optimization Strategies and Meta-Algorithms.

### Unit-IV

**12hrs**

**Convolutional Networks and Sequence Modeling:** Motivation, Convolution operation, Pooling, Variants of the Basic Convolution Function, Structured outputs, Efficient Convolution Algorithms. Sequence Modeling: Recurrent Nets Unfolding computational graphs, recurrent neural networks (RNNs), bidirectional RNNs, encoder-decoder sequence to sequence architectures, deep recurrent networks, Recursive neural networks.

### Unit-V

**8hrs**

**Autoencoders** : Under complete autoencoders, regularized autoencoders, sparse autoencoders, denoising autoencoders, representational power, layer, size, and depth of autoencoders, stochastic encoders and decoders, denoising autoencoders, Learning manifolds with Autoencoders, Applications of Autoencoders.

### References:

1. Ian Goodfellow, Yoshua Bengio, Aaron Courville, “Deep Learning”, MIT Press, 2016.
2. Jeff Heaton, “Deep Learning and Neural Networks”, Heaton Research Inc, 2015.
3. Deng & Yu, “Deep Learning: Methods and Applications”, Now Publishers, 2013.
4. Nikhil Buduma, Nicholas Locascio, “Fundamentals of Deep Learning: Designing Next-Generation Machine Intelligence Algorithms”, O'ReillyMedia, 2017.
5. Mindy L Hall, “Deep Learning”, VDM Verlag, 2011.



## M.Sc 4.2E: INFORMATION SECURITY AND CRYPTOGRAPHY

**Total Hours: 48**

Upon Completion of the course, the students will be able to

- Identify and analyze network security attacks and counter measures to prevent those attacks.
- Analyze the applications of discrete mathematics and understand their implementation in cryptography.
- Apply the knowledge of existing encryption and decryption techniques to provide security solutions.
- Assess impact of public key cryptosystems and key management to ensure secure exchange of information.
- Investigate the security requirements and solutions for maintaining Data integrity using modern techniques for data transmission.

### **Unit – I : Basics of Information Security**

10Hrs

Information Security Overview, Threat and Attack Vectors, Types of Attacks, Common Vulnerabilities and Exposure (CVE), Security Attacks, Fundamentals of Information Security, Computer Security Concerns, Information Security Measures.

### **Unit –II Information Security Policies, Procedures**

08 Hrs

Information Security Policies-Necessity-Key Elements and Characteristics, Security Policy Implementation, Configuration, Security Standards-Guidelines and Frameworks

### **Unit-III : Encryption techniques**

12 Hrs

Classical Encryption Techniques Symmetric Cipher Model- Cryptography, Cryptanalysis and Brute-Force Attack, Block Ciphers and the Data Encryption Standard - Block Cipher Structure- Stream Ciphers and Block Ciphers, Feistel Cipher Structure, The Data Encryption Standard-Encryption and Decryption, Advanced Encryption Standard (AES), International Data Encryption Algorithm(IDEA).

### **Unit –IV : Public Key Encryption**

08 Hrs

Characteristics of Public Key System; RSA Technique – Encryption-Method; Key Exchange; Diffie-Hellman Scheme; Cryptographic Hash Functions; Digital Signature – Properties of Digital Signature, Certificates; Certificate Authorities.

### **Unit-V : IP and Web Security**

10 Hrs

IP security: Overview - Architecture – Authentication Header - Encapsulating Security Payload - Key management – Web security: Web security considerations – Secure Socket Layer and Transport Layer Security – Secure electronic transaction – Web issues.

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### **References:**

1. Cryptography and Network Security - Principles and Practice: William Stallings,

- Pearson Education, 6th Edition.
2. Cryptography and Network Security: AtulKahate, McGraw Hill, 3<sup>rd</sup> Edition.
  3. Cryptography and Network Security: C K Shyamala, N Harini, Dr T R Padmanabhan, Wiley India, 1st Edition.
  4. Cryptography and Network Security :ForouzanMukhopadhyay, McGraw Hill, 3rd Edition.
  5. Information Security, Principles, and Practice: Mark Stamp, Wiley India.
  6. Principles of Computer Security: WM. Arthur Conklin, Greg White, TMH.
  7. Introduction to Network Security: Neal Krawetz, CENGAGE Learning.
  8. Network Security and Cryptography: Bernard Menezes, CENGAGE Learning.

## **M.Sc.4.2F: SOFT COMPUTING**

**Total Hours: 48**

Course Outcomes: At the end of the course the student should be able to

- Learn about soft computing techniques and their applications
- Analyze various neural network architectures
- Understand perceptron's and counter propagation networks.
- Define the fuzzy systems
- Analyze the genetic algorithms and their applications.

### **Unit-I**

**10hrs**

Soft Computing and its Techniques, Soft Computing versus Hard Computing, Applications of Soft Computing in the current industry.

### **Unit-II**

**12hrs**

Neural Network (NN), Biological foundation of Neural Network, Neural Model and Network Architectures, Perceptron Learning, Supervised Hebbian Learning, Back-propagation, Associative Learning, Competitive Networks, Hopfield Network, Computing with Neural Nets and applications of Neural Network.

### **Unit-III**

**10hrs**

Fuzzy sets, Operations on Fuzzy sets, Fuzzy Relations, Fuzzy Measures, Applications of Fuzzy Set Theory to different branches of Science and Engineering.

### **Unit-IV**

**10hrs**

Neuro Fuzzy and Soft Computing, Adaptive Neuro-Fuzzy Inference System Architecture, Hybrid Learning Algorithm, Learning methods that Cross-fertilize ANFIS and RBFN.

### **Unit-V**

**05hrs**

Coactive Neuro Fuzzy Modeling, Framework Neuron Functions for Adaptive Networks, Neuro Fuzzy Spectrum, Hybridization of other techniques.

### **References:**

1. J.S.R.Jang, C.T.Sun and E.Mizutani, Neuro-Fuzzy and Soft Computing, PHI, 2004.
2. J.Freeman and D.Skapura, Neural Networks: Algorithms, Applications and Programming Techniques, Addison-Wesley, 1991.
3. G.J.Klir and B.Yuan, Fuzzy Sets and Fuzzy Logic: Theory and Applications, Prentice-Hall, 1995.
4. S.Rajasekaran and G.A.V.Pai, Neural Networks, Fuzzy Logic and Genetic Algorithms, PHI, 2003.



# KARNATAKA UNIVERSITY, DHARWAD



*Department of Computer Science*

*Revised Syllabus of  
Course Work for Ph.D Programme  
in Computer Science*



From  
2021-22 onwards

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Model computational problems by applying mathematical concepts and design solutions using suitable data structures and algorithmic techniques.
2. Design and develop solutions by following standard software engineering principles and implement by using suitable programming languages and platforms.
3. Develop system solutions involving both hardware and software modules

### **Program Educational Objectives (PEOs)**

1. Achieve professional competency in the field of Computer Science.
2. Acquire domain knowledge to pursue higher education and research.
3. Become socially responsible engineers with good leadership qualities and effective interpersonal skills.

**Karnatak University, Dharwad**  
Department of Computer Science

Course Work for Ph.D Programme

(W.e.f.2021-22 and onwards)  
Course Structure and Scheme of Examination

Sl No.	Course	Paper Code No.	Name of the Course	Contact hours per week	Maximum Marks			Examination hours
					Continuous Assessment (IA)	Course end examination	Total	
01	Course I: Research Methodology	Comp. Sc. CW 1	Research Methodology	03	50	50	100	02
02	Course II: Cognate/ Core Subjects	Comp. Sc. CW 2	Concrete Mathematics	03	50	50	100	02
03	Course III: Area of Research	Comp. Sc. CW 3.1	Digital Image Processing and Pattern Classification	03	50	50	100	02
		Comp. Sc. CW 3.2	Information and Network Security					
		Comp. Sc. CW 3.3	Artificial Intelligence and Machine Learning					
					150	150	300	
							50	
							350	

Continuous Internal Assessment (IA) Marks of the course work shall be awarded based on

- |  |   |                  |
|--|---|------------------|
| (a) Assignments – 10 marks<br>(b) Seminar – 10<br>(c) Tests - 30 | } | Total – 50 marks |
|--|---|------------------|

Sl No.	Paper	Internal Assessment Components (Marks)				
		Test –I (15)	Test –II (15)	Seminar (10)	Assignment (10)	Total
01	Course I: Research Methodology	5 <sup>th</sup> Week	9 <sup>th</sup> Week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50
02	Course II: Cognate/ Core Subjects	5 <sup>th</sup> Week	9 <sup>th</sup> Week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50
03	Course III: Area of Research	5 <sup>th</sup> Week	9 <sup>th</sup> Week	12 <sup>th</sup> Week	14 <sup>th</sup> Week	50

**Course I**  
**Compu.Sci. CW 1: RESEARCH METHODOLOGY**

**COURSE OUTCOMES (COs)**

**After completing this paper, the students will be able to:**

**CO 1: Identify and discuss the role and importance of research in the social sciences.**

**CO 2: Identify and discuss the issues and concepts salient to the research process.**

**CO 3: Identify and discuss the complex issues inherent in selecting a research problem, selecting an appropriate research design, and implementing a research project.**

**CO 4: Identify and discuss the concepts and procedures of sampling, data collection, analysis and reporting.**

**UNIT-I : INTRODUCTION**

**08hrs.**

Meaning, Objectives, Types of Research, Research Approaches, Significance of Research, Research Methods versus Methodology, Research and Scientific Method, Research Process, Criteria of Good Research, Problems Encountered by Researchers in India.

Defining the Research Problem: Research Problem, Selecting the Problem, Necessity of Defining the Problem, Technique Involved in Defining a Problem.

**UNIT-II: RESEARCH DESIGN**

**12hrs**

Meaning, Need for Research Design, Features of a Good Design, Important Concepts relating to Research Design, Different Research Designs. Cluster Analysis: Introduction, distance measures Clustering algorithms, agglomerative clustering.

Scientific body in research: Ethical, legal, social and scientific issues in research. A brief idea about the funding agencies such as DST (Department of Science and Technology), DBT (Department of Biotechnology), ICMR (Indian Council of Medical Research), CSIR (Council of Scientific & Industrial Research) and UGC (University Grants Commission). Role of IPR (Intellectual Property Rights) in Research and Development.

**UNIT-III: DATA COLLECTION**

**08 hrs.**

Introduction, Experiments and surveys, Collection of Primary and Secondary Data, selection of appropriate method for data collection, case study method. DATA PREPARATION: Data Preparation process, Some problems in preparation process, Missing values and Outliers, types of Analysis, Statistics in research.

**UNIT-IV: TESTING OF HYPOTHESIS**

**10 hrs.**

Hypothesis, Basic Concepts Concerning Testing the Hypotheses, Test Statistic and Critical region, critical value and Decision Rule, Procedure for Hypothesis Testing, Hypothesis Testing for – Means, Proportions, variance, difference of two mean, difference of two proportions, difference of two variances;P-Value approach, power of test, Limitations of the Tests of Hypotheses. ChiSquare Tests.

**UNIT V: INTERPRETATION AND REPORT WRITING**

**10 hrs.**

Meaning of Interpretation, Technique of Interpretation, Precaution in Interpretation, Significance of Report Writing, Different Steps in Writing Report, Layout of the Research Report, Types of Reports, Oral Presentation, Mechanics of Writing a Research Report, Precautions for Writing Research Reports.

Citation: MLA and APA, Publication, Impact factor: definition and calculation, H-index : introduction, calculation, g-index, Plagiarism: introduction, Ethics and morals, Copyright, Trademarks and Patents.

## References

1. Research Methodology : A step-by-step guide for beginners, Ranjit Kumar, Sage publications.
2. Engineering Research Methodology A Practical Insight for Researchers by Dipankar Deb, Rajeeb Dey, Valentina E. Balas.
3. Kothari C.K. (2004) 2/e, Research Methodology – Methods and Techniques (New Age International, New Delhi).
4. Montgomery, Douglas C. (2007) 5/e, Design and Analysis of Experiments (Wiley India).
5. Montgomery, Douglas C. & Runger, George C. (2007) 3/e, Applied Statistics & probability for Engineers (Wiley India).
6. MLA (Modern Language Association) Handbook for Writers of Research Papers, 7th edition, 2009.
7. How to Write and Publish a Scientific Paper, Cambridge University Press.
8. Conducting Research Literature Reviews: From the Internet to Paper. Sage Publications.
9. Citation Analysis in Research Evaluation (Information Science and Knowledge Management) by Henk F. Moed.

**Course II**  
**Compu. Sci. CW 2: Concrete Mathematics**

Total Hours: 48

**COURSE OUTCOMES (COs)**

**After completing this paper, the students will be able to:**

**CO 1: To read well-known and popular literature in Computer Science and Mathematics**

**CO 2: To develop mathematical skills, formulating and solving complex problems mathematically**

**CO 3: To practice with presentation of results (solutions of mathematical problems)**

**CO 4: To understand the application of mathematics in real life**

**UNIT-I**

**10Hr**

The Foundations: Logic and Proof, Sets and Functions: Logic, Proposition Equivalences, Predicates and Quantifiers, Nested Quantifiers, Methods of Proof, Sets, Sets Operations, Functions.  
Mathematical Reasoning, Induction, and Recursion: Proof Strategy, Sequences and Summations, Mathematical Induction, Recursive Definitions and Structural Induction, Recursive Algorithms, Program Correctness

**UNIT-II**

**15Hr**

Counting: The Basic of Counting, the Pigeonhole Principle, Permutation and Combinations, Binomial Coefficients, Generalized Permutation and Combinations, Generating Permutation and Combinations.  
Advanced Counting Techniques : Applications of Recurrence Relations, Solving Linear Recurrence, Relations, Divide-and-Conquer Algorithms and Recurrence Relations, Generating Functions, Inclusion-Exclusion, Applications of Inclusion-Exclusion.  
Relations: Relations and Their Properties, n-ary Relations and Their Applications, Representing Relations, Closures of Relations, Equivalence Relations, Partial Orderings.

**UNIT-III**

**5 Hr**

Discrete Probability: An Introduction to Discrete Probability, Probability Theory, Expected Value and Variance

**UNIT-IV**

**10Hr**

Growth of Functions: Asymptotic notation, Standard notations and common functions.  
Summations: Summation formulas and properties, Bounding Summations.  
Recurrences: The substitution method, the iteration method, the master method, proof of the master theorem.

**UNIT-V**

**8 Hr**

Sets: Sets, Relations, Functions, Graphs, and Trees. Counting and Probability: Counting, Probability, Discrete random variable, the geometric and binomial distributions, the tails of the binomial distribution, Probabilistic analysis.

Reference Books:

1. Discrete Mathematics and Its Applications. Kenneth H. Rosen, TMH 5<sup>th</sup> Ed 2003
2. Introduction to Algorithms Thomas H Cormen, Charles E Leiserson, Ronald L Rivest PHI S<sup>th</sup> Ed 2003

3. Discrete Mathematical Structure Bernard Kolman, Robert C Busby, Sharon Ross, PHI S" Ed 2000 4.  
 "Introduction to the Design and Analysis of Algorithms" Anany Levitin, Publisher: Pearson (2008). 5.  
 "Computer Algorithms "Horowitz E, Sahani S., Rajasekharan S., Galgotia Publication 2001.

### Course III

#### Compu.Sci CW 3.1: Digital Image Processing and pattern Classification

Total No.hours : 48 hrs

#### COURSE OUTCOMES (COs)

After completing this paper, the students will be able to:

- CO 1:** Explain the fundamentals of digital image and its processing.  
**CO 2:** Perform image enhancement techniques in spatial and frequency domain.  
**CO 3:** Elucidate the mathematical modelling of image restoration and compression  
**CO 4:** Apply the concept of image segmentation.  
**CO 5:** Describe object detection and recognition techniques.

#### UNIT I

6 Hrs

**Introduction:** Definition, Origin, and Examples of Digital Image Processing, Fundamental “ Steps in Digital Image Processing.

**Digital Image Fundamentals:** Basic concepts, Image digitization, Basic Relationships between pixels. Digital image Properties.

#### UNIT II

10 Hrs

**Intensity Transformations and Spatial Filtering:** Intensity transformations, contrast stretching histogram equalization, Correlation and convolution, Smoothing filters, sharpening filters gradient and Laplacian.

**Filtering in the Frequency Domain:** Fourier Transforms and properties, FFT (Decimation in Frequency and Decimation in Time Techniques), Convolution, Correlation, 2-D sampling, Discrete Cosine Transform, Frequency filtering.

#### UNIT III

10 Hrs.

**Image Restoration and Reconstruction:** Basic Framework, Interactive Restoration, Image deformation and geometric transformations, image morphing, Restoration techniques, Noise characterization, Noise restoration filters, Adaptive filters, Linear, Position invariant degradations, Estimation of Degradation functions, Restoration from projections.

#### UNIT IV

10 Hrs.

**Image Segmentation:** Boundary detection based techniques, Point, line detection, Edge detection, Edge linking, local processing, regional processing, Hough transform, Thresholding, Iterative thresholding, Otsu's method, Moving averages, Multivariable thresholding, Region based segmentation, Watershed algorithm, Use of motion in segmentation.

**Representation and Description:** Boundary following, Chain codes, Polygon Approximation Approaches, signatures, Boundary descriptors, Regional descriptors, Uses of principal components for description.

#### UNIT V

12 Hrs.

**Pattern Classification:** Bayesian Decision Theory, Parameter Estimation, nonparametric techniques, Supervised and Unsupervised Learning.

#### Reference Books:

1. A Rafael C. Gonzalez and Richard E. Woods, "Digital Image Processing", Pearson Education, 3rd Edition, 2008.
2. Milan Sonka, Václav Hlavac, Roger Boyle, "Image Processing, Analysis and Machine Vision". Cengage Learning: 4th edition (1 January 2014)
3. Anil K. Jain. "Fundamentals of Digital Image Processing", Prentice-Hall of India Pvt. Ltd., 1997.
4. Richard O. Duda, Peter E. Hart, David G. Stork. "Pattern Classification", John Wiley & Sons, 2nd Edition, 2008.
5. Earl Gose, Richard Johnsonbaugh, Steve Jost "Pattern Recognition and Image Analysis", Prentice Hall PTR, 1996

### **Course III**

#### **Compu.Sci. CW 3.2: Information and Network Security**

**Total No. hours : 48 hrs**

#### **COURSE OUTCOMES (COs)**

**CO 1: Analyze and evaluate the cyber security needs of an organization.**

**CO 2: Determine and analyze software vulnerabilities and security solutions to reduce the risk of exploitation.**

**CO 3: Measure the performance and troubleshoot cyber security systems.**

**CO 4: Implement cyber security solutions and use of cyber security, information assurance, and cyber/computer forensics software/tools.**

**CO 5: Comprehend and execute risk management processes, risk treatment methods, and key risk and performance indicators**

**CO 6: Design and develop a security architecture for an organization. g) Design operational and strategic cyber security strategies and policies.**

#### **Unit – I : Basics of Information Security**

**08Hrs**

NSTISSC(National Security Telecommunications and Information Systems Security Committee) security model, Components of an Information System, Securing components, Balancing Information Security and Access, Approaches to Information Security implementation; The Security System Development Life Cycle. Introduction; Information Security Policy, Standards, and Practices

#### **Unit – II: Classical Encryption Techniques**

**10 Hrs**

Symmetric Cipher Model- Cryptography, Cryptanalysis and Brute-Force Attack, Block Ciphers and the Data Encryption Standard - Traditional Block Cipher Structure- Stream Ciphers and Block Ciphers, Feistel Cipher Structure, The Data Encryption Standard-Encryption and Decryption, Advanced Encryption Standard-AES, International Data Encryption Algorithm(IDEA).

#### **Unit – III : Public Key Cryptography**

**08 Hrs**

Public Key Cryptography and RSA Principles of Public-Key Cryptosystems-Public-Key Cryptosystems, Applications for Public-Key Cryptosystems, Requirements for Public-Key Cryptosystems, Public-Key Cryptanalysis, The RSA algorithm-Algorithm, Computational Aspects, The security of RSA, Other Public key cryptography algorithms- Diffie-Hellman Key Exchange

#### **Unit – IV: Cryptographic Hash Functions**

**10Hrs**

Cryptographic Hash Functions Applications of Cryptographic Hash Functions, Secure Hash Algorithms-SHA-512 Logic, Message Authentication Codes – Message Authentication Requirements, Message Authentication Functions Message Encryption, Message Authentication Code, Digital Signatures-Properties, Attacks and Forgeries, Digital Signature Requirements, Direct Digital Signature, Remote Authentication: KERBEROS.

**Unit –V : Transport Layer Security and Network Security Applications**

12Hrs

Web Security Considerations, Secure Socket Layer, Transport Layer security, HTTPS, Secure ShellSSH. Pretty good privacy, notation, operational description. Block chain: Introduction to block chain, types of block chain.

**Reference Books**

1. Cryptography And Network Security, Principles And Practice Sixth Edition, William Stallings, Pearson
2. Information Security Principles and Practice By Mark Stamp, Wiley India Edition
3. Cryptography & Network Security, Forouzan, Mukhopadhyay, McGrawHill
4. Cryptography and Network Security AtulKahate, TMH
5. Cryptography and Security, C K Shyamala, N Harini, T R Padmanabhan, Wiley-India
6. Information Systems Security, Godbole, Wiley-India

**Course III****Compu.Sci. CW 3.3 :Artificial Intelligence and Machine Learning****COURSE OUTCOMES (COs)**

**CO 1: Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.**

**CO 2: Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.**

**CO 3: Demonstrate awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.**

**CO 4: Demonstrate proficiency developing applications in an 'AI language', expert system shell, or data mining tool.**

**CO 5: Demonstrate proficiency in applying scientific method to models of machine learning.**

**CO 6: Demonstrate an ability to share in discussions of AI, its current scope and limitations, and societal implications**

**Unit-I:****12 hrs**

Introduction: Introduction to AI applications and AI techniques, Production systems, control strategies, reasoning - forward and backward chaining. Intelligent Agents: Definitions of a rational agent, reflex, model-based, goal-based, and utility-based agents, the environment in which a particular agent operates.

**Unit-II:****12 hrs**

Searching Techniques and Game Playing: Breadth first search, depth first search, iterative deepening, uniform cost search, hill climbing, simulated annealing, genetic algorithm search, heuristic search, Best first search, A\* algorithm, AO\* algorithm, Minimax and game trees, refining minimax, Alpha - Beta pruning, constraint satisfaction.

**Unit-III:****10 hrs**

Knowledge Representation: First order predicate calculus, resolution, unification, natural deduction system, refutation, logic programming, PROLOG, semantic networks, frame system, value inheritance, conceptual dependency, Ontologies. Planning: basic representation for planning, symbolic-centralized vs. reactive-distributed, partial order planning algorithm.

**Unit-IV:****07 hrs**

Machine learning: Introduction to different types of learning, Supervised and Unsupervised learning — Reinforcement learning- Basics of Neural network models.

**Unit-V:****07 hrs**

Applications of Artificial Intelligence- Natural Language Processing, Speech recognition, Computer vision, Expert systems.

**REFERENCE:**

1. S. Russell and P. Norvig, Artificial Intelligence: A Modern Approach (3rd ed.), Pearson Education, 2010.
2. Elaine Rich and Kelvin Knight, Artificial Intelligence, Tata McGraw Hill, 2002.
3. Nils J Nilson, Artificial Intelligence: A New Synthesis, Morgan Kaufmann Publishers, Inc., San Francisco, California, 2000.

## EMPLOYABILITY ASPECTS OF THE CURRICULUM

Programme: M.A. Economics      Programme Code: PG34

### I SEMESTER

#### PG 34 T M.A. Economics Programme Outcomes

- ❖ To impart in depth knowledge to students about economic theories, working of labour and factor markets and how income generated and distributed.
- ❖ Students would be able to apply **economic** theories and concepts to contemporary social issues, as well as formulation and analysis of policy and recognize the role of ethical values in **economic** decisions.
- ❖ To give students in depth knowledge into special fields of choice like agricultural economics, industrial economics, financial market, development economics, international trade, urban economics, rural economics, economics of social sector, econometrics, mathematics and statistics for economics
- ❖ Familiarize the students about the how the economy is influenced by economic policy, technological advances and demographic conditions.
- ❖ In addition to the learning of advanced economic theory and its applications, provide a competitive edge in State and Central Civil Services, NET/ SET exams etc

**M.A. ECONOMICS**  
**CHOICE BASED CREDIT SYSTEM**

**I SEMESTER**

**COURSE CODE: PG34T 101: MICRO ECONOMIC ANALYSIS-I**

**Course Outcome:**

- ❖ Understand the economic behaviour of individual economic agents, consumers and firms
- ❖ Analyse the process of price formation in different type of markets
- ❖ Apply the microeconomic tools to estimate demand, production, costs and profits of business firms

**Module -I: Introduction and Basic Concepts**

**6 Hours**

Basic economic problems - Choice and scarcity - Characteristics of equilibrium and disequilibrium systems.

**Module -II: Demand and Supply Analysis**

**16 Hours**

Theories of Demand - Utility analysis - Indifference curves and their applications - Revealed preference theory - Revision of demand theory by Hicks - Lancaster's approach to demand theory - Consumer's choice involving risk - Recent developments in demand analysis - (Pragmatic approach and Linear expenditure systems) - Elasticities of demand (Price, Cross, Income) - Theoretical aspects and empirical estimation  
Factors Influencing Supply - Changes in Supply - Supply Elasticity - Determinants of Supply Elasticity - Market Determination of Price and Quantity - Equilibrium Supply and Demand.

**Module -III: Theory of Production and Costs**

**14 Hours**

Production function - Short-run and Long-run - Law of variable proportions – Isoquants - Least cost combination of inputs - Returns to scale - Multi-product firm - Elasticity of substitution - Technical progress and production function - Cobb-Douglass - CES, VES and Translog production functions and their properties - Empirical evidences; Traditional and modern theories of costs - Economies of Scale and Economies of Scope - Empirical evidence - Derivation of cost functions from production functions.

**Module -IV: Price and Output Determination under Different Markets**

**16 Hours**

Marginal analysis as an approach to price and output determination - Perfect competition - Short and long-run equilibrium of the firm and industry - Supply curve - Monopoly - Short and long-run equilibrium - Price discrimination - Monopoly control and regulation - Monopolistic competition - Equilibrium of the firm and the group with product differentiation and selling costs - Excess capacity under monopolistic competition – Oligopoly - Non-collusive (Cournot, Bertrand, Edgeworth, Chamberlin, Kinked Demand Curve and Stackelberg's Solution) and Collusive (Cartels and Mergers, Price Leadership and Basing Point Price System) Models.

**Module -V: Alternative Theories of the Firm**

**8 Hours**

Critical evaluation of marginal analysis; Baumol's sales revenue maximization model; Williamson's model of managerial discretion; Marris model of managerial enterprise; Full

cost pricing rule; Bain's limit pricing theory and its recent developments including Sylos-Labini's model; Behavioural model of the firm; Game theoretic models.

### **Reading List**

1. Baumol, W.J., (1995) Economic Theory and operations Analysis, Prentice Hall, New York.
2. Browning E.K. and J.M. Browning (1998), Microeconomics: Theory and Applications, Kalyani Publisher, New Delhi.
3. Gravelle, Hugh and Ray Rees (2011): Micro Economics, Pearson Education Ltd, New Delhi.
4. Koutsoyiannis, A. (2000) Modern Microeconomics, (2nd Edition), Macmillan Press, London.
5. Kreps, David .M. (1990): A Course in Micro Economic Theory, University Press Princeton.
6. Layard. P. R. G. and A.W.Walters (1978): Micro Economic Theory, McGraw Hill New York.
7. Pindyck, Robert S., Daniel L. Rubinfeld and Prem L. Mehta (2009): Microeconomics, Dorling Kindersley (India) Pvt. Ltd.
8. Salvatore, Dominick (2003): Micro Economics Theory & Applications, Oxford University Press, Inc. 198 Madison Avenue. New York.
9. Sen, Anindya (1999): Micro Economic Theory and Applications, Oxford University Press, New Delhi.
10. Stigler. G. (1996): Theory of Price (4<sup>th</sup> Edition), Prentice Hall of India, New Delhi.
11. Varian, H. (2000): Micro Economic Analysis, W.W.Norton, New York.
12. Walter, Nicholson (1978), Microeconomic Theory, The Dryden Press, London.

## **COURSE CODE: PG34T 102: MACRO ECONOMIC ANALYSIS-I**

### **Course Outcome:**

- ❖ Study the macroeconomic measurement indicators.
- ❖ Understand the importance of national income and economic development and various types of national income accounts.
- ❖ In-depth understanding of theories of employment and determination of output and income

### **Module-I: National Income and Accounts**

**8 Hours**

Measurement of Macro Variables and Economic Performance - Important Concepts: GNP, GDP, NNP, NDP, NI, PI, DPI - Real GDP versus Nominal GDP - GDP Deflator, National Income and Economic Welfare; National Income Accounts: Social Accounting; Input-Output Accounting; Flow of Funds Accounting and Balance of Payments Accounting; Importance of National Income Analysis.

### **Module-II: Theories of Employment**

**16 Hours**

The Classical Theory of Employment: Say's Law of Markets and Quantity Theory of Money; Classical Full Employment Equilibrium; Savings, Investment and Rate of Interest; Wage-Price Flexibility as a Remedy for Unemployment; Policy Implications of the Classical Equilibrium Model; A Critique of the Classical Theory of Employment and Income; Keynesian Macro Economics- Before Keynes, Keynesian Revolution, and after Keynes; Keynesian Theory of Employment: Concept of Underemployment Equilibrium; Role of Aggregate Demand and Aggregate Supply Functions; Principle of Effective Demand.

### **Module-III: Consumption Function and Investment Function**

**16 Hours**

Consumption Function and its Determinants: Implications of Consumption Function; Alternative Theories of Consumption Behaviour - Irving Fischer and Inter-temporal Choice - Franco Modigliani and the Life-Cycle Hypothesis - Robert Hall and the Random-Walk Hypothesis. - David Laibson and the Pull of Instant Gratification; Investment Function and its Determinants: Business Fixed Investment, Residential Investment, Inventory Investment - Equilibrium Income and Output in Simple Two Sector Model, Three Sector and Four Sector Models; Multiplier and Accelerator Analysis; Relevance and Critique of Keynesian Macroeconomics.

### **Module-IV: Equilibrium Analysis for Real and Money Markets**

**16 Hours**

Simple Keynesian Model; IS-LM Model: Interaction of Real and Monetary Sectors of the Economy – Keynesian Version of the IS-LM Model – Neo-Classical version of the IS-LM Model; Fiscal and Monetary Policy Analysis in an IS-LM Model; IS-LM Model with Government Sector – Policy Analysis in a Keynesian Model – Policy Analysis in a Neo-Classical Model – Fiscal Policy and Crowding out – The Role and Relative Effectiveness of Fiscal and Monetary Policy; The Aggregate Supply and Aggregate Demand Model: The Neo-Classical Three Sector Model – Pigou Effect - The Keynesian Three Sector Model - Keynes Effect.

### **Module-V: New Classical Economics**

**4 Hours**

Emergence of New Classical Macroeconomics: Rational Expectations Analysis - Policy Conclusions and Implications - Supply-Side Economics - Theoretical Propositions and Implications.

**Reading List:**

1. Ackeley G. (1978): *Macro Economics: Theory and Policy*, McMillan, New York.
2. Blackhouse, R and A. Salansi (Eds) (2000): *Macro Economics and the Real World*, OUP, London.
3. Branson, W.A. (1989): *Macro Economic Theory and Policy*, Harper and Row, New York.
4. Dornbusch, R and F. Stanley (1997): *Macro Economics*, McGraw Hill, New York.
5. Edward Shapiro (1996): *Macro Economic Analysis*, Galgotia Publications, New Delhi.
6. Frisch, H. (1983): *Theories of Inflation*, Cambridge University Press, Cambridge.
7. Gupta, R.D. and Rana A.S. (1998): *Post-Keynesian Economics*, Kalyani Publishers, Ludhiana.
8. Gordon, R. and Harris S.G. (1998): *Macro Economics*, Addison Wesley
9. Hall, R.E. and J. B. Taylor (1986): *Macro Economics*, W. W. Norton, New York.
10. Jha, R. (1999): *Contemporary Macro Economic Theory and Policy*, New Age International, New Delhi.
11. Reddy, Y. V. (2000): *A Review of Monetary and Financial Sector Reforms in India*, UBSPD, New Delhi.
12. Romer, D.L. (1996): *Advanced Macro Economics*, McGraw Hill, New York.
13. Sheffrin, S. M. (1996): *Rational Expectations*, Cambridge University Press, Cambridge.
14. Taylor. K. (1983): *Structuralist Macro Economics*, Basic Books, New Longman.
15. Turnovsky, S. J. (1977): *Macro Economic Analysis and Stabilization Policy*, Cambridge University Press, Cambridge.

## **COURSE CODE: PG34T 103: ECONOMICS OF GROWTH AND DEVELOPMENT-I**

### **Course Outcome:**

- ❖ Economics of Growth and Development helps to understand the several concepts and measurement of economic growth and development,
- ❖ Students have the knowledge on growth and distributive Justice-poverty measurement and income distribution and their value, development gap, causes, consequences and measures to reduce development gap.
- ❖ Compare the classical and neo-classical growth and development models etc; analyse the impact on output, income and employment both in developed and developing countries.
- ❖ It also demonstrates the experience of success and failure in the economies of different regions of the world.

### **Module-1: Economic Development: An Overview :**

**14 Hours**

Economic Development - Sustainable Development -Ethics and Economic Development - Why Study Development Economics?; Measurement of Economic Development - Concept of Human Development - Human Development Index - Human Capability Approach to Development - Development as Freedom - Development versus Displacement.

### **Module-2: Theory of Poverty and Income Distribution**

**8 Hours**

Growth and Distribution Justice - Kuznet's Hypothesis; Poverty and its Measurement - Poverty Alleviation Measures; Convergence and Divergence Economic Theories; Development Gap - Causes, Consequences and Measures to Reduce Development Gap.

### **Module-3: Grand Theories of Economic Growth and Development**

**14 Hours**

Classical Theory of Economic Development and its Salient Features- Adam Smith's and David Ricardo's Theories of Growth - Karl Marx: Growth and Decay of Capitalism; Theory of Social Change, Surplus Value Theory, Reserve Army and Materialistic Interpretation of History; Schumpeter's Growth Theory: Capitalistic Development, Crisis in Capitalism, Innovation, Degeneration of Capitalism - Structural Analysis of Development.

### **Module-4: Neo-Classical Growth Theories**

**14 Hours**

Stylized Factors of Neo-Classical Growth Theory; J.E. Meade's Growth Model; Harrod-Domar Model; Kaldor & Mirrlees Model; Mrs. Joan Robinson's Model; Cambridge Criticism of Neo-Classical Growth Model

### **Module-5: Partial Theories of Economic Growth and Development**

**10 Hours**

Salient Features of Partial Theories; Vicious Circle of Poverty - Theory of Circular Cumulative Causation; Lewis Model; Big-push and Critical Minimum Effort Thesis; Balanced and Unbalanced Growth Theories; Dualistic Theories - Dixit - Marglin Models - Dependency Theory of Development; Two Sector Model of Uzawa; Endogenous Growth Models - Romar-Lucas Model.

**Reading List:**

1. Adelman, Irma (1961): *Theories of Economic Growth and Development*, Stanford University Press, Stanford, USA.
2. Branko, Milanovic (2016): *Global Inequality: A New Approach for the Age of Globalization*, Harvard University Press, Cambridge.
3. Higgins, Benjamin (1968): *Economic Development: Theory, Principles and History*, W. W. Norton, New York, USA.
4. Meier Gerald M. (2005): *Leading Issues in Economic Development*, Oxford University Press, New York, USA.
5. Ray, Debraj (1998): *Development Economics*, Princeton University Press, New Jersey.
6. Rogers, Peter P. and K. F. Jalal and J. A. Boyd (2005): *Sustainable Development*, The Continuing Education Division, Harvard University and Glen Educational Foundation, Harvard.
7. Srivastava, O. S. (1996): *Economics of Growth, Development and Planning*, Vikas Publishing House Pvt. Ltd., New Delhi.
8. Thrilwal, A. P. (2006): *Growth and Development*, 6<sup>th</sup> Edition, West Press Ltd., New Delhi.
9. Todaro, Michael. P. (1989): *Economic Development in the Third World*, 4<sup>th</sup> Edition, Orient and Longman, London.

## **COURSE CODE: PG34T 104: MATHEMATICS FOR ECONOMICS**

### **Course Outcome:**

- ❖ Students will learn applications of equilibrium equations and graphs which are directly useful in economic analysis.
- ❖ Students will be familiar with the maxima, minima, elasticity, decide the optimal level of production for a firm.
- ❖ Demonstrate the rules of differentiation, calculating integration, describe the importance and application of integration in consumer's and producer's surpluses.
- ❖ Demonstrate knowledge of basic concept of linear program, duality, capacity to solve linear programming problems, familiar with the basic techniques most commonly used in economic problems

### **Module-I: Basic Mathematical Concepts**

**14 Hours**

Importance of Mathematical Economics; Basic Concepts– Exponents, Functions, Types of functions– Linear and Non-Linear Functions, Factoring, Quadratic, Cubic, Exponential and Logarithmic Functions; Simultaneous Equations– Solutions for Two Variables And Three Variables; Graphs– Slopes and Intercepts, Graphs of Non-Linear Functions; SGR and CAGR.

### **Module-II: Applications of Equilibrium Equations and Graphs**

**12 Hours**

Market Equilibrium of Demand and Supply– Single and Multi-Commodity System; Effects of Specific Tax and Subsidy on Market Equilibrium Price and Quantity; Equilibrium of Income Determination Models; IS-LM Analysis; Production-Possibilities Frontiers.

### **Module-III: Derivatives and Integral Calculus**

**14 Hours**

Derivatives– Rules of Derivatives; Marginal Concepts– Relationship among TC, MC, AC; TR, MR, AR; Utility; Elasticity of Demand and Supply– its types; Partial Derivatives and Applications; Maxima and Minima in Single and Multivariable Functions; Integration– Indefinite Integral, Rules of Integration, Definite Integral; Properties of Definite Integral, Economic Application to Integrals of Consumer's Surplus and Producer's surplus; Difference Equations– Definitions and Concepts, Lagged Income Determination Model, The Cobweb Model, The Domar Growth Model, The Harrod Model, The Solow Growth Model.

### **Module-IV: Matrix and Determinants**

**10 Hours**

Concept of Matrix– Types of Matrices, Minor and Cofactors, Rank of a Matrix, Inverse of a Matrix; Determinants– its Properties, Second and Third-Order Determinants, Solution of Simultaneous Equations by using Crammer's Rule; Jacobian Determinants, Leontief Input-Output Models– its structure, The Open Model and The Closed Model.

### **Module-V: Linear Programming**

**10 Hours**

Basic Concepts– Advantages of LPP, Formulation of LPP, Feasible, Basic and Optimal Solutions, Solution of Linear Programming through Graphical Method and Simplex Method; Corner Rule Method, The Row Minima Method, Lowest Cost Entry Method (LCEM), Vogel's Approximation Method (VAM); Duality Theorems– Economic interpretation of a

Dual– Micro and Macro Level; Concept of a Game; Strategies– Simple and Mixed; Value of a Game; Saddle Point Solution; Simple Applications.

**Reading List:**

1. Allen, R.G.D. (1974): *Mathematical Analysis for Economists*, Macmillan Press, New Delhi.
2. Barry, Bressler (2001): *A unified Introduction to Mathematical Economics*, McGraw Hill, New Delhi.
3. Black J. and J.F. Bradley (1973): *Essential Mathematics for Economists*, John Wiley & Sons. London.
4. Chaing, A.C. (1986): *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
5. Edward T. Dowling (1992): *Introduction to Mathematical Economics*, Schaum's Outline Series Tata Mc Graw Hill, New Delhi.
6. Mehta, B. C. and G.M.K Madnani (2004): *Elementary Mathematics in Economics*, Laxkshmi Narain Agarwal, Agra.
7. Mike Rosser and Piotr Lis (2016): *Basic Mathematics for Economists*, Routledge, New York.
8. Monga, G.S. (1972): *Mathematics and Statistics for Economists*, Vikas Publishing House, New Delhi.
9. Veerachamy, R. (2002): *Quantitative Methods for Economists*, New Age International Publishers, Bangalore.
10. Yamane, Taro (1975): *Mathematics for Economists*, PHI, New Delhi.

## **COURSE CODE: PG34T 105: INDIAN ECONOMY**

### **Course Outcomes:**

- ❖ Identify the problems of Indian Economy
- ❖ Investigate the causes for the persistent problems in agricultural, industrial, financial and foreign trade sectors
- ❖ Evaluation of the reform measures undertaken by the government; and
- ❖ Analyse the impact of monetary and fiscal policies and major economic events like the budget

### **Module-I: An Overview of Indian Economy 12 Hours**

Characteristics of Indian Economy; Demographic Features of Indian population; Trends in the growth of National Income; Green Accounting; Structural Changes in the Economy; Poverty and Inequality; Trends in Savings, Investment and Capital Output Ratio and their Implications; India's Development Experience; Planning and Development Strategies; Planning Commission to NITI Aayog; Parallel Economy and its Implications.

### **Module -II: Agricultural Sector 14 Hours**

Agriculture-Importance; Cropping Pattern; Land Reforms; Farm size and efficiency; Agricultural Labour Problems; Mechanization and Green Revolution; Agricultural Finance and Rural Indebtedness and Farmers' Suicide; Agricultural Marketing; Agricultural Price; Agricultural Co-operatives; Technological Factor in Agriculture Growth-Seeds Fertilizers, Irrigation; Food problem and Public Distribution System; WTO and Agriculture.

### **Module -III: Industrial Sector 14 Hours**

Importance of Industrialization; Growth and Structural Composition; Structural Transformation; Small-Scale Industries- Role and Performance; Privatization and Public Sector, Private Sector Industries and their Performance and Problems; Industrial Labour; Industrial Finance; Development Banks; Capital Market; Industrial Monopoly; MRTP; New Industrial Policy; Competition Law mergers; acquisitions and Takeover.

### **Module -IV: Foreign Trade Sector 10 Hours**

Exchange Rate policy of India; Trends in India's Foreign Trade; Balance of Payment; Problems of Policies; New Foreign Trade Policy; Export promotion V/S Import Substitution; Foreign Direct Investment in India; Globalisation and its impact on India's Trade and Investment.

### **Module -V: Financial Sector 10 Hours**

RBI; Money and Money Markets; Monetary Policy; Money Supply; Commercial Banks; Banking and Non-Banking Financial Sector; Financial Sector Reforms; Demonetisation and its Impact.

### **References:**

1. Agarwal A.N. and Agarwal M.K. (2016): Indian Economy: Problems of Development and Planning, New Age International (P) Limited Publishers, New Delhi.

2. Agarwal H. S. (2011): Indian Economy, Lakshmi Narain Agarwal, Agra.
3. Agarwal, R. C. (2015): Economics of Development and Planning (2014-15), Lakshmi Narain Agarwal, Agra.
4. Ahluwalia, I. J. and M D Little (Eds.) (1999): India's Economic Reforms and Development (Essays in Honor of Manmohan Singh) OUP, New Delhi.
5. Brahmananda, P. R. and V. R. Panchamukhi (Eds.)(2001): Development Experience in the Indian Economy: Inter-State Perspectives, Bookwell, New Delhi.
6. Dhingra, I. C. (2002): Indian Economy, S. Chand and Company Limited, Ram Nagar, New Delhi.
7. Government of India (2017): Economic Survey of India (Annual), Ministry of Finance, Government of India, New Delhi.
8. Hanumantha Rao C. H. and H. Linnemann (Eds.)(1996): Economic Reforms and Poverty Alleviation in India Sage, New Delhi.
9. Jalan, B. (1996), India's Economic Policy-Preparing for the Twenty First Century, Viking New Delhi.
10. Lekhi, R.K. Joginder Singh (2014): The Economics of Development and Planning, Kalyani Publishers New Delhi.
11. Misra S. K. and V. K. Puri (2018): Indian Economy, Himalaya Publishing House, Mumbai
12. Rangarajan C. (1998): Indian Economy: Essays on Money and Finance UBS, New Delhi.
13. Ruddar Dutt and K.P.M. Sundharam (2002): Indian Economy, S. Chand and Company Limited, New Delhi.
14. Sen, R.K. and B.Chatterjee (2001): Indian Economy: Agenda for 21<sup>st</sup> Century (Essay in Honour of Prof. P. R. Brahmananda), Deep & Deep, New Delhi.
15. Sundaram, K.P.M. (2004): An Introduction to Indian Economy, S. Chand and Company Limited, Ram Nagar, New Delhi.

**COURSE CODE: PG34T 106A: AGRICULTURAL ECONOMICS**  
**(Specialisation/Optional Paper)**

**Course Outcome:**

- ❖ Agriculture economics helps to understand the nature and scope of agriculture economics, importance, its modernization, relation with other sector and it also proved with some theories.
- ❖ It analyses the agricultural production and productivity, efficiency in traditional agriculture and their value, resource combination and substitution, cost concepts and supply curves, laws of returns, farm budgeting,
- ❖ It demonstrates the growth trends in five-year plans, variations in output and productivity, cropping pattern, public investment and capital formation, technological progress, food security and sustainable agriculture.
- ❖ It provides the knowledge on Institutional and technological change in Indian agriculture and agriculture marketing, state policy, terms of trade between agriculture and non-agriculture prices and international trade.

**Module-I: Agriculture and Economic Development :**

**14 Hours**

Nature and scope of agricultural economics; Traditional agriculture and its modernization;

Role of agriculture in economic development; Interdependence between agriculture and industry— some empirical evidence; Models of interaction between agriculture and the rest of the economy; Agricultural development, poverty and environment

**Module-II: Agricultural Production and Productivity:**

**12 Hrs**

Agricultural production — Resource use and efficiency; Production function analyses in agriculture; Factor combination and resource substitution; Cost and supply curves; Size of farm and laws of returns — Theoretical and empirical findings; Farm budgeting and cost concepts; Supply response of individual crops and aggregate supply; Resource use efficiency in traditional agriculture; Technical change, labour absorption and gender issues in agricultural services

**Module-III: Agricultural Growth in India**

**12 Hrs**

Agricultural Production under Five Year Plans - Recent Trends in Agricultural Growth in India - Cropping Pattern Shifts - Impact of Agriculture on Industry - Diversification of Agriculture - Inter-Regional Variations in Growth, Output and Productivity - Role of Public Investment and Capital Formation in Indian Agriculture - Strategy of Agricultural Development and Technological Progress - Sustainable Agriculture in India - Food Security: Nature of Food Problem - PDS - Right to Food.

**Module-IV: Institutional and Technological Change in Indian Agriculture: 12 Hrs**

Land Reforms - Land Reform Measures - Achievements and failures of Land Reforms - Problems of Marginal and Small Farmers – Technical change in Indian Agriculture – Expansion of irrigation, use of HYV seeds, fertilizers, plant protection measures, Machinery and electricity in agriculture - Soil Conservation, Dry Farming, Land Reclamation and Development -Pricing of Inputs – Subsidies.

### **Module-V: Agricultural Marketing, Prices and International Trade: 10 Hrs**

- ❖ Market structure and imperfections; Regulated markets; Marketed and marketable surplus; Behaviour of agricultural prices — Cobweb model; State policy with respect to agricultural marketing; Terms of trade between agricultural and non-agricultural prices; Objectives of agricultural price policy — Instruments and evaluation - International trade in agricultural commodities – Trends and Patterns - Impact of World Trade Organisation on Indian agriculture.

#### **Reading List:**

1. Bagchi, K. K. (Ed.) (2008): *Agrarian Crisis, Farmers' Suicides, and Livelihood Security of Rural Labour in India*, Abhijeet Publications, Delhi.
2. Bhaduri, A. (1984): *The Economic Structure of Backward Agriculture*, Macmillan, Delhi.
3. Bhalla, G.S. and Gurmail Singh (2001): *Economic Liberalization and Indian Agriculture*, Sage Publication, Pvt. Ltd. Delhi.
4. Bilgrami, S.A.R. (1996): *Agricultural Economics*, Himalaya Publishing House, Delhi.
5. Dantwala, M. L. (1991): *Indian Agricultural Development since Independence*, 2<sup>nd</sup> (Revised) Edition, Oxford and IBH, New Delhi.
6. Gulati, A. and T. Kelly (1999): *Trade Liberalisation and Indian Agriculture*, Oxford University Press, New Delhi.
7. Kahlon, A.S. and Tyagi D.S. (1983): *Agriculture Price Policy in India*, Allied Publishers, New Delhi.
8. Lekhi, R.K. and Joginder Singh. (2015): *Agricultural Economics*, Kalyani Publishers, New Delhi.
9. Rao, C. H. Hanamantha (2006): *Agriculture, Food Security, Poverty, and Environment*, Oxford University Press, New Delhi.
10. Rao, C. H. Hanumatha (1994): *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press, New Delhi.
11. Rudra, A. (1982): *Indian Agricultural Economics: Myths and Reality*, Allied Publishers, New Delhi.
12. Saini, G.R. (1979): *Farm Size, Resource Use Efficiency and Income Distribution*, Allied Publishers, New Delhi.
13. Sankaran, S. (1973): *Agricultural Economy of India*, Progressive Corporation Private Ltd., Bombay.
14. Swaminathan, M. S. (2007): *Agriculture Cannot Wait: New Horizons in Indian Agriculture*, Academic Foundation, New Delhi.

## **COURSE CODE: PG34T 106B: INDUSTRIAL ECONOMICS (Specialization /Optional)**

### **Course Outcome:**

- ❖ Learn how economic theories are used in analysis of industrial location. Evaluate these theories in view of empirical evidence. Describe policy Implications of these theories.
- ❖ Develop an understanding about different industrial policies, structure and Composition of industry.
- ❖ Develop an understanding of economics of integration, diversification and Integrations.
- ❖ To understand the basic issues such as productivity, efficiency and capacity Utilization involved in the industrial development of India and measures Required for improving productivity and efficiency

### **Module-I: Framework and Problems of Industrial Economics: 16 Hrs**

Concepts and Organization of Firm; Ownership, Control and Objectives of the Firm; Passive and Active Behaviour of the Firm; Market Structure; Product Differentiation; Entry Conditions; Economies of Scale; Market Structure and Profitability; Theories of Industrial Location; Weber and Sargent Florence; Factors Affecting Location.

### **Module-II: Market Conduct and Performance: 12 Hrs**

Product Pricing; Marginal Costing; Administered Pricing; Theories and Evidence; Investment; Expenditure; Theories and Empirical Evidence on Mergers and Acquisitions; Diversification, Size and Growth of a Firm; Growth and Profitability of a Firm; Constraints on Growth, Productivity, Efficiency and Capacity Utilization; Concept and Measurement.

### **Module-III: Indian Industrial Growth and Pattern: 12 Hours**

Classification of Industries; Industrial Policy in India; Role of Public and Private Sector; Recent Trends; Multinational Corporations and Transfer of Technology. Liberalisation and Privatization, Regional Industrial Growth in India; Industrial Concentration and Remedial Measures; Issues in Industrial Pollution and Environmental Preservation, Pollution Control Policies; Industrial Sickness.

### **Module-IV: Industrial Finance: 12 Hours**

Role, Nature, Value and Types of Institutional Finance; IDBI, IFCI, ICICI, SFCs, SIDBI, and Commercial Banks. Profit and Loss Account; Assessment of Financial Soundness and Ratio Analysis

### **Module-V: Current Problems of Selected Industries: 8 Hours**

Iron and Steel, Cotton Textiles, Jute Textiles, Sugar, Coal, Cement and Engineering Goods

### **Reading List:**

1. Ahluwalia, I. J. (1985): *Industrial Growth in India*, Oxford University Press, New Delhi.
2. Barthwal, R. R. (1985): *Industrial Economics*, Wiley Eastern Ltd., New Delhi.
3. Cherunilam, F. (1994): *Industrial Economics: Indian Perspective*, (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai.
4. Dasai, B. (1999): *Industrial Economy in India*, (3<sup>rd</sup> Edition), Himalaya Publishing House, Mumbai.
5. Divine, P.J. and R. M. Jones et.al. (1976): *An Introduction to Industrial Economics*, George Allen and Unwin Ltd., London.

6. Government of India (2017): Economic Survey of India (Annual), Ministry of Finance, Government of India, New Delhi.
7. Hay, D. and D.J. Morris (1979): *Industrial Economics: Theory and Evidence*, Oxford University Press, New Delhi.
8. Kuchhal, S.C. (1980): *Industrial Economy of India*, (5<sup>th</sup> Edition), Chaitanya Publishing House, Allahabad.
9. Reserve Bank of India: *Report on Currency and Finance* (Annual), Reserve Bank of India.
10. Singh, A. and A.N. Sadhu (1988): *Industrial Economics*, Himalaya Publishing House, Bombay.

**COURSE CODE: PG34T 106C: ECONOMICS OF EDUCATION (Specialization /Optional)**

**Course Outcome:**

- ❖ Acquire a deeper understanding about the role of human capital especially of education in economic development.
- ❖ Possess knowledge of the latest development in education.
- ❖ Acquire skills to relate human development with economic development.
- ❖ Acquire knowledge about cost- benefit analysis, approaches to educational Planning, educational planning and subsidies.

**Module-I: Human Capital and Development**

Human Capital- Origin-Classical and Neo-Classical Approach, Concept, Components, Nexus between Human Capital, Physical Capital and Natural Capital; Theory of Investment in Human Capital; Concept and Dimensions of Human Development; Growth Accounting Equations of Denison and Schultz.

**Module -II: Economics of Education**

Economics of Education-Concept, Demand for Education, Private Demand and Social Demand; Determinants of Demand; Costs of Education–Expenditure on Education; Private Costs and Social Costs; Benefit of Education– Direct and Indirect Benefits; Private and Social Benefit; Cost–Benefit Analysis-Meaning, Tools (BCR, NPV and IRR), Limitations.

**Module-III: Educational and Manpower Planning**

Approaches to Educational Planning- Social Demand approach; The Rate of Return Approach; The Manpower Requirement Approach; The Tinbergen Model; The Bowels model; The Adelman Model

**Module-IV: Educational Financing and Subsidies**

Resource Mobilization and Financing, the Balance between the Public and Private Financing; Pricing and Subsidies-The Argument for Public Subsidy, Effects of Educational Financing on Equity and Efficiency; Education and Labour Market – Effects of Education, Ability and Family Background on Earnings, Poverty and Income Distribution, Education and Employment (The Path Model Analysis).

**Module-V: Education and Economic Development in India**

Objectives of Educational Planning; A Review of Educational Development in India – Primary, Secondary, Vocational, Higher, Technical and Adult Education; New Educational Policy in India; Expenditure on Education and Improvement in Literacy in India; Educational Development and Employment in India.

### Reading List:

1. Aggarwal and Aggarwal (1992): *Educational Planning in India*, Vol. I, Delhi.
2. Chandra, Prasanna (1995): *Project: Planning, Analysis, Selection, Implications and Review*, Tata McGraw-Hill Publishing Company Limited, New Delhi.
3. Govinda, R. (2002): *India Education Report*, Oxford University Press, New Delhi.
4. Heggade, O. D. (1992): *Economics of Education*, Himalaya Publishing House, Bombay.
5. McMohan, W. W. (1999): *Education of Development: Measuring the Social Benefit*, Oxford University Press, Oxford
6. Nanjundappa, D. M. (1976): *Working of University Finances*, Sterling Publishers Pvt. Ltd., New Delhi.
7. Nanjundappa, D. M. (1994): *Finance and Management of Higher Education*, Deep and Deep, New Delhi.
8. Psacharopoulos, George (1987): *Economics of Education: Research and Studies*, (Ed.), Pergamon Press, New York.
9. Psacharopoulos, George and Maureen Woodhall (1985): *Education for Development: An Analysis of Investment Choice*, Oxford University Press.
10. Rao, V.K.R.V (1966): *Education and Human Resources Development*, Allied Publishers Bombay.
11. Saumen and Chattopadhyay (2012): *Education and Economics: Disciplinary Evolution and Policy Discourse*, Oxford University Press, New Delhi.
12. Shah, K. R. (1997): *Essays on Economics of Human Resource*, Spellbound Publications, Rohtak.
13. Shri Prakash (1994): *Cost of Education: Theoretical Exploration and Empirical Prognostication*, Deep and Deep Publications, New Delhi.
14. Tilak, J, B.G. (1987): *The Economics of Inequality in Education*, Sage Publications, New Delhi
15. Tilak, J.B.G. (1994): *Education for Development in Asia*, Sage Publications, New Delhi
16. Vaizey, Johan (1962): *The Economics of Education*, Faber and Faber, 24 Russell Square, London.
17. Woodhall, M. (1992): *Cost-Benefit Analysis in Educational Planning*, UNESCO, Paris

## **COURSE CODE: PG34T 106D: REGIONAL ECONOMICS (Specialization /Optional)**

### **Course Outcome:**

- ❖ The aim of this paper is to enable the students to gain the in-depth knowledge of regional economics.
- ❖ The paper focus on the comprehensive understanding of the Regional imbalances in India and Karnataka.
- ❖ Students will able to understand the techniques of Regional Economics

### **Module-I: Introduction**

**12 Hours**

Definition and Scope of Regional Economics - Regional Economics as an Independent Field of Academic Enquiry; Region-Concept, Types of Region, Importance of Regionalization, Approaches to Regionalization, Globalization and Regionalization and Indicators of Regional Development.

### **Module-II: Regional Growth**

**12 Hours**

Neo-Classical Growth Models; Cumulative Causation Model; Center-Periphery Model; Growth Pole Analysis; Convergence and Divergence of Disparities in Per Capita Regional Income; Techniques of Regional Analysis.

### **Module-III: Inter-regional Differentials in India's Development**

**12 Hours**

Regional Characteristics in India and Imbalances; Agriculture; Industry; Physical Infrastructure; Social Sector; Role of Planning Commission and Finance Commission in Reducing Regional Imbalances; Liberalization and Regional Imbalances.

### **Module-IV: Regional Economic Policy and Regional Planning**

**10 Hours**

Importance and Objectives of Regional Economic Policy - Formulation of Regional Economic Policy  
- Tools and Techniques - Implementation Mechanism and Limitations; Regional Planning - Backward Area Development Programmes - Institutional and Policy Framework for Removal of Regional Disparities - New Economic Policy and Regional Disparities.

### **Module-IV: Regional Disparities in Karnataka**

**14 Hours**

Trends in the Level of Development and State Income; Inter-District Variations in the Rate of Development and Per Capita Income; Regional Disparities in Agriculture and Irrigation Development; Regional Disparities in Industrial Development and Industrial Dispersal Policies; Incentives for Development of Industries in Backward Areas; Banking and Regional Development; Economic Infrastructure and Regional Development.

### **Reading List:**

1. Beckman, M. (1969): *Location Theory*, Random House, London.
2. Bhalla, G.S. and Y. K. Alagh (1989): *Performance of Indian Agriculture: A District-wise Study*, Sterling, New Delhi.
3. Brahmananda, P.R. and V.R. Panchamukhi (Eds.)(2001): *Development Experience in the*

*Indian Economy: Inter-State Perspectives*, Bookwell, Delhi.

4. Dadibhavi, R. V. (1986): *Income, Productivity and Industrial Structure*, Chugh Publications, Allahabad.
5. Dholakia, R.H. (1985): *Regional Disparity in Economic Growth in India*, Himalaya Publishing House, Bombay.
6. Hansen, N.M. (1974): *Public Policy and Regional Economic Development: The Experience in Nine Western Countries*, Ballinger, Massachusetts.
7. Hoover, E.N. (1974): *An Introduction to Regional Economics*, Alfred.A.Knopf, New York.
8. Isard, W. (1960): *Methods of Regional Analysis*, MIT Press, Cambridge, Mass.
9. Nair, K.R.G. (1982): *Regional Experience in a Developing Economy*, Wiley; Eastern, New Delhi.
10. Pande (1969): *Report of the Working Group on Identification of Backward Areas*, GOI, Planning Commission.
11. Rao, H. (1984): *Regional Disparities and Development in India*, Ashish Publishing House, New Delhi.
12. Richardson (1973): *Elements of Regional Economics*, MacMillan London.
13. Richardson, H.N. (1969): *Regional Economics*, Weidenfield & Nicolson, London.

**COURSE CODE: PG34T 106E: HUMAN DEVELOPMENT**  
**(Specialisation/ Optional Paper)**

**Course Outcome:**

- ❖ Educate the students on various concepts and measurement of human development and highlight the importance of human capital in general. And education and Health' in particular in human capital formation.
- ❖ Study the gender dimensions of human development and the advisements of India in human development.

**Module-I: Introduction to Human Development**

Concept of Growth and Development; Growth with Equity and Social Justice; Inclusive Growth; Capabilities approach; Human Development: Concept, Measurement and Indicators –PQLI, HDI, IHDI, HPI, MPI, GDI, GII and GEM.

**Module-II: Economics of Education**

Human Capital: Concept and Components; Nexus between Human Capital, Physical Capital and Natural Capital; Theory of Investment in Human Capital; Education and Economic Development; Demand for Education–Private Demand and Social Demand; Determinants of Demand; Cost and Benefits of Education -Expenditure on Education: Magnitude, Trends and Impact; Financing of Education; Education Policy in India.

**Module-III: Economics of Health**

Concept, Determinants and Indicators of Health; Demand and Supply of Healthcare; Financing of Healthcare; Expenditure on Health-Health Status in India-Health Policy in India

**Module-IV: Gender Issues and Economic Development**

Demographic Profile –Composition and Age-structure, Reproductive Health: Concept, Measurement and Management-Concept and Contribution of Women's Work-Gender Dimensions of Employment and Unemployment –Feminization of Aging and Poverty.

**Module-V: Human Development in India**

Trends and Regional Patterns of HDI, HPI, MPI, GDI and GEM in India; Social Security Measures-Concept, Different Levels and Schemes; Analysis of 'Safety Net' Programmes in India; Review of Current HDI of India.

**Reading List:**

1. Baru R.U. (1998): *Private Health Care in India: Social Characteristics and Trends*, Sage Publications, New Delhi.
2. Dreze, Jean and Sen, Amartya (1995): *Indian Economic Development and Social Opportunity*, Oxford University Press, New Delhi.
3. Government of India: *India Human Development Report 2001*.
4. Heggade, O. D (1992): *Economics of Education*, Himalaya Publishing House, Bombay.
5. *Human Development Report of India*, Oxford University Press,-2011
6. McMohan, W. W. (1999): *Education of Development: Measuring the Social Benefit*, Oxford University Press, Oxford.
7. Psacharopoulos, George (1987): *Economics of Education: Research and Studies*, (Ed.), Pergamon Press, New York.
8. Shri Prakash (1994): *Cost of Education: Theoretical Exploration and Empirical Prognostication*, Deep and Deep Publications, New Delhi.
9. Taori, Kamal (2000): *Sustainable Human Development: Issues and Challenges*, Concept Publishing Company, New Delhi.

10. Tilak, J. B. G. (1994): *Education for Development in Asia*, Sage Publications, New Delhi
11. Marris, Stephen, Nancy Devlin and Devid Parkin (2009): *Economic Analysis in Health Care*, Wiley India
12. UNDP: *Human Development Report*, Annual publications, UNDP
13. Yashoda, Shanmugasundaram (1994): *Theory and Practice of Health Economics in India*, Allied Publisers Ltd, Madras.

**COURSE CODE: PG34T 106F: KARNATAKA ECONOMY (Specialisation/ Optional Paper)**

**Course Outcome:**

- ❖ The objective of this course is to teach the students about sectoral aspects of Karnataka economy.
- ❖ To make the students to understand historical and geographical features of Karnataka economy.
- ❖ To study in detail regional disparities and state finance.

**Module-I: Introduction**

Karnataka in the Indian Economy; Natural Resources; Trends in State Per-Capita Income; Indicators of Economic Development; Indicators of Human Development; Regional Disparity in District Human Development.

**Module-II: Agricultural Development**

Land-use Pattern in Karnataka-Trend in Area, Production, Major Crops- Regional Pattern of Agriculture Production-Horticultural/Plantation Crop, Vegetables-Fruits-Floriculture-Sericulture-Livestock Economy- Agricultural Marketing-Agricultural Finance- Agriculture Prices-Agrarian Crisis.

**Module-III: Industrial Development**

Industrial Structure (Major, Medium and MSMEMS) - policies and programmes- Industrial Finance-Co-operatives commercial Banks-RRB's-KSFC, SIDRP and KSIIDC.

**Module-IV: Infrastructure Development**

Present State of Development; Economic Infrastructure-Irrigation, Power, Transport and Communication; Social Infrastructure-Education and Health; Planning for Infrastructural Development.

**Module-V: Regional Disparities and State Finance**

Position and Extent, Causes and Consequences; the causes for backward area; criteria for Identification of Backward areas; Measures to reduce imbalance; Trends in sources of Finance; Revenue and non Revenue sources; Sharing of Central Taxes and Grants-in-Aid; Trends in Expenditure Pattern Development or non-development; Trends in indebtedness of the state.

**Reading List:**

1. Government of Karnataka (2005): *High Power*. Committee for Redressal of Regional Imbalances (HPCRRI), Government of Karnataka, Bangalore
2. Government of Karnataka (2015): *Human Development: Performance of District, Taluks and Urban Local Bodies in Karnataka, 2014: A Snapshot*, Planning, Programme Monitoring and Statistics Department of Government of Karnataka, Bengaluru (<http://planning.kar.nic.in> – Human Development Division).
3. Government of Karnataka: *Economic Survey of Karnataka*, Government of Karnataka (Various Annual Reports) (<http://planning.kar.nic.in>)
4. Gowda, Sreenivasa and T. Nanjagowda: *Economic Development of Karnataka: Leading Aspects*.

5. Heggade, Odeyar D: *Karnataka Economy*:
6. Madaiah M. (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Mumbai.
7. Madaiah, M. and R. Ramapriya (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Delhi.
8. Puttaswamaiah, K, (1980): *Economic development of Karnataka: A Treatise in Continuity and Change*, Oxford and IBH Publication.
9. Rao, Hemalatha (1984): *Regional Disparities and Development in India*, Ashish Publishing House, New Delhi.

## M.A. ECONOMICS

### CHOICE BASED CREDIT SYSTEM

#### Revised Syllabus

## II SEMESTER

### COURSE CODE: PG34T 201: MICRO ECONOMIC ANALYSIS-II

#### Course Outcome:

- ❖ Understand the process of the determination of factor prices;
- ❖ Analyse the conditions for maximizing social welfare and identify the barriers to attain maximum welfare;
- ❖ Design consumption and investment strategies in a state of uncertainty; and Ability to identify mechanisms for searching and comparing information

#### Module I: Theory of Distribution

**14 Hours**

Functional v/s personal distribution - Neoclassical Approach - Marginal Productivity Theory – Factor pricing in perfectly competitive markets - The demand and supply for labour and determination of factor price - Theory of distribution in imperfect product and factor markets - Elasticity of technical substitution - Technical progress and factor shares - Product exhaustion theorem - Determination of Rent, Wages, Interest and Profit - Macro-Theories of Distribution – Marx - Kalecki degree of monopoly and Kaldor theory.

#### Module II: General Equilibrium

**12 Hours**

Interdependence in the Economy - Partial and General Equilibrium Analyses - Walrasian Excess Demand and Input - Output Approaches to General Equilibrium - Existence, Uniqueness and Stability of Equilibrium - Static Properties of General Equilibrium State: Equilibrium of Production and Equilibrium of Consumption - General Equilibrium and Allocation of Resources - Prices of Commodities and Factors - Factor Ownership and Income Distribution - Relationship between Relative Commodity and Factor Prices (Stolper-Samuelson Theorem) - Relationship between Output Mix and Real Factor Prices, Effect of Changes in Factor Supply

#### Module III: Welfare Economics

**12 Hours**

Pigovian welfare economics; Pareto optimal conditions; Value judgement; Social welfare function; Compensation principle; Inability to obtain optimum welfare — Imperfections, market failure, decreasing costs, uncertainty and non-existent and incomplete markets; Theory of Second Best — Arrow's impossibility theorem; Rawls theory of justice, equity-efficiency trade off.

#### Module IV: Economics of Uncertainty

**12 Hours**

Individual behaviours towards risk - Expected utility and uncertainty - Equivalence approaches - Risk and risk aversion - Sensitivity analysis - Gambling and insurance - Economics of insurance - Cost and risk - Risk pooling and risk spreading - Mean variance analysis and Portfolio selection- Optimal consumption under uncertainty - Competitive firm under uncertainty - Factor demand under price uncertainty.

**Module V: Economics of Information****10 Hours**

Economics of search - Different Models - Efficient market hypothesis - Stochastic models of inventory demand - Markets with asymmetric information - Incomplete Information - Search and transaction costs - Economics of information.

**Reading List**

1. Borch, K.H. (1968): The Economics of Uncertainty, Princeton University Press, Princeton.
2. Broadway R.W. and N. Bruce, (1984): Welfare Economics, Basil Blackwell, London.
3. Brofen Brenner, M. (1979): Income Distribution Theory, Macmillan, London.
4. Dacosta, G.C. (1980): Production Prices and Distribution, Tata McGraw Hill, New Delhi.
5. Diamond and Rothschild (Eds) (1978): Uncertainty in Economics, Academic Press, New York.
6. Graff J. De. V. (1957): Theoretical Welfare Economics, Cambridge University Press, Cambridge.
7. Hirshelifer J and A. Glazer (1997): Price Theory and Applications, Prentice Hall of India.
8. Koutsoyiannis. A. (1979): Modern Micro Economics, Macmillan Press, London.
9. Mishan.E.J. (1969): Welfare Economics: An assessment, North Holland., Amsterdam.
10. Qurk, J. and R Saponnik (1968): Introduction to General Equilibrium and Welfare Economics, McGraw Hill, New York
11. Pindyck, R.S. and D.Rubinfeld, (1995): Micro Economics Prentice Hall of India, New Delhi.
12. Salvatore, Dominick (2003): Micro Economics Theory & Applications, Oxford University Press, Inc. 198 Madison Avenue. New York.
13. Sen, Anindya (1999): Micro Economics: Theory and Applications, Oxford University Press, New Delhi.
14. Weintrub.E.R. (1974): General Equilibrium Theory, McMillan, London.

## **COURSE CODE: PG34T 202: MACRO ECONOMIC ANALYSIS- II**

### **Course Outcome:**

- ❖ The aim of this course is to study the fundamentals of demand for and supply of money.
- ❖ To provide comprehensive understanding of modern quantity theories of money.
- ❖ To enable the students to study in detail, theories of inflation and policy implications.

### **Module-I: Theories of Money**

**8 Hours**

Walrasian and Non-Walrasian Approaches in Macroeconomics – the Classical Heritage – Says' Equality and Says' Identity – Walras' Law – Walrasian System – Patinkin and Real Balance Effect – Arrow – Debreu Model – Overlapping Generation Model of Samuelson – Cash in Advance Model of Clower.

### **Module-II: Post-Keynesian Theories of Money**

**10 Hours**

Post-Keynesian Demand for Money Theories – Inventory Theory of Baumol – Portfolio Balance Theory of Tobin – Restatement of the Quantity Theory as a Theory of Demand for Money by Friedman – Supply of Money Theories – Money Multiplier Model – Behavioural Model of Money Supply – Endogenous Money Supply Theory.

### **Module-III: Inflation: Theories and Policies**

**16 Hours**

Theories of Inflation - Demand-Pull and Cost-Push Theories of Inflation - Phillips Curve - Monetarist, Keynesian and New Classical Views on Inflation and Unemployment - Role of Aggregate Demand and Aggregate Supply Management - Monetary and Fiscal Policy Options. Inflation and Interest Rates: Real and Nominal Interest Rates - Fisher Effect - Nominal Interest Rate and the Demand for Money - Social Costs of Inflation - Hyperinflation - Classical Dichotomy.

### **Module-IV: Modern Theories of Money**

**18 Hours**

Re-interpretation of Keynes by Clower and Leijonhufvud – The Dual Decision Hypothesis – Rationing Models of Barrow, Grossman and Malinvaud – Monetarist contributions – An Overview of Major Themes in Monetarism – Lucas' Surprise Supply Function – The Inter-temporal Substitution Model – Policy Ineffectiveness Argument – The Lucas Critique – Post Keynesian Macroeconomics – Basic Themes – The Historical Time Concept- Kalecki's Pricing Theory – The New Keynesian School – Micro Foundations of Macroeconomics – Small Menu Cost Model – Implicit Wage Contract Model – Efficient Wage Theories – Insider-Outsider Model – The New Growth or Endogenous Growth Theory.

### **Module-V: Open Economy**

**8 Hours**

Basic Concepts - Mundell; Fleming Model; International Flows of Capital and Goods - Saving and Investment in a Small Open Economy - Exchange Rates - A Case of a Large Open Economy (Example United States and India) - Equilibrium in an Open Economy - Influence of Policies on an Open Economy.

### Reading List:

1. Ackeley, G. (1978): *Macro Economics: Theory and Policy*, McMillan, New York.
2. Turnovsky, S. J. (1977): *Macro Economic Analysis and Stabilization Policy*, Cambridge University Press, Cambridge.
3. Sheffrin, S. M. (1996): *Rational Expectations*, Cambridge University Press, Cambridge.
4. Frisch, H. (1983): *Theories of Inflation*, Cambridge University Press, Cambridge.
5. Mankiw, N. G. and D. Romer (1991): *New Keynesian Economics*, (2 vols), MIT Press, Cambridge.
6. Laidler, D.F.W. (1977): *Demand for Money: Theory and Evidence*, Dum-Don Valley, New York.
7. Reddy, Y. V. (2000): *A Review of Monetary and Financial Sector Reforms in India*, UBSP D, New Delhi.
8. Hall, R. E. and J. B. Taylor (1986): *Macro Economics*, W. W. Norton, New York.
9. Blackhouse, R. and A. Salansi (Eds.) (2000): *Macro Economics and the Real World*, Oxford University Press, London.
10. Branson, W. A. (1989): *Macro Economic Theory and Policy*, Harper and Row, New York.
11. Dornbusch, R. and F. Stanley (1997): *Macro Economics*, McGraw Hill, New York.
12. Edward Shapiro (1996): *Macro Economic Analysis*, Galgotia Publications, New Delhi.
13. Gupta, R. D. and Rana A. S. (1998): *Post-Keynesian Economics*, Kalyani Publishers, Ludhiyana.
14. Romer, D. L. (1996): *Advanced Macro Economics*, McGraw Hill, New York.
15. Gordon, R. and Harris S.G. (1998): *Macro Economics*, Addison Wesley
16. Taylor, K. (1983): *Structuralist Macro Economics*, Basic Books, New Longman

## **COURSE CODE: PG34T 203: ECONOMICS OF GROWTH AND DEVELOPMENT-II**

### **Course Outcome:**

- ❖ Economics of growth and development helps to understand the efficiency and productivity value in key sectors and their sectoral growth across the country including Agriculture, Industry and infrastructure.
- ❖ Trade and economic development proved with some models/theories. Trade impact WTO and GATT.
- ❖ Acquire the Knowledge of social sector including food, health and demography, poverty and environment along with policy.
- ❖ It helps to describe the mechanism of application of macroeconomics policies and their impact in development process.

### **Module-I: Development: Sectoral Aspects:**

**16 Hrs**

Agriculture and Economic Development - Efficiency and Productivity - Sustainable Agriculture - Globalization and Agriculture- Agricultural Development Policy - Rationale of Industrialization - Critical Issues in Industry Development - Terms of Trade between Agriculture and Industry - Industry Development Policy - Infrastructure and Economic Development - Critical Issues in Infrastructure Development - Infrastructure Development Policy - Information and Communication Technology.

### **Module-II: Trade and Economic Development:**

**10 Hrs**

Trade and Economic Development - Trade as an Engine of Growth- Static and Dynamic Gains, Declining Terms of Trade -Prebisch - Singer and Myrdal's Thesis - Trade Liberalization and Trade Policy Debate - WTO and Developing Countries - GATS.

### **Module-III: Social aspects of Development:**

**10 Hrs**

Food Security - Health - Education and Nutrition - Population Problem - Theory of Demographic Transition - Population as limit to Growth and Ultimate Source - Human Resource Development - Social Capital - Population, Poverty and Environment - Environment Policy.

### **Module-IV: Macro Economic Policies and Development:**

**12 Hrs**

Role of Monetary and Fiscal Policies in Developing Countries - Inflation and Economic Development - Resources Mobilization, Internal and External - Foreign Direct Investment, Multinational Corporations and Developing Countries.

### **Module-V: Resources Allocation for Development:**

**12 Hrs**

Need for Investment Criteria in Developing Countries, Present vs Future, Alternative Investment Criteria - Cost Benefit-Analysis - Social Cost-Benefit Analysis - Shadow Prices - Project Appraisal-UNIDO Guidelines

### **Reading List:**

1. Adelman, Irma (1961): *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
2. Behrmans, J. and T. N. Srinivasan (1995): *Handbook of Development Economics*, Vol.3. Elsevier, Stendam.
3. Debraj Ray (1998): *Development Economics*, Princeton University Press Princeton New Jersey.

4. Gerald M. Meier and James E. Eanch (2005): *Leading Issues in Economic Development*, Oxford New York.
5. Ghatak (1986): *An Introduction to Development Economics*, Allen and Unwin, London.
6. Kindleberger, C. P. (1997): *Economic Development*, McGraw Hill, New York.
7. Robert J Barro and Xavier Sale-I-Martin (2004): *Economic Growth*, MIT Press, Cambridge.
8. Srivastava, O.S. (1996): *Economics of Growth, Development and Planning*, Vikas Publishing House Pvt. Ltd., New Delhi.
9. Stuart, R. Lynn (2003): *Economic Development: Theory and Practice for a Divided World*, Prentice Hall, New Jersey.
10. Thirlwall, A.P. (2006): *Growth and Development*, 6<sup>th</sup> Education, West press Pvt. Ltd. New Delhi.
11. Todaro, Michael P. (1989): *Economic Development in the Third World*, Orient and Longman, London.
12. Todaro, Michael P. and Stephen C. Smith. (2012): *Economic Development*, 11<sup>th</sup> Edition, Addison Wesley, Boston.

## **COURSE CODE: PG34T 204: STATISTICS FOR ECONOMICS**

### **Course Outcomes:**

- ❖ An understanding of how to think about, evaluate and draw conclusions from economic data by applying statistical techniques.
- ❖ Familiarize the statistical concepts that are widely used in Econometrics and Research in Economics
- ❖ Familiarise and understand the students on statistical concepts including Sampling methods, classification of data, measurement of central tendency and dispersion, theory of probability distribution and sampling distribution.
- ❖ To make them understand statistical inferences, correlation and regression analysis, time series and index number.

### **Module-I: Introduction to Statistics**

**12 Hours**

Types of Data - Nominal, Ordinal & Ratio Scale Data. Qualitative and Quantitative Data, Individual, Discrete and Continuous Data. Cross Section, Time Series and Pooled Data . Sources of Data; Descriptive Statistics and Inferential Statistics. Sources of Data- Primary and Secondary Data; Schedules and Questionnaires; Sampling- Meaning, Sampling Techniques-Simple Random, Stratified and Systematic Random Sampling Methods;

- ❖ Tabulation and Frequency Distribution.

### **Module-II: Measures of Average and Dispersion**

**10 Hours**

Measurement of Average - Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, and Mode. Measures of Dispersion. Skewness and kurtosis.

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### **Module-III: Probability and Distribution**

**16 Hours**

Probability Theory - Concepts and Approaches to Estimate Probability - Probability Distribution Functions - Theoretical Distribution: Binomial, Poisson, Normal, t, Chi-Square & F Distribution.

- ❖ Theory of Estimation and Hypothesis Testing; Concept of Estimator - Sampling Distribution of Estimator, Point and Interval Estimation, Properties of Good Estimator for Small and Large Samples; Hypothesis Testing: Approaches to Hypothesis Testing; - Confidence Interval Approach, Test of Significance Approach, and P-Value Approach; Formulation of Hypothesis - Null and Alternative Hypothesis; Level of Significance - One Sided and Two Sided Hypothesis - Type-I and Type-II Error; Test Statistic- Critical Value - Parametric and Non-Parametric Tests.

### **Module-IV: Correlation and Regression**

**10 Hours**

Correlation- Meaning and Types of Correlation - Measurement of Correlation. Regression- Simple Regression Model; Estimation - Least Squares Method, Goodness of Fit; Introduction to Multiple Regression.

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### **Module-V: Index Numbers & Time Series Analysis**

**12 Hours**

Nature and Purpose of Index Numbers; Types of Index Numbers- Simple and Aggregate Index Numbers: Laspeyre's Index, Paasche's Index, Marshall and Edgeworth's Index - Fisher's Index - Time Reversal and Factor Reversal Tests Problems of Construction of Index Numbers and Limitation of Index Numbers. Time series analysis- Nature and

- ❖ Components; Analysis of Trend - Moving Average Method and Least-Square Method

***{Practical Component: Graphical Presentation of Data: Tabular and Graphical Methods - Relative Frequency and Percentage - Frequency Distribution - Bar Graphs, Line Graph, Pie Charts, Histogram, Cumulative Distribution and Ogives}***

**Reading List:**

1. Anderson, Sweeney & Williams (2007): *Statistics for Business & Economics*, 9<sup>th</sup> Edition, Thomson South-Western, Bangalore.
2. Bose, D. (2018): *An Introduction to Mathematical Economics*, Himalaya Publishing House, Pvt. Ltd. Mumbai.
3. Goon, A. M., M. K. Gupta and B. Dasgupta (1968): *Fundamentals of Statistics*,
4. Gupta, B.N. (1992): *Statistics Theory and Practice*, Sahitya Bhavan, Agra.
5. Gupta, S. C. (2016): *Fundamentals of Statistics*, Himalaya Publishing House, Bombay.
6. Gupta, S. P. (2014): *Statistical Methods*, S. Chand & Company, New Delhi, (43<sup>rd</sup> Edition)
7. Gupta, S.C. and Kapoor, V. K. (2016): *Fundamentals of Applied Statistics*, Sultan Chand & Sons, New
8. Mehta and Madnani (2017): *Mathematics for Economists*, Sultan Chand and Sons, New Delhi.
9. Monga, G. S. (2015): *Mathematics and Statistics for Economics*, Second Revised Edition, Vikas Publishing House, Pvt. Ltd. New Delhi.
10. Nagar, A. L. and R. K. Das (1997): *Basic Statistics*, Oxford University Press, New Delhi
11. Salvatore, D. (2015): *Mathematics and Statistics*, Schaum's Series, Tata McGraw Hill.
12. Veerachamy, R. (2005): *Quantitative Methods for Economics*, New Age International (P) Ltd., New Delhi.
13. Yamane Toro (1967): *Statistics - An Introductory Analysis*, Harper and Row Publishers, New York.

## **COURSE CODE: PG34T 205A: AGRI-BUSINESS (Specialisation/ Optional paper)**

### **Course Outcomes:**

- ❖ Knowledge on Agri-Business helps to understand the concepts, its necessities, characteristics, commercialisations, trends and pattern in India.
- ❖ It shows the importance of agricultural credit Institutions in agriculture development and both theoretical and Indian agricultural marketing problems and remedial measures.
- ❖ This helps to understand the agricultural price instability, price policy, objectives and instruments.
- ❖ It demonstrates the importance of agribusiness in international trade, WTO, AOA MNC's their importance, functions, progress, problems and prospectus.

### **Module-I: Introduction to Agri-Business:**

**10 Hrs**

Meaning of Agri-business; Need for Agri-Business; Characteristics of Agri-Business in India; Commercialization of Agriculture leading to Agri-Business; Trends and Pattern of Agri-Business in India.

### **Module-II: Agricultural Credit Institutions:**

**14 Hrs**

Introduction - Commercial Banks- Lead Bank Scheme - Multi-Agency Approach - Nationalization of Banks - Regional Rural Banks - National Bank for Agriculture and Rural Development (NABARD) - Reserve Bank of India  
-Government Policy for Agricultural Credit - Agricultural Credit under Plans and Rural Credit in India - Farmers Service Societies.

### **Module-III: Agricultural Marketing:**

**12Hrs**

Concept, Structure, Importance, Defects of Agricultural Markets in India; Functions of Agricultural Marketing- Packaging, Transportation, Grading and Standardization, and Storage and Warehousing; Role of Government in Promoting Agricultural Marketing in India; Promotion of Regulated Markets (APMCs)-Importance, Functions, Problems and Remedial Measures.

### **Module-IV: Agricultural Prices:**

**12 Hrs**

Instability in Agricultural Prices-Causes and Effects and Fluctuations; Need for Stabilization in Agricultural Prices; Agricultural Price Policy in India-Need, Objectives, Origin and Development, Instruments, Limitations and Suggestions.

### **Module V: WTO and Agri-Exports:**

**12 Hrs**

International Trade in Agri-business- WTO and Agreement on Agriculture (AOA), Trends in Import and Export of Agricultural Commodities, Role of Multinational Corporations in Agri-exports; Agri-Export Zones in India- Importance, Functions, Progress, Problems and Prospects

### **Reading List:**

1. Acharya, S. S. and Agarwal N. L. (1994): *Agricultural Marketing in India*, (Second Edition), Oxford & IBH Publishing Co. Pvt. Ltd.
2. Bhalla, G.S. (1994): *Economic Liberalisation and Indian Agriculture*, Institute for Studies in Industrial Development, New Delhi.
3. Dandekar, V. M. (1994): *The Indian Economy: 1947-92, Vol. I, Agriculture*, Sage Publications, New Delhi.

4. Dantawala, M. L. (1991): *Indian Agricultural Development since Independence*, (Second Edition), Oxford & IBH, New Delhi.
5. Government of India (1976): *Report of the National Commission on Agriculture*, New Delhi.
6. Gulati, A. and T. Kelly, (1997): *Trade Liberalisation and Indian Agriculture*, Oxford University Press, New Delhi.
7. Hansra, B. S. and Vijayaragavan, K. (2003): *Agribusiness and Extension Management*, Concept Publishing Company, New Delhi.
8. Kahlon, A. S. and Tyagi D. S. (1983): *Agricultural Price Policy in India*, Allied Publishers, New Delhi.
9. Larson, A. L. (1957): *Agricultural Marketing*, Prentice-Hall, INC, USA.
10. Lekhi, R. K. and Joginder Singh (1999): *Agricultural Economics*, Kalyani Publishers, New Delhi.
11. Mamoria, C. B. (1999): *Agricultural Problems of India*, Kitab Mahal, Allahabad.
12. Omvi Rawling: *Introduction to Agri-Business*, PHI, New Jersey.
13. Raj. K.N. et. al (1988): *Essays in Commercialization of Indian Agriculture*, Oxford University Press, New Delhi.
14. Soni, R. N. (1995): *Leading Issues in Agricultural Economics*, Arihant Press, Jalandhar.
15. Vaidhyathan, A. (1989): *Livestock Economy of India*, Oxford & IBH, New Delhi.

## **COURSE CODE: PG34T 205B: LABOUR ECONOMICS (Specialization /Optional paper)**

### **Course Outcomes:**

- ❖ To understand meaning, nature, scope and importance of labour economics. Major events, trends and development of labour markets in the real world.
- ❖ To appreciate differences in views of economists both from positive and Normative standpoints with respect to issues in labour market and wage Determination.
- ❖ To understand labour unions, labour legislations and importance of I.L.O.
- ❖ The students will learn basic economic forces behind employment and wages, Sources of labour market imperfections, driving forces for education and skill Development, discrimination among the workers and Government policies for Labour welfare.

### **Module-I: Labour Markets:**

**14Hrs**

Nature and Characteristics of Labour Market; Paradigms of Labour Market Analysis; Classical, Neo-Classical and Modern Analysis of Demand and Supply Forces; Demand For Labour in Relation to Size and Pattern of Investment; Supply of Labour in Relation to Growth of Labour Force; Labour Market Policies; Mobility and Productivity of Labour; Rationalization; Methods of Recruitment and Placement.

### **Module-II: Employment:**

**12 Hrs**

Employment and Development Relationship; Poverty and Unemployment in Developing Countries; Unemployment; Concept, Types and Measurement (with reference to India); Impact of Rationalization; Technological Change and Modernization of Employment in Organised Private Industry; Employment in Public Sector Industry; Analysis of Educated Unemployment; Employment Policies in Five-Year Plans and Evaluation.

### **Module-III: Wage Determination:**

**12Hrs**

Neo-Classical and Bargaining Theories of Wage Determination; Concepts of Minimum Wage, Living Wage and Fair Wage in Theory and Practice; Productivity and Wage Policy; Wage Boards in India; Bonus System and Profit Sharing.

### **Module-IV: Industrial Relations:**

**10 Hrs**

Growth and Structure of Labour Unions in India; Causes of Industrial Disputes; their Settlement and Prevention Mechanism; Role of tri-partitism; Current Trends in Collective Bargaining; Labour Legislation in India; Labour Management Relations.

### **Module-V: State and Labour:**

**12 Hrs**

State and Social Security of Labour; Concepts of Social Security and its Evaluation; Labour Welfare in India; Child Labour; Female Labour and Gender Bias in Payment of Wages; Exit Policy; National Commission on Labour; Globalisation and Labour Market.

### **Reading List:**

1. Datt, G. (1996): *Bargaining Power, Wages and Employment: An Analysis of*
2. Hajela, P. D. (1998): *Labour Restructuring in India: A Critique of the New Economic Policies*, Commonwealth Publishers, New Delhi.
3. Jhabvala, R. and R. K. Subrahmanya (Eds.) (2000): *The Unorganised Sector: Work Security and Social Protection*, Sage Publication, New Delhi.
4. Lester, R.A. (1964): *Economics of Labour*, (2<sup>nd</sup> Ed). Macmillan, New York.
5. McConnell, C. R. and S. L. Brue (2013): *Contemporary Labour Economics*, McGraw; Hill, New York.
6. Papola, T.S., P. P. Ghosh and A.N. Sharma (Eds.) (1993): *Labour Employment and Industrial Relations in India*, B. R. Publishing Corporation, New Delhi.

7. Rosenberg, M.R. (1998): *Labour Markets in Low Income Countries*, in Chenery, H.B. and T.N.Srinivasan, (Eds.), *The Handbook of Development Economics*, North; Holland, New York.
8. Venkata Ratnam, C.S. (2001): *Globalization and Labour: Management Relations: Dynamics of Change*, Sage Publications, New Delhi.

## **COURSE CODE: PG34T 205C: ECONOMICS OF HEALTH (Specialisation/Optional)**

### **Course Outcomes:**

- ❖ To understand the basic concepts of health economics, scope and importance of health economics.
- ❖ A better understanding of the economic theory of health through a study of Economic models.
- ❖ Learn to evaluate and interpret empirical findings in health and healthcare Services on the basis of cost-benefit analysis.
- ❖ Possess knowledge of the latest developments in pricing and policies of Health and healthcare services.

### **Module-I: Introduction**

Health Economics-Concept, Importance of Health Economics; Scope of Economics of Health; Health as Commodity; Determinants of Health– Poverty, Malnutrition and Environmental Issues; Indicators of Health; Nexus between Health and Economic Growth.

### **Module-II: Demand for Health**

Nature of Demand for Health, Determinants of Demand, Elasticity of Demand-Price and Income Elasticity; Models of Demand for Health

### **Module-III: Supply of Health**

Nature of Supply of Health; Health Production Function; Pricing of Health Care Services-Drugs, Hospitals; Cost of Health Care Services; Market Failure; Externalities and Public Goods

### **Module-IV: Financing and Evaluation of Health Care Services**

Health Delivery Systems in India- Public and Private Financing of Health Care; Health Insurance and Co-operatives-Concept, Schemes and Progress; Expenditure on Health in India-Trends in Public and Private Expenditure; Public and Private Health Infrastructures; Evaluation of Health Services-Cost-Benefit Analysis (CBA), cost-Effectiveness Analysis (CEA), Cost-minimisation and cost-Utility analysis; Economic Reforms and Health Sector

### **Module-V: Economic Development and Health Attainments in India**

Life Expectancy- Concept, Male-female and Rural-urban Life Expectancy and Regional Pattern of Life Expectancy; Infant Mortality Rate- Concept and Trends and Determinants; Maternal Mortality Rate-Concept and Trends and Determinants; Fertility Rate-Concept and Trends in Fertility Rates; Crude Birth Rate and Death Rates; Nexus between Health and Economic Development; Swachh Bharat Abhiyan/Clean India Mission; Review of National Healthy Policy 2017.

**Reading List:**

1. Baru, R. U. (1998): *Private Health Care in India; Social Characteristics and Trends*, Sage Publications, New Delhi.
2. Berman, Peter (1991): *Health Economics, Health Financing and the Health Needs of Poor, Women, and Children*, Ford Foundation, New Delhi.
3. Berman, Peter and M. E. Khan (1993): *Paying for India's Health Care*, Sage Publications, New Delhi.
4. Carrin Guy (1984): *Economic Evaluation of Health Care in Developing Countries: Theory and Applications*, Croom Helm, London
5. Charles Phelps (1991): *Health Economics*, Oxford University, Press, New York
6. Charles, C. Griffin (1992): *Health Care in Asia: A Comparative Study of Cost and Financing*, World Bank
7. Cooper, M. H. and Culyer, A. J. (1973): *Health Economics*, Penguin Book Ltd, England.
8. Das Gupta, M., Chen, L. C. and Krishna, T. N (1996): *Health, Poverty and Development in India*, Oxford University Press, Delhi.
9. Gopal, K. (1982): *Economics of Health and Nutrition*, Chaugh Publishers
10. Jack, William (1999): *Principles of Health Economics for Developing Countries*, World Bank, Washington DC.
11. Morris, Stephen, N. Devlin and D. Parkin (2009): *Economic Analysis in Health Care*, Wiley India Pvt. Ltd. New Delhi.
12. Panchamukhi, P. R. (2002): *Economics of Health: An Introductory Review*, Reading Material, Indian Economic Trust
13. Panchamukhi, P. R. (1980): *Economics of Health: A Trend Report*, in ICSSR: A Survey of Research Economics, Vol. VI, Infrastructure, Allied, Delhi.
14. Prasad, Sujata and C. Sathyamala (2006): *Securing Health for All: Dimensions and Challenges*, Institute for Human Development, New Delhi.
15. Sarakar, Ashok Kumar (2005): *NGOs: The New Lexicon of Health Care*, Concept of Publishing Company, New Delhi.
16. World Bank (1987): *Financing Health Services in Development Counter: An Agent for Reform*, World Bank.
17. Zweifel, Peter and Friedrich Breyer (1997): *Health Economics*, Oxford University Press, New York.

## **COURSE CODE: PG34T 205D: URBAN ECONOMICS (Specialization /Optional paper)**

### **Course Outcomes:**

- ❖ Describe the conceptual and theoretical framework of urban economics.
- ❖ Interpret the pattern and trends of urbanization.
- ❖ Evaluate the impact of urbanization and issues and challenges of urbanization.
- ❖ Evaluate Government policies on various aspects of urban development.

### **Module-I: Introduction to Urban Economics**

**14 Hours**

Nature and Scope - Process of Urbanization-Factors initiating Urbanization process –City Stages-The Economic Theory of Urban Spatial Structures –The Concept of City Structures: the Concentric Zone Hypothesis –Urban Land-use: Models of Household Residential Locational Decision-Land-use Framework –Von Thunen: Income-related Framework: Park-Burgess – Budget Constraint Models of Allonso; Muth and Siegel.

### **Module-II: Theories Urban Growth**

**12 Hours**

Central Place Theory-Urban Economic Base and Urban Growth –The Human Ecological Approach to Urban Growth –City Size and Urban Growth-The Costs and Benefits of City Size – Urban Size Ratchet – Rank Size Rule - The Cost and Benefits of City Size - Optimum City Size.

### **Module-III: Urbanization in India**

**10 Hours**

Trends in India's Urbanization –Major Trends and Issues in India's Urbanization-Structure of Urban Growth –Spatial Distribution of Urban Population-Extent of Urban Sprawls.

### **Module-IV: Urban Problems and Planning in India**

**14 Hours**

Urban Housing and Problems of Slum-up Gradation-Urban Water Supply and Sanitation-Urban Transport-Urban Environment-Measures to Control Pollution-Urban Poverty and Alleviation Measures-Concept, Need, Objectives and Techniques of Urban Planning-The Master Plan Approach-The Emerging Planning Issues.

### **Module V: Urban Governance**

**10 Hours**

Urban Government Activity-Urban Local Bodies, Structure and Finances-Urban Fiscal Problems-Financing Development of Urban Infrastructure-Management of Urban Infrastructure; The Public-Private Partnership Mechanism.

### **Reading List:**

1. Amitabh Kundu (1993): *In the Name of the Urban Poor: Access to Basic Amenities*, Sage Publications, New Delhi
2. Amitabh Kundu, K.C. Shivaramakrishnan and others (2005): *Handbook of Urbanization in India*, Oxford University Press, New Delhi.
3. Bose A.N. (1980): *Urban Economics: A Trend Report*, in ICSSR: A Survey of Research in Economics, vol. 6, Allied Publishers.
4. Bose, A.N. (1978): *India's Urbanization 1991-2001*, Tata McGraw Hill.
5. Brian, C. Aldrich and Ranvinder S. Sandhu (1995): *Housing the Urban Poor: Policy and Practice in Developing Countries*, Sage Publications, New Delhi.
6. Button, K.J. (1977): *Urban Economics*, Richard D Irwin, Homewood, Illionis.

7. Goodall, B. (1972): *The Economics of Urban Areas*, Pregamon Press, New York.
8. Meera Kosambi (1994): *Urbanization and Urban Development in India*, Monograph-1, Research in Sociology and Social Anthropology: Third Survey, Indian Council of Social Science Research, New Delhi.
9. Mills E (1983): *Report of the Task Force on Housing and Urban Development, I to IV*, Planning Commission, Government of India, New Delhi.
10. NCAER (2005): *India Infrastructure Report, Financing Urban Infrastructure*, Oxford University Press, New Delhi.
11. NIUA (2017): *Urban Statistical Handbook*, National Institute of Urban Affairs, New Delhi.
12. Sundarm K.V. (1977): *Urban and Regional Planning in India*, Vikas Publishing House, New Delhi.

**COURSE CODE: PG34T 205E: GENDER AND DEVELOPMENT  
(Specialisation/Optional)**

**Course Outcome:**

- ❖ The objective of this course is to enable the students to understand thoroughly the theories of Gender and Development.
- ❖ It also attempts to study the economic growth and gender equality, impact of technology women's labour market.
- ❖ Students would have knowledge about the gender planning, gender budgeting and development

**MODULE-I: INTRODUCTION**

Basic Concepts - Difference Between Gender And Sex - Patriarchy - Feminism - Schools Of Feminism - Gender Division Of Work - Invisibility Of Women's Work - Gender Mainstreaming - Concept Of Gender Economics - Gender Concerns In Economic Theory - Sen's Contribution.; Women In Decision Making.

**MODULE-II: DEMOGRAPHIC ASPECTS**

Demography of Female Population, Age Structure, Mortality Rates and Sex Ratio- Causes of Declining Sex Ratios and Fertility Rates in LDCs and Particularly India- Theories and Measurement of Fertility and its Control; Women and their Access to Nutrition, Health, Education, and Social and Community Resources, and their Impact on Female Mortality and Fertility, Economic Status, and Work Participation Rate (WPR) .

**Module-III: Economic Growth and Gender Equality**

Globalization Of The World Economy And Gender Status - Impact Of Economic Growth On Gender Equality - Gender Equality And Economic Growth And Socio-Economic Development. Impact Of Globalization On Gender Status - Concept Of The "Feminization Of Poverty" - Basic Causes - Problems Of Measuring The Feminization Of Poverty - Gender Differences In Incomes - Women's Contribution To Gdp - Estimation Of Women's Unpaid Work.

**Module-IV: Women, Technology and Environment**

Impact of Technological Development and Modernization on Women's Work Participation in General and in Various Sectors such as Agriculture, Non-Agriculture Rural Activities, Small and Cottage Industries and Organized Industry-Female Activities and Ecological and Environmental Concerns: The Two Way Relationship — Role of New Technologies for Helping Women-Provision of Information and Training for Simple Harvesting of Economic Services.

**MODULE-V: GENDER PLANNING AND DEVELOPMENT POLICIES**

Gender And Development Indices; Mainstreaming Gender Into Development Policies; Paradigm Shift From Women's Well Being To Women's Empowerment; Democratic Decentralization (Panchayats) And Women's Empowerment In India; *Gender Budgets*: Gender Budgeting - Methodology Of Gender Budget Preparation - Approaches And Principles Of Gender Budgeting - Experiences Of Different Countries In Gender Budgeting - Gender Budgeting In India And Karnataka.

## READING LIST:

1. Batliwala, S. (1993): *The Empowerment of Women in South Asia: Concepts and Practices*, Sage Publications, New Delhi.
2. Boraian, M. P. (2008): *Empowerment of Rural Women: The Deterrents and Determinants*, Concept Publishing Company, New Delhi.
3. Boserup, Ester (1970): *Women's Role in Economic Development*, St Martin's Press, New York.
4. Burra, Neera, J. D. Ranadive and R.K. Murthy (2007): *Micro-Credit, Poverty and Empowerment*, Sage Publications, New Delhi.
5. Sharma Kumud, Sujata. C. P. (2011): *Towards Equality: Report of the Committee on the Status of Women in India*, Pearson Education, New Delhi.  
GOI (1974): *Towards Equality: Report of the Committee on the Status of Women in India*, Ministry of Education and Social Welfare, New Delhi.
6. Hunt, J. (2004): Introduction to Gender Analysis Concepts and Steps, *Development Bulletin*, No. 64:100-106.
7. Irene Tinker (1990): *Persistent Inequalities: Women and World Development*, OUP, New York.
8. John, Mary E. (1996): Gender and Development in India, *EPW*, 31 (47):3071-3077.
9. Kabeer, Naila, (1995): *Reversed Realities: Gender Hierarchies in Development Thought*, Kali for Women, New Delhi.
10. Klasen, S. (2006): UNDP's Gender-Related Measures: Some Conceptual Problems and Possible Solutions, *Journal of Human Development and Capabilities* 7 (2), pp.243-74.
11. March, C., Smyth, I. and Mukhopadhyay M. (1996): *Guide to Gender-Analysis Frameworks*. Oxfam, London.
12. Moser, A. (2005): *Gender Mainstreaming Since Beijing: A Review of Success and Limitations in International Institutions*, Routledge, New York.
13. National Commission on Women in Self Employment (1987): *Shramshakti Report*, New Delhi
14. Palanithurai, G., T.Parthiban and J. Vanishree (2007): *Empowering Women: Grassroots Experience from Tamil Nadu*, Concept Publishing Company, New Delhi.
15. Swapna, Mukhopadhyay (Ed.) (2007): *The Enigma of the Kerala Woman: The Failed Promise of Literacy*, Social Science Press, New Delhi.
16. UNDP (2006): *Human Development Report, Fighting Climate Change: Human Solidarity in A Divided World*, Palgrave, New York.

**COURSE CODE: PG34T 205F: HUMAN DEVELOPMENT IN KARNATAKA  
(Specialisation/Optional)**

**Course Outcome:**

- ❖ The objective of this course is educating the students about various concept of human development.
- ❖ To familiar students about the importance human capital in general and human development disparities among different districts of Karnataka.
- ❖ To impart knowledge to students about different dimension of human development.

***Module - I: Introduction to Economic Development***

Economic Growth (SGDP and District Income) and Social Change - Salient Features of Karnataka Economy - Civil Society and Democratic Polity - Growth in Population - Changes in Demographic Composition - Karnataka: A State in Socio-Economic Transition.

***Module - II: Progress in Human Development***

HDI Ranking - Districts According to HDI Ranking - Variations in District HDI and their Implications - Income, Employment and Poverty in Karnataka - District Human Development Reports - Gram Panchayat Human Development Report - Brief Information; Analysis of Regional Variations - Framework for Human Development in Karnataka.

***Module -III: Education, Health, Nutrition and Family Welfare***

Growth of Education and Literacy since 1951 - Inter-District Disparities - Development of Higher Education and Associated Problems - Karnataka's Education Policy.

Development of Health and Family Welfare Sector in Karnataka - Major Disease Burden - Health Programs - Family Welfare Programs - Problems - Nutrition and Food Security in Karnataka.

***Module -IV: Development of Social Sectors***

Housing, Water Supply and Sanitation Programmes - Inter-District Disparities - Problems - Need for Long-Term Approach.

***Module - V: People's Participation and Democratic Governance***

Development and Democratic Decentralization Process - Role of Panchayat Raj Institutions and Urban Local Bodies - Powers, Functions and Finances - People's Participation and Decentralized Planning - Emergence of Third Sector in Karnataka - NGOs and Government Organizations, Co-operatives and Civil Society - People's Movements for Environment Protection, Abolition of Online Lottery, Liquor Prohibition Etc., - Institutional.

**Reading List:**

1. Government of Karnataka (2005): *High Power*. Committee for Redressal of Regional Imbalances (HPCRRRI), Government of Karnataka, Bangalore
2. Government of Karnataka (2005): *Human Development in Karnataka*, Planning Department, Bangalore.
3. Government of Karnataka (2015): *Human Development: Performance of District, Taluks and Urban Local Bodies in Karnataka, 2014: A Snapshot*, Planning, Programme Monitoring and Statistics Department of Government of Karnataka, Bengaluru (<http://planning.kar.nic.in> – Human Development Division).
4. Government of Karnataka (2015): *A Handbook on Statistics Outline of Karnataka*, Directorate of Economics and Statistics, Bangalore.
5. Government of Karnataka: *Economic Survey of Karnataka*, Government of Karnataka (Various Annual Reports) (<http://planning.kar.nic.in>)
6. Gowda, Sreenivasa and T. Nanjegowda: *Economic Development of Karnataka: Leading Aspects*.
7. Indian Economic Association (1998): *Economic Development of Karnataka*, Edited by M. V. Srinivasagowda and D.T. Nanjegowda.
8. Madaiah, M. (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Mumbai.
9. Madaiah, M. and R. Ramapriya (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Delhi.
10. Puttaswamaiah, K, (1980): *Economic development of Karnataka: A Treatise in Continuity and Change*, Oxfor and IBH Publication.
11. Rao, Hemalatha (1984): *Regional Disparities and Development in India*, Ashish Publishing House, New Delhi.



## **COURSE CODE: PG34T 206: INDIAN ECONOMY (Open Elective Course)**

### **Course Outcome:**

- ❖ To study the sectoral structure of Indian economy.
- ❖ To study the importance of agriculture and industrial sectors.
- ❖ To examine the impact of financial sector and economic reforms.
- ❖ To study the financial conditions of central governments.

### **Module-I: An Overview of Indian Economy**

Characteristics of Indian Economy; Demographic Features of Indian population; Trends in the growth of National Income; Green Accounting; Structural Changes in the Economy; Poverty and Inequality; Trends in Savings, Investment and Capital Output Ratio and their Implications; India's Development Experience; Planning and Development Strategies; Planning Commission to NITI Aayog; Parallel Economy and its Implications.

### **Module -II: Agricultural Sector**

Agriculture-Importance; Cropping Pattern; Land Reforms; Farm size and efficiency; Agricultural Labour Problems; Mechanization and Green Revolution; Agricultural Finance and Rural Indebtedness and Farmers' Suicide; Agricultural Marketing; Agricultural Price; Agricultural Co-operatives; Technological Factor in Agriculture Growth-Seeds Fertilizers, Irrigation; Food problem and Public Distribution System; WTO and Agriculture.

### **Module -III: Industrial Sector**

Importance of Industrialization; Growth and Structural Composition; Structural Transformation; Small-Scale Industries- Role and Performance; Privatization and Public Sector, Private Sector Industries and their Performance and Problems; Industrial Labour; Industrial Finance; Development Banks; Capital Market; Industrial Monopoly; MRTP; New Industrial Policy; Mergers and Takeover. **!**

### **Module -IV: Foreign Trade Sector**

Exchange Rate policy of India; Trends in India's Foreign Trade; Balance of Payment; Problems of Policies; New Foreign Trade Policy; Export promotion V/S Import Substitution; Foreign Direct Investment in India; Globalisation and its impact on India's Trade and Investment.

### **Module -V: Financial Sector**

RBI; Money and Money Markets; Monetary Policy; Money Supply; Commercial Banks; Banking and Non-Banking Financial Sector; Financial Sector Reforms; Demonetisation and its Impact.

**Reading List:**

1. Agarwal A.N. and Agarwal M.K. (2016): *Indian Economy: Problems of Development and Planning*, New Age International (P) Limited Publishers, New Delhi.
2. Agarwal, H. S. (2011): *Indian Economy*, Lakshmi Narain Agarwal, Agra.
3. Agarwal, R. C. (2015): *Economics of Development and Planning (2014-15)*, Lakshmi Narain Agarwal, Agra.
4. Ahluwalia, I. J. and M D Little (Eds.) (1999): *India's Economic Reforms and Development* (Essays in Honor of Manmohan Singh) OUP, New Delhi.
5. Brahmananda, P. R. and V. R. Panchamukhi (Eds.) (2001): *Development Experience in the Indian Economy: Inter-State Perspectives*, Bookwell, New Delhi.
6. Dhingra, I. C. (2017): *Indian Economy*, S. Chand and Company Limited, Ram Nagar, New Delhi.
7. Government of India (2017): *Economic Survey of India* (Annual), Ministry of Finance, Government of India, New Delhi.
8. Hanumantha Rao C. H. and H. Linnemann (Eds.)(1996): *Economic Reforms and Poverty Alleviation in India*, Sage Publication, New Delhi.
9. Jalan, B. (1996): *India's Economic Policy-Preparing for the Twenty First Century*, Viking New Delhi.
10. Misra, S. K. and V. K. Puri (2018): *Indian Economy*, Himalaya Publishing House, Mumbai
11. Mujamdar, N. A. (2004): *Economics Reforms and Sans Development*, Academic Foundation, New Delhi,
12. Rangarajan, C. (1998): *Indian Economy: Essays on Money and Finance*, UBS, New Delhi.
13. Ruddar Dutt and K.P.M. Sundharam (2002): *Indian Economy*, S. Chand and Company Limited, New Delhi.
14. Sen, R.K. and B.Chatterjee (2001): *Indian Economy: Agenda for 21<sup>st</sup> Century* (Essay in Honour of Prof. P. R. Brahmananda), Deep & Deep, New Delhi.
15. Sundaram, K.P.M. (2004): *An Introduction to Indian Economy*, S. Chand and Company Limited, Ram Nagar, New Delhi.

## M.A. ECONOMICS

### CHOICE BASED CREDIT SYSTEM

#### Revised Syllabus

### III SEMESTER

#### COURSE CODE: PG34T 301: PUBLIC ECONOMICS

##### Course Outcome:

- ❖ This course enables the students to learn about nature and scope of public economics, economic systems, market failure in provision of public goods, mechanism for revealing for public choice and types of public policy for provision of public goods and thereby attaining maximum social advantage.
- ❖ It also aims at understanding the theories of public expenditure, public revenue mobilization and public debt and its management.
- ❖ At the end of the course, the students would have learned the essential theories and frameworks needed to design the public policies for effective of provision of public goods and services and efficient management of public assets and liabilities.

##### Module-I: Introduction

**12 Hours**

Public Economics-Nature, Scope, Meaning and Evolution; Government-Powers, Fiscal Functions-Allocation, Distribution and Stabilisation and Role of Government in a Mixed Economy; Theory of Public Goods- Private Goods, Public Goods, Club Goods, Commons, Merit Goods and Demerit Goods; Public Goods and Market Failure; Public Goods as a Special case of Externalities and Market Failure; Principle of Maximum Social Advantage.

##### Module-II: Public Choice and Policy

**18 Hours**

Voting and Public Choice- Majority Voting rule, Problems in Allocating Resources and Aggregation of Preference Revelation; Alternative to Majority Voting Systems; Arrow's Impossibility Theorem; Sen's Theory of Social Choice; Economic Theory of democracy; Rent Seeking and Directly Unproductive Activities; Public Policy for Allocation of Resource-; Voluntary Exchange Model; Samuelson and Musgrave; Johansen Model; Clarke, Grooves and Ledyard Model; Tiebout Model- Theory of Club Goods.

##### Module-III: Theories of Public Expenditure

**8 Hours**

General Theories of Public Expenditure: Wagner's Hypothesis; Peacock- Wiseman Hypothesis; Colin Clark Hypothesis; Expenditure Evaluation- Criteria for Public Investment- Social cost- Benefit Analysis; Reforms in Expenditure Budgeting System- Zero Based Budgeting.

##### Module-IV: Public Revenue and Taxation

**12 Hours**

Public Revenue: Sources and Classification, Taxation, Tax Elasticity and Buoyancy, Taxable Capacity and Tax Effort, Theory of Incidence; Different Concepts of Incidence, Benefits and Ability to Pay Approaches, Taxation and Dead Weight Loss, Theory of Optimal Taxation, Equity in Taxation, Direct and Indirect Taxes, Effect of Taxation on Production and Distribution.

**Module-V: Public Debt and Its Management**

**10 Hours**

**Public Debt-Concept, Sources of Public Debt - Internal and External, Objectives,** Reasons for Growing Public Debt; Classical and Modern Views on Public Debt, Burden of Public Debt; Public Borrowings and Price Level- Crowding out of Private Investment and Activity; Principles of Debt Management and Repayment.

### Reading List:

1. Anderson, John E. (2002): *Public Finance: Principles and Policy*, Houghton Mifflin Company, Boston.
2. Bagchi A. (2005) : *Readings in Public Finance*, Cambridge University Press, New Delhi
3. Bhatia, H. L. (2015): *Public Finance*, Vikas Publishing House Pvt. Ltd., New Delhi.
4. Chand, S. N. (2013): *Public Finance*, Atlantic Publishers and Distributors (P) Ltd., New Delhi.
5. Cullis, John and Phillip Jones (2010): *Public Finance and Public Choice: Analytical Perspective*, Oxford University Press, New York
6. Hinderiks, Jean and Gareth Myles (2014): *Intermediate Public Economics*, PHI, New Delhi
7. Hugh Dalton (1997): *Principles of Public Finance*, Allied Publishers Pvt. Ltd.
8. Hyman David N. (2012): *Public Finance- A Contemporary Application of Theory to Policy*, Thomson South – Western Ohio, USA.
9. Jha, Rajesh K. (2012): *Public Finance*, Perason, Delhi.
10. Kennedy, M. Marria John (2012): *Public Finance*, PHI Learning Private Limited New Delhi.
11. Lekhi, R.K. and Joginder Singh (2015): *Public Finance*, Kalyani Publishers, NewDelhi.
12. Musgrave R.A and Musgrave P.A. (2009): *Public Finance in Theory and Practice*, McGraw- Hill Kogakusha, Tokyo.
13. Om Prakash (2016): *Public Economics: Theory and Practice*, Vishal Publishing Co. Jalandhar-Delhi.
14. Rao, Govind (2010): *Public Finance: Theory and Practice Essay in Honour of A.Bagchi*, Sage Publications, New Delhi.
15. Rosen, Harvey S. and Ted Gayer (2012): *Public Finance*, 8<sup>th</sup> Edition, MaGraw Hill Education Private Limited, New Delhi.
16. Singh, S.K. (2015): *Public Economics: Theory and Practice* S. Chand and Co., New Delhi.
17. Tyagi B.P. and H. P. Singh (2016): *Public Finance*, Jayaprakashnath and Company, Meerut, India.

## **COURSE CODE: PG34T 302: INTERNATIONAL TRADE AND FINANCE – I**

### **Course Outcomes**

- 1) Deep understanding about International trade theories and their empirical testing
- 2) To make them understand the students about benefits of International trade in terms of Gains from trade and Terms of trade
- 3) Conceptual understanding of International trade policy and Trade and Economic integration among the countries such as EU, NAFTA, SAFTA and ASEAN
- 4) By the end of the course, students should be able to apply International trade theories and policies in their research.

### **Module-I: International Trade Theories-I**

**10-Hours**

Mercantilists Views on Trade - Trade based on Absolute Advantage- Adam Smith; Trade based on Comparative Advantage- David Ricardo; Mill's Reciprocal Demand; Opportunity cost trade theory; Empirical Testing of Absolute Cost and Comparative Cost.

### **Model-II: International Trade Theories-II**

**12- Hours**

Heckscher-Ohlin-Samuelson Trade Theory; Assumptions- Factor Intensity, Factor Abundance - Factor Endowments and Heckscher-Ohlin Theorem - Empirical Test of Heckscher-Ohlin Model- Leontief Paradox –Factor Price Equalization Theorem: Stopler-Samuelson Theorem;

Economic Growth and International Trade; The Rybczynski Theorem - Technical Progress - Immiserizing Growth - Growth Changes Tastes and Trade in both Nations.

### **Module-III: International Trade Theories-III**

**12-Hours**

Economies of Scale, Imperfect Competition, and International Trade- New Trade Theories- Economies of Scale and International Trade, Imperfect Competition and International Trade- Trade Based on Product Differentiation;

- 5) Intra-Industry Trade- Trade Based on Dynamic Technological Differences- Costs of Transportation, Environmental Standards, and International Trade- Environmental Standards, Industry Location, and International Trade

### **Module-IV: International Trade Policies**

**16-Hours**

Trade Restrictions; Tariffs - Partial Equilibrium Analysis of a Tariff - The Theory of Tariff Structure - General Equilibrium Analysis of a Tariff - The Optimum Tariff;

***Non-Tariff Trade Barriers and the New Protectionism:*** Import Quotas - Voluntary Export Restraints - Technical, Administrative and other Regulations; International Cartels and Dumping; The Political Economy of Protectionism and Strategic Trade and Industrial Policy; Outstanding Trade Problems.

### **Module -V: Economic Integration**

**10-Hours**

Customs Unions and Free Trade; Introduction - Trade Creating Customs Union and Trade Diverting Customs Union, Static and Dynamic Benefits from Customs Union; History of Economic Integration - The European Economic Community, The European Free Trade Association and NAFTA; Attempts of Developing Countries towards Economic Integration – SAFTA and ASEAN.

**Reading List:**

1. Carbough, R.J. (2017): *International Economics*, (16<sup>th</sup> Edition) International Thompson Publishing, New York.
2. Dana, M.S. (2017): *International Economics: Study, Guide and Work Book*, (5<sup>th</sup> edition), Rutledge Publishers, London.
3. Gita Gopinatha, Elhanan, Helpman Kenneth and Regoff (2014): *Handbook of International Economics*, Elsevier Publications
4. Jackson, J. (1998): *The World Trading System*, Cambridge University Press  
Mass.
5. Jagadish N. Bhagwati (1983): *Dependence and Interdependence* (Ed) by Gane Grossman, Vol.2, Basil Blackwell, Oxford.
6. Kenen, P.B. (2000): *The International Economy*, (4<sup>th</sup> Edition) Cambridge University Press, London.
7. Kindleberger, C.P. (1978): *International Economics*, (6<sup>th</sup> Edition) R.D.Irwin Homewood.
8. Krugman, P.R. and M. Obstfield (2012): *International Economics: Theory and Policy*, (9<sup>th</sup> Edition) Addison-Wesley Publications.
9. Metzler: *Readings in International Economic*, American Economic Series.
10. Salvatore, D. (2014): *International Economics*, (11<sup>th</sup> Edition), MacMillan Publication.
11. Soderstein, B. (1993): *International Economics*, MacMillan, London.
12. Soderstein, B. and Reed, Geoffrey (1994): *International Economics*, (3<sup>rd</sup> Edition) MacMillan, London.
13. UNCTAD: *World Investment Reports*, Various Issues.
14. Vaish, M. C. and Sudama Singh (2010): *International Economics*, (8<sup>th</sup> Edition), Oxford and IBH Publication, New Delhi.

## **COURSE CODE: PG34T 303: RESEARCH METHODOLOGY AND DATA ANALYSIS**

### **Course Outcomes**

- ❖ Ability to frame research question/s;
- ❖ Capacity to search and manage literature in a scientific manner;
- ❖ Designing suitable instruments to collect data;
- ❖ Developing appropriate data analysis plans; and
- ❖ Imbibing written and oral presentation skills to communicate information and data to multiple audiences.

### **Module - 1: Introduction to Research Process**

**8 Hours**

Meaning of Research and Characteristics - Planning a Research - Stages of Research - Research Problem - Theoretical Foundation - Review of Literature - Objectives - Hypotheses - Types of Research: Pure and Applied Research - Qualitative, Quantitative and Mixed - Exploratory, Descriptive, Diagnostic, Evaluation, Action and Experimental Research - Historical Research - Surveys - Case Study - Field Study Need and Importance of Research in Economics - Applicability - Ethical issues in Research.

### **Module - 2: Data Sources and Methods of Data Collection**

**10 Hours**

Primary and Secondary Sources of Data; Quantitative Data - Sources - Time Series Data - Cross Section Data and Pooled Data - Census, Reports and Documents, other Published and Unpublished Sources; Observation - Interview Method, Schedules and Questionnaires - Questionnaire Designing Procedure - Case Study, Projective Methods - Simulation - Merits and Demerits.

### **Module - 3: Sampling Considerations and Data Processing**

**12 Hours**

*Sampling Considerations:* Concepts - Sample vs Census - Principles of Sampling Design & Process - Types of Sample Design: Probability Sampling Techniques: Simple Random, Stratified Random, Cluster and Multi-Stage and other Methods of Sampling. Non-Probability Sampling Techniques: Quota Sampling, Convenient Sampling, Purposive Sampling, Judgment Sampling and other Methods - Determination of Sample Size - Advantages and Disadvantages - Errors in Sampling.

*Data Processing:* Processing and Distribution - Field Work Validation - Tabulation - Editing - Coding - Classification and Tabulation of Data - Presentation - Graphical Representation.

### **Module - 4: Data Analysis and Interpretation (Theoretical Exposure) 20 Hours**

Univariate and Multivariate Data Analysis - Descriptive v/s Inferential Analysis - Descriptive Analysis of Univariate Data and Bivariate Data - Testing of Hypotheses: Concepts, Steps in Testing of Hypothesis.

*Estimation of Mean:* Test of Single Sample Mean - Two Independent Means Tests - Testing for Means of Paired Data - Testing for the Equality of K Population Means - Assumptions for ANOVA - Between Treatments Estimate of Population Variance - Within Treatments Estimate of Population Variance - Comparing the Variance of Estimates - The F Test - Multiple Comparison Procedures.

*Estimation of Variance:* Test of Single Sample Variance - Two Sample Variance Test.

*Non-Parametric Tests:* Advantages & Disadvantages - Chi-square tests - Tests for Randomness.

*Introduction to Advanced Data Analysis Techniques:* Correlation and Regression Analysis - Factor Analysis - Discriminant Analysis - Cluster Analysis - Multidimensional Scaling.

Importance of Report Writing - Types of Reports: Brief Reports, Detailed Reports, Technical Reports and Business Reports - Report Preparation - Report Structure: Preliminary Section, Main Report - Interpretations of Results - Research Findings and Suggested Recommendations - Limitations of the Study, and End Notes - Report Writing: Report Formulation - Effective Documentation: Need and Guidelines: Presenting Tabular Data, Visual Representations: Tables, Graphs, Charts - Presenting Footnotes and Bibliography - Oral Presentation of Research.

1. Bryman Alan, *Social Research Methods*, Oxford University Press, Oxford.
2. Kothari C.R., *Research Methodology*, New Age International Publication, New Delhi.
3. Krishnawamy O.R. and Ranghanathan, M., *Methodology of Research in Social Sciences*, Himalaya Publishing House, Bangalore.
4. Kurian C.T. *Research Methodology in Economics*, Institute of Development Studies, Madras.
5. Majumdar P.K., *Research Methods in Social Science*, Viva Books Private Limited, New Delhi.
6. Robert, A. Day, *How to Write and Publish a Scientific Paper*, Cambridge University Press, Great Britain.

## **COURSE CODE: PG34T 304: THEORY OF ECONOMETRICS**

### **Course outcomes**

- ❖ Familiarise the Econometrics applications that are widely used in empirical work in economics and other related disciplines.
- ❖ Conceptual understanding and ‘hands on’ applications using economic data drawn from real-world examples, along with formal theoretical proofs and empirical testing
- ❖ Familiarise and understand the students on Advanced econometrics concepts including  
Problems faced in estimation and inference in the context of single and multiple equations regression model and various diagnosis testing.
- ❖ To make them understand Simultaneous equations and problems in estimation.
- ❖ By the end of the course, students should be able to develop simple econometric models and interpret the econometric and statistical results reported in other studies.

### **Module-I: Introduction to Econometrics**

**10-Hours**

Meaning, Nature and Scope of Econometrics; Distinction between Economics and Econometrics; Mathematics and Econometrics, Statistics and Econometrics; Methodology of Econometrics ; Types of Econometrics.

### **Module-II: Simple and Multiple Regression Model**

**16-Hours**

*Simple Regression*- Meaning, Basic Ideas, Significance of Disturbance Term. Method of Estimation: Ordinary Least Squares and Maximum Likelihood. Estimation - BLUE Property – Coefficient of Determination, Assumptions, Hypothesis Testing; Confidence Interval and Test of Significance Testing Regression Coefficients, Interpretation of Results. Multiple Regression: Three Variable Regression Model- Partial Regression. Method of Estimation, R-Square and Adjusted R-Square; Hypothesis Testing; Individual regression coefficients, Overall Significance Test ANOVA; Introduction to Matrix Approach.

### **Model-III: Diagnosis Testing;**

**10-Hours**

Multicollinearity- Nature, Causes ,Consequences, Detection and Remedial Measures.

Heteroscedasticity- Nature, Causes,Consequences, Detection and Remedial Measures.

Auto-Correlation- Nature, Causes, Consequences, Detection and Remedial Measures.

### **Module-IV: Dummy Variable and Dynamic Regression Models**

**10-Hours**

*Dummy Variable Model*- Meaning, Nature, Dummy Variable Trap; Dummy Variable Model with Single Qualitative Variable, Two Qualitative Variables; Dummy Variable Model with Mixture of Qualitative and Quantitative Variables.

### **Model -VAutoregressive and Dynamic Models**

**10-Hours**

Role of Lag in Economics, Estimation Methods, Koyck's: Adaptive Adjustment and Partial Expectation Models; Almon Approach to Distributed Lag Models.

Nature, Simultaneous Equation Bias, Identification; Under - Exact - Over Identification; Rules of Identification - Order and Rank Condition of Identification; Estimation of Simultaneous Equations Models- ILS, 2SLS, 3SLS, LIMLE, FIMLE.

### **Reading list**

1. Badi, H. Baltagi (2011): *Econometrics*, Springer-Verlag Berlin Heidelberg, New York.

2. Dougherty, Christopher (2011): *Introduction to Econometrics*, Oxford University Press, UK.
3. Ghosh, Sukesh K. (1991): *Econometrics-Theory and Applications*, Prentice Hall, Englewood Cliffs, New Jersey.
4. Greene, William H. (2016): *Econometric Analysis*, Pearson, New Delhi.
5. Gujarati, Damodar N., Dawn C. Porter and Sangeetha Gunasekar (2017): *Basic Econometrics*, (5<sup>th</sup> Edition) Tata McGraw Hill Bombay.
6. Julia, Hebden (2000): *Statistics for Economics*, Heritage Publication, Oxford University.
7. Koutsoyiannis, A. (2000): *Theory of Econometrics*, (2<sup>nd</sup> Edition) MacMillan Publication, London.
8. Madani, G.M.K. (2015): *Introduction to Econometrics: Principles and Applications* (8<sup>th</sup> Edition) Principles and applications, Oxford & IBH Publishers.
9. Maddala, G. S. (2016): *Introduction to Econometrics*, Wiley India, New Delhi.
10. Ramanathan, Ramu (2015): *Introductory Econometrics with Applications*, South-Western Cengage Learning, New Delhi.
11. Theil, H. (1981): *Introduction to Econometrics*, Prentice-Hall, Englewood Cliffs, New Jersey.
12. Wooldridge, J. M. (2016): *Introductory Econometrics: A Modern Approach*, Thomson South-Western, Akash Press, New Delhi.

## **COURSE CODE: PG34T 305A: RURAL DEVELOPMENT (Specialization /Optional paper)**

### **Course outcomes**

- ❖ This course provides the students with the basics of rural development, including concepts, characteristics, problems, theories and approaches and programmes implemented for rural redevelopment in India.
- ❖ It also enables the students to study the various aspects of poverty and unemployment in India, transferring the rural economy-economic diversification in rural areas and the role of infrastructures in rural development.
- ❖ At the end of the course, the students will be able to understand the problems, approaches, programmes implemented for the development of rural economy in India and understand the essentiality to design the new policies and programmes for sustainable development of rural economy in India.

### **Module-I: Nature and Scope of Rural Development**

**8 Hours**

Need for Rural Development; Concept, Objectives and Indicators of Rural Development; Characteristics of Rural Economy; and Rural-Urban Linkage

### **Module-II: Theories and Approaches to Rural Development**

**12 Hours**

Unbalanced Growth Theory; Dualistic Models Of Development- Lewis Model And Fei And Ranis Model; Approaches To Rural Development In India

### **Module-III: Poverty and Unemployment in Rural India**

**18 Hours**

Rural Poverty-Concept, Poverty Line, Measurement, Poverty Trends, Regional Pattern of Poverty and Causes of Poverty; Unemployment- Concept, Measurement, Trends, Regional Pattern and Causes of Unemployment; Review of Current Poverty Alleviation and Employment Generation Programmes in India.

### **Module-IV: Transferring Rural Economy**

**18 Hours**

Importance of Agriculture and Allied Activities in Rural Development; Rural Non-Agricultural Employment in India- Importance, Growth, Regional Pattern and Determinants; MSMEs-Concept, Classification Importance, Progress, Problems and Remedial Measures; Rural Industrialisation-Importance, Programmes, Progress and Problems of Small- Scale Industries (SSI) and Remedial Measures

### **Module-V: Infrastructures for Rural Development**

**14 Hours**

Rural Infrastructures- Meaning, Classification, Importance, Problems; Educational and Health infrastructure; Housing and Sanitation; Drinking Water Supply; Rural Energy; Rural Transport and Communication; Rural Electrification

### **Reading List:**

1. Biradar, R. R. (2012): *Incidence of Poverty among Social Groups in Rural India: Why do the Poorer Remain Poor?*, Institute for Social and Economic Change (ISEC), Bangalore.
2. Biradar, R.R.(2009): *Rural Non-Agricultural Employment in India: An Analysis of Its Determinants and Impact on Poverty and Inequality*, Concept Publishing Company, New Delhi
3. Chambers, R. (1983): *Rural Development: Putting the Last First*, Longman, Harlow.
4. Dandekar, V.M. and N. Rath (1971): *Poverty in India*, GIPE, Pune.

5. Dantwala, M. L. (1973): *Poverty in India: Then and Now, 1870-1970*, Macmillan, Bombay.
6. Dantwala, M. L. and Others (Ed) (1986): *Indian Agricultural Development since Independence: A Collection of Essays*, Oxford and IBH Publishing Co.Pvt. LTd. New Delhi.
7. Desai, Vasant (2015): *Rural Development*, Himalaya Publication, Mumbai.
8. Gupta. K .R. (Ed) (2003): *Rural Development in India*, Atlantic Publishers and Distributors, New Delhi.
9. Jain, Gopal Lal (1997): *Rural Development*, Mangal Deep Publications, Jaipur,.
10. Maheshwari, S. R. (1985): *Rural Development in India*, Sage Publications, New Delhi.
11. Satya Sundaram, I. (2015): *Rural Development*, Himalaya Publishing House, Delhi.
12. Singh, Katar (1986): *Rural Development: Principles, Policies and Management*, Sage Publications, New Delhi, (Second Edition).
13. Srinivasan, T. N. and P. K. Bardhan (Eds.) (1974): *Poverty and Income Distribution in India*, Statistical Publishing Society, Calcutta.
14. Prasad, B. K. (2003): *Rural Development: Concept, Approach and Strategy*, Sarup and Sons, New Delhi.
15. Moni, M. and Suresh Misra (2009): *Rural India: Achieving Millennium Development Goals and Grassroots Development*, Concept Publishing Company, New Delhi.
16. Mondal, Sagar and G. L. Ray (2011): *Rural Development*, Kalyani Publishers, New Delhi.
17. Saminathan, M. S. (2010): *Integrated Rural Development*, Concept Publishing Company, New Delhi.

## **COURSE CODE: PG34T 305B: FINANCIAL INSTITUTIONS AND MARKETS-I**

### **Course Outcome:**

- ❖ Students would have knowledge regarding money market, capital market, stock exchange i.e. Indian Financial System which is the backbone of the country.
- ❖ To familiar students about the relationship between financial development and economic development.
- ❖ To impart knowledge to students about controller of financial system, e.g. RBI, SEBI, etc.
- ❖ Identify the existence and development of primary and secondary market, debt market, new financial instruments which are utilize and effectively participate in the development process.

### **Module-I: Financial Markets**

**12 Hours**

Money Market: Introduction - Functions, Efficiency - The Indian Money Market-Role of RBI in the Money Market - Money Market Centres - Steps to Develop Money Market in India - Money Market Instruments - Treasury Bills, Commercial Paper, Commercial bills, Certificates of Deposit, Call/Notice Money Market, Money Market Derivatives - Collateralised Borrowing and Lending Obligation (CBLO) - Link between the Money Market and the Monetary Policy in India - Tools for Managing Liquidity in the Money Market.

### **Module-II: Capital Market**

**10 Hours**

Introduction, History, Functions, Types, Scams and Reforms - The Primary Market - Introduction, Free Pricing Regime and Book Building - New Issue Mechanism in India, Primary Issues, and Resource Mobilization form the Primary Market, Mutual Funds.

### **Module-III: Secondary Market**

**12 Hours**

Introduction, Stock Exchanges National and Regional - Measures to boost Liquidity in the Secondary Market - Market Making System - Impact of Reforms and Measures on Secondary Market Activities.

### **Module-IV: Derivatives Market and Debt Market**

**16 Hours**

Derivatives Market: Introduction - Forwards and Futures - Futures Trading Strategies - Options - Trading Strategies - Derivatives Market in India - Derivatives Trading in India.

Debt Market: Introduction - Private Corporate Debt Market - Public Sector Undertaking Bond Market - Government Securities Market.

### **Module -V: New Financial Instruments**

**10 Hours**

New Financial Instruments - Meaning - Floating Rate Bonds - Zero Interest Bonds - Deep Discount Bonds - Revolving Underwriting Finance Facility (RUFF) - Auction Rated Debentures (ARD) - Secured Premium Notes (SPNs) with Detachable Warrants - Non-Convertible Debentures (NCDs) with Detachable Equity Warrants - Tradable Warrants - Fully Convertible Debentures - Domestic Convertible Bonds - Differential Shares - Securitized Paper - Collateralized Debt Obligations (CDO) - Inverse Float and Perpetual Bonds - Municipal Bonds.

### Reading List:

1. Bhole, L. M. (2000): *Indian Financial System*, Chugh Publications. Allahabad.
2. Edminster, R. O. (1986): *Financial Institutions: Markets and Development*, Yale, London.
3. Goldsmith, R. W. (1969): *Financial Structure and Development*, Yale, London.
4. Hanson, J.A. and S. Kathuria (Eds.) (1999): *India: A Financial Sector for the Twenty First Century*, Oxford University Press, New Delhi.
5. Harker, P.T. and S. A. Zenios (2000) (Ed.): *Performance of Financial Institutions*, Cambridge University Press, Cambridge.
6. Johnson, J.J. (1993): *Financial Institutions and Markets*, McGraw Hill, New York.
7. Khan, M. Y. (2009): *Indian Financial System*, Tata McGraw-Hill Education, New Delhi.
8. Machiraju, H. R. (2010): *Indian Financial System*, Fourth Edition, Vikas Publishing House Pvt. Ltd., New Delhi.
9. Ohlson, J.A. (1987): *The Theory of Financial Markets and Institution*, North Holland, Amsterdam.
10. Parameswaran R and Natarajan S. (2013): *Indian Banking: For the Students of B.com/B.A. and Management Courses*, S. Chand and Co Ltd, New Delhi.
11. Pathak, Bharati V. (2014): *The Indian Financial System*, Pearson Education, New Delhi India.
12. Prasad, K.N.: *Development of India's Financial System*, Sarup & Sons, New Delhi.
13. Robinson, R. I. and D. Wrightman (1981): *Financial Markets*, McGraw Hill, London.
14. Smith, P.F. (1978): *Money and Financial Intermediation: The Theory and Structure of Financial System*, Prentice Hall, Englewood-Cliffs, New Jersey.
15. Vasant Desai. (2017): *The Indian Financial System and Development*, Himalaya Publishing House, Mumbai.

## **COURSE CODE: PG34T 305C: DEMOGRAPHY (Specialization /Optional)**

### **Course Outcome:**

- ❖ To understand meaning, nature, scope and importance of demography. Relationship between development and population growth.
- ❖ Understand various theories of population and their implications for India.
- ❖ To understand structure and characteristics of Indian population,
- ❖ To understand an analysis of Indian Population Policy

### **Module-I: Introduction**

**12-Hours**

Meaning, Nature and Scope of Demography; Population Theories- Pre- Malthusian, Malthusian and Post- Malthusian Theories; Theory of optimum Population; Theory of Demographic Transition.

### **Module-II: Fertility and Mortality**

**12-Hours**

Meaning and Measurement of Fertility, Factors Affecting Fertility in the Developed and Less Developed Countries; Mortality-Meaning and Measurement of Mortality- Factors Affecting Fertility in the Developed and Less Developed Countries; Infant Mortality- Meaning and Measurement of Infant Mortality and Factors Affecting Fertility in the Developed and Less Developed Countries.

### **Module-III: Migration and Urbanization**

**12-Hours**

Meaning and Importance of Migration in the Study of Population; Types and Causes of Migration – Levels, Trends and Differentials in the DCs and LDCs; Urbanization-Meaning, Process of urbanization, Reasons for Growing Urbanization and Impact of Urbanization.

### **Module-IV: Effects of In-migration and Out-migration**

**12-Hours**

Effect of In-migration and Out-migration on the Growth of Population- Factors Affecting Migration- Theories Concerning Internal Migration-Urbanization , Todaro Model: Distribution and Growth of Urban and Rural Population in DCs and LDs; Levels and Trends of Urbanization in DCs and LDCs and Particularly in India.

### **Module-V: Population Policies in India**

**12-Hours**

Population Policies and their Impact on Fertility in DCs and LDCs; Nature, Scope and Need for Population Education; Demographic Trends in India; Population of India from 1971 to 2011 Censuses; and Family Welfare Programmes in India; The New Population Policy of India.

### **Reading List:**

1. Agarwal, S. N.(2016): *India's Population Problems*, Tata McGraw Hill , Bombay.
2. Bhende, A. and Kanitkar T.: *Principles of Population Studies*, Himalaya Publication House , Mumbai.
3. Bogue , D.J. (1971): *Principles of Demography*, John Wiley , New York.
4. Bose, Ashish (1974): *Pattern of Population Change in India*, Vikas Publishing House, New Delhi.
5. Choubey, P. K. (2000): *Population Policy in India*, Kanishka Publication New Delhi.
6. Choubey, P.K. (2000): *Population Policy in India*, Kanishka Publication, New Delhi.
7. Ghosh, B.N.: *Population Economics*, Deep and Deep Publications, New Delhi.

8. Government of India: *Population Census Reports: 1951 to 2011*, Government of India.
9. Hans Raj: *Fundamentals of Demography*, Surjeet Publications , Delhi.
10. Kammeyar Kenneth (Ed.) (1975): *Population Studies*, Rand McNally, Chicago
11. Mishra, B. D.: *An Introduction to Study of Population*, South Asian Publishers, New Delhi.

## **COURSE CODE: PG34T 305D: ENVIRONMENTAL ECONOMICS**

### **Course Outcomes:**

- ❖ Understand the linkages between economic activities and environment;
- ❖ Analyse the nature of resource scarcity and develop mechanisms for optimum resource use;
- ❖ Measuring the impact of environmental degradation on India's economy, polity and people's health;
- ❖ Developing and applying tools for valuation of environmental damages; and
- ❖ Identifying the global environmental issues to understand India's role in contributing to achieving sustainable development.

### **Module-I: Elements of Economics of Environment**

Meaning, Nature and Scope of Environmental Economics; Elements of Ecology; Interaction between Ecological and Economic Systems; Environment-Development-Poverty Nexus; Sustainable Development-Concept and Operationalisation

### **Module-II: Economics of Natural Resource Use**

Resource Taxonomy; Economics of Exhaustible Resources- Scarcity Rents, Hotelling's Theory of Optimum Depletion and Recent Developments; Economics of Renewable Resources; Resource Scarcity as Limits to Growth; Pricing of Resources; Energy and Economic Development; Loss of Bio-diversity

### **Module-III: Environmental Regulation**

Market Failures - Externalities – Meaning and Types - Divergence between Social Cost and Private Cost - Market Failure – Internalization of Externalities - Pigouvian Solution - Coase's Theorem and Its Critique - Property Rights Collective Action —Public Goods and Externalities - Free Rider Problem – Tragedy of the Commons; Theory of Environmental Regulation- Command and Control Versus Market Based Instruments, Standards, Quotas, Tradable Permits;

### **Module-IV: Environmental Pollution and Management**

Extent, Causes and Consequences of Degradation of Land, Water, Forests and Air; Common Property Resources – Contributions and Management; Pollution Abatement; Climate Change-Extent, Impact, Adjustment and Mitigation; Issues in International Trade and Environment; People's participation in management of natural resources (water and trees); Environmental Regulation System in India- Design, Monitoring and Enforcement; Environmental Ethics

### **Module-V: Valuation of Environment**

Use values; Option values and non-use values; Valuation methods-Methods based on observed market behaviour; Hedonic property values and household production models (travel cost method and household health production function), Methods based on response to hypothetical markets, contingent valuation methods; Environmental Impact Assessment; Integrated Economic and Environmental Accounting.

### **Reading List:**

1. Barry C. Field, Martha K. Field. (2013): *Environmental Economics - An Introduction*, The McGraw-Hill Co., New York.
2. Baumol, W.J. and W.E. Oates (1998): *The Theory of Environmental Policy*, Cambridge University Press, Cambridge.
3. Bhattacharya, R. N. (Ed.) (2001): *Environmental Economics: An Indian Perspective*, Oxford University Press, New Delhi.
4. Chopra, Kanachan and C. H. Hanamantha Rao (2007): *Growth, Equity, Environment and Population*, Sage Publications, New Delhi.
5. Daly, H.E. (1999): *Ecological Economics and Ecology of Economics: Essay and Criticism*, Edward Elgar, Cheltenham, UK, Northampton, MA, USA.
6. Hanley, N., J. F. Shogren, White, B. (2001): *Introduction to Environmental Economics*, Oxford University Press, New Delhi.
7. Hanley, N., J. F. Shogren and B. White: *Environmental Economics*, Macmillan, New Delhi.
8. Hartwick, J. M and N. Olewiler (1986): *The Economics of Natural Resource Use*, Harper and Row Publishers, New York.
9. Karpagam, M. (2012): *Environmental Economics: An Introduction*, Sterling Publishers, New Delhi.
10. Kerr and Others (Eds.)(1997): *Natural Resource Economics: Theory and Applications for India*, Oxford University Press, New Delhi.
11. Rangarajan C. (1998): *Indian Economy: Essays on Money and Finance*, UBS, New Delhi.
12. Sen, R. K. and B. Chatterjee (2001): *Indian Economy: Agenda for 21<sup>st</sup> Century* (Essay in Honour of Prof.P.R.Brahmananda), Deep & Deep, New Delhi.
13. Sengupta, R. (2003): *Ecology and Economics*, Oxford University Press, New Delhi.
14. Shankar, U. (Ed.) (2001): *Environmental Economics*, (Readers in Economics) Oxford University Press.
15. Singh, Katar and Anil Shishodia (2007): *Environmental Economics; heory and Applications*, Sage Publications, New Delhi.
16. Sinha, Udai Prakash (2007): *Economics of Social Sector and Environment*, Concept Publishing Company, New Delhi.
17. Tietenberg, T, Lynne Lewis. (2016): *Environmental and Natural Resource Economics*, 10<sup>th</sup> Edition, Pearson Education House, London.
18. World Bank (1992): *World Development Report, 1992: Environment and Development*, Oxford University Press, New Delhi.

**COURSE CODE: PG34T 305E: THEORY OF CO-OPERATION (Specialisation/Optional paper) New Course**

**Course Outcomes:**

- ❖ Knowledge on cooperation helps to understand the theories, concepts, principles, social, economic and moral benefits and its value
- ❖ Understanding of theoretical and structural aspect of co-operative organisation. And create awareness how it differs from the capitalism, socialism and its place in planned economy is possible.
- ❖ It helps to understand the evolution of cooperative models and principles including Raiffeisen Model, Schulze-Delitzsch Model and Rochdale Model; Co-operation and other economic systems:
- ❖ The study of cooperation also helps to understand the cooperative doctrines of ancient, modern cooperation viz Utopian Co-operative doctrines -Robert Owen, Dr. William King and Charles Fourier -Socialistic Ideas and Co-operation G.D.H. Cole and Charles Guide-Fair Price Theory.
- ❖ It also helps understand the state level cooperation, state aid, advantages, its limitations, officials and non-officials in co-operative movement

**Module-I: Introduction**

**10 Hours**

Concept of Co-operation - Definition - Scope - Importance of Co-operation - Economic Benefits, Social Benefits, and Moral Benefits of Co-operation - Evolution of Co-operation - Principles of Co-operation - A Critical Evaluation of Co-operative Principles – Co-operative Values.

**Module-II: Structure of Co-operatives**

**14 Hours**

Theoretical and Structural Aspect of Co-operative Organisations - Small Size Vs Large Size, Limited vs Unlimited Liability, Federal vs Unitary Structure - Formal and Informal Co-operation; Co-operatives as an Organization- Co-operative Society as a Business Organization - Differentiation with other Forms of Organizations such as: Capitalism, and Socialism - Place of Co-operatives in a Planned Economy.

**Module-III: Evolution and Models of Co-operation**

**14 Hours**

Models of Co-operation - Evolution of Co-operative Principle - Rochdale Principles - ICA Principles-1937, 1966, 1995 - Raiffeisen Model - Schulze-Delitzsch Model and Rochdale Model; Co-operation and Other Economic Systems: Capitalism, Socialism and Mixed Economy, Co-operation versus Capitalism and Socialism.

**Module-IV: Contributions to Co-operatives**

**14 Hours**

Co-operative Doctrines - Ancient and Modern Form of Co-operation - Utopian Co-operative doctrines - Robert Owen, Dr. William King and Charles Fourier - Socialistic Ideas and Co-operation - Theory of Consumer Socialism, A Theory of Workers Control of Co-operatives - Contribution of G.D.H. Cole and Charles Guide-Fair Price Theory.

**Module-V: State and Co-operation**

**8 Hours**

Different forms of State aid - Advantages and Limitations of state aid - Officials and Non-officials in Co-operative Movement.

**Reading List:**

1. Ajit Kumar N.: *Co-operation*, Himalaya Publishing House, Mumbai,
2. Bedi, R. D. (1980): *Theory, History and Practice of Cooperation*, Loyal Book Depot, Meerut.
3. Hajela, T. N.(1994): *Co-operation: Principles, Problems and Practice*, Konark Publishers, New Delhi.
4. Krishnaswamy, O. R. and Kulandhiswamy V. (2000): *Co-operation: Concept and Theory*, Arudra Academy, Coimbatore, Tamil Nadu.
5. Mathur, B.S.(1994): *Co-operation in India*, Sahitya Bhawan, Agra.
6. Sharada, V. (1986): *Theory of Co-operation*, Himalaya Publishing House, Bombay.

**COURSE CODE: PG34T 305F: ECONOMICS OF INFRASTRUCTURE  
(Specialisation/Optional)**

**Course Outcomes**

- ❖ Students will understand basic **Economics** theories and models required for **infrastructure** sector understanding.
- ❖ Students will exhibit the ability to integrate technical, **economic**, social and regulatory frameworks for **Infrastructure** sector planning and resource management.
- ❖ Students will be able to demonstrate clear understanding of concepts Infrastructure economics and policy
- ❖ Able to apply this knowledge to the analysis of specific infrastructure economics issues in India

**Module-I: Introduction**

**12 Hours**

Meaning; Infrastructure and Economic Development; Infrastructure as a Public Good; Special Characteristics of Public Utilities – The Peak Load, Off-load Problem, Dual Principle Controversy, Economies of Scale, Pricing of Infrastructure Services; State's Role in Infrastructure Development – Rationale and Strategy.

**Module-II: Economic Infrastructure**

**14 Hours**

Concept and Significance; Role of Transport (Road, Air, and Marine), Communications, Irrigation, and Information in Development; Development of Economic Infrastructure in India; Sector Specific Problems – Problems of Individual Modes of Transport – Inter-modal Co-ordination; Financing and Pricing Problems

**Module-III: Energy Economics**

**10 Hours**

Primacy of Energy in the Process of Economic Development; Factors Determining Demand for Energy; Effects of Energy Shortages; Energy Conservation; Renewable and Non-conventional Sources of Energy; The Search for an Optimal Energy Policy in India.

**Module-IV: Social Infrastructure**

**10 Hours**

Concept and Significance; Social Infrastructure and Human Development; Development of Social Infrastructure in India; Financing and Pricing Problems; Sector-specific Problems – Housing, Education, Health, Drinking Water Supply and Sanitation.

**Module-V: Commercialization of Infrastructure**

**14 Hours**

Need for Commercialization; Strategies for Commercialization – Corporatization, Privatization; Public-Private Provision of Social services; Problems in Commercialization – Financing, Pricing, Risk Management, Users' Involvement; State's Role in Infrastructure Reforms.

**Reading List:**

1. Gowda, Sreenivasa, M.V. and S. Subramaniam (Eds.) (1997): *Infrastructure Development for Economic Growth*, Deep and Deep Publications, New Delhi.
2. Indian Council of Social Science Research (ICSSR) (1976): *Economics of Infrastructure*, Vol. VI, New Delhi

3. Joshi, B.N. (1990): *Infrastructure for Economic Development in India*, Ashish Publishing House, New Delhi.
4. Kessides Christine (1993): *The Contributions of Infrastructure to Economic Development: A Review of Experience and Policy Implications*, World Bank Discussion Paper No. 213.
5. National Council of Applied Economic Research (NCAER) (1996): *India Infrastructure Report: Policy Implications for Growth and Welfare*, New Delhi
6. World Bank (1994): *World Development Report, 1994: Infrastructure for Development*, Oxford Uni. Press, New York.
7. Parikh, K.S. (Ed) (1997): *India Development Report, 1997*, Oxford University Press, New Delhi.
8. Parikh, K.S. (Ed.) (1999): *India Development Report, 1999-2000*, Oxford University Press, New Delhi.
9. Pachauri, R.K. (Ed.) (1980): *Energy Policy for India*, Macmillan, New Delhi.
10. Guru, D.D. and A. Qamar (1988): *Energy and Economic Development*, Sage Publications, New Delhi
11. Tilak, J.B.G. (1994): *Education for Development of Asia*, Sage Publications, New Delhi.
12. World Bank (1983): *World Development Report, 1983: Investing in Health*, Oxford University Press, New York.

## **COURSE CODE: PG34T 306: KARNATAKA ECONOMY (Open Elective Course)**

### **Course Outcomes**

- ❖ The objective of this course is to teach the students about sectoral aspects of Karnataka economy.
- ❖ To make the students to understand historical and geographical features of Karnataka economy.
- ❖ To study in detail regional disparities and state finance.

### **Module-I: Introduction**

**10 Hours**

Karnataka in the Indian Economy; Natural Resources; trends in state per-capita income; Net District; Indicators of Economic Development; ; Indicators of Human Development.

### **Module-II: Agricultural Development**

**12 Hours**

Land Use Pattern in Karnataka-Trend in Area, Production, Major Crops- Regional Pattern of agriculture Production-Horticultural/Plantation Crop, Vegetables-Fruits-Floriculture-Sericulture-Live Stock Economy- Agricultural Marketing-Agricultural Finance- Agriculture Prices-Agrarian Crisis.

### **Module-III: Industrial Development**

**12 Hours**

Industrial Structure (Major, Medium and MSMEMS) - policies and programmes- Industrial Finance-Co-operatives commercial Banks-RRB's-KSFC, SIDRP and KSIIDC.

### **Module-IV: Infrastructure Development**

**12 Hours**

Present State of Development; Economic Infrastructure-Irrigation, Power, Transport and Communication; Social Infrastructure-Education and Health; Planning for Infrastructural Development.

### **Module-V: Regional Disparities and State Finance**

**14 Hours**

Position and Extent, Causes and Consequences; the causes for backward area; criteria for Identification of Backward areas; Measures to reduce imbalance; Trends in sources of Finance; Revenue and non Revenue sources; Sharing of Central Taxes and Grants-in-Aid; Trends in Expenditure Pattern Development or non-development; Trends in indebtedness of the state.

### **Reading List:**

1. Government of Karnataka (2005): *High Power*. Committee for Redressal of Regional Imbalances (HPCRR), Government of Karnataka, Bangalore
2. Government of Karnataka (2015): *Human Development: Performance of District, Taluks and Urban Local Bodies in Karnataka, 2014: A Snapshot*, Planning, Programme Monitoring and Statistics Department of Government of Karnataka, Bengaluru (<http://planning.kar.nic.in> – Human Development Division).
3. Government of Karnataka: *Economic Survey of Karnataka*, Government of Karnataka (Various Annual Reports) (<http://planning.kar.nic.in>)
4. Gowda, Sreenivasa and T. Nanjegowda: *Economic Development of Karnataka: Leading Aspects*.

5. Heggade, Odeyar D: *Karnataka Economy*:
6. Madaiah M. (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Mumbai.
7. Madaiah, M. and R. Ramapriya (1989): *Karnataka Economy: Growth, Issues and Lines of Development*, Himalaya Publishing House, Delhi.
8. Puttaswamaiah, K, (1980): *Economic development of Karnataka: A Treatise in Continuity and Change*, Oxford and IBH Publication.
9. Rao, Hemalatha (1984): *Regional Disparities and Development in India*, Ashish Publishing House, New Delhi.

## **M.A. ECONOMICS**

### **IV SEMESTER**

#### **COURSE CODE: PG34T 401: INDIAN PUBLIC FINANCE**

##### **Course Outcomes**

- ❖ This course aims to enable the students to understand various aspects of Indian public finance and policy which include the trends and patterns of public revenue in India, public expenditure, budget and fiscal policy, public debt and its management.
- ❖ It also aims at understanding the federal finance, center-state financial relations and transfers, state and local finances.
- ❖ At the end of the course, the students will be able to understand various forms of budget and preparation of budget and public policies for effective provision and management of Indian public assets, goods and services.

##### **Module-I: Public Revenue**

**14 Hours**

Sources of Revenue-Tax and Non-Tax Revenue; Trends and Patterns of Tax Revenue– Direct and Indirect Taxes; Direct Tax Code; Indirect Taxes – Goods and Services Tax (GST)- Objectives, Classification of GST, Tax Rates, Trends and Patterns of GST and Impact of GST on Indian Economy; Tax Reforms in India-Review of Earlier Committees and Evaluation of Kelkar and Chellaiah Committees; Agricultural Taxation- Importance of Agricultural Taxation - Present Position of Agricultural Taxation - Burden of Agricultural Taxation in India and Proposals – K. N. Raj Committee Report 1972.

##### **Module-II: Public Expenditure and Debt**

**14 Hours**

Structure and Trends in Public Expenditure of Central and State Governments, Causes for Increase in Public Expenditure; Expenditure Control and Accountability – Fiscal Responsibility and Budget Management (FRBM) Act; Issues in Public Expenditure- Equity, Efficiency, Welfare and Social Security; Impact of Public Expenditure on Indian Economy; Recommendations of Expenditure Reforms Commission (ERC) in India.

Sources of Public Debt - Internal and External - Burden of Public Debt- Public Borrowings and Crowding out of Private Investment; Trends, Structure and Redemption of Public Debt in India.

##### **Module III: Budget and Fiscal Policy**

**14 Hours**

Classification of Budgets and Budget Preparation - Budgetary Deficits: Concepts, Significance and Estimation; Deficit Financing – Methods and Implications; Government Accounting – Techniques of Budgetary Control; Analysis of Current Budget; Fiscal Policy – Objectives, Techniques and Targets of Fiscal Policy, Interdependence between Fiscal and Monetary Policies, Fiscal Policy and Stabilisation; Automatic and Discretionary Stabilisation- Long term Fiscal Policy.

##### **Module-IV: Fiscal Federalism**

**10 Hours**

Principles of Federal Finance- Fiscal Federalism in India- Assignment of Functions and Sources of Revenue – Constitutional Provisions; Finance Commissions and Devolution of Resources- Grants –in-aid- Resource Transfer from Union to States and Local Bodies-

Criteria for Transfer of Resources; Centre – State Financial Relations in India – Problems of States Resources and Indebtedness.

**Module-V: State and Local Finances**

**8 Hours**

State Finance-Introduction, Source of State Finance- Revenue and Capital Account; Financial Trends and Fiscal Consolidation; Local Finance- Introduction, Multi-level Governance-Local Bodies and their Functions - Finances of Local Bodies - Local Taxation, Criteria for Resource allocation to the local bodies-14<sup>th</sup> Finance Commission Recommendations.

**Reading List:**

1. Annigeri, V. B., R. S. Deshpande and Ravindra Dholakia (Eds.) (2018): Issues in Indian Public Policy, Springer, Singapore.
2. Bagchi A. (2005) : *Readings in Public Finance*, Cambridge University Press, New Delhi
3. Bhatia, H. L. (2015): *Public Finance*, Vikas Publishing House Pvt. Ltd., New Delhi.
4. Chand, S. N. (2013): *Public Finance*, Atlantic Publishers and Distributors (P) Ltd., New Delhi.
5. Government of India: *Annual Budget Reports*, Ministry of Finance, New Delhi.
6. Jha, Rajesh K. (2012): *Public Finance*, Pearson Education House Ltd., Delhi.
7. Lekhi, R.K. and Joginder Singh (2015): *Public Finance*, Kalyani Publishers, New Delhi.
8. Malhotra, Rajeev (2014): *India Public Policy Report 2014*, Oxford University Press, New Delhi.
9. Om Prakash (2016): *Public Economics: Theory and Practice*, Vishal Publishing Co. Jalandhar-Delhi.
10. Rao, Govind (2010): *Public Finance: Theory and Practice Essay in Honour of A.Bagchi*, Sage Publications, New Delhi.
11. Ray, Partha (2013): *Monetary Policy*, Oxford University Press, New Delhi.
12. Singh, S.K. (2015): *Public Economics: Theory and Practice* S. Chand and Co., New Delhi.
13. Tyagi B.P. and H. P. Singh (2016): *Public Finance*, Jayaprakashnath and Company, Meerut, India.

## **COURSE CODE: PG34T 402: INTERNATIONAL TRADE AND FINANCE – II**

### **Course Outcomes**

- ❖ Deep understanding about multilateral trading systems, international financial transactions and financial institutions
- ❖ Familiarize the students about theories on International capital flow and their empirical testing
- ❖ Deep understanding about multilateral trade body's (GATT and WTO), principles, objectives, agreements, trade negotiations, trade dispute settlements, present status and prospects
- ❖ Familiarize the students about international financial transactions: Balance of payment, exchange rate theories and determination
- ❖ Working of International financial institutions such as IMF, World Bank, and Regional financial institutions

### **Module-I: Globalization, WTO and the Developing Countries**

**12-Hours**

**World Trade Organization-** General Agreements on Tariffs and Trade (GATT) to World Trade Organization (WTO); Objectives and Functions; Trade Related Intellectual Properties (TRIPs); - Trade Related Investment Measures (TRIMs); General Agreements on Trade in Services (GATS); Trade and Environment; Doha Development Rounds- Recent Developments in WTO, Future of WTO; Regionalism vs Multilateralism; Developing Countries in the Globalization era; TRIPS and GATS; India's foreign trade before and during the WTO regime; Trade Reforms in India; competitiveness of Indian industries.

### **Module-II: Balance of Payments**

**16-Hours**

Balance of Payments Accounting- Equilibrium and Disequilibrium in the Balance of Payments (BOP); Adjustment Mechanism of BOP- Traditional, The Elasticity Approach, Marshall-Lerner Condition, Absorption and Monetary approaches for adjustment in Balance of Payments; Mundell-Fleming Model; Causes for Disequilibrium; Removal of Disequilibrium; Foreign trade multiplier; Monetary and Fiscal Intervention; Devaluation and BOP Crisis- Capital Flight.

#### ***India's BOP and exchange Rate policies in the 1990s***

BOP crisis and reserves position in the early 1990s; Devaluation; LERMS/partial convertibility; managed float of Rupee-Dollar rate.

### **Module-III: Foreign Exchange Markets and Exchange Rates**

**12-Hours**

Introduction-Functions of the Foreign Exchange Markets; Foreign Exchange Rates; Equilibrium Foreign Exchange Rates; Arbitrage; The Exchange Rate and the Balance of Payments.

Spot and Forward Rates, Currency Swaps, Futures, and Options- Foreign Exchange Risks, Hedging, and Speculation; Interest Arbitrage and the Efficiency of Foreign Exchange Markets; Eurocurrency or Offshore Financial Markets. Exchange Rate Determination; Mint

Parity Theory and Purchasing Power Parity; Other Forms of Exchange Rate Arrangements Today - Fixed or Floating Exchange Rates; Objectives and Methods of Exchange control

**Module IV: The International Monetary System: Past, Present, and Future 10-Hours**

The Gold Standard and the Interwar Experience-The Bretton Woods System; The Gold-Exchange Standard; Borrowing from the International Monetary Fund; Operation of the Bretton Woods System; Evolution of the Bretton Woods System; U.S. Balance-of-Payments Deficits and Collapse of the Bretton Woods System-

***The International Monetary System: Present and Future***

Operation of the Present System; Current IMF Operation; Problems with Present Exchange Rate Arrangements; Proposals for Reforming Present Exchange Rate Arrangements; Financial Crises in Emerging Market Economies; Other Current International Economic Problems.

**Module-V:International Resource Movements & Multinational Corporations 10-Hours**

Introduction; International Capital Flows; Conceptual framework—Types, The theory of transnational corporations and foreign direct investment; The investment development path and the emergence of TNCs from developing and transition economies; Application of the theory to TNCs from developing and transition economies; Competitive advantages, drivers and motives; Sources of competitive advantages; Drivers to internationalization; Home country drivers (push factors); Host country drivers (pull factors);Empirical evidence on drivers (push and pull).

Motives and Welfare Effects of International Capital Flows; Multinational Corporations – Effects on the Investing and Host Countries; Labour Migration - Motives and Effects of International Labour Migration.

**Reading List:**

1. Carbough, R.J. (2017): *International Economics*, (16<sup>th</sup> Edition) International Thompson Publishing, New York.
2. Dana, M.S. (2017): *International Economics: Study, Guide and Workbook*, (5<sup>th</sup> edition), Rutledge Publishers, London.
3. Gita Gopinatha, Elhanan, Helpman Kenneth and Regoff (2014): *Handbook of International Economics*, Elsevier Publications
4. Jackson, J. (1998): *The World Trading System*, Cambridge University Mass Press,
5. Jagdish, N. Bhagwati (1983): *Dependence and Interdependence* (Ed.) by Gane Grossman, Vol.2, Basil Blackwell, Oxford.
6. Kenen, P.B. (2000): *The International Economy*, (4<sup>th</sup> Edition) Cambridge University Press, London.
7. Kindleberger, C.P. (1978): *International Economics*, (6<sup>th</sup> Edition) R.D.Irwin Homewood.
8. Krugman, P.R. and M. Obstfield (2012): *International Economics: Theory and Policy*, (9<sup>th</sup> Edition) Addison-Wesley Publications.
9. Metzler: *Readings in International Economic*, American Economic Series.
10. Salvatore, D. (2014): *International Economics*, (11<sup>th</sup> Edition), MacMillan Publication.
11. Soderstein, B. (1993): *International Economics*, MacMillan, London.
12. Soderstein, B. and Reed, Geoffrey (1994): *International Economics*, (3<sup>rd</sup> Edition) MacMillan, London.

13. Vaish, M. C. and Sudama Singh (2010): *International Economics*, (8<sup>th</sup> Edition), Oxford and IBH Publication, New Delhi.
14. World Investment Report (2006): *FDI from Developing and Transition Economies: Implications for Development*, UNCATD Publication ([www.unctad.org/en/docs/wir2006\\_en.pdf](http://www.unctad.org/en/docs/wir2006_en.pdf).)

## **COURSE CODE: PG34T 404: APPLIED ECONOMETRICS**

### **Course Outcomes**

- ❖ This course aims at understanding the procedures useful in modeling and forecasting time series data.
- ❖ It also aims at familiarizing the students with recent advances in time series analysis that have affected the developments of the theory of dynamic econometrics.
- ❖ This is a course for applied econometrics deal with advanced models forecasting in different complex situations.
- ❖ Demonstrate the knowledge of applications of vector auto-regressions and models for volatility, panel data models in Economics

### **Module-I: Regression with Qualitative Dependent Variable**

**10 Hours**

Nature of Qualitative Variables - Linear Probability Model– advantages and disadvantages of LPM; its Types – Logit, Probit, and Tobit Model for Grouped and Ungrouped Data - Their Application in Economics.

### **Module-II: Forecasting and Univariate Time Series Models**

**16 Hours**

Introduction - Types of Forecasting Methods-Qualitative and Quantitative Methods; Measuring the Accuracy of Forecasting Models- Statistical methods- the Naïve Forecast-Simple Moving Average Forecast- Trend Forecast; Graphical Methods of Forecasting Accuracy.

*Univariate Time Series Models:* MA Model- Definition, Properties, Identification, Estimation and Forecasting; AR Model- Definition, Properties, Estimation and Forecasting; Mixed Auto Regressive Moving Average Models (ARMA) – Definition, Properties, Parameters, Estimation and Forecasting; ARIMA models.

### **Module-III: Vector Auto-Regressions and Models for Volatility**

**12 Hours**

Introduction - Stationary and Non-Stationary Stochastic Process; Testing of Unit Root; Co-integration

- Tests for Co-integration - Engel-Granger Test - Johansen Test; ECM; VAR and Causality, Some Problems with VAR Modeling; Measuring Volatility – The ARCH (p) Model and GARCH (p, q) Model - Their Application in Economics.

### **Module-IV: Panel Data Models**

**12 Hours**

Why Panel Data? - Estimation - Fixed Effects Method - All Coefficient Constant across Time and Individuals - Slope Coefficients Constant but Intercept Varies across Individuals - Slope Coefficients Constant but Intercept Varies Over Individuals as Well as Time - All Coefficients Vary across Individuals - Random Effects Method - Fixed Effects v/s Random Effects Model - Hausman Test - Their Application in Economics.

### **Module-V: Econometric Applications in Economics**

**10 Hours**

Engle Curves - Demand curves, and Complete demand systems: With linear expenditure system as an example - Production functions - Cobb-Douglas, Leontief, CES, VES and their proprieties - Technical change - Cost functions and duality - Income distributions (lognormal and pareto) - Measures of inequality, and Poverty studies - Macro consumption and savings function - Permanent and relative income hypotheses - Investment function - Accelerator and distributed-lag models - Neoclassical models - Endogeneity and dynamic models.

**Reading List:**

1. Badi H. Baltagi (2005): *Econometric Analysis of Panel Data*, 4<sup>th</sup> Edition, John Wiley & Sons, Ltd.
2. Desai, Meghnad (1976): *Applied Econometrics*, McGraw Hill Publishing Company Ltd., New York
3. Dominick Salvatore and Derrick Reagle (2002): *Statistics and Econometrics: Theory and Problems*, Second Edition, Schaum's Outline Series, McGraw-Hill, New Delhi.
4. Gujarati, Damodar N., Dawn C. Porter and Sangeetha Gunasekar (2017): *Basic Econometrics*, (5<sup>th</sup> Edition) Tata McGraw Hill Bombay.
5. Gujarati, D.N. (2011): *Econometrics by Example*, Palgrave Macmillan Pvt. Ltd.
6. Harvey, A. C. (2000): *Econometric Analysis of Time Series*, Phillip Allen, London.
7. Intriligator, M. D. (1978): *Econometric Models, Techniques and Applications*, Englewood Cliffs, N.J., Prentice-Hall, North-Holland.
8. Kerry Patterson (2000): *An Introduction to Applied Econometrics a Time series Approach*, Palgrave Macmillam Pvt. Ltd.
9. Koutsoyiannis, A. (2000): *Theory of Econometrics*, MaC Millan Publication, London.
10. Maddala, G.S. (2000): *Econometrics Methods and Applications*, Aldershot, U.K.
11. Patricia, E Gaynor and R.C. Kirkpatric (1994): *Introduction to Time Series Modelling and Forecasting in Business and Economics*, McGraw Hill, New Delhi.
12. Robert S. Pindyck and Daniel L. Rubinfeld, (2000): *Econometric Models and Economic Forecasts*, McGraw Hill- Kogach Usha Tokyo.
13. Sufi M. Nazem (1988): *Applied Time Series Analysis for Business and Economic Forecasting*, Marcell Dekker, Inc New York
14. Enders, Walter (2010): *Applied Econometric Times Series*, John Wiley & Sons, Ltd.
15. Wooldridge, J.M. (2000): *Introductory Econometrics: A Modern Approach*, South western College Publications.

## **COURSE CODE: PG34T 405: MANAGERIAL ECONOMICS (New Course)**

### **Course Outcomes:**

- ❖ To estimate and forecast demand for a firm
- ❖ To design strategies for achieving production maximization and cost minimization
- ❖ Analyse production and pricing decision of a firm under different markets conditions

### **Module-I: Introduction to Managerial Economics**

**8 Hours**

Meaning, Nature and Scope; Relationship of Managerial Economics to Economic Theory as well as Decision Science; Organization of Business Firms - Concepts and Types of Business Organization, Proprietorship, Partnership, Joint Stock Company, Corporation, Co-operatives. Objectives of Firms; Case Study Method: Analyze a Case and Usefulness of Case Study.

### **Module-II: Demand Estimation and Forecasting**

**12 Hours**

Identification Problem - Marketing Research Approaches - Regression Analysis - Problems in Regression Analysis - Demand Estimation; Demand Forecasting: Time Series Analysis - Smoothing Techniques - Barometric Methods - Econometric Models.

### **Module-III: Optimization Technique: Linear Programming**

**12 Hours**

Problems of Optimization - Linear programming for Optimization -Meaning, Assumptions and Applications of Linear Programming - Basic Linear Programming Concepts - Procedure used in Formulating and Solving Linear Programming Problem - Linear Programming and Profit Maximization - Linear Programming and Cost Minimization - Graphical Solution and Simplex Method - Dual Problem and Shadow Prices - Linear Programming and Logistics in the Global Economy - Game Theory and Optimization Technique in Decision Making Process.

### **Module -IV: Pricing Practices and Strategies and Profit Analysis**

**16 Hours**

*Pricing Practices:* Specific Pricing Problems - Popular Pricing Practices: Cost-Oriented Pricing, Cost-Plus Pricing and Other Price Determinants, Peak - Load Pricing, Price over the Life Cycle of the Product, Penetration Price - Pricing of Multiple Products - Price Discrimination - International Price Discrimination and Dumping - Transfer Pricing.

*Profit Analysis:* Nature and Function of Profits: Business versus Economic Profit - Theories of Profit: Residual Claimant Theory, Wage Fund Theory, Dynamic Surplus Theory, Innovation Theory - Profit Policy - Break- Even Analysis and Profit Measurement, Profit Forecasting.

### **Module -V: Capital Budgeting**

**12 Hours**

Meaning and Importance - Capital Budgeting Process. Capital Budgeting Decisions - Factors Influencing in Investment Decision - Methods used for Investment Decisions: Cost-Benefit Analysis, Steps for Capital Project Evaluation, Techniques for Investment Appraisal - Sources of Fund for Long-Term Financing - Measurement of Cost.

**Reading List:**

1. Keat Paul G. and Philip K.Y. Young, *Managerial Economics- Economic Tools for Today's Decision Makers*, Prentice Hall, New Jersey.
2. Mc Guigon R. James, R. Charles Moyer, Frederick H Deb, Harris (2002), *Managerial Economics: Applications, Strategy and Tactics*, South Western, USA
3. Mehta P.L., *Managerial Economics: Analysis, Problems and Cases*, Sultan Chand and Sons, New Delhi.
4. Petersen H. Craig and W. Cris Lewis, *Managerial Economics*, Maxwell Macmillan International Editions, New York.
5. Salvatore Dominick, *Managerial Economics in a Global Economy*, McGraw Hill Inc., New York.
6. Samuelson William F, and Stephen G. Marks, *Managerial Economics*, John Wiley and Sons, Inc., New Jersey.
7. Shankaran S. *Managerial Economics*, Margham Publications, Madras.
8. Thomas Christopher R. and Charles Maurice S., *Managerial Economics*, McGraw-Hill Irwin, Boston.

**COURSE CODE: PG34T 406A: INSTITUTIONS FOR RURAL DEVELOPMENT  
(Specialization /Optional paper)**

**Course Outcomes:**

- ❖ The objectives of this course are to familiarize the students with local institutions involved in mobilization of the weaker sections of the society and motivating to take pro-active role in rural development, to understand the institutions involved in provision of credit and agricultural marketing facilities for rural development, co-operative societies, participatory rural development institutions and micro-leveling planning.
- ❖ At the end of the course, it will enable the students to understand various aspects of rural development and build their institutional capabilities to commit themselves for development of rural areas by providing necessary inputs

**Module-I: Introduction to Institutions**

**10 Hours**

Institutions- Meaning, Importance and Classification - Class and Caste, Marriage, Family; Rural Credit Institutions; Rural Markets; Co-operatives; Panchayat Raj Institutions; Non-Government Organisations, Self-Help Groups, Resource Users' Association, Rural Leadership, Land Reforms.

**Module-II: Rural Credit Institutions**

**10 Hours**

Non-institutional Credit Lending Agencies and Institutional Credit Lending Agencies- Credit Co-operative Societies (PACs and PCARDBs/PLDBs); Commercial Banks; Regional Rural Banks; Apex Institutions-RBI and NABARD; Impact of Financial Sector Reforms on Rural Credit Delivery System.

**Module-III: Agricultural Marketing**

**12 Hours**

Agricultural Marketing-Meaning, Types and Defects and Government Measures for Removal of Defects; Co-operative Marketing Societies-Meaning, Structure, Importance, Progress, Problems and Remedial Measures; Regulated Markets- Meaning, Functions/Importance, Progress, Defects and Remedial Measures; Forward Marketing-Meaning, Importance, Progress and Prospects.

**Module-IV: Co-operative Societies**

**14 Hours**

Co-operative Movement in India- Historical Perspective, Structure, Principles and Role of Co-operatives in Economic Development; Co-operative Farming- Meaning, Importance, Forms, Progress and Problems and Remedial Measures; Co-operative Processing- Meaning, Structure, Importance, Progress, Defects and Remedial Measures.

**Module-V: Participatory Institutions and Micro Level Planning**

**14 Hours**

Peoples' Participation and Panchayat Raj Institutions (PRIs)- Structure, Functions, Resources, Performance, Problems and Remedial Measures; Non-Government Organizations (NGOs)-Meaning and Topology of NGOs, Importance of NGOs; Problems of NGOs and Remedial Measures; Micro-level Planning and Peoples' Participation.

### Reading List:

1. **Bhose, Joel S. G. R. (2003): NGOs and Rural Development, Concept Publishing Company New Delhi**
2. Cheshire, Lynda, V. Higgins and G. Lwarence (2012): *Rural Governance: International Perspectives*, Routledge, New York.
3. Crowell, Daniel W. (2005): *The SEWA Movement and Rural Development*, Sage Publications, New Delhi.
4. Das, Purnendu Sekhar (Ed.) (2005): *Decentralized Planning and Participatory Rural Development*, Concept Publishing Company, New Delhi.
5. **Hajela, T. N. (1969): Principles, Problems and Practice of Co-operation, Lalwani, Bombay.**
6. **Mathur, B. S (1999): Co-operation in India, Sahitya Bhawan Publishers and Distributors (P). Ltd, Agra.**
7. Misra, R. P. and R. N. Achyutha (1998): *Micro-Level Rural Planning: Principle, Methods and Case Studies*, Concept Publishing Company, New Delhi.
8. Palanithurai, G. P. (1999): *New Panchayati Raj System at Work: An Evaluation*, Concept Publishing Company New Delhi.
9. Rajasekhar, D. (2004): *Poverty Alleviation Strategies of NGOs*, Concept Publishing Company, New Delhi.
10. Rajasekhar, D. (Ed) (1999): *Decentralized Governance and NGOs: Issues, Strategies and Ways Forward*, Concept Publishing Company New Delhi.
11. Rajasekhar, D. and R. R. Biradar (2004): *Reluctant Partners Coming together: Interface Between People, Government and the NGOs*, Concept Publishing Company, New Delhi.
12. Singh, Katar (1986): *Rural Development: Principles, Policies and Management*, Sage Publications, New Delhi.
13. Singh, Nagendra P. (Ed.) (1982): *Role of Financial Institutions in Rural Entrepreneurship and Development*, MDI Publication, New Delhi.
14. Singh, R. (1990): *Panchayat Raj and Rural Organizations*, Chuagh Publications, Allahabad.
15. Sinha, S. K. (1998): *Rural Credit and Co-operatives in India*, Suneja Publishers, New Delhi.
16. Sreenivasa, Gowda, M. V. and Susheela Subrahmanya (1997): *Infrastructure Development for Economic Growth*, Deep and Deep, New Delhi.

## **COURSE CODE: PG34T 406B: FINANCIAL INSTITUTIONS AND MARKETS-II**

### **Course Outcome:**

- ❖ It provides a path to follow research in general area of economics and business.
- ❖ Students will be understanding the Indian financial system, Non-Bank Financial Institutions, Insurance, Investment Banking, Merchant Banking, Mutual Funds Insurance, Foreign Exchange Market and Financial Sector Reforms.
- ❖ Students would gain understanding of primarily about estimation and hypothesis testing. What is different and generally much more interesting and useful is that parameter being estimated and tested.
- ❖ To familiarise the students fully with the changing role of financial institutions in the process of economic growth and development in India.

### **Module-I: Financial Systems in India**

**10 Hours**

Financial System: Significance and Definition - Purpose and Organization. Financial System and Economic Development; Financial Intermediation and Economic Development in India

### **Module-II: Non-Bank Financial Institutions (NBFIs)**

**14 Hours**

The Fundamental aspects of NBFIs - New Theory of Finance - Role and Significance of NBFIs and Monetary Theory in Developed Countries and Developing Countries - The Structure and Growth of NBFIs in India - Financial Sector Reforms - Liberalization Measures for NBFIs (1996) - Limits on Acceptance of Deposits - Size of NBFIs - Distribution of Deposits - Capital Issues of Finance Companies - assets of NBFIs - Investment Norms for NBFIs - Deployment of Funds-Leasing Companies.

### **Module-III: Insurance, Investment Banking, Merchant Banking & Mutual Funds 16 Hours**

**Insurance:** Growth and Structure of Insurance Companies - Life Insurance Corporation and its Progress - General Insurance Companies and their Functions - Reforms in the Insurance Sector

**Investment banking:** Investment Banks- Introduction, Functions, Types - Investment Banking Services and Commercial Banks - Their Activities.

**Merchant Banking:** Introduction - Banking Commission Report (1972) - Merchant Banking in India - Regulations of Merchant Banking - Prospects - General Obligations and Responsibilities.

**Mutual Funds:** Introduction - Mutual Funds in India - Types of Mutual Funds

- Return from Mutual Funds - SEBI's Directives - Private Mutual Funds - Asset Management Company - Unit Trust of India - Evaluation of the Performance of Mutual Funds - Components of investment Performance - Market Timing-Money Market Mutual Funds - RBI Guidelines.

### **Module-IV: Foreign Exchange Market**

**10 Hours**

Market Regimes and Rates-Trading in foreign Exchange Markets - Speculation - Foreign Exchange Rates - Market Makers - Liberalized Exchange Rate Management System, 1992 - Capital Account Convertibility - Relationship between Exchange and Money Markets -

Foreign Exchange Market foreign Currency Accounts - Currency Arbitrage - Hedging with Options.

**Module - V: Financial Sector Reforms**

**10 Hours**

Regulation of Non-Bank Financial Intermediaries and the RBI - Need for Comprehensive Monetary Policy - RBI and Financial Sectors Reforms.

**Reading List:**

1. Bhole, L.M. (1999): *Financial Institutions and Markets*, Tata McGraw Hill Company Ltd., New Delhi.
2. Bhole, L. M. (2000): *Indian Financial System*, Chugh Publications. Allahabad.
3. Khan, M. Y. (2009): *Indian Financial System*, Tata McGraw-Hill Education, New Delhi.
4. Machiraju, H.R. (2019): *Indian Financial System*, Fifth Edition, Vikas Publishing House Pvt. Ltd., New Delhi.
5. Madaiah, M. (1971): *Financial Intermediaries, Monetary Policy and Economic Development*, Prasara, Mysore.
6. Nirmala, Prasad and Chandradass J. (2016): *Banking and Financial System*, Himalaya Publishing House, Mumbai.
7. Parameswaran, R. and Natarajan S. (2013): *Indian Banking*, S. Chand and Co, New Delhi.
8. Pathak, Bharati V. (2011): *The Indian Financial System: Markets, Institutions and Services*, Pearson Education, New Delhi, India.
9. Reserve Bank of India: *Report on Currency and Finance* (latest edition).
10. Reserve Bank of India: *Trends and Progress of Banking in India* (latest edition), Mumbai.
11. Varshney and Sundaram (2014): *Banking Theory, Law and Practice*, Sultan Chand and Sons, New Delhi.
12. Vasant, Desai (2017): *The Indian Financial System and Development*, Himalaya Publishing House, Mumbai.

**COURSE CODE: PG34T 406C: HUMAN RESOURCE MANAGEMENT  
(Specialisation/Optional paper)**

**Course Outcome:**

- ❖ This course enables the students to understand thoroughly the theories of Human Resource Management and familiarize the students about the vital aspects of Human Resource Management-scope and its importance of HRM, economic and non-economic factors and their interactions, distinction between human resource and non-human resource, functions of HRM; planning, recruitment and selection. At the end of the course, it will enable the students to ensure efficient and effective human resource management.

**Module-I: Introduction**

**12-Hours**

Concept Of HRM- Meaning, Objectives, Scope And Its Importance; Economic And Non-Economic Factors And Their Interactions, Distinction Between Human Resource And Non-Human Resource

**Module-II: Functions Of HRM**

**12-Hours**

Functions of HRM; Planning, Recruitment And Selection, Training And Development, Compensation, Welfare And Industrial Relation Functions

**Module-III: Human Resource Planning**

**12-Hours**

Human Resource Planning (Hrp): Definition, Need And Process Of Hrp, Responsibility For Hrp, Job – Analysis And Its Components.

**Module-IV: Appraisal**

**12-Hours**

Performance Appraisal: Need And Significance- Setting Employees Performance, Objectives And Goals; Creating Organizational Conditions For Improving Employee Performance.

**Module-V: Management**

**12-Hours**

Emotional Intelligence IQ V/S EQ Creativity and Its Role In Management – Building Positive Attitude-Time Management And Stress Management

**Reading List:**

1. Aswathappa, K. (2000): *Human Resource And Personal Management*, Tata Mc Graw Hill, New Delhi.
2. Daniel, Goleman (2009): *Emotional Intelligence*, Bloomsbury Publishing, London.
3. David, Fortana (1991): *Stress Management*, Willey.
4. Holloway, J. (2000): *Performance Measurement And Evaluation*, Sage Publications, New Delhi.
5. Jim Mathewinan (2000): *Human Resource Planning*, Jaico Publish House, Bangalore. *Profits*, 8th Edition, McGraw-Hill/Irwin, Boston
6. Shankar, Digambar Bagade (2000): *Time Management*, Himalaya Publishing House, New Delhi.
7. Wayne, F. Cascio (2010): *Managing Human Resources: Productivity, Quality Of Work Life*,

**COURSE CODE: PG34T 406D: ENVIRONMENTAL HAZARDS AND DISASTER MANAGEMENT (NEW COURSE)**

**Course Outcomes:**

- ❖ To study the present conditions of ecological imbalance.
- ❖ To understand the causes and consequences of climate change
- ❖ To analyze the reasons for Environmental Hazards and Disasters.
- ❖ To evaluate policies towards mitigating climate change and other environmental hazards

**Module-I: Environmental Hazards**

Introduction - Changing Perspectives -Pre-1950, 1950-1999 and 2000 onwards - Paradigms of Hazard - The Dominant (Behavioural) Paradigm - The Radical (Structuralist) Paradigm - What are the Environmental Hazards - Natural Hazards - Technical Hazards -Tectonic Hazards: Volcanic Hazards - Biophysical Hazards: Thermal Extremes, Disease Epidemics and Wildfires - Hydrological Hazards - Floods - Droughts - Technological Hazards - The Growth of Industrial Hazards

**Module-II: Environmental Disasters**

Hazard, Risk and Disaster - Human Vulnerability to Disaster - Dimensions of Disaster - Disaster Reporting - Disaster Impact Assessment - Disaster Patterns - Reasons for Increasing - Disaster Impact

*Floods:* Types of Flood - River Floods - Coastal Floods - Causes of Floods - Beneficent Effects of Floods - Negative Effects of Flood.

*Drought and Desertification:* Concepts and Causes - Indicators - Impacts of Drought and Desertification - Importance of Remote Sensing in Desertification Control.

*Fire:* Causes and Consequences - Loss of Forest and Biodiversity.

*Acid Rain:* Causes, Effects, Prevention of Acid Rain - Individuals Efforts and Government Actions towards Control of Acid Rain.

**Module-III: Reducing the Impacts of Disasters**

Cost of Disasters - The Range of Options - Mitigation - Disaster Aid - Internal Government Aid - International Aid - Mitigation - Insurance - Government Insurance - Protection - Hazard Resistance - Macro-Protection - Micro-Protection - Adaptation - Preparedness - Adaptation - Land Use Planning

**Module-IV: International Environmental Concerns**

Pollution as a Global Problem - Greenhouse Effect - Ozone Depletion - Global Warming and Threat to Biodiversity - International Action for Environmental Protection - Helsinki Protocol (1985) and Montreal Protocol (1987) - Earth Summit (1992) - International Financing of Environmental Protection - Debt for Nature Swaps - Trade and Environment - Sustainability in Ecology - Sustainability in Ecological Economics.

**Module-V: Environmental Issues and Regulation in India**

The status of Air pollution - Water Pollution - Land Degradation - Causes and Effects of Environmental Degradation - Urban and Rural Environmental Problems - Evolution of Environmental Policy –Environmental Protection Act, 1986 - Fiscal Incentives - Enforcement and Implementation Issues - Pollution Control Board -National Disaster Management Authority (India).

### Reading List:

1. Baumol, W.J. and W. E. Oates (1998): *The Theory of Environmental Policy*, Cambridge University Press, Cambridge Canter, L.W., Environmental Impact Assessment, McGraw Hill, New York.
2. Cutter, S. L. (1999): *Environmental Risk and Hazards*, Prentice-Hall of India Pvt. Ltd., New Delhi.
3. Dixon, J. (1994): *Economic Analysis of Environmental Impacts*, Earth Scan Publications, London.
4. Freeman, III, A M. (2003): *The Economic Approach to Environmental Policy*, Edward Elgar, U K.
5. Jempa, C. and Munasinghe M. (1998): *Climate Change Policy: Facts, Issues and Analyses*, Cambridge University Press, Cambridge.
6. Kolluru Rao, Bartell Steven, Pitblado R. and Stricoff (1996): *Risk Assessment and Management Handbook*, McGraw Hill Inc., New York.
7. Lawrence, D. P. (2003): *Environmental Impact Assessment – Practical solutions to Recurrent Problems*, Wiley-Interscience, New Jersey.
8. Mehta S, Mundle S. and Sankar U. (1993): *Incentives and Regulation for Pollution Control*, Sage Publications, New Delhi
9. Michael, Common and Sigrid Stagl (2005): *Ecological Economics: An Introduction*, Cambridge University Press, Cambridge.
10. Raghavan, K. V. and A. A. Khan (1990): *Methodologies in Hazard Identification and Risk Assessment*, Manual by CLRI.
11. Sam Mannan, Lees (2012): *Loss Prevention in the Process Industries, Hazard Identification, Assessment and Control*, 4<sup>th</sup> Edition, Butterworth Heineman.
12. Shankar, U, (ed.) (2001): *Environmental Economics* (Readers in Economics) Oxford University Press
13. United Nations: *Accounting and Valuation of Environment*, Vol. I and II: A Premier for Developing Countries, ESCAP, New York.

## **COURSE CODE: PG34T 406E: CO-OPERATIVE MANAGEMENT**

### **Course Outcome:**

- ❖ The purpose of this paper is to familiarize the student with emergence of co-operative movement at the global level and in India.
- ❖ Students will understand the objectives and principles of co-operative management and marketing management.
- ❖ Students will learn about the marketing management and office management in India.

### **Module-I: Origin of Co-operative Movement:**

**11 Hours**

Cooperative Movement In: Germany -Great -Denmark - Japan - USA - Canada - Italy - Sweden - France And Israel; Origin And Growth Of Cooperative Movement In India - Pre-Independence Developments - Major Developments In The Post-Independence Period - Types Of Co-Operatives

### **Module-II: Concept of Management:**

**10 Hours**

Definition, Nature, Scope, Principles, Objectives, and Functions Cooperative Management - Importance of Management - Problems of Management.

### **Module-III: Management of Cooperatives:**

**16 Hours**

Principles of Co-operatives Management - Functions of Cooperative Management - Problems of Cooperative Management.

*Management of Credit Cooperatives:* Introduction - Structure - Objectives - Management Aspects - Managing Committee - Board of Directors -Chairman /Executives - Problems of Credit Co-operatives. *Management of Non-Credit Cooperatives:* Consumer Co-operatives - Marketing Cooperatives - Dairy Cooperatives - Housing Cooperation.

*Human Resource Management:* Human Resource Management in Co-operatives - Management Information System - Management Information System in Co-Operatives

### **Module-IV: Marketing Management:**

**13 Hours**

Cooperative Marketing Management in India - Management Aspects of Marketing Co-operatives - Objectives of Cooperative Marketing Management - Adoption of Cooperative Marketing Approach - Role of Cooperative Marketing Management - Marketing Intelligence and Integrated Marketing System.

### **Module-V: Office Management:**

**10 Hours**

Office Organization and Office Maintenance of Records - Distribution of Work Among Staff Members - Office Correspondence - Filing System - Maintenance of Records and Statistics.

### **Reading List:**

1. Kamat, G. S. (2011): *New Dimensions of Co-operative Management*, Himalaya Publishing House, New Delhi.
2. Kulandiswamy, V. (2003): *Principles and Practice of Co-operative Management*, Rainbow Publications, Coimbatore.
3. Nakkikron. S. (1984):*Co-operative Management*, Rainbow Publications, Coimbatore.
4. Ramkishan, Y. (2003): *Management of Co-operatives*, Jaico Publishing House, New Delhi.
5. Shah, A.K. (1989): *Functional Management for the Co-operative*, Rainbow Publishers, Coimbatore.

6. Varkey, V.O. and V.G. Vartak (1998): *Co-operative Management*, Varsha Prakasham Pune.

**COURSE CODE: PG34T 406F: ENERGY ECONOMICS (Specialisation/Optional Paper) (NEW COURSE)**

**Course Outcomes:**

- ❖ To understand the basic concepts of energy economics, sources of energy and importance of energy in economic development.
- ❖ To analyze the extent and factors affecting energy demand, energy supply, energy markets and Environmental consequences of energy use and policies and regulatory Mechanism for the sector.
- ❖ Evaluate performance on the basis of cost- benefit analysis.
- ❖ To learn about pricing, planning and policies adopted for ensuring energy Efficiency and conservation for sustainable development.

**Module-I: Energy Concepts**

**10 Hours**

Concepts - Definitions - Sources and Categories of Energy - Energy Balance Tables - Energy Data Sources - Energy System - Energy - Economy Linkages - Green Energy; Forms of Energy - Electricity, Coal, Oil and Renewable Sources - Availability and Features - Management of Energy Resources - Energy and Environmental Sustainability.

**Module-II: Energy Supply and Demand Analysis**

**18 Hours**

*Energy Supply Analysis:* Availability and Supply of Different Sources of Energy - Supply Constraints - Role of Renewable Sources of Energy - Institutional Framework for Energy Supply in India - Supply Scenario and Investment Requirements - Alternative Energy Sources - Energy Imports - Trends and Issues - Policies of the Government.

*Energy Demand Analysis:* Determinants of Energy Demand - Estimating Energy Demand - Methods of Estimation - Price and Income Elasticity - Demand Estimation under Administered Price Regimes - Demand - Supply Gap - Energy Shortage and Crisis - Need for Energy Demand Management - Renewable Energy Options.

**Module-III: Energy Pricing**

**10 Hours**

Need - Methods and Principles of Energy Pricing - Economic Efficiency and Equity Considerations - Pricing Under Supply Constrained Framework - Energy Markets - Regulation - Issues and Challenges.

**Module-IV: Energy Efficiency and Conservation**

**10 Hours**

Need - Principles and Methods - Energy Supply Side and Demand Side Management and Efficiency - Institutional Machinery and Community Engagement - Estimation of Benefits - Energy Audit - Policy Alternatives.

**Module-V: Energy Planning and Policy**

**12 Hours**

Approaches to Energy Planning - Principles and Components - Implementation Machinery - Decentralised Approach to Energy Planning - Planning for Energy Security - Integrated Energy Policy - Issues and Challenges; Alternative Energy Sources: Wind Energy - Solar Energy - Bio Mass Power - Waste-to-Power Small Hydro Power - Availability and Utilisation - Government Policies.

**Reading List:**

1. Kneese, A. V. and Sweeny, J L. (1985): *Handbook of Natural Resource and Energy Economics*. North Holland.
2. Munasinghe, M & Meier P. (1993): *Energy Policy Analysis and Modeling*, Cambridge University Press, U K.

3. Paul Stevens (Ed.) (1997): *The Economics of Energy Vol -I and Vol -II* Edward Elgar.
4. Sankar, U. (1992): *Public Sector Pricing: Theory and Applications*, Indian Economic Association Trust for Research and Development, New Delhi.



**KARNATAK**



**UNIVERSITY**

**DHARWAD**

**DEPARTMENT OF POST-GRADUATE STUDIES IN  
EDUCATION M.Ed. Course  
(I to IV Semesters)**

**REGULATIONS AND SYLLABUS**

**(CHOICE BASED CREDIT SYSTEM)  
(CBCS)**

With effect from 2015-2016  
and onwards

KARNATAK UNIVERSITY, DHARWAD

DEPARTMENT OF POST-GRADUATE STUDIES IN EDUCATION

SEMESTER (CBCS) COURSE

**REGULATIONS GOVERNING THE 2 - YEAR M.Ed. PROGRAMME PREPARED AS PER THE NCFTE & NCTE NORMS AND STANDARDS OF KARNATAKA UNIVERSITY UNDER (CBCS)**

In exercise of the powers conferred under Sec. 44 (1(c)) of the Karnataka State Universities Act, 2000, the Academic Council of Karnatak University frames the following Regulations :

**1.0 TITLE :**

The Regulations shall be cited as Karnatak University's Regulations 2015-2016 governing the 2 year Semesterised Post-Graduate Programme under Choice Based Credit System.

**2.0 COMMENCEMENT :**

These Regulations shall come into force with effect from the academic year 2015-2016 and onwards

**EXTENT OF APPLICATION :**

These Regulations shall also cover the Post-Graduate Programme in education leading to M.Ed. degree being conducted in the Colleges/Institutes, and P.G. Centres and all such institutions recognized for the purpose and affiliated to Karnatak University.

**COMMENCEMENT :**

These Regulations shall come into force from the date on which they are approved by the Chancellor or on such other date as directed by the Chancellor.

**3.0 DEFINITIONS**

In these Regulations, the expressions, "University", "University Area", "Department", "College", "Teachers" and "Principal" shall bear the same meaning as assigned to them under Sec. 2 of the Karnataka State Universities Act, 2002, NCTE Guidelines and Gazette of India, Extraordinary Notification December-2014.

The connotations 'Elementary Education' and 'Secondary Education' presently mean to cover respectively Standards I-VIII and Standards IX-XII of school education in Karnataka. The coverage has stood all along invariably connotations to two successive levels of school education.

**POST - GRADUATE SEMESTER COURSE REGULATIONS  
DEPARTMENT OF STUDIES IN EDUCATION**

**1.0 Courses Offered and Duration of the Course :**

- 1.1** M. Ed. course is 2 year professional course with Four Semesters. Each semester shall extend over a period 16 - 18 weeks, i.e., minimum 100 working days per year. The intervening summer vacation (1) and winter vacation (2) summer should be used for field attachment /practicum/other activities.

**4.0 Eligibility Criteria for Admission:  
M.Ed. DEGREE COURSE**

- a) Candidates seeking admission to the M.Ed. programme should have obtained at least 50% marks or an equivalent grade in any one of the following teacher preparation/degree/diploma programmes:
- i. B.Ed. with any undergraduate degree (with 50% marks in each).
  - ii. B.A, B.Ed., B.Sc.B.Ed.
  - iii. B.El.Ed.
  - iv. D.El.Ed/D.Ed with any Undergraduate Degree i.e. B.A. B.Sc, B.Com etc., (with 50% marks in each).
- b) Candidate with B. Ed. degree of this University or degree of any other University recognized as equivalent thereto with not less than 50 % of marks in the aggregate, and 45% marks if he/she belongs to SC/ST/Cat-I categories are eligible to seek admission to the M.Ed. course.

Admission shall be as per Government of Karnataka Reservation Policy and the directions issued in this regard from time to time.

**5.0 Working Days :**

The M.Ed. shall be at least two hundred working days each year, exclusive of the period of admission and inclusive of classroom transaction, practicum, field study and conduct of examination. The institution shall work for a minimum of thirty six hours in a week during which faculty and students concerned with the conduct of the programme shall be available for interaction, dialogue, consultation and mentoring students.

**6.0 Admission Procedure :**

Admission shall be made on merit on the basis of marks obtained in the qualifying examination and in the entrance examination or any other selection process as per the policy of the State Government/Central Government/University/UT Administration.

However, who discontinue the programme after one or more semesters due to extraordinary circumstances are allowed to continue the programme with the

approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of the P.G. Programme.

#### **7.0 Medium of Instruction :**

The medium of instruction shall be English. However, candidates may be permitted to write their answers in the examination in Kannada if explicitly approved by the University passed on the options exercised by the students within 15 days from the date of commencement of the course during the academic year. This provision shall apply to all the assignment, dissertation, formal/periodical tests and semester end examinations to be attended by the candidate during the course.

#### **8.0 Programme Structure :**

- 8.1** The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 8.2** There shall be three categories of courses namely, compulsory Courses, Specialization Courses and Open Elective Courses.
- 8.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 8.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.
- 8.5** The Department of Education offers Two Open Elective Course for students of other Departments. The Students of the Department of Education shall choose Open Elective Course from among those prescribed by the University and selected by the Department of Education from time to time.
- 8.6** The credits for Compulsory courses shall be 4 and 8 Credits for Dissertation and for Open elective course it shall be 4.
- 8.7** A student shall register for 18 credits in first semester , 26 credits in second semester, 28 credits in third semester and 16 credits in Fourth semester. A student shall earn 88 credits in total during the two academic year.
- 8.8** The students shall undertake and commence dissertation work for the M.Ed. programme as a compulsory course from the First, Second, Third and Fourth semesters.
- 8.9** The detailed programme structure for M.Ed. shall be as prescribed and shown in Annexure-1.

**9.0 Attendance :**

- 9.1** Each semester shall be taken as a unit for purpose of calculating attendance.
- 9.2** Each student shall sign in the attendance register maintained by the Department of Education for each course for every hour/unit of teaching. The course teacher shall submit the monthly attendance report to the Chairperson of the Department of Education who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 9.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 9.4** A student enrolled in the M. Ed. programme shall be deemed to have satisfied the requirement of attendance if he has attended not less than 80% of the total number of the actual working hours which include lectures, seminars, dissertation guidance, practical taken together during each semester.  
The minimum attendance of students shall be 80% for Theory and Practicum, and 90% for Field Attachment.
- 9.5** Students should have 80% of attendance in each semester. There shall not be, however, any condonation where the attendance is less than 80%.
- 9.6** Students who do not satisfy the prescribed attendance requirements shall not be eligible to appear for the ensuing examination. Such candidates may seek admission afresh to the respective semester within a year so long the existing system prevails.
- 9.7** Such of the candidates who have participated in State / National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.
- 9.8** Candidate who discontinue the programme after one or more semesters due to extraordinary circumstances is allowed to continue the programme with the approval from the Registrar.

**10.0 Examination :**

- 10.1** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the P.G. Department of Education/ P.G. Courses in affiliated colleges of education. The even semester examinations shall be conducted by the University.
- 10.1.1** There shall be semester-end examination of 3 hours duration for 75 marks for compulsory and specialization courses. For open elective, there will be 75 marks and examination duration of 3 hours.
- 10.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the

Chairman/Chairperson of Department of Education and shall also pay the fees prescribed.

- 10.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1<sup>st</sup> semester-end examination. That will be the Register number of the candidate for all subsequent appearances and semester-end examinations.
- 10.1.4** The answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 10.1.5** The M.Ed. programme under CBCS is a fully Carry-Over System. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (Even Semester Examination in Even Semester and Odd Semester Examination in Odd Semester).
- 10.1.6** Candidates who have failed, remained absent or opted for improvement of performance in any papers/papers shall appear for such examination in the two immediate successive chances that are permitted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher. The rules and the regulations of the University which are in force shall be considered.
- 10.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examination may do so by submitting the application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.  
The Candidates who desire for Revaluation or Re-totaling subject to the provisions made by the University which are in force.  
The rules and the regulations of the University which are in force shall be considered.

**10.2 Odd Semesters Examination (I & III semesters) :**

- 10.2.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 10.2.2** The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 10.2.3** The office of the Registrar (Evaluation) shall despatch the question papers to the Departments/P.G. Centers/ Colleges who shall conduct the examinations according to the schedule announced by the University.
- 10.2.4** The Chairperson of the Department/ Administrator of the P.G. Centre/ Principal of the College shall appoint one of their full time course teachers as Post-Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts semesters.
- 10.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those Centers where an examiner for a particular course is not available,

then the answer scripts of that course shall be despatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.

**10.2.6** There shall be single valuation. The examiner (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.

**10.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be despatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the end of the (Evaluation) to the respective centers.

**10.2.8** The Office of the Registrar Evaluation shall process and announce the results.

**10.3.0 Even Semesters (II & IV Semesters) :**

**10.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**10.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.

**10.3.3** Each answer script of the semester-end examination (Theory and Dissertation) shall be assessed by two examiners (One Internal and another External). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearest marks of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5% or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**10.3.4** The dissertation work will commence from the First semester. It carries 200 marks for the Second, Third and Fourth Semester (50+50+100\*) the last 100 marks includes 75 marks for valuation by both internal and external examiners and 25 mark for viva voce examination. The Dissertation viva voce examination for the students of PG Departments and PG Centres / Affiliated Colleges/ Institutions will be conducted in the PG Department of Studies in Education, Karnatak University, Dharwad. Board of Studies for Post Graduate Education (BOS PG Education) will approve and finalize the panel of Examiners for the valuation of the Theory papers and Dissertation

**10.4 EVALUATION :**

**10.4.1** The M.Ed. programme shall have two evaluation components – Internal Assessment (IA) and the Semester End Exams.

**10.4.2** The IA component in a course shall carry 25% and the semester End Examination shall carry 75% respectively, as the case may be. Courses having 25% marks as

internal assessment shall have 3 marks allotted to attendance. However, dissertation will carry 200(50+50+75+25 viva voce examination) marks total.

**10.4.3** IA marks of all the semester of M.Ed. students of all the P.G. Departments and P.G. Centres/Colleges/Institutions should send to the Chairman/Coordinators, P.G. Department of Education, Karnatak University, Dharwad. And I.A. marks will be scrutinized by the Chairman and staff members of the P.G. Department of Studies in Education, Karnatak University, Dharwad

**10.4.4** For courses carrying 25% of marks for IA, the attendance marks for each course shall be as follows :

Attendance (in percentage)	Marks
Above 95	3
Above 90 and up to 95	2
Above 80 and up to 90	1
80	No marks

**10.4.5** In case of compulsory courses, there shall be 2 tests of 8 marks each and an assignment of 6 marks. In case of specialization courses, there shall be 2 tests of 8 marks each and seminar of 6 marks. In case of open elective course for students of other departments, there shall be 2 tests of 8 marks each and an assignment of 6 marks.

**10.4.5** The IA marks list shall be displayed on the Notice Board of the Department. As and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the university.

**10.4.6** The tests shall be written in answer books supplied by the University. The answer books after the completion of the evaluation shall be open for inspection by the students concerned when- ever such a request is made as prescribed by the university.

**10.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**10.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the Department/Centers/ Colleges for a period of Two Years from the last day of the 4<sup>th</sup> semester examination. These records may be called by the University or a Body Constituted by the University as and when deemed necessary.

**11.0 Maximum duration for completion of the Programme:**

**11.1** The M.Ed. programme shall be of duration of two academic years. The candidates shall be permitted to complete the programme requirements of the two-year programme within a maximum period of three years from the date of admission to the programme.

**11.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the prevailing syllabus.

**12.0 Declaration of Results :**

**12.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**12.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**12.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the P.G. Degree.

**12.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**13.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average :**

**13.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage marks	Credit Points	Letter Grade
75.00 to 100.00 %	7.50 to 10.00	A
60.00 to 74.90 %	6.00 to 07.49	B
50.00 to 59.94 %	5.00 to 5.99	C
40.00 to 49.94 %	4.00 to 4.99	D
Less than 40%	Less than 4.00	E

**13.2** Credit Point (CP) : The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**13.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**13.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA shall be calculated by dividing the total number of credit points in all the

- (i) CGPA for the I semester = Sum of the CP of the I semester ÷ Sum of the credits of the I semester
- (ii) CPGA for the II semester = Sum of the CP of the I Sem + Sum of the CP of II Sem. ÷ Sum of the credits of the I semester + II semester.
- (iii) CPGA for the III semester = Sum of the CP of the I Sem + II Sem + III Sem ÷ Sum of the credits of I semester + II semester + III Semester.
- (iv) CPGA for the IV semester = Sum of the CP of the I Sem + II Sem + III Sem + IV Sem ÷ Sum of the credits of I semester + II semester + III Semester + IV Semesters.

**13.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**13.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class to be Awarded
7.50 to 10.00	First class with Distinction
6.00 to 7.49	First Class
5.00 to 5.99	Second Class
4.00 to 4.99	Pass
Less than 4.00	Fail

#### **14.0 Scheme of Instruction :**

##### **14.1 M. Ed. Course :**

**14.1.1** In the first semester there shall be 4 papers. In the second semester there shall be 4 papers, 1 Open Elective Course Subject and Dissertation, in the Third Semester there shall be Two papers on Areas of Specialization, One Open Elective Course Subject, and Internship, Submission of Dissertation and (ISB) Academic Writings. In the Fourth Semester there shall be Three Areas of Specialization Course and One Dissertation Component. Also there shall be Inter Semester Break (ISB) such as Communication and Expository Writing, Self-Development, Dissertation, Internship and Academic Writings.

- (i) 'Open Elective Course' means a course offered by Department for students of other Departments in the same school or in other schools. Students have freedom to choose from a number of optional courses offered by other Departments to add to their credits required for the completion of their respective programmes; (ii) Credit means the unit by means of which a course work is measured.

The Department of Education shall have 88 credits (18 credit in the First Semester, 26 credit in the Second Semester, 28 credit in the Third Semester and 16 credit in the Fourth Semester) for the course subject including Dissertation, Inter Semester

Break-I, Inter Semester Break-II, and Inter Semester Break-III. The Dissertation work shall commence ground work in the First Semester, in the Second Semester Field Work or Pilot Study and with the Dissertation being submitted at the end of Third Semester. Each paper shall carry 100 marks including Internal Assessment. Open Electives will be for 75 marks for theory and 25 for Internal Assessment.

**An Example of Curriculum Organisation Based on the Proposed Framework**  
*Curriculum Organization for Two -Year M.Ed. Program (Four Semesterised & CBCS Scheme)*

Curriculum Organization for Two Year B.A.M. Program (Four Semesters) (CBCS Scheme)						
Semester-I	ISB*I	Semester-II	ISB*II	Semester-III	ISB*III	Semester-IV
Psychology of Learning and Development (4 Unit & 4 Credit)	Communication and Expository Writing ( 1 Credit)  Self Development (1 Credit)	Philosophy of Education (4 Unit & 4 Credit)	Dissertation (2 Credit)  Internship In a Teacher Educational Institution (4 Credit)	Area of Specialization Course (8 Credit)	Dissertation (2 Credit)	3 Area Of specialisation Courses (12 Credit) (3X4)
History and Political Economy of Education (4 Unit & 4 Credit)		Sociology of Education (4 Unit & 4 Credit)		Research Methods (4 Unit & 4 Credit)	Academic Writing (2 Credit) Manuscript magazine	Dissertation (4 Unit & 4 Credit)
Educational Studies (4 Unit & 4 Credit)		Curriculum Studies (4 Unit & 4 Credit)		Teacher Education (4 Unit & 4 Credit)		
Introduction to Research Method and Statistic (4 Unit & 4 Credit)		Teacher Education-I (4 Unit & 4 Credit)		Internship (4 Unit & 4 Credit)		
		OEC- I (4 Unit & 4 Credit)		OEC- II (4 Unit & 4 Credit)		
		Field Visit/Practicum				
16 Credit	2 Credit	20 Credit	6 Credit	24 Credit	4 Credit	16 Credit

**ISB** : Inter Semester break

**Practicum:** Organisation of Workshops, Practicum activities and seminars to enhance Professional Skills and Understanding of the students shall be part of the teaching modality of the various taught courses.

**Field Visit:** Field Immersion/ Attachment/ Internship. There shall be core courses (which shall have about 60% of credits) and specialised courses in elementary education or secondary education and dissertation with about 40% of credits.

#### 15.0 Hours of Instruction (Contact Hours) Per Week:

#### 15.1 M. Ed. Course:

There shall be 36 contact hours per week (28 hours of Lectures + 16 hours of Practicum & Dissertation Guidance.) 2 hours of Practicum and Dissertation Guidance as being considered equal to one hour of lecture.

#### 16.0 Course Structure (for Each Semester)

- Compulsory Course- 4 credits per week
- Specialization Courses ( In III and IV semester) – 4 credits per week
- Open Elective Course – 4 credits per week.

- (d) The students shall register for credits in First Semester to Fourth Semester as per rules. The student has to clear the minimum credits per semester.

#### 17.0 Scheme of Examination:

- 17.1 There shall be a University Examination for all Semesters at the end of each semester.
- 17.2 The composition of theory and internal assessment for each paper shall be 75 and 25 respectively.
- 17.3 Duration of examination for theory paper of 75 marks shall be for 3 hours. Each theory question paper shall comprise of 6 main questions. Out of the first 6 main questions the student has to answer any four questions. Question No. 7 is compulsory which is a short note question. Each full question shall carry 15 marks.
- 17.4 All those enrolled in the M.Ed. programme shall write a Practicum and Dissertation under the Guidance of a course teacher during their Second semester. Dissertation shall carry 200 marks. The M. Ed. students shall submit the Dissertation one week prior to the last working day of the Fourth semester.( Annexure )

#### 18.0 Internal Assessment :

##### 18.1 M. Ed. COURSE :

- 18.1.1 In case of the theory papers the internal assessment shall be for 25 marks, assessed through 2 tests of 16 and one assignment / seminar for 6 marks.

#### Internal Assessment Component and Marks

	Test	Assignment	Seminar	Attendance	Total
<i>Compulsory Papers:</i>	2(16) *	one (6) *	-----	3	25
<i>Optional Papers:</i>	2(16) *	-----	one (6) *	3	25

\* Marks

##### 18.1.2 Time Schedule for Internal Assessment

The Chairperson of the Department shall notify the dates for tests.

#### 19.0 Miscellaneous:

- Notwithstanding anything contained in these regulations, the semester system at under-Graduate level is hereby replaced.
- The provisions of any order, Rules or Regulations in force shall be inapplicable to extent of its inconsistency with these Regulations.
- The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this regulations.
- The procedural details may be given by the University from time to time.
- Any unforeseen problem/ Difficulties may be resolved by the Vice Chancellor, Whose decision in the matter shall be final.

**KARNATAK UNIVERSITY, DHARWAD**  
**POST GRADUATE DEPARTMENT OF STUDIES IN EDUCATION**  
**TWO YEAR MASTER OF EDUCATION (M.Ed) COURSE**  
**FOUR SEMESTER and CBCS SCHEME 2015-2016.**

**Programme Structure**

The curriculum of the two-year M.Ed. programme as suggested in the NCTE Regulation, 2014 is as follows:

Major Components	Areas Covered	Description
<b>Common Core</b> (Theory and Practicum included)	Perspective Courses, Tool Courses, and Teacher Education Courses	<ol style="list-style-type: none"> <li>1. <b>Perspective Courses</b> in the areas of: Philosophy of Education, Sociology History-Political Economy of Education, Psychology of Education, Education Studies, and Curriculum Studies.</li> <li>2. <b>Tool Courses</b> comprising of basic and advanced level education research, academic writing and communication skills; educational technology and ICT; self-development (with focus on gender and society, inclusive education and mental and physical well-being through modalities such as yoga)</li> <li>3. <b>Teacher Education Courses</b> (which are also linked with the field internship/ immersion/attachment in a teacher education institution) will also be included in the core.</li> </ol>
<b>Specialization Branches</b> (Theory and Practicum included)	Courses in <b>any one</b> of the school levels/areas (such as Elementary, or Secondary and Senior Secondary) and further thematic specializations.	<p>The Specialization branches in one of the school stages: <b>Elementary Level</b> (upto VIII), or, <b>Secondary and Senior Secondary Level</b> (VI to XII), each with:</p> <ol style="list-style-type: none"> <li>1. Core courses, within Elementary/Secondary specialization, focusing on mapping the area</li> <li>2. Specialization/elective clusters in thematic areas pertinent to that stage, such as: <ul style="list-style-type: none"> <li>- Curriculum ;</li> <li>- Pedagogy and Assessment;</li> <li>- Policy, Economics and Planning;</li> <li>- Educational Management and Administration; Education for Differently Abled;</li> <li>- Education Technology, etc.</li> </ul> </li> </ol>
<b>Field Attachments /Internships /Immersion</b>	Teacher Education Institution (TEI)	<p>Field Attachments/ Internship/Immersion in:</p> <ol style="list-style-type: none"> <li>1. A Teacher Education Institution (TEI), and</li> <li>2. The Area of Specialization (Elementary Level or Secondary /Senior Secondary Level)</li> </ol>
	Related to specialization (Elementary or Secondary/ Senior Secondary)	
<b>Research leading to Dissertation</b>	Related to specialisation/ foundations	Students (in close mentorship of a faculty member) learn to plan and conduct a research, and write a thesis.

The above structure as been adopted by the NCTE taking into consideration the prevailing regulations. The modified course structure for the two-year M.Ed. Programme is as follows :

**Course Structure for the NCTE Two-Year M.Ed. Programme**  
**Semester-wise Distribution of the Course**

**Semester – I**

Course – 1 :	Psychology of Learning and Development	25+ 75 = 100	4 Credits
Course – 2 :	Historical, Political and Economic Foundations of Education	25 + 75 = 100	4 Credits
Course – 3 :	Educational Studies	25 + 75 = 100	4 Credits
Course – 4 a :	Methodology of Research in Education – I	25 + 75= 100	4 Credits
	<b>Total</b>	<b>400</b>	<b>16 Credits</b>

**ISB I**

Activity – I (a)	Communication and Expository Writing	10 + 15 = 25	1 Credit
Activity – I (b)	Self-Development	10 + 15 = 25	1 Credit
	<b>Total</b>	<b>50</b>	<b>2 Credits</b>

**Semester – II**

Course – 5 :	Philosophy of Education	25 + 75 = 100	4 Credits
Course – 6 :	Sociology of Education	25 + 75 = 100	4 Credits
Course – 7 :	Curriculum Studies	25 + 75 = 100	4 Credits
Course – 8 a :	Teacher Education – I	25 + 75 = 100	4 Credits
Course (OEC)	Teaching Strategies for Teachers	25 + 75 = 100	4 Credits
	<b>Total</b>	<b>500</b>	<b>20 Credits</b>

**ISB II**

Activity – II (a)	Dissertation	50	2 Credit
Activity – II (b)	Internship in a TEI	100	4 Credit
	<b>Total</b>	<b>150</b>	<b>6 Credits</b>

**Semester – III**

**Specialization in any ONE level : Elementary / Secondary and Senior Secondary**

Course – 9 :	Curriculum, Pedagogy and Assessment	25 + 75 = 100	4 Credits
Course – 10 :	Policy, Economics and Planning	25 + 75 = 100	4 Credits
Course – 4 b :	Methodology of Research in Education – II	25 + 75 = 100	4 Credits
Course – 8 b :	Teacher Education – II	25 + 75 = 100	4 Credits
Course – 11 :	Internship in Specialization	100	4 Credits
Course (OEC)	Educational Testing and Evaluation	25 + 75 = 100	4 Credits
	<b>Total</b>	<b>600</b>	<b>24 Credits</b>

**ISB III**

Activity – III (a)	Dissertation	50	2 Credit
Activity – III (b)	Academic Writing	50	2 Credit
	<b>Total</b>	<b>100</b>	<b>4 Credits</b>

**Semester – IV**

**Specialization in any ONE level: Elementary / Secondary and Senior Secondary**

Course – 12 :	Administration, Management and Leadership of Elementary or Secondary/Senior Secondary	25 + 75 = 100	4 Credits
Course – 13 :	Inclusive Education (Differently abled) of Elementary or Secondary/Senior Secondary	25 + 75 = 100	4 Credits

Course – 14 :	Education Technology at Elementary or Secondary/Senior Secondary	25 + 75 = 100	4 Credits
Course – 15 :	Dissertation	75 + 25 = 100	4 Credits
	<b>Total</b>	<b>400</b>	<b>16 Credits</b>



**DEPARTMENT OF POST-GRADUATE STUDIES IN  
EDUCATION M.Ed. Course**

**(I to IV Semesters)**

**Syllabus For Master of Education**

**(CHOICE BASED CREDIT SYSTEM)  
(CBCS)**

**With effect from 2015-2016  
and onwards**

### PRPGRAMME SPECIFIC OUTCOMES (PSOS)

After completion of this programme, the student will be able to:

- To build perspective and understanding of concepts, theories, ideas and practices across various fields of Education.
- To understand the historical, political and economical aspect of education.
- To provide research related experiences with the competency to independently develop dissertation and research work.
- To interpret the schools of philosophy and their educational significance.
- To get an insight into various educational policies and practices.
- To enable proper understanding and critical perspective about specialized areas of Education.

<b>Paper Code and Name</b>	<b>COURSE – 1 : PSYCHOLOGY OF LEARNING AND DEVELOPMENT</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand concepts and principles of Educational psychology as an applied science.
CO 2	To understand the historical, political and economical aspect of education.
CO 3	To provide research related experiences with the competency to independently develop dissertation and research work.
CO 4	To interpret the schools of philosophy and their educational significance.
CO 5	To enable proper understanding and critical perspective about specialized areas of Education.

PARTICULARS		Teaching Hours (Max. 40)
Unit 1: Nature of Educational Psychology		
<ul style="list-style-type: none"> <li>Educational Psychology: Concept and scope of educational psychology, contribution of psychology to education.</li> <li>Human Development: Concept, principles, sequential stages of development; factors influencing development and their relative role; general characteristics and problems of each stage.</li> <li>Theories of Piaget and Bruner- major concepts and stages and implications for education. Indian theories of Psychological Development.</li> </ul>	12 Hours	
Unit 2: Learning & Individual Difference		
<ul style="list-style-type: none"> <li>Learning: Concept, kinds, levels of learning, various view points on learning, Concept, kinds &amp; causes of individual difference</li> <li>Intelligence, Emotional Intelligence and cognitive abilities-Meaning, Concept, identification &amp; fostering.</li> <li>Interests, attitude and Aptitude.</li> <li>Motivation – Concept, Kinds &amp; Techniques of Motivation.</li> </ul>	8 Hours	
Unit 3: Creativity & Personality		
<ul style="list-style-type: none"> <li>Personality: Concept, development, structure and dynamics of personality</li> <li>Theories of Personality – Allport, Eysenck; Psychoanalytic approach of Freud, Murray’s need theory; Humanistic approach – Carl Rogers, Maslow &amp; Sri Aurobindo.</li> <li>Techniques of Assessment of Personality –               <ul style="list-style-type: none"> <li>a. Projective</li> <li>b. Non-Projective</li> </ul> </li> <li>Creativity – Nature, Process, Identification, fostering and guiding creative children.</li> </ul>	8 Hours	
Unit 4: Adjustment and Mental Health		
<p>Adjustment and Mental Concept &amp; mechanism of adjustment – defences, escape, withdrawal, compensatory.</p> <ul style="list-style-type: none"> <li>Introduction to common forms of neuroses, psychosis and somatic disorders</li> <li>Concept of mental health.</li> <li>Identification of Mental Health.</li> <li>Theoretical Basis of Mental Health.</li> <li>Factors influencing (Parents and family life, community and school practices)</li> <li>Mental Health &amp; Teacher.</li> <li>Principles of mental hygiene – preventive, constructive, curative measures &amp; Implications for education.</li> </ul>	12 Hours	

REFERENCES	
<ul style="list-style-type: none"> <li>• Bhatnagar, A.B Psychological Foundation Of Teaching &amp; Learning Published Meerut Loyal Depot.</li> <li>• Bhattacharya, Srinivasan “ Psychological Foundation Of Education” Published Delhi, Atlantic,</li> <li>• Bhatia, H.R, A text Book of Educational psychological, Delhi, university</li> <li>• Bigge &amp; Hunt “Psychological Foundation of Education” New York, Harper &amp; Row Publishers</li> <li>• Cronbach L.J., Educational psychology, New York, Harcourt</li> <li>• Dandekar, W.N “Psychological Foundation of Education” Madras, Macmillan</li> <li>• Praveena K. B. &amp; Srinivasa K. S. (2012). Encyclopaedia of Advanced Educational Psychology Vol.1 &amp; Vol.2. Anmol Publications. New Delhi.</li> <li>• Susanta Kumar Parida “ Psychological Foundation of Education”</li> <li>• Olson, W.C “Psychological foundation of the Curriculum”</li> <li>• Mathur, Dr. S.S Development of learner and teaching learning process (2008), agrwarl publications. Agra</li> </ul>	

Paper Code and Name	COURSE – 2: HISTORICAL, POLITICAL AND ECONOMIC FOUNDATIONS OF EDUCATION
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To acquaint the students with the political and economic of education
CO 2	To develop among the students an understanding of the financial aspects of education
CO 3	To understand the pre-independence and post-independence development of education in India.
CO 4	To understand the factors from historical perspectives that contributed to present education system.
CO 5	To explain the important features of various reports, commissions and policies of education during pre and post independence development of education- In India.

<b>PARTICULARS</b>		<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Foundation of Education</b>		
<ul style="list-style-type: none"> <li>• Foundation of education: Meaning, need, nature, concept, type and role in shaping education</li> <li>• Historical Perspective of Education</li> <li>• Political Perspective of Education</li> <li>• Economical Perspective of Education</li> </ul>		8 Hours
<b>Unit 2: Historical Foundation of Education</b>		
<ul style="list-style-type: none"> <li>• Origin and development of modern education in India.</li> <li>• Education in India during – Vedic, Buddhist and medieval, Islamic Periods, Colonial Period.</li> <li>• Education in Vedic Period, Education in Buddhist Period, Education in the Medieval Period, Education in Islamic Period, Education in British Period : Concept, Ideas, Agencies of Education, Organisation of Education, Teacher-Pupil relationship and their duties, curriculum, methods of Teaching, Women Education, relevance to the present day education.</li> </ul>		8 Hours
<b>Unit 3: Political Foundation of Education</b>		
<ul style="list-style-type: none"> <li>• Relationship of Education and Politics with special reference to Democracy and Secularism in Indian context</li> <li>• Multiple School Contexts- rural/urban; minority/denominational/ government</li> <li>• Educations and Democracy, Constitutional Provisions for Education, Nationalism and Education.</li> <li>• Study and Review the impact on Indian Education of the following Pre independent policies : Macaulay's minutes ; Wood's dispatch ; Hunter's Commission ; Sargent's Report ; Sadler Commission 1917-19</li> <li>• Study and Review the impact on Indian Education of the following post- independent policies : University Education Commission ; Constitutional Provision of Education ; National Policy on Education, (1986) ; Programme of Action (1992) ; NCF (2005) ; NCFTE (2009)</li> <li>• RTE Act 2009</li> <li>• Secondary Education Commission</li> <li>• Kothari Commission (1964-66)</li> </ul>		12 Hours
<b>Unit 4: Economic Foundation of Education</b>		
<ul style="list-style-type: none"> <li>• . Formation of Human Capitals</li> <li>• Knowledge Industries and knowledge occupations</li> <li>• Contribution of education to development</li> <li>• Education and labour market: Investment in education, skill based education</li> <li>• Youth unemployment and education</li> <li>• Economics of brain drain</li> <li>• Educational Financing: Elementary, Secondary and senior Secondary school level</li> </ul>		12 Hours

<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Teneja, V.R.(2005): Foundation of Education, Chandigarh 17, Abhishek Publishers.</li> <li>• Govt. of India: Programme of Action – National Policy on Education, Ministry of Human Resource Development, New Delhi, 1986.</li> <li>• Joshi, K.L. (1977): Problems of Higher Education - In India. Bombay: Popular Prakashan.</li> <li>• Koul, J.N. (1975): Higher Education, Social Change and National Development. Shimla: Indian Institute of Advance Study.</li> <li>• Mathur, V.S. (1970): Crucial Problems in Indian Education. New Delhi: Arya Book Depot.</li> <li>• Mukerji, S.N. (1965): Education - In India – Today and Tomorrow. Baroda: Acharya Book Depot (Rev. Ed.).</li> <li>• NCF 2005, NCERT, New Delhi.</li> <li>• Agrawal, J.C: Land Marks in the History of Modern Indian Education, New Delhi</li> </ul>	

<b>Paper Code and Name</b>	<b>COURSE – 3 : EDUCATIONAL STUDIES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand the theoretical perspectives of Education.
CO 2	To examine Education as a Discipline and Inter disciplinary knowledge.
CO 3	To understand the socio cultural context of Education.
CO 4	To reflect upon the multiple contexts of Teacher Education.
CO 5	To introduce, Understand and to enable critical analysis to form current and future professionals.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Nature of Educational Studies</b>	
<ul style="list-style-type: none"> <li>Meaning, concept, perspectives, aims and values of educational studies and educational issues.</li> <li>Defining principles of education studies.</li> <li>Field of Educational studies &amp; education studies as a discipline.</li> </ul>	12 Hours
<b>Unit 2: Foundational Educational Texts</b>	
<ul style="list-style-type: none"> <li>Contribution in Education of - Ved, Vedanta, Upnishad, Bhagavad Geeta</li> <li>Education Contributions of Mahatma Gandhiji, Dr. Zakir Hussain, Rabindranath Tagor, Jiddu Krishnamurthy, John Dewey, Maria Montessori, Rousseau, Paulo Friere, Ivan Illich</li> </ul>	8 Hours
<b>Unit 3: Institution System and Structure of Education</b>	
<ul style="list-style-type: none"> <li>Structure &amp; System of education in India from primary to higher education.</li> <li>Commonalities &amp; common challenges, in educational systems of world, (social injustice, inclusion, gender discrimination,</li> <li>Restructure and standards based on reform of Elementary and Secondary Education.</li> <li>Social Justice, Inclusion, Gender, Discrimination, Mental &amp; Physical well being, Peace and Human Values.</li> </ul>	8 Hours
<b>Unit 4: Contemporary Educational Policies and Practices</b>	
<ul style="list-style-type: none"> <li>SSA &amp; RTE act: Introduction, articles, chapters and salient features, impact on Indian Education.</li> <li>Educational Reform in post independence India.</li> <li>contemporary challenges of UEE</li> <li>National and state level reform in school education</li> <li>Employment opportunities and placement in educational institutions, organizations and economic enterprises engaged in education and training.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Blackwell, Fritz (2004), India: A Global Studies Handbook, United States of America: ABC-CLIO, Inc., ISBN 1-57607-348-3.</li> <li>India 2009: A Reference Annual (53rd edition), New Delhi: Additional Director General (ADG), Publications Division, Ministry of Information and Broadcasting, Government of India, ISBN 978-81-230-1557-6.</li> <li>Prabhu, Joseph (2006), "Educational Institutions and Philosophies, Traditional and Modern", Encyclopedia of India (vol. 2) edited by Stanley Wolpert, 23-28, Thomson</li> </ul>	

<p>Gale:ISBN 0-684-31351-0.</p> <ul style="list-style-type: none"> <li>Sripati, V. and Thiruvengadam, A.K. (2004), "India: Constitutional Amendment Making The Right to Education a Fundamental Right", International Journal of Constitutional Law, 2 (1): 148–158, Oxford University Press.</li> <li>Desai, Sonalde, Amaresh Dubey, B.L. Joshi, Mitali Sen, Abusaleh Shariff and Reeve Vanneman. 2010. India Human Development in India: Challenges for a Society in Transition. New Delhi: Oxford University Press.</li> </ul>	
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<b>Paper Code and Name</b>	<b>COURSE – 4 a : INTRODUCTION TO EDUCATIONAL RESEARCH AND STATISTICS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand about educational research and it's designing
CO 2	To understand the need of reviews of related literature in education
CO 3	To know about various data collection tools and sampling.
CO 4	To understand about descriptive and inferential statistics.
CO 5	To understand the different applications of computers in education.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Basics of Educational research</b>	
<ul style="list-style-type: none"> <li>Different Source of Generating Knowledge. Concept of Scientific Inquiry and Theory development, Scientific method –Concept, Definition Assumption and Steps.</li> <li>Research in Education – Meaning, Purpose, Characteristics and Scope of Educational Research. areas of Educational Research</li> <li>Types of Educational Research – Classification based on purpose Fundamental or Basic, Applied and Action Research. Classification based on Method – Historical, Descriptive, Experiment.</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>Paradigms of Research: Qualitative, Quantitative &amp; Mixed research</li> </ul>	
<b>Unit 2: Review of Related Literature &amp; Formulation of Research Problem.</b>	
<ul style="list-style-type: none"> <li>Purpose of Review at Different Stages of Research</li> <li>Identifying the Related Literature - Sources &amp; Types, On line &amp; Off line References. Organizing the related literature – recording of various references, notes taking.</li> <li>Formulation of a Research Problem – Sources, characteristics of a good research problem, Evaluation of Research Problem, Criteria for selecting the Research Problem. Defining &amp; Stating the Research Problem, objectives &amp; Research question in quantitative &amp; qualitative research.</li> </ul>	8 Hours
<b>Unit 3: Variables, Hypotheses, Sampling and Preparation of a Research Proposal</b>	
<ul style="list-style-type: none"> <li>Steps of Educational research, Research Blueprint – Concept and Component.</li> <li>Variables – Meaning and Characteristics, Types and Interrelationship among different Types of Variables.</li> <li>Hypotheses – Meaning and Importance, Characteristics, Types and forms of hypothesis.</li> <li>Sampling - Concept of Population &amp; Sample – Sampling unit, sample size, sampling frame, concept of representative &amp; based sample. Types of sampling – Probability sampling &amp; Non probability sampling. Probability sampling – Random sampling, stratified sampling, stratified random sampling, systematic sampling, cluster &amp; multistage sampling. Non probability sampling - Judgment or purposive sampling, quota sampling, Incidental sampling (Convenient).</li> <li>Format of a research proposal</li> </ul>	8 Hours
<b>Unit 4: Educational Statistics and Computer Applications</b>	
<ul style="list-style-type: none"> <li>Nature of Data</li> <li>Meaning and Nature, Measurement Scales, Classification and tabulation of data, Graphical representation of data.</li> <li>Descriptive Statistics</li> <li>Measures of Central Tendency and Variability</li> <li>Relative position- quartiles, deciles, percentiles and percentile ranks</li> <li>Normal probability curve –Its properties and applications, skewness and kurtosis- their computation and uses.</li> <li>Standard scores, T scores and Stanine- computation and uses.</li> <li>Criteria for selecting statistical softwares- in research.</li> <li>Criteria for selecting software- SPSS, EXCEL and SYSTAT for data analysis in educational research work. Packages on statistics (meaning and applications)</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Anfara, Vincent &amp; Mertz Norma T. (2006). Theoretical Frameworks in Qualitative Research. SAGE Publication.</li> <li>Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd. Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.</li> </ul>	

<ul style="list-style-type: none"> <li>• Creswell, John W. (2007). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publication.</li> <li>• Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi : Deep and Deep Publisher.</li> <li>• Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi : Vikas Publications.</li> <li>• Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York : Holt, Rinehart and Winston.</li> <li>• Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall</li> <li>• Praveena K. B. &amp; Srinivasa K. S (2011). Research Methodology – A Practical Approach. ISBN: 81-901-860-5-1. Bangalore. Esquire Publications.</li> <li>• Salkind, N.J. (2006). Exploring Research (Sixth Edition) NJ: Pearson Prentice Hall.</li> <li>• Sidhu, K.S. (1987) Methodology of Research in Education, New Delhi: Sterling Publishers Pvt. Ltd.</li> <li>• Travers, R.M.W. (1969) An Introduction to Educational Research, New Delhi: Sterling Publishers Pvt. Ltd.</li> <li>• Van, Dalen, Debonald, B. and Meyer, William J. (1979) Understanding Educational Research: An Introduction, New York: McGraw Hill Co.</li> </ul>	
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<b>Paper Code and Name</b>	<b>COURSE-5 PHILOSOPHY OF EDUCATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand the context of philosophy of education.
CO 2	To interpret the educational philosophy of great thinkers.
CO 3	To correlate sociology and education.
CO 4	To establish the relevancy of philosophical theories in modern education.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Philosophical perspectives in Education</b>	
<ul style="list-style-type: none"> <li>• Concept , Scope, characteristics of Philosophy</li> <li>• Concept, Scope, Aims and functions of philosophy of Education.</li> <li>• Relationship between philosophy and Education.</li> </ul>	

<ul style="list-style-type: none"> <li>Philosophical Systems</li> <li>Epistemology – Meaning , Nature and Educational Implications.</li> <li>Axiology- Meaning , Nature and Educational Implications.</li> <li>Metaphysics- Meaning , Nature and Educational Implications.</li> </ul>	12 Hours
<b>Unit 2: Schools of Philosophy and their Implications to Education</b>	
<ul style="list-style-type: none"> <li><b>Indian Schools of Philosophy</b> <ul style="list-style-type: none"> <li>Vedic</li> <li>Buddhism</li> <li>Jainism</li> </ul> </li> <li><b>Western Schools of Philosophy</b> <ul style="list-style-type: none"> <li>Idealism</li> <li>Naturalism</li> <li>Pragmatism – their contribution to present day education.</li> </ul> </li> </ul>	8 Hours
<b>Unit 3: Thinkers of Philosophy of education</b>	
<ul style="list-style-type: none"> <li><b>Indian Thinkers</b> <ul style="list-style-type: none"> <li>Swami Vivekananda</li> <li>Mahatma Gandhi</li> <li>Rabindranath Tagore</li> </ul> </li> <li><b>western Thinkers</b> <ul style="list-style-type: none"> <li>John Dewey</li> <li>Froebel</li> <li>Maria Montessorie</li> </ul> </li> </ul>	8 Hours
<b>Unit 4: Emerging Trends in Philosophy</b>	
<ul style="list-style-type: none"> <li>Human Nature and ethics in the context of increasing crime and deteriorating values</li> <li>Social Philosophy – personal growth and philosophy</li> <li>post- modernism and objectivism.</li> <li>Research Trends in philosophy of Education</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Bruner,J.S.(1996), The culture of education. Cambridge, M.A.: Harvard University Press.</li> <li>Broudy,S.H.(1962), Building a Philosophy of Education, New York; Prentice Hall.</li> <li>Dewey,J.(1916/1977): Democracy and Education: an introduction to the philosophy of education.New York: Macmillan.</li> <li>NCERT (2005). National curriculum framework,New Delhi.</li> <li>MHRD, (1992), Programme of action. Govt. Of India, New Delhi.</li> <li>MHRD, Gov. Of India(1992), National Policy on education(revised) New Delhi.</li> <li>Peters, R.S. (ed), (1975) . The philosophy of Education.Oxford University Press,London.</li> </ul>	

<ul style="list-style-type: none"> <li>Bruubacher, John S (1969) Modern Philosophies of Education, Tata Mc Graw – Hill, Publishing Company Pvt LTD, New Delhi.</li> </ul>	
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<b>Paper Code and Name</b>	<b>COURSE - 6: SOCIOLOGY OF EDUCATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To analyze the social perspective of education.
CO 2	To interpret the role of education in social context.
CO 3	To understand sociology of education.
CO 4	To recognize the socio cultural aspects of education.
CO 5	To develop understanding of sociological dimensions of education

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Sociology and Education</b>	
<ul style="list-style-type: none"> <li>Meaning and Nature of Educational Sociology</li> <li>Interrelationships between Education and Sociology</li> <li>Sociology of Education</li> <li>Individual and social aim of education</li> <li>Political Education – Process of Socialization</li> <li>Education and Family: Concept, types and functions</li> <li>Education and culture</li> <li>Education and religion</li> <li>Education and Constitution</li> </ul>	12 Hours

<b>Unit 2: Contexts of Socialization</b>	
<ul style="list-style-type: none"> <li>• Concept of socialization: family and adult-child relationships; parenting, child rearing practices</li> <li>• Separation from parents, children in crèches; children in orphanages</li> <li>• Schooling: peer influences, school culture, relationships with teachers, teacher expectations and school achievement.</li> <li>• Relationships with peers: friendships and gender; competition and cooperation, competition and conflict; aggression and bullying from early childhood to adolescence. Social, economic and cultural differences in socialization: implications for inclusion.</li> </ul>	8 Hours
<b>Unit 3: Social Change and Education</b>	
<ul style="list-style-type: none"> <li>• Meaning, nature and theories</li> <li>• Factors affecting on social change</li> <li>• Social-stratification, Social-mobility</li> <li>• Education for emotional &amp; social Integration.</li> <li>• Education for Nationalism and International understanding</li> <li>• Meaning and need of Equality of Education opportunity and Social Justice with special reference with Indian Society</li> <li>• Education of Socially, Economically under-developed society</li> </ul>	8 Hours
<b>Unit 4: Education and society</b>	
<ul style="list-style-type: none"> <li>• Gender ideology in society. Role of religion, Constitution and law in gender ideology. Gender differentiation. Present status of women's education in India. Education and Gender.</li> <li>• Modernization, globalization in relation to education.</li> <li>• Sociology of education and educational sociology concepts, relationship and functions.</li> <li>• Concept and dimensions of plurality. Curriculum for multicultural education. Teacher's role in the strategies of multicultural education, Socialization in cultural diversity through education.</li> <li>• Meaning and importance of peace education to address social issues and role.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi : Deep and Deep Publisher.</li> <li>• Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi : Vikas Publications.</li> <li>• Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York : Holt, Rinehart and Winston.</li> <li>• Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall <ul style="list-style-type: none"> <li>• NCERT (2005). National curriculum framework, New Delhi.</li> <li>• MHRD, (1992), Programme of action. Govt. Of India, New Delhi.</li> </ul> </li> </ul>	

<b>Paper Code and Name</b>	<b>COURSE – 7: CURRICULUM STUDIES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand the concept and types of curriculum.
CO 2	To know the foundations of curriculum planning and curriculum construction.
CO 3	To reflect upon the strategies of successful curriculum transaction.
CO 4	To understand the process of administration and evaluation.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Perspectives on Curriculum</b>	
<ul style="list-style-type: none"> <li>• Meaning, Concept and importance of curriculum</li> <li>• Four perspectives on curriculum               <ul style="list-style-type: none"> <li>- Traditionalists</li> <li>- Conceptual-Empiricists</li> <li>- Reconceptualisits</li> <li>- Social constructivists</li> </ul> </li> <li>• Concept of Core curriculum, Hidden Curriculum, Spiral Curriculum, Integrated curriculum and their relevance.</li> </ul>	12 Hours
<b>Unit 2: Construction &amp; Development of Curriculum</b>	
<ul style="list-style-type: none"> <li>• Curriculum framework –need and importance; ramification of curriculum framework into curriculum, syllabus and textbooks.</li> <li>• Different Models</li> <li>• Administration</li> <li>• Grass Root</li> <li>• Demonstration</li> <li>• System Analysis</li> </ul> <p>National curriculum of USA, Japan, China countries at different levels .</p>	8 Hours

<b>Unit 3: Bases of Curriculum Development</b>	
<ul style="list-style-type: none"> <li>• <i>Epistemological bases</i>: Forms of Knowledge, structure of a Discipline; characteristics of different Disciplines and levels of understanding; Logical grammar of school subjects.</li> <li>• <i>Sociological bases</i>: societal needs and aspirations, culture and values, social changes, knowledge explosion, national concerns and goals, globalisation, localization and privatization, political ideology and technological influences, economic necessities; Socio-cultural context of students - multi- cultural, multilingual aspects.</li> <li>• <i>Critical issues</i>: environmental concerns, gender differences, inclusiveness, value concerns and issues, social sensitivity.</li> </ul>	8 Hours
<b>Unit 4: Curriculum Administration &amp; Evaluation</b>	
<ul style="list-style-type: none"> <li>• Taylorism</li> <li>• Administration as a process.</li> <li>• Administration as a bureaucracy</li> <li>• Human relation approach to Administration.</li> <li>• Formative, Summative &amp; Interpretation of Evaluation results.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Bob Moon and Patricia Murphy (Ed) (1999). <i>Curriculum in Context</i>. Paul Chapman Publishing, London.</li> <li>• Butchvarov,P.(1970), <i>The Concept of Knowledge</i>, Evanston, Illinois: North Western University Press.</li> <li>• Chomsky, N (1986). <i>Knowledge of Language</i>, Prager, New York.</li> <li>• Datta, D.M. (1972). <i>Six ways of Knowing</i>. Calcutta University Press, Calcutta.</li> <li>• Dewey , John. <i>The Child and the Curriculum</i>, University of Chicago Press: Chicago</li> <li>• G.W. Ford and Lawrence Pungo,(1964). <i>The structure of Knowledge and the curriculum</i>. Rand McNally &amp; Company, Chicago.</li> <li>• Joseph Schwab, (1969). <i>The Practical: A language for curriculum</i>. School Review, November.</li> <li>• Keddie, N.(1971) : <i>Classroom Knowledge</i>, in. M.F.D Young..</li> <li>• Kelley, A.B. (1996). <i>The Curricular Theory and Practice</i>. Harper and Row, US.</li> </ul>	

<b>Paper Code and Name</b>	<b>Course – 8 a : TEACHER EDUCATION COURSE- I PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To gain the insight on concept, objectives, and status of pre-service and in-service teacher education.
CO 2	To acquaint student-teachers with historical background of teacher education in India
CO 3	To acquaint student-teachers with organization of pre-service and in-service teacher education programme with respect to curriculum, infrastructure and resources needed.
CO 4	To examine the current pre-service and in-service teacher education programmes in terms of various policy document.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Teacher Education-Concept, Need and Objectives</b>	
<ul style="list-style-type: none"> <li>• Concepts of Teacher Education</li> <li>• Need and Importance of Teacher Education</li> <li>• Objectives of Teacher Education at various levels</li> <li>• Teacher Education in Ancient India</li> <li>• Teacher Education in Pre- and Post-Independent India</li> <li>• Comparative Study of Teacher Education in Various Countries</li> </ul>	12 Hours
<b>Unit 2: Various Organizational Patterns of Teacher Education in India</b>	
<ul style="list-style-type: none"> <li>• B.Ed. (One Year, Two Years, Distance Mode)</li> <li>• B.Ed. Basic Education</li> <li>• B.Ed. Special Education</li> <li>• B.Ed. Integrated (Four Years)</li> <li>• B.Ed. in Elementary Education</li> <li>• Diploma in Elementary Education</li> <li>• M.Ed. (Full time , Part Time &amp; Distance Mode)</li> </ul>	8 Hours

<b>Unit 3: Broad Organization Patterns of Teacher Education</b>	
<ul style="list-style-type: none"> <li>• Admission Process</li> <li>• Planning and scheduling of course</li> <li>• Curriculum Components               <ul style="list-style-type: none"> <li>– Foundation Course</li> <li>– Pedagogy Course</li> <li>– Engagement with field</li> <li>– Enhancing professional competence</li> </ul> </li> </ul>	8 Hours
<b>Unit 4: In-service Education of Teachers</b>	
<ul style="list-style-type: none"> <li>• Meaning of in-service teacher education</li> <li>• Significance of in-service teacher education</li> <li>• Objectives of in-service teacher education</li> <li>• Various programmes of in-service teacher education like SOPT, PMOST</li> <li>• Thrusts in in-service teacher education</li> <li>• Designing of in-service teacher education some basic guidelines</li> <li>• Various agencies of in-service teacher education</li> <li>• Limitations of in-service teacher education</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Bose, K., and Srivastava, R.C. (1973). <i>Theory and Practice. Teacher Education in India</i>. Allahabad: Chug Publication.</li> <li>• Byrne, H.R. (1961). <i>Primary Teacher Training</i>. London : Oxford University Press.</li> <li>• Kauts, A. (2013). <i>Quality Concerns in Teacher Education</i>. Patiala: 21<sup>st</sup> Century Publications</li> <li>• Kinney, L.B. (1964). <i>Certification in Education</i>. London: Englewood Cliffs.</li> <li>• Kothari, R. G. and Patel, J, B (2011). <i>In-service Teacher Education: Training programme for Primary Teachers</i>. Germany: VDM Verlag Publisher.</li> <li>• Mangla, S. (2002). <i>Teacher Education- Trends and Strategies</i>. New Delhi: Sage Publishers.</li> <li>• Mukerji, S.N. (1968). <i>Education of Teachers in India (vol. 1 and II)</i>. New Delhi: Sultan Chandand Co.</li> <li>• NCERT. (1979). <i>Teacher Education curriculum – A Framework</i>. New Delhi.</li> <li>• NCTE (1988). <i>National Curriculum for Teacher Education – A Framework</i>. New Delhi :</li> <li>• NCTE. (1978). <i>Teacher Education Curriculum. A Framework</i>. New Delhi, NCERT.</li> <li>• Panigrahi, S. C., and Biswal, A. (2012). <i>Teacher Education</i>. New Delhi: APA Publishing Corporation.</li> <li>• Pires, E.A. (1959). <i>Better Teacher Education</i>. New Delhi: University Press.</li> <li>• Praveena K. B. &amp; Srinivasa K. S. (2011). <i>Teacher Education</i>. Esquire Publications, Bangalore.</li> <li>• Rao, R.(2004). <i>Methods of Teacher Training</i>. New Delhi. Discovery Publishing House.</li> <li>• Raput&amp;Walia J. S., K. (2002). <i>Teacher Education in India</i>. Sterling Publishers Private Limited: New Delhi.</li> </ul>	

<b>Paper Code and Name</b>	<b>Course –H88 OPEN ELECTIVE COURSE (OEC) PAPER (FOR OUTSIDE STUDENTS) TEACHING STRATEGIES FOR TEACHERS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To acquire competency in different skills.
CO 2	To understand the context of application of different strategies of teaching.
CO 3	To understand and appreciate the role of communication in effective teaching.
CO 4	To understand the impact of teachers communication on student's personality development.
CO 5	To understand the various features of models of teaching.
CO 6	To know and understand the correlates of teacher effectiveness.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Essential Teaching Skills and the Teaching of Thinking</b>	
<ul style="list-style-type: none"> <li>• Essential Teaching Skills : The Foundation for Teaching Effectiveness</li> <li>• Beyond Effective Teaching : Teaching for Thinking and Understanding</li> <li>• Higher – Order and Critical Thinking</li> <li>• The Model Approach to Teaching</li> <li>• Information Processing</li> </ul>	12 Hours
<b>Unit 2: The Inductive Model : A Constructivist View of Learning</b>	
<ul style="list-style-type: none"> <li>• The Inductive Model : An Overview</li> <li>• Goals for the Inductive Model</li> <li>• Planning Lessons with the Inductive Model</li> </ul>	8 Hours

<ul style="list-style-type: none"> <li>Implementing Lessons Using the Inductive Model</li> <li>Assessing Student Learning</li> </ul>	
<b>Unit 3: Teaching Organized Bodies of Knowledge</b>	
<ul style="list-style-type: none"> <li>The Integrative Mode : An Overview</li> <li>Goals for the Integrative Model</li> <li>Planning Lessons with the Integrative Model</li> <li>Implementing Lessons Using the Integrative Model</li> <li>Assessing Integrative – Model Activities</li> <li>The Lecture – Discussion Model – An Overview</li> <li>Theoretical Perspectives</li> <li>Planning for Lecture – Discussion Lessons</li> <li>Implementing Lecture – Discussion Lessons</li> <li>Assessing Student Understanding in Lecture – Discussion Lessons</li> </ul>	12 Hours
<b>Unit 4: The Direct-Instruction Model</b>	
<ul style="list-style-type: none"> <li>Direct Instruction : An Overview</li> <li>Direct Instruction : Theoretical Perspective</li> <li>Planning Lessons with the Direct – Instruction Model</li> <li>Implementing Lessons Using the Direct – Instruction Model</li> <li>Assessing Student Understanding</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Flander, N. A. (1970) Analyzing Teaching Behaviour Reading Massachusetts. Addison – Weley.</li> <li>Paul D. Eggen &amp; Donald P. Kauchak (1966) Strategies for Teachers. Allyn and Bacon A Simon and Schuster Company, London.</li> <li>Travers, R. M. W. (1973) Second Handbook of Research on Teaching. Chicago : Rand McNally College Publishing Company.</li> </ul>	

<b>Paper Code and Name</b>	<b>COURSE – 9 : CURRICULUM, PEDAGOGY AND ASSESSMENT (SECONDARY AND SENIOR SECONDARY LEVEL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To analyze the functioning of various institutions and agencies of secondary education.
CO 2	To understand the problems and challenges related to Secondary and Senior Secondary Education
CO 3	To reflect on various issues related with secondary education.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Quality in Secondary Education</b>	
<ul style="list-style-type: none"> <li>Concepts, indicators of quality, setting standards for performance</li> <li>Present status of quality education in India (status and prospects) - Delor's Commission Report regarding quality- Professional enrichment of Secondary teachers (different in-service programmes for ensuring quality, - different agencies - SCERT – NCERT – CIET – NUEPA – IASE, etc.</li> </ul>	8 Hours
<b>Unit 2: Issues &amp; Concerns in Secondary Education</b>	
<ul style="list-style-type: none"> <li>Challenges related to universalization of Secondary Education</li> <li>Problems and Strategies of Alternative Schooling at Secondary school Stage</li> <li>Challenges / strategies / intervention in relation to access, enrolment, dropout, achievement and equality of Educational opportunities</li> <li>Problems of education for girls, disadvantaged and differently abled children and slow learners and interventions to solve the problems</li> <li>Problems of classroom discipline, under achievement, lack of motivation, slow learners, delinquency and maladjustment</li> <li>Issues of quality in Secondary and senior Secondary Education.</li> <li>Management system of Secondary Education - role of Department of Education, Directorate, Inspectorate and NGO's.</li> </ul>	12 Hours

<b>Unit 3: Secondary Education Curriculum</b>	
<ul style="list-style-type: none"> <li>• Concept, components and determinants of curriculum.</li> <li>• Principles of curriculum construction.</li> <li>• Criteria for selection and organisation of content and learning activities.</li> </ul> <p>Secondary School curriculum: features, principles, relevance.</p> <ul style="list-style-type: none"> <li>• Critical appraisal of present Secondary School curriculum in the state.</li> </ul>	8 Hours
<b>Unit 4: Assessment and Evaluation in Secondary Education</b>	
<ul style="list-style-type: none"> <li>• Meaning nature and functions of evaluation &amp; assessment, difference between assessment and evaluation, testing, appraisal and examination, Types of assessment - formative, diagnostic and summative assessment.</li> <li>• New trends in evaluation – grading , internal assessment ,semester system, CCE</li> <li>• Critical appraisal of the present evaluation system at Secondary school level.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Agarwal Deepak (2007) Curriculum Development concepts, method and techniques-Book, New Delhi</li> <li>• Erickson H.L (2002) concept based curriculum and instruction teaching beyond the facts, corision press INC, Sage publication company, USA</li> <li>• Hilda Taba L: curriculum Development: theory and practice, Harcourt Brace Javanevich Inc. New York 1962.</li> <li>• Mckernan/James(2007). Curriculum and Imagination. Process theory , pedagogi and action research Routletg U.K</li> <li>• NCERT National Curriculum Frame Work,2005 for School Education, NCERT,New Delhi</li> <li>• Olivan Peter F (2000) Developing the curriculum New Yourk, teachers college press</li> <li>• Saylor. J.G and williiam Alexandar M: Planing curriculum for school, Holt Rinehort and Winston inc.</li> <li>• Srivatsava D.S and Sarita kumara (2005) curriculum and instruction, Isha books new Delhi</li> <li>• Wiles J. W.S Joseph Bordi –curriculum Development – A guide to practice, pearson publication</li> </ul>	

<b>Paper Code and Name</b>	<b>COURSE – 10 : POLICY, ECONOMICS AND PLANNING (SECONDARY &amp; SENIOR SECONDARY LEVEL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To acquaint the students with the need, scope and purpose of educational planning in terms of national and community needs.
CO 2	To determine and implement objectives of planning on the basis of individual needs of the students.
CO 3	To develop skills in planning and implement conventional administrative procedures.
CO 4	To acquaint the students with relationship between the financial support of education and quality of education.
CO 5	To enable the students to locate human and material resources and utilize them to the maximum benefits for education

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Principles, Techniques and Approaches of Educational Planning</b>	
<ul style="list-style-type: none"> <li>Guiding principles of educational planning</li> <li>Methods and techniques of educational planning.</li> <li>Approaches to educational planning. - Social demand approach - Man-power approach - Return of return approach</li> <li>Types of educational planning; process of district level planning including micro level planning exercise; institutional planning.</li> </ul>	8 Hours
<b>Unit 2: Planning Mechanisms and Five-Year Plan in Education</b>	
<ul style="list-style-type: none"> <li>Perspective planning at central, state and local levels: concepts of macro, and micro level planning.</li> <li>Priorities to be given at central and state levels.</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>• Perspective plan for education in the 12th Five Year plan.</li> <li>• District level planning: recent initiatives.</li> <li>• Institutional Planning.</li> <li>• School mapping exercises</li> <li>• Availability of educational statistics at central, state and district levels.</li> <li>• Main features of five year plans with special reference to education, impact of five year plans on education.</li> </ul>	
<b>Unit 3: Educational Finance</b>	
<ul style="list-style-type: none"> <li>• Need, Significance ,Principles and Concept of Educational Finance.</li> <li>• Educational Financing in India: Historical Perspective</li> <li>• Need and Significance of Educational Finance Rising Unit costs and resources constraints Demand for education, Supply of education, Constitutional responsibility for providing education.</li> <li>• Principles of educational finance: Allocation of resources-economic and social basis for allocation of resources in education.</li> <li>• Financing education for equality of education-social justice Efficiency-cost-minimization and quality improvement, Productivity-relevance of education to the world of work and create qualified and productive manpower.</li> </ul>	12 Hours
<b>Unit 4: Some Problems and Issues of Educational Finance</b>	
<ul style="list-style-type: none"> <li>• Tuition fees : Merits and demerits of uniform, tuition fees.</li> <li>• Additional resources for education.</li> <li>• Critical review of present grant-in-aid policy of the state government with special reference to Secondary Education.</li> <li>• The factors affecting increasing the financial burden on local governments.</li> <li>• Ways and means of controlling funds.</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Bruns, Barbara; Minqat, Alain and Rakotomalala, Ramahatra (2003). Achieving Universal Primary Education by 2015. A Chance for Every Child. World Bank Publications.</li> <li>• Celin Richards (1984). The Study of Primary Education and Resource Book. Vol. I.</li> <li>• De, Anuradha &amp; Dreze, Jean (1999). Public Report on Basic Education In India. Oxford University Press. USA.</li> <li>• Government of India (1986) National Policy on Education, New Delhi, MHRD.</li> <li>• Government of India (1987) Programme of Action, New Delhi: MHRD.</li> <li>• Government of India (1987) Report of the Committee for Review of National Policy on Education, New Delhi, MHRD. 26</li> <li>• Kumar, Ravi (2006). The Crisis of Elementary Education in India. Sage Publications Pvt. Ltd.</li> <li>• Mehrotra, Santosh (2006). The Economics of Elementary Education in India: The Challenge of Public Finance, Private Provision and Household Costs. Sage Publications. New Delhi.</li> <li>• Mehrotra, Santosh, Panchmukhi, P.R., Srivastava Ranjana, Srivastava, Ravi (2005). Universalizing Elementary Education in India: Uncaging The 'Tiger' Economy (1st edition) Oxford University Press.</li> <li>• Tilak, J.B. (1992) Educational Planning at grass roots, New Delhi</li> </ul>	

<b>Paper Code and Name</b>	<b>Course – 4 b : ADVANCED EDUCATIONAL RESEARCH AND STATISTICS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To analyze the quantitative and qualitative data for research.
CO 2	To enhance the competencies of synthesizing research work.
CO 3	To develop the skill of preparing a complete research report.
CO 4	Elucidate the procedures of construction and validation tools/techniques of research.
CO 5	To analyze the quantitative and qualitative data for research.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Quantitative and Qualitative Methods of Research</b>	
<ul style="list-style-type: none"> <li>Experimental – Need and significance, Nature, Validity – Internal and external, controlling variables, Designs – single group, parallel groups and rotation groups. Quasi – Experimental Designs: Non-equivalent Comparison Group Design, and Time –Series Design, Ex Post Facto Research.</li> <li>Phenomenological, Ethnography, Case Study, Grounded theory, Historical – Need and significance of Historical Research, primary data and secondary data, Sources and collection of data – Internal Criticism and External criticism and Interpretation of data.</li> </ul>	12 Hours
<b>Unit 2: Tools and Techniques of Data Collection</b>	
<ul style="list-style-type: none"> <li>Characteristics of a good tool – Concept and Types of Validity and reliability, Usability, Methods of establishing and Validity and Reliability of a tool.</li> <li>Test – Concept and Uses of Norm-Reference Test and Criterion Reference Test, Construction and Validation of achievement test.</li> </ul>	8 Hours

<ul style="list-style-type: none"> <li>Tools – Rating scale. Attitude scale, Opinionnaire, Questionnaire, Aptitude test, checklist, inventory – meaning, characteristics, construction, validity and reliability.</li> </ul>	
<b>Unit 3: Parametric and Non Parametric Testing</b>	
<ul style="list-style-type: none"> <li>Measures of Relationship – Rank Difference. Product Moment (Direct and Scatter Diagram Methods) Biserial, Point Biserial, Tetrachoric and Phi – Computation and uses in measurement and research, concepts of Partial and Multiple Correlations and their uses in education research.</li> <li>Concept of Parametric Test &amp; Non Parametric test, Concept of Parameter and Statistic, Sampling distribution, Sampling Error And Standard Error of Mean (large and small sample), Levels of significance, Confidence limits and Intervals, Degrees of Freedom,</li> <li>Parametric Tests: Testing of Hypothesis – Null hypothesis, Alternative Hypothesis, one tailed test and two tailed test, Type I &amp; Type II Errors, Steps in Testing the Hypothesis, Testing significance of Means: ANOVA – Concept and uses; Regression Analysis: concept and uses.</li> <li>Non parametric tests – Chi square test: Concept, Computation and uses of chi square as a test of Independence and Contingency co-efficient.</li> </ul>	12Hours
<b>Unit 4: Report Writing and Presentation of Results</b>	
<ul style="list-style-type: none"> <li>Need for Effective Documentation: Importance of Report Writing Characteristics of good Report Writing, Types of Research Reports: Brief reports, detailed reports, Technical reports.</li> <li>Report Writing</li> <li>Report Format: Preliminary section, Main report, Interpretations of results and suggested recommendations, Limitations of the study, References (APA Style)</li> <li>Reporting of Research findings and implications</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Aggarwal Y. P. (2012), Statistical Methods – Concepts, Application and Computation, New Delhi: Sterling publishers' pvt. Ltd.</li> <li>Aggarwal. Y. P. (1988), Better Sampling, Sterling, New Delhi.</li> <li>Aggarwal. Y. P. (1998), The Science of Educational Research – A Sourcebook, Nirmal Book Agency, Kurukshetra.</li> <li>Aggarwal. Y.P. (1988), (ED) Introduction to Statistics for Social Sciences, Sterling, New Delhi.</li> <li>Bancroft. T. A. (1968), Topics in Intermediate Statistical Methods, the Iowa State University Press, Ames: Iowa.</li> <li>Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd.</li> <li>Bradley, James V. (1968), Distribution – free Statistical Tests, Prestice – Hall, Inc., Englewood Cliffs. N. J.</li> <li>Cochran, William G. and Gertrude M. Cox, (1957), Experimental Designs, 2nd Ed., John Wiley &amp; Sons, Inc., New York.</li> <li>Cox. D. R. (1958), Planning of Experiments, John Wiley &amp; Sons., New York.</li> <li>Cronbach L. J. (1957), The Two Disciplines of Scientific Psychology, the American Psychologist.</li> <li>David Freedman, Robert Pisani et al. (1991), Statistics – Second Edition ISBN, New York: 0-393-96043-9 W.W. Norton &amp; Company, Ltd.</li> <li>Dayton. C. Mitchell. (1970). Varieties of Psychological Test Homogeneity, - The American Psychologist.</li> </ul>	

<b>Paper Code and Name</b>	<b>Course – 8 b : TEACHER EDUCATION COURSE -II PERSPECTIVES AND RESEARCHES IN TEACHER EDUCATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand the perspectives and policies on teacher education.
CO 2	To appreciate the researches on various practices in teacher education.
CO 3	To understand the recent trends in teachers education.
CO 4	To acquaint with various issues and innovations in teacher education.
CO 5	To understand the management of teacher education.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Perspective and Policies of Teacher Education</b>	
<ul style="list-style-type: none"> <li>• Concept of Teacher Development</li> <li>• Factors Influencing Teacher Development</li> <li>• Teacher Education in Various Policies and Documents (NPE 1986, POA 1992, NCFTE 2009, NCTE - 2014)</li> </ul>	8 Hours
<b>Unit 2: Management of Teacher Education</b>	
<ul style="list-style-type: none"> <li>• Administrative Structure in Teacher Education at State and National Level Structure</li> <li>• Management Issues in Teacher Education <ul style="list-style-type: none"> <li>– Planning and Designing</li> <li>– Executing the Instruction</li> <li>– Multi-organizational Influences (University, State Government, UGC, NCERT and NCTE)</li> <li>– Monitoring the Programme</li> <li>– Management of Demand and Supply of Teacher</li> </ul> </li> </ul>	12 Hours

<b>Unit 3: Research in Teacher Education</b>	
<ul style="list-style-type: none"> <li>• Reviews of Studies in Teacher Education</li> <li>• Research Trends in Teacher Education</li> <li>• Innovations in Teacher Education</li> <li>• Researches in Teacher Education- Methodological Issues and Challenges</li> </ul>	8 Hours
<b>Unit 4: Problems and Issues in Teacher Education</b>	
<ul style="list-style-type: none"> <li>• Admission Criteria</li> <li>• Assessment of Teacher Effectiveness</li> <li>• Competencies of Teacher</li> <li>• Curriculum Concerns in Teacher Education</li> <li>• Establishing Theory Practice Nexus</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Jangira, N.K. (1978).An Experiment in Teacher Education and Teacher Effectiveness. Delhi : Frank Brothers and Co.</li> <li>• Kauts, A. (2013). Quality Concerns in Teacher Education. Patiala: 21st Century Publications</li> <li>• Kothari, R. G. and Patel, J, B (2011).In-service Teacher Education: Training programme for Primary Teachers. Germany:VDM Verlag Publisher.</li> <li>• Mangla, S. (2002).Teacher Education- Trends and Strategies. New Delhi: Sage Publishers.</li> <li>• National Council For Teacher Education. (2009). National Curriculum Framework for Teacher Education: Towards Preparing Professional and Humane Teachers. New Delhi: Member Secretary, National Council for Teacher Education.</li> <li>• National Curriculum Framework for School Education (2000) NCERT: J.J. offset Printers.</li> <li>• National Curriculum Framework for School Education (2005) NCERT: J.J. offset Printers.</li> <li>• National Curriculum Framework for Teacher Education (2006) NCTE</li> <li>• NCERT (1991) Secondary Teacher Education Curriculum : Guidelines and Syllabus. New Delhi, NCERT.</li> <li>• NCERT (1991a).Elementary Teacher Education Curriculum – Guidelines and Syllabus. New Delhi, NCERT.</li> </ul>	

<b>Paper Code and Name</b>	<b>Course I83 OPEN ELECTIVE COURSE (OEC) PAPER EDUCATIONAL TESTING AND EVALUATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To acquire the knowledge of measurement and evaluation.
CO 2	To understand the concept of achievement, types and uses.
CO 3	To understand the procedures of construction of achievement test.
CO 4	To acquire the knowledge and applications of the standardized tes.
CO 5	To understand the knowledge and application of media technology used in the process of evaluation.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Concept of Measurement and Evaluation:</b>	
<ul style="list-style-type: none"> <li>Measurement: Meaning Scope of Measurement, Types of Measurement, Functions of Measurement, Test Score and Unit of Measurement , Scales of Measurement.</li> <li>Evaluation : Meaning &amp; Scope of Evaluation, Types of Evaluation: Student Evaluation, Curriculum Evaluation, Institutional Evaluation, Summative Evaluation, Formative Evaluation, Continuous Comprehensive Evaluation (CCE) CCE, Purpose of Evaluation, Diagnose, Prediction, Selection, Grading, Guidance, Evaluation of Programme. Relationship between Summative and formative Evaluation, Process of Evaluation, Stages of Evaluation, Steps of Evaluation, Difference between Measurement and Evaluation.</li> </ul>	12 Hours
<b>Unit 2: Achievement Test and it's Construction:</b>	
<ul style="list-style-type: none"> <li>Achievement Test- Meaning, nature, Function of Achievement Test and uses of Achievement Test.</li> <li>Types of Achievement Test- Teacher Made Test and Standardised Achievement Test. Oral Test, Written Test, Essay Type Test, Short Answer Test and Objective Type Test- Meaning, Advantages and Disadvantages.</li> </ul>	8 Hours

<ul style="list-style-type: none"> <li>Multiple choice Items, True False Items, Matching Type Items, Completion Type Items, Problem Solving Items, Performance Test Items - it's Meaning, Advantages, and Disadvantages.</li> <li>Achievement Test Construction- Steps of Construction of an Achievement Test- Selection of the Topic, Objectives, Blue Print, Item Writing, Selection of Type of Items. Administering the Test, Scoring the Test, Analysis of the Test Scores and Grading.</li> </ul>	
<b>Unit 3: Standardization of Test</b>	
<ul style="list-style-type: none"> <li>Standardization of Test - Meaning and Application of Standardized Test.</li> <li>Steps for Standardization of Test - Planning the Test, Selection the Content, Objectives, Blue Print, Item Writing, Pre Testing or Tryout, Item Analysis, Preparing the Final Form, Establishing the Reliability and Validity and Developing Normative and Interpretive materials,</li> <li>Types of Standardised Achievement Test - Reading Test, Mastery Test, Diagnostic Test, Vocational Proficiency Test. Uses of Standardised Test.</li> </ul>	8 Hours
<b>Unit 4: Media Technology Used in Evaluation</b>	
<ul style="list-style-type: none"> <li>Media - Meaning, Applications and Classification of Media According to Sensory Channel, Audio, Visual and Audio-Visual, Multi Media, Hyper Media, Real Class Room Test and Virtual Test - It's Application and Differences. T.V., Radio and Paper Media - It's Applications.</li> <li>Digital Media - Digital Recorder, Camera, Visualiser, Smart Board, Mobile With Internet, Network Media, E-Question Bank, Online Test, Online Observation and Online Interview, Multi Media Package, E-Gadget for Testing and Assessing the Performance of Student - It's Concept and Application in Measurement and Evaluation.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Bhatia K.K. (1990) Measurement and Evaluation in Education, Ludhiana: Prakash Brothers Publishers.</li> <li>Brad Field , James N, Moredock, H Stewart,(1967) Measurement and Evaluation in Education, Macmillan Company: New York Pp 2-3.</li> <li>Bipin Asthana (1990) Measurement and Evaluation and Education, Agra: Vinod Pustak Mandir</li> <li>Ebel R.L (1979) Essential of Educational Measurement , 3<sup>rd</sup> ed Eaglewood Cliff, NJ: Prentice-Hall.</li> <li>Glasr,Robert(1963) Instructional Technology and the Measurement of Learning Outcomes Co.</li> <li>Goswami Marami. (2011)Meaurement and Evaluation in Psychology and Education, New Delhi: Neelkamal Publications Pvt Ltd.,</li> <li>Harper, A.E., and Haroer E.S.(1990) Preparing Objective Examination- Handbook for Teachers, Examiners and Students ,New Delhi.</li> <li>James Popham .W (1975) Educational Evaluation.. New Jersey: Prentice Hall Englewood Cliffs</li> <li>Lindquist. B.F.(1951) Educational Measurement; Washington: D.C American Council of America.</li> <li>Natarajan .V. and Kulshreshta. ( 1993) Assessing Non Scholastic Aspects of Learners Behaviour, New Delhi: Association of Indian University.</li> <li>Ross, C.C.(1954) Measurement in Today's School, N.Y: Prentice Hall Ind.</li> <li>Sharma R.A(1990) Managing Curriculum, Curriculum Transaction and Evaluation. New Delhi:IBH.</li> </ul>	

<ul style="list-style-type: none"> <li>• Taba H (1962) Curriculum Development : Theory and Practice , New York : Harcourt Berace Jvanovich Inc.</li> </ul>	
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<b>Paper Code and Name</b>	<b>COURSE – 12 : ADMINISTRATION, MANAGEMENT AND LEADERSHIP OF SECONDARY /SENIOR SECONDARY LEVEL</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To know about the type of educational administration.
CO 2	To reflect upon the various problems of educational administration in India.
CO 3	To get an insight into educational management.
CO 4	To acquaint with various types of leadership patterns.
CO 5	To determine and implement objectives of planning on the basis of individual needs of the students.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Educational Administration at National Level – Secondary / Senior Secondary Level</b>	
<ul style="list-style-type: none"> <li>• Structure, Role and responsibilities Planning, Education reforms, organization, direction control, equalization of educational opportunities, pilot projects liaison with UNESCO, opening central institutes</li> <li>• National grants, to state Govt.</li> <li>• Bureaus/ divisions of the ministry of HRD, department of education.</li> <li>• Major activities and organization of department of education of MHRD.</li> <li>• NCERT - organization, structure objectives Role and function.</li> <li>• NUEPA – NCTE, Kendriya Vidyalaya Sangathan,</li> <li>• Suggestions regarding administrative reforms at the central level.</li> </ul>	12 Hours
<b>Unit 2: Role of State Governments in Secondary / Senior Secondary Level</b>	
<ul style="list-style-type: none"> <li>• State level administration: - Need importance and limitations Recommendations of committees on role of state and local bodies.</li> <li>• Local bodies:- Distract boards and municipalities. Present position of local administration in Elementary education.</li> <li>• Division of Authority between state and local bodies in respect of the administration of primary education. State grants to local bodie</li> </ul>	8 Hours
<b>Unit 3: Performance and Resource Management in Educational Institutions</b>	
<ul style="list-style-type: none"> <li>• Monitoring of school performance.</li> <li>• Performance appraisal of the teachers.</li> <li>• Scientific principles of management-PERT, CPM, PPBS system approach.</li> <li>• Financial and administrative management of educational institutions.</li> <li>• Nature and characteristics of resource available in education. - need for resource management in education. - Material resources. - human resource - financial resource - procurement, utilization and maintenance of resources - Roles of state, central and local governments in resource mobilization</li> <li>• Quality assurance in material and human resources.</li> </ul>	8 Hours
<b>Unit 4: School Leadership at Secondary / Senior Secondary Level</b>	
<ul style="list-style-type: none"> <li>• Curriculum framework outline key areas for leadership development in Elementary schools:- (capacity building to transform function at managerial level to school leaders)</li> <li>• Leading partnership, developing self, Transforming teaching learning process, building and leading teams and leading Innovation.</li> <li>• School leadership:- Multiple Roles, Identities &amp; grass root level (field) administrators working closely with schools at cluster, block and district levels (CRPs, BRPs, DEOs) as well as SMC and other community members.</li> <li>• School &amp; Community: - Inter linkage, Role and responsibilities.</li> <li>• School as a learning organization</li> <li>• Developing a vision for school: - vision for school transformation, assessing context and constraints.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Curriculum framework outline key areas for leadership development in Elementary schools:-</li> </ul>	

(capacity building to transform function at managerial level to school leaders) <ul style="list-style-type: none"> <li>• Leading partnership, developing self, Transforming teaching learning process, building and leading teams and leading Innovation.</li> <li>• School leadership:- Multiple Roles, Identities &amp; grass root level (field) administrators working closely with schools at cluster, block and district levels (CRPs, BRPs, DEOs) as well as SMC and other community members.</li> <li>• School &amp; Community: - Inter linkage, Role and responsibilities.</li> <li>• School as a learning organization</li> <li>• Developing a vision for school: - vision for school transformation, assessing context and constraints.</li> </ul>	
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<b>Paper Code and Name</b>	<b>COURSE – 13 : INCLUSIVE EDUCATION (DIFFERENTLY ABLED) OF SECONDARY/SENIOR SECONDARY LEVEL</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand about inclusive society and the educational reforms.
CO 2	To reflect upon various assessment and teaching learning strategies for the disabled.
CO 3	To acquaint with various perspectives of gender issues and curriculum.
CO 4	To preparation of teachers for inclusive schools.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Introduction, Issues &amp; Perspectives of Inclusive Education</b>	
<ul style="list-style-type: none"> <li>• , Definition, concept and importance of inclusive education.</li> <li>• Historical perspectives of inclusive education for children with diverse needs.</li> <li>• Difference between special education, integrated education and inclusive education.</li> <li>• Advantages of inclusive education for education for all children in the context of Right to Education.</li> <li>• N.C.F and adaptation of teaching learning material</li> </ul>	8 Hours
<b>Unit 2: Policy Perspective</b>	

<ul style="list-style-type: none"> <li>• Recommendations of Indian Education Commission (1964-66).</li> <li>• Scheme of Integrated Education for Disabled Children</li> <li>• National Policy on Education (NPE, 1986-92).</li> <li>• National Curriculum Framework, 2005 NCERT</li> <li>• The Convention on the Rights of the Child (Article 23, 28, 29 a2, 3, 6 and 10 &amp; 12).</li> <li>• The World Declaration on the Survival, Protection and Development of Children and the Plans of action (Outcome of the UNICEF World Summit for Children, (1990).</li> <li>• Promoting Inclusion Preventing Exclusion</li> <li>• The National Trust for the Welfare of Persons with autism, cerebral palsy, mental retardation and Multiple Disabilities Act 1999.</li> </ul>	12 Hours
<b>Unit 3: Diversity in the Classroom</b>	
<ul style="list-style-type: none"> <li>• Diversity- Meaning and definition.</li> <li>• Disability – Legal definition, discrimination.</li> <li>• Giftedness.</li> <li>• Concept, Nature, and Characteristics of Multiple Disabilities.</li> <li>• Guidelines for adaptation for teaching/ practicing science, mathematics, social studies , languages, physical education yoga, heritage arts theatre, drama etc in inclusive settings.</li> <li>• Utilization of records/ case profiles for identification, assessment, and intervention for inclusive classrooms.</li> <li>• Techniques and methods used for adaptation of content , laboratory skills and play material</li> </ul>	8 Hours
<b>Unit 4: Teacher Preparation and Inclusive Education</b>	
<ul style="list-style-type: none"> <li>• Review existing educational programmes offered in Secondary school (general, special education).</li> <li>• Skills and competencies of teachers and teacher educators for Secondary Education in inclusive settings.</li> <li>• N.C.F 2005 and curriculum for teacher preparation and transaction modes.</li> <li>• Roles, responsibilities and professional ethics of an inclusive education teacher and teacher educators.</li> <li>• Evaluation and follow up programmes for improvisation of teacher preparation programmes in inclusive education programmes.</li> <li>• Role of different national and international agencies {institutions, universities} in promoting inclusive education.</li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>• Ahuja. A, Jangira, N.K. (2002): <i>Effective Teacher Training; Cooperative Learning Based Approach: National Publishing house</i> 23 Daryaganj, New Delhi 110002.</li> <li>• Jangira N.K. and Mani, M.N.G. (1990): <i>Integrated Education for Visually Handicapped</i>, Gurgaon, Old Subjimandi, Academic Press.</li> <li>• Sharma P.L (2003) <i>Planning Inclusive Education in Small Schools</i>, R .I E. Mysore</li> <li>• Sharma, P.L. (1990) <i>Teachers handbook on IED-Helping children with special needs</i> NCERT Publication.</li> </ul>	

<b>Paper Code and Name</b>	<b>Course-14: Educational Technology at Secondary/Senior Secondary Level</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To understand the concept and various approaches of educational technology.
CO 2	To identify the stages of educational technology .
CO 3	To understand the contemporary models of instructions.
CO 4	To practices uses media in education.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 40)</b>
<b>Unit 1: Concept of Educational Technology</b>	
<ul style="list-style-type: none"> <li>• <b>Standard definitions</b> - (NCET and ET Encyclopedia)</li> <li>• <b>Foundations of Educational Technology</b> (a) Psychology of Learning (b) Communication Theory (c) Media Technology (d) Scientific Method (e) Systems Approach</li> <li>• Educational Technology as Systems Approach to Education.</li> <li>• <b>Stages of Educational Technology Process.</b> Instructional Technology (Conceptual Differentiation ). Instructional Technology as Management of Learning by Objective – A Flow Chart Based Description.</li> <li>• <b>Scope of Educational Technology.</b> Instructional, Institutional,</li> <li>• Administration, Textual, Material and Media Systems</li> <li>• Educational Technology in the NPE Perspective (1986). Review of the following: <ul style="list-style-type: none"> <li>--Educational Technology work at National and State level institutions.</li> <li>--Educational Technology Teaching and Research in the Universities.</li> <li>--Educational Technology work at EMRC's and AVRC's.</li> <li>--Educational Technology through computing institutions and internet.</li> </ul> </li> </ul>	8 Hours
<b>Unit 2: Planning and Managing Objectives Based Instruction</b>	
<p><b>Taxonomy of Educational Objectives</b> : Bloom, Krathwhol and Harrow. NCERT's Version of Instructional Objectives and Specificatio</p> <ul style="list-style-type: none"> <li>• <b>Content Analysis for Teaching:</b> Content Analysis, Concept Mapping and Task Analysis as Aids to Identify Categories of Content.</li> <li>• <b>Planning of Instruction:</b> - Setting Instructional Goals, Writing, Instructional Objectives</li> </ul>	12 Hours

<p>,Using Mager's Conditions, Entering Behaviour, Terminal Behaviour and Task Description.</p> <ul style="list-style-type: none"> <li> <b>Programming Instruction</b>  Terms, Concept and Definitions, Programming, Principles Steps, Rules and Styles, Linear Branching and Mathematical Styles,  Programme Development Selection of the Topic, Stating Assumptions about the learner, Writing Objectives in Behavioral Terms, Frame Techniques, Prompting Characteristics and Types, Editing and Review of the Programms. </li> <li> <b>Programme Testing and Evaluation</b> - Individual and Group Tryout, Error Rate, Programme Density, Sequence Progression, Percentage Gain and Pupil Acceptance, Sequencing and Structuring, Ruleg and Egrule, Operator Matrix, Over View of Model Programme Developed in India and Abroad. </li> </ul>	
<b>Unit 3: Contemporary Models of Instruction</b>	
<ul style="list-style-type: none"> <li>Performance Based Models of Teaching -- Basic Teaching Models. Norm Referenced Teaching Model and Criterion Referenced Teaching Model Theory Based Models of Teaching -- Nature and Components of Models of Teaching, Syntax of Model of Teaching - Information Processing Model - Concept Attainment and Advanced Organizer Model of Teaching.</li> <li>Personal Development Model -- Awareness Training Model and Synectics Model.</li> <li>Behaviour Modification Model -- Contingency Management.</li> <li>Social Interaction Model -- Group Investigation and Social Inquiry Model (Theoretical, Rationale, Objectives, Syntax and Exemplars for the above said Models of Teaching).</li> </ul>	8 Hours
<b>Unit 4: Media Use in Education</b>	
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Media Devices - Typical Attributes and Applications, Classification of Media According to Sensory Channel and Teacher-Student Control. Media Selection Process – A Flowchart.</li> <li> <ul style="list-style-type: none"> <li>Traditional Media Devices - Slide Projector. Overhead Projector. Automatic Slide Projector.</li> <li>New Media Devices</li> </ul> </li> </ul> </li> <li>Radio, Television, AVR and VCR, Video Camera, Camcorder and Handicam.</li> <li>Radio Lesson, Radio Vision, Teleconferencing</li> <li>Television Lesson, Video Conference, Video Lesson Interactive Video Lesson.</li> <li>Gyan Darshan, EduSat, Country Wide Classroom, IGNOU Distance Education Courses and Lessons.</li> <li>Activities and Programmes of NCERT, CIET, SCERT, UGC, IGNOU and EMRC/ AVRC <ul style="list-style-type: none"> <li>Digital Recorders, Projectors and Devices- LCD Projectors, Visualiser, Digital Cameras, Digital Board, Mobile with internet and Web Camera, Pocket Recorder or Voice Recorder.</li> <li>Cyberspace use in Education – The Internet – Internet Explorer, Website, Email, Search, Chat and Live Web Cam. Creating Email Address, Sending and Receiving Email. Cam Applications. Web Publishing. Creating a Web Page. Educational Websites. Online Courses and Testing. Virtual Classroom. Using a Search Engine. Searching, Selecting and Editing Specific Information. Conducting Live Chat and Live Web Cam Interaction. Computer used in Instruction – Question Bank.</li> </ul> </li> </ul>	12 Hours
<b>REFERENCES</b>	
<ul style="list-style-type: none"> <li>Austwick, K. and Harris, N.D.C (1972) <i>Aspects of Educational Technology</i>. London: Sir Issac Pitman and SOQS Ltd, 499-xii.</li> </ul>	

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- Bhattacharya, S.P.(1973) *Review of Research on Theory of Teaching*, Baroda: Centre of Advanced Study in Education.
- Brothower Dale. M.(1963) *Programmed Instruction: A Manual of Programming Techniques*. London: Sir Issac Pitman & Sons.
- Bruner, J. S. (1960) *The Process of Education*, Cambridge: Harvard University Press.
- Bruner, J. S.(1980) *Toward a Theory of Instruction*, New York: Norton.
- Bruner, J. S., Oliver. R. R. and Greenfield, P.M.(1966) *Studies in Cognitive Growth*, New York: Wiley Publishers.
- Brunstorm, C. P, and Mann, A. P.(1975) *Aspects of Educational Technology* London: Sir Issac Pitman & Sons Ltd.Vol. III, 404-xv.
- Buckley, Nancy R and Walker, M.H.(1970) *Modifying Classroom Behaviour. A Manual of Procedure of Classroom Teachers*. Illinois: Research Press Company (12): xv.
- Chauhan, S.S.A (1988) *Text Book of Programmed Instruction*, New Delhi; Sterling Publishers.
- Clayton Thomas E.(1965) *Teaching and Learning a Psychological Perspective*, New Jersey: Prentice Hall Inc., 1965, 177-xii.
- Dececco, John P.(ed)(1969) *Educational Technology - Readings in Programmed Instruction*, New York: Holt Rinehart and Winton. 779-xi.
- Dececco. John P and Crawford, (1977) *Psychology of Learning and Instruction*. New Delhi: Prentice Hall of India Ltd.
- Ellington, Henry and Phil (1993) *Producing Teaching Materials*, New York: Kogan Page.
- Fry Edward, B.(1963) *Teaching Machines and Programmed Instruction*, New York: McGraw Hill Book Company Inc. 244-xi.

**Karnatak University, Dharwad**



**Regulations and Syllabus**

**For**

**Master of Science in Electronic Media**

**(Course Code: PG78)**

***Choice Based Credit System (CBCS)***

**From**

**2018-19 & Onwards**



**Karnatak University, Dharwad**



# **REGULATIONS**

**For**

## **M.Sc Electronic Media (Course Code: PG78)**

**Choice Based Credit System (CBCS)**

**2018-2019 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

Regulations concerning Master Degree Programme

**Faculty of Sciences, from 2018-19**

**Master Degree Programme in Electronic Media (CBCS)**

Regulations Governing the Post-Graduation Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

**MASTER OF SCIENCE IN ELECTRONIC MEDIA**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

## **General objective of the programme**

New communication technologies have emerged as a major source of information and entertainment. The reach of radio, television and internet has been expanding at a remarkable rate. Educational institutions have excellent opportunities to train students who can handle them. Keeping this in view, a two years course in M.Sc in Electronic Media has been designed.

## **Objectives of the programme:**

- a. To equip students with knowledge and skills to work in new media and electronic media communication environment.
- b. To train the students with production skills for various electronic media fields like radio, television and web based new media technologies.
- c. To introduce students to various dimensions of electronic media production such as production planning, financing, management and distribution.

## **Programme Specific Outcomes (PO's):**

After successful completion of the program, M.Sc Electronic Media graduates are able to:

1. Create content for electronic media: Written, oral, and visual communication to analyze and review electronic media.
2. Articulate how electronic media perform as an agent of social change.
3. Explain the history of electronic media technologies.
4. Situate media art in its historical, political, and social context.
5. Evaluate the ethical and legal considerations surrounding the production and distribution of electronic media.
6. Work creatively and collaboratively in a variety of electronic media environments.
7. Develop self-directed projects that synthesize creative, technical, and critical approaches.
8. Propose and consider alternative uses of media technologies.

**Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduation under the Choice Based Credit System” for Master Degree programmes.

**Commencement:**

These Regulations shall come into effect from the academic year 2019-20.

**Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduation Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post - Graduation programme should successfully complete to receive the Post – Graduation Degree in the concerned subject.
- d) “Open elective” means a course offered by the Department for students of other Departments. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes.
- e) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in the conventional system.
- f) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of marks of credits. These grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.
- g) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses a student takes and the grades awarded to him/her for each of the subjects so chosen.
- h) “Cumulative Grade Point Average” or CGPA refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

## **1. Minimum Eligibility for Admission:**

The students who have successfully completed a graduation in any discipline with 45 percentage of marks in aggregate (40 percentage of marks for SC/ST and Cat-I students) from this University or from any other University recognized as equivalent thereto by this University shall be eligible for admission to the Post Graduation Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

## **2. Entrance Test**

2.1 Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University.

2.2 The Entrance Test for 100 marks shall consist of multiple choice questions.

## **3. Selection for Admission**

3.1 The selection of students shall be made on merit basis in each category of reservations as per the government order on reservation and University rules.

3.2 Preparation of merit list shall make on the basis of marks obtained in the Entrance Test and marks obtained in the Degree Examination (Marks scored in the language and cognate subjects).

3.3 Fifty percentage of the marks obtained in the degree examination and 50 percentage of the marks scored in the Entrance Test shall be taken for finalizing the merit list.

## **4. Intake**

The total number of candidates to be admitted to the course shall be 20 including all provisions/categories. Out of these five seats will be allotted under enhanced fees structure. Total Seats is 25.

## **5. Course of Study:**

The courses of study for M.Sc in Electronic Media degree shall comprise of Theory and Practical as noted in the syllabus.

## **6. Duration of the Programme:**

The programme of study for the Post-Graduation Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

## **7. Medium of Instruction**

The medium of instruction shall be in English. However, a candidate is permitted to write the examination in Kannada also.

## **8. Minimum Credits and Maximum Credits:**

- 8.1 There shall be two categories of courses viz., Compulsory course and Open Elective Course. Compulsory Course refers to the concerned department only. The Open Elective is the course offered by other Departments.
- 8.2 Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- 8.3 The credits for each of compulsory course are of 4 credits. Even in the case of Open Elective Course, it shall be 4 credits for each paper.
- 8.4 A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

## **9. Course Structure:**

- 9.1 The students of Post-Graduation Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- 9.2 A typical Master's Degree programme consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of two types:
  - i. Compulsory Course
  - ii. Open Elective Course.
- 9.3 Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- 9.4 Each department shall offer at least two Open Elective courses for the II and III Semester for students from other departments. Students from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department.
- 9.5 Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- 9.6 Master Degree Programmes are essentially semester system programmes. There shall be 4 semesters in each programme. There shall be two semester for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hours of teaching / learning periods in six days session per week.

9.7 The normal calendar for the semester would be as follows:

- i. I and III semester - August - November
- ii. II and IV Semester - January - April

**10. Attendance:**

**10.1** Each paper shall be taken as a unit for the purpose of calculating the attendance.

**10.2** Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfillment of required attendance of every candidate in the Examination form.

**10.3** Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.

**10.4** A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.

**10.5** However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS or Cultural activities or any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated, subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

## Course outline

First semester							
Code	Title of the Paper	Teaching Hrs.	Exam. Duration	Internal Assessment	Max. Marks	Total Marks	Credit
PG78T101	Introduction to Electronic Media	04	3 Hours	25 Marks	75 Marks	100	04
PG78T102	Basics of Computer Applications	04	3 Hours	25 Marks	75 Marks	100	04
PG78T103	News Gathering and Writing for Electronic Media	04	3 Hours	25 Marks	75 Marks	100	04
PG78T104	Introduction to Digital Media	04	3 Hours	25 Marks	75 Marks	100	04
PG78T105	Media Law and Ethics	04	3 Hours	25 Marks	75 Marks	100	04
PG78P106	Computer Application (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
PG78P107	Digital Media (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
					<b>Total</b>	<b>600</b>	<b>24</b>
Second semester							
Code	Title of the Paper	Teaching Hrs.	Exam. Duration	Internal Assessment	Max. Marks	Total Marks	Credit
PG78T201	Introduction to Cinema	04	3 Hours	25 Marks	75 Marks	100	04
PG78T202	Script writing for Radio and Television	04	3 Hours	25 Marks	75 Marks	100	04
PG78T203	Visual Communication	04	3 Hours	25 Marks	75 Marks	100	04
PG78T204	Electronic Media Commercials	04	3 Hours	25 Marks	75 Marks	100	04
PG78T205	Digital Media Production (OEC)	04	3 Hours	25 Marks	75 Marks	100	04
PG78P206	Radio (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
PG78P207	Visual Communication (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
PG78T208	Swatch Bharat Internship (Two Weeks)	04	2 Hours	15 Marks	35 Marks	50	02
					<b>Total</b>	<b>600</b>	<b>26</b>

Third semester							
Code	Title of the Paper	Teaching Hrs.	Exam. Duration	Internal Assessment	Max. Marks	Total Marks	Credit
PG78T301	Video Editing	04	3 Hours	25 Marks	75 Marks	100	04
PG78T302	Television Production Techniques	04	3 Hours	25 Marks	75 Marks	100	04
PG78T303	Radio Production Skills	04	3 Hours	25 Marks	75 Marks	100	04
PG78T304	Media Research Methods	04	3 Hours	25 Marks	75 Marks	100	04
PG78T305	Broadcast Journalism (OEC)	04	3 Hours	25 Marks	75 Marks	100	04
PG78P306	Video Editing (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
PG78P307	Television Production (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
Fourth semester							
Code	Title of the Paper	Teaching Hrs.	Exam. Duration	Internal Assessment	Max. Marks	Total Marks	Credit
PG78T401	Electronic Media Management and Event Management	04	3 Hours	25 Marks	75 Marks	100	04
PG78T402	Electronic Media for Development	04	3 Hours	25 Marks	75 Marks	100	04
PG78T403	Corporate Communication	04	3 Hours	25 Marks	75 Marks	100	04
PG78T404	Project work	04	3 Hours	25 Marks	75 Marks	100	04
PG78T405	Online Media Production Skills	04	3 Hours	25 Marks	75 Marks	100	04
PG78P406	Online Media (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
PG78P407	Production of Video Magazine (Practical)	04	2 Hours	15 Marks	35 Marks	50	02
Total						600	24

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**All Semester Total Marks = 2400**

**All Semester Total Credits = 98**

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## 11. Media Visit

There shall be a media visit, which is compulsory and a student has to submit a media visit observation report. Media visit will be conducted during mid semester vacation falling between III and IV Semester.

## 12. Submission of Project work

- 12.1 M.Sc in Electronic Media III semester students shall have to choose a topic for project and preliminary preparation be carried out under the guidance of a teacher.
- 12.2 M.Sc in Electronic Media IV semester students shall have to submit the project report on the chosen topic, before the commencement of the practical examination.
- 12.3 Candidates keeping terms but not appearing for the theory and practical papers and not submitted the project report within the prescribed time, may appear for respective examination and submit the project report within the prescribed time.
- 12.4 Candidates appearing for the examination under the provision of (12.3) will not be eligible for the award of any rank, prize, medal etc.

## 13. Internship

- 13.1 The internship is compulsory for all the students. They shall work in any recognized electronic media institution as an internee for a period of one month (i.e. 4 weeks) after the completion of the fourth semester examination.
- 13.2 The internee shall produce a certificate issued by the head of the media institute.

## 14. Evaluation:

- 14.1 Each Course has two components; the first is Internal Assessment Marks and the second is the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance if a Compulsory Course has a Credit award of 4, then the total maximum marks would be 100 for the subject. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to the students.
- 14.2 In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- 14.3 To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

Attendance	Marks Allotted
91 to 100%	3
81 to 90%	2
75 to 80%	1

- 14.4 Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that

attendance period to condone shall be considered for the allotment of marks as under.

- 14.5** There shall be one semester end examination of three hours duration (for 75 marks/ paper). Each answer script of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluations.

## **15. Completion of Course:**

- 15.1** A candidate is expected to successfully complete P.G. Master's Degree course in two years from the date of admission.
- 15.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.
- 15.3** The CBCS scheme is fully carry-over system. However, the four -semester two years course should be completed by a student within double duration of the normal course period (i.e, 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fees as prescribed by the university.

## **16. Declaration of Results:**

- 16.1** Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester end Examination. There is no minimum score in the IA marks. However after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- 16.2** The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of the announcement of results.

## **17. Marks and Grading**

The grading of successful candidate at the examination shall be as follows:

Percentage	GPA/CGPA	Letter	Class
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction
60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

<b>Paper Code and Title</b>	<b>PG78T101: Introduction to Electronic Media</b>
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***COURSE OUTCOMES (CO's) after completing this paper, the students will be able to:***

- CO-1** Understand the process and nature of communication and various forms of communication understand the barriers to effective communication and learn to remove them.
- CO-2** Study and understand various models of communication and national international theories of communication.
- CO-3** Understand various forms of electronic media.
- CO-4** Learn effective speaking, listening and writing skills for communication in personal life, public life, and in media fields.
- CO-5** Get benefited with communication skills in his/her personal, public and professional life.

- Unit - I** Communication, Definitions, Nature and Scope of Communication, Types of Communication, Inter and Intrapersonal Communication, Verbal and Non-Verbal communication, Group and Mass Communication, Process of Communication, Barriers of Communication.
- Unit - II** Theories of Communication, Normative theories of media, Cultural theories of media, Diffusion of innovation theory, Democratic Participatory theory, Models of Communication: SMR, SMCR, Shannon and Weaver, Lasswel, Osgood, Schramm, Gerbener.
- Unit - III** Introduction to radio, Technology and Innovations of Radio, Types of radio, Amplitude Modulation and Frequency Modulation, Analogue and Digital Radio.
- Unit - IV** Introduction to Television, Technology and innovations, Historical perspective of television, Terrestrial, cable and Satellite television.
- Unit - V** Internet, Definitions, Technology and Innovations, Historical perspectives of Internet, Local Area Network (LAN), Metropolitan Area Network (MAN) Wide Area Network (WAN), Wireless Local Area Network (WLAN).

***Reference:***

1. Dennis M'cquail- Mass Communication Theory: An Introduction.
2. Melvin Defluer & S.B. Rokeach - Theories of Mass Communications.
3. Keval J. Kumar - Mass Communication in India.
4. Robert Hilliard - Radio Broadcasting
5. B.N. Ahuja - Audio Visual Journalism
6. P.C. Chatterjee - Broadcasting in India
7. K.M. Shreevastava - Radio and TV Journalism
8. Gerald Millerson - Video Camera Techniques
9. Sudeepa Banerjee, (2014). Internet as a Media, New Delhi; Jain Publishing.
10. H. Zettel - TV Production Handbook
11. Gerald Millerson - Techniques of TV Production
12. Adrian McEwen & Hakim Cassimally - Designing Internet of things
13. Jack Rosenberry and Lauren A. Vicker - Applied Mass Communication Theory: A Guide for Media Practitioners

<b>Paper Code and Title</b>	<b>PG78T102: Basics of Computer Applications</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

- CO-1** Learn basics of computer and functions of different computers.
- CO-2** Understand Operating systems, System software's and different application software's.
- CO-3** Develop an intuitive sense of working with computers for academic and professional efficiently.
- CO-4** Learn and understand various multimedia applications and their importance in information, education and entertainment fields.
- CO-5** Understand the role and importance of computers in media industry.
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- Unit - I** Computer: Definition, Generations of Computers and Types of Computers: Mainframe Computer, Mini Computer, Micro Computers and Super Computers.
- Unit - II** Input Devices, Output Devices, CPU, Modem, Control Panel, Memory: Primary and Secondary Memory, Storage Devices.
- Unit - III** Operating System, Application Software's, System Software's, Open Source Software's, proprietary software's.
- Unit - IV** Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Nudi.
- Unit - V** Multimedia, Elements of Multimedia, Multimedia Applications in Education and Entertainment, Uses and Limitations of Computers, Role of Computers in Media Industry.
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**Record Book: All students should prepare and maintain a practical record book and submit the same on the day of practical examination.**

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**Reference:**

1. Alexander, Tom and Mathew, Joe. (2012). Computer and Information Technology.
2. Bansandra, S. K. (2002). Computer Today.
3. Sunders, R. (2000). Computer Today Ed. 2, John Wiley.
4. Dhamdher, D. M. (2012). Operating Systems A Concept Based Approach,
5. Rajaram V. - Fundamentals of Computers
6. P. K. Sinha and Priti Sinha - Computers Fundamentals
7. Dr.Satish Jain and Shalini Jain - Basic Computer Course Made Simple 1st Edition

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Define news and understand the elements, principles, values and structure of news.

**CO-2** Gain knowledge about various news sources along with their management.

**CO-3** Learn reporting for electronic media and different positions and their duties and responsibilities in electronic media.

**CO-4** Have the knowledge about create & present the content for different electronic media.

**CO-5** Understand different stages of production and think critically about different ideas and concepts of news based programmes.

**Unit - I** News: Definitions of news, Elements of news, Principles of news and news values, Structure of news, Formats of news, Hard news and Soft news.

**Unit - II** Sources of news: News Agencies, Government Sources, Press Releases, Press Conferences, Field Reporting, Staff Correspondents, Special Correspondents and Foreign Correspondents, Stringers, Online Sources, Sting Operation, Interview.

**Unit - III** News writing for Radio, News writing for Television, News writing for Online Media, Writing Intros and leads, News Translation Techniques.

**Unit - IV** News Bits: Crime, Sports, Speech, Seminar, Cultural, Political, Social, Judiciary and Legislature.

**Unit - V** Different stages of scripting: Idea, Research, Synopsis, Outline, Treatment, Story board, Screen play script, Script writing formats, Master scene script format, Split page format, Fiction script writing, Non-fiction script writing.

**Reference:**

1. Herbert Zettle : Television Production and Writing
2. Melvin Mencher : News Reporting and Writing
3. Gerald Lanson : Writing and Reporting the News
4. Fred Shook : Television Field Production and Reporting
5. M.D.Meeske : Copywriting for the Electronic Media
6. Robert Gunning : Techniques of Clear Writing
7. J.G.Stonell-Writing for Mass Media
8. C.A.Sheenfield- Effective Feature Writing
9. Nelson R.P- Article Writing
10. Brian Nicholls- Features with Flair
11. Stewart Harral- The Feature Writers Handbook
12. Gerald J .Alfred & Others- Handbook of Technical writing.

<b>Paper Code &amp; Title</b>	<b>PG78T104 : Introduction to Digital Media</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

**CO-1** Learn and understand the basics of digital media.

**CO-2** Identify various storage devices of digital media.

**CO-3** Have knowledge about various digital media platforms.

**CO-4** Capable to create a digital presentation using multimedia elements.

**CO-5** Identify digital content and sources.

<b>Unit - I</b>	Digital Media: Definitions, Nature and Scope of Digital Media, Characteristics of Digital Media, Types of Digital Media and Limitations of Digital Media.
<b>Unit - II</b>	Digital Storage Media: USB Flash Drive, Hard Disc Drive, Cloud Drive, Memory Cards.
<b>Unit - III</b>	Digital Media Platform: Website, Blog, Facebook, WhatsApp, News Portals, e-papers, YouTube, Instagram, Twitter.
<b>Unit - IV</b>	Digital Content: Understanding Different File Types, Digital File Formats Resolutions, Compression Schemes, and Compatibility.
<b>Unit - V</b>	Digital Images, Digital video, Video game, Web pages and Websites, Social media, Data and Databases, Digital Audio, Electronic Books, Animation Creation with Flash.

**Record Book: All students should prepare and maintain a practical record book and submit the same on the day of practical examination.**

***Reference:***

1. Ambrose and Harris - The Production Manual: A Graphic Design Handbook.
2. Ramesh Bangia - Web Technology
3. McGuire and Stillbome - The Internet Handbook
4. T.K.Ganesh - Digital Media
5. Paul Wells - The Fundamentals of Animation.
6. David Hillma - Multimedia Technology and Applications
7. Simon Lindgren - Digital Media and Society
8. Richard A. Gershon - Digital Media and Innovation: Management and Design Strategies in Communication
9. Andrew Dubber - Radio in the Digital Age
10. Nancy Baym - Personal Connection in the Digital Age

<b>Paper Code &amp; Title</b>	<b>PG78T105 : Media Law and Ethics</b>
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**COURSE OUTCOMES:** (CO's) *after completing this paper, the students will be able to:*

- CO-1** Understand the responsibilities of media and the ethical dimensions of media creations, provisions and consumption.
- CO-2** Learn the ethical obligations that media providers have towards society.
- CO-3** Make ethical decisions regarding media, whether as providers or consumers, professionals or non-professionals, or as mere users of social media.
- CO-4** Understand the context and effect of relevant laws, guidelines, policies and codes of journalistic practice.
- CO-5** Aware about power and privileges of media laws and ethics in electronic media fields.

- Unit - I** Salient Features of Indian Constitution: Fundamental Rights, Freedom of Speech and Expression, Directive Principles of State Policy, Parliamentary Privileges.
- Unit - II** Defamation, Sedition, Obscenity, Censorship, Case Studies.
- Unit - III** Right to Information Act 2005: Right to Privacy, Official Secrets Act 1923, The Copyright Act, The Contempt of Court Act, The Press and Registration of Books Act 1867, Working Journalists Act 1955.
- Unit - IV** Broadcast Code, TRAI, Cyber Laws, Information Technology Act 2000. Advertising Standards Council of India (ASCI)
- Unit - V** Professional ethics, Biased Reporting, Yellow Journalism, Media Ombudsman.

**Reference:**

1. D.D.Basu – Law of Press in India
2. K.S.Venkateshwaran – Media Laws and Regulations in India.
3. K.S.Padhy – Mass Media and Freedom of Press in India.
4. A.N.Grover – Press and the Law
5. S.K.Agarwal – Media and Ethics.
6. Neelamalar. M (2010). Media Law and Ethics, First Edition.
7. Kiran Prasad (2008). Media Law in India, Second Edition
8. Durga Das Basu (1986). Law of Press, Fifth Edition.
9. Charles Ess - Digital Media Ethics
10. Michael D. Murray and Roy L. Moore - Media Law and Ethics
11. Sukanta K. Nanda – Media Law.
12. Don R. Pember - Mass Media Law 2007-2008: With Powerweb
13. Universal's Concise Commentary – The Information and Technology Act 2000

<b>Paper Code &amp; Title</b>	<b>PG78P106 : Computer Application (Practical-I)</b>
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**COURSE OUTCOMES:** (CO's) after completing this paper, the students will be able to:

- CO-1 Learn the file management concept and their importance in electronic media.
- CO-2 Learn the different applications of Microsoft office.
- CO-3 Gain practical knowledge working with Nudi software.
- CO-4 Understand how to prepare bio-data and options of document format.
- CO-5 Understand how to prepare bio-data along with presentation skills.

### Particulars of Practical

1. File management (Practice)
2. Working with word processing (Practice)
3. Working with spreadsheets (Practice)
4. Working with PowerPoint (Practice)
5. Working with Nudi and other application software's (Practice)
6. All the students should prepare his/her Bio Data using Microsoft word and should experiment with all text formatting options available in the software (Assignment)
7. All the students should prepare minimum five Slides in PowerPoint on a given topic and present the same on the scheduled day (Assignment)

<b>Paper Code and Title</b>	<b>PG78P107 : Digital Media (Practical-II)</b>
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**COURSE OUTCOMES:** (CO's) after completing this paper, the students will be able to:

- CO-1 Learn the image and text scanning and image resolutions for different production.
- CO-2 Learn the different applications of Photoshop and photo editing.
- CO-3 Gain practical knowledge working with animation software.
- CO-4 Understand how to record and save files in different digital formats.
- CO-5 gain the knowledge about various formats of multimedia elements

### Particulars of Practical

1. Scan text, photo and other materials and convert it into digital file
2. Work with Photoshop and edit photos.
3. Record your voice and save the file in different audio formats.
4. Create simple animation using flash software.
5. Record a video clip and save it in different formats.

<b>Paper Code &amp; Title</b>	<b>PG78T201 : Introduction to Cinema</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1** Understand the footsteps of cinema and changing faces of India cinema.
- CO-2** Criticism of cinema study cinema as a medium of mass communication.
- CO-3** Gain the knowledge about technical aspects of cinema production.
- CO-4** Identify various forms of cinema along with film awards and festivals.
- CO-5** Understand national and international film makers and their contributions to the cinema.

- Unit - I** Introduction to Cinema, Early efforts – Historical development of Indian films, Silent era, Talkies, Indian cinema after Independence, Parallel cinema, Commercial cinema, Issues and problems of Indian cinema.
- Unit - II** Film as a mass medium, Cinema as an institution, Film and Society, Film Reviews, Film Appreciation, Criticism of Cinema.
- Unit - III** Elements of film: Camera, Lighting, Sound, Visual Effects, Editing, Three Act Structure, Developing Character, Dialogue writing, Story Board.
- Unit - IV** Documentaries, Art movies, New wave cinema, Film Awards and festivals , Film Societies, Piracy, Role and responsibilities of the Cinematographer and the Director.
- Unit - V** Major filmmakers : Alfred Hitchcock, Orson Wells, Akira Kurosawa, Martin Scorsese, Majid Majidi, Satyajit Ray, Sham Benegal, Girish Kasaravalli. Meera Nair, Steven Spielberg, Charlie Champlain and Puttanna Kanagal.

***References :***

1. J.B.R.Johnson – Understanding the Film
2. Satyajit Ray – Our Films and Their Films
3. Andrew, Dudley, J. (1976).The major film theories: An introduction.
4. Arnheim, Rudolf. (1992). Film as art. Calcutta: Rupa
5. Dasgupta, Chidananda. (2001) The Cinema of Satyajit Ray (2<sup>nd</sup> ed).
6. Mast, Gerald, Cohen, Marshall & Braudy, Leo. (Eds). (1992). Film theory and criticism (4<sup>th</sup> ed).
7. Prasad, Madhava. Ideology of the Hindi film: A historical construct.
8. Ravi Vasudevan. (ed). (2001) Making meaning in Indian cinema.
9. Ray, Satyajit (2013). Deep focus: Reflections on cinema.
10. Richie, Donarld. (1996). Films of Kurosawa.
11. Roberge, Gaston. (2005). The subject of cinema.
12. Shaun Tan – The Arrival

<b>Paper Code &amp; Title</b>	<b>PG78T202 : Script Writing for Radio and Television</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand what is script? Elements of script and principles of script writing.

**CO-2** Study various types of scripts for different electronic media.

**CO-3** Develop scripts for fiction and non-fiction programmes of electronic media.

**CO-4** Creative thinking for writing for opening scene and meaningful climax along with dialogs

**CO-5** Understand various structures of audio-visual scripts in a professional way.

<b>Unit - I</b>	Introduction to script writing, Importance of script writing, various elements of script, Principles of script writing, Script formats, creative writing.
<b>Unit - II</b>	Writing for radio, News script, Drama, Feature, Documentaries, Talk shows, Interviews, Writing for an announcement, writing for Social Service announcement, Writing for Public Service announcement.
<b>Unit - III</b>	Writing for TV, Screenplay, Documentary, Writing for Serials, Special segments, News Script, Anchor Bite, Writing voiceover.
<b>Unit - IV</b>	Writing dialogues, Writing for reality shows, Writing good opening scenes and effective climaxes.
<b>Unit - V</b>	Dramatic structure, Narrative structure, Plotting structure, Scene and its functions, Step outline, writing fiction for TV, Designing a scene, Drafting a professional script.

**Reference:**

1. E.E.Wills – Writing Television and Radio Programmes.
2. B.N.Ahuja – Audio Visual Journalism
3. D.K.Sonkar – Broadcast Journalism
4. S. Koushik – Script to Screen
5. William J. Nostran – The Scriptwriters Handbook
6. Robert Hiller – Writing for Radio and TV
7. A.A.Armer – Writing the Screenplay
8. G. Kindem & R.B.Musburger – Introduction to Media Production
9. J. Michael Straczynski - The complete book of scriptwriting
10. Ray Frensham - Break Into Screenwriting [5th Edition]: Teach Yourself

<b>Paper Code &amp; Title</b>	<b>PG78T203 : Visual Communication</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

- CO-1** Define visual communication with understanding nature and scope of visual communication.
- CO-2** Understand elements and their techniques in visual communication.
- CO-3** Study the importance of colors and their usage in different situations while creating their own visual media.
- CO-4** Develop skills and techniques of usage of natural and artificial lighting work for visual media.
- CO-5** Understand virtual reality along with 2D and 3D animations techniques.

- Unit - I** Visual Communication: Definitions, Nature and Scope of Visual Communication, Historical development of Visual Communication, Functions of Visual Communication, Characteristics of Visual Communication, Types of visual communication.
- Unit - II** Visual communication techniques: Eye contact, Hand gesture, Body language, Elements of visual communication, Vocabulary of Symbols, Structures, Shapes, Sizes, Forms and Designs, Communicating through still visuals, Art of visual thinking and designing.
- Unit - III** Nature of color, Types of color- primary, secondary and tertiary colors, Color description- hue, chroma, saturation, intensity, value, tone, tints and shades, Psychology of color.
- Unit - IV** Understanding lighting-indoor and outdoor, Exposing and Focusing, Types of lighting; Natural and Artificial Lights; Controlling lights, Exposure Meters, Differential focus, Filters, Flashes, Designing with light.
- Unit - V** Use of virtual reality in communication, Visual effect, Motion capture technology, 2D and 3D Animation.

**Record Book :** All students should prepare and maintain a practical record book and submit the same on the day of practical examination.

**Reference:**

1. Marishshamachar - History of Art
2. Partha Mitter - Indian Art
3. Vincent Arthur Smith - A history of fine art in India & Ceylon
4. Roy C. Craven - Indian art: A concise history
5. James E. Cain - On Color Theory
6. Bonnie E. Snow & Hugo B. Froehlich - The theory and practice of color.
7. Baldwin and Roberts - Visual Communication
8. Richard Williams - The Animators' Survival Kit
9. Steve Robert - Character Animation Fundamentals.
10. Gorham Kindem, Robert B. Musburger - Introduction to Media Production (3<sup>rd</sup> Edition)

Paper Code & Title	PG78T204 : Electronic Media Commercials
<b>COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:</b>	
CO-1	Understand the aims and objectives of commercials.
CO-2	Create, manipulate and present the multimedia content in an attractive way.
CO-3	Equips with creative ideas to design and develop advertisement for modern electronic media.
CO-4	Gain the knowledge about various agencies of creative houses and their structure and functions.
CO-5	Acquire skills and techniques to planning and development of online and web commercials.

- Unit - I** Introduction to Advertisement, Definitions of Advertisement; Elements of a good advertisement, Types of advertisements, Electronic media commercial.
- Unit - II** Concepts of media planning, Research inputs, Setting objectives, Drawing up the commercial plan, Major Advertising agencies in India.
- Unit - III** Radio commercials, Jingles and Spots, Programme sponsorship, Production cost, Reach and effectiveness, Radio audience, Audience research wing.
- Unit - IV** Television commercials, TV Programme sponsorship, Effectiveness, Reach, Products and advertisers on TV, Channel competition, Creative advertising, TRP, BARC.
- Unit - V** Online advertisements, evolutions of web advertisements, types of web advertisements, Effectiveness, Reach, Web advertisement revenue, Writing for web commercials.

**Reference:**

1. Nath and Shya, - News Audiences and Everyday life
2. Warad and Grid - Advertising Copywriting
3. Andre E. Mariaty - Creative Advertising; Theory and Practice
4. Dr.M.M.Varma - Advertising Management
5. J.R.Adams - Media Planning
6. Jeweler Jerome - Creative Strategy in Advertising
7. Sethi and Chunnawala - Advertising Theory and Practice
8. Frank Jefkins - Advertising Made Simple
9. Sethi and Chunnawala - Foundations of Advertising in India

<b>Paper Code &amp; Title</b>	<b>PG78T205 : Digital Media Production (OEC)</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

- CO-1** Define digital media and understand the nature and scope of digital media.
- CO-2** Enable the students to create, manipulate and present the multimedia content in various digital platforms.
- CO-3** Create digital content and work with graphic elements.
- CO-4** Learns about code of ethics and legal consequences of social media.
- CO-5** Deal with social media audience and its content generation along with its merit and demerits.

- Unit - I** Digital media: Definitions, Nature and Scope of Digital Media, Characteristics of Digital Media, Limitations of Digital Media, Advantage of Digital Media.
- Unit - II** Digital Media Platform: Blog, Facebook, Website, WhatsApp, e-papers, YouTube, Instagram, Twitter.
- Unit - III** Digital Content: HTML, Writing for multimedia, Writing for web, Text formats, Video formats, Audio formats. Graphic elements.
- Unit - IV** Digital media industry, IT Act 2000, Copyright Act.
- Unit - V** Social Media, Social media audience & behaviour, Trends of Social Media, Social Media Activism, Diplomacy, User-Generated Content (UGC), Consumer Generated Media (CGM).

**Reference :**

1. Ambrose and Harris – The Production Manual: A Graphic Design Handbook.
2. Ramesh Bangia – Web Technology
3. McGuire and Stillbome – The Internet Handbook
4. T.K.Ganesh – Digital Media
5. Paul Wells – the Fundamentals of Animation.
6. David Hillma – Multimedia Technology and Applications.
7. Terry Flew (2011). New Media: An Introduction, First Edition.
8. Alex Newson (2009). Blogging and other Social Media, First Edition.
9. Simon Lindgren - Digital Media and Society
10. Richard A. Gershon - Digital Media and Innovation: Management and Design Strategies in Communication
11. Andrew Dubber – Radio in the Digital Age
12. Nancy Baym – Personal Connection in the Digital Age

<b>Paper Code &amp; Title</b>	<b>PG78P206 : Radio (Practical-I)</b>
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**COURSE OUTCOMES:** (CO's) *after completing this paper, the students will be able to:*

- CO-1 Learn to record and convert the audio files in different formats.
- CO-2 Learn the different techniques of sound editing.
- CO-3 Gain practical knowledge working with audio equipments and software.
- CO-4 Understand sound effects and their importance.
- CO-5 Acquire knowledge podcasting (Internet radio).

### **Particulars of Practical**

1. Record your voice in different formats
2. Correct errors and add new parts.
3. Blend sound to create moods.
4. Record live talk show using multiple mikes.
5. Record a video clip and save it in different formats.
6. Experiment and discover your own unique sounds and special effects.
7. Create a signature tune, a PSA, a radio spot, a radio ad, a jingle.
8. Produce programmes in different formats (Talk , comparing, announcement, anchoring, interviews etc.)
9. Create an audio story with BGM, ambience and effects (duration 5 to 10 minutes).

<b>Paper Code &amp; Title</b>	<b>PG78P207 : Visual Communication (Practical-II)</b>
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**COURSE OUTCOMES:** (CO's) *after completing this paper, the students will be able to:*

- CO-1 Learn create and blend text in different shapes and colors.
- CO-2 Learn work with Photoshop, Coral Draw and illustration software's.
- CO-3 Gain practical knowledge about color manipulation techniques.
- CO-4 Learn and understand VFX techniques.
- CO-5 Understand and create hand drawing skills.

### **Particulars of Practical**

1. Create text in different shapes and colors. (Photoshop/Coral Draw/Illustrator)
2. Perspectives (Hand Drawing).
3. Composition (Hand Drawing).
4. Light and shade (Hand Drawing).
5. Birds, Animals and Human forms (Hand Drawing).
6. Design your own logo (Hand Drawing / Photoshop).
7. Image Manipulation- Colour to Monochrome (Photoshop).
8. Monochrome to Colour. (Photoshop)
9. Design a front page of magazine of your own imagines.(In design / Photoshop).
10. Practice and produce a 5 minutes documentary/short film by using VFX techniques. (Premier Pro / After Effects)

<b>Paper Code &amp; Title</b>	<b>PG78P208 : Swatch Bharat Internship (Practical-III)</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

**CO-1** Expose to the community activities and learn working with community.

**CO-2** Learn the duties and responsibilities of an individual in social life and understand the importance of cleanliness.

**CO-3** Understand the functions of NSS other social service agencies.

**CO-4** Maintain healthy and hygienic life in the society.

**CO-5** Contribute social services in the university campus.

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***Practical components:***

1. All students shall depute to NSS or Other units of the university or government agencies to carry out Swachh Bharat Internship.
2. All students should submit a detailed report about their internship experiences after successful completion of internship programme.

Paper Code & Title	PG78T301 : Video Editing
<b>COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:</b> <b>CO-1</b> Understand the importance and principles of video editing. <b>CO-2</b> Gain knowledge about overview about visual editing tasks. <b>CO-3</b> Learn the advantages of visual effects and sound effects along with their controls. <b>CO-4</b> Know the techniques of titling and title animation. <b>CO-5</b> Generate Edit Decision List and its advantages during video editing.	
<b>Unit - I</b>	Introduction to editing, Evolution of editing, Principles of editing, Forms of editing: Linear editing, Non -linear editing, Live editing.
<b>Unit - II</b>	Understanding editing tools, Match on action, Shot-reverse shot, Eye-line match etc. Match cut, Jump cut - Cut in, Cut away, Master shots, Montage-types and uses.
<b>Unit - III</b>	Editing Scripts, Workflow and workspace, Project Setup, Importing Footage, Monitoring Assets, Editing Sequences and clips, Effects and Transition.
<b>Unit - IV</b>	Effects, Effects Control, Transitions, Transition Editing, Editing Audio, Titling and the title, Animation and Key frames, Compositing, Exporting.
<b>Unit - V</b>	Video Formats, Audio formats, Building Sound Tracks, Sound carriers, Sound Bridge, Sound effects, Rendering, Settings for final output, Generating an EDL.
<b>Record Book:</b> All students should prepare and maintain a practical record book and submit the same on the day of practical examination.	

**Reference:**

1. Aaron Goold - **The Video Editing Handbook.**
2. Greg Keast - **The Art of The Cut: Editing Concepts Every Filmmaker Should Know**
3. Christopher J. Bowen - Grammar of the Edit.
4. Wallace Jackson - Digital Video Editing Fundamentals
5. Patrick McGrath and Robert M. Goodman - ***Editing Digital Video : The Complete Creative and Technical Guide***
6. Gerald Millerson - Video Camera Techniques.
7. Herbert Zetti - Sight Sound Motion
8. Steven E. Browne - Nonlinear Editing Basics: Electronic Film and Video Editing

<b>Paper Code &amp; Title</b>	<b>PG78T302 : Television Production Techniques</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand the evolution television and its growth in India.

**CO-2** Handle the television programme production task independently.

**CO-3** Gain the knowledge about different types of video cameras and this operations

**CO-4** Equip with different production techniques of television programmes.

**CO-5** Develop graphic presentation and lighting techniques in television production.

<b>Unit - I</b>	Evolution of television, Nature and characteristics of television, Growth of television in India, Organizational structure of Doordarshan, Satellite TV Channels.
<b>Unit - II</b>	Camera: Types of Camera, Parts of camera, Camera movements, Camera angles, Camera shots, Visual compositions, Single and Multi Camera operations, Types of television systems (NTSC, PAL).
<b>Unit - III</b>	Types of TV Programmes: Anchoring Visual Bite, Voiceover, News Presentation, Peice to Camera (PTC), News chit-chat, walk through News reading, Chit-Chat, Walkthrough, Panel discussion, Reality Shows, Interviews.
<b>Unit - IV</b>	Audio and visual elements, Informational and Educational Programme Production, General and Special Audience Programme Production, Language and style of presentation, Video jockeying, Entertainment programmes, Audience participation.
<b>Unit - V</b>	Graphic elements, Creating TV background, Animated Visual Background, Commercials production for television, Lighting techniques, Types of lighting, Natural lighting, Artificial lighting, Three point lighting system.

**Record Book:** All students should prepare and maintain a practical record book and Submit the same on the day of practical examination.

**Reference:**

1. Gerald Millerson – Television Lighting Techniques
2. Herbert Zetti – Television Production Handbook
3. K.M.Sreevastava – Radio and Television Journalism
4. Gerald Millerson – Video Camera Techniques
5. Kyker & Curchy – Television Production
6. Gerald Millerson – Techniques of TV Production

<b>Paper Code &amp; Title</b>	<b>PG78T303 : Radio Production Skills</b>
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand types of radio and their characteristics.

**CO-2** Learn about the organizational structure of All India Radio and the functions of different departments of radio AIR.

**CO-3** Gain the knowledge about skills of radio programme production.

**CO-4** Produce different radio programmes for different group of people in the society.

**CO-5** Understand the basics of single track and multi track sound editing.

**Unit - I** Introduction to radio, Evolution of radio in India, Characteristics of radio, Types of radio stations (AM/FM), Community radio, Organizational structure of All India Radio.

**Unit - II** Structure of operational radio studio, Types of microphones, Sound Pic-up Patterns, Types of sound recording equipments, Voice Modulation, Pronunciation.

**Unit - III** Types of radio programmes, Formats of radio programmes, News production, Radio feature, Documentary, Music-based Programmes, Radio Jacky, Radio Talk, Interview, radio announcements.

**Unit - IV** Interactive radio programmes, Phone-in-programme, Special audience programmes, Drama and plays, Educational programmes. Outdoor and live programme production, Field production techniques.

**Unit - V** Sound editing, Single track and multi track editing, Sound mixing, Sound effects, Perception of final output, Hearing sensitivity, frequency range, Wavelength, Audience research wing.

**Reference:**

1. D.K.Choler – Broadcast Journalism
2. Mehara Masani – Broadcasting and People
3. B.N.Ahuja – Audio Visual Journalism
4. Kelav J. Kumar – Mass Communication in India
5. David Dary – Radio News Handbook
6. P.C.Chatterjee – Broadcasting in India
7. Stanly Alan – Audio in Media
8. R. Maclicesh – Radio Production Teqhniques
9. Hausman, Benoit and Lewis – Modern Radio Production

<b>Paper Code &amp; Title</b>	<b>PG78T304 : Media Research Methods</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1** Understand the areas and concepts of research in media fields.
- CO-2** Identify the various problems in electronic media field to conduct research.
- CO-3** Define research and differentiate pure and applied research.
- CO-4** Cope up with various methodologies involving in media research.
- CO-5** Understand the tools and techniques of conduct research in the area of electronic media.
- CO-6** Study the data collection techniques and data analysis methods with different statistical software's and tools.
- CO-7** Understand the ethics involve in research activities and research report writing techniques.

- Unit - I** Significance of media research, Definition, Elements of research, Scientific approach, Research and communication theories, Role, Function, Scope and Importance of media research, Basic and Applied research.
- Unit - II** Research design components, Experimental, Quasi-experimental, Longitudinal studies, Simulation, Panel studies, Field studies, Review of literature, Methods of media research: Census method, Survey method, Observation method, Clinical studies, Case studies, Content analysis.
- Unit - III** Tools of data collection: Sources, Media source books, Questionnaire and Schedules, People's meter, Diary method, Field studies, Logistic groups, Focus groups, Telephone survey, Field surveys, Online survey, Exit polls and pre-election survey, Public opinion surveys, Survey of media habits, Methods of sampling, Hypothesis.
- Unit - IV** Data analysis techniques: Coding and tabulation, Levels of measurements, Random sampling methods and representativeness of the samples, sampling errors and distributions in the findings, SPSS and other statistical packages.
- Unit - V** Report writing, Media research as a tool of reporting, readership and audience surveys, preparation of research reports, project reports, Dissertations, Theses, Reference styles, Ethical perspectives of mass media research.

***Reference:***

1. Wimmer and Domnic - Mass Media Research
2. Bowers and Coutring - Communication Research Methods
3. Rice and Rogers - Research and New Media
4. Dennis McQuill - Milestones in Mass Communication Research
5. Stampel and Westley - Research Methods in Mass Communication
6. Curlinger- Foundations of Behavioral Research
7. Hsia -Mass Communication Research Methods

Paper Code & Title	PG78T305 : Broadcast Journalism (OEC)
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand the footsteps of broadcasting and characteristics of radio.

**CO-2** Learn about various formats of radio and television programmes.

**CO-3** Gain the knowledge about skills required to produce radio programme.

**CO-4** Develop writing skills for radio and television.

**CO-5** Understand the process of audience survey and TRP techniques.

<b>Unit - I</b>	Evolution of radio broadcasting in India, Historical perspectives of television in India Characteristics of radio, Television as a medium of mass communication.
<b>Unit - II</b>	Radio programme formats: Radio talk, Interview, Discussion, Documentary, Drama and Plays, Radio Jockey, Music Programmes, Special audience programmes: Children, Youth, Women and Educational programmes.
<b>Unit - III</b>	Writing for radio, Writing for television, Story Board for different programmes, Recording equipments, Microphones and audio equipments, Satellite communication, SITE, INSAT.
<b>Unit - IV</b>	Television Programme formats: News, TV anchoring, Panel Discussion, Celebrity interviews, Live coverage, Documentary.
<b>Unit - V</b>	Audience research wing, Television rating point (TRP), Stages of programme production, Programme promotion strategies, Social service ads, Public service ads, Broadcasting code.

**Reference:**

1. Herbert Zettel – Television Production Hand Book
2. Vanita Kohali – Indian Media Business
3. K.M.Srivatsava – Radio and Television Journalism
4. S Koushik – Script to Screen
5. Vasuki Belavadi – Video Production
6. D.K.Choler – Broadcast Journalism
7. Mehara Masani – Broadcasting and People
8. B.N.Ahuja – Audio Visual Journalism

<b>Paper Code &amp; Title</b>	<b>PG78P306 : Video Editing (Practical-I)</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Understand different video editing software's.
- CO-2 Learn the techniques of sound and video editing.
- CO-3 Gain practical knowledge working with project and sequences.
- CO-4 Understand process of video rendering.
- CO-5 Be aware about post production activities.

### **Particulars of Practical**

1. Understanding video editing software's
2. Working with editing tools.
3. Modify workspace.
4. Add and delete sequence, tracks (Audio and Video)
5. Edit and modify video effects, transitions and sound effects.
6. Setting final output.
7. Rendering video
8. Generating EDL

<b>Paper Code &amp; Title</b>	<b>PG78P307 : Television Production (Practical-II)</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Learn different stages of production
- CO-2 Learn advertising production techniques.
- CO-3 Gain practical knowledge produce different television programmes.
- CO-4 Learn and understand VFX techniques.

### **Particulars of Practical**

1. Produce a short film of duration ranging from 2 minutes to 20 minutes
2. Produce an advertising film
3. Produce a television show
4. Produce a comedy programme
5. Produce a game show/cookery show/interview

***Note : All practical details (Concept, Script, Story board, screen play. etc) should Be recorded in the practical record book and the same should be submitted At the semester end.***

Paper Code & Title	PG78T401 : Electronic Media Management and Event Management
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**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand the nature, scope and principles of media management.

**CO-2** Identify the economics of electronic media.

**CO-3** Enable to plan, execute and manage and conduct different events.

**CO-4** Gain the knowledge about ownership patterns of electronic media.

**CO-5** Impart practical knowledge about programme scheduling, record keeping and employee relations services.

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|-------------------|---|
| <b>Unit - I</b>   | Management, Principles of media managements, Nature, Scope and Significance of media management, India's major electronic media houses, Capital in media, Major income heads in media industry,                               |
| <b>Unit - II</b>  | Event management, Principles of event management, Preparing event proposal, Size and type of event, Costing and budgeting, Event team, Event planning, SWOT analysis, Live Media Management.                                  |
| <b>Unit - III</b> | Ownership patterns of electronic media, Managing media Organization: Planning, Coordination, Motivation, Control, Decision Making.  |
| <b>Unit - IV</b>  | Structure of radio and television organization, Recruitment and hiring of staff, service conditions, channel management, training for staff, apex bodies: DAVP, INS and ABC.  |
| <b>Unit - V</b>   | Programme management in electronic media; Scheduling, Transmitting, Record keeping, Quality control and cost effective techniques, Ethics in electronic media management, Employee, Employer and customer relations services. |

**Reference:**

1. Leon G. Schiffman and Leslielazar – Consumer Behaviour
2. Harold Koonz and Heinz Weihrich – Essentials of Management
3. Norman Stone – Management and Practice of Public Relations
4. Herman and Robert – The Global Media-New Missionaries of Global Capitalism
5. Singhal and Rigers – Communication Revolution
6. R.J.Adams – Media Planning
7. Dr.M.M.Varma – Advertising Management

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

**CO-1** Understand the concept and parameters of development.

**CO-2** Identify different models, strategies and barriers of development communication.

**CO-3** Gain the knowledge how to utilize electronic media for development.

**CO-4** Prepare developmental messages for different electronic media.

**CO-5** Understand various areas for hold developmental activities.

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|-------------------|--|
| <b>Unit - I</b>   | Concept of development, Development indicators, Approaches to development, Dilemmas of development, Development policy, Development planning.                            |
| <b>Unit - II</b>  | Concept of human development, Development communication, meaning, strategies in development communication, dominant paradigm.  |
| <b>Unit - III</b> | Social, Cultural and Economic barriers to development communication, Approaches to development, Use of media and inter-personal communication, channels for development. |
| <b>Unit - IV</b>  | Radio as a medium of development, Television as a medium of development, role of online media and Internet in development, Participatory model, Gandhian model.          |
| <b>Unit - V</b>   | Areas of rural development, Health, Population, Agriculture, Panchayat raj; Campaigns and their evaluation, Case studies in Indian context.                              |

**Reference:**

1. Wilbur Schramm - Mass Media and National Development
2. B.Kuppuswamy- Social change in India.
3. Melkote -Communication for development in third world Countries
4. Narula- Development Communication.
5. H.K Raganath -Traditional folk media.
6. N.Usharani- Folk media for Development.
7. Karin Gwinn Wilkins, Thomas Tufte, Rafael Obregon - The Handbook of Development Communication and Social Change
8. J V Vilanilam - Development Communication in Practice

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

CO-1 Define corporate communication, nature and scope of corporate communication

CO-2 Identify the functions of corporate communication.

CO-3 Enable the student to work with the corporate world of electronic media.

CO-4 Acquire knowledge about media relations and public relations

CO-5 Understand social responsibilities of corporate sector.

- Unit - I** Corporate Communication – Definition, Nature, Scope and Importance of Corporate Communication, Historical relevance and contemporary relevance, Communication in organizations: Internal and external, Downward, Upward, Horizontal and Diagonal communication.
- Unit - II** Faces of corporate communication, Organizational communication, Marketing communication, Management communication Principles of effective communication.
- Unit - III** Functions of corporate communication- Media relations, Government relations, Employee Relations, Costumer Relations, Public Relations.
- Unit - IV** Corporate Reputation and Image Identity, Concept of corporate personality and identity, Brand valuation and Equity, Role of communication in building corporate reputation, Crisis management.
- Unit - V** Corporate Social Responsibility, Importance of CSR, CSR focus areas and practices, Environmental conservation, Energy conservation Disaster relief, Consumer rights advocacy, Community development.

***Reference:***

1. Paul Argenti - Corporate communication
2. J.P. Cornelissen - Corporate communication
3. Gary. L Kreps - Organizational communication
4. J.R. Adams - Media Planning
5. Hynes and Hynes - Managerial communication- strategies and Applications
6. Gary L. Cresp – organizational Communication
7. Paoul A. Argenti – Corporate Communication
8. Shel Holtz – corporate Conversations : A guide to crafting Effective and Internal Communication
9. Joep P. Cornelissen – Corporate Communication : Theory and Practice
10. Argenti – Strategic Corporate Communication.
11. Alan T. Belasen - The Theory and Practice of Corporate Communication: A Competing Values Perspective.

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

**CO-1** Understand the basics of research and its application.

**CO-2** Gain the knowledge about identify various problems of electronic media

**CO-3** Understand the important objectives of the research in electronic media.

**CO-4** Understand the different data collection tools and techniques.

**CO-5** Know the different research methods of conducting research.

**CO-6** Understand different sampling techniques

**CO-7** Understand and analyze the different aspects of Report writing.

**Unit - I** Identifying various electronic media problems, Topic about the media itself, Radio, TV, Online, Digital, Social Media. Uses and Users of media different media, Media effects on users. (Selection and finalization of the topic for project work) (**Time limit:** first 2 weeks of the semester)

**Unit - II** Review existing studies. (Record the findings of early studies) (**Time limit:** 3 weeks after defining project title)

**Unit - III** Adopting appropriate methodology (Survey, Content analysis, Case study. etc) for the study, preparing data collection tools. (**Time limit:** 2 weeks after reviewing existing data and early studies)

**Unit - IV** Data Collection, Data tabulation, Creating tables and charts (**Time limit:** 4 weeks after designing tools of data collection)

**Unit - V** Finding out the results, Discussion on major findings, Making suggestions, Concluding the (Study) project, Preparing final report of the project submission. (**Time limit:** 3 weeks after data collection).

***Note : Project work should be carried out and completed within the time limit as mentioned at the end of respective units. (Total time limit: 14 Weeks)***

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

**CO-1** Understand the basics of online media production.

**CO-2** Design concepts of web pages and other online media content.

**CO-3** Understand the duties and responsibilities of web design and management team.

**CO-4** Gain the knowledge about cyber journalism and cyber culture.

**CO-5** Understand working with online media content.

**Unit - I** Introduction to online media, Origin and growth of online media, fundamentals of online media, Types of online media, Media convergence.

**Unit - II** Internet and Intranet, Browsers, Search engines, Web structure, Web blogs, Websites, Mobile Apps, e-publication,

**Unit - III** Writing for web media, Web Development Tools, Web Advertising, Web casting, Pod casting, HTML, Dreamweaver, Flash. Web reporting and updating.

**Unit - IV** Making of web page, Web team member: Graphic Designer, Project Manager, Web site manager, Animator, Audio-video expert, video conferencing, ecommerce: Buying, Selling, Banking, Advertising on Internet.

**Unit - V** Cyber journalism and cyber culture, Internet TV, Internet radio, Cell phones and SMS, Social network sites.

***Record Book: All students should prepare and maintain a practical record book and submit the same on the day of practical examination.***

***Reference:***

- 1) Ambrose and Harris – The Production Manual ; A Graphic Design Handbook.
- 2) Jason Whittaker - Producing for the Web ( Media Skills)
- 3) Timothy Garrand - Writing for Multimedia and the Web –
- 4) Stephen Pite -The Digital Designer: 101 Graphic Design Projects for print.
- 5) Michael Miller -Absolute beginner's guide to computer basics.
- 6) Ramesh Bangia – Web Technology
- 7) Damien Stolarz -Hands on guide to video blogging and podcasting
- 8) John V .Pavlik -Journalism and New Media
- 9) McGuire Stillbome – The Internet Handbook
- 10) Gorham Anders Kindem and Robert B. Musburger - Introduction to Media Production: The Path to Digital Media Production.

<b>Paper Code &amp; Title</b>	<b>PG78P406 : Online Media (Practical-I)</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Understand the process of creating blog.
- CO-2 Learn the techniques of uploading content to digital platforms.
- CO-3 Gain practical knowledge to create dynamic with HTML tags and static web pages.
- CO-4 Understand process of creating YouTube channel and upload video to the YouTube channel.
- CO-5 learn real-world skills from leading designers, artists, and entrepreneurs.

### **Particulars of Practical**

1. All students of the course shall create a Blog.
2. Customize your Blog Settings.
3. Upload your own digital content to your Blog.
4. Create a YouTube Channel and upload 2 video clips of your own production
5. Create a web page using Dreamweaver.
6. Prepare your bio-data using HTML Codes.

<b>Paper Code &amp; Title</b>	<b>PG78P407 : Production of Video Magazine (Practical-II)</b>
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***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Learn reporting techniques for electronic media
- CO-2 Learn script writing and production techniques for video magazine.
- CO-3 Gain practical knowledge produce special segment video magazine.
- CO-4 Learn the techniques of news chitchat and give PTC.
- CO-5 Understand the interview skills and identify news worthy components.

### **Particulars of Practical**

1. All students of each batch (If batches are made) should collect the information (Academic, Sports, Cultural, literature, achievements of the students, faculty and staff members of the University) during the course of all four Semesters.
2. Prepare news scripts for video news magazine based on the collected information.
3. Produce a news bulletin for video magazine.
4. Produce a special segment for video magazine.
5. Produce a news chit-chat in campus for video magazine.

***Note : All practical details (Concept, Script, Story board, screen play. etc) should be recorded in the practical record book and the same should be submitted at the semester end.***

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF ELECTRONICS**



**M.Sc. Electronics**  
**Syllabus**

for

***Choice Based Credit System (CBCS)***

***With Effect From***

**2018-2019**

***onwards***

The M.Sc. course in Electronics was started during 1995–96 in the Department of Physics under the UGC thrust area programme. Keeping in view of the up gradation in the field of electronics at both academia and industry the curriculum is accordingly prepared. Department is committed to the academic excellence, creativity and all-round development of the students. Over the years the students of the department have occupied good positions in industry/academia at both national and international level.

### **Programme of Study:**

The M.Sc. Course is a two-year programme spread over four semesters each of sixteen weeks duration. There will be two categories of courses offered by the Department Viz., Compulsory and Elective Courses (as per regulation 7.2). A compulsory course means a course in Electronics, which a student admitted to M.Sc. Programme in Electronics, should successfully complete to receive M.Sc. degree in Electronics. An Elective course means a course offered in Electronics by the department, for the students of other departments. A student admitted to M.Sc. programme in Electronics should necessarily opt the compulsory courses in Electronics and elective courses offered by the other departments. Students have the freedom to choose from among the prescribed elective courses as per university guide line.

Compulsory courses consist of 14 theory courses and 07 practical and 01 project courses. The Project is in the Fourth semester.

The two Elective courses offered by the Electronics Department for the students of other departments, comprise one theory course each in the second and third semesters only.

### **Credits:**

A student shall complete 96 credits to complete postgraduate course in Electronics with 24 credits per semester. The credits for each of the theory (compulsory and elective) courses and for each of the practical/project (compulsory) courses shall be 4. For the I and IV semesters, there shall be 24 credits for the compulsory courses and for the II and III semesters, there shall be 20 credits for the compulsory courses. There shall be 4 credits each for the open elective courses offered by the other students during II and III semesters. In each of the first three semesters, there are two practical courses each of 04 credits and fourth semester comprises of 01 practical and 01 project courses of each 04 credits. A student shall register for 24 credits per semester.

## 1. M.Sc. Electronics Degree Programme:

**Duration of the Degree Course:** M. Sc. Degree Course is of Two years duration spread over Four semesters each of sixteen weeks duration.

**Eligibility for Admission:** B.Sc. degree of this University or of any other University recognized as equivalent there to with the optional combinations of i) Electronics, Physics, Mathematics and ii) Electronics, Computer science, Mathematics. The minimum percentage of marks in optional subjects as well as in aggregate will be as per the prevailing rules of the University.

**Admission Intake:** 25 students for the First semester (it may vary from time to time with the permission from the University). This includes admission under enhanced fee structure. Other rules for admission are as per University notification from time to time.

**2. Attendance:** Every student must have at least 75% attendance in each of the course (Theory and Practical) in each semester. Shortage of attendance will be dealt with as per the University rules from time to time.

**3. Medium of Instruction:** The medium of Instruction shall be English.

### 4. Scheme of Instruction:

In each Semester there will be Compulsory FOUR theory Courses and TWO Practical Courses.

Each theory Course is of FOUR hours of Lectures per week. Each practical course is of FOUR contact hours per week. These include Seminars, Tutorials and Discussion classes. Internal assessment shall be based on written tests/practical tests conducted during the semester.

Each theory and practical Courses shall carry 100 marks out of which 25 marks are for Internal Assessment (IA) test. Various components of IA of 25 marks are as: Attendance-3 marks, written test/Seminar/Assignment – 22 marks.

The total maximum marks for compulsory courses (Theory & Practical) for I semester shall be 600 and for IV semester shall be 650 and for each of II and III semesters shall be 500.

**Project:** Every student has to perform a Project course in the FOURTH Semester. This may be either theoretical or experimental project relating to electronics subject. More than one student may be allowed to work on a particular project. Project course carries 150 marks, of which 25 is for IA, 50 marks for viva-voce examination with a presentation and 75 marks for the evaluation of project report.

5. **Scheme of Evaluation:** Evaluation of each of the courses will have two components, the first being internal assessment (IA) and the second being the semester-end examinations. For a theory and practical courses having a credit award of 4, the total maximum marks shall be 100. Out of the total of 100, 25 marks shall be earmarked for the IA and remaining 75 marks for the semester -end examination. For the project, having a credit award of 06, the total maximum marks shall be 150, out of the total of 150, 25 marks shall be earmarked for IA and the remaining 125 marks for the semester end examination.

**Examination:** Examination will be conducted at the end of the each semester as per the regulations governing PG Programmes in the faculty of Science & Technology. At semester end examination each theory course will have ONE question paper of 3 hours duration and will carry maximum marks of 75. The internal assessment tests will be conducted during the semester. The mode of conducting Internal Assessment tests may involve a common test for all the courses of that semester. Each practical course will have examination generally, of four hours duration and will carry a maximum of 75 marks at the end of semester. Internal assessment for 25 maximum marks is made through test/seminars.

**Project:** Each student should submit Project report at the end of IV semester to become eligible for examination. The evaluation of project report carries a maximum of 75 marks. The viva-voce examination carries a maximum of 50 marks and will be in the form of presentation. Internal Assessment for 25 maximum marks is made through test/seminar.

**Question Paper Pattern:** There will be FIVE questions in a question paper of each theory course for the semester end examination. Each question carries 15 marks. Of the five questions, one question each will be drawn from each of the FOUR units for each compulsory course in the syllabus. Each question will have an internal choice drawn from same unit. Each question will consist of two parts, the one part of 10 marks and the other part of 5 marks. The fifth question, also carrying 15 marks shall contain four sub questions (one from each unit) with an option to answer any three. The four sub questions may be in the form of a problem/short answer question/question for explanation of a concept.

**Distribution of Marks:**

Theory Course:	Max Marks
Examination	75
Internal assessment	25
Total	<b>100</b>
Practical Course:	
Examination (Inclusive of 5 Marks for Journal and 10 Marks for viva-voce)	75
Internal assessment	25
Total	<b>100</b>
Project:	
Examination (Project Dissertation- 75, Viva-Voce-50)	125
Internal assessment	25
Total	<b>150</b>

**6. Maximum period for the completion of the M.Sc. Degree Programme:**

There shall be carry-over benefit from first to fourth semester. The maximum number of years required by a student to complete the degree is as specified the University from time to time.

**7. Rules and Award of Degree:**

The minimum for a pass in each course shall be 40% (Semester end exam and internal assessment put together) and 50% in aggregate when all courses of four semesters are put together. There shall be no separate minimum either for semester end examination or for internal assessment.

**Award of Degree:** Students after successfully completing all the courses prescribed for all the four semesters by scoring minimum of 50% in aggregate will qualify for the award of M.Sc. degree in Electronics.

**Results (Marks and Grading):** Results of the candidates are declared based on the marks obtained and grades earned and the class awarded as per the University rules.

**8. Facilities and activities:** Students are provided, with computer facilities for Internet browsing, library facility, counseling facility and Epsilon club facility. Epsilon club is an association of members consisting of Department Teachers, Research scholars and students. Through which students and Research scholars are encouraged to give lectures and to participate in extracurricular activities. Through this club special lectures by eminent scientists and staffs are arranged often.

**M.Sc. (Electronics) Choice Based Credit System (CBCS)**  
**Teaching and Evaluation Scheme**  
**(From Year 2018-19 onwards)**

Sem No	Paper Code No	Title of the paper	Week	Teaching Hrs/Week*	Duration of Examination in hrs/ Theory/ Practical	Marks at the exam Proper	Internal Assessment	Total
<b>I</b>	<b>NOTE: CT: Compulsory Theory CP: Compulsory Practical ET: Elective Theory</b>							
	ELCT 1.1	Semiconductor Device Theory and Practice	4	4	3	75	25	100
	ELCT 1.2	Signals and Systems	4	4	3	75	25	100
	ELCT 1.3	Programming in C++ and Basics of Python	4	4	3	75	25	100
	ELCT 1.4	Power Electronics Devices and Systems	4	4	3	75	25	100
	ELCP 1.5	Practical –I: Analog & Digital Electronics and MATLAB	4	4	4	75	25	100
	ELCP 1.6	Practical-II: Programming in C++ and Power Electronics	4	4	4	75	25	100
<b>II</b>	ELCT 2.1	Digital Signal Processing	4	4	3	75	25	100
	ELCT 2.2	Controls and Instrumentation	4	4	3	75	25	100
	ELCT 2.3	Microprocessor and Microcontroller	4	4	3	75	25	100
	ELET 2.4	Basic Electronics & Linear Integrated Circuits	4	4	3	75	25	100
	ELCP 2.5	Practical –III: DSP and Instrumentation	4	4	4	75	25	100
	ELCP 2.6	Practical – IV: Microprocessor & Microcontroller	4	4	4	75	25	100
<b>III</b>	ELCT 3.1	Digital Communication	4	4	3	75	25	100
	ELCT 3.2	Introduction to VLSI Circuits	4	4	3	75	25	100
	ELCT 3.3	Embedded Systems Design using ARM Cortex M4	4	4	3	75	25	100
	ELET 3.4	Communication and Digital Circuits	4	4	3	75	25	100
	ELCP 3.5	Practical - V: Digital Communication & VLSI	4	4	4	75	25	100
	ELCP 3.6	Practical – VI: Interfacing with Embedded ARM Cortex Controller	4	4	4	75	25	100
<b>IV</b>	ELCT 4.1	Microwave and Optical Fiber Communication Systems	4	4	3	75	25	100

	ELCT 4.2	Computer Communication	4	4	3	75	25	100
	ELCT 4.3	Digital System Design-VHDL	4	4	3	75	25	100
	ELCT 4.4	Micro Electro Mechanical Systems	4	4	3	75	25	100
	ELCP 4.5	Practical - VII : Optical Fiber Communication & VHDL	4	4	4	75	25	100
	ELCP 4.6	Project:	6	6	4	125 (75 for dissert ati on and 50 for Viva)	25	150

***M.Sc. Electronics***  
***FIRST SEMESTER***

ELCT 1.1	Semiconductor Device Theory and Practice
ELCT 1.2	Signals and Systems
ELCT 1.3	Programming in C++ and Basics of Python
ELCT 1.4	Power Electronics Devices and Systems
ELCP 1.5	Practical-I: Analog & Digital Electronics and MATLAB
ELCP 1.6	Practical-II: Programming in C++ and Power Electronics

# M.Sc. ELECTRONICS

## FIRST SEMESTER

### COURSE ELCT 1.1: SEMICONDUCTOR DEVICE THEORY AND PRACTICE

*Teaching hours per week: 4*

#### UNIT-I

*No of credits: 4*

Crystal lattices: periodic structures, cubic lattices, planes and directions, diamond lattice, bonding forces in solids. Energy bands, direct and indirect semiconductors. Charge carrier concentration, Fermi level, electron and hole concentration at equilibrium, Temperature dependence of carrier concentration. Drift of carriers in electrical and magnetic field. Optoelectronic devices: Photodiodes, current and voltage in illuminated junction, solar cells, photo-detectors and Light emitting diodes.

**12 hours**

#### UNIT-II

Op-Amp introduction, Instrumentation amplifier, Waveform generators, Active filters- low pass, High pass, bandpass, band stop and all pass filters, Schmitt trigger, Precision Rectifier, Sample-and-Hold circuits. Timer 555 applications: Monostable & Astable Multivibrators, Monolithic waveform generators, V-F and F-V converters. Analog multipliers, PLL, Universal active filter and switched capacitor filter.

**12 hours**

#### UNIT-III

Performance Specifications of A-D and D-A Converters, D-A conversion Techniques-Weighted Resistor DACs, Voltage mode R-2R ladder DAC. A-D converter: Successive-Approximation ADC, Flash Converters, Integrating Type Converters. Digital Arithmetic circuits: ALU, Parallel binary adder, Design of Full adder, carry look ahead adder. Flip-Flop circuits: NAND and NOR latches, clocked flip-flop (S-R, J-K, D and T).

**12 hours**

#### UNIT-IV

Counters: Synchronous and asynchronous counters, UP/DOWN counter and counter applications. Shift Registers: Concept of Shift Registers and its applications MSI Logic families: Decoders, BCD-to-7 segment decoder/driver, encoders, Multiplexers and their applications, Demultiplexers, Magnitude Comparator, and Data bus operation. Memory devices: Read-Only memories, ROM architecture, Types of ROMs, flash memory. Programmable Logic Devices: Basic idea, PLD architecture (PROM), PAL, PALs, Applications of a programmable Logic Devices-GAL 16V A and Programming PLDs

**12 hours**

#### Text books:

1. Solid state electronics devices. Ben G Stretman and Sanjakuma Banarji. Pearson (2016)
2. "Op-Amps and Linear Integrated Circuits", Ramakant A Gayawad, PHI India Ltd
3. "Digital Systems- Principles and Applications" R. J. Tocci, 6/e, PHI India Ltd.,
4. "Digital Fundamentals" Floyd-Merrill's, International Series

#### Reference books:

1. Semiconductor Physics & Devices Basic Principles (2004) Donald A Neamen, McGraw Hill (3<sup>rd</sup> Edition)
2. "Linear Integrated Circuits", D. Roy Choudhary and Shail Jain, New Age International (P) Ltd.
3. "Digital Principles and Applications" A. P. Malvino and Leach, TMH, 1991
4. "Digital Logic and Computer Design". Morris Mano, PHI India Ltd.,

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## COURSE ELCT 1.2: SIGNALS AND SYSTEMS

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT-I

**Introduction:** Overview of specific signals and systems, Classification of signals, Basic operations on signals. Elementary signals. Systems viewed as interconnections of operations, Properties of systems. **Time Domain representations of Linear Time-Invariant systems:** Introduction. Impulse response representations of discrete and continuous time LTI systems. Differential and difference equation representations of LTI Systems. Block Diagram representation (discrete-time). **12 hours**

### UNIT-II

**Fourier Representation of Signals:** Introduction, Discrete-Time periodic signals, The discrete-Time Fourier series, and Continuous-Time periodic signals. The Fourier series discrete time non-periodic signals, Fourier transform and properties of Fourier representation. **Application of Fourier Representation:** Introduction, frequency response of LTI systems, Fourier transforms representation for periodic signals, Convolution and Multiplication with mixtures periodic and non-periodic signals. Fourier transforms representation for discrete time signals. Sampling and reconstruction of continuous time signals. **14 hours**

### UNIT-III

**Representation of Signals Using continuous-Time Complex Exponentials:** Introduction, Eigen function property, LT representation, convergence, Pole-Zero. Unilateral L-T, Properties of Unilateral LT. Inversion of Unilateral L-T, Solving Differential Equations with Initial Conditions, LT Methods in circuit analysis. Properties of Bilateral LT. **12 hours**

### UNIT-IV

**Representation of signals Using Discrete-Time Complex Exponentials: The Z-Transform:** Introduction, Z-transform, properties of the ROC, properties of the Z-transform. Inversion of Z-transform, analysis of LTI systems. The unilateral Z-Transform. **12 hours**

#### Text books:

- 1) "Signals and Systems", Simon Haykin and Barry Van Veen-John, Wiley and sons, Inc.

#### Reference books:

- 1) "Signals and Systems", Oppenheimer, A. S. Willsky, 2/e Pearson education, In.,
- 2) "Signals and Systems", Bagli and Shah, Mahalaxmi Publications, Kolhapur.

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## COURSE ELCT 1.3: PROGRAMMING IN C++ AND BASICS OF PYTHON.

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT – I

Introduction - Object oriented programming characteristics of an object oriented language. Basic concepts of object oriented programming language. Applications of oops. **C++ programming language** - Basic structure of c++ program, compiling and linking. Tokens, datatypes, Arithmetic operators, relational, operators, special operators, expressions and evaluation of expressions, scope Resolution operator, Derefencing operator. Decision making and control loop structures: If, if... else statement, switch statement, do... While, while and for loop statement. **16 hours**

### UNIT – II

**Functions in C++:** The main function, function prototyping, call by reference. **Classes and objects:** Defining member functions, nesting of member functions, function overloading, memory allocation for objects, static and dynamic allocation. **Pointer and polymorphism:** polymorphism pointer to objects, pointers to derived classes, pointer to functions. **Managing console I/o operations: C++ streams, unformatted i/o operations. Structures:** declaration, initialization, nested of structure, pointer to structures. **Inheritance:** extending classes, derived classes. **12 hours**

### UNIT – III

**Data Structures:** Classification, basic Operations. **Stacks:** Representation of stack in C using Array, Operations of stack, Application of stack, Infix, Postfix, & Prefix Expressions, postfix expression evaluation. **Queue:** Representation of Queue using Array, Operations on queue, Double ended and Circular queue. **Linked List:** Advantages of linked list, basic component of list, representation of list, basic operation of singly list, types of list, Circular linked list, doubly linked list. **Trees:** Tree terminology, classification, representation of tree, binary tree, tree traversal. **12 hours**

### UNIT – IV

**Sorting:** Bubblesort, selection sort **Searching:** Basic searching techniques, binary search, interpolation search. **Python Introduction-** Overview of Python programming language, introducing the python interpreter, program execution, execution model variations, Interactive prompt. **Introducing python object types-** The python conceptual hierarchy, python's core data types, numbers, strings, Dictionaries, Tuples, Files, Numeric type. **12 hours**

#### Text books:

- 1) Learning python by B. Nagesh Rao, Cyber plus
- 2) C++ Programming language -3rd edition- by Bjarne Stroustrup, Addison Wesley Publication
- 3) Object oriented programming language by E Balagurusamy, Tata Mc-Graw Hill (6<sup>th</sup> edition)
- 4) Object oriented programming language using C++ by A.M.Padma Reddy, Nandi Publication.

#### Reference books:

- 1) Learning python powerful object oriented programming by Mark Lutz (5<sup>th</sup> edition), 'O'Reilly Media Publication.
- 2) Python programming for Beginners by Joseph Joyner, Mihails Konoplovs publication.

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## COURSE ELCT 1.4: POWER ELECTRONICS DEVICES AND SYSTEMS

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT I

**Introduction:** Applications of power Electronics, Power semiconductor devices, Types of Power Electronic Circuits. Reverse recovery characteristics of diode, Power diode types, Effect of Forward and Reverse Recovery Time. **Semiconductor Power Electronic Devices:** Gate and Switching Characteristics of SCR, IV characteristics of DIAC, TRIAC, GTO, PUJT–Power Transistors–Power FETs–LASCR–Two transistor model of SCR – Protection of Thyristors against over voltage – over current,  $dv/dt$  and  $di/dt$ . **12 hours**

### UNIT II

**SCR Triggering Techniques:** Turn on circuits for SCR – triggering with single pulse and train of pulses–synchronizing with supply. Different commutation techniques, Series and Parallel operations of SCRs. **Controlled Rectifiers:** Single phase–three phase–half controlled and fully controlled rectifiers–Waveforms of load voltage and line current under constant load current **12 hours**

### UNIT III

**Choppers:** Chopper classifications, Principle of Step down and Step up operations, Control Strategy of Chopper, Buck, Boost and Buck–Boost regulator. **DC motor drives:** Basics of DC motors, Semi converter, full converter and Dual converter motor drives, BLDC Motor Drives. **12 hours**

### UNIT IV

**Voltage Source Inverter:** Single-phase half bridge inverter, full bridge inverter, voltage and current waveforms, Mc-Murray commutation circuit, three-phase bridge inverter, voltage and current waveforms, Concept of PWM inverters. **Applications:** Battery charger–SMPS–UPS, PWM Solar Charge controller. **12 hours**

#### Text Books:

1. Dubey G. K., Doradla S. R., Joshi A. and Sinha R. M. K., “Thyristorised Power Controllers”, New Age International Private Limited.
2. Rashid M. H., “Power Electronics Circuits Devices and Applications”, 3rd Ed., Pearson

#### References:

1. Sen: Power Electronics, TMH, 1987.
2. Dubey: Thyristorised power controllers, Wiley Eastern 1986.
3. Vithayathil: Power Electronics – Principles and applications McGraw-Hill, 1995.
4. Lander: Power Electronics, 3<sup>rd</sup> Edition, McGraw-Hill, 1994.

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## COURSES IN PRACTICALS

**ELCP 1.5: Practical-I: Analog & Digital Electronics and MATLAB and**

**ELCP 1.6: Practical-II: Programming in C++ and Power Electronics**

(EACH PRACTICAL IS OF 4 HOURS PER WEEK AND WITH FOUR CREDITS)

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***M.Sc. Electronics***  
***SECOND SEMESTER***

ELCT 2.1	Digital Signal Processing
ELCT 2.2	Controls and Instrumentation
ELCT 2.3	Microprocessor and Microcontroller
ELET 2.4	Basic Electronics & Linear Integrated Circuits (OEC)
ELCP 2.5	Practical-III: DSP and Instrumentation
ELCP 2.6	Practical-IV: Microprocessor & Microcontroller

## M.Sc. ELECTRONICS

## SECOND SEMESTER

### Course ELCT 2.1: DIGITAL SIGNAL PROCESSING

*Teaching hours per week: 4*

#### UNIT I

*No of credits: 4*

**Discrete Fourier Transform (DFT):** Introduction, Properties of DFT, Circular shift of a sequence, Circular convolution, Linear convolution using DFT. Overlap-save and overlap-add methods of linear filtering. **Efficient Computation DFT:** Introduction, Decimation-in-time FFT algorithm and in-place computations, and Decimation-in-frequency FET algorithm and in-place computations, Applications FFT algorithm in linear filtering. **12 hours**

#### UNIT II

**IIR Filter Design:** Introduction, Design of IIR digital filter from analog filters, Impulse invariance, Design based on numerical solution of differential equations, bilinear transformation, Matched Z Transform. Characteristics of Buterworth and Chebyshev Filters. And problems on these filters. **12 hours**

#### UNIT III

**FIR Filter Design:** Introduction, Impulse response of linear Phase FIR filters, Design of Linear Phase FIR filters using Windows- Rectangular. Characteristic features of Barlett, Hanning, Hamming, and Blackmann windows. Frequency sampling and Equiripple FIR filter design criteria, comparison of IIR and FIR digital Filters. **12 hours**

#### UNIT IV

**Digital Filter Structures:** Basic IIR filter Structures: Direct forms (I&II), Cascade and parallel realizations. Signal Flow graph and Transposed structure. Basic FIR filter structures: Direct from, linear phase and lattice FIR structures. DSP processor architecture. **12 hours**

#### Text books:

1) "Digital Signal Processing", Proakis, Prentice Hall of India Ltd.

Digital Signal processing: A practical approach. 2<sup>nd</sup> Edition By Emmanuel C Ifeachor, BarrieW Jervis. Pearson Publishers

**Discrete Fourier Transform (DFT):** Introduction, Properties of DFT, Circular shift of a sequence, Circular convolution, Linear convolution using DFT. Overlap-save and overlap-add methods of linear filtering. **Efficient Computation DFT:** Introduction, Decimation-in-time FFT algorithm and in-place computations, and Decimation-in-frequency FET algorithm and in-place computations, Applications FFT algorithm in linear filtering. **12 hours**

#### UNIT II

**IIR Filter Design:** Introduction, Design of IIR digital filter from analog filters, Impulse invariance, Design based on numerical solution of differential equations, bilinear transformation, Matched Z Transform. Characteristics of Buterworth and Chebyshev Filters. And problems on these filters. **12 hours**

#### UNIT III

**FIR Filter Design:** Introduction, Impulse response of linear Phase FIR filters, Design of Linear Phase FIR filters using Windows- Rectangular. Characteristic features of Barlett, Hanning, Hamming, and Blackmann windows. Frequency sampling and Equiripple FIR filter design criteria, comparison of IIR and FIR digital Filters. **12 hours**

#### **UNIT IV**

**Digital Filter Structures:** Basic IIR filter Structures: Direct forms (I&II), Cascade and parallel realizations. Signal Flow graph and Transposed structure. Basic FIR filter structures: Direct form, linear phase and lattice FIR structures. DSP processor architecture. **12 hours**

#### **Text books:**

- 2) "Digital Signal Processing", Proakis, Prentice Hall of India Ltd.
- 3) Digital Signal processing: A practical approach. 2<sup>nd</sup> Edition By Emmanuel
- 4)

#### **Reference books:**

- 1) "Digital Signal Processing", Rabiner and Gold, Prentice Hall of India Ltd
- 2) "Digital Signal Processing", Sanjit. K. Mitra, Tata-McGraw Hill.

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## COURSE ELCT 2.2: CONTROLS AND INSTRUMENTATION

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT-I

**Control Systems:** Introduction, examples of Control Systems and Closed-loop versus Open-loop controls. **Mathematical Modeling of dynamic systems:** Transfer function and impulse-response function, automatic control systems, modeling in state space, State-space representation of dynamic systems, Electrical and Electronic systems, Signal flow graphs.

**12 hours**

### UNIT-II

**Transient and steady state response analysis:** First-order and Second-order systems, Routh's stability criterion, Effects of Integral and derivative control actions on systems performance, Steady-state errors in unity-feedback control systems. **Root-Locus analysis:** Root-Locus plots, General rules for constructing Root Loci, Positive-feedback Systems.

**12 hours**

### UNIT-III

**Control Systems Design by the Root-Locus Method:** Preliminary design considerations Lead and Lag compensations, Lag-Lead compensation. **Frequency-Response Analysis:** Bode diagrams, Polar plots, Log-Magnitude-versus-Phase plots, Nyquist stability criterion, Stability analysis, Relative stability.

**12 hours**

### UNIT-IV

**Digital Instruments:** Dual slope integrating type DVM, Integrating type DVM, Continuous Balance DVM, 3-1/2 digit, Resolution and sensitivity of digital meters, General specification of DVM, MP based Ramp type DVM, Digital Multimeters, Digital Frequency meter, Digital PH meter, Digital Phase meter, Digital Capacitance meter Digital readout oscilloscope, Digital storage oscilloscope and IEEE 488 Bus.

**12 hours**

#### **Text books:**

- 1) "Modern Control Engineering", K. Ogata, 4/e, PHI, 2003.
- 2) "Electronic Instrumentation" H.S. Kalsi, TMH 1995

#### **Reference books:**

- 1) "Modern Control Engineering", D. Roy Choudhary, PHI, 2005.
- 2) "Automatic Control Engineering", B.C. Kuo, 7/e, PHI, 1995.
- 3) "Modern Electronic Instrumentation and Measurement Techniques", A.D. Helfric and W.D. Cooper, PHI of India Ltd.,

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## COURSE: ELCT 2.3: MICROPROCESSOR AND MICROCONTROLLER

*Teaching hours per week: 4*

### UNIT-I

*No of credits: 4*

**8086 Microprocessor and its Architecture:** Internal Microprocessor architecture, Real mode memory addressing, **Addressing modes:** Data addressing modes, program memory-addressing modes. Stack memory addressing modes. **Instruction Set:** data movement instruction, Arithmetic and logic instructions, Program control instructions with an example programs. Assembler details. **12 hours**

### UNIT-II

**Hardware Specifications:** Pin-outs and the pin functions, Clock-generator (8284A), Bus buffering and latching, Bus timing Ready and wait state, **Memory Interface and Basic I/O Interface:** Memory devices, Address decoding, 8088 (8-bit) memory interface 8086 (16-bit) memory interface. Introduction to I/O interface, I/O port address decoding, 8255 PPI. interfacing. Basics of Interfacing devices **12 hours**

### UNIT-III

**Introduction to Microcontrollers:** Microcontrollers & Microprocessors, MCS-51 Architecture, Registers in MCS-51, 8051 pin description, pin connectors, Parallel I/O ports and memory organization. 8051 addressing modes, Instruction Set. Assembly Language Programming Tools, Development Systems and Tools **12 hours**

### UNIT-IV

**8051 Programming:** MCS-51 Interrupts, Timer/Counters and Serial Communications. **Interfacing:** Interfacing of keyboard, 7-segment LED, LCD, ADC, and DAC, Stepper motor, Waveform -Sine wave , Square wave generation. **12 hours**

#### Text books:

- 1) "The Intel Microprocessors 8086/8088, 80186/80188, 80286, 80386, 80486, Pentium and Pentium Pro Processor Architecture, Programming and Interfacing", B.B.Brey, 4/e, PHI.
- 2) "The 8051 Microcontrollers and Embedded Systems", M.A. Mazidi and J.G. Mazidi, Pearson Education, Inc.,

#### Reference Books:

- 1) "Microprocessor and Interfacing, Programming and Hardware", 2/e, Douglass V. Hall, McGraw Hill International Edition, 1992.
- 2) "Software, Hardware and Applications", Walter A. Tribel and Avatar Singh, PHI, 1995.
- 3) "Microcomputer Systems: The 8086/8088 Family Architecture, Programming and Design", Yu Cheng Lin and Glen A. Gibson, PHI, 1992.
- 4) "The 8086 Microprocessor: Programming & Interfacing the PC", K.J. Ayala, Penram International Publishing (India) Pvt, Ltd., 1995.

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## COURSES IN PRACTICALS

### ELCP 2.5: Practical-III: DSP and Instrumentation

### ELCP 2.6: Practical-IV: Microcontrollers

(EACH PRACTICAL IS OF 4 HOURS PER WEEK AND WITH FOUR CREDITS)

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***M.Sc. Electronics***  
***THIRD SEMESTER***

ELCT 3.1 Digital Communication

ELCT 3.2 Introduction to VLSI Circuits

ELCT 3.3 Embedded Systems Design using ARM Cortex M4

ELET 3.4 Communication and Digital Circuits (OEC)

ELCP 3.5 Practical - V: Digital Communication & VLSI

ELCP 3.6 Practical- VI: Interfacing with Embedded ARM Cortex Controller

# M.Sc. ELECTRONICS

## THIRD SEMESTER

### COURSE ELCT 3.1: DIGITAL COMMUNICATION

*Teaching hours per week: 4*

#### UNIT-I

*No of credits: 4*

**Communication:** Introduction, Differences between digital and analog communication systems, Block diagram of a digital communication system. Digital Transmission of Analog signals: Introduction, Sampling Theory and Practice, Ideal Sampling and Reconstruction low pass signals, Practical sampling, Quantization of analog signals: Uniform Quantization, non-uniform Quantization, Differential quantization. Coded transmission of analog Signals: PCM system, Differential Pulse Code Modulation (DPCM), Delta Modulation and Time-Division Multiplexing (T1 system). **12 hours**

#### UNIT-II

**Random Signal Theory:** Probability mass functions & Statistical averages, Probability density functions & Statistical averages. **Baseband Transmission of Binary Data:** The inter symbol interface problem, Ideal solution, Raised Cosine Spectrum, Correlative-level coding, Base band transmission of M-ray Data, Eye Pattern, Adaptive Equalization. **Digital Modulation Techniques:** Binary Modulation Techniques; ASK, PSK, and FSK Generation and Detection of Binary Modulated Waves, Quadrature phase-shift Keying, Optimum (or Correlation) receivers: Matched Filter receiver, Properties of Matched Filter. **12 hours**

#### UNIT-III

**Spread Spectrum Modulation:** Introduction, Pseudo-Noise Sequences, Properties of Maximum-length sequences, notion of Spread Spectrum, Direct-sequence Spread Coherent Binary PSK, Frequency-Hop Spread Spectrum: Slow-Frequency and Fast-Frequency Hopping. CDMA and Multipath suppression. **Information theory:** Measure of Information, Properties of Entropy, Extension of a DMS, source coding theorem, Prefix Coding, Huffman Coding, Channel coding, Mutual Information and properties of Mutual Information. **12 hours**

#### UNIT-IV

**Error Control Coding:** Introduction, Methods of Controlling Errors, Types of Errors, Types of codes, Linear Block Codes, Matrix Description of Linear Block Codes, Error detection and error correction capability of linear block codes, Single error-correcting Hamming Codes, Binary cyclic codes, Encoding using an (n-k) bit shift register, Golay Codes, BCH Codes, Burst-error Correcting codes and Convolution Codes. **12 hours**

#### **Text books:**

- 1) "Digital Communications", Simon Haykin, John Wiley & Sons Publications.
- 2) "Digital and Analog Communication Systems" K. Sam Shanmugam, John Wiley & sons (Asia) pte ltd., 2000.

#### **Reference books:**

- 1) "Principles of Communication Systems", 2/e, Taub Schilling, TMH, 1991.
- 2) "Digital Communications, Fundamentals and Applications", Bernard Sklar, 2/e, Pearson Education.
- 3) "Coding Theory", by Abrahanson, Prentice Hall of India.

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## COURSE ELCT 3.2: INTRODUCTION TO VLSI CIRCUITS

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT-I

Introduction to CMOS circuits and MOS transistor theory: MOS transistor, MOS transistor switches, CMOS logic, alternate circuit representation, CMOS-NMOS comparison. MOS transistor Theory: Introduction, MOS device design equations, the complimentary CMOS inverter-DC characteristics, alternate CMOS inverter, transmission gate- DC characteristics, latch up.

**12 hours**

### UNIT-II

**CMOS processing technology:** Wafer processing, oxidation, selective diffusion, the silicon gate process, Silicon On Insulator, CMOS process environment, lay-out design rules, layer representation, lambda based p-well rules, lambda based SOI rules, double metal design rules, Process parameterization: abstract layers, spacing rules, construction rules. 12 hours

### UNIT-III

**Circuit characterization and performance estimation:** Resistance estimation, capacitance estimation, switching characteristics: Fall time, Rise time, Delay, Determination of conductor size. Power consumption: static dissipation, dynamic dissipation, charge sharing, scaling, yield.

**14 hours**

### UNIT-IV

**CMOS circuit and logic Design:** CMOS complimentary logic, Pseudo-nMOS logic, dynamic CMOS logic, clocked CMOS logic, Domino logic, Cascade Voltage Switch logic, modified domino logic, pass transistor logic, clocking strategies, I/O pads.

**12 hours**

#### **Text books:**

1. Principle of CMOS VLSI Design, a system perspective-Neil H.E. Weste and Kamran Eshraghian, Addison-wesley.
2. "Introduction to VLSI Circuits and Systems", John P. Uyemura, John Wiley & Sons (Asia) Pte. Ltd., 2003.

#### **Reference books:**

1. VLSI Fabrication Principles", S.K. Ghandhi, 2/e, John Wiley & Sons (Asia) Pte. Ltd., 2003.
2. VLSI Technology", 2/e, S.M. Sze, McGraw-Hill, 1988.

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## COURSE ELCT 3.3: EMBEDDED SYSTEMS DESIGN USING ARM CORTEX M4

*Teaching hours per week: 4*

### UNIT-I

*No of credits: 4*

**Embedded systems:** Embedded systems Overview, Design Challenges, Processor technology, IC Technology, Design Technology, and Tradeoffs. Application Specific IC (ASIC), Field Programmable Logic Array (FPGA) and Microcontrollers, Digital signal Processor (DSP). Development boards, Programming, Compiler and linker, program flow, operating systems support, benchmarks. **12 hours**

### UNIT-II

**ARM Cortex Architecture:** Evolution of ARM Architecture, ARM Cortex M3 processor, Exceptions and interrupts, Sleep modes, Introduction to instruction set (16 bit & 32 bit), Assembly syntax, Bit field and Bit band operations, Introduction to Cortex M4 processor, Floating point unit, Floating point and DSP instructions **12 hours**

### UNIT-III

**STM32F4 microcontrollers :** Architecture of STM32F4 series microcontroller, power controller, Reset and Clock Unit, General Purpose I/O(GPIO), Nested Vectored Interrupt controller (NVIC) , Analog to digital converter, Digital to Analog Converter (DAC), DMA controller. **12 hours**

### UNIT-IV

**Timers:** Counter modes, PWM wave generation, Capture/Compare channels, Watchdog Timer, Real Time Clock (RTC). **Serial Communication protocols:** Inter IC communication (I2C), **Universal** Synchronous and Asynchronous Receive Transmitter (USART), Serial Peripheral Interface (SPI), Introduction to CAN bus. **12 hours**

#### Text books:

1. Embedded System Design , A Unified Hardware/ Software Introduction Technology 3<sup>rd</sup> edn 2011 By Frank Vahid/ Tony Givargis, Walley
2. Microcontrollers. Hardware and Firmware for 8-bit and 32-bit devices, By Franco Zappa. 1<sup>st</sup> edition (2017) Societa editrice esculapio.

#### Reference books:

1. Discovering the STM32 Microcontroller by Geoffrey Brown (2016)  
<http://creativecommons.org/licenses/by-nc-sa/3.0/>
2. STM32F4 Datasheets and reference manuals from [www.st.com](http://www.st.com)

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## COURSES IN PRACTICALS

**ELCP-3.5: Practical-V: Digital Communication & VLSI**

**ELCP-3.6: Practical-VI: Interfacing with Embedded ARM Cortex Controller**

(EACH PRACTICAL IS OF 4 HOURS PER WEEK AND WITH FOUR CREDITS)

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***M.Sc. Electronics***  
***FOURTH SEMESTER***

ELCT 4.1	Microwave and Optical Fiber Communication Systems
ELCT 4.2	Computer Communication
ELCT 4.3	Digital System Design-VHDL
ELCT 4.4	Micro Electro Mechanical Systems
ELCP 4.5	Practical- VII : Optical Fiber Communication & VHDL
ELCP 4.6	Project

## M.Sc. ELECTRONICS

### FOURTH SEMESTER

#### COURSE ELCT 4.1: MICROWAVE AND OPTICAL FIBER COMMUNICATION SYSTEMS

*Teaching hours per week: 4*

*No of credits: 4*

##### UNIT-I

**Electromagnetic Theory:** Maxwell's equations, Fields in media and boundary conditions, the wave equation and the basic plane wave solutions, General Plane wave solutions, energy and power. **Waveguide Theory:** General solutions for TEM, TE and TM waves parallel plate waveguide, Rectangular waveguide. **Transmission Line theory:** Field analysis of transmission lines, Smith chart, Single stub tuning, Double stub tuning and the quarter wave transformer.

**12 hours**

##### UNIT-II

**Antennas:** Types of antennas, Hertz and Marconi antennas, Yagi-Uda antenna, Reflector antenna, lens antenna, Helical antenna, Log periodic antenna, Phased array antenna, Microstrip antenna **Microwave Tubes-**Two cavity Klystron, Reflex Klystron and TWT **Microwave Solid-state devices and components :** Varactor diodes, PIN diodes, Tunnel diodes, GUNN diode. Basic properties of dividers and couplers, Wave-guide directional couplers, Coupled line directional couplers and Microwave Systems (qualitative).

**12 hours**

##### UNIT-III:

**Optical Fibers:** Basic optical laws, optical fiber modes and configurations, mode theory for circular waveguide- Maxwell's equation and waveguide equations, Signal attenuation, **optical sources-** Topics from semiconductor Physics, LEDs and Laser diodes.

**12 hours**

##### UNIT-IV:

**Photodetectors :** Physical principle, PIN and Avalanche type photodetectors. Optical receiver Operation – Digital signal Transmission, Error sources, Receiver configuration. **Advanced Systems and Techniques:-** WDM, optical Amplifiers, Mechanical and Integrated-optical switches.

**12 hours**

##### **Text books:**

- 1) "Microwave Devices Circuits", 3/e, Samuel. Y. Liao, Prentice Hall of India, 1998
- 2) "Microwave and Radar: Principles and Applications", 2/e, A.K. Maini, Khanna Publishers. 2001.
- 3) Optical Fiber Communications by Gerd Keiser McGRAW – HILL International Ed (2<sup>nd</sup> Edn)

##### **Reference books:**

- 1) "Microwave and Radar Engineering", M. Kulkarni, Umesh Publications, 3/e, 003.
- 2) "Electronics Communication Systems", 4/e, Wayne Tomasi, Pearson Education.
- 3) Modern Electronic Communication", 7/e, G.H. Miller and J.S. Beasley, Prentice Hall of India.
- 4) "Microwave Engineering", 2/e, David M. Pozar, John Wiley & Sons (Asia) Pte, Ltd, 1999.

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## COURSE ELCT 4.2: COMPUTER COMMUNICATION

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT-I

**Introduction:** The use of computer network, Network Hardware, Network software, The OSI reference models, The TCP/IP reference model, Comparison of OSI & TCP/IP reference models.

**Physical layer & Transmission:** Guided Transmission media – co-axial cable, Fiber optics, Comparison of Fiber optics and copper wire. Wireless Transmission: IR transmission.

**12 hours**

### UNIT-II

**Physical layer & Transmission (Cont):** FDM, TDM and CDM. Public Switched telephone networks: Structure of Telephone systems, Local loop Modems, ADSL and fiber. Circuit switching, Packet Switching Hybrid Switching. Mobile Telephone systems: From 1G, 2G and 3G.

**12 hours**

### UNIT-III

**The Data Link Layer:** Data Link Layer design issues, Error detection and correction, Elementary data link protocols, sliding window protocols performance. **The Medium Access Sub-layer:** The local and metropolitan area networks, the ALOHA protocols, IEEE standard 802 for LAN. Ethernet, Bluetooth and RFID.

**14 hours**

### UNIT-IV

**The Network Layer:** Design issues, Routing algorithms – optimality principle, shortest path algorithm, flooding, distance vector routing. Congestion control algorithms, Network layer in the Internet. **The Transport Layer:** Transport service, transport protocols, Internet transport protocol (TCP & UDP).

**12 hours**

#### **Text books:**

- 1) "Computer Networks", Andrew S. Tanenbaum and David J. Wetherall (5<sup>th</sup> Edition) Prentice Hall of India Publishers.

#### **Reference books:**

- 1) "Computer Networks, Protocols, Standard and Interfaces", Ulyses Black, Prentice Hall of India Pub.
- 2) "Data Communication and Networking", Behrouz. A. Forouzan, McGraw Hill, 5<sup>th</sup> Edition

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## COURSE ELCT 4.3: DIGITAL SYSTEM DESIGN-VHDL

*Teaching hours per week: 4*

*No of credits: 4*

### UNIT-I

**INTRODUCTION TO VHDL:** VHDL terms, Describing hardware in VHDL, entity, architecture, signal assignment statements, event scheduling, statement concurrency, structural design, architecture selection, configuration statements and power of configurations. **Basic language elements:** identifiers, data objects, data types. **Behavioral modelling:** introduction, concept of delays (inertial, transport and delta delay) **Sequential processing:** process statements, signal assignments, sequential statements, IF, CASE, LOOP, NEXT, EXIT, ASSERT and WAIT statements.

**12 hours**

### UNIT-II

**DATA FLOW AND STRUCTURAL MODELLING:** **Data flow modeling:** concurrent signal assignment statement, concurrent v/s sequential assignment statements, multiple drivers, conditional signal assignment statements, selected signal assignments, block and guarded block statements **Structural modeling:** component declaration, component instantiation, configuration, configuration specification.

**12 hours**

### UNIT-III

**SUBPROGRAM AND PACKAGES:** **Subprograms:** functions and procedures, subprogram overloading, operator overloading, **Packages:** package declaration, package body, implicit visibility and explicit visibility. Examples.

**12 hours**

### UNIT-IV

**ADVANCED TOPICS:** Generate statements, aliases, qualified expressions, conversion functions, attributes, text I/O, **Model simulation:** writing a test bench, dumping results into file, reading vectors from file, test bench examples. **Hardware modeling examples:** A clock divider, a generic binary multiplier ,pulse counter, Barrel shifter , state machine modeling. **12 hours**

#### **Text books:**

- 1) VHDL: Programming by Example by Douglass L Perry, 4<sup>th</sup> edition, McGraw-Hill.
- 2) VHDL Primer 3/e Bhaskar, Addison Westley Longman(Singapore) Pvt Ltd,2000.

#### **Reference books:**

- 1) Circuit design with VHDL, Volnei A Pedroni, MIT press
- 2) VHDL- Analysis and Modeling of Digital systems, Zainalabedin Navabi, McGraw-Hill International Editions.

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**COURSE ELCT 4.4: MICRO ELECTRO MECHANICAL SYSTEMS**

***Teaching hours per week: 4***

**UNIT - I**

***No of credits: 4***

**INTRODUCTION TO MEMS TECHNOLOGY:** Basic definitions, history and evolution of MEMS. Scaling laws in Miniaturization: Scaling in Geometry, in Rigid-body dynamics, in electrostatic forces, in electromagnetic forces and in electricity. MEMS sensors and actuators. Types of MEMS, Applications of MEMS in various disciplines. **Materials for MEMS & Microsystems:** Silicon, Silicon compounds, Silicon piezo-resistors, Gallium Arsenide, Quartz, conducting polymers, Langmuir-Blodgett (LB) film, Fullerenes and CNT. **12 hours**

#### **UNIT - II**

**MICRO MACHINING/ FABRICATION:** Introduction, photolithography and other lithography methods, structural and sacrificial materials, thin film deposition techniques, Impurity doping processes, Etching, types etching, wafer bonding methods, LIGA. Bulk versus Surface Micromachining. **12 hours**

#### **UNIT - III**

**MICRO-OPTO-ELECTROMECHANICAL (MOEM) SYSTEMS:** Introduction, light modulators, Beam-splitter, Microlens and Micro-mirrors **Radio Frequency (RF) MEMS:** Introduction, Review of RF-based communication systems, RF –MEMS MEMS inductors, varactors, tuners, filters, resonators, phase shifters, switches. **12 hours**

#### **UNIT - IV**

**MEMS MODELING:** Introduction, Basic modeling elements in electrical, mechanical, thermal and fluid systems, Translational pure Mechanical system with spring, damper and mass, analogy between 2<sup>nd</sup> order mechanical and electrical systems. **Microsystem Design:** Introduction, design considerations, properties of materials. Design of a silicon die for Micro-pressure sensor and packaging of MEMS **12 hours**

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### **COURSES IN PRACTICAL**

**ELCP 4.5: Practical-VII: Optical Fiber Communication & VHDL and ELCP 4.6**

**(PROJECT)**

**(PRACTICAL/PROJECT IS OF 4 HOURS PER WEEK WITH FOUR CREDITS)**

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## ***M.Sc. Electronics***

### ***SECOND SEMESTER OPEN ELECTIVE***

**ELET-2.4: BASIC ELECTRONICS & LINEAR INTEGRATED CIRCUITS**

**M.Sc. ELECTRONICS**  
**SECOND SEMESTER (ELECTIVE)**

**ELET-2.4: BASIC ELECTRONICS & LINEAR INTEGRATED CIRCUITS**

(ELECTIVE PAPER TO OTHER DEPARTMENTS STUDENTS)

*Teaching hours per week: 4*

**UNIT-I**

*No of credits: 4*

**Circuit Variables:** Circuit concepts Units, Standards and Dimensions. Electric current, Electric charge, potential difference, Electric power and Energy. Circuit elements: Passive elements and active elements. **Network Law's:** Ohm's Law's, Junction Law's (KCL), Mesh Law's (KVL) Application of Network Law's to simple dc networks theorems- Thevenin's theorem, Norton's theorem Max power transfer theorem. **12 hours**

**UNIT-II**

**Semiconductors:** Energy bands theory, intrinsic semiconductors, extrinsic semiconductor, effect of temperature on Impurity semiconductors and mechanism of current conduction in semiconductor. **Junction Diodes:** p-n junction, an unbiased p-n junction, Energy band of unbiased p-n junction, a biased p-n junction and V-I characteristics of P-n junction. Some special P-N junction:- Photodiodes, LED and Solar Cell. Junction transistor, Transistor static characteristic Self-bias or emitter bias, Two-port representation of Transistor (hybrid Parameter) JFET: Static Characteristic of FET comparison of FET with Bipolar transistor. Applications of BJT and JFET. **12 hours**

**UNIT - III**

**Operational Amplifier characteristics & Applications:** Introduction, Ideal Op-Amp, DC and AC Characteristics.: Instrumentation Amplifier, V to I and I-V converter Precision rectifier, Differentiator and Integrator. Comparator Schmitt trigger wave generators (Square wave and Triangular wave) and first order Low pass and High pass filters. **12 hours**

**UNIT-IV**

**Special IC:** series Op-Amp regulator, IC voltage regulators, 555 Timer as Monostable and Astable operation. D-A and A-D converters, PLL: Basic principles PLL as Frequency multiplication /Division. **12 hours**

**Text books:**

- 1) "Foundations of Electronics", D Chattopadhyaya, P.C. Rakshit, B Saha and N N Purkait New Age International Edition.
- 2) "Linear Integrated Circuit", by D. Roy Choudhary and Shail Jain, New Age International (P) ltd.,
- 3) "Op-Amp and Linear Integrated Circuits", R.A. Gaikwad, PHI of India ltd.,

**Reference books:**

- 1) A Textbook of Electronics (Second Edition) S.L Kakani and K.C.Bhandari
- 2) "Electronic Principles" A.P. Malvino , TMH Edition.

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***M.Sc. Electronics***  
***THIRD SEMESTER OPEN ELECTIVE***

ELET-3.4: COMMUNICATION AND DIGITAL CIRCUITS

**M.Sc. ELECTRONICS THIRD  
SEMESTER (ELECTIVE)**

**ELET-3.4: COMMUNICATION AND DIGITAL CIRCUITS**

(ELECTIVE PAPER TO OTHER DEPARTMENT STUDENTS)

*Teaching hours per week: 4*

**UNIT-I**

*No of credits: 4*

**Radio wave Propagation:** Ground or surface wave, Space or tropospheric wave and Sky wave. Ionosphere, Effect of Ionosphere on Radio waves, Skip distance, maximum Usable frequency and Ionospheric fading. **Antenna:** Introduction, loop and ferrite rod antenna, Yagi-Uda, Dish antenna and Microstrip antenna (Qualitative). **12 hours**

**UNIT-II**

**Modulation and detection:** Modulation, AM, Power in AM, FM, Comparison of AM & FM. Generation and detection of AM wave. Super-heterodyne radio receiver (Block Explanation) **12 hours**

**UNIT-III**

**Optical fiber communication:** Principles of light transmission, Fiber index profiles, Modes of propagation, losses in fibers. Types of Light Sources and Photo detectors (Qualitative). **12 hours**

**UNIT-IV**

**Digital circuits:** Introduction, Decimal, Binary and Hexa decimal number systems, Conversions, Binary addition and subtraction, OR, AND and NOT Circuits. Boolean algebra, De Morgan's Theorem, additional laws and theorems. NOR and NAND gates. Flip-Flop and RS Flip-Flop using NAND gate. **12 hours**

**Text books:**

- 1) "Foundations of Electronics", D. Chattopadhyaya, P.C. Rakshit, B Saha and N N Purkait, New Age International Edition.
- 2) "Electronic Communications", D. Roddy and J. Coolen, PHI of India ltd.,

**Reference books:**

- 1) Electronic Communication Systems. G. Kennady, TMH Edition.
- 2) Electronic Principles A.P. Malvino, TMH Edition.
- 3) A Textbook of Electronics (Second Edition) S.L Kakani and K.C.Bhandari

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Sem No	Paper Code No	Title of the paper	Week	Teaching Hrs/Week*	Duration of Examination in hrs/ Theory/ Practical	Marks at the exam Proper	Internal Assessment	Total
<b>I</b>	<b>NOTE: CT: Compulsory Theory CP: Compulsory Practical ET: Elective Theory</b>							
	ELCT 1.1	Semiconductor Device Theory and Practice	4	4	3	75	25	100
	ELCT 1.2	Signals and Systems	4	4	3	75	25	100
	ELCT 1.3	Programming in C++ and Basics of Python	4	4	3	75	25	100
	ELCT 1.4	Power Electronics Devices and Systems	4	4	3	75	25	100
	ELCP 1.5	Practical –I: Analog & Digital Electronics and MATLAB	4	4	4	75	25	100
	ELCP 1.6	Practical-II: Programming in C++ and Power Electronics	4	4	4	75	25	100
<b>II</b>	ELCT 2.1	Digital Signal Processing	4	4	3	75	25	100
	ELCT 2.2	Controls and Instrumentation	4	4	3	75	25	100
	ELCT 2.3	Microprocessor and Microcontroller	4	4	3	75	25	100
	ELET 2.4	Basic Electronics & Linear Integrated Circuits	4	4	3	75	25	100
	ELCP 2.5	Practical –III: DSP and Instrumentation	4	4	4	75	25	100
	ELCP 2.6	Practical – IV: Microprocessor & Microcontroller	4	4	4	75	25	100
<b>III</b>	ELCT 3.1	Digital Communication	4	4	3	75	25	100
	ELCT 3.2	Introduction to VLSI Circuits	4	4	3	75	25	100
	ELCT 3.3	Embedded Systems Design using ARM Cortex M4	4	4	3	75	25	100
	ELET 3.4	Communication and Digital Circuits	4	4	3	75	25	100
	ELCP 3.5	Practical - V: Digital Communication & VLSI	4	4	4	75	25	100
	ELCP 3.6	Practical – VI: Interfacing with Embedded ARM Cortex Controller	4	4	4	75	25	100
<b>IV</b>	ELCT 4.1	Microwave and Optical Fiber Communication Systems	4	4	3	75	25	100
	ELCT 4.2	Computer Communication	4	4	3	75	25	100
	ELCT 4.3	Digital System Design-VHDL	4	4	3	75	25	100
	ELCT 4.4	Micro Electro Mechanical Systems	4	4	3	75	25	100

	ELCP 4.5	Practical - VII : Optical Fiber Communication & VHDL	4	4	4	75	25	100
	ELCP 4.6	Project:	6	6	4	125 (75 for dissert ati on and 50 for Viva)	25	150

**Programme Outcomes (POs)**

<b>PO's (1):</b>	To create post-graduates with sound knowledge of fundamentals of Electronics, who can contribute towards advancing science and technology.
<b>PO's (2):</b>	To create post-graduates with sufficient capabilities in Electronics who can become researchers and developers to satisfy the needs of the core Electronics industry
<b>PO's (3):</b>	To develop ability among students to formulate, analyze and solve real life problems faced in Electronics industry.
<b>PO's (4):</b>	To provide opportunity to students to learn the latest trends in Electronics and make them ready for life-long learning process.
<b>PO's (5):</b>	To make the students aware of professional ethics of the Industry, and prepare them with basic soft skills essential for working in community and professional teams.
<b>PO's (6):</b>	To prepare the students for post graduate studies through competitive examinations, enabling them to reach higher echelons of excellence
<b>PO's (7):</b>	To produce electronic professionals who can be directly employed or start his/her own work as Electronic circuit Designer, Electronics consultant, testing professional, Service engineer and even an entrepreneur in electronic industry
<b>PO's (8):</b>	Develop designing and analyzing attitude about networks and wireless communication

## Course outcomes (COs)

<b>ELCT-1.1 Semiconductor device theory and practice</b>	
<b>CO's (1):</b>	Describe the properties of materials and application of semiconductor electronics
<b>CO's (2):</b>	Apply the knowledge of semiconductors to illustrate the functioning of basic electronic devices.
<b>CO's (3):</b>	Demonstrate the switching and amplification application of the semiconductor devices
<b>CO's (4):</b>	Demonstrate the control applications using semiconductor devices.
<b>CO's (5):</b>	Identify the fabrication methods of integrated circuits.
<b>CO's (6):</b>	Classify and describe the semiconductor devices for special applications
<b>CO's (7):</b>	Basic concept of shift registers and its MSI Logic families

<b>ELCT-1.2 Signals And Systems</b>	
<b>CO's (1):</b>	To understand mathematical description and representation of continuous and discrete time signals and systems.
<b>CO's (2):</b>	To Develop input output relationship for linear shift invariant system and understand the
<b>CO's (3):</b>	To understand Convolution operator for continuous and discrete time system.
<b>CO's (4):</b>	To Understand and resolve the signals in frequency domain using Fourier series and Fourier transforms.
<b>CO's (5):</b>	To Understand the limitations of Fourier transform and need for Laplace transform and develop
<b>CO's (6):</b>	The ability to analyze the system in s- domain.
<b>CO's (7):</b>	To Understand the basic concept of probability, random variables & random signals and develop

### **ELCT-1.3 Programming in C++ and Basics of Python**

<b>CO's (1):</b>	Describe the principles of object oriented programming.
<b>CO's (2):</b>	Apply the concepts of data encapsulation, inheritance in C++.
<b>CO's (3):</b>	Understand basic program and constructs in Python
<b>CO's (4):</b>	Apply the concepts of classes, methods and inheritance to write programs in C++.
<b>CO's (5):</b>	Discuss the computational efficiency of the principal algorithms such as sorting & searching.
<b>CO's (6):</b>	The ability to analyze the Infix, postfix and prefix expressions and Evaluation procedure.
<b>CO's (7):</b>	Understand the basic concepts of Tree Terminology and tree traversal technique.

### **ELCT-1.4 Power Electronics Devices And Systems**

<b>CO's (1):</b>	Understand the structure of power electronic devices such as diode, BJT, SCR, IGBT, MOSFET and advanced devices such as MCT, IGCT.
<b>CO's (2):</b>	Analyze the operation of these devices Based on the static and dynamic characteristics, their limitation choose these devices for various applications.
<b>CO's (3):</b>	Understand and analyze various gate drive circuits and protection circuits of devices
<b>CO's (4):</b>	Model various devices using modern tools.
<b>CO's (5):</b>	Able to design solar devices as well as some power devices like SMPS etc

### ELCP-1.5 Practical-I : Analog and Digital Electronics and

After the end of the course, a student will be able to:

<b>CO's (1):</b>	Derive basic logic gates, adder, and subtractor using universal gates.
<b>CO's (2):</b>	know how to generate and visualize different types of signals
<b>CO's (3):</b>	understand the basics of MATLAB commands.
<b>CO's (4):</b>	Illustrate realization of Boolean in SOP and POS form and design it using logic gates
<b>CO's (5):</b>	Design and test combinational circuits. Design and develop sequential circuits

### ELCP-1.6 Practical-III : Programming in C++ and Power Electronics

After the end of the course, a student will be able to :

<b>CO's (1):</b>	Understand C++, the programming process, and the compilation process.
<b>CO's (2):</b>	Describe and compare machine language and a high level language.
<b>CO's (3):</b>	Discuss the advantages of a high-level language.
<b>CO's (4):</b>	Use an IDE to compile, load, save, and debug a C++ program
<b>CO's (5):</b>	Design Triggering circuits of SCR using LT spice
<b>CO's (6):</b>	Perform the experiment on various convertors and invertors simulation through LT spice

### **ELCT-2.1 Digital Signal Processing**

<b>CO's (1):</b>	Analyze the discrete time signals and system using different transform domain techniques.
<b>CO's (2):</b>	Design and implement LTI filters for filtering different real world signals.
<b>CO's (3):</b>	Develop different signal processing applications using DSP processor.
<b>CO's (4):</b>	Design and implement IIR filters and FIR DIGITAL filter for different real world signals.
<b>CO's (5):</b>	Basic concept of DSP processor architecture.
<b>CO's (6):</b>	Analyze the Frequency sampling for FIR filter.

### **ELCT-2.2 Controls And Instrumentation**

<b>CO's (1):</b>	Determine and use models of physical systems in forms suitable for use in the analysis and design of control systems.
<b>CO's (2):</b>	Determine the (absolute) stability of a closed-loop control system.
<b>CO's (3):</b>	Perform time domain and frequency domain analysis of control systems required for stability analysis.
<b>CO's (4):</b>	Perform time domain and frequency domain correlation analysis.
<b>CO's (5):</b>	Apply root-locus, Frequency Plots technique to analyze control systems.
<b>CO's (6):</b>	Understand fundamental of various electrical measurements
<b>CO's (7):</b>	Understand and describe specifications, features and capabilities of electronic instruments.

### **ELCT-2.3 Microprocessor and Microcontroller**

<b>CO's (1):</b>	Learn importance of microcontroller in designing embedded application.
<b>CO's (2):</b>	Learn use of hardware and software tools.
<b>CO's (3):</b>	Develop interfacing to real world devices.
<b>CO's (4):</b>	Understand the Basic concept of 8086 Architecture .
<b>CO's (5):</b>	Understand and describe specifications of memory devices and address decoding.
<b>CO's (6):</b>	Understand and analyze the concept of MCS-51 Architecture .

### **ELCT-2.4 Basic Electronics and Linear Integrated Circuits**

<b>CO's (1):</b>	Explain behavior of FET at low frequency.
<b>CO's (2):</b>	Understand the basic concepts of KVL and KCL
<b>CO's (3):</b>	Understand the characteristics of IC and Op-Amp and identify the internal structure
<b>CO's (4):</b>	Analyze and identify linear and nonlinear applications of Op-Amp.
<b>CO's (5):</b>	Familiar with DAC, ADC and timers.
<b>CO's (6):</b>	The Basic concept of Operational Amplifier characteristics.

### **ELCP-2.5 Practical-III : DSP and Instruments**

After the end of the course, a student will be able to :

<b>CO's (1):</b>	Enumerate the basic concepts of signals and systems and their interconnections in a simple and easy-to-understand manner by employing different mathematical operations like folding, shifting, scaling, convolutions, Z-transform etc. 3. 4.
<b>CO's (2):</b>	Determine transfer function, impulse response and comment on various properties like linearity, causality, stability of a system;
<b>CO's (3):</b>	Predict time and frequency response of discrete-time systems using various techniques like Z-transform, Hilbert transform, DFT, FFT.
<b>CO's (4):</b>	Design digital IIR and FIR filters using filter approximation theory, frequency transformation techniques, window techniques and finally construct different realization structures;
<b>CO's (5):</b>	Select proper measuring instrument and know requirement of calibration, errors in measurement

### **ELCP-2.6 Practical-IV : Microprocessor and Microcontroller**

After the end of the course, a student should be able to :

<b>CO's (1):</b>	To study programming based on 8086 microprocessor and 8051 microcontroller in TASM
<b>CO's (2):</b>	To study 8086 microprocessor based ALP using arithmetic, logical and shift operations.
<b>CO's (3):</b>	To study modular and Dos/Bios programming using 8086 micro processor
<b>CO's (4):</b>	Demonstrate ability to handle string instructions using assembly language programming in TASM
<b>CO's (5):</b>	Demonstrate ability to handle sorting operations and using assembly language programming in TASM

### **ELET-3.1 Digital Communication**

<b>CO's (1):</b>	Understand working of waveform coding techniques and analyse their performance.
<b>CO's (2):</b>	Analyze the performance of a baseband and passband digital communication system in terms of error rate and spectral efficiency.
<b>CO's (3):</b>	Perform the time and frequency domain analysis of the signals in a digital communication system.
<b>CO's (4):</b>	Design of digital communication system.
<b>CO's (5):</b>	Understand working of spread spectrum communication system and analyze its performance.
<b>CO's (6):</b>	Understand various types of Errors detecting and correcting codes

### **ELET-3.2 Introduction to VLSI Circuits**

<b>CO's (1):</b>	Model digital circuit with HDL, simulate, synthesis and prototype in PLDs.
<b>CO's (2):</b>	Understand chip level issues and need of testability.
<b>CO's (3):</b>	Design analog & digital CMOS circuits for specified applications.
<b>CO's (4):</b>	Understand working and Basic concept of CMOS processing technology.
<b>CO's (5):</b>	Analyze the Circuit characterization and estimation.
<b>CO's (6):</b>	Understand the concept of logic design for CMOS circuit.

### **ELET-3.3 Embedded Systems Design Using ARM Cortex M4**

<b>CO's (1):</b>	Describe the ARM microprocessor architectures and its feature.
<b>CO's (2):</b>	Interface the advanced peripherals to ARM based microcontroller
<b>CO's (3):</b>	Design embedded system with available resources.
<b>CO's (4):</b>	Understanding the architecture of STM 32f4 series.
<b>CO's (5):</b>	Overview of Field Programmable Logic Array(FPGA).
<b>CO's (6):</b>	Understand the concept of Serial Communication protocols.

<b>ELCT-3.4 Communication and Digital Circuits</b>	
<b>CO's (1):</b>	Understand the concept of Radio wave propagation.
<b>CO's (2):</b>	Familiar with some important antennas.
<b>CO's (3):</b>	Understanding the concept of modulation and generation.
<b>CO's (4):</b>	Analyze the concept of Optical Fiber.
<b>CO's (5):</b>	Use the basic logic gates and various reduction techniques of digital logic circuit in detail.
<b>CO's (6):</b>	Analyze the concept of Types of Photo detectors.

<b>ELCP-3.5 Practical-V : Digital communication and VLSI</b>	
After the end of the course, a student will be able to :	
<b>CO's (1):</b>	design all basic CMOS circuits using lambda based design rules.
<b>CO's (2):</b>	Simulate circuits within a CAD tool and compare to design specifications.
<b>CO's (3):</b>	Analyse the set up and hold time of output waveforms.

<b>CO's (4):</b>	gain practical experience related to digital communication circuits by circuit simulation.
<b>CO's (5):</b>	understand the basic theories of digital communication in practical.

### **ELCP-3.6 Practical-VI : Interfacing with Embedded ARM Cortex Controller**

After the end of the course, a student should be able to :

<b>CO's (1):</b>	programme and interface the various peripherals
<b>CO's (2):</b>	Configure and programme the controller for interfacing with different moduls
<b>CO's (3):</b>	programme and interface the various communication peripherals
<b>CO's (4):</b>	programme and interface the various communication peripherals USART, UART,TTL,I2C

### **ELCT-4.1 Microwave And Optical Fiber Communication Systems**

<b>CO's (1):</b>	Formulate the wave equation in waveguide for analysis.
<b>CO's (2):</b>	Understand the concepts related to Faraday's law, induced emf and Maxwell's equations
<b>CO's (3):</b>	Apply Maxwell's equations to solutions of problems relating to transmission lines and uniform plane wave propagation.
<b>CO's (4):</b>	Understand the principle of optical laws.
<b>CO's (5):</b>	Analyzing the basic concepts of photo-detector.
<b>CO's (6):</b>	Overview of various Advanced systems and Techniques.

### **ELCT-4.2 Computer Communication**

<b>CO's (1):</b>	Understand the concept of OSI and TCP/IP reference models.
<b>CO's (2):</b>	Explain and apply concepts of GSM and CDMA system.
<b>CO's (3):</b>	Specify and identify deficiencies in existing protocols, and then go onto select new and better protocols.
<b>CO's (4):</b>	Understand the Concept and principle of Transmission layer.
<b>CO's (5):</b>	Overview of various Routing algorithms.
<b>CO's (6):</b>	Understand the Concept TCP and UDP.

### **ELCT-4.3 Digital System Design –VHDL**

<b>CO's (1):</b>	Model, simulate, verify, and synthesize with hardware description languages.
<b>CO's (2):</b>	Understand and use major syntactic elements of VHDL - entities, architectures, processes, functions, common concurrent statements, and common sequential statements
<b>CO's (3):</b>	Design digital logic circuits in different types of modeling
<b>CO's (4):</b>	Demonstrate timing and resource usage associated with modeling approach.
<b>CO's (5):</b>	Model, simulate, verify, and synthesize with Behavioral modelling.
<b>CO's (6):</b>	Understand and use of Data flow modeling.

### **ELCT-4.4 Micro Electro Mechanical Systems**

<b>CO's (1):</b>	To introduce the basic concepts of micro systems and advantages of miniaturization.
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<b>CO's (2):</b>	To study the various materials and their properties used for micromachining techniques.
<b>CO's (3):</b>	To teach the fundamentals of micromachining and micro fabrication techniques.
<b>CO's (4):</b>	To impart knowledge of the basic concept of electromechanical effects, thermal effects Micro fluidics and integrated fluidic systems.
<b>CO's (5):</b>	To give exposure to different MEMS devices.
<b>CO's (6):</b>	Understand and use of MOEM systems.

### **ELCP-4.5 Practical-VII : Optical Fiber communication and VHDL**

After the end of the course, a student will be able to :

<b>CO's (1):</b>	Demonstrate a clear Understanding in hardware design language VHDL.
<b>CO's (2):</b>	Model a Combinational circuit and sequential circuit using hardware description language VHDL and validate its functionality.
<b>CO's (3):</b>	Design and implement a circuit on a FPGA board.
<b>CO's (4):</b>	Recall analog and digital link, propagation loss, numerical aperture for optical fiber communication.
<b>CO's (5):</b>	Sketch the gain characteristics. And study of intensity modulation





KARNATAK UNIVERSITY, DHARWAD



Regulations

**For**

MASTER OF ARTS IN ENGLISH

CHOICE BASED CREDIT SYSTEM (M.A. ENGLISH –  
CBCS)



**2020-2021 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



# **REGULATIONS**

**For**

**MASTER OF ARTS IN ENGLISH**

**CHOICE BASED CREDIT SYSTEM (M.A. ENGLISH –  
CBCS)**

**From**

**2020-2021 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning Master Degree Programme**

### **Faculty of Arts, from 2020-2021**

**Master Degree Programme in Master of Arts in English (M.A. English -CBCS)**  
Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

### **MASTER OF ARTS IN ENGLISH**

### **CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree programmes.

#### **Commencement:**

These Regulations shall come into force from the academic year 2020-2021.

#### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Optional Paper” means an advanced paper due to departmental choice for students based on their interest.
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These grades are awarded

for each subject after conversion of the marks and after completion of the examinations in each semester.

- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

### **Entrance Test**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University, for the 1<sup>st</sup> Semester.

### **Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1<sup>st</sup> Semester.

### **Intake**

The total number of candidates to be admitted to the course would be 69 only for the 1<sup>st</sup> semester. 40 seats are under normal fee and 20 seats are under enhanced fee. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state and 09 seats are under Other University students. Total Seats is 69.

### **Course of Study:**

The courses of study for M.A. English degree shall comprise of Theory courses as noted in the syllabus.

**Note: Specification of Degrees as per UGC notification dated March 2014 published in the Gazette of India, 5<sup>th</sup> July 2014 (Part III Section 4).**

### **Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

## **Medium of Instruction**

The medium of instruction and examination is English.

## **Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory course, Optional Course and Open Elective Course. Compulsory and Optional Course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Dissertation (if any), the number of contact hours and the prescribed credits.

## **Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Optional Course and
  - iii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of Optional Courses offered within the department. Each department will offer at least one Optional paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such Optional courses a student will have to take for the specialization. The Department offering of Optional course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department. Each course (paper) in this system is designed carefully to include lectures / tutorial/ seminars/ Research work in Dissertation / practical training/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- f) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The

academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.

- g) The normal calendar for the semester would be as follows:
- i. I and III semester - August to November
  - ii. II and IV Semester - January to April

### Attendance

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

### Course Structure

Semester	Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hours
I	PG35T101	1.1. 16 <sup>th</sup> and 17 <sup>th</sup> Centuries English Literature	75	25	100	4	4
	PG35T102	1.2. Indian English Poetry and Prose	75	25	100	4	4
	PG35T103	1.3. American Poetry and Prose	75	25	100	4	4
	PG35T104	1.4. Indian Prose and Poetry in English Translation	75	25	100	4	4
	PG35T105	1.5 (A) Indian Diasporic	75	25	100	4	4

		Writing					
	PG35T105	1.5. (B) Anglo Indian Literature	75	25	100	4	4
	PG35T105	1.5. (C) Linguistics	75	25	100	4	4
<b>II</b>	PG35T201	2.1 The 18 <sup>th</sup> and 19 <sup>th</sup> Centuries English Literature	75	25	100	4	4
	PG35T202	2.2 Indian English Fiction and Drama	75	25	100	4	4
	PG35T203	2.3 American Fiction and Drama	75	25	100	4	4
	PG35T204	2.4. (A) Indian Fiction and Drama in English Translation	75	25	100	4	4
	PG35T204	2.4(B) Comparative Literature	75	25	100	4	4
	PG35T204	2.4(C) Partition Literature	75	25	100	4	4
	PG35T205	2.5 OEC: Language Through Literature	75	25	100	4	4
<b>III</b>	PG35T301	3.1. Gender Studies	75	25	100	4	4
	PG35T302	3.2. Critical Theory - (Part-1)	75	25	100	4	4
	PG35T303	3.3. Postcolonial Poetry and Prose	75	25	100	4	4
	PG35T304	3.4.(A) World Classics in Translation	75	25	100	4	4
	PG35T304	3.4 (B) Translation Studies	75	25	100	4	4
	PG35T304	3.4 (C) Special Author William Shakespeare	75	25	100	4	4
	PG35T305	3.5 OEC-Communicativ	75	25	100	4	4

		e English					
<b>IV</b>	PG35T40 1	4.1 The 20 <sup>th</sup> Century Literature	75	25	100	4	4
	PG35T40 2	4.2 Critical Theory-II	75	25	100	4	4
	PG35T40 3	4.3 Postcolonial Fiction and Drama	75	25	100	4	4
	PG35T40 4	4.4 English Language Teaching	75	25	100	4	4
	PG35T40 5	4.5(A) Dissertation	75	25	100	4	4
	PG35T40 5	4.5(B) Cultural Studies	75	25	100	4	4
	PG35T40 5	4.5(C) Dalit Literature	75	25	100	4	4

### **Submission of Dissertation**

- a) M.A. English IV semester students who have chosen Dissertation as an optional course shall have to choose a topic for dissertation and preliminary preparation be carried out under the guidance of a teacher.
- b) The students shall have to submit the dissertation on the chosen topic, before the commencement of the theory examination.

### **Evaluation:**

- a. Each Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance, if a Compulsory Course has a Credit award of 4, then the total max marks would be 100 for the subject.
- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- d. To encourage the students for the regular participation in academic curricula following break- up for attendance has been recommended.

<b>Attendance</b>	<b>Marks Allotted</b>
91 to 100%	3
81 to 90%	2
75 to 80%	1

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone shall be considered for the allotment of marks as under.
- f. There shall be one end semester examination of 3 hours duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and Dissertation) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluation

#### **Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Master Degree course in two years from the date of admission.
- b. The CBCS scheme is fully carry-over system. However, the four –semester two years course should be completed by a student within double duration of the normal course period (i.e. 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1,000/- per paper.

#### **Declaration of Results:**

- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

#### **Marks and Grading**

The grading of successful candidate at the examination shall be as follows:

<b>Percentage</b>	<b>GPA/CGPA</b>	<b>Letter</b>	<b>Class</b>
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction
60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

**KARNATAK UNIVERSITY, DHARWAD**

**DEPT OF STUDIES IN ENGLISH**

**MA ENGLISH SYLLABUS (PG 35)**

**UNDER CBCS PROGRAMME**

**(2020-21, 2021-22 and 2022-23 for three years)**

## **Program Outcomes**

1. Students will know that English being the official language of India is the global language and it has become the lingua franca of Indian administration, national communication, higher education, library, technical education, and international relationship.
2. Students will know that English education, more so, learning of English language and literature is essential for defining pan-Indians' lives today.
3. Enables students to know that MA English, more so, as a language and literature department, has been transforming English education in India.
4. Students will know that English language can be taught using not only English literature but also regional literatures in English translation, besides knowing the fact that there is no single English but many Englishes.

## **Program Specific Outcomes**

1. English language and literature is taught to provide human resources needed to run English medium schools, colleges, and universities.
2. Since it is a skill oriented program, MA English is creating an excellent job market. Students will be equipped with required communicative skills.
3. MA English graduates are getting jobs in public and private sectors. They will have competence to get into journalism, mass media, information technology and other global markets.
4. Students will be acquainted with socio-cultural and literary histories of literatures in English.
5. Students will be acquainted with major critical theories, their features, propositions and applications besides getting critical insights from them.

KARNATAK UNIVERSITY, DHARWAD  
Dept of English, MA English Syllabus (CBCS)  
(2020-21, 2021-22 and 2022-23 for three years)

M. A. I SEMESTER

PG35T101- THE 16<sup>TH</sup> AND 17<sup>TH</sup> CENTURIES ENGLISH LITERATURE  
PG35T102-INDIAN ENGLISH POETRY AND PROSE  
PG35T103- AMERICAN POETRY AND PROSE  
PG35T104- INDIAN POETRY AND PROSE IN ENGLISH TRANSLATION  
PG35T105 (A)- INDIAN DIASPORIC WRITING **or**  
PG35T105 (B)- ANGLO-INDIAN LITERATURE **or**  
PG35T105 (C)-LINGUISTICS

M. A. II SEMESTER

PG35T201-THE 18<sup>TH</sup> AND 19<sup>TH</sup> CENTURIES ENGLISH LITERATURE  
PG35T202-INDIAN ENGLISH FICTION AND DRAMA  
PG35T203- AMERICAN FICTION AND DRAMA  
PG35T204 (A)- INDIAN FICTION AND DRAMA IN ENGLISH  
TRANSLATION **or**  
PG35T204 (B)- COMPARATIVE LITERATURE **or**  
PG35T204 (C) -PARTITION LITERATURE  
PG35T205- LANGUAGE THROUGH LITERATURE (OEC)

M. A. III SEMESTER

PG35T301- GENDER STUDIES  
PG35T302- CRITICAL THEORY (Part-I)  
PG35T303-POSTCOLONIAL POETRY AND PROSE  
PG35T304(A) -WORLD CASSICS IN TRANSLATION **or**  
PG35T304(B) -TRANSLATION STUDIES **or**  
PG35T304(C)- SPECIAL AUTHOR: WILLIAM SHAKESPEARE  
PG35T305- COMMUNICATIVE ENGLISH (OEC)

M. A. IV SEMESTER

PG35T401-THE 20<sup>TH</sup> CENTURY ENGLISH LITERATUTE  
PG35T402-CRITICAL THEORY (Part-II)  
PG35T403- POSTCOLONIAL FICTION AND DRAMA  
PG35T404- ENGLISH LANGUAGE TEACHING (ELT)  
PG35T405(A) -DISSERTATION **or**  
PG35T405(B)- CULTURAL STUDIES **or**  
PG35T405(C)- DALIT LITERATURE

(**Note:** Each paper is for 100 marks of which 75 marks are for the semester end theory exam; 22 marks are for two internal tests (each for 11 marks) and 3 marks are for attendance. 75 % of attendance is compulsory; if the student has 76 to 80 % s/he will get 1 mark; if s/he has 81 to 90% s/he will get 2 marks; and if s/he has 91 % and above s/he will get 3 marks)

**M. A. I. SEMESTER**  
**PG35T101- THE 16<sup>TH</sup> AND 17<sup>TH</sup> CENTURIES ENGLISH**  
**LITERATURE (100 Marks)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of England mainly of Elizabethan Age.
2. Get acquainted with major literary developments and movements like Renaissance and Reformation of this period.
3. Get acquainted with major forms, writers and texts of this period with focus on their distinctiveness.

**Section—A Background**

Renaissance, Development of English Drama upto Restoration  
Elizabethan Poetry, Metaphysical Poetry, Important Prose Writers of the Period

**Section—B Poetry**

John Milton	: <i>Paradise Lost</i> Book I
John Donne	: Poems: The Good Morrow, Go and Catch the falling Star,
	The Canonization, The Sun Rising, Holy Sonnet No 6
Death	Be not Proud

**Section—C Prose**

Francis Bacon	: Essays – Of Truth, Of Parents and Children, Of Friendship, Of Studies, and Of Death
John Bunyan	: <i>Pilgrim's Progress</i>

**Section—D Drama**

William Shakespeare:	<i>Othello</i> (any edition)
Christopher Marlowe:	<i>Doctor Faustus</i> (any edition)

**Suggested Reading:**

1. Andrew Sanders. *The Short Oxford History of English Literature* (OUP)
2. *The Norton Anthology of English Literature*. London: WW Norton and Co, 2000.
3. Daiches, David. *A Critical History of English Literature*, 2 Vols. New Delhi: Random House India, 1994.

## PG35T102-INDIAN ENGLISH POETRY AND PROSE (100 Marks)

### Course Outcomes:

1. Students will be acquainted with Indian sense and sensibilities.
2. Students get familiarity with the insights of the greatest Indian writers like Tagore, Sri Aurobindo and others.

### Section—A Background

Romantic Poetry, Modernist Poetry, Biography, Autobiography in Indian English Literature

### Section—B Poetry

Poetry: *Twenty-Five Indian Poets in English*. Ed K. S. Ramamurti (any edition).

Only the following poems of the below mentioned poets are for study:

- a. Toru Dutt : Our Casuarina Tree
- b. Rabindranth Tagore: Canto/stanzas I, II, and III from *Gitanjali*; and XVII from Kabir Poems
- c. Sarojini Naidu: Indian Weavers
- d. Nissim Ezekiel: Good Bye Party to Miss Pushpa T.S.
- e. Kamala Das: An Introduction, The Old Playhouse
- f. K. Raghavendra Rao: The Journey to Golgotha

### Section—C Prose

Mahatma Gandhi : *Hind Swaraj* (any edition)

A.P.J. Abdul Kalam : *Wings of Fire* (any edition)

### Section—D Criticism

Sri Aurobindo : “The Future Poetry” (Mantra Concept) from *Future Poetry*  
(Aurobindo Ashram, Pondichery)

Rabindranath Tagore: “What is Art?” (any edition)

### Suggested Reading:

1. Iyengar, K. R. S. *Indian Writing in English*. New Delhi: Sterling.
2. Naik, M. K. *A History of Indian English Literature*. New Delhi: Sahitya Academy.
3. Mehrotra, A. K. (ed). *An Illustrated History of Indian English Literature*, New Delhi: Permanent Black, 2000.

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## **PG35T103- AMERICAN POETRY AND PROSE (100 Marks)**

### **Course Outcomes:**

1. This paper introduces the students to the history of American literature.
2. American Poetry and Prose is an excellent body of literary writings from America that can shape a man's beliefs and convictions in democracy and new nationhood.

### **Section—A Background**

Puritanism (Colonial Period), Transcendentalism, The American Dream and Harlem Renaissance

### **Section—B Poetry**

Walt Whitman: Song of Myself  
When Lilacs Last in the Dooryard Bloom'd  
Passage to India

Robert Frost :Mending Wall  
After Apple-Picking  
The Road Not Taken  
Birches  
Stopping by Woods on a Snowy Evening

Langston Hughes : Mother to Son  
The Negro Speaks of Rivers  
The Weary Blues  
I Too

### **Section—C Prose**

R. W. Emerson : "Self-Reliance"  
H. D. Thoreau : "Civil Disobedience"

### **Section—D Criticism**

E. A. Poe : "The Philosophy of Composition"  
Henry James : "The Art of Fiction"

### **Suggested Reading:**

1. Spiller, R. E. (ed) *A Literary History of the United States*. New York: Macmillan, 1948.
2. *The Norton Anthology of American Literature*. New York: W. W. Norton Co., 2010.
3. VanSpanckeren, Kathryn. *American Literature*. New York: US Dept of State, 1994.

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## **PG35T104- INDIAN POETRY AND PROSE IN ENGLISH TRANSLATION (100 Marks)**

### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand various theories and methods of translation.
2. Understand the essence of regional literature in English Translation.
3. Get acquainted with the process of translation, problems and challenges of translation, and the role and significance of translation.

### **Section – A Background**

The Meaning of Translation, Definitions, Scope, Problems, Challenges, Source Language, Target Language, History, the Role of Translator, Types, Theories, and Translation in the Indian Context

### **Section-B Poetry**

A. K. Ramanujan: *Speaking of Siva* (Penguin)

Basavanna – 8, 59, 97,820

Mahadeviyakka- 2, 17, 26, 87

Allama Prabhu- 42, 59, 775,972

Shashidhar G. Vaidya: *Select Songs of Kanakadas*

Kanakadas: Do not quarrel over caste

Better quarrel with the wise

Purandharadas: Who among the three wishes well of you ?

It is in one Name that are hidden

### **Section-C Prose (Autobiographies)**

Rabindranath Tagore : *My Reminiscences* (any edition)

Durga Khote : *I Durga Khote*

### **Section-D Short Stories**

From *Contemporary Indian Short Stories* -Series-II, Sahitya Akademi, New

Delhi, 2009

Roma Das (Assamese): A Defective Coin

Amin Kamil (Kashmiri): The Cock-Fight

Rajakishore Ray (Oriya): The Bridal Crown

Lekhraj Tulsiani (Sindhi): Manjri

Sant Singh Sekhon (Punjabi): The Whirlwind

Rajindar Singh Bedi (Urdu): Lajwanti

Pudumai Pitthan (Tamil): Redemption

Chunilal K. Madia (Gujarati): The Earning Son

### **Suggested Reading:**

1. Mukherjee, Sujit. *Translation as Discovery*. Hyderabad: Orient Longman, 1964.

2. Munday, Jeremy. *Introducing Translation Studies*. London: Routledge, 2001.

3. *Encyclopedia of Indian Literature*, Vols 1 to 6. New Delhi: Sahitya Akademi.

## **PG35T105 (A)- INDIAN DIASPORIC WRITING (100 Marks)**

### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the meaning, nature and scope of diasporic writings.
2. Get acquainted with major Indian diasporic writers, terms/concepts and issues of diasporic literature.
3. Get acquainted with rich, heterogeneous and unique experiences of migrated people through diasporic writing besides knowing the pulls and pushes of migration.

### **Section- A: Background**

Meaning, Nature, Scope, Major Terms, Issues and Phases of Diasporic Literature

### **Section-B: Poetry**

A. K. Ramanujan :The Striders, Looking for a Cousin on a Swing, A River,

Obituary and Ecology

Sujata Bhatt : The Peacock, A Different History, Kankaria Lake, The

Stinking Rose, and Search for My Tongue

### Section - C Prose

- Amitav Ghosh : *Dancing in Cambodia, at Large in Burma* ( Ravi Dayal, New Delhi)
- Salman Rushdie : “*Imaginary Homelands*” (from *Imaginary Homelands: Essays and Criticism 1981-1991*. Viking/Penguin, New York, 1982)

### Section - D Fiction

- Chitra Banerjee Divakaruni : *Sister of My Heart* (any edition)
- Jhumpa Lahiri : *The Namesake* (any edition)

### Suggested Reading:

1. Ashcroft, Bill, et al. *The Post-Colonial Studies: The Key Concepts*. London: Routledge, 1998.
2. Jain, Jasbir (ed). *Writers of the Indian Diaspora*. Jaipur: Rawat Publishers.
3. Parameshwaran, Uma (ed), *Writers of the Diaspora: Culture and Identity*. Jaipur: Rawat Publishers.
4. Rushdie, Salman. *Imaginary Homelands: Essays and Criticism 1981-1991*. New York: Viking/Penguin, 1982

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**Or**  
**PG35T105(B)- ANGLO-INDIAN LITERATURE (100 Marks)**

**Course Outcomes:**

1. The British ruled India and they modernized India as we see this here.
2. Anglo-Indian literature is rich for imparting the students about Anglo-Indian rule, life, modernization of India, industrialization, culture and civilization.

**Section–A Background**

Bhupal Singh: (Curzon Press)	“Introductory,” <i>A Survey of Anglo-Indian Literature</i>
Indira Ghosh:	“Women Travellers and Orientalism,” <i>Women Travellers in Colonial India</i> (OUP)

**Section–B Poetry**

Rudyard Kipling:	The following 7 of Kipling’s poems are for study Danny Deeever, The Widow at Windsor, The White Man’s Burden, The Song of the English, If, and Ganga Din (any edition)
George Orwell	: Awake! Young Men of England, Poem from Burma, and Kitchener

**Section–C Prose**

Lord Macaulay	: Minutes on Education
George Orwell	: Shooting an Elephant

**Section–D Fiction**

E. M. Forster	: <i>A Passage to India</i> (any edition)
Leela Mani	: <i>Maud Diver</i> (any edition)

**Suggested Reading:**

1. Singh, Bhupal. *A Survey of Anglo-Indian Literature*. London: Curzon Press, 1974.
2. Ghosh, Indira. *Women Travellers in Colonial India*. Oxford: OUP, 1998.
3. Naik, M. K. *A History of Indian English Literature*. New Delhi: Sahitya Akademi.

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**Or**

## **PG35T105(C)-LINGUISTICS (100 Marks)**

### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the meaning and nature of languages and linguistics.
2. Get acquainted with sounds of English language.
3. Get acquainted with morphology, syntax and Semantics.

### **Section –A Background**

1. Language: Definitions, Nature, Scope and Characteristics
2. Linguistics: Definition, and Branches (Descriptive, Historical and Comparative and Applied)
3. Structure of language
4. Difference between speech and language

### **Section -B Phonetics**

1. Phonetics: Branches (Accoustic, Articulatory and Auditory)
2. Sounds in English (Vowels, Consonants and Diphthongs) and Speech Organs
3. IPA symbols
4. Stress and intonation

### **Section–C Morphology and Syntax**

1. Morphology: boundary between morphology and syntax
2. Sentence and its Types
3. Grammar: Prescriptive and Descriptive Grammar
4. Transformative Generative Grammar (TGG)

### **Section–D Semantics**

1. Nature and Scope
2. Meaning of Meaning
3. Ogden/Richards Triangle
4. Leech's seven types of meaning

### **Suggested Reading:**

1. Lyons, John. *Language and Linguistics: An Introduction*. CUP, 2001.
2. Chomsky, Noam. *Aspects of the Theory of Language*
3. Huddleston, Rodney. *An Introduction to Transformational Syntax*
4. Fowler, Roger. *An Introduction to Transformational Syntax*
5. Jones, Daniel. *English Pronouncing Dictionary*

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## M.A. II SEMESTER

### PG35T201-THE 18<sup>TH</sup> AND 19<sup>TH</sup> CENTURIES ENGLISH LITERATURE (100 Marks)

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of England mainly of Augustan and Romantic periods.
2. Get acquainted with literary developments like neoclassicism and Romanticism with focus on their propositions and style.
3. Have an understanding of major writers like Pope, Wordsworth, Tennyson, Dickens etc, besides knowing their concerns and uniqueness.

#### Section- A Background

Augustan Poetry, Romantic Poetry and Prose, Victorian Poetry, Prose and Fiction

#### Section-B Poetry

Alexander Pope: *The Rape of the Lock* (OUP)

William Wordsworth: The Solitary Reaper and  
Ode on Intimations of Immortality

John Keats: Ode to Nightingale, and Ode on a Grecian Urn

Lord Alfred Tennyson: The Lotus Eaters, and Tithonus

#### Section-C Prose

Charles Lamb : *Essays of Elia*: Oxford in the Vacation, All Fools' Day, The Old and the New School Master, Dream Children: A Reverie, and The Praise of Chimney Sweeper

Matthew Arnold :Author's Preface, and Chapter 1 "Sweetness and Light"  
from *Culture and Anarchy* (any edition)

#### Section-D Fiction

Charles Dickens : *Great Expectations* (Orient Blackswan)

Thomas Hardy : *The Mayor of Casterbridge* (Any edition)

**Suggested Reading:**

1. Sanders, Andrew. *The Short Oxford History of English Literature*. London: OUP.
2. *The Norton Anthology of English Literature*. London: WWW Norton and Co, 2000.
3. Daiches, David. *A Critical History of English Literature*, 2 Vols. New Delhi: Random House India, 1994.

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## PG35T202-INDIAN ENGLISH FICTION AND DRAMA (100 Marks)

**Course Outcomes:**

1. This paper aims at providing dramatic and fictional insights in Indian English literature.
2. This paper provides texts such as *Coolie*, *Kanthapura* and *Nagamandala*

### Section- A Background

The Development of Indian English Fiction and Drama

### Section- B Fiction

Mulk Raj Anand	: <i>Coolie</i> (any edition)
Raja Rao	: <i>Kanthapura</i> (OUP)

### Section- C Fiction

Basavaraj Naikar	: <i>Light in the House</i> (any edition)
Sudha Murthy	: <i>Gently Falls the Bakula</i> (Penguin)

### Section- D Drama

Girish Karnad	: <i>Naga-Mandala</i> (OUP)
Mahesh Dattani	: <i>Dance Like a Man</i> (OUP)

**Suggested Reading:**

1. Iyengar, K.R.S. *Indian Writing in English*. New Delhi: Sterling
2. Naik, M.K. *A History of Indian English Literature*. New Delhi: Sahitya Academy.
3. Mehrotra, A. K. *An Illustrated History of Indian English Literature*. New Delhi: Permanent Black, 2000.

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## PG35T203- AMERICAN FICTION AND DRAMA (100 Marks)

### Course Outcomes:

1. This paper aims at introducing American literature in general and American Fiction and Drama in particular.
2. American Fiction and Drama is rich in imparting literary sense and sensibilities from American literature.

### Section - A Background

The Frontier Literature; Black, Jewish and Asian Writings; and Contemporary American Fiction and Drama

### Section - B Fiction

Herman Melville : *Moby-Dick* (any edition)  
Mark Twain : *The Adventures of Huckleberry Finn* (any edition)

### Section - C Fiction

Ernest Hemingway : *The Old Man and the Sea* (any edition)  
Jack Kerouac : *The Dharma Bums* (any edition)

### Section - D Drama

Eugene O’Neil : *The Hairy Ape* (any edition)  
Arthur Miller : *Death of a Salesman* (any edition)

### Suggested Reading:

1. Spiller, R.E. (ed): *A Literary History of the United States*. New York: Macmillan, 1948.
2. *Norton Anthology of American Literature*. New York: W.W.Norton Co., 2010.
3. VanSpanckeren, Kathryn. *American Literature*. New York: US Dept of State, 1994.

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**PG35T204(A)- INDIAN FICTION AND DRAMA IN ENGLISH  
TRANSLATION  
(100 Marks)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the socio-cultural history through regional literature in English Translation.
2. Get acquainted with the major concerns of regional writers.
3. Get acquainted with the prominent writers in regional language.

**Section-A- Fiction**

Baraguru Ramachandrappa : *Shabari* (Kannada)  
Anna Ram Sudhama : *Hypocrites* (Rajastani)

**Section-B-Fiction**

T.S. Pillai : *Chemmeen* (Malayalam)  
G. Kalyan Rao : *Untouchable Spring* (Telugu)

**Section-C-Drama**

Mahasweta Devi : *Mother of 1084* (Bengali)  
Vijay Tendulkar : *Silence! The Court is in Session* (Marathi)

**Section-D-Drama**

Kuvempu : *A Throat for a Thumb* (Kannada)  
Lakshmi Naryan Misra : *Sindoor Ki Holi* (Hindi)

**Suggested Reading:**

1. *Encyclopedia of Indian Literature*, Vols 1 to 6. New Delhi: Sahitya Akademi.
2. Naikar, Basavaraj. *Indian Literature in English Translation*. New Delhi: National Publishing House, 2004.
3. *Encyclopedia of Indian Literature*. New Delhi: Sahitya Academy.

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**Or**

## **PG35T204(B)- COMPARATIVE LITERATURE (100 Marks)**

### **Course Outcomes:**

1. This paper aims at providing comparison and analysis as tools of study.
2. The paper provides comparative study in Romanticism and modernism.

### **Section–A Background**

The Concept of Comparative Literature; the Nature and Development of Comparative Literature in the West and in India; and Schools of Comparative Literature

### **Section--B Comparative Literature: Views**

Sisir Kumar Das : “Muses in Isolation” from *Comparative Literature: Theory*

*and Practice* (IIAS, Shimla)

Henry Gifford : “The Education of a Modern Poet” from *Comparative*

*Literature* (Routledge, London)

### **Section–C A Comparative Study of Major Literary Movements**

Romanticism: English and Kannada; a study of Wordsworth and Kuvempu  
Modernism: English and Kannada; a study of T. S. Eliot and Gopalakrishna Adiga

(a basic knowledge about these two topics is to be acquired)

### **Section–D A Comparative Study of Modern Texts**

Kafka’s *Metamorphosis* and K. Raghavendrarao’s *The Cockroach Man* (any edition)

### **Suggested Reading:**

1. Dev, Amiya Dev and Sisir Kumar Das. *Comparative Literature: Theory and Practice*. Shimla: IIAS. 1988.
2. James, Jancy et al. *Comparative Literature: Theory, Culture and Space*. New Delhi: Creative Books, 2007.
3. Amur, G. S. *Essays on Modern Kannada Literature*. Bangalore: Karnataka Sahitya Academy, 2001.
4. Chenni, Rajendra. *Tradition and Modernity*. Bangalore: Ruvari Publication.

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**Or**  
**PG35T204(C) -PARTITION LITERATURE (100 Marks)**

**Course Outcomes:**

1. India faced partition of the country many times, including the Bengal and North Western Frontier Province and this affected Indian life.
2. Partition Literature teaches us how political crises such as the Indian Partition of 1947 affected Indian life and India's relationships in the neighbourhood.

**Section–A Background**

- S.S. Prasad: "Communalism and Formation of Nations: Indian English Novels and Partition," *Aspects of Contemporary Indian English Writings*, ed. Shrikant Singh, Sarup Book Publishers Pvt Ltd, New Delhi, 2011
- G. S. Amur: "Two Pakistani Writers," *Transgressions: Studies in Indian Literature in English*, Kanva Publication, Bangalore, 2012

**Section–B Fiction**

- Khushwant Singh : *Train to Pakistan* (any edition)
- Bhishmi Sahani : *Tamas* (any edition)

**Section–C Fiction**

- Salman Rushdie : *Shame* (any edition)
- Amitav Ghosh : *The Shadow Lines* (OUP)

**Section–D Drama**

- Howard Brenton : *Drawing the Line* (any edition)
- Asif Currimbhoy : *Goa* (any edition)

**Suggested Reading:**

1. Naik, M. K. *A History of Indian English Literature*. New Delhi: Sahitya Akademi.
2. Mehrotra, A. K. (ed) *An Illustrated History of Indian English Literature*. New Delhi: Permanent Black.

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## Open Elective Course- 1

### PG35T205- LANGUAGE THROUGH LITERATURE (OEC) (100 Marks)

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the basic aspects of English grammar.
2. Get acquainted with the major literary movements in English literature.
3. Get acquainted with the prominent forms and writers of English literature

#### Section-A Background

Grammar: Parts of Speech, Tense, Speech and Voice

#### Section-B: English Literature

Modern Literary Movements from *English Blossoms*  
(ed Suja Mathew, OUP)

#### Section-C: Poetry and Prose

William Wordsworth : Daffodils  
Virginia Woolf : How Should One Read a Book?

#### Section-D: Drama

Harold Pinter : *The Dumb Waiter* (from *English Blossoms*  
ed Suja Mathew, OUP)

#### Suggested Reading:

1. Abrams, M. H. *A Glossary of Literary Terms* (any edition)
2. Baldick, Chris. *Oxford Dictionary of Literary Terms* (OUP)

## M.A. III SEMESTER

### PG35T301- GENDER STUDIES (100 Marks)

#### Course Outcomes:

1. Gender difference is a matter of great concern all over the world.
2. This papers provides critical insights on concepts like gender discrimination, prostitution and foeticide.

#### Section-A Background

**Concepts:** Patriarchy, Sex and Gender, Stereotypes, Gynocriticism, Body Politics, and Glass Ceiling

**Social Problems:** Female Foeticide, Poverty, Prostitution, and Gender Discrimination

#### Section-B Criticism

Dr B. R. Ambedkar	: The Hindu Code Bill
Simone de Beauvoir	: <i>The Second Sex</i> (Introduction )
Pandita Ramabai	: On Widowhood (Extract from <i>The High Caste Hindu Woman</i> )

#### Section-C Texts

Eunice D'Souza ed:	Selections from <i>Nine Indian Women Poets</i> :
	:Tribute to Papa, Positive Thinking, After Eight Years of Marriage, Anonymous, Bequest, Purdah-1, Battle Line, and Request and The Doubt
Mahashweta Devi	: <i>Draupadi</i> (Tr. Gayatri Spivak)
Ismat Chughtai	: The Veil

#### Section-D Texts

Sudha Murthy	: <i>Three Thousand Stitches</i> (Penguin)
Baby Kamble	: <i>The Prison We Broke</i>

#### Suggested Reading

- 1 Warhol, Robin and Daine Price Herndl (eds), *Feminisms*. London: Rutgers Univ. Press.
- 2 Tharu, Susie and K. Lalitha (eds). *Women's Writing in India* (OUP).
- 3 Singh, Sushila. *Feminism*. New Delhi: Pencraft International.
- 4 Kumar, Radha. *Woman's Movement*
- 5 Butalia, Urvashi. *The Other Side of Silence*

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## PG35T302- CRITICAL THEORY (Part-I) (100 Marks)

### Course Outcomes:

1. Criticism is understanding and appreciation of life and it is most essential for forming man's taste, temperament and judgment.
2. Criticism provides us insights, methods and conventions as to how to appreciate good literature which can lift us from the mundane to the sublime.

### Section-A

Classicism – Aristotle : *Poetics*  
Sanskrit Criticism – Bharata : Concept of Rasa

### Section-B

Romantic Criticism – S. T. Coleridge: On Imagination and Fancy  
(*Biographia Literaria* - Chap XIII)  
British Formalism – T.S. Eliot : “Tradition and the Individual Talent”

### Section-C

New Criticism – Mark Schorer : “Technique as Discovery”  
Reader-Response Theory– Stanley Fish: “Is there a Text in the Class?”

### Section-D

Structuralism – Jonathan Culler : “Structuralism and Literature”  
Feminism–Elaine Showalter : "Towards a Feminist Poetics”

### Suggested Reading

- 1 *The Norton Anthology of Theory and Criticism*. New York: W.W.Norton and Co., 2001.
2. Habib, M. A. R. *A History of Literary Criticism and Theory*. London: Blackwell, 2008.
- 3 Ramaswami, S and V.S.Sethuraman (eds). *The English Critical Tradition*. Madras: Macmillan.
- 4 Abrams, M. H. and G.G.Harpham. *A Glossary of Literary Terms*. New Delhi: Cengage, 2015.

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## PG35T303-POSTCOLONIAL POETRY AND PROSE (100 Marks)

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the concepts of Colonialism and Postcolonialism.
2. Able to the impact of Colonialism in African and South-Asian countries.
3. Get orientation of decolonizing the mind and culture.

### Section-A- Background

General introduction to Postcolonial literature, African poetry, Australian poetry, Postcolonial criticism, and Postcolonial travelogue

### Section-B-Poetry

A.D. Hope (Australia)	:Australia, and Standardization
Gabriel Okara (Africa)	:Once Upon a Time, and Were I to Chose
Derek Walcott (West Indies)	: A Sea Chantey, and A Far Cry from Africa
A.J.M. Smith (Canada) and Like	: Ode on the Death of William Butler Yeats, an Old Proud King in a Parable

### Section-C-Prose

V.S. Naipaul	: <i>India: A Million Mutinies Now</i>
Chinua Achebe	: “An Image of Africa: Racism in Conrad’s <i>Heart of Darkness</i> ”

### Section-D-Criticism

NGugi Wa Thiong’o	: <i>Something Torn and New: An African Renaissance</i>
Edward Said	: <i>Orientalism</i> (Chapter I The Scope of Orientalism)

### Suggested Readings

1. Loomba, Ania. *Colonialism/Postcolonialism*. London: Routledge, 2002.
2. Gandhi, Leela. *Postcolonial Theory*. New Delhi: OUP, 2001
3. Dhavan, R. K. *Commonwealth Literature*, Vols 1 to 4. New Delhi: Creative Books.
4. Walsh, William. *Commonwealth Literature*
5. Narasimhaiah, C.D.. *An Anthology of Commonwealth Poetry*

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## PG35T304 (A) -WORLD CASSICS IN TRANSLATION (100 Marks)

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the concept and nature of Classics.
2. Get acquainted with some of the major epics of the world.
3. Get acquainted with some prominent writers of Classics.

### Section-A Background

T.S.Eliot	: “What is a Classic?” From <i>On Poetry and Poets</i>
A.C.Bradley	: “The Sublime” From Oxford Lectures on Poetry

### Section-B Epics

Vyasa	: <i>The Mahabharat</i> (any edition)
Virgil	: <i>The Aeneid</i> (any edition)

### Section-C Drama

Bhasa	: <i>Swapnavasavadattam</i> (any edition)
Euripides	: <i>Media</i> (any edition)

### Section-D Drama and Fiction

Henrik Ibsen	: <i>A Doll’s House</i> (any edition)
Tolstoy	: <i>Anna Karenina</i> (any edition)

### Suggested Reading:

- 1 H.D.F. Kitto, *The Great Tragedy*. London: Methuen.
- 2 Wells, W.H. *Classical Indian Drama*. Bombay: Asia Book House.
- 3 Hornstein et al, *The Readers’ Companion to World Literature*. New York: Mentor Books.

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**Or**  
**PG35T304 (B) -TRANSLATION STUDIES (100 Marks)**

**Course Outcomes:**

1. Translation is a means to understand the world. So all the knowledge is a translation that way.
2. Translation literature helps us how to transform ourselves into perfection and fulfillment in life.

**Section–A Background**

Definition, Translation as a Bilingual activity, Types, Principles of Translation, its History, and Translation as an inter-disciplinary discourse

**Section–B Perspectives on Translation**

- George Steiner : Chapter 1 “Understanding as Translation,” *Aspects of Language and Translation* (OUP)
- Eugene Nida : Part I Chapter 5 “Science of Translation,” *Language Structure and Translation* (Stanford Univ. Press)

**Section–C Application**

A brief introduction to the major concepts of Translation in different discourses: Law, Administration, Media, Literature (covering short story and other prose forms) and Religion

**Section–D Translation in India**

- Arshia Sattar : “Translation into English,” *An Illustrated History of Indian Literature in English*, ed A. K. Mehrotra (Permanent Black)
- Sujit Mukherjee : “Translation as New Writing” from *Translation as Discovery*  
(Orient Blackswan)

(At least one Internal Assessment Test (11 marks) on Translation Practice)

**Suggested Reading:**

1. Bassnet, Susan. *Translation Studies*. New York: Methuen, 1980.
2. Mukherjee, Sujit. *Translation as Discovery*. Hyderabad: Orient Blackswan.

3. Munday, Jeremy. *Introduction to Translation Studies*. London: Routledge, 2001.
4. *Translation Today*, Journal from CIIL, Mysore.

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**Or**

**PG35T304(C)- SPECIAL AUTHOR: WILLIAM SHAKESPEARE (100 Marks)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand Shakespearean theatre and the socio-political situation of Shakespearean Age.
2. Get acquainted with Shakespearean Tragedies, Comedies and Historical Plays with their distinctiveness.
3. Able to know the universality of Shakespeare's works in terms of knowledge of man and the world.

**Section - A Background**

Dr Samuel Johnson : Preface to Shakespeare  
Chapter 3 "Renaissance and Reformation: Literature 1510-1620" from Andrew Sanders' *The Short Oxford History of English Literature* (OUP)

**Section - B Comedies**

*As You Like It* (Orient Blackswan)  
*The Merchant of Venice* (OUP)

**Section–C Tragedies**

*King Lear* (any edition)  
*Macbeth* (OUP)

**Section–D Histories**

*Julius Caesar* (any edition)  
*Henry IV* (any edition)

**Suggested Reading:**

1. Kermode, Frank. *The Age of Shakespeare*. London: Phoenix, 2004.
2. Bradley, A. C. *Shakespeare's Tragedies*. London: 1974.
3. Barber, C. L. *Shakespeare's Festive Comedies*, 1959.
4. Tillyard, E. M. *Shakespeare's History Plays*, 1946.
5. Taylor, M. *Shakespeare Criticism in the Twentieth Century*. OUP, 2001.

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**OPEN ELECTIVE COURSE – 2****PG35T305- COMMUNICATIVE ENGLISH (OEC) (100 Marks)****Course Outcomes:**

At the end of the course, Students will be able to-

1. Communicate effectively.
2. Enhance their oral as well as writing skill in English language.
3. Get acquainted with the nuances of English language through their study of short stories in English.

**Section-A**

Essay Writing  
Précis-writing

**Section-B**

Preparing CV  
Letter-writing

**Section-C**

Comprehension  
Paragraph Writing

**Section-D**

Dialogue Writing on Given Situations - At Post Office, Bank, Airport, Doctor's Clinic and Shopping Mall

### **Section-E**

Text: *Fantasy* ed V. Sasikumar (The first five short stories are to be taught;  
Orient Blackswan)

### **Suggested Reading:**

- 1 Murphy, Raymond. *Intermediate English Grammar*. Cambridge Univ. Press.
- 2 Hockett, C.F. *A Course in Modern Linguistics*. New York: Macmillan, 1958.
3. Wren and Martin. *High School English Grammar and Composition*.

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## M.A. IV SEMESTER

### PG35T401-THE 20<sup>TH</sup> CENTURY ENGLISH LITERATURE (100 Marks)

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of England mainly of 20<sup>th</sup> Century.
2. Get acquainted with major forms of literature of the period.
3. Get acquainted with major writers and texts of different forms of this period.

#### Section-A Background

Modernist Poetry, Stream of Consciousness Narrative Technique, Science Fiction, Absurd Theatre, and Post-Modern Literature

#### Section-B Poetry

G.M.Hopkins	:The Wreck of the Deutschland, and God's Grandeur
T. S. Eliot	: The Waste Land
W.H.Auden	: O What is that Sound, and The Unknown Citizen

#### Section-C Fiction

Graham Greene	: <i>The Power and the Glory</i> (Penguin)
John Fowles	: <i>The French Lieutenant's Woman</i> (any edition)

#### Section-D Drama

G. B. Shaw	: <i>St Joan</i> (any edition)
Samuel Beckett	: <i>Waiting for Godot</i> (any edition)

#### Suggested Reading:

1. Sanders, Andrew. *The Short Oxford History of English Literature*. OUP.
2. *The Norton Anthology of English Literature*. London: WW Norton and Co, 2000.
3. Daiches, David. *A Critical History of English Literature*, 2 Vols. New Delhi: Random House India, 1994.

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## **PG35T402-CRITICAL THEORY (Part-II) (100 Marks)**

### **Course Outcomes:**

1. The modern critical theories are vast, overarching and edifying.
2. Modern criticism helps us understand the change in man's taste, judgment, attitude, thinking, the materials of production of meanings, and the proper approaches to the study of literature.

### **Section-A**

Post-Structuralism - Jacques Derrida : "Structure, Sign and Play in the Discourse of Human Sciences"  
Ronald Barthes : "The Death of the Author"

### **Section-B**

Marxist Criticism - Edmund Wilson: "Marxism and Literature"  
Psychoanalytic Criticism - Lionel Trilling: "Freud and Literature"

### **Section-C**

Linguistic Criticism - Roman Jakobson: "Linguistics and Poetics"  
Cultural Studies - Raymond Williams : "The Analysis of Culture"

### **Section-D**

Postcolonial Criticism-Frantz Fanon : "On National Culture"  
Homi Bhabha : "The Commitment to Theory"

### **Suggested Reading:**

- 1 *The Norton Anthology of Theory and Criticism*. New York: W.W. Norton and Co., 2001.
2. Habib, M. A. R. *A History of Literary Criticism and Theory*. London: Blackwell, 2008.
- 3 Ramaswami, S and V.S.Sethuraman (eds). *The English Critical Tradition*. Madras: Macmillan.
- 4 Ashcroft, Bill (ed). *Key Concepts in Critical Theory*. London: Routledge.

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## PG35T403- POSTCOLONIAL FICTION AND DRAMA (100 Marks)

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the concept of Colonialism and its impact and Postcolonialism and its various dimensions.
2. Get acquainted with main engagements of postcolonial writers

### Section-A Background

Leela Gandhi : “After Colonialism” from *Post-Colonial Theory* (OUP)  
Gayatri Chakravathy Spivak: “Can the Subaltern Speak?”

### Section-B Fiction

Chinua Achebe : *Things Fall Apart* (any edition)  
J. G. Farrell : *The Seige of Krishnapur* (any edition)

### Section-C Fiction

Katherine Mansfield: Short Stories: The Garden Party, The Canary, The Doll’s House, Bliss, and How Pearl Button was Kidnapped  
Bapsi Sidhwa : *The Pakistani Bride* (any edition)

### Section-D Drama

Wole Soyinka : *Kongi’s Harvest* (any edition)  
NGugi wa Thiong’O : *The Trial of Dedan Kimathi* (Worldview)

### Suggested Reading:

1. Ashcroft, Bill and et al, *The Empire Writes Back*. London: Routledge.
2. Loomba, Ania. *Colonialism/Postcolonialism*. London: Routledge, 2005
3. McLeod, John. *Beginning Postcolonialism*. Manchester: Manchester Univ. Press, 2009.
4. Said, Edward. *Orientalism*. London: Penguin, 1995.

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## **PG35T404- ENGLISH LANGUAGE TEACHING (ELT) (100 Marks)**

### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the growth and status of English language in India.
2. Master the various methods of teaching English language.
3. Get acquainted with the techniques of teaching major literary forms.

### **Section-A: Background**

English in India:

Beginning and Growth

Current status and role

Problems in Effective Teaching of English and Remedies

### **Section-B: Language Teaching Methods**

The Direct Method

Grammar-Translation Method

The Bilingual Method

The Structural and Situational Method

### **Section-C: Teaching Skills**

Teaching of Poetry

Teaching of Prose

Teaching of Fiction

Teaching of Drama

### **Section-D: Learning Skills**

The Listening Skill

The Speaking Skill

The Reading Skill

The Writing Skill

### **Suggested Reading**

1 Wren, C. L. *The English Language*. New Delhi: Vikas Publication, 2004.

2. Jack C. Richards and Rodgers, Theodore S. *Approaches and Methods in Language Teaching*. London: CUP, 1986.

2 Jeremy, Harmer. *The Practice of English Language Teaching*. London: Essex, 1983.

3 Aslam, Mohammad. *Teaching of English*. Foundation Books.

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## PG35T405(A) -DISSERTATION (100 Marks)

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the aims and objectives of Research.
2. To get acquainted with the process of undertaking research work.
3. To get acquainted with the mechanics of writing research articles and dissertation.

The students of the MA IV Semester will be distributed among the teachers of the Dept equally. The supervising teachers will give different topics to individual students and guide them in writing the dissertation. The Dept/PG Centres/Colleges should conduct classes on Research Methodology to equip their students with the techniques of research. The minimum length of the dissertation will be 50 pages. The dissertation must be submitted by all the students **before the end of the semester.**

### DIVISION OF MARKS:

Dissertation	---	50 marks
I.A.	---	25 marks (Two Tests on Research Methodology each for 11 marks, and 3 marks for attendance)
Viva voce	---	25 marks
Total marks	---	100 marks

### Research Methodology Topics:

1. **Objectives of Research:** Selection of topic, Relevance, and Preparation of Synopsis
2. **Collection of Data:** Source texts, reference books, interview, fieldwork, the use of library and electronic sources
3. **Critical Analysis:** A study of primary, secondary and tertiary sources, note making and division of chapters
4. **Format of the Thesis:** The use of quotations, references, endnotes, illustrations, bibliography, MLA style sheet, punctuation marks, abbreviations, and editing
5. **Drafting the Thesis:** Presentation, argument, analysis, survey of literature; and key terms like investigation, exploration, hypothesis, methods and techniques, results and findings
6. **Preparation for Colloquium:** assignment, seminar, and viva voce

**Reference:**

(MLA Handbook, Seventh edition, Affiliated East-West Press, New Delhi)

**Instructions:**

- 1. All the dissertation copies shall, through the research guide and HOD, be submitted to the Registrar (Evaluation), KUD for valuation.**
- 2. The dissertations should follow the following requirements:** spiral binding, font size 14 with one and half spacing, Times New Roman style, typing on only one side of the bond paper. Dedication is not permitted
- 3. No scope for improvement or revaluation of dissertation.**
- 4. Submission of dissertation and viva are compulsory. The Dept HOD/subject coordinator needs to conduct the viva in consultation with the respective guides.**
- 5. The topics for dissertation shall be as far as possible from the prescribed syllabus.**

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**Or**  
**PG35T405 (B)- CULTURAL STUDIES (100 Marks)**

**Course Outcomes:**

1. Culture is a way of life; and all the people need to know what good culture is.
2. This paper has texts that speak of the characteristics of good culture.

**Section A Background**

The changing concept of ‘culture’ over time; introduction to major literary and cultural critics in the field; Arnold and ‘high culture’; Birmingham School and its contribution to cultural studies; contemporary trends in the study of popular culture; and cultural approaches to film studies

**Section - B Theory**

Raymond Williams : “Culture is Ordinary” (from *Resources of Hope: Culture, Democracy, Socialism*)

Stuart Hall : “Race, Culture and Communication: Looking Backward and Forward at Cultural Studies” (from *Rethinking Marxism: A Journal of Economics, Culture and Society*)

**Section - C Literature**

Agatha Christie : *Murder in Mesopotamia* (any edition)

Chetan Bhagat : *Five Point Someone* (Rupa)

**Section – D Film and TV Serials**

*Roman Holiday* : Director: William Wyler

*Bend it Like Beckham* : Director: Gurindhar Chadda

(The film analysis is to be made from literary and cultural perspectives)

**Suggested Reading:**

1. Nayar, Pramod . *An Introduction to Cultural Studies* (Viva Books)
2. During, Simon. *Cultural Studies Reader* (Routledge)
3. Fiske, John. *Reading the Popular*.
4. Giddings, Robert, Ketih Selby and Chris Wensley. *Screening the Novel*. London: Macmillan 1990.
5. Floriam, Stadtler. *Fiction, Film and Indian Popular Cinema*
6. [http://www.tandfedbooks.com/ssbn/ 9780203383636](http://www.tandfedbooks.com/ssbn/9780203383636).

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**Or**  
**PG35T405(C)-DALIT LITERATURE (100 Marks)**

**Course Outcomes:**

1. The subaltern issues speak of differences and discriminations meted out to certain sections of society.
2. This paper called Dalit literature aims at enlightening students about Dalit issues and aspirations.

**Section–A Background Study**

Dalit literature, origin, Dalit movements and writings, Dalit Panthers and Ambedkar movement

Social Transformation and Social Reformers: Basavanna, Raja Rammohan Roy, Jyotiba and Savitribai Phule, Shahu Maharaj and their contribution

**Section–B Poetry**

Mulk Raj Anand and Eleanor Zelliot (ed): *An Anthology of Dalit Literature* (Poems by Gyan Publishing House, New Delhi, 1992): Only the following poems are for study:

- i) Hira Bansode : Bosom Friend, Slave, and O Great Man
- ii) Anuradha Gaurava : Request
- iii) Jyoti Lanjewar : Mother, and The Nameless Ones
- iv) Tryambak Sapakale: Angulimala, Ekalavya, Do you want to be a mother, and Day
- v) Yashwant Manohar: I'm Ready for Revolt
- vi) Namdeo Dhasal: Ambedkar 79, Ambedkar: 1980

**Section–C Prose**

Dr Ambedkar's Speech at Mahad. Ed Arjun Dangle (OUP)

Sharanakumar Limbale : Introduction from *Towards an Aesthetic of Dalit Literature*

(Tr from Marathi by Alok Mukherjee, Orient Blackswan, 2004)

**Section–D Autobiography and Fiction**

Aravind Malagatti : *Government Brahmana* (Tr from Kannada by Dharanidevi Malagatti and others, Oriental Blackswan, Hyd, 2007)

Bandu Madhav : *The Poisoned Bread*

Shankarrao Kharat : *A Corpse in the Well* (an Autobiographical Extract. Ed

Arjun Dangle, Blackswan)

**Suggested Reading:**

1. Dr Ambedkar, *Annihilation of Caste*.
2. Jain, R. S. *Dalit Autobiography*. Ahmednagar: Ritu Prakashana, 2007.
3. Prasad, Amar Nath and M. B. Gaijan. *Dalit Literature: A Critical Explorations*. New Delhi: Sarup and Sons, 2007.
4. Sarangi, Jaydeep and Champa Ghosal. *Marginal Writings in English: Bengali and Other Regional Literature*. New Delhi: Authorspress, 2013.

## Course Structure of PhD Programme

For registered Full-time and Part-time candidates shall undertake course of one semester (16 weeks), normally in the Parent department.

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hours</b>
PH3501	Course I-Research methodology	50	50	100	03	03
PH3502	Course-II- Cognate/ Core Subject	50	50	100	03	03
PH3503	Course-III- Area of Research	50	50	100	03	03

At the end of the course work besides the above papers a viva voce examination is conducted for 50 marks. PhD course is for totally 350 marks.

**Karnatak University, Dharwad**  
**Dept of Studies in English**  
**PhD (PH 35)**

**Program Outcomes:**

1. PhD research Scholars will be able to think innovatively and scientifically.
2. PhD research scholars will acquire more competence in language, literature and specialized domain of knowledge.
3. PhD research scholars will imbibe the spirit of enquiry and systematic study needed to be the competent researchers.

**Program Specific Outcomes**

1. PhD research scholars will acquire in-depth knowledge in their specialized area.
2. PhD research scholars will be able to shape themselves as the active members of knowledge production.
3. PhD research scholars will master the skills and mechanics of writing the theses and research articles.
4. PhD research scholars will be able to obtain good positions in various colleges, universities and research institutions.

**The Syllabus for PhD Course Work 2020-21**  
**PH3501- Research Methodology**

**Course Outcomes**

1. PhD research scholars will acquire language skills and mastery over the research methodology.
2. PhD research scholars will acquire the skill of sorting out the sources and knowledge of documentation.

**The PhD students shall study the following aspects of research methodology**

1. Research and writing
2. Plagiarism and academic integrity
3. The mechanics of writing

4. The format of research paper
5. Documentation: preparing list of works
6. Documentation: citing sources in the text
7. Abbreviations
8. Use of electronic sources

**Note:** These topics have been selected from *MLA Handbook for Writers of Research Papers*, 7<sup>th</sup> edition. New Delhi: Affiliated East-West Press Pvt. Ltd., 2009. ISBN. 978-81-7671-061-9  
Students are requested to follow this book.

## PH3502-Recent Critical Approaches to Literature

### Course Outcomes

1. PhD research scholars will be able to internalize critical theories, their main propositions and their application to literature.
2. PhD research scholars will acquire a fair knowledge of critical theories and their significance in interpreting various texts.

**This paper will familiarize the students with various critical approaches with an emphasis on recent developments in literary theory. Some seminal essays have been selected for a focused study.**

#### **1. Feminist Approach:**

Elaine Showalter's "Feminist Criticism in the Wilderness"

#### **2. Marxism:**

Raymond Williams' *From Marxism and Literature* (Part 1, Chapter-3, "Literature")

#### **3. Psychoanalysis:**

Jacques Lacan's *From The Agency of the Letter in the Unconscious*

#### **4. Structuralism:**

Jonathan Culler's "Structuralism and Literature"

#### **5. Post-Structuralist Approach:**

Jacques Derrida's "Structure, Sign and Play in the Discourses of the Human Sciences"

#### **6. Post-colonial Theory and Criticism:**

Chinua Achebe's "An Image of Africa: Racism in Conrad's *Heart of Darkness*"

#### **7. Cultural Studies:**

Raymond Williams: "The Analysis of Culture"

#### **8. Subaltern Studies:**

Gayatri Chakravorty's *From A Critique of Postcolonial Reason* (*From Chapter 3, "History"*[Can the Subaltern Speak?])

### PH3503- Area of Research

**Course outcomes:**

1. The paper acquaints and updates the students with their area of research.
2. The students get acquainted with major issues that the writers engage with.
3. The paper enables the students to know the research gaps in their area of research.
4. This paper will familiarize the students with the literary and theoretical history of the chosen area. The students get acquainted with the representative writers and their works. Some major works are prescribed for a focused study.
5. Based on the research topic syllabus of this paper is designed by the respective guides.



ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

ಸ್ನಾತಕೋತ್ತರ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ

ಪಠ್ಯಕ್ರಮ

ಎಂ.ಎ. ಜಾನಪದ

(ಪರಿಷ್ಕೃತ ಪಠ್ಯಕ್ರಮ)

(1 ರಿಂದ 4 ಸೆಮಿಸ್ಟರ್‌ಗಳು)

ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ ಪಠ್ಯಕ್ರಮ



2018-19 ಮತ್ತು ನಂತರದ ಅವಧಿಗಾಗಿ

## A. Format for presentation of current curriculum

### ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

#### PG37 ಜಾನಪದ ಎಂ.ಎ. (ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ ಪಠ್ಯಕ್ರಮ) 2018-19 ಮತ್ತು ಆನಂತರ

ಅ.ನಂ.	ಸೆಮಿಸ್ಟರ್ ಪತ್ರಿಕೆ ನಂ.	ಪತ್ರಿಕೆ ಹೆಸರು	ಆಂತರಿಕ ಅಂಕಗಳು	ಸೆಮಿಸ್ಟರ್ ಅಂತ್ಯದ ಪರೀಕ್ಷೆ ತಾತ್ವಿಕ/ಪ್ರಾಯೋಗಿಕ	ಒಟ್ಟು ಅಂಕಗಳು	ಬೋಧನಾಕಾಲ ವಾರಕ್ಕೆ	ಒಟ್ಟು ಕ್ರೆಡಿಟ್‌ಗಳು
<b>I ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>							
1.1	PG37T101	ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
1.2	PG37T102	ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
1.3	PG37T103	ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
1.4	PG37T104	ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
1.5	PG37T105	ಜನಪದ ಮಹಾಕಾವ್ಯ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
<b>II ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>							
2.1	PG37T201	ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
2.2	PG37T202	ಜನಪದ ಭಾಷಾವಿಜ್ಞಾನ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
2.3	PG37T203	ಜನಪದ ಕಲೆಗಳು	೨೫	೫೦/೨೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು (ತಾತ್ವಿಕ ಮತ್ತು ಪ್ರಾಯೋಗಿಕ)	೪
2.4	PG37T204	ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
2.5	PG37T205	ಜಾನಪದ ಪರಿಕಲ್ಪನೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
<b>III ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>							
3.1	PG37T301	ಜಾನಪದ ಮತ್ತು ಸಂವಹನ	೨೫	೫೦/೨೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು (ತಾ ಮತ್ತು ಪ್ರಾ)	೪
3.2	PG37T302	ಜನಪದ ಛಂದಸ್ಸು-ಕಾವ್ಯಮೀಮಾಂಸೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
3.3	PG37T303	ಜನಪದ ರಂಗಭೂಮಿ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
3.4.1	PG37T304A	ಬುಡಕಟ್ಟು ಜಾನಪದ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
3.4.2	PG37T304B	ಪರಿಸರ ಜಾನಪದ ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
3.5	PG37T305	ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
<b>IV ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>							
4.1	PG37T401	ಜಾನಪದ ಮತ್ತು ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
4.2	PG37T402	ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
4.3	PG37T403	ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಜಾನಪದೀಯ ಅಂಶಗಳು ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪

4.4.1 PG37T404A ಹಾಲಕ್ಕಿ/ಸಿದ್ದಿಯರು	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
4.4.2 PG37T404B ಜನಪದ ವೈದ್ಯ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪
4.5 PG37T405 ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಕಿರುಪ್ರಬಂಧ ರಚನೆ	೨೫	೭೫ ಅಂಕಗಳು	೧೦೦	೪ ಗಂಟೆಗಳು	೪

### ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

ಜಾನಪದ ಎಂ.ಎ. (ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ)

#### ಪಠ್ಯಕ್ರಮ

ಜಾನಪದ ಎಂ.ಎ. ಪಠ್ಯಕ್ರಮದಲ್ಲಿ ಪ್ರತಿ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿಯೂ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆಯೊಂದಿಗೆ ೨ ಮತ್ತು ೩ನೇ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆಗಳನ್ನು ಮತ್ತು ಸೆಮಿಸ್ಟರ್ ೩ ಮತ್ತು ೪ ರಲ್ಲಿ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳನ್ನೂ ಅಳವಡಿಸಲಾಗಿದೆ.

- \* ಪ್ರತಿ ಪತ್ರಿಕೆಗೆ ೧೦೦ ಅಂಕಗಳು
- \* ಲಿಖಿತ ಪರೀಕ್ಷೆಗೆ ೭೫ ಅಂಕಗಳು ಮತ್ತು ಆಂತರಿಕ ಮೌಲ್ಯಮಾಪನಕ್ಕೆ ೨೫ ಅಂಕಗಳು.
- \* ೨೫ ಅಂಕಗಳಿಗೆ ಒಂದು ಕ್ರೆಡಿಟ್.
- \* ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ, ಮುಕ್ತ ಆಯ್ಕೆ ಪತ್ರಿಕೆ ಮತ್ತು ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳಲ್ಲಿ ಪ್ರತಿ ಪತ್ರಿಕೆಗೆ ೪ ಕ್ರೆಡಿಟ್‌ಗಳು.
- \* ಶೈಕ್ಷಣಿಕ ಪ್ರವಾಸ / ಕ್ಷೇತ್ರಕಾರ್ಯ ಕಡ್ಡಾಯ.

ಆಂತರಿಕ ಮೌಲ್ಯಮಾಪನ ಅಂಕಗಳ ಹಂಚಿಕೆ ವಿವರ : ( ೨೫ ಅಂಕಗಳು)

- |                         |             |
|-------------------------|-------------|
| ೧. ಹಾಜರಾತಿ              | - ೩ ಅಂಕಗಳು  |
| ೨. ಘೋಷಿತ ಲಿಖಿತ ಪರೀಕ್ಷೆ  | - ೬ ಅಂಕಗಳು  |
| ೩. ಅಘೋಷಿತ ಲಿಖಿತ ಪರೀಕ್ಷೆ | - ೬ ಅಂಕಗಳು  |
| ೪. ನಿಯೋಜಿತ ಪ್ರಬಂಧ       | - ೧೦ ಅಂಕಗಳು |

**PG37 ಎಂ.ಎ. ಜಾನಪದ ಪಠ್ಯಕ್ರಮ**  
**ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ ಅಡಿಯಲ್ಲಿ**  
**೨೦೧೮-೧೯ ರಿಂದ ೨೦೨೦-೨೧ರ ವರೆಗೆ**

**Program Outcomes :**

- ೧) ಜಾನಪದ ಅಧ್ಯಯನ ಓದಿದ ವಿದ್ಯಾರ್ಥಿಗಳು ಈ ನಾಡಿನ ಸಂಸ್ಕೃತಿ, ಸಾಹಿತ್ಯ, ಕಲೆ ಮತ್ತು ಜ್ಞಾನ ಸಂಪತ್ತನ್ನು ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೨) ಈ ಪದವಿ ಓದಿದ ವಿದ್ಯಾರ್ಥಿಗಳು ಮುಂದೆ ಸಂಶೋಧನಾ ಅಧ್ಯಯನಕ್ಕೆ ಹಾಗೂ ಅಧ್ಯಾಪನ ವೃತ್ತಿ ಜೀವನಕ್ಕೆ ಹೋಗಲು ಅರ್ಹತೆಯನ್ನು ಪಡೆದುಕೊಳ್ಳುತ್ತಾರೆ.
- ೩) ಈ ಪದವಿ ಪಡೆದುಕೊಂಡ ವಿದ್ಯಾರ್ಥಿಗಳು ಕೌಶಲ್ಯಪೂರ್ವಕ ಜ್ಞಾನದಿಂದ ಸ್ವಯಂ ಉದ್ಯೋಗ ಮಾಡಲು ಅರ್ಹರಾಗುತ್ತಾರೆ.
- ೪) ಪಾರಂಪರಿಕ ಜ್ಞಾನದ ಆನ್ವಯಿಕತೆಯ ಮೂಲಕ ತನ್ನ ಮತ್ತು ಸಮಾಜದ ಬದುಕನ್ನು ಸುಂದರಗೊಳಿಸುತ್ತಾರೆ.
- ೫) ವಿದ್ಯಾರ್ಥಿಗಳು ಆಧುನಿಕ ಜೀವನ ಶೈಲಿಯಿಂದ ಉಂಟಾದ ಸವಾಲುಗಳನ್ನು ಎದುರಿಸುವ ಸಾಮರ್ಥ್ಯವನ್ನು ಗಳಿಸುತ್ತಾರೆ.

- 1) The students who study folklore will acquire the wealth of culture, literature, arts and knowledge systems.
- 2) After completion of the course students can opt for research or teaching.
- 3) With the knowledge from this course, students can start self employment.
- 4) They will make society and life beautiful through a proper application of traditional folk knowledge.
- 5) The students will develop confidence to face the challenges posed by modern life style.

## ಒಂದನೆಯ ಚತುರ್ಮಾಸ

Course Code : PG37T101 - ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಸಿದ್ಧಾಂತಗಳು - ೧

Course Out come :

- ೧) ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದ ಅಧ್ಯಯನದ ಅರ್ಥ, ಸ್ವರೂಪ, ಉದ್ದೇಶ, ಮಹತ್ವಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
- ೨) ಜಾನಪದ ಉಗಮ ಮತ್ತು ಬಳವಣಿಗೆಯ ಬಗೆಯನ್ನು ಗ್ರಹಿಸುವರು.
- ೩) ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಅಂತರ್ ಸಂಬಂಧಗಳನ್ನು ಮನನ ಮಾಡಿಕೊಳ್ಳುವುದರು.
- ೪) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.
- ೫) ಬಹುಶಿಸ್ತಿಯ ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.

ಘಟಕ ೧ :        ಅ. ಜನಪದ-ಜಾನಪದ, ವಿವಿಧ ನಿರ್ವಚನಗಳು  
                      ಆ. ಜಾನಪದ ಅಧ್ಯಯನ ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಸ್ತುತತೆ  
                      ಇ. ಜಾನಪದ ವರ್ಗೀಕರಣ

ಘಟಕ ೨ :        ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು  
                      ಅಂತರ್‌ಶಿಸ್ತಿಯ ಮತ್ತು ಬಹುಶಿಸ್ತಿಯ ಅಧ್ಯಯನಗಳ ಪ್ರಸ್ತುತತೆ

ಘಟಕ ೩ :        ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು : ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆ  
                      ಏಕಮೂಲ ಹಾಗೂ ಬಹುಮೂಲ ಸಿದ್ಧಾಂತಗಳು

ಘಟಕ ೪ :        ವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು  
                      ಅಪವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು

ಘಟಕ ೫ :        ಚಾರಿತ್ರಿಕ ಭೌಗೋಳಿಕ ವಿಧಾನ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ರಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ. ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು
- \* ನೆಲ್ಲಿಸರ ಬಸವರಾಜ (ಸಂ) ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಶಿವಮೊಗ್ಗ
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ.) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
- \* ಹಕಾರಿ ದೇವೇಂದ್ರಕುಮಾರ, ೧೯೮೩, ಜಾನಪದ ಮೂಲಭೂತ ತತ್ವಗಳು, ಶ್ರೀ ಜಗದ್ಗುರು ಗಂಗಾಧರ ಧರ್ಮಪ್ರಚಾರಕ ಮಂಡಲ, ಮೂರುಸಾವಿರಮಠ, ಹುಬ್ಬಳ್ಳಿ
- \* Alan Dundes, 1978, **Essays in Folkloristics**, Meerut, Folklore Institute
- \* Dorson Richard.(Ed) 1972, **Folklore and Folklife An Introduction**, Chicago, University of Chicago
- \* Handoo Jawaharlal, 1989, **Folklore: An Introduction**, C.I.I.L., Mysore
- \* Leach Maria (Ed) 1950, **Standard Dictionary of Folklore Mythology and Legend**, Newyork

Course Out come :

- ೧) ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸವನ್ನು ಅಭ್ಯಸಿಸಿಕೊಳ್ಳುವರು.
- ೨) ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನದ ರೋಚಕತೆಯನ್ನು ಅರಿಯುವರು.
- ೩) ಭಾರತ ಮತ್ತು ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನ ನಡೆದುಬಂದ ದಾರಿಯನ್ನು ಗ್ರಹಿಸುವರು.
- ೪) ತನ್ನ ಪರಿಸರದ ಜಾನಪದವನ್ನು ಸಂಗ್ರಹಿಸುವ, ವಿಶ್ಲೇಷಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ ಪ್ರೇರೇಪಿತರಾಗುವರು.
- ೫) ಪ್ರಾದೇಶಿಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಮಹತ್ವವನ್ನು ಮನಗಾಣುವರು.

ಘಟಕ ೧ : ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ

ಫಿನ್ಲೆಂಡ್, ಜರ್ಮನಿ, ಇಂಗ್ಲೆಂಡ್, ರಷ್ಯಾ, ಅಮೇರಿಕ

ಘಟಕ ೨ : ಭಾರತ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ

ವಸಾಹತುಶಾಹಿ ಯುಗ

ರಾಷ್ಟ್ರೀಯ ಯುಗ

ಶೈಕ್ಷಣಿಕ ಯುಗ

ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ

ಮಿಷನರಿ ಯುಗ, ರಾಷ್ಟ್ರೀಯ ಯುಗ

ಘಟಕ ೪ : ಶೈಕ್ಷಣಿಕ ಯುಗ

ಘಟಕ ೫ : ಪ್ರಾದೇಶಿಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ ೧೯೭೯, ನಮ್ಮ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೯೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ಮತ್ತು ಮಾಡ್ತಾ ವಿಲ್ಯಂ (ಸಂ) ೧೯೭೯, ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* Ramanujan A.K. 1987, **The Relevance of South Asian Folklore in Indian Folklore-II**, C I T L, Mysore

Course Out come :

- ೧) ಜನಪದ ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ವ್ಯಾಪ್ತಿ, ಕಾರ್ಯಗಳಾದಿ ಇತ್ಯಾದಿಗಳನ್ನು ಗ್ರಹಿಸುವರು.
- ೨) ನಾಡಿನ ನೆಲಮೂಲ ಬಹುತ್ವ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿಯುವರು.
- ೩) ಜನತೆಯ ಮೇಲಿರುವ ಧರ್ಮದ ಪ್ರಭಾವವನ್ನು ಗ್ರಹಿಸುವರು.
- ೪) ವಸಾಹತುಶಾಹಿ, ಆಧುನಿಕ ಮತ್ತು ಜಾಗತೀಕರಣದ ಸಂದರ್ಭದಲ್ಲಿಯ ಸಂಸ್ಕೃತಿಯ ನಿಲುವುಗಳನ್ನು ಅರಿಯುವರು.
- ೫) ದೇಶಿ ಸಂಸ್ಕೃತಿಯನ್ನು ಆನ್ವಯಿಕತೆ ಮಾಡಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.

ಘಟಕ ೧ : ಸಂಸ್ಕೃತಿ ಎಂದರೇನು? ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿ

ಸಂಸ್ಕೃತಿ-ನಾಗರಿಕತೆ

ಸಂಸ್ಕೃತಿಯ ಕಾರ್ಯ, ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ

ಘಟಕ ೨ : ವಿವಾಹ ಹಾಗೂ ಅದರ ವಿವಿಧ ಪ್ರಕಾರಗಳು

ಕುಟುಂಬದ ವಿವಿಧ ರೂಪಗಳು ಮತ್ತು ಕಾರ್ಯಗಳು

ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

ಘಟಕ ೩ : ಧರ್ಮ ಮತ್ತು ಮಂತ್ರ ವಿದ್ಯೆ

ಜನಪದ ದೇವತೆಗಳು; ಹಬ್ಬ-ಜಾತ್ರೆಗಳು

ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು

ಘಟಕ ೪ : ಆರ್ಥಿಕ ಜೀವನ-ಬೇಟೆ, ಮೀನುಗಾರಿಕೆ

ಕೃಷಿ, ಆಯುಗಾರರು ಇತ್ಯಾದಿ

ಘಟಕ ೫ : ಸಂಸ್ಕೃತಿ ಮತ್ತು ವಸಾಹತುಶಾಹಿ, ನಿರ್ವಸಾಹತುಶಾಹಿ ಪ್ರಕ್ರಿಯೆಗಳು

ಸಂಸ್ಕೃತಿ ಮತ್ತು ಆಧುನೀಕರಣ, ಜಾಗತೀಕರಣ ಪ್ರಕ್ರಿಯೆಗಳು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. ೧೯೭೯, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಗೋವಿಂದರಾಜು ಟಿ., ೨೦೦೬, ಹಳ್ಳಿಮನೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು
- \* ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) ೧೯೯೦, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು
- \* ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. ೧೯೭೩, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಮಾಲಗತ್ತಿ ಅರವಿಂದ, ೧೯೯೯, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. ೧೯೯೮, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಿಳಿಕೆ, ೧೯೯೯, ಜಾನಪದ ಪರಿಭಾಷಣ, ಸಂವಹನ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Claude Levi-Strauss 1969, **Elementary Structures of Kinship**, Boston, Beacon Press
- \* Dumont Louis 1983, **Affinity as Value**, London, Oxford Press
- \* Evans Pritchard (Ed) 1951, **Social Anthropology**, Gelence, Illineis
- \* Haviland 1978, **Anthropology**, Newyork, Rinehart
- \* Herskovits M.J. 1969, **Cultural Anthropology**, Calcutta, Oxford and I.B.H. Publishing Co.,
- \* Keesing M.Roger 1975, **Kin Groups and Social Structure**, New York, Holt, Rinechart & Winston

Course Out come :

- ೧) ಶಿಷ್ಟ ಸಾಹಿತ್ಯಕ್ಕೆ ಮೂಲ ಬೇರಾದ ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪವನ್ನು ಅರಿಯುವುದು.
- ೨) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ವಿವಿಧ ರೂಪಗಳನ್ನು ಅರಿಯುವುದು.
- ೩) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವವನ್ನು ತಿಳಿಯುವುದು.
- ೪) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿಯ ಸಾಹಿತ್ಯಿಕ, ಸಾಂಸ್ಕೃತಿಕ ಹಾಗೂ ಧಾರ್ಮಿಕ ಅಂಶಗಳನ್ನು ಅರಿಯುವುದು.
- ೫) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮೂಡಿಬಂದ ಐತಿಹಾಸಿಕ ಅಂಶಗಳನ್ನು ತಿಳಿಯುವುದು.

ಘಟಕ ೧ : ಜನಪದ ಸಾಹಿತ್ಯ, ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ

ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು

ಘಟಕ ೨ : ಪುರಾಣ-ಐತಿಹ್ಯ-ಕತೆ

ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸಗಳು

ಘಟಕ ೩ : ಗಾದೆ-ಒಗಟು-ಒಡಪು-ಒಡಬು

ಸ್ವರೂಪ ಹಾಗೂ ಅನನ್ಯತೆ ಅಂಶಗಳು

ಘಟಕ ೪ : ಪಠ್ಯ : ಕರ್ನಾಟಕ ಜನಪದ ಕತೆಗಳು-(ಸಂ.) ರಾಗೌ, ಪ್ರಸಾರ ಏಜನ್ಸೀಸ್, ಮೈಸೂರು-2007

(ತೃತೀಯ ಮುದ್ರಣ), (ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡು ಕತೆಗಳು)

ಘಟಕ ೫ : ಆಯ್ದ ಗಾದೆಗಳು ಹಾಗೂ ಒಗಟುಗಳು-(ಸಂ.) ವೀರಣ್ಣ ದಂಡೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ,

ಗುಲ್ಬರ್ಗಾ-2007

(ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡರಂತೆ ಒಟ್ಟು 26 ಗಾದೆಗಳು, 22 ಒಗಟುಗಳು)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ರಾಪುರ ಸೋಮಶೇಖರ, ೧೯೮೯, ಜನಪದ ಒಗಟುಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೭೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ರಾಮೇಗೌಡ, ೧೯೮೧, ಜನಪದ ಸಾಹಿತ್ಯ ರೂಪಗಳು, ಪಬ್ಲಿಷರ್ಸ್ ಡಿಸ್ಟ್ರಿಬ್ಯೂಟರ್ಸ್, ಬೆಂಗಳೂರು
- \* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೨, ಆಯ್ದ ಗಾದೆಗಳು, ಭಾರತೀ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಸಂಧ್ಯಾರೆಡ್ಡಿ ಕೆ.ಆರ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಕಥೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ಸಿ.ಪಿ.ಕೆ. ೧೯೮೯, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರವೇಶಿಕೆ, ಭಾರತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Dundes Alan (Ed) 1975, **Analytical Essays in Folklore**, Monton The Hague
- \* Krappe, A.H. 1965, **Science of Folklore**, Methuen and Co. Ltd., London

Course Out come :

- ೧) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಅರಿಯುವುದು.
- ೨) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಚರಿತ್ರೆಯನ್ನು ಅರಿಯುವುದು.
- ೩) ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳನ್ನು ಸಮಕಾಲೀನ ಸಂದರ್ಭಕ್ಕೆ ತೌಲನಿಕರಿಸಿಕೊಳ್ಳುವುದು.
- ೪) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು ಕಟ್ಟಿಕೊಡುವ ಮೌಖಿಕ ಇತಿಹಾಸವನ್ನು ಗ್ರಹಿಸುವುದು.
- ೫) ಗೊಂಡರ ರಾಮಾಯಣ ಪಠ್ಯದ ಮೂಲಕ ಸಾಹಿತ್ಯಿಕ ಸತ್ವ, ಹಾಗೂ ಅದರ ರಸಾನುಭೂತಿಯನ್ನು ಹೊಂದುವುದು.

ಘಟಕ ೧ : ಮಹಾಕಾವ್ಯ-ಜನಪದ ಮಹಾಕಾವ್ಯದ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ

ಘಟಕ ೨ : ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಂಕ್ಷಿಪ್ತ ಚರಿತ್ರೆ

ಘಟಕ ೩ : ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು ಮತ್ತು ಆಧುನಿಕತೆ

ಘಟಕ ೪ ಮತ್ತು ೫ : ಗೊಂಡರ ರಾಮಾಯಣ (ಸಂ.) ಪ್ರೊ. ಹಿ.ಚಿ.ಬೋರಲಿಂಗಯ್ಯ

ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೦೪, ಮಂಟೇಸ್ಸಾಮಿ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೧೦, ಸಿರಿ ಜನಪದ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಪಾಟೀಲ ಫಿ.ಎಲ್. (ಸಂ), ೨೦೧೭, ಜನಪದ ಮಹಾಕಾವ್ಯಗಳಲ್ಲಿ ಸಾಂಸ್ಕೃತಿಕ ನಾಯಕತ್ವ (ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೪೨), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಪೂಜಾರಹಳ್ಳಿ ವಿರೂಪಾಕ್ಷ ೨೦೦೨, ಚಿತ್ರದುರ್ಗ ಜಿಲ್ಲೆಯ ಬುಡಕಟ್ಟು ವೀರರು, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಮುದೇನೂರ ನಿಂಗಪ್ಪ, ೨೦೦೪, ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಾಂಸ್ಕೃತಿಕ ವೀರರು, ಸಿ.ವಿ.ಜಿ. ಪಬ್ಲಿಕೇಷನ್ಸ್, ಬೆಂಗಳೂರು
- \* ವೆಂಕಟೇಶ್ ಸಿ.ಡಿ. (ಸಂ), ೨೦೧೦, ಜಾನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಸ್ತ್ರೀ ಪರಿಕಲ್ಪನೆ, ಶ್ರೀ ಶಿರಡಿ ಸಾಯಿ ಎಂಟರ್‌ಪ್ರೈಸಸ್, ಬೆಂಗಳೂರು
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೯೬, 'ಜನಪದ ಮಹಾಕಾವ್ಯ', ಕರ್ನಾಟಕ ಸಂಘ, ಪುತ್ತೂರು
- \* ಹಳ್ಳಿಕೇರಿ ಎಫ್.ಟಿ. ೨೦೦೯, ಹಾಲುಮತ ವ್ಯಾಸಂಗ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

## ಎರಡನೆಯ ಚತುರ್ಮಾಸ

Course Code : PG37T201 - ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು - ೨

Course Out come :

- ೧) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ಜಾನಪದದ ಆಳವಾದ ಅಧ್ಯಯನದ ಬಗೆಯನ್ನು ಗ್ರಹಿಸುವುದು.
- ೨) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.
- ೩) ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.
- ೪) ಜಾನಪದ ಅಧ್ಯಯನ ಮಾಡುವ ವಿವಿಧ ಬಗೆಯ ಕ್ರಮಗಳನ್ನು ಗುರುತಿಸುವರು.
- ೫) ಕಾವ್ಯ ಕಟ್ಟುವ ಮತ್ತು ಕ್ಷೇತ್ರಕಾರ್ಯ ಗೈಯುವ ಬಗೆಯನ್ನು ಗುರುತಿಸುವರು.

ಘಟಕ ೧ : ಕ್ರಿಯಾತ್ಮಕ ಸಿದ್ಧಾಂತ

ಫ್ರಾಂಜ್ ಬೊವಾಸ್, ರುತ್ ಬೆನೆಡಿಕ್ಟ್

ಹಾಗೂ ಅವರ ನಿಲುವುಗಳು

ಘಟಕ ೨ : ಮನೋವಿಶ್ಲೇಷಣಾತ್ಮಕ ಸಿದ್ಧಾಂತ

ಫ್ರಾಯ್ಡ್, ಯೂಂಗ್ ಅವರ ವಾದಗಳು

ಘಟಕ ೩ : ರಚನಾತ್ಮಕ ಸಿದ್ಧಾಂತಗಳು :

ಪ್ರಾಪ್ ಮಾದರಿ ಮತ್ತು ಲೆವಿಸ್ಟ್ರಾಸ್ ಮಾದರಿ :

ಆನ್ವಯಿಕತೆ ಮತ್ತು ಇತಿಮಿತಿಗಳು

ಘಟಕ ೪ : ಮೌಖಿಕ ಸೂತ್ರಾತ್ಮಕ ಸಿದ್ಧಾಂತ

ಪ್ಯಾರಿ ಮತ್ತು ಲಾರ್ಡ್ ಅವರ ಕಾವ್ಯ ಸಂಯೋಜನಾತ್ಮಕ :

ಲೌರಿಹಾಂಕೋ ಅವರ ವಿಚಾರಗಳು

ಘಟಕ ೫ : ಸಾಂದರ್ಭಿಕ ಸಿದ್ಧಾಂತಗಳು

ಮಲಿನೋವ್ಸ್ಕಿ, ಡಾನ್ ಬೆನ್ ಅಮಾಸ್, ರೋಜರ್ ಅಬ್ರಹಾಂಸ್

ಮೊದಲಾದವರ ವಿಚಾರಗಳು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ದಂಡೆ ವೀರಣ್ಣ ೧೯೯೩ , ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದ ಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ, ಜಿ.ಆರ್.ತಿಪ್ಪೇಸ್ವಾಮಿ (ಸಂ), ೨೦೦೩, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಸೈದ್ಧಾಂತಿಕ ಜಾನಪದ, ಪ್ರಜ್ವಲ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* Cluas Peter J. and Korom Fronk.J. 1988, **Folkloristics and Indian Folklore**, Regional Resources Centre, For Folk Performing Arts, Udupi
- \* Handoo Jawaharal 1978, **Current Trends in Folklore**, C.I.I.L.Mysore
- \* Lord Albert & Parry Milman 1953, **The Singer of the Tale**, Cambridge, Harvard University Press

Course Out come :

- ೧) ಭಾಷಾ ವಿಜ್ಞಾನದ ಸಾಮಾನ್ಯ ತತ್ವಗಳನ್ನು ಹಾಗೂ ಭಾಷಾ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜನಪದ ಭಾಷೆಯ ಪರಿಕಲ್ಪನೆಯನ್ನು ಗ್ರಹಿಸುವರು.
- ೩) ಜನಪದ ಭಾಷೆಯಲ್ಲಿ ಒಡಮೂಡಿದ ಸಾಂಸ್ಕೃತಿಕ ಸಂಪತ್ತನ್ನು ಗುರುತಿಸುವರು.
- ೪) ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿಯ ಭಾಷೆಯ ಬಳಕೆಯ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
- ೫) ಜನಪದ ಭಾಷಾ ಬಳಕೆಯ ಕೌಶಲ್ಯವನ್ನು ಕರಗತ ಮಾಡಿಕೊಳ್ಳುವರು.

ಘಟಕ ೧ : ಭಾಷೆ-ಭಾಷೆಯ ಸ್ವರೂಪ-ಲಕ್ಷಣ-ಪ್ರಯೋಜನ

ಘಟಕ ೨ : ವರ್ಣನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನದ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ

ಧ್ವನಿ-ಧ್ವನಿಮಾ-ಆಕೃತಿಮಾ-ವಾಕ್ಯ ರಚನೆ

ಅರ್ಥ ವಿಜ್ಞಾನ

ಘಟಕ ೩ : ಉಪಭಾಷೆ

ವ್ಯಕ್ತಿ ಭಾಷೆ- ಉಪಭಾಷೆ-ಭಾಷೆ, ಪರಸ್ಪರ ಸಂಬಂಧಗಳು

ಪ್ರಾದೇಶಿಕ-ಸಾಮಾಜಿಕ ಉಪಭಾಷೆಗಳು

ಘಟಕ ೪ : ಜನಪದ ಪದ್ಯ-ಗದ್ಯ ಸಾಹಿತ್ಯಗಳಲ್ಲಿ ಭಾಷೆಯ ಬಳಕೆ

ಪಡೆನುಡಿಗಳು, ಬೈಗುಲಗಳು, ದಿನಬಳಕೆಯ ಮಾತುಗಳು

ಘಟಕ ೫ : ನಾಮ ವಿಜ್ಞಾನ : ವ್ಯಕ್ತಿನಾಮ-ಅಡ್ಡಹೆಸರು-ಸ್ಥಳನಾಮ-ವಿವೇಚನೆ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಅಂಗಡಿ ಎಸ್.ಎಸ್. ೨೦೦೮, ಜನಪದ ಸಾಹಿತ್ಯ ಭಾಷೆ, ವಿಕಾಸ ಪ್ರಕಾಶನ, ಹೊಸಪೇಟೆ
- \* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೮೯, ಕನ್ನಡ ನಾಮ ವಿಜ್ಞಾನ, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
- \* ಕೆಂಪೇಗೌಡ ಕೆ. ೧೯೯೩, ಭಾಷೆ ಮತ್ತು ಭಾಷಾ ವಿಜ್ಞಾನ, ಮೈಸೂರು
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೯೦, ಸ್ಥಳನಾಮ ವ್ಯಾಸಂಗ, ಸಹ್ಯಾದ್ರಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಪಾಟೀಲ ಪಿ.ಎಲ್. ೨೦೦೫, ಅಡ್ಡ ಹೆಸರು, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ವಿಲಿಯಂ ಮಾಡ್ಡ, ೧೯೮೭, ಜನಪದ ಭಾಷಾ ವಿಜ್ಞಾನ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ವಿಶ್ವನಾಥ ೨೦೦೦, ಗ್ರಾಮನಾಮಗಳು ಸಾಂಸ್ಕೃತಿಕ ಪರಿವೇಷ, ದೇವಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೮, ಕನ್ನಡದ ಹಳಮೆ ಮತ್ತು ಇತರ ಸಂಪ್ರಬಂಧಗಳು, ಕರ್ನಾಟಕ ಇತಿಹಾಸ ಸಂಶೋಧನ ಮಂಡಳಿ, ಧಾರವಾಡ
- \* Dundes Alan (Ed) 1975, **Analytical Essays in Folklore**, Moutan The Hague
- \* Hocket C.F. 1958, **A Course in Modern Linguistics**, New Yourk

Course Out come :

- ೧) ಜನಪದ ಕಲೆಯ ಮಹತ್ವ ಮತ್ತು ಪ್ರಸ್ತುತತೆಯನ್ನು ತಿಳಿಯುವರು.
- ೨) ಜನಪದ ಕಲೆಗಳಲ್ಲಿ ವ್ಯಕ್ತವಾಗುವ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.
- ೩) ನಾಡಿನ ಜನಪದ ಕಲಾವಿದರ ಬಗ್ಗೆ ಅಭಿಮಾನ ತಾಳುವರು.
- ೪) ಜನಪದ ಕರಕುಶಲ ಕಲೆಗಳನ್ನು ಬಳಸಿ ಬದುಕನ್ನು ಸುಂದರಗೊಳಿಸಿಕೊಳ್ಳುವರು.
- ೫) ವಿದ್ಯಾರ್ಥಿಯು ಕಲಾವಿದನಾಗಿ ರೂಪಗೊಳ್ಳಲು ಪ್ರೇರೇಪಿಸುವುದು.

ಅ-ವಿಭಾಗ :

ಘಟಕ ೧ : ಕಲೆ-ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಯೋಜನ

ಕಲೆಗಳ ವರ್ಗೀಕರಣ

ಘಟಕ ೨ : ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು

ಕರಕುಶಲ ಕಲೆಗಳು, ಪ್ರದರ್ಶನ ಕಲೆಗಳು

ಘಟಕ ೩ : ಜನಪದ ಕಲೆಗಳ ಸಮಕಾಲೀನತೆ ಮತ್ತು ಅವಿಚ್ಛಿನ್ನತೆ

ವಸ್ತು ಮತ್ತು ರೂಪದಲ್ಲಿ, ತಾಲೀಮು ಮತ್ತು ಪ್ರದರ್ಶನದಲ್ಲಿ,

ಪ್ರೇಕ್ಷಕ ನೆಲೆಯಲ್ಲಿ-ಪುನಃಶ್ಚೇತನ ಪ್ರಯತ್ನ ಮತ್ತು ಸಾಧ್ಯತೆಗಳು

ಬ-ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ

ಉತ್ತರ ಕರ್ನಾಟಕದಲ್ಲಿ ಪ್ರಚಲಿತವಿರುವ ಸಂಪ್ರದಾಯದ ಹಾಡುಗಳು/ಕುಣಿತಗಳು :

ಶಿಕ್ಷಣಾರ್ಥಿಯು ಇವುಗಳಲ್ಲಿ ಯಾವುದಾದರೊಂದು ಕಲಾರೂಪವನ್ನು ಮೂಲ ಕಲಾವಿದರಿಂದ

ತರಬೇತಿ ಪಡೆದು ಪ್ರದರ್ಶನ ನೀಡುವುದು.

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಚೆನ್ನಬಸಪ್ಪ ಗೊ.ರು. ೧೯೭೭, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- \* ಪಾಟೀಲ ಎಸ್.ಸಿ. ೧೯೯೩, ಕರ್ನಾಟಕ ಜನಪದ ಚಿತ್ರಕಲೆ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಗದಗ
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಚಿ. (ಸಂ), ೧೯೯೬, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳ ಕೋಶ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಬೀಚನಳ್ಳಿ ಕರೀಗೌಡ, ೨೦೦೦, ಕರಕುಶಲ ಕಲೆಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಪೋತೆ ಎಚ್.ಟಿ. ೨೦೦೦, ಹೈದ್ರಾಬಾದ್ ಕರ್ನಾಟಕದ ಜನಪದ ಕಲೆಗಳು, ಅಂಬು ಪ್ರಕಾಶನ, ರಾಯಚೂರ
- \* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Shankara Pillai G. 1982, **An Introduction to Indian Performing Arts**, Kerala, NCDEPA
- \* Georg Watts and Percy Brown 1979, **Arts and Crafts of India**, A Descriptive Study, Cosmo Publication, New Delhi
- \* Jasken Ihamila, **Indian Folk Arts and Crafts**, NBT India
- \* Upadhyaya M.N., **Handicrafts of India**, Andhra Pradesh Book Distributors

Course Out come :

- ೧) ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಹಾಗೂ ಅದರ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರದರ್ಶನಗೊಳ್ಳುವ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.
- ೩) ಗೀತ ಸಾಹಿತ್ಯದ ಸತ್ವ-ಸೌಂದರ್ಯ ಹಾಗೂ ಸಾಹಿತ್ಯದ ರಸಾನುಭೂತಿಯನ್ನು ಹೊಂದುವರು.
- ೪) ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಹೊಂದುವರು.
- ೫) ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮೂಡಿಬಂದ ಐತಿಹಾಸಿಕ ಅಂಶಗಳನ್ನು ತಿಳಿಯುವುದು.

ಘಟಕ ೧: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು

ಘಟಕ ೨: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಬಗೆಗಳು :

ವಿಶ್ಲೇಷಣಾತ್ಮಕ ಬಗೆಗಳು :

ಬಿಡಿ ಗೀತೆ-ಕಥನಗೀತೆ-ಗೀಗಿ-ಲಾವಣಿ

ಖಂಡಕಾವ್ಯ-ಮಹಾಕಾವ್ಯ

ಸಾಂಸ್ಕೃತಿಕ ಬಗೆಗಳು

ಕುಟ್ಟುವ ಹಾಡು, ಬೀಸುವ ಹಾಡು, ಹಂತಿಯ ಹಾಡು ಇತ್ಯಾದಿ

ಘಟಕ ೩ : ಜನಪದ ಗೀತ ಪಠ್ಯ, ಪ್ರದರ್ಶನಗೊಳ್ಳುವಿಕೆ

ಪಠ್ಯ -ಸಹಪಠ್ಯ-ಸಂದರ್ಭ

ಘಟಕ ೪ : ಪಠ್ಯ ಗ್ರಂಥಗಳು : ತಾತ್ಕಾಲಿಕ-ಬಾಹ್ಯ ಅವರ ಲಾವಣಿಗಳು (ಸಂ. ಹರಿಲಾಲ ಪವಾರ),

ಕರ್ನಾಟಕ ಜಾನಪದ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗೊಟಗೋಡಿ-೨೦೧೪

ಮತ್ತು ೫ : ಗರತಿಯ ಹಾಡು, ಹಲಸಂಗಿ ಸಹೋದರರು (ಸಂ.) ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ದಾರವಾಡ

(೨ನೇ ಮುದ್ರಣ-೧೯೯೦)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ತಪಸ್ವೀಕುಮಾರ ಎನ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಗೀತೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜಿ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.), ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Gover Charles 1871, Folk Songs of Southern, India

ಮುಕ್ತ ಆಯ್ಕೆ ಪತ್ರಿಕೆ

Course Out come :

- ೧) ಜಾನಪದ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.
- ೨) ಇತರೆ ಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಜೊತೆಗಿನ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಅರಿಯುವರು.
- ೩) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ಜಾನಪದ ಸೂಕ್ಷ್ಮದೃಶ್ಯವನ್ನು ತಿಳಿಯುವರು.
- ೪) ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.
- ೫) ಜನಪದ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಅರಿಯುವರು.

ಘಟಕ ೧ : ಜನಪದ-ಜಾನಪದ, ಜಾನಪದ ವಿಜ್ಞಾನ ವಿವಿಧ ನಿರ್ವಚನಗಳು

ಘಟಕ ೨ : ಜಾನಪದ ವರ್ಗೀಕರಣ

ಘಟಕ ೩ : ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು

ಘಟಕ ೪ : ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಸ್ಥೂಲ ಪರಿಚಯ, ಮಹತ್ವ

ಘಟಕ ೫ : ಪಠ್ಯ : ಜನಪದ ಸಾಹಿತ್ಯ (ಆಯ್ದ ಸಂಗ್ರಹ), ಸಂಪಾದಕರು-ಡಾ. ಪಿ.ಎಲ್. ಪಾಟೀಲ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ರಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ.), ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು
- \* ನೆಲ್ಲೇಸರ ಬಸವರಾಜ (ಸಂ.), ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬಿ.ಆರ್.ಪ್ರಾಜಕ್ಟ್, ಶಿವಮೊಗ್ಗ
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೃಷಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* Alan Dundes, 1978, **Essays in Folkloristics**, Meerut, Folklore Institute
- \* Car Valho Neto Paulole, 1971, **The Concept of Folklore (Trans)**, University of Miami Press, Florida
- \* Dorson Richard.(Ed) 1972, **Folklore and Folklife : An Introduction**, Chicago, University of Chicago

## ಮೂರನೆಯ ಚತುರ್ಮಾಸ

Course Code : PG37T301 - ಜಾನಪದ ಮತ್ತು ಸಂವಹನ

Course Out come :

- ೧) ಸಂವಹನದ ತತ್ವ ಮತ್ತು ಬಗೆಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜಾನಪದ ಮತ್ತು ಆಧುನಿಕ ಸಂವಹನ ಮಾಧ್ಯಮಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವರು.
- ೩) ಜಾನಪದ ಸಂವಹನದ ಉದ್ದೇಶ, ತಂತ್ರ, ಪ್ರಕಾರಗಳನ್ನು ಗ್ರಹಿಸುವರು.
- ೪) ಆಧುನಿಕ ಮಾಧ್ಯಮದಲ್ಲಿ ಜಾನಪದ ಬಳಕೆಗೊಳ್ಳುವ ಕ್ರಮವನ್ನು ಅರಿಯುವರು.
- ೫) ಸಂವಹನ ಕೌಶಲ್ಯ ವೃದ್ಧಿಸಿಕೊಂಡು ಉದ್ಯೋಗ ಸೃಷ್ಟಿಸಿಕೊಳ್ಳುವರು.

### ಅ ವಿಭಾಗ :

ಘಟಕ ೧ : ಸಂವಹನ-ಸಂವಹನ ಸ್ವರೂಪ, ತತ್ವಗಳು

ಸಂವಹನ ಪ್ರಕ್ರಿಯೆ, ಸಂವಹನ ಬಗೆಗಳು

ಘಟಕ ೨ : ಜಾನಪದ ಮತ್ತು ಸಂವಹನ

ಅ. ಪ್ರೇಷಕ/ಪ್ರದರ್ಶಕ, ಗ್ರಾಹಕ/ಪ್ರೇಕ್ಷಕ ಮತ್ತು ವಾಹಕ

ಆ. ಜನಪದ ಸಂವಹನದ ಉದ್ದೇಶ

ಇ. ಜನಪದ ಸಂವಹನದ ತಂತ್ರ ಕೌಶಲ್ಯಗಳು

ಈ. ಜನಪದ ಸಂವಹನದ ಪ್ರಕಾರಗಳು

ಘಟಕ ೩ : ಜನಪದ ಮಾಧ್ಯಮ ಹಾಗೂ ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮ

ಜಾನಪದ ಮತ್ತು ಸಂವಹನ : ಈಚಿನ ಪ್ರವೃತ್ತಿಗಳು

### ಬ ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ

ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮಗಳಲ್ಲಿ ಜಾನಪದ ಬಳಕೆ

ಪತ್ರಿಕೆಗಳು-ಆಕಾಶವಾಣಿ-ಚಲನಚಿತ್ರ-ದೂರದರ್ಶನ ಇತ್ಯಾದಿ.

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ರಾಪೂರ ಎಸ್.ಎಸ್. ೧೯೯೦, ಜಾನಪದ ಮತ್ತು ಸಮೂಹ ಮಾಧ್ಯಮ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ನಾಯಕ ಡಿ.ಬಿ. ೨೦೦೫, ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಸಮಾಜ, ಬಂಜಾರಾ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ
- \* ಮೋಹರಾಂ ಎಸ್.ಎಸ್. ೧೯೮೧, ಜಾನಪದ ಮತ್ತು ಮಾಧ್ಯಮಗಳು, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು
- \* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜಿ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* Denis Mcquail and Slven Windahd 1989, **Models of Communications Vol.3.** Oxford University, New York
- \* Jennifer Marie Bayer, **Communication and Interaction** Net Works, C I I L, Mysore
- \* Kenneth Goldstein and Ben Amos, **Folklore: Performance & Communication**
- \* Parmar Shyam 1975, **Traditional Folk Media**, New Delhi in India
- \* Parmar Shyam 1979, **Folk Music and Mass Media**, Communication Publication, New Delhi
- \* Usha Rani N. 1996, **Folk Media for Development**, Karnataka Book Publishers, Bangalore

Course Out come :

- ೧) ಜನಪದ ಕಾವ್ಯಗಳ ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಸೌಂದರ್ಯಗಳನ್ನು ಅಸ್ವಾದಿಸಲು ಬೇಕಾದ ಮೂಲ ತತ್ವಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ದೇಶಿ ಭಂದಸ್ಸಿನ ಮಟ್ಟಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.
- ೩) ಕಾವ್ಯ ಕಟ್ಟುವ ಸಾಮರ್ಥ್ಯವನ್ನು ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೪) ಕಾವ್ಯ ಗ್ರಹಿಕೆಯ ಜ್ಞಾನವನ್ನು ಉತ್ಪನ್ನಗೊಳಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೫) ಕಾವ್ಯ ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಉದ್ದೀಪನಗೊಳಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.

ಅ ವಿಭಾಗ : ಜನಪದ ಭಂದಸ್ಸು

ಘಟಕ ೧ : ಭಂದಸ್ಸಿನ ಸ್ವರೂಪ, ಲಕ್ಷಣ

ಲಯ-ವರ್ಣಗಣ, ಮಾತ್ರಾಗಣ ಮತ್ತು ಅಂಶಗಣಗಳು

ಪ್ರಾಸ-ಯತಿ-ವಡಿ ಇವುಗಳ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ

ಘಟಕ ೨ : ಅಂಶಭಂದಸ್ಸು : ಸ್ವರೂಪ ಮತ್ತು ಲಕ್ಷಣ

ಕರ್ನಾಟಕ ಭಾಷಾ ವಿಷಯ ಜಾತಿ ಮಟ್ಟಗಳ ಸಾಮಾನ್ಯ ಲಕ್ಷಣ ಹಾಗೂ

ಆ ಮಟ್ಟಗಳ ಪರಿವರ್ತನೆಯ ಘಟ್ಟಗಳ ಸಾಮಾನ್ಯ ಪರಿಚಯ

ಬ ವಿಭಾಗ :

ಘಟಕ ೩ : ಕಾವ್ಯ, ಲಕ್ಷಣಗಳು, ಕಾವ್ಯದ ಆಕರಗಳು

ಪ್ರತಿಭೆ ಮತ್ತು ವ್ಯುತ್ಪತ್ತಿ, ಕಾವ್ಯ ಪ್ರಯೋಜನ

ಕವಿ-ಸಹೃದಯ-ವಿಮರ್ಶಕ

ಘಟಕ ೪ : ಧ್ವನಿ-ರಸ-ರೀತಿ-ಜಿಜಿತ್ವ-ಇವುಗಳ ಸ್ಥೂಲ ಪರಿಚಯ

(ಕಾವ್ಯ ಮೀಮಾಂಸೆಯ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಜನಪದ ಸಾಹಿತ್ಯದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಪರಿಚಯಿಸಬೇಕು)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಕಬ್ಬಿನಾಲೆ ವಸಂತ ಭಾರದ್ವಾಜ, ೧೯೯೮, ಯಕ್ಷಗಾನ ಭಂದಸ್ಸು : ಒಂದು ಅಧ್ಯಯನ, ಜಾನಪದ ರಂಗಕಲೆಗಳ ಅಧ್ಯಯನ ಕೇಂದ್ರ, ಉಡುಪಿ
- \* ಕರ್ಕಿ ಡಿ.ಎಸ್., ೧೯೭೭, ಕನ್ನಡ ಭಂದೋವಿಕಾಸ, ಭಾರತ ಬುಕ್ ಡಿಪೋ ಮತ್ತು ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಕುಲಕರ್ಣಿ ಕೆ.ವಿ. (ಸಂ) ೧೯೭೦, ಕನ್ನಡ ಕೃಷಿಡಿ ಸಂ.೧, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೮೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಮೂಡಲ ಪ್ರಕಾಶನ, ಕಲಬುರಗಿ
- \* ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ ಟಿ.ವಿ. ೧೯೯೫, ಕನ್ನಡ ಭಂದಸ್ಸು, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ಶಿವರುದ್ರಪ್ಪ ಜಿ.ಎಸ್., ೧೯೮೩, ಕಾವ್ಯಾರ್ಥ ಚಿಂತನೆ, ಶಾರದಾ ಪ್ರಕಟನಾಲಯ, ಬೆಂಗಳೂರು
- \* ಶ್ರೀಕಂಠಯ್ಯ ತೀ.ನಂ. ೧೯೭೩, ಭಾರತೀಯ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಹಿರೇಮಠ ಎಸ್.ಎಂ. ೨೦೦೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ, ಗದಗ

Course Out come :

- ೧) ಜನಪದ ರಂಗಭೂಮಿಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೨) ಶಿಷ್ಯ ಮತ್ತು ಜನಪದ ರಂಗಭೂಮಿ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
- ೩) ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿಯ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೪) ಜನಪದ ರಂಗಭೂಮಿಯ ಕಲಾವಿದ ಮತ್ತು ಕಲಾಮೇಳಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೫) ಜನಪದ ರಂಗಭೂಮಿಯ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ, ಕಲೆ, ಭಾಷೆಯ ಬಗ್ಗೆ ಇತ್ಯಾದಿಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.

ಘಟಕ ೧ : ರಂಗಭೂಮಿ ಪರಿಕಲ್ಪನೆ : ಸ್ವರೂಪ, ಲಕ್ಷಣ ಮತ್ತು ಪರಂಪರೆ,

ಶಿಷ್ಯ-ಜನಪದ ರಂಗಭೂಮಿ

ಘಟಕ ೨ : ರಂಗ ಸಜ್ಜಿಕೆ, ಸಂಗೀತ, ವೇಷಭೂಷಣ, ನೃತ್ಯ, ಸಾಹಿತ್ಯ, ಸಂಭಾಷಣೆ

ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ

ದಕ್ಷಿಣ ಕರ್ನಾಟಕ, ಉತ್ತರ ಕರ್ನಾಟಕ, ಕರಾವಳಿ ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ ಪರಿಚಯ

ಘಟಕ ೪ : ಜನಪದ ಕಲಾವಿದರು, ಕಲಾಮೇಳಗಳು

ಘಟಕ ೫ : ಜನಪದ ರಂಗಭೂಮಿ ಇಂದಿನ ಸ್ಥಿತಿ

ಪ್ರಯೋಗ ಸಾಧ್ಯತೆಗಳು

ಸಾಂಸ್ಕೃತಿಕ ಹಾಗೂ ವೈಯಕ್ತಿಕ ಪ್ರಯತ್ನಗಳು ಇತ್ಯಾದಿ.

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಅಕ್ಷರ ಕೆ.ವಿ., ೧೯೯೪, ರಂಗಪ್ರಪಂಚ, ಪ್ರಕಾಶನ, ಹೆಗ್ಗೋಡು
- \* ಕುಂಬಾರ ಚಂದ್ರಶೇಖರ, ೧೯೯೨, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮನ್ವಂತರ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಕೃಷ್ಣಯ್ಯ ಎಸ್.ಎ. ೧೯೯೮, ಕರ್ನಾಟಕದ ಗೊಂಬೆಯಾಟ, ಪ್ರಾದೇಶಿಕ ರಂಗಕಲೆಗಳ ಸಂಶೋಧನಾ ಕೇಂದ್ರ, ಉಡುಪಿ
- \* ಕಾರಂತ ಶಿವರಾಮ, ೧೯೭೧, ಯಕ್ಷಗಾನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಮಲಶೆಟ್ಟಿ ಬಸವರಾಜ, ೧೯೮೩, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ಬಯಲಾಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ., ದಕ್ಷಿಣ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* Gargi Balwant 1991, **Folk Theatre of India**, Calcutta, Rupa and Co.
- \* Ranganath H.K. 1960, **The Karnataka Theatre**, Karnataka University, Dharwad
- \* Richmond F.P., Swann D.L. and Zorrilli P.B. 1993, **Indian Theatre Traditions of Performance**, Delhi, Motilal Banarasidas
- \* Mathur J.C. 1964, **Drama in Rural India**, ICCR, New Delhi

## ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ

Course Code : PG37T304 A - ಬುಡಕಟ್ಟು ಜಾನಪದ

Course Out come :

- ೧) ಬುಡಕಟ್ಟಿನ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
- ೨) ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೩) ಬುಡಕಟ್ಟುಗಳ ಅನನ್ಯತೆಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
- ೪) ಆಧುನಿಕ ಸಂದರ್ಭದಲ್ಲಿ ಬುಡಕಟ್ಟುಗಳ ಸ್ಥಿತಿ-ಗತಿಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
- ೫) ಬುಡಕಟ್ಟುಗಳ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮಾಡುವ ಮನೋಭೂಮಿಕೆಯನ್ನು ಹೊಂದುತ್ತಾರೆ.

ಘಟಕ ೧ : ಬುಡಕಟ್ಟು : ಸ್ವರೂಪ, ಲಕ್ಷಣ, ವರ್ಗೀಕರಣ

ಘಟಕ ೨ : ಬುಡಕಟ್ಟು ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ-ಜಾಗತಿಕ, ರಾಷ್ಟ್ರೀಯ, ಪ್ರಾದೇಶಿಕ

ಘಟಕ ೩ : ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳ ಸ್ಥಳ ಪರಿಚಯ, ಬುಡಕಟ್ಟಿನ ಮೂಲ ಮತ್ತು ಪ್ರಸಾರ

ಬುಡಕಟ್ಟಿನ ಸಾಮಾಜಿಕ ಜೀವನ, ಆರ್ಥಿಕ ಜೀವನ ಇತ್ಯಾದಿ

ಘಟಕ ೪ : ಬುಡಕಟ್ಟುಗಳು : ಭೌತಿಕ ಮತ್ತು ಅಭೌತಿಕ ಸಂಸ್ಕೃತಿ

ಮನೆ ಮಾದರಿ, ಆಹಾರ, ಉಡುಗೆ-ತೊಡುಗೆ ಇತ್ಯಾದಿ

ನಂಬಿಕೆ, ಆಚರಣೆ, ಕಲೆ, ಸಾಹಿತ್ಯ, ಕ್ರೀಡೆ ಇತ್ಯಾದಿ

ಘಟಕ ೫ : ಬುಡಕಟ್ಟು ಜೀವನದ ಮೇಲೆ ಆಧುನಿಕತೆಯ ಪರಿಣಾಮ

ಅನನ್ಯತೆಯ ಅಂಶಗಳು-ಅಭಿವೃದ್ಧಿ ಚಿಂತನೆಗಳು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಅಕ್ಕಮಹಾದೇವಿ (ಅನು), ರಾಘವಯ್ಯ ವಿ. (ಮೂಲ), ೧೯೮೪, ಬುಡಕಟ್ಟು ನ್ಯಾಯ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ದೈವಜ್ಞ ಗಂಗಾಧರ, ೨೦೦೦, ಬುಡಕಟ್ಟು ಸಮಾಜ, ಹುಟ್ಟು-ಸಾವಿನ ನಡುವೆ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ನಾಗೇಗೌಡ ಎಚ್.ಎಲ್., ೧೯೭೯, ವೆರಿಯರ್ ಎಲ್ವಿನ್ಸರ (ಅನು), ಗಿರಿಜನ ಪ್ರಪಂಚ, ಬೆಂಗಳೂರು
- \* ಪ್ರಭಾಕರ ಎ.ಎಸ್. ೨೦೦೦, ಬುಡಕಟ್ಟು ಬದುಕಿನ ಸ್ಥಿತ್ಯಂತರಗಳು, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೯೮, ಕರ್ನಾಟಕ ಬುಡಕಟ್ಟುಗಳು ಭಾಗ-೧ ಮತ್ತು ಭಾಗ-೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೨೦೦೦, ಬುಡಕಟ್ಟು ದೈವಾರಾಧನೆ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಮೈತ್ರಿ ಕೆ.ಎಂ. ಬುಡಕಟ್ಟು ಕುಲಕಸಬುಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೮೨, ಕಾಡುಗೊಲ್ಲರ ಆಚರಣೆಗಳು ಮತ್ತು ನಂಬಿಕೆಗಳು, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* Anantha Krishna Iyer, H.V.Nanjundaiah 1936, **The Mysore Tribes and Castes**, Mysore
- \* Thirston Edgar 1909, **Castes and Tribes of Southern India**, Delhi

Course Out come :

- ೧) ಪರಿಸರ ಜಾನಪದದ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೨) ಪರಿಸರದತ್ತವಾದ ಜನಪದದ ಚಿಂತನಾ ಕ್ರಮವನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೩) ನೈಸರ್ಗಿಕದತ್ತವಾದ ಪ್ರಕೃತಿಯನ್ನು ರಕ್ಷಿಸುವ ಮನೋಭಾವ ಹೊಂದುತ್ತಾರೆ.
- ೪) ಆಧುನಿಕತೆಯಿಂದ ಉಂಟಾದ ನೈಸರ್ಗಿಕ ತಲ್ಲಣಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೫) ಪರಿಸರ ಕೇಂದ್ರಿತವಾದ ಜನಪದದ ಜೀವನ ಕ್ರಮವನ್ನು ಆನ್ವಯಿಕ ಮಾಡುವ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.

ಘಟಕ ೧ : ಪರಿಸರ ಜಾನಪದ ಪರಿಕಲ್ಪನೆ

ಘಟಕ ೨ : ಪರಿಸರ ಜಾನಪದ ಅಧ್ಯಯನ :

ಮಾನವ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು, ಪ್ರಕೃತಿ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು,

ಜೀವನ ಸಂಕುಲ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು

ಘಟಕ ೩ : ಪರಿಸರ ಮತ್ತು ಜಾನಪದ :

ಭೂಮಿ-ನೆಲ, ನೀರು, ಹವಾಮಾನ, ಬೆಳೆ,

ಗುಡ್ಡ, ಬೆಟ್ಟ, ಪರ್ವತ, ಮಳೆ, ನದಿ, ಮಹಾಪೂರ, ಆಕಾಶ-ನಕ್ಷತ್ರಗಳು,

ಗ್ರಹಗಳು, ಮೋಡ, ಗುಡುಗು, ಸಿಡಿಲು, ಋತುಮಾನ ಇತ್ಯಾದಿ

ಘಟಕ ೪ : ಸಸ್ಯ-ಪ್ರಾಣಿ-ಜಾನಪದ :

ಮೂಲಿಕೆಗಳು, ಗಿಡಗಂಟಿಗಳು, ಮರಗಳು, ಕಾಡುಜೀವನ-ಬೇಟೆ-ಮೀನುಗಾರಿಕೆ

ಘಟಕ ೫ : ಸಾಕು ಪ್ರಾಣಿಗಳು : ಉತ್ಪಾದಕ ಪ್ರಾಣಿಗಳು

ಮುದ್ದು ಪ್ರಾಣಿಗಳು

ಮನರಂಜಕ ಪ್ರಾಣಿಗಳು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಅಜ್ಜಯದ ಕೃಷ್ಣಸ್ವಾಮಿ, ೧೯೯೩, ವನಸಿರಿ, ಬೆಂಗಳೂರು
- \* ಐತಾಳ ಮಾಧವ (ಸಂ), ೧೯೮೫, ಪರಿಸರ ದರ್ಶನ, ಬೆಂಗಳೂರು
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೮೬, ಕಾಡು ಕಾಂಕ್ಷೆ ಮತ್ತು ಜಾನಪದ, ಅಕ್ಷರ ಪ್ರಕಾಶನ, ಸಾಗರ
- \* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಕಾಮತ ಕೃಷ್ಣ, ೧೯೯೪, ಸಸ್ಯ ಪರಿಸರ, ಪುಸ್ತಕಾಲಯ, ಬೆಂಗಳೂರು
- \* ರಾಮಚಂದ್ರೇಗೌಡ ಹಿ.ಶಿ. ೨೦೦೧, ಜಾನಪದ ಪ್ರಕೃತಿ, ಜ್ಞಾನೋದಯ ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು
- \* Kallor Edward A & Bltkin Daniel B. 1995, **Environmental Science: Earth as a Living Planet**, Newyork
- \* Leach Maria (Ed) 1950, **Standard Dictionary of Folklore Mythology & Legend**, Newyork
- \* Odum, Hardward T. 1971, **Environment Power & Society**, Newyork

## ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ

Course Code : PG37T305 - ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ

Course Out come :

- ೧) ಜಾಗತೀಕರಣದ ಸ್ವರೂಪ, ಪ್ರಭಾವ, ಪರಿಣಾಮಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೨) ಜಾಗತೀಕರಣದ ಸವಾಲುಗಳನ್ನು ದೇಶೀಕರಣದಿಂದ ಸರಿದೂಗಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೩) ದೇಶಿ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿ, ಅವುಗಳ ಬಳಕೆ ಮಹತ್ವವನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೪) ದೇಶಿ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿಯ ಮೂಲಕ ಉದ್ಯೋಗ ರೂಪಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೫) ಪಾರಂಪರಿಕ ಪರಿಸರ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿಗಳ ಆನ್ವಯಿಕ ಮನೋಧರ್ಮ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.

ಘಟಕ ೧ : ಜಾಗತೀಕರಣ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಭಾವ

ಪರಿಣಾಮ, ಸವಾಲುಗಳು

ಘಟಕ ೨ : ಜಾನಪದ ಜ್ಞಾನಪರಂಪರೆ : ಮೂಲ, ಶೋಧ, ಬಳಕೆ ಮತ್ತು ಮಹತ್ವ

ಘಟಕ ೩ : ಪರಿಸರ ಸಂರಕ್ಷಣೆ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪಾರಂಪರಿಕ ಸಂರಕ್ಷಣೆಯ ವಿಧಗಳು (Types),

ಪದ್ಧತಿಗಳು-ಪ್ರಯೋಜನೆಗಳು.

ಘಟಕ ೪ : ಪ್ರವಾಸೋದ್ಯಮ : ಅರ್ಥ, ಸ್ವರೂಪ

ಬೆಳೆದು ಬಂದ ಬಗೆ, ಜಾನಪದ-ಪ್ರವಾಸೋದ್ಯಮ, ಮಹತ್ವ

ಘಟಕ ೫ : ದೇಶಿ ಸಂಸ್ಕೃತಿ-ಪರ್ಮಾಯ ಚಿಂತನೆಗಳು :

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಆರ್ವೀಯಸ್ ಸುಂದರಂ, ೨೦೦೫, ದೇಶಿ-ದೇಶೀಯತೆ, ಎನ್.ಡಿ.ಆರ್.ಕೆ. ಮಹಾವಿದ್ಯಾಲಯ, ಹಾಸನ
- \* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಗೋವಿಂದರಾಜು ಟಿ. (ಸಂ.), ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಚಕ್ರೇರಿ ಶಿವಶಂಕರ, ೨೦೦೩, ಜನಪದ ತಂತ್ರಜ್ಞಾನ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ದಸ್ತಗೀರ, ೨೦೦೪, ಜಾಗತೀಕರಣ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕನಸು ಪ್ರಕಾಶನ, ರಾಯಚೂರು
- \* ಪಾಟೀಲ ಫಿ.ಎಲ್. (ಸಂ.), ೨೦೦೪, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೩೩ (ಜಾನಪದ ಮತ್ತು ಪ್ರವಾಸೋದ್ಯಮ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ರಾಜೇಂದ್ರ ಚೆನ್ನಿ (ಸಂ) ೨೦೦೪, ಜಾಗತೀಕರಣ-ಒಂದು ಸಮಗ್ರ ಮಂಥನ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* Gupta, Vijaya Kumar 1987, **Tourism in India**, Gian Publishing House, Delhi Kanishka Publishers
- \* Herskovits M.J. 1969, **Cultural Anthropology**, Calcutta, Oxford and I.B.H. Publishing Co.,
- \* Odum, Hardward T. 1971, **Environment Power & Society**, Newyork

## ನಾಲ್ಕನೆಯ ಚತುರ್ಮಾಸ

Course Code : PG37T401 - ಜಾನಪದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು

Course Out come :

- ೧) ಸಮಕಾಲೀನ ಸಂದರ್ಭದ ಜಾನಪದದ ವಿವಿಧ ಪ್ರವೃತ್ತಿಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜಾನಪದ ಜ್ಞಾನವನ್ನು ವಿಸ್ತರಿಸಿಕೊಳ್ಳುವರು.
- ೩) ಮಹಿಳಾವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವರು.
- ೪) ಜನಪದದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವ ಬಗೆ ಅರಿಯುವರು.
- ೫) ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.

ಘಟಕ ೧ : ಪ್ರಕಾರ ಸಿದ್ಧಾಂತ

ಪ್ರಕಾರ ಎಂದರೇನು? ಸಂದರ್ಭ ಮತ್ತು ಪ್ರಕಾರ

ಸಾಂಸ್ಕೃತಿಕ ವಿಭಜನೆ ಮತ್ತು ವಿಶ್ಲೇಷಣಾತ್ಮಕ ವಿಭಜನೆ

ಘಟಕ ೨ : ನಗರ ಜಾನಪದ, ಅಧಿ ಜಾನಪದ

ಲೋಕದೃಷ್ಟಿ, ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

ಘಟಕ ೩ : ಸ್ತ್ರೀವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆ : ಮಹಿಳಾ ಜಾನಪದ ಸ್ವರೂಪ

ಕರ್ನಾಟಕದಲ್ಲಿ ಮಹಿಳಾ ಜಾನಪದ ಅಧ್ಯಯನ

ಘಟಕ ೪ : ಆನ್ವಯಿಕ ಜಾನಪದ, ಜಾನಪದೀಯತೆ, ಖೋಟಾ ಜಾನಪದ

ಘಟಕ ೫ : ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ, ದೇಶೀವಾದ ಇತ್ಯಾದಿ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ತಿಪ್ಪೇಸ್ವಾಮಿ ಜಿ.ಆರ್., ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ (ಸಂ) ೨೦೦೩, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ., ೨೦೧೧, 'ಒಂದು ಬುಡಕಟ್ಟಿನ ಲೋಕದೃಷ್ಟಿ, ಪ್ರಗತಿ ಗ್ರಾಫಿಕ್ಸ್, ಬೆಂಗಳೂರು
- \* ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೫, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* Cluas Peter J. and Korom Fronk.J. 1988, **Folkloristics and Indian Folklore**, Regional Resources Centre, For Folk Performing Arts, Udupi
- \* Handoo Jawaharal 1978, **Current Trends in Folklore**, C.I.I.L.Mysore

Course Out come :

- ೧) ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಮಹತ್ವ ಉದ್ದೇಶಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯವನ್ನು ಮಾಡುವ ಬಗೆ ಅರಿಯುವರು.
- ೩) ಜಾನಪದ ದಾಖಲಿಕರಣದ ಮಹತ್ವವನ್ನು ಅರಿಯುವರು.
- ೪) ಜಾನಪದದ ಸಂಶೋಧನೆ ಮಾಡಲು ಅರ್ಹತೆಯನ್ನು ಹೊಂದುವರು.
- ೫) ಸಂಪ್ರಬಂಧ-ಮಹಾಪ್ರಬಂಧಗಳ ವಿನ್ಯಾಸದ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.

ಘಟಕ ೧ : ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಮಹತ್ವ, ಉದ್ದೇಶ  
ಜಾನಪದ ಸಂಶೋಧನೆ : ವೈಶಿಷ್ಟ್ಯ ಮತ್ತು ಮಹತ್ವ

ಘಟಕ ೨ : ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ : ಪೂರ್ವಸಿದ್ಧತೆ  
ಸಂಶೋಧಕ ಮತ್ತು ಮಾಹಿತಿದಾರರ ಅರ್ಹತೆ ಮತ್ತು ಪರಸ್ಪರ ಸಂಬಂಧ

ಘಟಕ ೩ : ಜಾನಪದ ಸಾಮಗ್ರಿಯ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು  
ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ

ಘಟಕ ೪: ಜಾನಪದ ಸಮಗ್ರ ದಾಖಲಿಕರಣ, ಆಧುನಿಕ ತಂತ್ರಜ್ಞಾನ ಬಳಕೆ  
ವರ್ಗೀಕರಣ, ವಿಶ್ಲೇಷಣೆ

ಘಟಕ ೫: ಸಂಶೋಧನಾ ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ  
ಸಂಪ್ರಬಂಧ, ಕಿರುಪ್ರಬಂಧ, ಕಿರುಮಹಾಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ  
ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೯೨, ಕನ್ನಡ ಸಂಶೋಧನ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಕ್ಯಾತನಳ್ಳಿ ರಾಮಣ್ಣ, ೧೯೯೭, ಕ್ಷೇತ್ರಕಾರ್ಯದ ಹಾದಿಯಲ್ಲಿ, ಅಜ್ಜಿ ಹೊತ್ತಿಗೆ, ಕ್ಯಾತನಳ್ಳಿ
- \* ಚಿದಾನಂದಮೂರ್ತಿ ಎಂ., ೧೯೮೭, ಸಂಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಪೈ.ಸಿ.ಸಿ.ಎಸ್.ಜಿ., ೧೯೭೮, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ರಾಮಕೃಷ್ಣ ಕೆ.ಆರ್., ಕ್ಯಾತನಳ್ಳಿ ರಾಮಣ್ಣ, ೨೦೦೩, ಕ್ಷೇತ್ರಕಾರ್ಯದ ತತ್ವಗಳು, ಪ್ರಾಚ್ಯವಸ್ತು ಮತ್ತು ಸಂಗ್ರಹಾಲಯಗಳ ನಿರ್ದೇಶನಾಲಯ, ಬೆಂಗಳೂರು
- \* ಶಿರೂರ ಬಿ.ವಿ. ೧೯೯೬, ಸಂಶೋಧನ ಸ್ವರೂಪ, ಅನ್ವಯೋಗ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ
- \* ಹೆಗಡೆ ಎಲ್.ಆರ್. ೨೦೦೨, ಕ್ಷೇತ್ರಕಾರ್ಯದ ನೆನಪುಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* Carl Lindahl Sanford and Elaine J.Lewlen 1979, **A Basic Guide to field work for Beginning Folklore Students**, Folklore Monograph Series Vol.7, Bloomington Folklore Institute
- \* Nayara S.K. 1977, **Methodology in Research**, AORM
- \* Kenneth S.Goldstein 1964, **A Guide for field workers in Folklore, Penasylvania**, The American Folklore Society

Course Out come :

- ೧) ಜನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯಗಳ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಶಿಷ್ಟ ಸಾಹಿತ್ಯದಲ್ಲಿ ಜಾನಪದ ಅಂಶಗಳನ್ನು ಗುರುತಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.
- ೩) ಕಾವ್ಯಗಳ ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿಯ ಜಾನಪದವನ್ನು ಅರಿಯುವರು.
- ೪) ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಮತ್ತು ಸೌಂದರ್ಯವನ್ನು ಗ್ರಹಿಸುವರು.
- ೫) ಕಾವ್ಯ ಕಟ್ಟುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.

ಅ-ವಿಭಾಗ :

ಘಟಕ ೧ : ಜನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯ ಪರಿಕಲ್ಪನೆ, ಸಂಬಂಧ

ದೇಸಿ ಮತ್ತು ಮಾರ್ಗ, ಹಾಡುಗಬ್ಬ ಮತ್ತು ಓದುಗಬ್ಬ, ವರ್ಣಕ ಮತ್ತು ವಸ್ತುಕ ವ್ಯತ್ಯಾಸಗಳು

ಘಟಕ ೨ : ಶಿಷ್ಟ ಸಾಹಿತ್ಯದಲ್ಲಿ ಜಾನಪದ ಅಂಶಗಳ ಶೋಧ

ಜನಪದ ಭಾಷೆ, ನುಡಿಕಟ್ಟುಗಳು, ಸಂಭಾಷಣೆಗಳು, ಗಾದೆ, ಒಗಟುಗಳ ಬಳಕೆ

ಜನಪದ ರೂಪಕಗಳು-ಕಾತಂತ್ರ, ಆಶಯಗಳು

ಜಾನಪದ ಸಂವೇದನೆ, ಜನಪದ ನಂಬಿಕೆ, ಆಚರಣೆ, ಜನಪದ ಲೋಕದೃಷ್ಟಿ

ಬ-ವಿಭಾಗ :

ಘಟಕ ೩ : ವಡ್ಡಾರಾಧನೆ : ಸುಕುಮಾರಸ್ವಾಮಿಯ ಕಥೆ, (ಸಂ) ಡಿ.ಎಲ್.ನರಸಿಂಹಚಾರ್, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ,

ಮೈಸೂರು-೨೦೦೧

ಪಂಪಭಾರತ : ೧೩ ನೆಯ ಆಶ್ವಾಸಗಳು, (ಸಂ) ಕೆ.ವಿ.ಪುಟ್ಟಪ್ಪ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ,

ಮೈಸೂರು-೧೯೭೭

ಘಟಕ ೪ : ಕುಮಾರವ್ಯಾಸ ಭಾರತ: ಉದ್ಯೋಗ ಪರ್ವ ಸಂಗ್ರಹ, ತ.ಸು.ಶಾಮರಾವ್ (ಸಂ.) ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ,

ಮೈಸೂರು

ದೇವರ ದಾಸಿಮಯ್ಯನ ವಚನಗಳು : (ಸಂ)ಎಲ್.ಬಸವರಾಜು, ಗೀತಾ ಬುಕ್ ಹೌಸ್,ಮೈಸೂರು-೧೯೭೮

ಘಟಕ ೫ : ನಲ್ಲಾಡುಗಳು : (ಸಂ) ಆನಂದಕಂದ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ಧಾರವಾಡ-೧೯೮೯

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ., ಕವಿರಾಜಮಾರ್ಗ ಪರಿಸರದ ಕನ್ನಡ ಸಾಹಿತ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ, ಪ್ರಕಾಶನ, ಕಲಬುರ್ಗಿ
- \* ನಾವಲಗಿ ಸಿ.ಕೆ. ೧೯೯೭, ವಚನ ಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ತಪಸ್ವೀಕುಮಾರ್ ನಂ.೧೯೯೭, ರತ್ನಾಕರವರ್ಣಿ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ತಿಪ್ಪೇಸ್ವಾಮಿ ಜಿ.ಆರ್. ೧೯೯೭, ದಾಸಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಪಾಟೀಲ ವಿ.ಎಲ್. ವಡ್ಡಾರಾಧನೆ ಜಾನಪದೀಯ ಅಧ್ಯಯನ, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ವಿವೇಕ ರೈ ಬಿ.ಎ. ೧೯೮೪, ಆನ್ವಯಿಕ ಜಾನಪದ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ವಿಜಯಕುಮಾರ್ ಸರಸ್ವತಿ, ೧೯೯೭, ರತ್ನತ್ರಯರು ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಪ್ರೊ.ಗೋವಿಂದ, ಮೂರು ಉಪನ್ಯಾಸಗಳು, ಕನ್ನಡ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆ, ಧಾರವಾಡ
- \* ಹಂಪ ನಾಗರಾಜಯ್ಯ, ೧೯೯೭, ವಡ್ಡಾರಾಧನೆ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು

Course Out come :

- ೧) ಕರ್ನಾಟಕದ ಅತ್ಯಂತ ವೈಶಿಷ್ಟ್ಯಪೂರ್ಣವಾದ ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗ ಸಮುದಾಯವನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವರು.
- ೨) ಹಾಲಕ್ಕಿ ಸಮುದಾಯದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆಗಳನ್ನು ಅರಿಯುವರು.
- ೩) ಹಾಲಕ್ಕಿಗಳು ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಬದುಕುತ್ತಿರುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.
- ೪) ಹಾಲಕ್ಕಿಗಳ ನಿಸರ್ಗದತ್ತ ಜೀವನ ವಿಧಾನವನ್ನು ಅರಿಯುವುದರ ಮೂಲಕ ಪರಿಸರ ಪ್ರಜ್ಞೆಯನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೫) ಕೆಳ ಸಮುದಾಯಗಳನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುವ ಮನೋಭಾವ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.

### ಅ ವಿಭಾಗ

ಘಟಕ ೧ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಮೂಲ ಪ್ರಸರಣ

ಭೌಗೋಳಿಕ ಪರಿಸರ

ಘಟಕ ೨ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಜೀವನ ವಿಧಾನ

ಆರ್ಥಿಕ ಮತ್ತು ಸಾಮಾಜಿಕ ವ್ಯವಸ್ಥೆ

ಘಟಕ ೩ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ :

ನಂಬಿಕೆ-ಆಚರಣೆ-ಕಲೆ-ಭಾಷೆ-ಸಾಹಿತ್ಯ

ವೇಷ ಭೂಷಣ, ಆಹಾರ ಇತ್ಯಾದಿ

ಘಟಕ ೪ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಲೋಕದೃಷ್ಟಿ ಮತ್ತು ಸಮಷ್ಟಿ ಪ್ರಜ್ಞೆ

ಘಟಕ ೫ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಸ್ಥಿತಿ-ಗತಿ

ಆಧುನಿಕ ಜಾಗತೀಕರಣದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ನಾಯಕ ಎನ್.ಆರ್. ೧೯೮೪, ಹೇಳತೇವೋ ಗುಮ್ಮೆ ಪದನಾವಾ, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ., ೨೦೦೧, ವಿಸ್ತೃತಿ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಸಿ.ವಿ.ಜಿ. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು
- \* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೭೪, ಹಾಲಕ್ಕಿ ಪಾಯಸ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೮೪, ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು. ಐ.ಬಿ.ಎಚ್. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು
- \* ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು ಪ್ರಕಟಿಸಿರುವ ಉಪಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನಾಲಯ ಗ್ರಂಥಗಳು
- \* Suryanatha Kamath Ch.Ed. 1985-**Uttara Kannada Gazetteer**, Karnataka Government
- \* Thurston E. 1909-**Castes & Tribes of Sothern India Vol.II & V**
- \* 1992 - **The New Encylopaedia of Britanica**, The University of Chicago 15th Edition Vol. 10

Course Out come :

- ೧) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯ ಮಹತ್ವ ಮತ್ತು ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೨) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿ, ಇತರೆ ವೈದ್ಯ ಪದ್ಧತಿಗಳಿಗಿಂತ ಭಿನ್ನವಿರುವುದನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೩) ರೋಗಮೂಲ ಪತ್ತೆ ಮಾಡುವ ಮತ್ತು ಗುಣಪಡಿಸುವ ವಿಧಾನವನ್ನು ಅರಿಯುತ್ತಾರೆ.
- ೪) ಆಹಾರವೇ ಔಷಧಿಯಾಗುವ ಬಗೆಯನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.
- ೫) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯನ್ನು ಆನ್ವಯಿಕ ಮಾಡಿಕೊಳ್ಳುವುದರ ಜೊತೆಗೆ ಸ್ವಯಂ ಉದ್ಯೋಗ ಸೃಷ್ಟಿಕೊಳ್ಳುವ ಮನೋಭಾವ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.

ಅ ವಿಭಾಗ

ಘಟಕ ೧ : ಜನಪದ ವೈದ್ಯ ಪರಿಕಲ್ಪನೆ

ಉಗಮ-ವಿಕಾಸ, ಸ್ವರೂಪ-ಲಕ್ಷಣ

ಘಟಕ ೨ : ಜನಪದ ವೈದ್ಯ ಮತ್ತು ಇತರ ವೈದ್ಯಕೀಯ ಪದ್ಧತಿಗಳು

ಆಯುರ್ವೇದ, ಆಲೋಪಥಿ, ಹೋಮಿಯೋಪಥಿ, ನಿಸರ್ಗ ಚಿಕಿತ್ಸೆ

ಘಟಕ ೩ : ಜನಪದ ವೈದ್ಯರು-ಮಂತ್ರವಾದಿಗಳು, ಪೂಜಾರಿಗಳು, ನಾಟವೈದ್ಯರು

ಘಟಕ ೪ : ಗುಣಪಡಿಸುವ ವಿಧಾನಗಳು-ರೋಗಮೂಲಪತ್ತೆ, ಪ್ರತಿಬಂಧಕ ಮತ್ತು ನಿವಾರಣೋಪಾಯಗಳು,

ಪ್ರಾಣಿ, ಸಸ್ಯ, ಖನಿಜ ಮೂಲ ಔಷಧಿಗಳು-ರೋಗ ನಿವಾರಕ ಪದ್ಧತಿಗಳು

ದೈವ ಪ್ರೇರಿತ, ಆತ್ಮಪ್ರೇರಿತ, ಖಣಿ ಹೇಳುವಿಕೆ, ವಸ್ತು ಬಳಕೆ ಇತ್ಯಾದಿ

ಘಟಕ ೫ : ಔಷಧೀಯಾಗಿ ಆಹಾರದ ಬಳಕೆ

ಸಿರಿಧಾನ್ಯ, ಬೇಳೆಕಾಳು ಮತ್ತು ಹಣ್ಣು ಹಂಪಲು

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಕತ್ತಿಗೆ ಚನ್ನಪ್ಪ, ೨೦೦೪, ಜನಪದ ವೈದ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ
- \* ಗೋವಿಂದರಾಜು ಟಿ. ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಪಾಟೀಲ ಪಿ.ಎಲ್. (ಸಂ.), ೨೦೦೯, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೨ (ಜನಪದ ವೈದ್ಯ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* ಮಳಲಿ ವಸಂತಕುಮಾರ, ೧೯೭೯, ಕರ್ನಾಟಕ ಜನಪದ ವೈದ್ಯ, ಪಂಪ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ನಾಯಕ ಶಾಂತಿ, ೨೦೦೧, ಜನಪದ ವೈದ್ಯಕೀಯ ಅಡಿಗಳು, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ
- \* ಶಂಕರ ಪಿ.ಎಸ್. (ಪ್ರ.ಸಂ), ೧೯೯೫, ವೈದ್ಯ ವಿಶ್ವಕೋಶ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
- \* ಉಪ್ಪಿನಕೆರೆ ರಾಮಲಿಂಗಯ್ಯ, ವೈದ್ಯಕೀಯ ನಂಬಿಕೆಗಳು, ಮೈಸೂರು
- \* Jarvis D.C. 1958, **Folk Medicine**, Fawcile Publications Greenwich
- \* Leach, Maria (Ed) 1949, **Standard Dictionary of Folklore, Mythology and Legend**, New York
- \* Middleton, John (Ed) 1967, **Magic, Witchcraft & Curing**

Course Out come :

- ೧) ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಕ ಜಾನಪದ ವಿಷಯವೊಂದನ್ನು ಸಂಗ್ರಹಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.
- ೨) ಕ್ಷೇತ್ರಕಾರ್ಯದಲ್ಲಿ ಬರುವ ತೊಡರು, ತೊಂದರೆಗಳನ್ನು ನಿವಾರಿಸಿಕೊಳ್ಳುವ ಪರಿಯನ್ನು ಅರಿಯುವರು.
- ೩) ಸಂಗ್ರಹಿಸಿದ ವಿಷಯವನ್ನು ವರ್ಗೀಕರಿಸಿ, ವಿಶ್ಲೇಷಿಸಿ ದಾಖಲಿಕರಣ ಮಾಡುವ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.
- ೪) ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮಾಡುವ ಮೂಲಕ ಉತ್ತಮ ಕ್ಷೇತ್ರಕಾರ್ಯ ಕರ್ತೃರಾಗುವರು.
- ೫) ಕಿರು ಪ್ರಬಂಧ ರಚನೆ ಮಾಡುವುದರ ಮೂಲಕ ಪ್ರಾಯೋಗಿಕವಾಗಿ ಸಂಶೋಧಕರಾಗುವ ಅರ್ಹತೆಯನ್ನು ಗಳಿಸುವರು.

ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ವಿಷಯವೊಂದನ್ನು ಆಯ್ದುಕೊಂಡು, ಸೂಕ್ತ ಮಾರ್ಗದರ್ಶನದೊಂದಿಗೆ ಕ್ಷೇತ್ರಕಾರ್ಯ ಕೈಗೊಂಡು ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ ಆ ಸೆಮಿಸ್ಟರ್‌ನ ಅಂತ್ಯದೊಳಗೆ ಕಿರು ಪ್ರಬಂಧ ರಚಿಸಿ, ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಒಪ್ಪಿಸಬೇಕು.

**ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ**

**ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ**

**ಮಾದರಿ - ೧**

**ಒಟ್ಟು ಅಂಕಗಳು : ೭೫**

೧. ೧೫ ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
೨. ೧೫ ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
೩. ೧೫ ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
೪. ೭ ಅಂಕಗಳ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಬೇಕು.
೫. ೪ ಅಂಕಗಳ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಬೇಕು.

**ಮಾದರಿ - ೨**

**ಒಟ್ಟು ಅಂಕಗಳು : ೫೦**

೧. ೧೫ ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
೨. ೧೫ ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
೩. ೫ ಅಂಕಗಳ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಬೇಕು.

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ

**PH.37 : ಜಾನಪದ ಪಿಎಚ್.ಡಿ. ಕೋರ್ಸ್ ವರ್ಕ್ 2020-21**

ಅ.ನಂ.	ಪತ್ರಿಕೆ ಹೆಸರು	ಆಂತರಿಕ ಅಂಕಗಳು	ಪರೀಕ್ಷೆ ಅಂಕಗಳು	ಒಟ್ಟು ಅಂಕಗಳು	ಬೋಧನಾಕಾಲ ವಾರಕ್ಕೆ
1	ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ (Research Methodology)	50	50	100	4 ಗಂಟೆಗಳು
2	ಜಾನಪದ ಅಧ್ಯಯನ (Cognate / Core Subject)	50	50	100	4 ಗಂಟೆಗಳು
3	A - ಉಳವಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ (Area Research)	50	50	100	4 ಗಂಟೆಗಳು
	B - ಸಿರಸಂಗಿ ಕಾಳಮ್ಮ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ (Area Research)	50	50	100	4 ಗಂಟೆಗಳು
4	Research and Publication Ethice	20	30	50	3 ಗಂಟೆಗಳು
Total Marks		170	180	350	
Viva Voce Marks				50	
<b>Grand Total Marks</b>				<b>400</b>	

**ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮಾದರಿ**

**ಒಟ್ಟು ಅಂಕಗಳು : 50**

- 1) 15 ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
- 2) 15 ಅಂಕಗಳ ಒಂದು ಪ್ರಶ್ನೆಗೆ ಉತ್ತರಿಸಬೇಕು.
- 3) 5 ಅಂಕಗಳ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಬೇಕು.

**ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ**  
**ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ**  
**PH.37 : ಜಾನಪದ ಪಿಎಚ್.ಡಿ. ಕೋರ್ಸ್ ವರ್ಕ್ 2020-21**

**Program Outcomes :**

- 1) ಸಂಶೋಧನೆಯ ಮೂಲಭೂತ ತತ್ವಗಳನ್ನು ಅರಿಯುವುದು.
- 2) ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
- 3) ಬಹುಶಿಸ್ತೀಯ ಜ್ಞಾನದ ಮೂಲಕ ಜಾನಪದ ಅಧ್ಯಯನ ಮಾಡುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
- 4) ಸೂಕ್ಷ್ಮ ಅಧ್ಯಯನದ ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವುದು.
- 5) ಜಾನಪದ ಸಂಶೋಧನೆ ಮಾಡುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.

**PH.37 : ಪತ್ರಿಕೆ - 1 ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ**

**Course Out Come :**

1. ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಭೂತ ತತ್ವಗಳನ್ನು ಅರಿಯುವುದು.
2. ಸಂಶೋಧನಾ ಬರವಣಿಗೆಯ ಶೈಲಿಯನ್ನು ರೂಢಿಸಿಕೊಳ್ಳುವರು.
3. ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳನ್ನು ತಿಳಿಯುವರು.
4. ಸಂಶೋಧನೆ ಮಾಡಲು ಬೇಕಾದ ಮಾಹಿತಿಯನ್ನು ಅರಿಯುವುದು.
5. ಮಹಾಪ್ರಬಂಧದ ರಚನಾ ವಿನ್ಯಾಸವನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.

- 1) ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಉದ್ದೇಶ  
ಜಾನಪದ ಸಂಶೋಧನೆ ವೈಶಿಷ್ಟ್ಯ
- 2) ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ : ಪೂರ್ವ ಸಿದ್ಧತೆ,  
ಸಂಶೋಧಕ ಮತ್ತು ಮಾಹಿತಿದಾರ  
ಅರ್ಹತೆ ಮತ್ತು ಪರಸ್ಪರ ಸಂಬಂಧ
- 3) ಜಾನಪದ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು  
ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ ಇತ್ಯಾದಿ  
ಜಾನಪದ ಸಮಗ್ರ ದಾಖಲೀಕರಣ
- 4) ಸಂಶೋಧನೆ/ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ  
ಸಂಪ್ರಬಂಧ, ಕಿರುಪ್ರಬಂಧ, ಕಿರುಮಹಾಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ.

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ.-1992 ಕನ್ನಡ ಸಂಶೋಧನಾ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
2. ಚಿದಾನಂದ ಮೂರ್ತಿ ಎಂ.-1987, ಸಂಖ್ಯಾಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
3. ಪೈ.ಸಿ.ಸಿ.,ಎ.ಎಸ್.ಜಿ.-1978, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
4. ಬಿಳಿಮಲೆ ಪುರುಷೋತ್ತಮ, ಆಧುನಿಕ ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
5. ಶಿರೂರ ಬಿ.ವಿ.-1996, ಸಂಶೋಧನೆ ಸ್ವರೂಪ, ಅನ್ನಪೂರ್ಣ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ

## PH37 : ಪತ್ರಿಕೆ - 2 ಜಾನಪದ ಅಧ್ಯಯನ

Course Out Come :

1. ಜಾನಪದ ಅಧ್ಯಯನದ ಚರಿತ್ರೆಯನ್ನು ತಿಳಿಯುವುದು.
2. ಬಹುಶೀಕ್ಷಿಯ ನೆಲೆಯ ಜಾನಪದವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
3. ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಮನನ ಮಾಡಿಕೊಳ್ಳುವುದು.
4. ಸಿದ್ಧಾಂತಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಸಂಶೋಧನೆ ಮಾಡುವ ಪ್ರವೃತ್ತಿಯನ್ನು ಕರಗತ ಮಾಡಿಕೊಳ್ಳುವುದು.
5. ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಅಧ್ಯಯನದ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.

1) ಜಾನಪದ ಅಧ್ಯಯನ/ಸಂಶೋಧನೆ ಇತಿಹಾಸ

(ಆರಂಭದ ಜನಪದ ಸಾಹಿತ್ಯ ಸಂಗ್ರಹದಿಂದ ಹಿಡಿದು ಬಹುಶೀಕ್ಷಿಯ, ಅಂತರ್‌ಶೀಕ್ಷಿಯ ಅಧ್ಯಯನದ ವರೆಗೆ)

2) ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು

ಇತಿಹಾಸ, ಸಮಾಜಶಾಸ್ತ್ರ, ಮನಃಶಾಸ್ತ್ರ, ಮಾನವಶಾಸ್ತ್ರ, ತತ್ವಶಾಸ್ತ್ರ

3) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-ದೇಶಿ ಸಿದ್ಧಾಂತದ ಆವಶ್ಯಕತೆ

(ಪಾಶ್ಚಾತ್ಯ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ದೇಶಿ ಸಿದ್ಧಾಂತ ಕುರಿತ ಚರ್ಚೆ)

4) ಬದಲಾದ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಸಮಗ್ರ ಅಧ್ಯಯನದ ಪ್ರಸ್ತುತತೆ

(ಆಧುನಿಕತೆ, ಜಾಗತೀಕರಣ, ಪರಿಸರನಾಶ ಇತ್ಯಾದಿ.)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

1. ವೀರಣ್ಣ ದಂಡೆ (ಸಂ)-1999, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲೆಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
2. ತಪಸ್ವೀಕುಮಾರ್ ನಂ.-1980, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
3. ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.)-1997, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
4. ರಾಜೇಂದ್ರ ಡಿ.ಕೆ.(ಪ್ರ.ಸಂ.)-2006, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
5. ನೆಲ್ಲೇಸರ ಬಸವರಾಜ (ಸಂ.)-1991, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ

### PH37 : ಪತ್ರಿಕೆ - 3 ಉಳವಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

Course Out Come :

1. ಸಂಸ್ಕೃತಿ, ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿಗಳನ್ನು ಅರಿಯುವರು.
2. ಧರ್ಮ ಮತ್ತು ಸಮಕಾಲೀನ ಸಂದರ್ಭವನ್ನು ವಿವೇಚಿಸುವ ಸಾಮರ್ಥ್ಯ ಗಳಿಸುವರು.
3. ಹಬ್ಬ ಮತ್ತು ಜಾತ್ರೆಗಳ ಪ್ರಸ್ತುತತೆ ಅರಿಯುವರು.
4. ಉಳವಿ ಕ್ಷೇತ್ರದ ಅನನ್ಯತೆಯನ್ನು ತಿಳಿಯುವರು.
5. ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆಯ ಬಗೆಯನ್ನು ಅರಿಯುವರು.

- 1) ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಸಂಸ್ಕೃತಿ - ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ
- 2) ಧರ್ಮ ಮತ್ತು ಮಂತ್ರವಿದ್ಯೆ  
ಜನಪದ ದೇವತೆಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ
- 3) ಹಬ್ಬ, ಜಾತ್ರೆ  
ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ
- 3) ಉಳವಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- 1) ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. 1979, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- 2) ತಪಸ್ವೀಕುಮಾರ್ ನಂ. 1980, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು
- 3) ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) 1990, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು
- 4) ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. 1973, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 5) ಮಾಲಗತ್ತಿ ಅರವಿಂದ, 1999, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- 6) ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. 1998, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- 7) ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 8) ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

### PH37 : ಪತ್ರಿಕೆ - 3 ಸಿರಸಂಗಿ ಕಾಳಮ್ಮ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

Course Out Come :

1. ಸಂಸ್ಕೃತಿ, ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿಗಳನ್ನು ಅರಿಯುವರು.
2. ಧರ್ಮ ಮತ್ತು ಸಮಕಾಲಿನ ಸಂದರ್ಭವನ್ನು ವಿವೇಚಿಸುವ ಸಾಮರ್ಥ್ಯ ಗಳಿಸುವರು.
3. ಹಬ್ಬ ಮತ್ತು ಜಾತ್ರೆಗಳ ಪ್ರಸ್ತುತತೆ ಅರಿಯುವರು.
4. ಸಿರಸಂಗಿ ಕ್ಷೇತ್ರದ ಅನನ್ಯತೆಯನ್ನು ತಿಳಿಯುವರು.
5. ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆಯ ಬಗೆಯನ್ನು ಅರಿಯುವರು.

1) ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಸಂಸ್ಕೃತಿ - ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ

2) ಧರ್ಮ ಮತ್ತು ಮಂತ್ರವಿದ್ಯೆ  
ಜನಪದ ದೇವತೆಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

3) ಹಬ್ಬ, ಜಾತ್ರೆ  
ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

3) ಸಿರಸಂಗಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- 1) ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. 1979, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- 2) ತಪಸ್ವೀಕುಮಾರ್ ನಂ. 1980, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು
- 3) ಬಡಿಗೇರ ವಿರುಪಾಕ್ಷಿ, 1988 ಸಿರಸಂಗಿ ಸಂಸ್ಥಾನ : ಒಂದು ಅಧ್ಯಯನ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಶ್ರೀ ಜ.ತೋ.ಸಂ. ಗದಗ
- 4) ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) 1990, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು
- 5) ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. 1973, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 6) ಮಾಲಗತ್ತಿ ಅರವಿಂದ, 1999, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- 7) ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. 1998, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- 8) ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 9) ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

## B. Format for presentation of revised curriculum

1. If the curriculum or any of the courses were revised during 2016-17 to 2020-21, both **pre-revised and revised curricula have to be prepared as per the points mentioned in 'A' above.**

Further, if the courses are revised courses, make two columns. In the **first column, present the pre-revised curriculum and in the second copy the revised curriculum** and highlight the changes/ revisions made. The sequence of putting syllabi, should be as shown below:

Program Code & Name (Pre-revised)	Program Code & Name (Revised)
POs	POs
Course code and Name of the Course Course Outcomes (COs) Pre-revised curriculum	Course code and Name of the Course Course Outcomes (COs) Revised curriculum with changes/ additions/ modifications <b>highlighted*</b>
Recommended Readings	Recommended Readings
<p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಜಾನಪದ ಎಂ.ಎ. (ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ ಪಠ್ಯಕ್ರಮ) ೨೦೧೫-೧೬ ಮತ್ತು ಆನಂತರ</p> <p><b>Program Outcomes :</b></p> <ol style="list-style-type: none"> <li>1) ಜಾನಪದ ಅಧ್ಯಯನ ವಿಷಯದ ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದದ ತಿಳುವಳಿಕೆ, ಮಹತ್ವ, ಪ್ರಯೋಜನಗಳನ್ನು ಪಡೆಯುವುದರ ಜೊತೆಗೆ ಅದರ ಆಳವಾದ ಅಧ್ಯಯನದ ಜ್ಞಾನ ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</li> <li>2) ಈ ನಾಡಿನ ಸಾಂಸ್ಕೃತಿಕ ಸಂಪತ್ತನ್ನು ಅರಿತುಕೊಳ್ಳುವುದರ ಮೂಲಕ ನೆಲಮೂಲ ಜನರ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ, ಜ್ಞಾನ ಸಂಪತ್ತನ್ನು ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</li> <li>3) ಈ ಅಧ್ಯಯನ ಸಾಮಾಜಿಕ ಜವಾಬ್ದಾರಿಯನ್ನು ಹೆಚ್ಚಿಸುವುದರ ಮೂಲಕ ಮಾನವೀಯತೆ, ಸಾಮಾಜಿಕ ಬದ್ಧತೆ, ರಾಷ್ಟ್ರಾಭಿಮಾನ, ಸಾಹಿತ್ಯಾಭಿಮಾನಗಳನ್ನು ಮೂಡಿಸುತ್ತದೆ.</li> <li>4) ಈ ದೇಶಿ ಜ್ಞಾನದ ಆನ್ವಯಿಕತೆಯಿಂದ ಬದುಕನ್ನು ಸುಂದರಗೊಳಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</li> <li>5) ಜಾನಪದ ಅಧ್ಯಯನದಿಂದ ಪ್ರಸ್ತುತ ಸಾಂಸ್ಕೃತಿಕ ಬಿಕ್ಕಟ್ಟುಗಳಿಗೆ ಪರಿಹಾರ ಕಂಡುಕೊಳ್ಳುತ್ತಾರೆ.</li> </ol> <ol style="list-style-type: none"> <li>1) The students of folklore subjects will gain knowledge, its significance and the benefits of folklore as well as in depth knowledge along with ethics.</li> <li>2) The students are enabled to understand the culture of folklore of the country and to get the overall knowledge in the field of folk literature, art and culture.</li> <li>3) To understand the cultural wealth of the nation along with the wealth of literature, culture and knowledge of the people of the land.</li> <li>4) It will enrich their lives with the application of folklore as a discipline.</li> <li>5) Finding solutions to the present cultural dilemmas through study of folklore.</li> </ol>	<p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ, ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, PG37 : ಜಾನಪದ ಎಂ.ಎ. (ಸಿ.ಬಿ.ಸಿ.ಎಸ್. ಯೋಜನೆ ಪಠ್ಯಕ್ರಮ) ೨೦೧೮-೧೯ ಮತ್ತು ಆನಂತರ</p> <p><b>Program Outcomes :</b></p> <ol style="list-style-type: none"> <li>1) ಜಾನಪದ ಅಧ್ಯಯನ ಓದಿದ ವಿದ್ಯಾರ್ಥಿಗಳು ಈ ನಾಡಿನ ಸಂಸ್ಕೃತಿ, ಸಾಹಿತ್ಯ, ಕಲೆ ಮತ್ತು ಜ್ಞಾನ ಸಂಪತ್ತನ್ನು ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</li> <li>2) ಈ ಪದವಿ ಓದಿದ ವಿದ್ಯಾರ್ಥಿಗಳು ಮುಂದೆ ಸಂಶೋಧನಾ ಅಧ್ಯಯನಕ್ಕೆ ಹಾಗೂ ಅಧ್ಯಾಪನ ವೃತ್ತಿ ಜೀವನಕ್ಕೆ ಹೋಗಲು ಅರ್ಹತೆಯನ್ನು ಪಡೆದುಕೊಳ್ಳುತ್ತಾರೆ.</li> <li>3) ಈ ಪದವಿ ಪಡೆದುಕೊಂಡ ವಿದ್ಯಾರ್ಥಿಗಳು ಕೌಶಲ್ಯಪೂರ್ವಕ ಜ್ಞಾನದಿಂದ ಸ್ವಯಂ ಉದ್ಯೋಗ ಮಾಡಲು ಅರ್ಹರಾಗುತ್ತಾರೆ.</li> <li>4) ಪಾರಂಪರಿಕ ಜ್ಞಾನದ ಆನ್ವಯಿಕತೆಯ ಮೂಲಕ ತನ್ನ ಮತ್ತು ಸಮಾಜದ ಬದುಕನ್ನು ಸುಂದರಗೊಳಿಸುತ್ತಾರೆ.</li> <li>5) ವಿದ್ಯಾರ್ಥಿಗಳು ಆಧುನಿಕ ಜೀವನ ಶೈಲಿಯಿಂದ ಉಂಟಾದ ಸವಾಲುಗಳನ್ನು ಎದುರಿಸುವ ಸಾಮರ್ಥ್ಯವನ್ನು ಗಳಿಸುತ್ತಾರೆ.</li> </ol> <ol style="list-style-type: none"> <li>1) The students who study folklore will acquire the wealth of culture, literature, arts and knowledge systems.</li> <li>2) After completion of the course students can opt for research or teaching.</li> <li>3) With the knowledge from this course, students can start self employment.</li> <li>4) They will make society and life beautiful through a proper application of traditional folk knowledge.</li> <li>5) The students will develop confidence to face the challenges posed by modern life style.</li> </ol>

<p style="text-align: center;"><b>ಒಂದನೆಯ ಸೆಮಿಸ್ಟರ್</b>  <b>ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ : ಪತ್ರಿಕೆ : ೧.೧</b>  <b>ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಸಿದ್ಧಾಂತಗಳು - ೧</b></p> <p>ಘಟಕ ೧: ಅ. ಜನಪದ-ಜಾನಪದ, ವಿವಿಧ ನಿರ್ವಚನಗಳು  ಆ. ಜಾನಪದ ಅಧ್ಯಯನ ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಸ್ತುತತೆ  ಇ. ಜಾನಪದ ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ :ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು  ಅಂತರ್ದೃಷ್ಟಿಯ ಮತ್ತು ಬಹುಶಿಸ್ತಿಯ ಅಧ್ಯಯನಗಳ ಪ್ರಸ್ತುತತೆ</p> <p>ಘಟಕ ೩ : ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು : ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆ  ಏಕಮೂಲ ಹಾಗೂ ಬಹುಮೂಲ ಸಿದ್ಧಾಂತಗಳು</p> <p>ಘಟಕ ೪ :ವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು  ಅಪವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು</p> <p>ಘಟಕ ೫ :ಚಾರಿತ್ರಿಕ ಭೌಗೋಳಿಕ ವಿಧಾನ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ</li> <li>* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ. ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು</li> <li>* ನೆಲ್ಲೇಸರ ಬಸವರಾಜ (ಸಂ) ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ</li> <li>* ಪರಮಶಿವಯ್ಯ ಜಿ.ಶಂ. ಮತ್ತು ಮಾಡ್ವಾ ವಿಲ್ಯಂ (ಸಂ) ೧೯೭೬, ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ.) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಸುಂದರಂ ಆರ್.ವಿ.ಎಸ್. (ಸಂ) ೧೯೭೬, ಜನಪದ ಸಾಹಿತ್ಯದ ಮೂಲ ತತ್ವಗಳು, ಅರ್ಕಾವತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಹಕಾರಿ ದೇವೇಂದ್ರಕುಮಾರ, ೧೯೮೩, ಜಾನಪದ ಮೂಲಭೂತ ತತ್ವಗಳು, ಶ್ರೀ ಜಗದ್ಗುರು ಗಂಗಾಧರ ಧರ್ಮಪ್ರಚಾರಕ ಮಂಡಲ, ಮೂರುಸಾವಿರಮಠ, ಹುಬ್ಬಳ್ಳಿ</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೮೪, ಜಾನಪದ ಕೆಲವು ವಿಚಾರಗಳು, ಪ್ರಜ್ವಲ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* Alan Dundes, 1978, <i>Essays in Folkloristics</i>, Meerut, Folklore Institute</li> <li>* Dan Ben Amos, 1982, <i>Folklore in Context</i>, South Asian Publishers, New Delhi</li> <li>* Dorson Richard.(Ed) 1972, <i>Folklore and Folklife An Introduction</i>, Chicago, University of Chicago</li> <li>* Handoo Jawaharlal, 1989, <i>Folklore: An Introduction</i>, C.I.I.L., Mysore</li> <li>* Leach Maria (Ed) 1950, <i>Standard Dictionary of Folklore Mythology and Legend</i>, Newyork</li> </ul>	<p style="text-align: center;"><b>ಒಂದನೆಯ ಚತುರ್ಮಾಸ</b>  <b>Course Code : PG37T101 - ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಸಿದ್ಧಾಂತಗಳು - ೧</b></p> <p><b>Course Out come :</b></p> <p>೧) ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದ ಅಧ್ಯಯನದ ಅರ್ಥ, ಸ್ವರೂಪ, ಉದ್ದೇಶ, ಮಹತ್ವಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.  ೨) ಜಾನಪದ ಉಗಮ ಮತ್ತು ಬಳವಣಿಗೆಯ ಬಗೆಯನ್ನು ಗ್ರಹಿಸುವರು.  ೩) ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಅಂತರ್ ಸಂಬಂಧಗಳನ್ನು ಮನನ ಮಾಡಿಕೊಳ್ಳುವರು.  ೪) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.  ೫) ಬಹುಶಿಸ್ತಿಯ ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.</p> <p>ಘಟಕ ೧ : ಅ. ಜನಪದ-ಜಾನಪದ, ವಿವಿಧ ನಿರ್ವಚನಗಳು  ಆ. ಜಾನಪದ ಅಧ್ಯಯನ ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಸ್ತುತತೆ  ಇ. ಜಾನಪದ ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು  ಅಂತರ್ದೃಷ್ಟಿಯ ಮತ್ತು ಬಹುಶಿಸ್ತಿಯ ಅಧ್ಯಯನಗಳ ಪ್ರಸ್ತುತತೆ</p> <p>ಘಟಕ ೩ : ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು : ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆ  ಏಕಮೂಲ ಹಾಗೂ ಬಹುಮೂಲ ಸಿದ್ಧಾಂತಗಳು</p> <p>ಘಟಕ ೪ : ವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು  ಅಪವಿಕಾಸವಾದಿ ಸಿದ್ಧಾಂತಗಳು</p> <p>ಘಟಕ ೫ : ಚಾರಿತ್ರಿಕ ಭೌಗೋಳಿಕ ವಿಧಾನ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ</li> <li>* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ. ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು</li> <li>* ನೆಲ್ಲೇಸರ ಬಸವರಾಜ (ಸಂ) ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ.) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಹಕಾರಿ ದೇವೇಂದ್ರಕುಮಾರ, ೧೯೮೩, ಜಾನಪದ ಮೂಲಭೂತ ತತ್ವಗಳು, ಶ್ರೀ ಜಗದ್ಗುರು ಗಂಗಾಧರ ಧರ್ಮಪ್ರಚಾರಕ ಮಂಡಲ, ಮೂರುಸಾವಿರಮಠ, ಹುಬ್ಬಳ್ಳಿ</li> <li>* Alan Dundes, 1978, <i>Essays in Folkloristics</i>, Meerut, Folklore Institute</li> <li>* Dorson Richard.(Ed) 1972, <i>Folklore and Folklife An Introduction</i>, Chicago, University of Chicago</li> <li>* Handoo Jawaharlal, 1989, <i>Folklore: An Introduction</i>, C.I.I.L., Mysore</li> <li>* Leach Maria (Ed) 1950, <i>Standard Dictionary of Folklore Mythology and Legend</i>, Newyork</li> </ul>
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<p style="text-align: center;"><b>ಪತ್ರಿಕೆ - ೧.೨</b> <b>ಜಾನಪದ ಅಧ್ಯಯನ ಇತಿಹಾಸ</b></p> <p>ಘಟಕ ೧ : ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ಫಿನ್ಲೆಂಡ್, ಜರ್ಮನಿ, ಇಂಗ್ಲೆಂಡ್, ರಷ್ಯಾ, ಅಮೇರಿಕ</p> <p>ಘಟಕ ೨ : ಭಾರತ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ವಸಾಹತುಶಾಹಿ ಯುಗ ರಾಷ್ಟ್ರೀಯ ಯುಗ ಶೈಕ್ಷಣಿಕ ಯುಗ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ಮಿಷನರಿ ಯುಗ, ರಾಷ್ಟ್ರೀಯ ಯುಗ</p> <p>ಘಟಕ ೪ : ಶೈಕ್ಷಣಿಕ ಯುಗ</p> <p>ಘಟಕ ೫ : ಪ್ರಾದೇಶಿಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ ೧೯೭೯, ನಮ್ಮ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೯೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ಮತ್ತು ಮಾಡ್ವಾ ವಿಲ್ಯಂ (ಸಂ) ೧೯೭೯, ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* Ramanujan A.K. 1987, <b>The Relevance of South Asian Folklore in Indian Folklore-II</b>, C I T L, Mysore</li> </ul>	<p style="text-align: center;"><b>Course Code : PG37T102 - ಜಾನಪದ ಅಧ್ಯಯನ ಇತಿಹಾಸ</b> <b>Course Out come :</b></p> <p>೧) ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು. ೨) ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನದ ರೋಚಕತೆಯನ್ನು ಅರಿಯುವರು. ೩) ಭಾರತ ಮತ್ತು ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನ ನಡೆದುಬಂದ ದಾರಿಯನ್ನು ಗ್ರಹಿಸುವರು. ೪) ತನ್ನ ಪರಿಸರದ ಜಾನಪದವನ್ನು ಸಂಗ್ರಹಿಸುವ, ವಿಶ್ಲೇಷಿಸುವ ನಿಟ್ಟಿನಲ್ಲಿ ಪ್ರೇರೇಪಿತರಾಗುವರು. ೫) ಪ್ರಾದೇಶಿಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಮಹತ್ವವನ್ನು ಮನಗಾಣುವರು.</p> <p>ಘಟಕ ೧ : ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ಫಿನ್ಲೆಂಡ್, ಜರ್ಮನಿ, ಇಂಗ್ಲೆಂಡ್, ರಷ್ಯಾ, ಅಮೇರಿಕ</p> <p>ಘಟಕ ೨ : ಭಾರತ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ವಸಾಹತುಶಾಹಿ ಯುಗ ರಾಷ್ಟ್ರೀಯ ಯುಗ ಶೈಕ್ಷಣಿಕ ಯುಗ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ ಮಿಷನರಿ ಯುಗ, ರಾಷ್ಟ್ರೀಯ ಯುಗ</p> <p>ಘಟಕ ೪ : ಶೈಕ್ಷಣಿಕ ಯುಗ</p> <p>ಘಟಕ ೫ : ಪ್ರಾದೇಶಿಕ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ ೧೯೭೯, ನಮ್ಮ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೯೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ಮತ್ತು ಮಾಡ್ವಾ ವಿಲ್ಯಂ (ಸಂ) ೧೯೭೯, ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* Ramanujan A.K. 1987, <b>The Relevance of South Asian Folklore in Indian Folklore-II</b>, C I T L, Mysore</li> </ul>
<p style="text-align: center;"><b>ಪತ್ರಿಕೆ - ೧.೩</b> <b>ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ</b></p> <p>ಘಟಕ ೧ : ಸಂಸ್ಕೃತಿ ಎಂದರೇನು? ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿ ಸಂಸ್ಕೃತಿ-ನಾಗರಿಕತೆ ಸಂಸ್ಕೃತಿಯ ಕಾರ್ಯ, ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ</p> <p>ಘಟಕ ೨ : ವಿವಾಹ ಹಾಗೂ ಅದರ ವಿವಿಧ ಪ್ರಕಾರಗಳು</p>	<p style="text-align: center;"><b>Course Code : PG37T103 - ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ</b> <b>Course Out come :</b></p> <p>೧) ಜನಪದ ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ವ್ಯಾಪ್ತಿ, ಕಾರ್ಯಗಳಾದಿ ಇತ್ಯಾದಿಗಳನ್ನು ಗ್ರಹಿಸುವರು. ೨) ನಾಡಿನ ನೆಲಮೂಲ ಬಹುತ್ವ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿಯುವರು. ೩) ಜನತೆಯ ಮೇಲಿರುವ ಧರ್ಮದ ಪ್ರಭಾವವನ್ನು ಗ್ರಹಿಸುವರು. ೪) ವಸಾಹತುಶಾಹಿ, ಆಧುನಿಕ ಮತ್ತು ಜಾಗತೀಕರಣದ ಸಂದರ್ಭದಲ್ಲಿಯ ಸಂಸ್ಕೃತಿಯ ನಿಲುವುಗಳನ್ನು ಅರಿಯುವರು. ೫) ದೇಶಿ ಸಂಸ್ಕೃತಿಯನ್ನು ಆನ್ವಯಿಕತೆ ಮಾಡಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು</p>

<p>ಕುಟುಂಬದ ವಿವಿಧ ರೂಪಗಳು ಮತ್ತು ಕಾರ್ಯಗಳು</p> <p>ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ</p> <p>ಘಟಕ ೩ : ಧರ್ಮ ಮತ್ತು ಮಂತ್ರ ವಿದ್ಯೆ</p> <p>ಜನಪದ ದೇವತೆಗಳು; ಹಬ್ಬ-ಜಾತ್ರೆಗಳು</p> <p>ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು</p> <p>ಘಟಕ ೪ : ಆರ್ಥಿಕ ಜೀವನ-ಬೇಟೆ, ಮೀನುಗಾರಿಕೆ</p> <p>ಕೃಷಿ, ಆಯಗಾರರು ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೫ : ಸಂಸ್ಕೃತಿ ಮತ್ತು ವಸಾಹತುಶಾಹಿ, ನಿರ್ವಸಾಹತುಶಾಹಿ ಪ್ರಕ್ರಿಯೆಗಳು</p> <p>ಸಂಸ್ಕೃತಿ ಮತ್ತು ಆಧುನೀಕರಣ, ಜಾಗತೀಕರಣ ಪ್ರಕ್ರಿಯೆಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. ೧೯೭೯, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ., ೨೦೦೬, ಹಳ್ಳಿಮನೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು</li> <li>* ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) ೧೯೯೦, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು</li> <li>* ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. ೧೯೭೩, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಮಾಲಗತ್ತಿ ಅರವಿಂದ, ೧೯೯೯, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. ೧೯೯೮, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಿಳಿಕೆ, ೧೯೯೯, ಜಾನಪದ ಪರಿಭಾಷನ, ಸಂವಹನ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Claude Levi-Strauss 1969, <b>Elementary Structures of Kinship</b>, Boston, Beacon Press</li> <li>* Dumont Louis 1983, <b>Affinity as Value</b>, London, Oxford Press</li> <li>* Evans Pritchard (Ed) 1951, <b>Social Anthropology</b>, Gelence, Illineis</li> <li>* Haviland 1978, <b>Anthropology</b>, Newyork, Rinehart</li> <li>* Herskovits M.J. 1969, <b>Cultural Anthropology</b>, Calcutta, Oxford and I.B.H. Publishing Co.,</li> <li>* Keesing M.Roger 1975, <b>Kin Groups and Social Structure</b>, New York, Holt, Rinechart &amp; Winston</li> </ul>	<p>ಅರಿಯುವರು.</p> <p>ಘಟಕ ೧ : ಸಂಸ್ಕೃತಿ ಎಂದರೇನು? ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿ</p> <p>ಸಂಸ್ಕೃತಿ-ನಾಗರಿಕತೆ</p> <p>ಸಂಸ್ಕೃತಿಯ ಕಾರ್ಯ, ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ</p> <p>ಘಟಕ ೨ : ವಿವಾಹ ಹಾಗೂ ಅದರ ವಿವಿಧ ಪ್ರಕಾರಗಳು</p> <p>ಕುಟುಂಬದ ವಿವಿಧ ರೂಪಗಳು ಮತ್ತು ಕಾರ್ಯಗಳು</p> <p>ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ</p> <p>ಘಟಕ ೩ : ಧರ್ಮ ಮತ್ತು ಮಂತ್ರ ವಿದ್ಯೆ</p> <p>ಜನಪದ ದೇವತೆಗಳು; ಹಬ್ಬ-ಜಾತ್ರೆಗಳು</p> <p>ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು</p> <p>ಘಟಕ ೪ : ಆರ್ಥಿಕ ಜೀವನ-ಬೇಟೆ, ಮೀನುಗಾರಿಕೆ</p> <p>ಕೃಷಿ, ಆಯಗಾರರು ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೫ : ಸಂಸ್ಕೃತಿ ಮತ್ತು ವಸಾಹತುಶಾಹಿ, ನಿರ್ವಸಾಹತುಶಾಹಿ ಪ್ರಕ್ರಿಯೆಗಳು</p> <p>ಸಂಸ್ಕೃತಿ ಮತ್ತು ಆಧುನೀಕರಣ, ಜಾಗತೀಕರಣ ಪ್ರಕ್ರಿಯೆಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. ೧೯೭೯, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ., ೨೦೦೬, ಹಳ್ಳಿಮನೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು</li> <li>* ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) ೧೯೯೦, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು</li> <li>* ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. ೧೯೭೩, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಮಾಲಗತ್ತಿ ಅರವಿಂದ, ೧೯೯೯, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. ೧೯೯೮, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಿಳಿಕೆ, ೧೯೯೯, ಜಾನಪದ ಪರಿಭಾಷನ, ಸಂವಹನ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Claude Levi-Strauss 1969, <b>Elementary Structures of Kinship</b>, Boston, Beacon Press</li> <li>* Dumont Louis 1983, <b>Affinity as Value</b>, London, Oxford Press</li> <li>* Evans Pritchard (Ed) 1951, <b>Social Anthropology</b>, Gelence, Illineis</li> <li>* Haviland 1978, <b>Anthropology</b>, Newyork, Rinehart</li> <li>* Herskovits M.J. 1969, <b>Cultural Anthropology</b>, Calcutta, Oxford and I.B.H. Publishing Co.,</li> <li>* Keesing M.Roger 1975, <b>Kin Groups and Social Structure</b>, New York, Holt, Rinechart &amp; Winston</li> </ul>
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<p style="text-align: center;"><b>ಪತ್ರಿಕೆ ೧.೪</b> <b>ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ</b></p> <p>ಘಟಕ ೧ : ಜನಪದ ಸಾಹಿತ್ಯ, ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು</p> <p>ಘಟಕ ೨ : ಪುರಾಣ-ಐತಿಹ್ಯ-ಕತೆ ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸಗಳು</p> <p>ಘಟಕ ೩ : ಗಾದೆ-ಒಗಟು-ಒಡಪು-ಒಡಬು ಸ್ವರೂಪ ಹಾಗೂ ಅನನ್ಯತೆ ಅಂಶಗಳು</p> <p>ಘಟಕ ೪ : ಪಠ್ಯ : ಕರ್ನಾಟಕ ಜನಪದ ಕತೆಗಳು-(ಸಂ.) ರಾಗೌ, ಪ್ರಸಾರ ಏಜನ್ಸೀಸ್, ಮೈಸೂರು-2007 (ತೃತೀಯ ಮುದ್ರಣ), (ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡು ಕತೆಗಳು)</p> <p>ಘಟಕ ೫ : ಆಯ್ದ ಗಾದೆಗಳು ಹಾಗೂ ಒಗಟುಗಳು-(ಸಂ.) ವೀರಣ್ಣ ದಂಡೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ-2007 (ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡರಂತೆ ಒಟ್ಟು 26 ಗಾದೆಗಳು, 22 ಒಗಟುಗಳು)</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪುರ ಸೋಮಶೇಖರ, ೧೯೮೯, ಜನಪದ ಒಗಟುಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೭೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ರಾಮೇಗೌಡ, ೧೯೮೧, ಜನಪದ ಸಾಹಿತ್ಯ ರೂಪಗಳು, ಪಬ್ಲಿಷರ್ಸ್ ಡಿಸ್ಟ್ರಿಬ್ಯೂಟರ್ಸ್, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೨, ಆಯ್ದ ಗಾದೆಗಳು, ಭಾರತೀ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಸಂಧ್ಯಾರೆಡ್ಡಿ ಕೆ.ಆರ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಕಥೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಸಿ.ಪಿ.ಕೆ. ೧೯೮೯, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರವೇಶಿಕೆ, ಭಾರತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Dundes Alan (Ed) 1975, <b>Analytical Essays in Folklore</b>, Monton The Hague</li> <li>* Krappe, A.H. 1965, <b>Science of Folklore</b>, Methuen and Co. Ltd., London</li> </ul>	<p style="text-align: center;"><b>Course Code : PG37T104 - ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ</b> <b>Course Out come :</b></p> <p>೧) ಶಿಷ್ಟ ಸಾಹಿತ್ಯಕ್ಕೆ ಮೂಲ ಬೇರಾದ ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪವನ್ನು ಅರಿಯುವುದು.</p> <p>೨) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ವಿವಿಧ ರೂಪಗಳನ್ನು ಅರಿಯುವುದು.</p> <p>೩) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವವನ್ನು ತಿಳಿಯುವುದು.</p> <p>೪) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿಯ ಸಾಹಿತ್ಯಿಕ, ಸಾಂಸ್ಕೃತಿಕ ಹಾಗೂ ಧಾರ್ಮಿಕ ಅಂಶಗಳನ್ನು ಅರಿಯುವುದು.</p> <p>೫) ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮೂಡಿಬಂದ ಐತಿಹಾಸಿಕ ಅಂಶಗಳನ್ನು ತಿಳಿಯುವುದು.</p> <p>ಘಟಕ ೧ : ಜನಪದ ಸಾಹಿತ್ಯ, ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು</p> <p>ಘಟಕ ೨ : ಪುರಾಣ-ಐತಿಹ್ಯ-ಕತೆ ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸಗಳು</p> <p>ಘಟಕ ೩ : ಗಾದೆ-ಒಗಟು-ಒಡಪು-ಒಡಬು ಸ್ವರೂಪ ಹಾಗೂ ಅನನ್ಯತೆ ಅಂಶಗಳು</p> <p>ಘಟಕ ೪ : ಪಠ್ಯ : ಕರ್ನಾಟಕ ಜನಪದ ಕತೆಗಳು-(ಸಂ.) ರಾಗೌ, ಪ್ರಸಾರ ಏಜನ್ಸೀಸ್, ಮೈಸೂರು-2007 (ತೃತೀಯ ಮುದ್ರಣ), (ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡು ಕತೆಗಳು)</p> <p>ಘಟಕ ೫ : ಆಯ್ದ ಗಾದೆಗಳು ಹಾಗೂ ಒಗಟುಗಳು-(ಸಂ.) ವೀರಣ್ಣ ದಂಡೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ-2007 (ಪ್ರತಿಯೊಂದು ಭಾಗದಿಂದ ಎರಡೆರಡರಂತೆ ಒಟ್ಟು 26 ಗಾದೆಗಳು, 22 ಒಗಟುಗಳು)</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ಮಾಪುರ ಸೋಮಶೇಖರ, ೧೯೮೯, ಜನಪದ ಒಗಟುಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೭೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ರಾಮೇಗೌಡ, ೧೯೮೧, ಜನಪದ ಸಾಹಿತ್ಯ ರೂಪಗಳು, ಪಬ್ಲಿಷರ್ಸ್ ಡಿಸ್ಟ್ರಿಬ್ಯೂಟರ್ಸ್, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೨, ಆಯ್ದ ಗಾದೆಗಳು, ಭಾರತೀ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಸಂಧ್ಯಾರೆಡ್ಡಿ ಕೆ.ಆರ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಕಥೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಸಿ.ಪಿ.ಕೆ. ೧೯೮೯, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರವೇಶಿಕೆ, ಭಾರತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Dundes Alan (Ed) 1975, <b>Analytical Essays in Folklore</b>, Monton The Hague</li> <li>* Krappe, A.H. 1965, <b>Science of Folklore</b>, Methuen and Co. Ltd., London</li> </ul>
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<p style="text-align: center;"><b>ಪತ್ರಿಕೆ ೧.೫</b> <b>ಜನಪದ ಮಹಾಕಾವ್ಯ</b></p> <p>ಘಟಕ ೧ : ಮಹಾಕಾವ್ಯ-ಜನಪದ ಮಹಾಕಾವ್ಯದ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ</p> <p>ಘಟಕ ೨ : ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಂಕ್ಷಿಪ್ತ ಚರಿತ್ರೆ</p> <p>ಘಟಕ ೩ : ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು ಮತ್ತು ಆಧುನಿಕತೆ</p> <p>ಘಟಕ ೪ ಮತ್ತು ೫ : ಮಾಳಿಂಗರಾಯನ ಕಾವ್ಯ, (ಸಂ) ಡಾ. ಗಂಗಾಧರ ದೈವಜ್ಞ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೦೪, ಮಂಟೇಸ್ಸಾಮಿ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೧೦, ಸಿರಿ ಜನಪದ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಪೂಜಾರಹಳ್ಳಿ ವಿರೂಪಾಕ್ಷ, ೨೦೦೨, ಚಿತ್ರದುರ್ಗ ಜಿಲ್ಲೆಯ ಬುಡಕಟ್ಟು ವೀರರು, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಮುದೇನೂರ ನಿಂಗಪ್ಪ, ೨೦೦೪, ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಾಂಸ್ಕೃತಿಕ ವೀರರು, ಸಿ.ವಿ.ಜಿ. ಪಬ್ಲಿಕೇಶನ್ಸ್, ಬೆಂಗಳೂರು</li> <li>* ವೆಂಕಟೇಶ್ ಸಿ.ಡಿ. (ಸಂ), ೨೦೧೦, ಜಾನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಸ್ತ್ರೀ ಪರಿಕಲ್ಪನೆ, ಶ್ರೀ ಶಿರಡಿ ಸಾಯಿ ಎಂಟರ್‌ಪ್ರೈಸಸ್, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೯೬, 'ಜನಪದ ಮಹಾಕಾವ್ಯ', ಕರ್ನಾಟಕ ಸಂಘ, ಪುತ್ತೂರು</li> <li>* ಹಳ್ಳಿಕೇರಿ ಎಫ್.ಟಿ. ೨೦೦೯, ಹಾಲುಮತ ವ್ಯಾಸಂಗ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> </ul>	<p style="text-align: center;"><b>Course Code : PG37T105 - ಜನಪದ ಮಹಾಕಾವ್ಯ</b> <b>Course Out come :</b></p> <p>೧) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಅರಿಯುವುದು.</p> <p>೨) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಚರಿತ್ರೆಯನ್ನು ಅರಿಯುವುದು.</p> <p>೩) ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳನ್ನು ಸಮಕಾಲೀನ ಸಂದರ್ಭಕ್ಕೆ ತಾಲಿನಿಕರಿಸಿಕೊಳ್ಳುವುದು.</p> <p>೪) ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು ಕಟ್ಟಿಕೊಡುವ ಮೌಖಿಕ ಇತಿಹಾಸವನ್ನು ಗ್ರಹಿಸುವುದು.</p> <p>೫) ಗೊಂಡರ ರಾಮಾಯನ ಪದ್ಯದ ಮೂಲಕ ಸಾಹಿತ್ಯಿಕ ಸತ್ವ, ಹಾಗೂ ಅದರ ರಸಾನುಭೂತಿಯನ್ನು ಹೊಂದುವುದು.</p> <p>ಘಟಕ ೧ : ಮಹಾಕಾವ್ಯ-ಜನಪದ ಮಹಾಕಾವ್ಯದ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ</p> <p>ಘಟಕ ೨ : ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಂಕ್ಷಿಪ್ತ ಚರಿತ್ರೆ</p> <p>ಘಟಕ ೩ : ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು ಮತ್ತು ಆಧುನಿಕತೆ</p> <p>ಘಟಕ ೪ ಮತ್ತು ೫ : ಗೊಂಡರ ರಾಮಾಯಣ (ಸಂ.) ಪ್ರೊ. ಹಿ.ಜಿ. ಬೋರಲಿಂಗಯ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೦೪, ಮಂಟೇಸ್ಸಾಮಿ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಇಂದ್ರಾಡಿ ವೆಂಕಟೇಶ (ಸಂ), ೨೦೧೦, ಸಿರಿ ಜನಪದ ಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ. ೧೯೮೦, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಪಾಟೀಲ ಫಿ.ಎಲ್. (ಸಂ), ೨೦೧೭, ಜನಪದ ಮಹಾಕಾವ್ಯಗಳಲ್ಲಿ ಸಾಂಸ್ಕೃತಿಕ ನಾಯಕತ್ವ (ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೪೨), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಪೂಜಾರಹಳ್ಳಿ ವಿರೂಪಾಕ್ಷ, ೨೦೦೨, ಚಿತ್ರದುರ್ಗ ಜಿಲ್ಲೆಯ ಬುಡಕಟ್ಟು ವೀರರು, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಮುದೇನೂರ ನಿಂಗಪ್ಪ, ೨೦೦೪, ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಾಂಸ್ಕೃತಿಕ ವೀರರು, ಸಿ.ವಿ.ಜಿ. ಪಬ್ಲಿಕೇಶನ್ಸ್, ಬೆಂಗಳೂರು</li> <li>* ವೆಂಕಟೇಶ್ ಸಿ.ಡಿ. (ಸಂ), ೨೦೧೦, ಜಾನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಸ್ತ್ರೀ ಪರಿಕಲ್ಪನೆ, ಶ್ರೀ ಶಿರಡಿ ಸಾಯಿ ಎಂಟರ್‌ಪ್ರೈಸಸ್, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೯೬, 'ಜನಪದ ಮಹಾಕಾವ್ಯ', ಕರ್ನಾಟಕ ಸಂಘ, ಪುತ್ತೂರು</li> <li>* ಹಳ್ಳಿಕೇರಿ ಎಫ್.ಟಿ. ೨೦೦೯, ಹಾಲುಮತ ವ್ಯಾಸಂಗ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> </ul>
<p style="text-align: center;"><b>ಎರಡನೆಯ ಸೆಮಿಸ್ಟರ್</b> <b>ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ : ೨.೧</b> <b>ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು - ೨</b></p> <p>ಘಟಕ ೧ : ಕ್ರಿಯಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಫ್ರಾಂಜ್ ಬೊವಾಸ್, ರುತ್ ಬೆನೆಡಿಕ್ಟ್ ಹಾಗೂ ಅವರ ನಿಲುವುಗಳು</p> <p>ಘಟಕ ೨ : ಮನೋವಿಶ್ಲೇಷಣಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಫ್ರಾಯ್ಡ್, ಯೂಂಗ್ ಅವರ ವಾದಗಳು</p> <p>ಘಟಕ ೩ : ರಚನಾತ್ಮಕ ಸಿದ್ಧಾಂತಗಳು : ಪ್ರಾಪ್ ಮಾದರಿ ಮತ್ತು ಲೆವಿಸ್ಟ್ರಾಸ್ ಮಾದರಿ :</p>	<p style="text-align: center;"><b>ಎರಡನೆಯ ಚತುರ್ಮಾಸ</b> <b>Course Code : PG37T201 - ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨</b> <b>Course Out come :</b></p> <p>೧) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ಜಾನಪದದ ಆಳವಾದ ಅಧ್ಯಯನದ ಬಗೆಯನ್ನು ಗ್ರಹಿಸುವುದು.</p> <p>೨) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿತುಕೊಳ್ಳುವುದು.</p> <p>೩) ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ವಿಮರ್ಶಾತ್ಮಕ ದೃಷ್ಟಿಕೋನವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.</p> <p>೪) ಜಾನಪದ ಅಧ್ಯಯನ ಮಾಡುವ ವಿವಿಧ ಬಗೆಯ ಕ್ರಮಗಳನ್ನು ಗುರುತಿಸುವುದು.</p> <p>೫) ಕಾವ್ಯ ಕಟ್ಟುವ ಮತ್ತು ಕ್ಷೇತ್ರಕಾರ್ಯ ಗೈಯುವ ಬಗೆಯನ್ನು ಗುರುತಿಸುವುದು.</p> <p>ಘಟಕ ೧ : ಕ್ರಿಯಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಫ್ರಾಂಜ್ ಬೊವಾಸ್, ರುತ್ ಬೆನೆಡಿಕ್ಟ್</p>

<p>ಆನ್ವಯಿಕತೆ ಮತ್ತು ಇತಿಮಿತಿಗಳು</p> <p>ಘಟಕ ೪ : ಮೌಖಿಕ ಸೂತ್ರಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಪ್ಯಾರಿ ಮತ್ತು ಲಾರ್ಡ್ ಅವರ ಕಾವ್ಯ ಸಂಯೋಜನಾತತ್ವ : ಲೌರಿಹಾಂಕೋ ಅವರ ವಿಚಾರಗಳು</p> <p>ಘಟಕ ೫ : ಸಾಂದರ್ಭಿಕ ಸಿದ್ಧಾಂತಗಳು ಮಲಿನೋವಸ್ಕಿ, ಡಾನ್ ಬೆನ್ ಅಮಾಸ್, ರೋಜರ್ ಅಬ್ರಹಾಂಸ್</p> <p>ಮೊದಲಾದವರ ವಿಚಾರಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ದಂಡೆ ವೀರಣ್ಣ ೧೯೯೩ , ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ</li> <li>* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದ ಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ</li> <li>* ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ, ಜಿ.ಆರ್.ತಿಪ್ಪೇಸ್ವಾಮಿ (ಸಂ), ೨೦೦೩, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಸೈದ್ಧಾಂತಿಕ ಜಾನಪದ, ಪ್ರಜ್ವಲ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* Cluas Peter J. and Korom Fronk.J. 1988, <b>Folkloristics and Indian Folklore</b>, Regional Resources Centre, For Folk Performing Arts, Udupi</li> <li>* Handoo Jawaharal 1978, <b>Current Trends in Folklore</b>, C.I.I.L.Mysore</li> <li>* Lord Albert &amp; Parry Milman 1953, <b>The Singer of the Tale</b>, Cambridge, Harvard University Press</li> </ul> <p><b>ಪತ್ರಿಕೆ : ೨.೨</b> <b>ಜನಪದ ಭಾಷಾವಿಜ್ಞಾನ</b></p> <p>ಘಟಕ ೧ : ಭಾಷೆ-ಭಾಷೆಯ ಸ್ವರೂಪ-ಲಕ್ಷಣ-ಪ್ರಯೋಜನ</p> <p>ಘಟಕ ೨ : ವರ್ಣನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನದ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ ಧ್ವನಿ-ಧ್ವನಿಮಾ-ಆಕೃತಿಮಾ-ವಾಕ್ಯ ರಚನೆ ಅರ್ಥ ವಿಜ್ಞಾನ</p> <p>ಘಟಕ ೩ : ಉಪಭಾಷೆ ವ್ಯಕ್ತಿ ಭಾಷೆ- ಉಪಭಾಷೆ-ಭಾಷೆ, ಪರಸ್ಪರ ಸಂಬಂಧಗಳು</p> <p>ಪ್ರಾದೇಶಿಕ-ಸಾಮಾಜಿಕ ಉಪಭಾಷೆಗಳು</p> <p>ಘಟಕ ೪ : ಜನಪದ ಪದ್ಯ-ಗದ್ಯ ಸಾಹಿತ್ಯಗಳಲ್ಲಿ ಭಾಷೆಯ ಬಳಕೆ</p> <p>ಪಡೆನುಡಿಗಳು, ಬೈಗುಳಗಳು, ದಿನಬಳಕೆಯ ಮಾತುಗಳು</p> <p>ಘಟಕ ೫ : ನಾಮ ವಿಜ್ಞಾನ : ವ್ಯಕ್ತಿನಾಮ-ಅಡ್ಡಹೆಸರು-</p>	<p>ಹಾಗೂ ಅವರ ನಿಲುವುಗಳು</p> <p>ಘಟಕ ೨ : ಮನೋವಿಶ್ಲೇಷಣಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಫ್ರಾಯ್ಡ್, ಯೂಂಗ್ ಅವರ ವಾದಗಳು</p> <p>ಘಟಕ ೩ : ರಚನಾತ್ಮಕ ಸಿದ್ಧಾಂತಗಳು : ಪ್ರಾಪ್ ಮಾದರಿ ಮತ್ತು ಲೆವಿಸ್ಟ್ರಾಸ್ ಮಾದರಿ : ಆನ್ವಯಿಕತೆ ಮತ್ತು ಇತಿಮಿತಿಗಳು</p> <p>ಘಟಕ ೪ : ಮೌಖಿಕ ಸೂತ್ರಾತ್ಮಕ ಸಿದ್ಧಾಂತ ಪ್ಯಾರಿ ಮತ್ತು ಲಾರ್ಡ್ ಅವರ ಕಾವ್ಯ ಸಂಯೋಜನಾತತ್ವ : ಲೌರಿಹಾಂಕೋ ಅವರ ವಿಚಾರಗಳು</p> <p>ಘಟಕ ೫ : ಸಾಂದರ್ಭಿಕ ಸಿದ್ಧಾಂತಗಳು ಮಲಿನೋವಸ್ಕಿ, ಡಾನ್ ಬೆನ್ ಅಮಾಸ್, ರೋಜರ್ ಅಬ್ರಹಾಂಸ್</p> <p>ಮೊದಲಾದವರ ವಿಚಾರಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ದಂಡೆ ವೀರಣ್ಣ ೧೯೯೩ , ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ</li> <li>* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, ಜಾನಪದ ಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ</li> <li>* ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ, ಜಿ.ಆರ್.ತಿಪ್ಪೇಸ್ವಾಮಿ (ಸಂ), ೨೦೦೩, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಸೈದ್ಧಾಂತಿಕ ಜಾನಪದ, ಪ್ರಜ್ವಲ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ೧೯೯೨, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* Cluas Peter J. and Korom Fronk.J. 1988, <b>Folkloristics and Indian Folklore</b>, Regional Resources Centre, For Folk Performing Arts, Udupi</li> <li>* Handoo Jawaharal 1978, <b>Current Trends in Folklore</b>, C.I.I.L.Mysore</li> <li>* Lord Albert &amp; Parry Milman 1953, <b>The Singer of the Tale</b>, Cambridge, Harvard University Press</li> </ul> <p><b>Course Code : PG37T202 - ಜನಪದ ಭಾಷಾ ವಿಜ್ಞಾನ</b></p> <p><b>Course Out come :</b></p> <p>೧) ಭಾಷಾ ವಿಜ್ಞಾನದ ಸಾಮಾನ್ಯ ತತ್ವಗಳನ್ನು ಹಾಗೂ ಭಾಷಾ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುವರು.</p> <p>೨) ಜನಪದ ಭಾಷೆಯ ಪರಿಕಲ್ಪನೆಯನ್ನು ಗ್ರಹಿಸುವರು.</p> <p>೩) ಜನಪದ ಭಾಷೆಯಲ್ಲಿ ಒಡಮೂಡಿದ ಸಾಂಸ್ಕೃತಿಕ ಸಂಪತ್ತನ್ನು ಗುರುತಿಸುವರು.</p> <p>೪) ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿಯ ಭಾಷೆಯ ಬಳಕೆಯ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.</p> <p>೫) ಜನಪದ ಭಾಷಾ ಬಳಕೆಯ ಕೌಶಲ್ಯವನ್ನು ಕರಗತ ಮಾಡಿಕೊಳ್ಳುವರು.</p> <p>ಘಟಕ ೧ : ಭಾಷೆ-ಭಾಷೆಯ ಸ್ವರೂಪ-ಲಕ್ಷಣ-ಪ್ರಯೋಜನ</p> <p>ಘಟಕ ೨ : ವರ್ಣನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನದ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ ಧ್ವನಿ-ಧ್ವನಿಮಾ-ಆಕೃತಿಮಾ-ವಾಕ್ಯ ರಚನೆ ಅರ್ಥ ವಿಜ್ಞಾನ</p> <p>ಘಟಕ ೩ : ಉಪಭಾಷೆ ವ್ಯಕ್ತಿ ಭಾಷೆ- ಉಪಭಾಷೆ-ಭಾಷೆ, ಪರಸ್ಪರ ಸಂಬಂಧಗಳು</p>
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<p>ಸ್ಥಳನಾಮ-ವಿವೇಚನೆ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಂಗಡಿ ಎಸ್.ಎಸ್. ೨೦೦೮, ಜನಪದ ಸಾಹಿತ್ಯ ಭಾಷೆ, ವಿಕಾಸ ಪ್ರಕಾಶನ, ಹೊಸಪೇಟೆ</li> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೮೯, ಕನ್ನಡ ನಾಮ ವಿಜ್ಞಾನ, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಕೆಂಪೇಗೌಡ ಕೆ. ೧೯೯೩, ಭಾಷೆ ಮತ್ತು ಭಾಷಾ ವಿಜ್ಞಾನ, ಮೈಸೂರು</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೯೦, ಸ್ಥಳನಾಮ ವ್ಯಾಸಂಗ, ಸಹ್ಯಾದ್ರಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಪಾಟೀಲ ಫಿ.ಎಲ್. ೨೦೦೫, ಅಡ್ಡ ಹೆಸರು, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ವಿಲಿಯಂ ಮಾಡ್ಡ, ೧೯೮೭, ಜನಪದ ಭಾಷಾ ವಿಜ್ಞಾನ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ವಿಶ್ವನಾಥ ೨೦೦೦, ಗ್ರಾಮನಾಮಗಳು ಸಾಂಸ್ಕೃತಿಕ ಪರಿವೇಷ, ದೇವಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೮, ಕನ್ನಡದ ಹಳಮೆ ಮತ್ತು ಇತರ ಸಂಪ್ರಬಂಧಗಳು, ಕರ್ನಾಟಕ ಇತಿಹಾಸ ಸಂಶೋಧನ ಮಂಡಳಿ, ಧಾರವಾಡ</li> <li>* Dundes Alan (Ed) 1975, <b>Analytical Essays in Folklore</b>, Moutan The Hague</li> <li>* Hocket C.F. 1958, <b>A Course in Modern Linguistics</b>, New Yourk</li> </ul> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ : ೨.೩</b> <b>ಜನಪದ ಕಲೆಗಳು</b></p> <p><b>ಅ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಕಲೆ-ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಯೋಜನ ಕಲೆಗಳ ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ : ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು ಕರಕುಶಲ ಕಲೆಗಳು, ಪ್ರದರ್ಶನ ಕಲೆಗಳು</p> <p>ಘಟಕ ೩ : ಜನಪದ ಕಲೆಗಳ ಸಮಕಾಲೀನತೆ ಮತ್ತು ಅವಿಚ್ಛಿನ್ನತೆ ವಸ್ತು ಮತ್ತು ರೂಪದಲ್ಲಿ, ತಾಲೀಮು ಮತ್ತು ಪ್ರದರ್ಶನದಲ್ಲಿ, ಪ್ರೇಕ್ಷಕ ನೆಲೆಯಲ್ಲಿ-ಪುನಃಶ್ಚೇತನ ಪ್ರಯತ್ನ ಮತ್ತು ಸಾಧ್ಯತೆಗಳು</p> <p><b>ಬ-ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ</b> ಉತ್ತರ ಕರ್ನಾಟಕದಲ್ಲಿ ಪ್ರಚಲಿತವಿರುವ ಸಂಪ್ರದಾಯದ ಹಾಡುಗಳು/ಕುಣಿತಗಳು : ಶಿಕ್ಷಣಾರ್ಥಿಯು ಇವುಗಳಲ್ಲಿ ಯಾವುದಾದರೊಂದು ಕಲಾರೂಪವನ್ನು ಮೂಲ ಕಲಾವಿದರಿಂದ ತರಬೇತಿ ಪಡೆದು ಪ್ರದರ್ಶನ ನೀಡುವುದು.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಗೊಂವಿಂದರಾಜು ಟಿ., ೨೦೦೪, ಚಿತ್ತಾರದಗೊಂಬೆ, ಜಾನಪದ</li> </ul>	<p>ಪ್ರಾದೇಶಿಕ-ಸಾಮಾಜಿಕ ಉಪಭಾಷೆಗಳು</p> <p>ಘಟಕ ೪ : ಜನಪದ ಪದ್ಯ-ಗದ್ಯ ಸಾಹಿತ್ಯಗಳಲ್ಲಿ ಭಾಷೆಯ ಬಳಕೆ ಪಡೆನುಡಿಗಳು, ಬೈಗುಳಗಳು, ದಿನಬಳಕೆಯ ಮಾತುಗಳು</p> <p>ಘಟಕ ೫ : ನಾಮ ವಿಜ್ಞಾನ : ವ್ಯಕ್ತಿನಾಮ-ಅಡ್ಡಹೆಸರು-ಸ್ಥಳನಾಮ-ವಿವೇಚನೆ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಂಗಡಿ ಎಸ್.ಎಸ್. ೨೦೦೮, ಜನಪದ ಸಾಹಿತ್ಯ ಭಾಷೆ, ವಿಕಾಸ ಪ್ರಕಾಶನ, ಹೊಸಪೇಟೆ</li> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೮೯, ಕನ್ನಡ ನಾಮ ವಿಜ್ಞಾನ, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಕೆಂಪೇಗೌಡ ಕೆ. ೧೯೯೩, ಭಾಷೆ ಮತ್ತು ಭಾಷಾ ವಿಜ್ಞಾನ, ಮೈಸೂರು</li> <li>* ಜವರೇಗೌಡ ದೇ. ೧೯೯೦, ಸ್ಥಳನಾಮ ವ್ಯಾಸಂಗ, ಸಹ್ಯಾದ್ರಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಪಾಟೀಲ ಫಿ.ಎಲ್. ೨೦೦೫, ಅಡ್ಡ ಹೆಸರು, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ವಿಲಿಯಂ ಮಾಡ್ಡ, ೧೯೮೭, ಜನಪದ ಭಾಷಾ ವಿಜ್ಞಾನ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ವಿಶ್ವನಾಥ ೨೦೦೦, ಗ್ರಾಮನಾಮಗಳು ಸಾಂಸ್ಕೃತಿಕ ಪರಿವೇಷ, ದೇವಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೦೮, ಕನ್ನಡದ ಹಳಮೆ ಮತ್ತು ಇತರ ಸಂಪ್ರಬಂಧಗಳು, ಕರ್ನಾಟಕ ಇತಿಹಾಸ ಸಂಶೋಧನ ಮಂಡಳಿ, ಧಾರವಾಡ</li> <li>* Dundes Alan (Ed) 1975, <b>Analytical Essays in Folklore</b>, Moutan The Hague</li> <li>* Hocket C.F. 1958, <b>A Course in Modern Linguistics</b>, New Yourk</li> </ul> <p style="text-align: center;"><b>Course Code : PG37T203 - ಜನಪದ ಕಲೆಗಳು</b></p> <p><b>Course Out come :</b></p> <p>೧) ಜನಪದ ಕಲೆಯ ಮಹತ್ವ ಮತ್ತು ಪ್ರಸ್ತುತತೆಯನ್ನು ತಿಳಿಯುವರು.</p> <p>೨) ಜನಪದ ಕಲೆಗಳಲ್ಲಿ ವ್ಯಕ್ತವಾಗುವ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.</p> <p>೩) ನಾಡಿನ ಜನಪದ ಕಲಾವಿದರ ಬಗ್ಗೆ ಅಭಿಮಾನ ತಾಳುವರು.</p> <p>೪) ಜನಪದ ಕರಕುಶಲ ಕಲೆಗಳನ್ನು ಬಳಸಿ ಬದುಕನ್ನು ಸುಂದರಗೊಳಿಸಿಕೊಳ್ಳುವರು.</p> <p>೫) ವಿದ್ಯಾರ್ಥಿಯು ಕಲಾವಿದನಾಗಿ ರೂಪಗೊಳ್ಳಲು ಪ್ರೇರೇಪಿಸುವುದು.</p> <p><b>ಅ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಕಲೆ-ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಯೋಜನ ಕಲೆಗಳ ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ : ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು ಕರಕುಶಲ ಕಲೆಗಳು, ಪ್ರದರ್ಶನ ಕಲೆಗಳು</p> <p>ಘಟಕ ೩ : ಜನಪದ ಕಲೆಗಳ ಸಮಕಾಲೀನತೆ ಮತ್ತು ಅವಿಚ್ಛಿನ್ನತೆ ವಸ್ತು ಮತ್ತು ರೂಪದಲ್ಲಿ, ತಾಲೀಮು ಮತ್ತು ಪ್ರದರ್ಶನದಲ್ಲಿ, ಪ್ರೇಕ್ಷಕ ನೆಲೆಯಲ್ಲಿ-ಪುನಃಶ್ಚೇತನ ಪ್ರಯತ್ನ ಮತ್ತು ಸಾಧ್ಯತೆಗಳು</p> <p><b>ಬ-ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ</b> ಉತ್ತರ ಕರ್ನಾಟಕದಲ್ಲಿ ಪ್ರಚಲಿತವಿರುವ ಸಂಪ್ರದಾಯದ ಹಾಡುಗಳು/ಕುಣಿತಗಳು : ಶಿಕ್ಷಣಾರ್ಥಿಯು ಇವುಗಳಲ್ಲಿ ಯಾವುದಾದರೊಂದು ಕಲಾರೂಪವನ್ನು ಮೂಲ ಕಲಾವಿದರಿಂದ</p>
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<p>ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ-೨೦೦೪</p> <ul style="list-style-type: none"> <li>* ಚೆನ್ನಬಸಪ್ಪ ಗೊರು. ೧೯೭೭, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಚೆನ್ನಪ್ಪಗೌಡ ಕೆ. ೧೯೯೦, ಭೂತಾರಾಧನೆ, ಜಾನಪದೀಯ ಅಧ್ಯಯನ, ಮದಿಪು ಪ್ರಕಾಶನ, ಮಂಗಳೂರು</li> <li>* ಪಾಟೀಲ ಎಸ್.ಸಿ. ೧೯೯೩, ಕರ್ನಾಟಕ ಜನಪದ ಚಿತ್ರಕಲೆ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಗದಗ</li> <li>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೬, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳ ಕೋಶ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಬೀಚನಳ್ಳಿ ಕರೀಗೌಡ, ೨೦೦೦, ಕರಕುಶಲ ಕಲೆಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಹಿ.ಜಿ. ೧೯೭೮, ಕೇರಳ ಜಾನಪದ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ ಮತ್ತು ಶಾಲಿನಿ ರಘುನಾಥ, ೨೦೧೦, ಜನಪದ ಕಲೆ : ಅವಲೋಕನ, ಕರ್ನಾಟಕ ಜಾನಪದ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಮೋತೆ ಎಚ್.ಟಿ. ಹೈದ್ರಾಬಾದ್ ಕರ್ನಾಟಕದ ಜನಪದ ಕಲೆಗಳು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Kapila Vatsayan 1980, <b>Traditional Indian Theatre</b>, N.B.T. New Delhi</li> <li>* Shankara Pillai G. 1982, <b>An Introduction to Indian Performing Arts</b>, Kerala, NCDEPA</li> <li>* Georg Watts and Percy Brown 1979, <b>Arts and Crafts of India</b>, A Descriptive Study, Cosmo Publication, New Delhi</li> <li>* Jasken Ihamila, <b>Indian Folk Arts and Crafts</b>, NBT India</li> <li>* Upadhyaya M.N., <b>Handicrafts of India</b>, Andhra Pradesh Book Distributors</li> </ul> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ-೨೪</b> <b>ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ</b></p> <p>ಘಟಕ ೧: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು</p> <p>ಘಟಕ ೨: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಬಗೆಗಳು : ವಿಶ್ಲೇಷಣಾತ್ಮಕ ಬಗೆಗಳು : ಬಿಡಿ ಗೀತೆ-ಕಥನಗೀತೆ-ಗೀಗಿ-ಲಾವಣಿ ಖಂಡಕಾವ್ಯ-ಮಹಾಕಾವ್ಯ ಸಾಂಸ್ಕೃತಿಕ ಬಗೆಗಳು ಕುಟ್ಟುವ ಹಾಡು, ಬೀಸುವ ಹಾಡು, ಹಂತಿಯ ಹಾಡು ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೩ : ಜನಪದ ಗೀತ ಪಠ್ಯ ಪ್ರದರ್ಶನಗೊಳ್ಳುವಿಕೆ ಪಠ್ಯ -ಸಹಪಠ್ಯ-ಸಂದರ್ಭ</p> <p>ಘಟಕ ೪ : ಪಠ್ಯ ಗ್ರಂಥಗಳು : ತಾತ್ಯಾ-ಬಾಪು ಅವರ ಲಾವಣಿಗಳು (ಸಂ. ಹರಿಲಾಲ ಪವಾರ),</p>	<p style="text-align: center;">ತರಬೇತಿ ಪಡೆದು ಪ್ರದರ್ಶನ ನೀಡುವುದು.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಚೆನ್ನಬಸಪ್ಪ ಗೊರು. ೧೯೭೭, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು</li> <li>* ಪಾಟೀಲ ಎಸ್.ಸಿ. ೧೯೯೩, ಕರ್ನಾಟಕ ಜನಪದ ಚಿತ್ರಕಲೆ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಗದಗ</li> <li>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೬, ಕರ್ನಾಟಕ ಜನಪದ ಕಲೆಗಳ ಕೋಶ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಬೀಚನಳ್ಳಿ ಕರೀಗೌಡ, ೨೦೦೦, ಕರಕುಶಲ ಕಲೆಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಮೋತೆ ಎಚ್.ಟಿ. ೨೦೦೦, ಹೈದ್ರಾಬಾದ್ ಕರ್ನಾಟಕದ ಜನಪದ ಕಲೆಗಳು, ಅಂಬು ಪ್ರಕಾಶನ, ರಾಯಚೂರು</li> <li>* ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Shankara Pillai G. 1982, <b>An Introduction to Indian Performing Arts</b>, Kerala, NCDEPA</li> <li>* Georg Watts and Percy Brown 1979, <b>Arts and Crafts of India</b>, A Descriptive Study, Cosmo Publication, New Delhi</li> <li>* Jasken Ihamila, <b>Indian Folk Arts and Crafts</b>, NBT India</li> <li>* Upadhyaya M.N., <b>Handicrafts of India</b>, Andhra Pradesh Book Distributors</li> </ul> <p style="text-align: center;"><b>Course Code : PG37T204 - ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ</b> <b>Course Out come :</b></p> <p>೧) ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಹಾಗೂ ಅದರ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುವರು.</p> <p>೨) ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರದರ್ಶನಗೊಳ್ಳುವ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.</p> <p>೩) ಗೀತ ಸಾಹಿತ್ಯದ ಸತ್ವ-ಸೌಂದರ್ಯ ಹಾಗೂ ಸಾಹಿತ್ಯದ ರಸಾನುಭೂತಿಯನ್ನು ಹೊಂದುವರು.</p> <p>೪) ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಹೊಂದುವರು.</p> <p>೫) ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮೂಡಿಬಂದ ಐತಿಹಾಸಿಕ ಅಂಶಗಳನ್ನು ತಿಳಿಯುವುದು.</p> <p>ಘಟಕ ೧: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳು</p> <p>ಘಟಕ ೨: ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ ಬಗೆಗಳು : ವಿಶ್ಲೇಷಣಾತ್ಮಕ ಬಗೆಗಳು : ಬಿಡಿ ಗೀತೆ-ಕಥನಗೀತೆ-ಗೀಗಿ-ಲಾವಣಿ ಖಂಡಕಾವ್ಯ-ಮಹಾಕಾವ್ಯ ಸಾಂಸ್ಕೃತಿಕ ಬಗೆಗಳು ಕುಟ್ಟುವ ಹಾಡು, ಬೀಸುವ ಹಾಡು, ಹಂತಿಯ ಹಾಡು ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೩ : ಜನಪದ ಗೀತ ಪಠ್ಯ ಪ್ರದರ್ಶನಗೊಳ್ಳುವಿಕೆ</p>
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ಕರ್ನಾಟಕ ಜಾನಪದ ವಿಶ್ವವಿದ್ಯಾಲಯ,  
ಗೊಟಗೋಡಿ-೨೦೧೪

ಮತ್ತು ೫ : ಗರತಿಯ ಹಾಡು, ಹಲಸಂಗಿ ಸಹೋದರರು  
(ಸಂ.) ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ದಾರವಾಡ

(೨ನೇ ಮುದ್ರಣ-೧೯೯೦)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ತಪಸ್ವೀಕುಮಾರ ಎನ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಗೀತೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ.), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.), ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Gover Charles 1871, Folk Songs of Southern, India

ಮುಕ್ತ ಆಯ್ಕೆ ಪತ್ರಿಕೆ ೨.೫  
ಜಾನಪದ ಪರಿಕಲ್ಪನೆ

೧. ಜನಪದ-ಜಾನಪದ, ಜಾನಪದ ವಿಜ್ಞಾನ ವಿವಿಧ ನಿರ್ವಚನಗಳು

೨. ಜಾನಪದ ವರ್ಗೀಕರಣ

೩. ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು

೪. ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಸ್ಥೂಲ ಪರಿಚಯ, ಮಹತ್ವ

೫. ಪಠ್ಯ : ಜನಪದ ಸಾಹಿತ್ಯ (ಆಯ್ದ ಸಂಗ್ರಹ)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ.), ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು
- \* ನೆಲ್ಲೇಸರ ಬಸವರಾಜ (ಸಂ.), ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬಿ.ಆರ್.ಪ್ರಾಜಕ್ಟ್, ಶಿವಮೊಗ್ಗ
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ಮತ್ತು ಮಾಡ್ವಾ ವಿಲ್ಯಂ (ಸಂ.), ೧೯೭೯, ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ರಾಮಚಂದ್ರಗೌಡ ಹಿ.ಶಿ. ೧೯೯೩, ಜನಪದ ನಾವು, ಮಾನವಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ

ಪಠ್ಯ -ಸಹಪಠ್ಯ-ಸಂದರ್ಭ

ಘಟಕ ೪ : ಪಠ್ಯ ಗ್ರಂಥಗಳು : ತಾತ್ಕಾಲಿಕ-ಬಾಹ್ಯ ಅವರ ಲಾವಣಿಗಳು  
(ಸಂ. ಹರಿಲಾಲ ಪವಾರ),

ಕರ್ನಾಟಕ ಜಾನಪದ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗೊಟಗೋಡಿ-  
೨೦೧೪

ಮತ್ತು ೫ : ಗರತಿಯ ಹಾಡು, ಹಲಸಂಗಿ ಸಹೋದರರು (ಸಂ.)  
ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ದಾರವಾಡ

(೨ನೇ ಮುದ್ರಣ-೧೯೯೦)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ತಪಸ್ವೀಕುಮಾರ ಎನ್. ೧೯೮೨, ಕನ್ನಡ ಜನಪದ ಗೀತೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ೧೯೭೯, ದಕ್ಷಿಣ ಕರ್ನಾಟಕ ಜನಪದ ಕಾವ್ಯ ಪ್ರಕಾರಗಳು, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ.), ೨೦೦೬, ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- \* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.), ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ., ವೆಂಕಟೇಶ್ ಎಂ.ಎನ್. ೨೦೦೪, ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೮, ಜನಪದ ಮಹಾಕಾವ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- \* Gover Charles 1871, Folk Songs of Southern, India

ಮುಕ್ತ ಆಯ್ಕೆ ಪತ್ರಿಕೆ

Course Code : PG37T205 - ಜಾನಪದ ಪರಿಕಲ್ಪನೆ

Course Out come :

೧) ಜಾನಪದ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.

೨) ಇತರೆ ಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಜೊತೆಗಿನ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಅರಿಯುವರು.

೩) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ಜಾನಪದ ಸೂಕ್ಷ್ಮಾಧ್ಯಯನ ತಿಳಿಯುವರು.

೪) ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.

೫) ಜನಪದ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಅರಿಯುವರು.

ಘಟಕ ೧ : ಜನಪದ-ಜಾನಪದ, ಜಾನಪದ ವಿಜ್ಞಾನ ವಿವಿಧ ನಿರ್ವಚನಗಳು

ಘಟಕ ೨ : ಜಾನಪದ ವರ್ಗೀಕರಣ

ಘಟಕ ೩ : ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು

ಘಟಕ ೪ : ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳ ಸ್ಥೂಲ ಪರಿಚಯ, ಮಹತ್ವ

ಘಟಕ ೫ : ಪಠ್ಯ : ಜನಪದ ಸಾಹಿತ್ಯ (ಆಯ್ದ ಸಂಗ್ರಹ), ಸಂಪಾದಕರು-ಡಾ. ಪ್ರಿ.ಎಲ್. ಪಾಟೀಲ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ, ೧೯೭೯, ಜಾನಪದ ವಿಜ್ಞಾನ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಜವರೇಗೌಡ ದೇ. ೧೯೯೬, ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ.), ೧೯೯೯, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ನಾಯಕ ಹಾ.ಮಾ. ೧೯೭೧, ಜಾನಪದ ಸ್ವರೂಪ, ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ, ಮೈಸೂರು

<p>ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</p> <ul style="list-style-type: none"> <li>* ಸುಂದರಂ ಆರ್.ವಿ.ಎಸ್. (ಸಂ) ೧೯೭೬, ಜನಪದ ಸಾಹಿತ್ಯದ ಮೂಲ ತತ್ವಗಳು, ಅರ್ಕಾವತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೮೪, ಜಾನಪದ : ಕೆಲವು ವಿಚಾರಗಳು, ಪ್ರಜ್ವಲ ಪ್ರಕಾಶನ (ಮೊದಲ ಮುದ್ರಣ), ಚೇತನಬುಕ್ ಹೌಸ್ (ಎರಡನೆಯ ಮುದ್ರಣ) ಮೈಸೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೨೦೦೦, ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು, ಶಕ್ತಿ ಪ್ರಕಾಶನ ಗೋಕಲಂ ಬಡಾವಣೆ, ಮೈಸೂರು</li> <li>* Alan Dundes, 1978, <i>Essays in Folkloristics</i>, Meerut, Folklore Institute</li> <li>* Car Valho Neto Paulole, 1971, <i>The Concept of Folklore (Trans)</i>, University of Miami Press, Florida</li> <li>* Dan Ben Amos, 1982, <i>Folklore in Context</i>, South Asian Publishers, New Delhi</li> <li>* Dorson Richard.(Ed) 1972, <i>Folklore and Folklife : An Introduction</i>, Chicago, University of Chicago</li> <li>* Handoo Jawaharlal, 1989, <i>Folklore: An Introduction</i>, C.I.I.L., Mysore</li> <li>* Leach Maria (Ed) 1950, <i>Standard Dictionary of Folklore Mythology and Legend</i>, New York</li> </ul> <p style="text-align: center;">ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ ೩.೧ ಜಾನಪದ ಮತ್ತು ಸಂವಹನ ಪರಿಷ್ಕೃತ ಪಠ್ಯಕ್ರಮ : ೨೦೧೬ - ೧೭ನೇ ಸಾಲಿಗಾಗಿ ಹಾಗೂ ಅನಂತರ</p> <p><b>ಅ ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಸಂವಹನ-ಸಂವಹನ ಸ್ವರೂಪ, ತತ್ವಗಳು ಸಂವಹನ ಪ್ರಕ್ರಿಯೆ, ಸಂವಹನ ಬಗೆಗಳು</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಮತ್ತು ಸಂವಹನ ಅ. ಪ್ರೇಷಕ/ಪ್ರದರ್ಶಕ, ಗ್ರಾಹಕ/ಪ್ರೇಕ್ಷಕ ಮತ್ತು ವಾಹಕ ಆ. ಜನಪದ ಸಂವಹನದ ಉದ್ದೇಶ ಇ. ಜನಪದ ಸಂವಹನದ ತಂತ್ರ ಕೌಶಲ್ಯಗಳು ಈ. ಜನಪದ ಸಂವಹನದ ಪ್ರಕಾರಗಳು</p> <p>ಘಟಕ ೩ : ಜನಪದ ಮಾಧ್ಯಮ ಹಾಗೂ ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮ ಜಾನಪದ ಮತ್ತು ಸಂವಹನ : ಈಚಿನ ಪ್ರವೃತ್ತಿಗಳು</p> <p><b>ಬ ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ</b> ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮಗಳಲ್ಲಿ ಜಾನಪದ ಬಳಕೆ ಪತ್ರಿಕೆಗಳು-ಆಕಾಶವಾಣಿ-ಚಲನಚಿತ್ರ-ದೂರದರ್ಶನ ಇತ್ಯಾದಿ.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ರಾಹೂರ ಎಸ್.ಎಸ್. ೧೯೯೦, ಜಾನಪದ ಮತ್ತು ಸಮೂಹ ಮಾಧ್ಯಮ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ನಾಯಕ ಡಿ.ಬಿ. ೨೦೦೫, ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಸಮಾಜ, ಬಂಜಾರಾ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ</li> </ul>	<ul style="list-style-type: none"> <li>* ನೆಲ್ವೀಸರ ಬಸವರಾಜ (ಸಂ), ೧೯೯೧, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬಿ.ಆರ್.ಪ್ರಾಜಕ್ಟ್, ಶಿವಮೊಗ್ಗ</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಪ್ರ.ಸಂ) ೨೦೦೬, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* Alan Dundes, 1978, <i>Essays in Folkloristics</i>, Meerut, Folklore Institute</li> <li>* Car Valho Neto Paulole, 1971, <i>The Concept of Folklore (Trans)</i>, University of Miami Press, Florida</li> <li>* Dorson Richard.(Ed) 1972, <i>Folklore and Folklife : An Introduction</i>, Chicago, University of Chicago</li> </ul> <p style="text-align: center;">ಮೂರನೆಯ ಚತುರ್ಮಾಸ Course Code : PG37T301 - ಜಾನಪದ ಮತ್ತು ಸಂವಹನ Course Out come :</p> <p>೧) ಸಂವಹನದ ತತ್ವ ಮತ್ತು ಬಗೆಗಳನ್ನು ಅರಿಯುವರು. ೨) ಜಾನಪದ ಮತ್ತು ಆಧುನಿಕ ಸಂವಹನ ಮಾಧ್ಯಮಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವರು. ೩) ಜಾನಪದ ಸಂವಹನದ ಉದ್ದೇಶ, ತಂತ್ರ, ಪ್ರಕಾರಗಳನ್ನು ಗ್ರಹಿಸುವರು. ೪) ಆಧುನಿಕ ಮಾಧ್ಯಮದಲ್ಲಿ ಜಾನಪದ ಬಳಕೆಗೊಳ್ಳುವ ಕ್ರಮವನ್ನು ಅರಿಯುವರು. ೫) ಸಂವಹನ ಕೌಶಲ್ಯ ವೃದ್ಧಿಸಿಕೊಂಡು ಉದ್ಯೋಗ ಸೃಷ್ಟಿಸಿಕೊಳ್ಳುವರು.</p> <p><b>ಅ ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಸಂವಹನ-ಸಂವಹನ ಸ್ವರೂಪ, ತತ್ವಗಳು ಸಂವಹನ ಪ್ರಕ್ರಿಯೆ, ಸಂವಹನ ಬಗೆಗಳು</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಮತ್ತು ಸಂವಹನ ಅ. ಪ್ರೇಷಕ/ಪ್ರದರ್ಶಕ, ಗ್ರಾಹಕ/ಪ್ರೇಕ್ಷಕ ಮತ್ತು ವಾಹಕ ಆ. ಜನಪದ ಸಂವಹನದ ಉದ್ದೇಶ ಇ. ಜನಪದ ಸಂವಹನದ ತಂತ್ರ ಕೌಶಲ್ಯಗಳು ಈ. ಜನಪದ ಸಂವಹನದ ಪ್ರಕಾರಗಳು</p> <p>ಘಟಕ ೩ : ಜನಪದ ಮಾಧ್ಯಮ ಹಾಗೂ ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮ ಜಾನಪದ ಮತ್ತು ಸಂವಹನ : ಈಚಿನ ಪ್ರವೃತ್ತಿಗಳು</p> <p><b>ಬ ವಿಭಾಗ : ಪ್ರಾಯೋಗಿಕ</b> ಆಧುನಿಕ ಸಮೂಹ ಮಾಧ್ಯಮಗಳಲ್ಲಿ ಜಾನಪದ ಬಳಕೆ ಪತ್ರಿಕೆಗಳು-ಆಕಾಶವಾಣಿ-ಚಲನಚಿತ್ರ-ದೂರದರ್ಶನ ಇತ್ಯಾದಿ.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಇಮ್ರಾಹೂರ ಎಸ್.ಎಸ್. ೧೯೯೦, ಜಾನಪದ ಮತ್ತು ಸಮೂಹ ಮಾಧ್ಯಮ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ನಾಯಕ ಡಿ.ಬಿ. ೨೦೦೫, ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಸಮಾಜ, ಬಂಜಾರಾ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ</li> <li>* ಮೋಹರಾಂ ಎಸ್.ಎಸ್. ೧೯೮೧, ಜಾನಪದ ಮತ್ತು ಮಾಧ್ಯಮಗಳು, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* Denis Mcquail and Slven Windahd 1989, <i>Models of Communications Vol.3</i>. Oxford University, New York</li> </ul>
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- \* ಮಹೇಶ್ವರಯ್ಯ ಎಚ್.ಎಂ. ಮತ್ತು ಮುರಿಗಪ್ಪ ಎ. (ಸಂ) ೧೯೯೪, ಜಾನಪದ : ಹೊಸ ದೃಷ್ಟಿ, ಸಹಿತಾ ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಮೋಹರಾಂ ಎಸ್.ಎಸ್. ೧೯೮೧, ಜಾನಪದ ಮತ್ತು ಮಾಧ್ಯಮಗಳು, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
- \* ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರಶಂ) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* Denis Mcquail and Slven Windahd 1989, **Models of Communications Vol.3.** Oxford University, New York
- \* Jennifer Marie Bayer, **Communication and Interaction Net Works**, C I I L, Mysore
- \* Kenneth Goldstein and Ben Amos, **Folklore: Performance & Communication**
- \* Parmar Shyam 1975, **Traditional Folk Media**, New Delhi in India
- \* Parmar Shyam 1979, **Folk Music and Mass Media**, Communication Publication, New Delhi
- \* Parmar Vijay 1978, **Message Through Puppet Plays**, Communication Publication, New Delhi
- \* Usha Rani N. 1996, **Folk Media for Development**, Karnataka Book Publishers, Bangalore

**ಪತ್ರಿಕೆ ೩.೨**  
**ಜನಪದ ಭಂದಸ್ಸು ಮತ್ತು ಕಾವ್ಯಮೀಮಾಂಸೆ**

**ಅ ವಿಭಾಗ : ಜನಪದ ಭಂದಸ್ಸು**

**ಘಟಕ ೧ :** ಭಂದಸ್ಸಿನ ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಲಯ-ವರ್ಣಗಣ, ಮಾತ್ರಾಗಣ ಮತ್ತು  
ಅಂಶಗಣಗಳು

ಪ್ರಾಸ-ಯತಿ-ವಡಿ ಇವುಗಳ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ  
**ಘಟಕ ೨ :** ಅಂಶಭಂದಸ್ಸು : ಸ್ವರೂಪ ಮತ್ತು ಲಕ್ಷಣ  
ಕರ್ನಾಟಕ ಭಾಷಾ ವಿಷಯ ಜಾತಿ ಮಟ್ಟಗಳ  
ಸಾಮಾನ್ಯ ಲಕ್ಷಣ ಹಾಗೂ  
ಆ ಮಟ್ಟಗಳ ಪರಿವರ್ತನೆಯ ಘಟ್ಟಗಳ ಸಾಮಾನ್ಯ  
ಪರಿಚಯ

**ಬ ವಿಭಾಗ :**

**ಘಟಕ ೩ :** ಕಾವ್ಯ, ಲಕ್ಷಣಗಳು, ಕಾವ್ಯದ ಆಕರಗಳು  
ಪ್ರತಿಭೆ ಮತ್ತು ವೃತ್ತತ್ತಿ, ಕಾವ್ಯ ಪ್ರಯೋಜನ  
ಕವಿ-ಸಹೃದಯ-ವಿಮರ್ಶಕ

**ಘಟಕ ೪ :** ಧ್ವನಿ-ರಸ-ರೀತಿ-ಟಿಚಿತ್ಯ-ಇವುಗಳ ಸ್ಥೂಲ  
ಪರಿಚಯ

(ಕಾವ್ಯ ಮೀಮಾಂಸೆಯ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಜನಪದ  
ಸಾಹಿತ್ಯದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಪರಿಚಯಿಸಬೇಕು)

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- \* ಕಬ್ಬಿನಾಳ ವಸಂತ ಭಾರದ್ವಾಜ, ೧೯೯೮, ಯಕ್ಷಗಾನ ಭಂದಸ್ಸು : ಒಂದು  
ಅಧ್ಯಯನ, ಜಾನಪದ ರಂಗಕಲೆಗಳ ಅಧ್ಯಯನ ಕೇಂದ್ರ, ಉಡುಪಿ
- \* ಕರ್ಕಿ ಡಿ.ಎಸ್., ೧೯೭೭, ಕನ್ನಡ ಭಂದೋವಿಕಾಸ, ಭಾರತ ಬುಕ್ ಡಿಪೋ

- \* Jennifer Marie Bayer, **Communication and Interaction Net Works**, C I I L, Mysore
- \* Kenneth Goldstein and Ben Amos, **Folklore: Performance & Communication**
- \* Parmar Shyam 1975, **Traditional Folk Media**, New Delhi in India
- \* Parmar Shyam 1979, **Folk Music and Mass Media**, Communication Publication, New Delhi
- \* Usha Rani N. 1996, **Folk Media for Development**, Karnataka Book Publishers, Bangalore

**Course Code : PG37T302 - ಜನಪದ ಭಂದಸ್ಸು ಮತ್ತು  
ಕಾವ್ಯಮೀಮಾಂಸೆ**

**Course Out come :**

- ೧) ಜನಪದ ಕಾವ್ಯಗಳ ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಸೌಂದರ್ಯಗಳನ್ನು ಅಸ್ವಾದಿಸಲು  
ಬೇಕಾದ ಮೂಲ ತತ್ವಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ದೇಶಿ ಭಂದಸ್ಸಿನ ಮಟ್ಟಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.
- ೩) ಕಾವ್ಯ ಕಟ್ಟುವ ಸಾಮರ್ಥ್ಯವನ್ನು ತಮ್ಮದಾಗಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೪) ಕಾವ್ಯ ಗ್ರಹಿಕೆಯ ಜ್ಞಾನವನ್ನು ಉತ್ಕೃಷ್ಟಗೊಳಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
- ೫) ಕಾವ್ಯ ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಉದ್ದೀಪನಗೊಳಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.

**ಅ ವಿಭಾಗ : ಜನಪದ ಭಂದಸ್ಸು**

**ಘಟಕ ೧ :** ಭಂದಸ್ಸಿನ ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಲಯ-ವರ್ಣಗಣ, ಮಾತ್ರಾಗಣ ಮತ್ತು ಅಂಶಗಣಗಳು  
ಪ್ರಾಸ-ಯತಿ-ವಡಿ ಇವುಗಳ ಸಾಮಾನ್ಯ ಕಲ್ಪನೆ  
**ಘಟಕ ೨ :** ಅಂಶಭಂದಸ್ಸು : ಸ್ವರೂಪ ಮತ್ತು ಲಕ್ಷಣ  
ಕರ್ನಾಟಕ ಭಾಷಾ ವಿಷಯ ಜಾತಿ ಮಟ್ಟಗಳ ಸಾಮಾನ್ಯ  
ಲಕ್ಷಣ ಹಾಗೂ ಆ ಮಟ್ಟಗಳ ಪರಿವರ್ತನೆಯ ಘಟ್ಟಗಳ  
ಸಾಮಾನ್ಯ ಪರಿಚಯ

**ಬ ವಿಭಾಗ :**

**ಘಟಕ ೩ :** ಕಾವ್ಯ, ಲಕ್ಷಣಗಳು, ಕಾವ್ಯದ ಆಕರಗಳು  
ಪ್ರತಿಭೆ ಮತ್ತು ವೃತ್ತತ್ತಿ, ಕಾವ್ಯ ಪ್ರಯೋಜನ  
ಕವಿ-ಸಹೃದಯ-ವಿಮರ್ಶಕ  
**ಘಟಕ ೪ :** ಧ್ವನಿ-ರಸ-ರೀತಿ-ಟಿಚಿತ್ಯ-ಇವುಗಳ ಸ್ಥೂಲ ಪರಿಚಯ  
(ಕಾವ್ಯ ಮೀಮಾಂಸೆಯ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಜನಪದ

ಸಾಹಿತ್ಯದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಪರಿಚಯಿಸಬೇಕು)

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- \* ಕಬ್ಬಿನಾಳ ವಸಂತ ಭಾರದ್ವಾಜ, ೧೯೯೮, ಯಕ್ಷಗಾನ ಭಂದಸ್ಸು : ಒಂದು  
ಅಧ್ಯಯನ, ಜಾನಪದ ರಂಗಕಲೆಗಳ ಅಧ್ಯಯನ ಕೇಂದ್ರ, ಉಡುಪಿ
- \* ಕರ್ಕಿ ಡಿ.ಎಸ್., ೧೯೭೭, ಕನ್ನಡ ಭಂದೋವಿಕಾಸ, ಭಾರತ ಬುಕ್ ಡಿಪೋ  
ಮತ್ತು ಪ್ರಕಾಶನ, ಧಾರವಾಡ
- \* ಕುಲಕರ್ಣಿ ಕೆ.ವಿ. (ಸಂ) ೧೯೭೦, ಕನ್ನಡ ಕೈಪಿಡಿ ಸಂ.೧, ಪ್ರಸಾರಾಂಗ,  
ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೮೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಮೂಡಲ ಪ್ರಕಾಶನ,

<p>ಮತ್ತು ಪ್ರಕಾಶನ, ಧಾರವಾಡ</p> <ul style="list-style-type: none"> <li>* ಕುಲಕರ್ಣಿ ಕೆ.ವಿ. (ಸಂ) ೧೯೭೦, ಕನ್ನಡ ಕೈಪಿಡಿ ಸಂ.೧, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೮೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಮೂಡಲ ಪ್ರಕಾಶನ, ಕಲಬುರ್ಗಿ</li> <li>* ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ ಟಿ.ವಿ. ೧೯೯೫, ಕನ್ನಡ ಭಂದಸ್ಸು, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ಶಿವರುದ್ರಪ್ಪ ಜಿ.ಎಸ್., ೧೯೮೩, ಕಾವ್ಯಾರ್ಥ ಚಿಂತನೆ, ಶಾರದಾ ಪ್ರಕಟನಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಶ್ರೀಕಂಠಯ್ಯ ತೀ.ನಂ. ೧೯೭೩, ಭಾರತೀಯ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಹಿರೇಮಠ ಎಸ್.ಎಂ. ೨೦೦೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ, ಗದಗ</li> </ul> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ ೩.೩</b> <b>ಜನಪದ ರಂಗಭೂಮಿ</b></p> <p>ಘಟಕ ೧ : ರಂಗಭೂಮಿ ಪರಿಕಲ್ಪನೆ : ಸ್ವರೂಪ, ಲಕ್ಷಣ ಮತ್ತು ಪರಂಪರೆ.</p> <p style="text-align: center;">ಶಿಷ್ಯ-ಜನಪದ ರಂಗಭೂಮಿ</p> <p>ಘಟಕ ೨ : ರಂಗ ಸಜ್ಜಿಕೆ, ಸಂಗೀತ, ವೇಷಭೂಷಣ, ನೃತ್ಯ, ಸಾಹಿತ್ಯ, ಸಂಭಾಷಣೆ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ</p> <p style="text-align: center;">ದಕ್ಷಿಣ ಕರ್ನಾಟಕ, ಉತ್ತರ ಕರ್ನಾಟಕ, ಕರಾವಳಿ ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ ಪರಿಚಯ</p> <p>ಘಟಕ ೪ : ಜನಪದ ಕಲಾವಿದರು, ಕಲಾಮೇಳಗಳು</p> <p>ಘಟಕ ೫ : ಜನಪದ ರಂಗಭೂಮಿ ಇಂದಿನ ಸ್ಥಿತಿ</p> <p style="text-align: center;">ಪ್ರಯೋಗ ಸಾಧ್ಯತೆಗಳು</p> <p style="text-align: center;">ಸಾಂಸ್ಥಿಕ ಹಾಗೂ ವೈಯಕ್ತಿಕ ಪ್ರಯತ್ನಗಳು</p> <p>ಇತ್ಯಾದಿ.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಕ್ಷರ ಕೆ.ವಿ., ೧೯೯೪, ರಂಗಪ್ರಪಂಚ, ಪ್ರಕಾಶನ, ಹೆಗ್ಗೋಡು</li> <li>* ಕುಂಬಾರ ಚಂದ್ರಶೇಖರ, ೧೯೯೨, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮನ್ವಂತರ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಕೃಷ್ಣಯ್ಯ ಎಸ್.ಎ. ೧೯೯೮, ಕರ್ನಾಟಕದ ಗೊಂಬೆಯಾಟ, ಪ್ರಾದೇಶಿಕ ರಂಗಕಲೆಗಳ ಸಂಶೋಧನಾ ಕೇಂದ್ರ, ಉಡುಪಿ</li> <li>* ಕಾರಂತ ಶಿವರಾಮ, ೧೯೭೧, ಯಕ್ಷಗಾನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಮಲಶೆಟ್ಟಿ ಬಸವರಾಜ, ೧೯೮೩, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ಬಯಲಾಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ., ದಕ್ಷಿಣ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್., ೧೯೭೮, ಕೇರಳ ಜಾನಪದ, ಮಲೆನಾಡು ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ.(ಸಂ) ೧೯೮೫, ದ್ರಾವಿಡ ಜಾನಪದ, ಬಿ.ಆರ್.ಪಾಬ್ಲೆಕ್ಸ್, ಶಿವಮೊಗ್ಗ</li> <li>* Gargi Balwant 1991, Folk Theatre of India,</li> </ul>	<p>ಕಲಬುರ್ಗಿ</p> <ul style="list-style-type: none"> <li>* ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ ಟಿ.ವಿ. ೧೯೯೫, ಕನ್ನಡ ಭಂದಸ್ಸು, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು</li> <li>* ಶಿವರುದ್ರಪ್ಪ ಜಿ.ಎಸ್., ೧೯೮೩, ಕಾವ್ಯಾರ್ಥ ಚಿಂತನೆ, ಶಾರದಾ ಪ್ರಕಟನಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಶ್ರೀಕಂಠಯ್ಯ ತೀ.ನಂ. ೧೯೭೩, ಭಾರತೀಯ ಕಾವ್ಯಮೀಮಾಂಸೆ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಹಿರೇಮಠ ಎಸ್.ಎಂ. ೨೦೦೨, ಜನಪದ ಕಾವ್ಯಮೀಮಾಂಸೆ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ, ಗದಗ</li> </ul> <p style="text-align: center;"><b>Course Code : PG37T303 - ಜನಪದ ರಂಗಭೂಮಿ</b></p> <p><b>Course Out come :</b></p> <p>೧) ಜನಪದ ರಂಗಭೂಮಿಯ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>೨) ಶಿಷ್ಯ ಮತ್ತು ಜನಪದ ರಂಗಭೂಮಿ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.</p> <p>೩) ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿಯ ಪ್ರಭೇದಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೪) ಜನಪದ ರಂಗಭೂಮಿಯ ಕಲಾವಿದ ಮತ್ತು ಕಲಾಮೇಳಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>೫) ಜನಪದ ರಂಗಭೂಮಿಯ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ, ಕಲೆ, ಭಾಷೆಯ ಬಗ್ಗೆ ಇತ್ಯಾದಿಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.</p> <p>ಘಟಕ ೧ : ರಂಗಭೂಮಿ ಪರಿಕಲ್ಪನೆ : ಸ್ವರೂಪ, ಲಕ್ಷಣ ಮತ್ತು ಪರಂಪರೆ.</p> <p style="text-align: center;">ಶಿಷ್ಯ-ಜನಪದ ರಂಗಭೂಮಿ</p> <p>ಘಟಕ ೨ : ರಂಗ ಸಜ್ಜಿಕೆ, ಸಂಗೀತ, ವೇಷಭೂಷಣ, ನೃತ್ಯ, ಸಾಹಿತ್ಯ, ಸಂಭಾಷಣೆ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ</p> <p style="text-align: center;">ದಕ್ಷಿಣ ಕರ್ನಾಟಕ, ಉತ್ತರ ಕರ್ನಾಟಕ, ಕರಾವಳಿ ಕರ್ನಾಟಕ ಜನಪದ ರಂಗಭೂಮಿ ಪರಿಚಯ</p> <p>ಘಟಕ ೪ : ಜನಪದ ಕಲಾವಿದರು, ಕಲಾಮೇಳಗಳು</p> <p>ಘಟಕ ೫ : ಜನಪದ ರಂಗಭೂಮಿ ಇಂದಿನ ಸ್ಥಿತಿ</p> <p style="text-align: center;">ಪ್ರಯೋಗ ಸಾಧ್ಯತೆಗಳು</p> <p style="text-align: center;">ಸಾಂಸ್ಥಿಕ ಹಾಗೂ ವೈಯಕ್ತಿಕ ಪ್ರಯತ್ನಗಳು ಇತ್ಯಾದಿ.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಕ್ಷರ ಕೆ.ವಿ., ೧೯೯೪, ರಂಗಪ್ರಪಂಚ, ಪ್ರಕಾಶನ, ಹೆಗ್ಗೋಡು</li> <li>* ಕುಂಬಾರ ಚಂದ್ರಶೇಖರ, ೧೯೯೨, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮನ್ವಂತರ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಕೃಷ್ಣಯ್ಯ ಎಸ್.ಎ. ೧೯೯೮, ಕರ್ನಾಟಕದ ಗೊಂಬೆಯಾಟ, ಪ್ರಾದೇಶಿಕ ರಂಗಕಲೆಗಳ ಸಂಶೋಧನಾ ಕೇಂದ್ರ, ಉಡುಪಿ</li> <li>* ಕಾರಂತ ಶಿವರಾಮ, ೧೯೭೧, ಯಕ್ಷಗಾನ, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಮಲಶೆಟ್ಟಿ ಬಸವರಾಜ, ೧೯೮೩, ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ಬಯಲಾಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ರಾಜೇಂದ್ರ ಡಿ.ಕೆ., ದಕ್ಷಿಣ ಕರ್ನಾಟಕದ ಜನಪದ ರಂಗಭೂಮಿ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್., ೧೯೭೮, ಕೇರಳ ಜಾನಪದ, ಮಲೆನಾಡು ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ.(ಸಂ) ೧೯೮೫, ದ್ರಾವಿಡ ಜಾನಪದ, ಬಿ.ಆರ್.ಪಾಬ್ಲೆಕ್ಸ್, ಶಿವಮೊಗ್ಗ</li> <li>* Gargi Balwant 1991, Folk Theatre of India, Calcutta, Rapa and Co.</li> </ul>
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<p>Calcutta, Rapa and Co.</p> <p>* Marjorie Bat and Helder 1947, <b>The Puppet</b></p> <p>* Ranganath H.K. 1960, <b>The Karnataka Theatre</b>, Karnataka University, Dharwad</p> <p>* Richmond F.P., Swann D.L. and Zorrilli P.B. 1993, <b>Indian Theatre Traditions of Performance</b>, Delhi, Motilal Banarasidas</p> <p>* Richard Arnad Frased 1984, <b>Therukkutta Ritule Theatre of Tamilnadu</b>, Berkley University, California</p> <p>* Vatsayana Kapila 1980, <b>Traditional Indian Theatre Multiple Streams</b>, N.B.T. New Delhi</p> <p>* Vatsayana Kapila 1976, <b>Traditions of India Folk Dance</b>, Indian Book Co., New Delhi</p> <p>* Mathur J.C. 1964, <b>Drama in Rural India</b>, ICCR, New Delhi</p>	<p>* Ranganath H.K. 1960, <b>The Karnataka Theatre</b>, Karnataka University, Dharwad</p> <p>* Richmond F.P., Swann D.L. and Zorrilli P.B. 1993, <b>Indian Theatre Traditions of Performance</b>, Delhi, Motilal Banarasidas</p> <p>* Mathur J.C. 1964, <b>Drama in Rural India</b>, ICCR, New Delhi</p>
<p style="text-align: center;"><b>ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ ೩.೪</b> <b>ಬುಡಕಟ್ಟು ಜಾನಪದ</b></p> <p>ಘಟಕ ೧ : ಬುಡಕಟ್ಟು : ಸ್ವರೂಪ, ಲಕ್ಷಣ, ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ : ಬುಡಕಟ್ಟು ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ-ಜಾಗತಿಕ, ರಾಷ್ಟ್ರೀಯ, ಪ್ರಾದೇಶಿಕ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳ ಸ್ಥೂಲ ಪರಿಚಯ, ಬುಡಕಟ್ಟಿನ ಮೂಲ ಮತ್ತು ಪ್ರಸಾರ</p> <p>ಐತ್ಯಾದಿ ಬುಡಕಟ್ಟಿನ ಸಾಮಾಜಿಕ ಜೀವನ, ಆರ್ಥಿಕ ಜೀವನ</p> <p>ಘಟಕ ೪ : ಬುಡಕಟ್ಟುಗಳು : ಭೌತಿಕ ಮತ್ತು ಅಭೌತಿಕ ಸಂಸ್ಕೃತಿ ಮನೆ ಮಾದರಿ, ಆಹಾರ, ಉಡುಗೆ-ತೊಡುಗೆ</p> <p>ಐತ್ಯಾದಿ ನಂಬಿಕೆ, ಆಚರಣೆ, ಕಲೆ, ಸಾಹಿತ್ಯ, ಕ್ರೀಡೆ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೫ : ಬುಡಕಟ್ಟು ಜೀವನದ ಮೇಲೆ ಆಧುನಿಕತೆಯ ಪರಿಣಾಮ</p> <p>ಅನನ್ಯತೆಯ ಅಂಶಗಳು-ಅಭಿವೃದ್ಧಿ ಚಿಂತನೆಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <p>* ಅಕ್ಕಮಹಾದೇವಿ (ಅನು), ರಾಘವಯ್ಯ ವಿ. (ಮೂಲ), ೧೯೮೪, <b>ಬುಡಕಟ್ಟು ನ್ಯಾಯ</b>, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು</p> <p>* ದೈವಜ್ಞ ಗಂಗಾಧರ, ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ಸಮಾಜ, ಹುಟ್ಟು-ಸಾವಿನ ನಡುವೆ</b>, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p>* ನಾಗೇಗೌಡ ಎಚ್.ಎಲ್., ೧೯೭೯, ವೆರಿಯರ್ ಎಲ್ವಿನ್ಸರ (ಅನು), <b>ಗಿರಿಜನ ಪ್ರಪಂಚ</b>, ಬೆಂಗಳೂರು</p> <p>* ಪ್ರಭಾಕರ ಎ.ಎಸ್. ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ಬದುಕಿನ ಸ್ಥಿತ್ಯಂತರಗಳು</b>, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೯೮, <b>ಕರ್ನಾಟಕ ಬುಡಕಟ್ಟುಗಳು ಭಾಗ-೧</b>, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೨೦೦೦, <b>ಕರ್ನಾಟಕ ಬುಡಕಟ್ಟುಗಳು ಭಾಗ-೨</b>, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ದೈವಾರಾಧನೆ</b>, ಪ್ರಸಾರಾಂಗ,</p>	<p style="text-align: center;"><b>ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ</b> <b>Course Code : PG37T304 A - ಬುಡಕಟ್ಟು ಜಾನಪದ</b></p> <p><b>Course Out come :</b></p> <p>೧) ಬುಡಕಟ್ಟಿನ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.</p> <p>೨) ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>೩) ಬುಡಕಟ್ಟುಗಳ ಅನನ್ಯತೆಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.</p> <p>೪) ಆಧುನಿಕ ಸಂದರ್ಭದಲ್ಲಿ ಬುಡಕಟ್ಟುಗಳ ಸ್ಥಿತಿ-ಗತಿಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.</p> <p>೫) ಬುಡಕಟ್ಟುಗಳ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮಾಡುವ ಮನೋಭೂಮಿಕೆಯನ್ನು ಹೊಂದುತ್ತಾರೆ.</p> <p>ಘಟಕ ೧ : ಬುಡಕಟ್ಟು : ಸ್ವರೂಪ, ಲಕ್ಷಣ, ವರ್ಗೀಕರಣ</p> <p>ಘಟಕ ೨ : ಬುಡಕಟ್ಟು ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ-ಜಾಗತಿಕ, ರಾಷ್ಟ್ರೀಯ, ಪ್ರಾದೇಶಿಕ</p> <p>ಘಟಕ ೩ : ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳ ಸ್ಥೂಲ ಪರಿಚಯ, ಬುಡಕಟ್ಟಿನ ಮೂಲ ಮತ್ತು ಪ್ರಸಾರ</p> <p>ಐತ್ಯಾದಿ ಬುಡಕಟ್ಟಿನ ಸಾಮಾಜಿಕ ಜೀವನ, ಆರ್ಥಿಕ ಜೀವನ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೪ : ಬುಡಕಟ್ಟುಗಳು : ಭೌತಿಕ ಮತ್ತು ಅಭೌತಿಕ ಸಂಸ್ಕೃತಿ ಮನೆ ಮಾದರಿ, ಆಹಾರ, ಉಡುಗೆ-ತೊಡುಗೆ ಇತ್ಯಾದಿ</p> <p>ಐತ್ಯಾದಿ ನಂಬಿಕೆ, ಆಚರಣೆ, ಕಲೆ, ಸಾಹಿತ್ಯ, ಕ್ರೀಡೆ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೫ : ಬುಡಕಟ್ಟು ಜೀವನದ ಮೇಲೆ ಆಧುನಿಕತೆಯ ಪರಿಣಾಮ</p> <p>ಅನನ್ಯತೆಯ ಅಂಶಗಳು-ಅಭಿವೃದ್ಧಿ ಚಿಂತನೆಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <p>* ಅಕ್ಕಮಹಾದೇವಿ (ಅನು), ರಾಘವಯ್ಯ ವಿ. (ಮೂಲ), ೧೯೮೪, <b>ಬುಡಕಟ್ಟು ನ್ಯಾಯ</b>, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು</p> <p>* ದೈವಜ್ಞ ಗಂಗಾಧರ, ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ಸಮಾಜ, ಹುಟ್ಟು-ಸಾವಿನ ನಡುವೆ</b>, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p>* ನಾಗೇಗೌಡ ಎಚ್.ಎಲ್., ೧೯೭೯, ವೆರಿಯರ್ ಎಲ್ವಿನ್ಸರ (ಅನು), <b>ಗಿರಿಜನ ಪ್ರಪಂಚ</b>, ಬೆಂಗಳೂರು</p> <p>* ಪ್ರಭಾಕರ ಎ.ಎಸ್. ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ಬದುಕಿನ ಸ್ಥಿತ್ಯಂತರಗಳು</b>, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೯೮, <b>ಕರ್ನಾಟಕ ಬುಡಕಟ್ಟುಗಳು ಭಾಗ-೧ ಮತ್ತು ಭಾಗ-೨</b>, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೨೦೦೦, <b>ಬುಡಕಟ್ಟು ದೈವಾರಾಧನೆ</b>, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p>

<p>ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</p> <ul style="list-style-type: none"> <li>* ಮೈತ್ರಿ ಕೆ.ಎಂ. ಬುಡಕಟ್ಟು ಕುಲಕಸಬುಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೮೨, ಕಾಡುಗೊಲ್ಲರ ಆಚರಣೆಗಳು ಮತ್ತು ನಂಬಿಕೆಗಳು, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು</li> <li>* ಹನೂರು ಕೃಷ್ಣಮೂರ್ತಿ, ೧೯೯೮, ಜನಪದ ಮತ್ತು ಬುಡಕಟ್ಟು ಗೀತೆಗಳು, ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ನವದೆಹಲಿ</li> <li>* Anantha Krishna Iyer, H.V.Nanjudaiah 1936, <b>The Mysore Tribes and Castes</b>, Mysore</li> <li>* Thirston Edgar 1909, <b>Castes and Tribes of Southern India</b>, Delhi</li> </ul> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ ೩.೪.೨</b> <b>ಪರಿಸರ ಜಾನಪದ</b></p> <p>ಘಟಕ ೧ : ಪರಿಸರ ಜಾನಪದ ಪರಿಕಲ್ಪನೆ</p> <p>ಘಟಕ ೨ : ಪರಿಸರ ಜಾನಪದ ಅಧ್ಯಯನ :</p> <p style="padding-left: 40px;">ಮಾನವ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು, ಪ್ರಕೃತಿ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು,</p> <p style="padding-left: 40px;">ಜೀವನ ಸಂಕುಲ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು</p> <p>ಘಟಕ ೩ : ಪರಿಸರ ಮತ್ತು ಜಾನಪದ :</p> <p style="padding-left: 40px;">ಭೂಮಿ-ನೆಲ, ನೀರು, ಹವಾಮಾನ, ಬೆಳೆ, ಗುಡ್ಡ, ಬೆಟ್ಟ, ಪರ್ವತ, ಮಳೆ, ನದಿ, ಮಹಾಪೂರ, ಆಕಾಶ-ನಕ್ಷತ್ರಗಳು,</p> <p style="padding-left: 40px;">ಗ್ರಹಗಳು, ಮೋಡ, ಗುಡುಗು, ಸಿಡಿಲು, ಋತುಮಾನ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೪ : ಸಸ್ಯ-ಪ್ರಾಣಿ-ಜಾನಪದ :</p> <p style="padding-left: 40px;">ಮೂಲಿಕೆಗಳು, ಗಿಡಗಂಟಿಗಳು, ಮರಗಳು, ಕಾಡುಜೀವನ-ಬೇಟೆ-ಮೀನುಗಾರಿಕೆ</p> <p>ಘಟಕ ೫ : ಸಾಕು ಪ್ರಾಣಿಗಳು : ಉತ್ಪಾದಕ ಪ್ರಾಣಿಗಳು</p> <p style="padding-left: 40px;">ಮುದ್ದು ಪ್ರಾಣಿಗಳು</p> <p style="padding-left: 40px;">ಮನರಂಜಕ ಪ್ರಾಣಿಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಜ್ಜಯದ ಕೃಷ್ಣಸ್ವಾಮಿ, ೧೯೯೩, ವನಸಿರಿ, ಬೆಂಗಳೂರು</li> <li>* ಐತಾಳ ಮಾಧವ (ಸಂ), ೧೯೮೫, ಪರಿಸರ ದರ್ಶನ, ಬೆಂಗಳೂರು</li> <li>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೮೬, ಕಾಡು ಕಾಂಕ್ಷೆಗಳು ಮತ್ತು ಜಾನಪದ, ಅಕ್ಷರ ಪ್ರಕಾಶನ, ಸಾಗರ</li> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಕಾಮತ ಕೃಷ್ಣ, ೧೯೯೪, ಸಸ್ಯ ಪರಿಸರ, ಪುಸ್ತಕಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಹಿ.ಶಿ. ೨೦೦೧, ಜಾನಪದ ಪ್ರಕೃತಿ, ಜ್ಞಾನೋದಯ ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</li> <li>* Kallor Edward A &amp; Bltkin Daniel B. 1995, <b>Environmental Science: Earth as a Living Planet</b>, Newyork</li> <li>* Leach Maria (Ed) 1950, <b>Standard Dictionary of Folklore Mythology &amp; Legend</b>, Newyork</li> <li>* Odum, Hardward T. 1971, <b>Environment Power &amp; Society</b>, Newyork</li> </ul>	<ul style="list-style-type: none"> <li>* ಮೈತ್ರಿ ಕೆ.ಎಂ. ಬುಡಕಟ್ಟು ಕುಲಕಸಬುಗಳು, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಶಂಕರನಾರಾಯಣ ತೀ.ನಂ. ೧೯೮೨, ಕಾಡುಗೊಲ್ಲರ ಆಚರಣೆಗಳು ಮತ್ತು ನಂಬಿಕೆಗಳು, ಪ್ರಸಾರಾಂಗ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು</li> <li>* Anantha Krishna Iyer, H.V.Nanjudaiah 1936, <b>The Mysore Tribes and Castes</b>, Mysore</li> <li>* Thirston Edgar 1909, <b>Castes and Tribes of Southern India</b>, Delhi</li> </ul> <p style="text-align: center;"><b>Course Code : PG37T304 B - ಪರಿಸರ ಜಾನಪದ</b></p> <p><b>Course Out come :</b></p> <p>೧) ಪರಿಸರ ಜಾನಪದದ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>೨) ಪರಿಸರದತ್ತವಾದ ಜನಪದರ ಚಿಂತನಾ ಕ್ರಮವನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೩) ನೈಸರ್ಗಿಕದತ್ತವಾದ ಪ್ರಕೃತಿಯನ್ನು ರಕ್ಷಿಸುವ ಮನೋಭಾವ ಹೊಂದುತ್ತಾರೆ.</p> <p>೪) ಆಧುನಿಕತೆಯಿಂದ ಉಂಟಾದ ನೈಸರ್ಗಿಕ ತಲ್ಲಣಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೫) ಪರಿಸರ ಕೇಂದ್ರಿತವಾದ ಜನಪದರ ಜೀವನ ಕ್ರಮವನ್ನು ಆನ್ವಯಿಕ ಮಾಡುವ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>ಘಟಕ ೧ : ಪರಿಸರ ಜಾನಪದ ಪರಿಕಲ್ಪನೆ</p> <p>ಘಟಕ ೨ : ಪರಿಸರ ಜಾನಪದ ಅಧ್ಯಯನ :</p> <p style="padding-left: 40px;">ಮಾನವ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು, ಪ್ರಕೃತಿ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು,</p> <p style="padding-left: 40px;">ಜೀವನ ಸಂಕುಲ ಕೇಂದ್ರಿತ ನೆಲೆಗಳು</p> <p>ಘಟಕ ೩ : ಪರಿಸರ ಮತ್ತು ಜಾನಪದ :</p> <p style="padding-left: 40px;">ಭೂಮಿ-ನೆಲ, ನೀರು, ಹವಾಮಾನ, ಬೆಳೆ, ಗುಡ್ಡ, ಬೆಟ್ಟ, ಪರ್ವತ, ಮಳೆ, ನದಿ, ಮಹಾಪೂರ, ಆಕಾಶ-ನಕ್ಷತ್ರಗಳು,</p> <p style="padding-left: 40px;">ಗ್ರಹಗಳು, ಮೋಡ, ಗುಡುಗು, ಸಿಡಿಲು, ಋತುಮಾನ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೪ : ಸಸ್ಯ-ಪ್ರಾಣಿ-ಜಾನಪದ :</p> <p style="padding-left: 40px;">ಮೂಲಿಕೆಗಳು, ಗಿಡಗಂಟಿಗಳು, ಮರಗಳು, ಕಾಡುಜೀವನ-ಬೇಟೆ-ಮೀನುಗಾರಿಕೆ</p> <p>ಘಟಕ ೫ : ಸಾಕು ಪ್ರಾಣಿಗಳು : ಉತ್ಪಾದಕ ಪ್ರಾಣಿಗಳು</p> <p style="padding-left: 40px;">ಮುದ್ದು ಪ್ರಾಣಿಗಳು</p> <p style="padding-left: 40px;">ಮನರಂಜಕ ಪ್ರಾಣಿಗಳು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಅಜ್ಜಯದ ಕೃಷ್ಣಸ್ವಾಮಿ, ೧೯೯೩, ವನಸಿರಿ, ಬೆಂಗಳೂರು</li> <li>* ಐತಾಳ ಮಾಧವ (ಸಂ), ೧೯೮೫, ಪರಿಸರ ದರ್ಶನ, ಬೆಂಗಳೂರು</li> <li>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. ೧೯೮೬, ಕಾಡು ಕಾಂಕ್ಷೆಗಳು ಮತ್ತು ಜಾನಪದ, ಅಕ್ಷರ ಪ್ರಕಾಶನ, ಸಾಗರ</li> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಕಾಮತ ಕೃಷ್ಣ, ೧೯೯೪, ಸಸ್ಯ ಪರಿಸರ, ಪುಸ್ತಕಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಹಿ.ಶಿ. ೨೦೦೧, ಜಾನಪದ ಪ್ರಕೃತಿ, ಜ್ಞಾನೋದಯ ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</li> <li>* Kallor Edward A &amp; Bltkin Daniel B. 1995, <b>Environmental Science: Earth as a Living Planet</b>, Newyork</li> <li>* Leach Maria (Ed) 1950, <b>Standard Dictionary of Folklore Mythology &amp; Legend</b>, Newyork</li> <li>* Odum, Hardward T. 1971, <b>Environment Power &amp; Society</b>, Newyork</li> </ul>
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<p style="text-align: center;"><b>ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ ೩.೫</b> <b>ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ</b></p> <p>ಘಟಕ ೧ : ಜಾಗತೀಕರಣ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಭಾವ ಪರಿಣಾಮ, ಸವಾಲುಗಳು</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಜ್ಞಾನಪರಂಪರೆ : ಮೂಲ, ಶೋಧ, ಬಳಕೆ ಮತ್ತು ಮಹತ್ವ</p> <p>ಘಟಕ ೩ : ಪರಿಸರ ಸಂರಕ್ಷಣೆ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪಾರಂಪರಿಕ ಸಂರಕ್ಷಣೆಯ ವಿಧಗಳು (Types), ಪದ್ಧತಿಗಳು-ಪ್ರಯೋಜನಗಳು.</p> <p>ಘಟಕ ೪ : ಪ್ರವಾಸೋದ್ಯಮ : ಅರ್ಥ, ಸ್ವರೂಪ ಬೆಳೆದು ಬಂದ ಬಗೆ, ಜಾನಪದ-ಪ್ರವಾಸೋದ್ಯಮ, ಮಹತ್ವ</p> <p>ಘಟಕ ೫ : ದೇಶಿ ಸಂಸ್ಕೃತಿ-ಪರ್ಮಾಯ ಚಿಂತನೆಗಳು :</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಆರ್ವಿಯಸ್ ಸುಂದರಂ, ೨೦೦೫, ದೇಶಿ-ದೇಶೀಯತೆ, ಎನ್.ಡಿ.ಆರ್.ಕೆ. ಮಹಾವಿದ್ಯಾಲಯ, ಹಾಸನ</li> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಐತಾಳ ಮಾಧವ (ಸಂ), ೧೯೮೫, ಪರಿಸರ ದರ್ಶನ, ಬೆಂಗಳೂರು</li> <li>* ಕಾಮತ್ ಕೃಷ್ಣ, ೧೯೯೪, ಸಸ್ಯ ಪರಿಸರ, ಪುಸ್ತಕಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ. (ಸಂ), ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಚಕ್ರೇರಿ ಶಿವಶಂಕರ, ೨೦೦೩, ಜನಪದ ತಂತ್ರಜ್ಞಾನ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ದಸ್ತಗೀರ, ೨೦೦೪, ಜಾಗತೀಕರಣ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕನಸು ಪ್ರಕಾಶನ, ರಾಯಚೂರು</li> <li>* ಮೊಗ್ಗಿ ಗಣೇಶ, ೧೯೯೯, ದಲಿತರು ಮತ್ತು ಜಾಗತೀಕರಣ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ರಾಜೇಂದ್ರ ಚೆನ್ನಿ (ಸಂ) ೨೦೦೪, ಜಾಗತೀಕರಣ-ಒಂದು ಸಮಗ್ರ ಮಂಥನ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. ೧೯೯೮, ಜಾನಪದ : ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜಿ. (ಪ್ರ.ಸಂ.) ೧೯೯೭, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೯, ಜಾನಪದ ಪರಿಭಾಷನ, ಸಂವಹನ ಪ್ರಕಾಶನ ಮೈಸೂರು</li> <li>* ಡಾ. ಫಿ.ಎಲ್.ಪಾಟೀಲ (ಸಂ.), ೨೦೧೪, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೩.೩ (ಜಾನಪದ ಮತ್ತು ಪ್ರವಾಸೋದ್ಯಮ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಡಾ. ಫಿ.ಎಲ್.ಪಾಟೀಲ (ಸಂ.), ೨೦೧೩, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೩.೬ (ಶರೀರ ಜಾನಪದ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Arun Kumar Sarkar 1988, Action plan and priorities in Tourism Development</li> <li>* Claude Levi-Strauss 1969, Elementary Structures of Kinship, Boston, Beacon Press</li> <li>* Guptha, Vijaya Kumar 1987, Tourism in India, Gian Publishing House, Delhi Kanishka Publishers</li> <li>* Herskovits M.J. 1969, Cultural Anthropology, Calcutta, Oxford and I.B.H. Publishing Co.,</li> <li>* Kallor Edward A, Bltkin Daniel B. 1995, Environmental</li> </ul>	<p style="text-align: center;"><b>ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ</b> <b>Course Code : PG37T305 - ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ</b></p> <p><b>Course Out come :</b></p> <p>೧) ಜಾಗತೀಕರಣದ ಸ್ವರೂಪ, ಪ್ರಭಾವ, ಪರಿಣಾಮಗಳನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೨) ಜಾಗತೀಕರಣದ ಸವಾಲುಗಳನ್ನು ದೇಶೀಕರಣದಿಂದ ಸರಿದೂಗಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೩) ದೇಶಿ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿ, ಅವುಗಳ ಬಳಕೆ ಮಹತ್ವವನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೪) ದೇಶಿ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿಯ ಮೂಲಕ ಉದ್ಯೋಗ ರೂಪಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೫) ಪಾರಂಪರಿಕ ಪರಿಸರ ಜ್ಞಾನ, ಸಂಸ್ಕೃತಿಗಳ ಆಸ್ವಯಿಕ ಮನೋಧರ್ಮ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>ಘಟಕ ೧ : ಜಾಗತೀಕರಣ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಭಾವ ಪರಿಣಾಮ, ಸವಾಲುಗಳು</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಜ್ಞಾನಪರಂಪರೆ : ಮೂಲ, ಶೋಧ, ಬಳಕೆ ಮತ್ತು ಮಹತ್ವ</p> <p>ಘಟಕ ೩ : ಪರಿಸರ ಸಂರಕ್ಷಣೆ : ಅರ್ಥ, ಸ್ವರೂಪ, ಪಾರಂಪರಿಕ ಸಂರಕ್ಷಣೆಯ ವಿಧಗಳು (Types), ಪದ್ಧತಿಗಳು-ಪ್ರಯೋಜನಗಳು.</p> <p>ಘಟಕ ೪ : ಪ್ರವಾಸೋದ್ಯಮ : ಅರ್ಥ, ಸ್ವರೂಪ ಬೆಳೆದು ಬಂದ ಬಗೆ, ಜಾನಪದ-ಪ್ರವಾಸೋದ್ಯಮ, ಮಹತ್ವ</p> <p>ಘಟಕ ೫ : ದೇಶಿ ಸಂಸ್ಕೃತಿ-ಪರ್ಮಾಯ ಚಿಂತನೆಗಳು :</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಆರ್ವಿಯಸ್ ಸುಂದರಂ, ೨೦೦೫, ದೇಶಿ-ದೇಶೀಯತೆ, ಎನ್.ಡಿ.ಆರ್.ಕೆ. ಮಹಾವಿದ್ಯಾಲಯ, ಹಾಸನ</li> <li>* ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ (ಪ್ರ.ಸಂ.) ೨೦೦೧, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೪, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ. (ಸಂ), ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಚಕ್ರೇರಿ ಶಿವಶಂಕರ, ೨೦೦೩, ಜನಪದ ತಂತ್ರಜ್ಞಾನ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ದಸ್ತಗೀರ, ೨೦೦೪, ಜಾಗತೀಕರಣ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕನಸು ಪ್ರಕಾಶನ, ರಾಯಚೂರು</li> <li>* ಪಾಟೀಲ ಫಿ.ಎಲ್. (ಸಂ.), ೨೦೧೪, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೩.೩ (ಜಾನಪದ ಮತ್ತು ಪ್ರವಾಸೋದ್ಯಮ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ರಾಜೇಂದ್ರ ಚೆನ್ನಿ (ಸಂ) ೨೦೦೪, ಜಾಗತೀಕರಣ-ಒಂದು ಸಮಗ್ರ ಮಂಥನ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* Guptha, Vijaya Kumar 1987, Tourism in India, Gian Publishing House, Delhi Kanishka Publishers</li> <li>* Herskovits M.J. 1969, Cultural Anthropology, Calcutta, Oxford and I.B.H. Publishing Co.,</li> <li>* Odum, Hardward T. 1971, Environment Power &amp; Society, Newyork</li> </ul>
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**Science: Earth as a Living Planet, New York**

- \* Negi, Jagmohan 1996, **Tourism and Travel**, Concepts and Principles
- \* Odum, Hardward T. 1971, **Environment Power & Society**, New York

ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್

ಪತ್ರಿಕೆ ೪.೧

ಜಾನಪದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು

ಪರಿಷ್ಕೃತ ಪಠ್ಯಕ್ರಮ : ೨೦೧೬ - ೧೭ನೇ ಸಾಲಿಗಾಗಿ ಹಾಗೂ  
ಅನಂತರ

ಘಟಕ ೧ : ಪ್ರಕಾರ ಸಿದ್ಧಾಂತ

ಪ್ರಕಾರ ಎಂದರೇನು? ಸಂದರ್ಭ ಮತ್ತು ಪ್ರಕಾರ  
ಸಾಂಸ್ಕೃತಿಕ ವಿಭಜನೆ ಮತ್ತು ವಿಶ್ಲೇಷಣಾತ್ಮಕ

ವಿಭಜನೆ

ಘಟಕ ೨ : ನಗರ ಜಾನಪದ, ಅಧಿ ಜಾನಪದ

ಲೋಕದೃಷ್ಟಿ, ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

ಘಟಕ ೩ : ಸ್ತ್ರೀವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆ : ಮಹಿಳಾ ಜಾನಪದ  
ಸ್ವರೂಪ

ಕರ್ನಾಟಕದಲ್ಲಿ ಮಹಿಳಾ ಜಾನಪದ ಅಧ್ಯಯನ

ಘಟಕ ೪ : ಆನ್ವಯಿಕ ಜಾನಪದ, ಜಾನಪದೀಯತೆ, ಖೋಟಾ  
ಜಾನಪದ

ಘಟಕ ೫ : ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ, ದೇಶೀವಾದ  
ಇತ್ಯಾದಿ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, **ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ**, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, **ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು**, ನೆಲಮನೆ ಪ್ರಕಾಶ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ಜಿ.ಆರ್.ತಿಪ್ಪೇಸ್ವಾಮಿ, ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ (ಸಂ) ೨೦೦೩, **ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨**, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.) ೧೯೯೭, **ಜಾನಪದ ಕೈಪಿಡಿ**, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೫, **ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು**, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* Cluas Peter J. and Korom Fronk.J. 1988, **Folkloristics and Indian Folklore**, Regional Resources Centre, For Folk Performing Arts, Udupi
- \* Handoo Jawaharal 1978, **Current Trends in Folklore**, C.I.I.L.Mysore

ಪತ್ರಿಕೆ-೪.೨

ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ

ಘಟಕ ೧ : ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಮಹತ್ವ ಉದ್ದೇಶ

ನಾಲ್ಕನೆಯ ಚತುರ್ಮಾಸ

Course Code : PG37T401 - ಜಾನಪದ ಇತ್ತೀಚಿನ  
ಪ್ರವೃತ್ತಿಗಳು

Course Out come :

- ೧) ಸಮಕಾಲೀನ ಸಂದರ್ಭದ ಜಾನಪದದ ವಿವಿಧ ಪ್ರವೃತ್ತಿಗಳನ್ನು ಅರಿಯುವರು.
- ೨) ಜಾನಪದ ಜ್ಞಾನವನ್ನು ವಿಸ್ತರಿಸಿಕೊಳ್ಳುವರು.
- ೩) ಮಹಿಳಾವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವರು.
- ೪) ಜನಪದದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವ ಬಗೆ ಅರಿಯುವರು.
- ೫) ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.

ಘಟಕ ೧ : ಪ್ರಕಾರ ಸಿದ್ಧಾಂತ

ಪ್ರಕಾರ ಎಂದರೇನು? ಸಂದರ್ಭ ಮತ್ತು ಪ್ರಕಾರ

ಸಾಂಸ್ಕೃತಿಕ ವಿಭಜನೆ ಮತ್ತು ವಿಶ್ಲೇಷಣಾತ್ಮಕ ವಿಭಜನೆ

ಘಟಕ ೨ : ನಗರ ಜಾನಪದ, ಅಧಿ ಜಾನಪದ

ಲೋಕದೃಷ್ಟಿ, ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

ಘಟಕ ೩ : ಸ್ತ್ರೀವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆ : ಮಹಿಳಾ ಜಾನಪದ  
ಸ್ವರೂಪ

ಕರ್ನಾಟಕದಲ್ಲಿ ಮಹಿಳಾ ಜಾನಪದ ಅಧ್ಯಯನ

ಘಟಕ ೪ : ಆನ್ವಯಿಕ ಜಾನಪದ, ಜಾನಪದೀಯತೆ, ಖೋಟಾ  
ಜಾನಪದ

ಘಟಕ ೫ : ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ, ದೇಶೀವಾದ ಇತ್ಯಾದಿ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- \* ತಿಪ್ಪೇಸ್ವಾಮಿ ಜಿ.ಆರ್., ರಂಗಾರೆಡ್ಡಿ ಕೋಡಿರಾಂಪುರ (ಸಂ) ೨೦೦೩, **ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨**, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- \* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, **ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ**, ಕವಿಮಾರ್ಗ ಪ್ರಕಾಶನ, ಗುಲ್ಬರ್ಗಾ
- \* ದಂಡೆ ವೀರಣ್ಣ (ಸಂ) ೧೯೯೯, **ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು**, ನೆಲಮನೆ ಪ್ರಕಾಶ, ಶ್ರೀರಂಗಪಟ್ಟಣ
- \* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ., ೨೦೧೧, **ಒಂದು ಬುಡಕಟ್ಟಿನ ಲೋಕದೃಷ್ಟಿ**, ಪ್ರಗತಿ ಗ್ರಾಫಿಕ್ಸ್, ಬೆಂಗಳೂರು
- \* ಲಕ್ಕಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.) ೧೯೯೭, **ಜಾನಪದ ಕೈಪಿಡಿ**, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- \* ಹಿರಿಯಣ್ಣ ಅಂಬಳಿಕೆ, ೧೯೯೫, **ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ವಿಧಾನಗಳು**, ಶಕ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- \* Cluas Peter J. and Korom Fronk.J. 1988, **Folkloristics and Indian Folklore**, Regional Resources Centre, For Folk Performing Arts, Udupi
- \* Handoo Jawaharal 1978, **Current Trends in Folklore**, C.I.I.L.Mysore

Course Code : PG37T402 - ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು  
ಸಂಶೋಧನೆ

<p>ಜಾನಪದ ಸಂಶೋಧನೆ : ವೈಶಿಷ್ಟ್ಯ ಮತ್ತು ಮಹತ್ವ</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ : ಪೂರ್ವಸಿದ್ಧತೆ ಸಂಶೋಧಕ ಮತ್ತು ಮಾಹಿತಿದಾರರ ಅರ್ಹತೆ ಮತ್ತು ಪರಸ್ಪರ ಸಂಬಂಧ</p> <p>ಘಟಕ ೩ : ಜಾನಪದ ಸಾಮಗ್ರಿಯ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ</p> <p>ಘಟಕ ೪: ಜಾನಪದ ಸಮಗ್ರ ದಾಖಲೀಕರಣ, ಆಧುನಿಕ ತಂತ್ರಜ್ಞಾನ ಬಳಕೆ ವರ್ಗೀಕರಣ, ವಿಶ್ಲೇಷಣೆ</p> <p>ಘಟಕ ೫: ಸಂಶೋಧನಾ ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ ಸಂಪ್ರಬಂಧ, ಕಿರುಪ್ರಬಂಧ, ಕಿರುಮಹಾಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೯೨, ಕನ್ನಡ ಸಂಶೋಧನ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಕ್ಯಾತನಹಳ್ಳಿ ರಾಮಣ್ಣ, ೧೯೯೭, ಕ್ಷೇತ್ರಕಾರ್ಯದ ಹಾದಿಯಲ್ಲಿ, ಅಚ್ಚಿ ಹೊತ್ತಿಗೆ, ಕ್ಯಾತನಹಳ್ಳಿ</li> <li>* ಚಿದಾನಂದಮೂರ್ತಿ ಎಂ., ೧೯೮೭, ಸಂಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಪೈ.ಸಿ.ಸಿ.ಎ.ಎಸ್.ಜೆ., ೧೯೭೮, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ರಾಮಕೃಷ್ಣ ಕೆ.ಆರ್., ಕ್ಯಾತನಹಳ್ಳಿ ರಾಮಣ್ಣ, ೨೦೦೩, ಕ್ಷೇತ್ರಕಾರ್ಯದ ತತ್ವಗಳು, ಪ್ರಾಚ್ಯವಸ್ತು ಮತ್ತು ಸಂಗ್ರಹಾಲಯಗಳ ನಿರ್ದೇಶನಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಶಿರೂರ ಬಿ.ವಿ. ೧೯೯೬, ಸಂಶೋಧನ ಸ್ವರೂಪ, ಅನ್ನಪೂರ್ಣ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ</li> <li>* ಹೆಗಡೆ ಎಲ್.ಆರ್. ೨೦೦೨, ಕ್ಷೇತ್ರಕಾರ್ಯದ ನೆನಪುಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* Carl Lindahl Sanford and Elaine J.Lewlen 1979, <b>A Basic Guide to field work for Beginning Folklore Students</b>, Folklore Monograph Series Vol.7, Bloomington Folklore Institute</li> <li>* George D.&amp; Richard M Dorson(ed) 1972, <b>Archiving in Folklore</b>, University of Chicago Press</li> <li>* Ghosh B.N. 1982, <b>Scientific Methods and Social Research</b>, New York</li> <li>* Nayara S.K. 1977, <b>Methodology in Research</b>, AORM</li> <li>* Kenneth S.Goldstein 1964, <b>A Guide for field workers in Folklore, Penasylvania</b>, The American Folklore Society</li> </ul> <p><b>ಪತ್ರಿಕೆ-೪.೩</b></p> <p><b>ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಜಾನಪದೀಯ ಅಂಶಗಳು</b></p> <p><b>ಅ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಜನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯ ಪರಿಕಲ್ಪನೆ, ಸಂಬಂಧ</p>	<p><b>Course Out come :</b></p> <p>೧) ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಮಹತ್ವ, ಉದ್ದೇಶಗಳನ್ನು ಅರಿಯುವರು. ೨) ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯವನ್ನು ಮಾಡುವ ಬಗೆ ಅರಿಯುವರು. ೩) ಜಾನಪದ ದಾಖಲೀಕರಣದ ಮಹತ್ವವನ್ನು ಅರಿಯುವರು. ೪) ಜಾನಪದದ ಸಂಶೋಧನೆ ಮಾಡಲು ಅರ್ಹತೆಯನ್ನು ಹೊಂದುವರು. ೫) ಸಂಪ್ರಬಂಧ-ಮಹಾಪ್ರಬಂಧಗಳ ವಿನ್ಯಾಸದ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.</p> <p>ಘಟಕ ೧ : ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಮಹತ್ವ, ಉದ್ದೇಶ ಜಾನಪದ ಸಂಶೋಧನೆ : ವೈಶಿಷ್ಟ್ಯ ಮತ್ತು ಮಹತ್ವ</p> <p>ಘಟಕ ೨ : ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ : ಪೂರ್ವಸಿದ್ಧತೆ ಸಂಶೋಧಕ ಮತ್ತು ಮಾಹಿತಿದಾರರ ಅರ್ಹತೆ ಮತ್ತು ಪರಸ್ಪರ ಸಂಬಂಧ</p> <p>ಘಟಕ ೩ : ಜಾನಪದ ಸಾಮಗ್ರಿಯ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ</p> <p>ಘಟಕ ೪:ಜಾನಪದ ಸಮಗ್ರ ದಾಖಲೀಕರಣ, ಆಧುನಿಕ ತಂತ್ರಜ್ಞಾನ ಬಳಕೆ ವರ್ಗೀಕರಣ, ವಿಶ್ಲೇಷಣೆ</p> <p>ಘಟಕ ೫: ಸಂಶೋಧನಾ ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ ಸಂಪ್ರಬಂಧ, ಕಿರುಪ್ರಬಂಧ, ಕಿರುಮಹಾಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ ಪರಸ್ಪರ ಸಂಬಂಧ-ವ್ಯತ್ಯಾಸ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ. ೧೯೯೨, ಕನ್ನಡ ಸಂಶೋಧನ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ಕ್ಯಾತನಹಳ್ಳಿ ರಾಮಣ್ಣ, ೧೯೯೭, ಕ್ಷೇತ್ರಕಾರ್ಯದ ಹಾದಿಯಲ್ಲಿ, ಅಚ್ಚಿ ಹೊತ್ತಿಗೆ, ಕ್ಯಾತನಹಳ್ಳಿ</li> <li>* ಚಿದಾನಂದಮೂರ್ತಿ ಎಂ., ೧೯೮೭, ಸಂಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ಪೈ.ಸಿ.ಸಿ.ಎ.ಎಸ್.ಜೆ., ೧೯೭೮, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ರಾಮಕೃಷ್ಣ ಕೆ.ಆರ್., ಕ್ಯಾತನಹಳ್ಳಿ ರಾಮಣ್ಣ, ೨೦೦೩, ಕ್ಷೇತ್ರಕಾರ್ಯದ ತತ್ವಗಳು, ಪ್ರಾಚ್ಯವಸ್ತು ಮತ್ತು ಸಂಗ್ರಹಾಲಯಗಳ ನಿರ್ದೇಶನಾಲಯ, ಬೆಂಗಳೂರು</li> <li>* ಶಿರೂರ ಬಿ.ವಿ. ೧೯೯೬, ಸಂಶೋಧನ ಸ್ವರೂಪ, ಅನ್ನಪೂರ್ಣ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ</li> <li>* ಹೆಗಡೆ ಎಲ್.ಆರ್. ೨೦೦೨, ಕ್ಷೇತ್ರಕಾರ್ಯದ ನೆನಪುಗಳು, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* Carl Lindahl Sanford and Elaine J.Lewlen 1979, <b>A Basic Guide to field work for Beginning Folklore Students</b>, Folklore Monograph Series Vol.7, Bloomington Folklore Institute</li> <li>* Nayara S.K. 1977, <b>Methodology in Research</b>, AORM</li> <li>* Kenneth S.Goldstein 1964, <b>A Guide for field workers in Folklore, Penasylvania</b>, The American Folklore Society</li> </ul> <p><b>Course Code : PG37T403 - ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಜಾನಪದೀಯ ಅಂಶಗಳು</b></p> <p><b>Course Out come :</b></p> <p>೧) ಜನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯಗಳ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಅರಿಯುವರು.</p>
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<p>ದೇಸಿ ಮತ್ತು ಮಾರ್ಗ, ಹಾಡುಗಬ್ಬ ಮತ್ತು ಓದುಗಬ್ಬ, ವರ್ಣಕ ಮತ್ತು ವಸ್ತುಕ ವ್ಯತ್ಯಾಸಗಳು</p> <p>ಘಟಕ ೨ : ಶಿಷ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಜಾನಪದ ಅಂಶಗಳ ಶೋಧ</p> <p>ಜನಪದ ಭಾಷೆ, ನುಡಿಕಟ್ಟುಗಳು, ಸಂಭಾಷಣೆಗಳು, ಗಾದೆ, ಒಗಟುಗಳ ಬಳಕೆ</p> <p>ಜನಪದ ರೂಪಕಗಳು-ಕಾತಂತ್ರ, ಆಶಯಗಳು</p> <p>ಜಾನಪದ ಸಂವೇದನೆ, ಜನಪದ ನಂಬಿಕೆ, ಆಚರಣೆ, ಜನಪದ ಲೋಕದೃಷ್ಟಿ</p> <p><b>ಬ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೩ : <b>ವಡ್ಡಾರಾಧನೆ</b> : ಸುಕುಮಾರಸ್ವಾಮಿಯ ಕಥೆ, (ಸಂ) ಡಿ.ಎಲ್.ನರಸಿಂಹಚಾರ್, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ,</p> <p>ಮೈಸೂರು-೨೦೦೧</p> <p><b>ಪಂಪಭಾರತ</b> : ೧೩ ನೆಯ ಆಶ್ವಾಸಗಳು, (ಸಂ) ಕೆ.ವಿ.ಪುಟ್ಟಪ್ಪ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ,</p> <p>ಮೈಸೂರು-೧೯೭೭</p> <p>ಘಟಕ ೪ : <b>ಕುಮಾರವ್ಯಾಸ ಭಾರತ</b>: ಉದ್ಯೋಗ ಪರ್ವ ಸಂಗ್ರಹ, ತ.ಸು.ಶಾಮರಾವ್ (ಸಂ.) ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ,</p> <p>ಮೈಸೂರು</p> <p><b>ದೇವರ ದಾಸಿಮಯ್ಯನ ವಚನಗಳು :</b> (ಸಂ)ಎಲ್.ಬಸವರಾಜು, ಗೀತಾ ಬುಕ್ ಹೌಸ್,ಮೈಸೂರು-೧೯೭೮</p> <p>ಘಟಕ ೫ : <b>ನಲ್ಲಾಡುಗಳು</b> : (ಸಂ) ಆನಂದಕಂದ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ಧಾರವಾಡ-೧೯೮೯</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ., ಕವಿರಾಜಮಾರ್ಗ ಪರಿಸರದ ಕನ್ನಡ ಸಾಹಿತ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ, ಪ್ರಕಾಶನ, ಕಲಬುರ್ಗಿ</li> <li>* ನಾವಲಗಿ ಸಿ.ಕೆ. ೧೯೯೭, ವಚನ ಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ.೧೯೯೭, ರತ್ನಾಕರವರ್ಣಿ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ತಿಪ್ಪೇಸ್ವಾಮಿ ಜಿ.ಆರ್. ೧೯೯೭, ದಾಸಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಪಾಟೀಲ ವೈ.ಎಲ್. ವಡ್ಡಾರಾಧನೆ ಜಾನಪದೀಯ ಅಧ್ಯಯನ, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ವಿವೇಕ ರೈ ಬಿ.ಎ. ೧೯೮೪, ಆಸ್ವಯಿಕ ಜಾನಪದ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ವಿಜಯಕುಮಾರ್ ಸರಸ್ವತಿ, ೧೯೯೭, ರತ್ನತ್ರಯರು ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಪೈ.ಗೋವಿಂದ, ಮೂರು ಉಪನ್ಯಾಸಗಳು, ಕನ್ನಡ ಸಂಶೋಧನಾ</li> </ul>	<p>೨) ಶಿಷ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಜಾನಪದ ಅಂಶಗಳನ್ನು ಗುರುತಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.</p> <p>೩) ಕಾವ್ಯಗಳ ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿಯ ಜಾನಪದವನ್ನು ಅರಿಯುವರು.</p> <p>೪) ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಮತ್ತು ಸೌಂದರ್ಯವನ್ನು ಗ್ರಹಿಸುವರು.</p> <p>೫) ಕಾವ್ಯ ಕಟ್ಟುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.</p> <p><b>ಅ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೧ : ಜನಪದ ಮತ್ತು ಶಿಷ್ಯ ಸಾಹಿತ್ಯ ಪರಿಕಲ್ಪನೆ, ಸಂಬಂಧ ದೇಸಿ ಮತ್ತು ಮಾರ್ಗ, ಹಾಡುಗಬ್ಬ ಮತ್ತು ಓದುಗಬ್ಬ, ವರ್ಣಕ ಮತ್ತು ವಸ್ತುಕ ವ್ಯತ್ಯಾಸಗಳು</p> <p>ಘಟಕ ೨ : ಶಿಷ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಜಾನಪದ ಅಂಶಗಳ ಶೋಧ ಜನಪದ ಭಾಷೆ, ನುಡಿಕಟ್ಟುಗಳು, ಸಂಭಾಷಣೆಗಳು, ಗಾದೆ, ಒಗಟುಗಳ ಬಳಕೆ</p> <p>ಜನಪದ ರೂಪಕಗಳು-ಕಾತಂತ್ರ, ಆಶಯಗಳು ಜಾನಪದ ಸಂವೇದನೆ, ಜನಪದ ನಂಬಿಕೆ, ಆಚರಣೆ, ಜನಪದ ಲೋಕದೃಷ್ಟಿ</p> <p><b>ಬ-ವಿಭಾಗ :</b></p> <p>ಘಟಕ ೩ : <b>ವಡ್ಡಾರಾಧನೆ</b> : ಸುಕುಮಾರಸ್ವಾಮಿಯ ಕಥೆ, (ಸಂ) ಡಿ.ಎಲ್.ನರಸಿಂಹಚಾರ್, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ,</p> <p>ಮೈಸೂರು-೨೦೦೧</p> <p><b>ಪಂಪಭಾರತ</b> : ೧೩ ನೆಯ ಆಶ್ವಾಸಗಳು, (ಸಂ) ಕೆ.ವಿ.ಪುಟ್ಟಪ್ಪ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ,</p> <p>ಮೈಸೂರು-೧೯೭೭</p> <p>ಘಟಕ ೪ : <b>ಕುಮಾರವ್ಯಾಸ ಭಾರತ</b>: ಉದ್ಯೋಗ ಪರ್ವ ಸಂಗ್ರಹ, ತ.ಸು.ಶಾಮರಾವ್ (ಸಂ.) ತ.ವೆಂ.ಸ್ಮಾರಕ ಗ್ರಂಥಮಾಲೆ,</p> <p>ಮೈಸೂರು</p> <p><b>ದೇವರ ದಾಸಿಮಯ್ಯನ ವಚನಗಳು :</b> (ಸಂ)ಎಲ್.ಬಸವರಾಜು, ಗೀತಾ ಬುಕ್ ಹೌಸ್,ಮೈಸೂರು-೧೯೭೮</p> <p>ಘಟಕ ೫ : <b>ನಲ್ಲಾಡುಗಳು</b> : (ಸಂ) ಆನಂದಕಂದ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ಧಾರವಾಡ-೧೯೮೯</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ., ಕವಿರಾಜಮಾರ್ಗ ಪರಿಸರದ ಕನ್ನಡ ಸಾಹಿತ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ದಂಡೆ ವೀರಣ್ಣ, ೧೯೯೩, ಕನ್ನಡ ಜಾನಪದ ಪ್ರಜ್ಞೆ, ಕವಿಮಾರ್ಗ, ಪ್ರಕಾಶನ, ಕಲಬುರ್ಗಿ</li> <li>* ನಾವಲಗಿ ಸಿ.ಕೆ. ೧೯೯೭, ವಚನ ಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ತಪಸ್ವೀಕುಮಾರ್ ನಂ.೧೯೯೭, ರತ್ನಾಕರವರ್ಣಿ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ತಿಪ್ಪೇಸ್ವಾಮಿ ಜಿ.ಆರ್. ೧೯೯೭, ದಾಸಸಾಹಿತ್ಯ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಪಾಟೀಲ ವೈ.ಎಲ್. ವಡ್ಡಾರಾಧನೆ ಜಾನಪದೀಯ ಅಧ್ಯಯನ, ಕೀರ್ತಿ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>* ವಿವೇಕ ರೈ ಬಿ.ಎ. ೧೯೮೪, ಆಸ್ವಯಿಕ ಜಾನಪದ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು</li> <li>* ವಿಜಯಕುಮಾರ್ ಸರಸ್ವತಿ, ೧೯೯೭, ರತ್ನತ್ರಯರು ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಪೈ.ಗೋವಿಂದ, ಮೂರು ಉಪನ್ಯಾಸಗಳು, ಕನ್ನಡ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆ, ಧಾರವಾಡ</li> <li>* ಹಂಪ ನಾಗರಾಜಯ್ಯ, ೧೯೯೭, ವಡ್ಡಾರಾಧನೆ ಮತ್ತು ಜಾನಪದ,</li> </ul>
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<p>ಸಂಸ್ಥೆ, ಧಾರವಾಡ</p> <p>* ಪಂಪ ನಾಗರಾಜ್ಯಯ, ೧೯೯೭, ವಡ್ಡಾರಾಧನ ಮತ್ತು ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p style="text-align: center;"><b>ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ-೪.೪</b> <b>೪.೪.೧ ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು / ಸಿದ್ಧಿಯರು</b></p> <p><b>ಅ ವಿಭಾಗ</b></p> <p>ಘಟಕ ೧ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಮೂಲ ಪ್ರಸರಣ</p> <p style="text-align: center;"><b>ಭೌಗೋಳಿಕ ಸಮಾಜಿಕ ಪರಿಸರ</b></p> <p>ಘಟಕ ೨ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ : ನಂಬಿಕೆ-ಆಚರಣೆ-ಕಲೆ-ಭಾಷೆ-ಸಾಹಿತ್ಯ ವೇಷ ಭೂಷಣ, ಆಹಾರ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೩ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಲೋಕದೃಷ್ಟಿ ಮತ್ತು ಸಮಷ್ಟಿ ಪ್ರಜ್ಞೆ</p> <p style="text-align: center;"><b>ಜಾಗತೀಕರಣದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು</b></p> <p><b>ಬ ವಿಭಾಗ ಪ್ರಾಯೋಗಿಕ</b></p> <p style="text-align: center;">(ವಿದ್ಯಾರ್ಥಿಗಳು ಬುಡಕಟ್ಟು ಮೂಲದ ಯಾವುದಾದರೂ ಒಂದು ಕಲಾರೂಪವನ್ನು ಕುರಿತಂತೆ ಮೂಲ ಕಲಾವಿದರಿಂದ ತರಬೇತಿ ಪಡೆಯುವುದು.)</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <p>* ನಾಯಕ ಎನ್.ಆರ್. ೧೯೮೪, ಹೇಳತೇವೋ ಗುಮ್ಮೆ ಪದನಾವಾ, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೨೦೦೧, ವಿಸ್ತೃತಿ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಸಿ.ವಿ.ಜಿ. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</p> <p>* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೭೪, ಹಾಲಕ್ಕಿ ಪಾಯಸ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</p> <p>* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೮೪, ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು. ಐ.ಬಿ.ಎಚ್. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</p> <p>* ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು ಪ್ರಕಟಿಸಿರುವ ಉಪಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನಾಲಯ ಗ್ರಂಥಗಳು</p> <p>* Ayyangar S.K. 1941-Ancient India &amp; South Indian History &amp; Culture Vol.II</p> <p>* Suryanatha Kamath Ch.Ed. 1985-Uttara Kannada Gazetteer, Karnataka Government</p> <p>* Thurston E. 1909-Castes &amp; Tribes of Sothern India Vol.II &amp; V</p> <p>* Tylor E.B. 1981-Primitive Culture</p> <p>* 1992 - The New Encylopaedia of Britanica, The University of Chicago 15th Edition Vol. 10</p>	<p>ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p style="text-align: center;"><b>Course Code : PG37T404 A - ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು</b></p> <p><b>Course Out come :</b></p> <p>೧) ಕರ್ನಾಟಕದ ಅತ್ಯಂತ ವೈಶಿಷ್ಟ್ಯಪೂರ್ಣವಾದ ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗ ಸಮುದಾಯವನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವರು.</p> <p>೨) ಹಾಲಕ್ಕಿ ಸಮುದಾಯದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆಗಳನ್ನು ಅರಿಯುವರು.</p> <p>೩) ಹಾಲಕ್ಕಿಗಳು ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಬದುಕುತ್ತಿರುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.</p> <p>೪) ಹಾಲಕ್ಕಿಗಳ ನಿಸರ್ಗದತ್ತ ಜೀವನ ವಿಧಾನವನ್ನು ಅರಿಯುವುದರ ಮೂಲಕ ಪರಿಸರ ಪ್ರಜ್ಞೆಯನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p>೫) ಕೆಳ ಸಮುದಾಯಗಳನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುವ ಮನೋಭಾವ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p><b>ಅ ವಿಭಾಗ</b></p> <p>ಘಟಕ ೧ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಮೂಲ ಪ್ರಸರಣ</p> <p style="text-align: center;"><b>ಭೌಗೋಳಿಕ ಪರಿಸರ</b></p> <p>ಘಟಕ ೨ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಜೀವನ ವಿಧಾನ ಆರ್ಥಿಕ ಮತ್ತು ಸಾಮಾಜಿಕ ವ್ಯವಸ್ಥೆ</p> <p>ಘಟಕ ೩ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ : ನಂಬಿಕೆ-ಆಚರಣೆ-ಕಲೆ-ಭಾಷೆ-ಸಾಹಿತ್ಯ ವೇಷ ಭೂಷಣ, ಆಹಾರ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೪ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಲೋಕದೃಷ್ಟಿ ಮತ್ತು ಸಮಷ್ಟಿ ಪ್ರಜ್ಞೆ</p> <p>ಘಟಕ ೫ : ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರ ಸ್ಥಿತಿ-ಗತಿ ಆಧುನಿಕ ಜಾಗತೀಕರಣದ ಹಿನ್ನೆಲೆಯಲ್ಲಿ</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <p>* ನಾಯಕ ಎನ್.ಆರ್. ೧೯೮೪, ಹೇಳತೇವೋ ಗುಮ್ಮೆ ಪದನಾವಾ, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೧, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೧೯೯೮, ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು, ಭಾಗ-೨, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</p> <p>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೨೦೦೧, ವಿಸ್ತೃತಿ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಸಿ.ವಿ.ಜಿ. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</p> <p>* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೭೪, ಹಾಲಕ್ಕಿ ಪಾಯಸ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</p> <p>* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೮೪, ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು. ಐ.ಬಿ.ಎಚ್. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</p> <p>* ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು ಪ್ರಕಟಿಸಿರುವ ಉಪಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನಾಲಯ ಗ್ರಂಥಗಳು</p> <p>* Suryanatha Kamath Ch.Ed. 1985-Uttara Kannada Gazetteer, Karnataka Government</p> <p>* Thurston E. 1909-Castes &amp; Tribes of Sothern India Vol.II &amp; V</p> <p>* 1992 - The New Encylopaedia of Britanica, The University of Chicago 15th Edition Vol. 10</p>
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<p style="text-align: center;"><b>ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ-೪.೪.೨</b> <b>ಜನಪದ ವೈದ್ಯ</b></p> <p><b>ಅ ವಿಭಾಗ</b></p> <p>ಘಟಕ ೧ : ಜನಪದ ವೈದ್ಯ ಪರಿಕಲ್ಪನೆ ಜನಪದ ವೈದ್ಯ ಮತ್ತು ಇತರ ವೈದ್ಯಕೀಯ ಪದ್ಧತಿಗಳು ಆಯುರ್ವೇದ, ಆಲೋಪಥಿ, ಹೋಮಿಯೋಪಥಿ, ನಿಸರ್ಗ ಚಿಕಿತ್ಸೆ</p> <p>ಘಟಕ ೨ : ಜನಪದ ವೈದ್ಯರು-ಮಂತ್ರವಾದಿಗಳು, ಪೂಜಾರಿಗಳು, ನಾಟವೈದ್ಯರು</p> <p>ಘಟಕ ೩ : ಗುಣಪಡಿಸುವ ವಿಧಾನಗಳು-ರೋಗಮೂಲಪತ್ತೆ, ಪ್ರತಿಬಂಧಕ ಮತ್ತು ನಿವಾರಣೋಪಾಯಗಳು, ಪ್ರಾಣಿ, ಸಸ್ಯ, ಖನಿಜ ಮೂಲ ಔಷಧಿಗಳು-ರೋಗ ನಿವಾರಕ ಪದ್ಧತಿಗಳು ದೈವ ಪ್ರೇರಿತ, ಆತ್ಮಪ್ರೇರಿತ, ಖಣಿ ಹೇಳುವಿಕೆ, ವಸ್ತು ಬಳಕೆ ಇತ್ಯಾದಿ</p> <p><b>ಬ ವಿಭಾಗ ಪ್ರಾಯೋಗಿಕ</b></p> <p>ವಿದ್ಯಾರ್ಥಿಗಳು ಜನಪದ ವೈದ್ಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಕ್ಷೇತ್ರ ಕಾರ್ಯದ ಮೂಲಕ ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ, ವರದಿ ಒಪ್ಪಿಸುವುದು.</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕತ್ತಿಗೆ ಚನ್ನಪ್ಪ, ೨೦೦೪, ಜನಪದ ವೈದ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ. ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಮಳಲಿ ವಸಂತಕುಮಾರ, ೧೯೭೯, ಕರ್ನಾಟಕ ಜನಪದ ವೈದ್ಯ, ಪಂಪ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ಬೋರಲಿಂಗಯ್ಯ ಹಿ.ಜಿ. (ಸಂ), ೨೦೦೧, ವಿಸ್ತೃತಿ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಸಿ.ವಿ.ಜಿ. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು</li> <li>* ಭಟ್ ಎಲ್.ಜಿ. ೧೯೭೪, ಹಾಲಕ್ಕಿ ಪಾಯಸ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> <li>* ನಾಯಕ ಶಾಂತಿ, ೨೦೦೧, ಜನಪದ ವೈದ್ಯಕೀಯ ಅಡಿಗಗಳು, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ</li> <li>* ಶಂಕರ ಪಿ.ಎಸ್. (ಪ್ರ.ಸಂ), ೧೯೯೫, ವೈದ್ಯ ವಿಶ್ವಕೋಶ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಉಪ್ಪಿನಕೆರೆ ರಾಮಲಿಂಗಯ್ಯ, ವೈದ್ಯಕೀಯ ನಂಬಿಕೆಗಳು, ಮೈಸೂರು</li> <li>* ಡಾ. ಫಿ.ಎಲ್.ಪಾಟೀಲ (ಸಂ.), ೨೦೦೯, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೨ (ಜನಪದ ವೈದ್ಯ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* Dorson Richard M.(Ed) 1972, <b>Foklore and Folklife an Introduction</b>,University of Chicago Press, Chicago</li> <li>* Howells William 1962, <b>Primitive Man and His Religion</b>,The Healthens</li> <li>* Jarvis D.C. 1958, <b>Folk Medicine</b>, Fawcile Publications Greenwich</li> <li>* Leach, Maria (Ed) 1949, <b>Standard Dictionary of Folklore, Mythology and Legend</b>, New York</li> </ul>	<p style="text-align: center;"><b>Course Code : PG37T404 B - ಜನಪದ ವೈದ್ಯ</b> <b>Course Out come :</b></p> <p>೧) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯ ಮಹತ್ವ ಮತ್ತು ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೨) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿ, ಇತರೆ ವೈದ್ಯ ಪದ್ಧತಿಗಳಿಗಿಂತ ಭಿನ್ನವಿರುವುದನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೩) ರೋಗಮೂಲ ಪತ್ತೆ ಮಾಡುವ ಮತ್ತು ಗುಣಪಡಿಸುವ ವಿಧಾನವನ್ನು ಅರಿಯುತ್ತಾರೆ.</p> <p>೪) ಆಹಾರವೇ ಔಷಧಿಯಾಗುವ ಬಗೆಯನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.</p> <p>೫) ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯನ್ನು ಆಸ್ವಯಿಕ ಮಾಡಿಕೊಳ್ಳುವುದರ ಜೊತೆಗೆ ಸ್ವಯಂ ಉದ್ಯೋಗ ಸೃಷ್ಟಿಸಿಕೊಳ್ಳುವ ಮನೋಭಾವ ಬೆಳೆಸಿಕೊಳ್ಳುತ್ತಾರೆ.</p> <p><b>ಅ ವಿಭಾಗ</b></p> <p>ಘಟಕ ೧ : ಜನಪದ ವೈದ್ಯ ಪರಿಕಲ್ಪನೆ ಉಗಮ-ವಿಕಾಸ, ಸ್ವರೂಪ-ಲಕ್ಷಣ</p> <p>ಘಟಕ ೨ : ಜನಪದ ವೈದ್ಯ ಮತ್ತು ಇತರ ವೈದ್ಯಕೀಯ ಪದ್ಧತಿಗಳು ಆಯುರ್ವೇದ, ಆಲೋಪಥಿ, ಹೋಮಿಯೋಪಥಿ, ನಿಸರ್ಗ ಚಿಕಿತ್ಸೆ</p> <p>ಘಟಕ ೩ : ಜನಪದ ವೈದ್ಯರು-ಮಂತ್ರವಾದಿಗಳು, ಪೂಜಾರಿಗಳು, ನಾಟವೈದ್ಯರು</p> <p>ಘಟಕ ೪ : ಗುಣಪಡಿಸುವ ವಿಧಾನಗಳು-ರೋಗಮೂಲಪತ್ತೆ, ಪ್ರತಿಬಂಧಕ ಮತ್ತು ನಿವಾರಣೋಪಾಯಗಳು, ಪ್ರಾಣಿ, ಸಸ್ಯ, ಖನಿಜ ಮೂಲ ಔಷಧಿಗಳು-ರೋಗ ನಿವಾರಕ ಪದ್ಧತಿಗಳು ದೈವ ಪ್ರೇರಿತ, ಆತ್ಮಪ್ರೇರಿತ, ಖಣಿ ಹೇಳುವಿಕೆ, ವಸ್ತು ಬಳಕೆ ಇತ್ಯಾದಿ</p> <p>ಘಟಕ ೫ : ಔಷಧೀಯಾಗಿ ಆಹಾರದ ಬಳಕೆ ಸಿರಿಧಾನ್ಯ, ಬೇಳೆಕಾಳು ಮತ್ತು ಹಣ್ಣು ಹಂಪಲು</p> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ul style="list-style-type: none"> <li>* ಕತ್ತಿಗೆ ಚನ್ನಪ್ಪ, ೨೦೦೪, ಜನಪದ ವೈದ್ಯ, ಪ್ರಸಾರಾಂಗ, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಶಿವಮೊಗ್ಗ</li> <li>* ಗೋವಿಂದರಾಜು ಟಿ. ೨೦೦೩, ಜನಪದ ವೈದ್ಯ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು</li> <li>* ಪಾಟೀಲ ಫಿ.ಎಲ್. (ಸಂ.), ೨೦೦೯, ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಭಾಗ-೨೨ (ಜನಪದ ವೈದ್ಯ), ಪ್ರಸಾರಾಂಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</li> <li>* ಮಳಲಿ ವಸಂತಕುಮಾರ, ೧೯೭೯, ಕರ್ನಾಟಕ ಜನಪದ ವೈದ್ಯ, ಪಂಪ ಪ್ರಕಾಶನ, ಮೈಸೂರು</li> <li>* ನಾಯಕ ಶಾಂತಿ, ೨೦೦೧, ಜನಪದ ವೈದ್ಯಕೀಯ ಅಡಿಗಗಳು, ಜಾನಪದ ಪ್ರಕಾಶನ, ಹೊನ್ನಾವರ</li> <li>* ಶಂಕರ ಪಿ.ಎಸ್. (ಪ್ರ.ಸಂ), ೧೯೯೫, ವೈದ್ಯ ವಿಶ್ವಕೋಶ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ</li> <li>* ಉಪ್ಪಿನಕೆರೆ ರಾಮಲಿಂಗಯ್ಯ, ವೈದ್ಯಕೀಯ ನಂಬಿಕೆಗಳು, ಮೈಸೂರು</li> <li>* Jarvis D.C. 1958, <b>Folk Medicine</b>, Fawcile Publications Greenwich</li> <li>* Leach, Maria (Ed) 1949, <b>Standard Dictionary of Folklore, Mythology and Legend</b>, New York</li> <li>* Middleton, John (Ed) 1967, <b>Magic, Witchcraft &amp; Curing</b></li> </ul>
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<p>* Middleton, John (Ed) 1967, <b>Magic, Witchcraft &amp; Curing</b></p> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ ೪.೫</b> <b>ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಕಿರು ಪ್ರಬಂಧ ರಚನೆ</b></p> <p>ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ವಿಷಯವೊಂದನ್ನು ಆಯ್ದುಕೊಂಡು, ಸೂಕ್ತ ಮಾರ್ಗದರ್ಶನದೊಂದಿಗೆ ಕ್ಷೇತ್ರಕಾರ್ಯ ಕೈಗೊಂಡು ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ ಆ ಸೆಮಿಸ್ಟರ್‌ನ ಅಂತ್ಯದೊಳಗೆ ಕಿರು ಪ್ರಬಂಧ ರಚಿಸಿ, ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಒಪ್ಪಿಸಬೇಕು.</p>	<p>Course Code : PG37T405 - ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಕಿರು ಪ್ರಬಂಧ ರಚನೆ</p> <p>Course Out come :</p> <ol style="list-style-type: none"> <li>೧) ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಕ ಜಾನಪದ ವಿಷಯವೊಂದನ್ನು ಸಂಗ್ರಹಿಸುವ ಬಗೆಯನ್ನು ಅರಿಯುವರು.</li> <li>೨) ಕ್ಷೇತ್ರಕಾರ್ಯದಲ್ಲಿ ಬರುವ ತೊಡಕು, ತೊಂದರೆಗಳನ್ನು ನಿವಾರಿಸಿಕೊಳ್ಳುವ ಪರಿಯನ್ನು ಅರಿಯುವರು.</li> <li>೩) ಸಂಗ್ರಹಿಸಿದ ವಿಷಯವನ್ನು ವರ್ಗೀಕರಿಸಿ, ವಿಶ್ಲೇಷಿಸಿ ದಾಖಲಿಕರಣ ಮಾಡುವ ಬಗೆಯನ್ನು ತಿಳಿಯುವರು.</li> <li>೪) ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮಾಡುವ ಮೂಲಕ ಉತ್ತಮ ಕ್ಷೇತ್ರಕಾರ್ಯ ಕರ್ತೃರಾಗುವರು.</li> <li>೫) ಕಿರು ಪ್ರಬಂಧ ರಚನೆ ಮಾಡುವುದರ ಮೂಲಕ ಪ್ರಾಯೋಗಿಕವಾಗಿ ಸಂಶೋಧಕರಾಗುವ ಅರ್ಹತೆಯನ್ನು ಗಳಿಸುವರು.</li> </ol> <p>ವಿದ್ಯಾರ್ಥಿಗಳು ಜಾನಪದಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ವಿಷಯವೊಂದನ್ನು ಆಯ್ದುಕೊಂಡು, ಸೂಕ್ತ ಮಾರ್ಗದರ್ಶನದೊಂದಿಗೆ ಕ್ಷೇತ್ರಕಾರ್ಯ ಕೈಗೊಂಡು ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ ಆ ಸೆಮಿಸ್ಟರ್‌ನ ಅಂತ್ಯದೊಳಗೆ ಕಿರು ಪ್ರಬಂಧ ರಚಿಸಿ, ವಿಶ್ವವಿದ್ಯಾಲಯಕ್ಕೆ ಒಪ್ಪಿಸಬೇಕು.</p>
<p style="text-align: center;"><b>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</b> <b>ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</b></p> <p style="text-align: center;"><b>ಪಿಎಚ್.ಡಿ. ಕೋರ್ಸ್ ವರ್ಕ್</b></p> <p style="text-align: center;"><b>ಪತ್ರಿಕೆ - ೧ ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ</b></p> <ol style="list-style-type: none"> <li>1) ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಉದ್ದೇಶ ಜಾನಪದ ಸಂಶೋಧನೆ ವೈಶಿಷ್ಟ್ಯ ಕ್ಷೇತ್ರಕಾರ್ಯದ ಪೂರ್ವ ಸಿದ್ಧತೆ.</li> <li>2) ಜಾನಪದ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ ಇತ್ಯಾದಿ</li> <li>3) ಸಂಶೋಧನೆ/ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ ಸಂಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ.</li> </ol> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ol style="list-style-type: none"> <li>1. ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ.-1992 ಕನ್ನಡ ಸಂಶೋಧನಾ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</li> <li>2. ಚಿದಾನಂದ ಮೂರ್ತಿ ಎಂ.-1987, ಸಂಖ್ಯಾಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು</li> </ol>	<p style="text-align: center;"><b>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</b> <b>ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</b></p> <p style="text-align: center;"><b>PH.37 : ಜಾನಪದ ಪಿಎಚ್.ಡಿ. ಕೋರ್ಸ್ ವರ್ಕ್ 2020-21</b></p> <p><b>Program Outcomes :</b></p> <ol style="list-style-type: none"> <li>1) ಸಂಶೋಧನೆಯ ಮೂಲಭೂತ ತತ್ವಗಳನ್ನು ಅರಿಯುವುದು.</li> <li>2) ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.</li> <li>3) ಬಹುಶಿಸ್ತೀಯ ಜ್ಞಾನದ ಮೂಲಕ ಜಾನಪದ ಅಧ್ಯಯನ ಮಾಡುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.</li> <li>4) ಸೂಕ್ತ ಅಧ್ಯಯನದ ನೆಲೆಯಲ್ಲಿ ಜಾನಪದವನ್ನು ಗ್ರಹಿಸುವುದು.</li> <li>5) ಜಾನಪದ ಸಂಶೋಧನೆ ಮಾಡುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.</li> </ol> <p style="text-align: center;"><b>PH.37 : ಪತ್ರಿಕೆ - 1 ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ</b></p> <p>Course Out Come :</p> <ol style="list-style-type: none"> <li>1. ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಭೂತ ತತ್ವಗಳನ್ನು ಅರಿಯುವುದು.</li> <li>2. ಸಂಶೋಧನಾ ಬರವಣಿಗೆಯ ಶೈಲಿಯನ್ನು ರೂಢಿಸಿಕೊಳ್ಳುವರು.</li> <li>3. ಜನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳನ್ನು ತಿಳಿಯುವರು.</li> <li>4. ಸಂಶೋಧನೆ ಮಾಡಲು ಬೇಕಾದ ಮಾಹಿತಿಯನ್ನು ಅರಿಯುವುದು.</li> <li>5. ಮಹಾಪ್ರಬಂಧದ ರಚನಾ ವಿನ್ಯಾಸವನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.</li> </ol> <ol style="list-style-type: none"> <li>1) ಸಂಶೋಧನೆಯ ಸ್ವರೂಪ, ಉದ್ದೇಶ ಜಾನಪದ ಸಂಶೋಧನೆ ವೈಶಿಷ್ಟ್ಯ</li> <li>2) ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ : ಪೂರ್ವ ಸಿದ್ಧತೆ, ಸಂಶೋಧಕ ಮತ್ತು ಮಾಹಿತಿದಾರ ಅರ್ಹತೆ ಮತ್ತು ಪರಸ್ಪರ ಸಂಬಂಧ</li> <li>3) ಜಾನಪದ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹಣಾ ವಿಧಾನಗಳು ಪ್ರಶ್ನಾವಳಿ, ಸಂದರ್ಶನ, ಅವಲೋಕನ, ಸಹಭಾಗಿತ್ವ ಇತ್ಯಾದಿ ಜಾನಪದ ಸಮಗ್ರ ದಾಖಲೀಕರಣ</li> <li>4) ಸಂಶೋಧನೆ/ಬರವಣಿಗೆ : ಸ್ವರೂಪ ಮತ್ತು ವಿನ್ಯಾಸ ಸಂಪ್ರಬಂಧ, ಕಿರುಪ್ರಬಂಧ, ಕಿರುಮಹಾಪ್ರಬಂಧ, ಮಹಾಪ್ರಬಂಧ.</li> </ol> <p><b>ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :</b></p> <ol style="list-style-type: none"> <li>1. ಕಲಬುರ್ಗಿ ಎಂ.ಎಂ.-1992 ಕನ್ನಡ ಸಂಶೋಧನಾ ಶಾಸ್ತ್ರ, ಸೌಜನ್ಯ ಪ್ರಕಾಶನ,</li> </ol>

3. ಪ್ರೊ.ಸಿ.ಎ.ಎಸ್.ಜೆ.-1978, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
4. ಬಿಳಿಮಲೆ ಪುರುಷೋತ್ತಮ, ಆಧುನಿಕ ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
5. ಶಿರೂರ ಬಿ.ವಿ.-1996, ಸಂಶೋಧನೆ ಸ್ವರೂಪ, ಅನ್ವಯೋಗ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ

#### ಪತ್ರಿಕೆ - ೨ ಜಾನಪದ ಅಧ್ಯಯನ

- 1) ಜಾನಪದ ಅಧ್ಯಯನ/ಸಂಶೋಧನೆ ಇತಿಹಾಸ (ಆರಂಭದ ಜನಪದ ಸಾಹಿತ್ಯ ಸಂಗ್ರಹದಿಂದ ಹಿಡಿದು ಬಹುಶಿಸ್ತೀಯ, ಅಂತರ್‌ಶಿಸ್ತೀಯ ಅಧ್ಯಯನದ ವರೆಗೆ)
- 2) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-ದೇಶಿ ಸಿದ್ಧಾಂತದ ಆವಶ್ಯಕತೆ (ಪಾಶ್ಚಾತ್ಯ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ದೇಶಿ ಸಿದ್ಧಾಂತ ಕುರಿತ ಚರ್ಚೆ)
- 3) ಬದಲಾದ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಸಮಗ್ರ ಅಧ್ಯಯನದ ಪ್ರಸ್ತುತತೆ

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

1. ವೀರಣ್ಣ ದಂಡೆ (ಸಂ)-1999, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲೆಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
2. ತಪಸ್ವೀಕುಮಾರ್ ನಂ.-1980, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
3. ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.)-1997, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
4. ರಾಜೇಂದ್ರ ಡಿ.ಕೆ.(ಪ್ರ.ಸಂ.)-2006, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
5. ನೆಲ್ಲಿಸರ ಬಸವರಾಜ (ಸಂ.)-1991, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಶಿವಮೊಗ್ಗ

#### ಪತ್ರಿಕೆ - ೩ ಕರ್ನಾಟಕ ಜಾನಪದ ಅಧ್ಯಯನ ಚರಿತ್ರೆ

- 1) ಆರಂಭ ಕಾಲಘಟ್ಟ : ಪಾಶ್ಚಾತ್ಯ ಮತ್ತು ದೇಶಿ ವಿದ್ವಾಂಸರ ಸಾಧನೆ
- 2) ಶೈಕ್ಷಣಿಕ ಕಾಲಘಟ್ಟ : ವಿಶ್ವವಿದ್ಯಾಲಯಗಳು ಹಾಗೂ ಅಕಾಡೆಮಿಗಳ ಸಾಧನೆ
- 3) ವೈಜ್ಞಾನಿಕ ಕಾಲಘಟ್ಟ : ವೈಜ್ಞಾನಿಕ ಹಾಗೂ ಬಹುಶಿಸ್ತೀಯ ನೆಲೆಯ ಸಾಧನೆ

- ಧಾರವಾಡ
2. ಚಿದಾನಂದ ಮೂರ್ತಿ ಎಂ.-1987, ಸಂಶೋಧನೆ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
3. ಪ್ರೊ.ಸಿ.ಎ.ಎಸ್.ಜೆ.-1978, ಜಾನಪದ ವೈಜ್ಞಾನಿಕ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
4. ಬಿಳಿಮಲೆ ಪುರುಷೋತ್ತಮ, ಆಧುನಿಕ ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
5. ಶಿರೂರ ಬಿ.ವಿ.-1996, ಸಂಶೋಧನೆ ಸ್ವರೂಪ, ಅನ್ವಯೋಗ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ

#### PH37 : ಪತ್ರಿಕೆ - 2 ಜಾನಪದ ಅಧ್ಯಯನ

#### Course Out Come :

1. ಜಾನಪದ ಅಧ್ಯಯನದ ಚರಿತ್ರೆಯನ್ನು ತಿಳಿಯುವುದು.
2. ಬಹುಶಿಸ್ತೀಯ ನೆಲೆಯ ಜಾನಪದವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
3. ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳ ಸಂಬಂಧಾಂತರಗಳನ್ನು ಮನನ ಮಾಡಿಕೊಳ್ಳುವುದು.
4. ಸಿದ್ಧಾಂತಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಸಂಶೋಧನೆ ಮಾಡುವ ಪ್ರವೃತ್ತಿಯನ್ನು ಕರಗತ ಮಾಡಿಕೊಳ್ಳುವುದು.
5. ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಅಧ್ಯಯನದ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.

- 1) ಜಾನಪದ ಅಧ್ಯಯನ/ಸಂಶೋಧನೆ ಇತಿಹಾಸ (ಆರಂಭದ ಜನಪದ ಸಾಹಿತ್ಯ ಸಂಗ್ರಹದಿಂದ ಹಿಡಿದು ಬಹುಶಿಸ್ತೀಯ, ಅಂತರ್‌ಶಿಸ್ತೀಯ ಅಧ್ಯಯನದ ವರೆಗೆ)
- 2) ಜಾನಪದ ಮತ್ತು ಅನ್ಯಜ್ಞಾನ ಶಿಸ್ತುಗಳು ಇತಿಹಾಸ, ಸಮಾಜಶಾಸ್ತ್ರ, ಮನಃಶಾಸ್ತ್ರ, ಮಾನವಶಾಸ್ತ್ರ, ತತ್ವಶಾಸ್ತ್ರ
- 3) ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-ದೇಶಿ ಸಿದ್ಧಾಂತದ ಆವಶ್ಯಕತೆ (ಪಾಶ್ಚಾತ್ಯ ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ದೇಶಿ ಸಿದ್ಧಾಂತ ಕುರಿತ ಚರ್ಚೆ)
- 4) ಬದಲಾದ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಸಮಗ್ರ ಅಧ್ಯಯನದ ಪ್ರಸ್ತುತತೆ (ಆಧುನಿಕತೆ, ಜಾಗತೀಕರಣ, ಪರಿಸರನಾಶ ಇತ್ಯಾದಿ.)

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

1. ವೀರಣ್ಣ ದಂಡೆ (ಸಂ)-1999, ಜಾನಪದಶಾಸ್ತ್ರ ಸಿದ್ಧಾಂತಗಳು, ನೆಲೆಮನೆ ಪ್ರಕಾಶನ, ಶ್ರೀರಂಗಪಟ್ಟಣ
2. ತಪಸ್ವೀಕುಮಾರ್ ನಂ.-1980, ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
3. ಲಕ್ಷಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.)-1997, ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
4. ರಾಜೇಂದ್ರ ಡಿ.ಕೆ.(ಪ್ರ.ಸಂ.)-2006, ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
5. ನೆಲ್ಲಿಸರ ಬಸವರಾಜ (ಸಂ.)-1991, ಜಾನಪದ ಮತ್ತು ಪೂರಕ ಕ್ಷೇತ್ರಗಳು, ಕುವೆಂಪು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಶಿವಮೊಗ್ಗ

#### PH37 : ಪತ್ರಿಕೆ - 3 ಉಳಿವಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

#### Course Out Come :

1. ಸಂಸ್ಕೃತಿ, ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿಗಳನ್ನು ಅರಿಯುವುದು.
2. ಧರ್ಮ ಮತ್ತು ಸಮಕಾಲೀನ ಸಂದರ್ಭವನ್ನು ವಿವೇಚಿಸುವ ಸಾಮಥ್ಯ ಗಳಿಸುವುದು.
3. ಹಬ್ಬ ಮತ್ತು ಜಾತ್ರೆಗಳ ಪ್ರಸ್ತುತತೆ ಅರಿಯುವುದು.
4. ಉಳಿವಿ ಕ್ಷೇತ್ರದ ಅನನ್ಯತೆಯನ್ನು ತಿಳಿಯುವುದು.
5. ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆಯ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಡಾ. ಇಮ್ಮಾಪೂರ ಸೋಮಶೇಖರ, ನಮ್ಮ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಚೇತನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ-1979
2. ಜವರೇಗೌಡ ದೇ., ಜಾನಪದ ಅಧ್ಯಯನ, ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು-1996
3. ಡಾ. ತಪಸ್ವೀಕುಮಾರ್ ನಂ., ಜಾನಪದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು-1980
4. ಡಾ. ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ., ಕರ್ನಾಟಕ ಜಾನಪದ ಸಮೀಕ್ಷೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು-1992
5. ಡಾ. ಪರಮಶಿವಯ್ಯ ಜೀ.ಶಂ. ಮತ್ತು ಮಾಡ್ವಾ ವಿಲ್ಯಂ (ಸಂ.), ಕರ್ನಾಟಕ ಜಾನಪದ, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು-1979
6. ಡಾ. ರಾಜೇಂದ್ರ ಡಿ.ಕೆ. (ಸಂ.), ಕನ್ನಡ ಜಾನಪದ ವಿಶ್ವಕೋಶ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು-2006
7. ಡಾ. ಲಕ್ಷ್ಮಪ್ಪಗೌಡ ಎಚ್.ಜೆ. (ಪ್ರ.ಸಂ.), ಜಾನಪದ ಕೈಪಿಡಿ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು-1997

**ಪತ್ರಿಕೆ - 2 ಶಿಲ್ಪೇಕ್ಯಾತ ಸಮುದಾಯದ ಮಹಿಳೆ**

- 1) ಮಹಿಳಾ ವಾದದ ತಾತ್ವಿಕ ಚಿಂತನೆ  
ಮಹಿಳಾ ಜಾನಪದ ಸ್ವರೂಪ
- 2) ಕರ್ನಾಟಕ ಸಮುದಾಯಗಳ ಮಹಿಳೆಯರ ಸ್ಥಿತಿ-ಗತಿ  
ಹಾಲಕ್ಕಿ ಒಕ್ಕಲಿಗರು, ಗೊಂದಲಿಗರು, ಹೆಳವರು, ಲಂಬಾಣಿ,  
ಹಾಲುಮತ ಇತ್ಯಾದಿ
- 3) ಕಿಲ್ಲೇಕ್ಯಾತ ಮಹಿಳೆ  
ಸಾಮಾಜಿಕ, ಧಾರ್ಮಿಕ, ಆರ್ಥಿಕ ಹಿನ್ನೆಲೆಯಲ್ಲಿ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಡಾ. ಗೀತಾ ನಾಗಭೂಷಣ (ಪ್ರ.ಸಂ.), ಸಂಸ್ಕೃತಿ ಮಹಿಳಾ ಮಾಲಿಕೆ, ಸಂಪುಟ 1 ರಿಂದ 6, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು-2008
2. ಡಾ. ಹಿ.ಜಿ. ಬೋರಲಿಂಗಯ್ಯ (ಸಂ.), ಕರ್ನಾಟಕದ ಬುಡಕಟ್ಟುಗಳು ಭಾಗ-1 ಮತ್ತು 2, ಕರ್ನಾಟಕ ಜಾನಪದ ಮತ್ತು ಯಕ್ಷಗಾನ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
3. ಡಾ. ಗಂಗಾಧರ ದೈವಜ್ಞ, ಬುಡಕಟ್ಟು ಸಮಾಜ, ಹುಟ್ಟು-ಸಾವಿನ ನಡುವೆ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ-2000

1) ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಸಂಸ್ಕೃತಿ - ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ

2) ಧರ್ಮ ಮತ್ತು ಮಂತ್ರವಿದ್ಯೆ  
ಜನಪದ ದೇವತೆಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

3) ಹಬ್ಬ, ಜಾತ್ರೆ  
ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

3) ಉಳಿವಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- 1) ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. 1979, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- 2) ತಪಸ್ವೀಕುಮಾರ್ ನಂ. 1980, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು
- 3) ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) 1990, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು
- 4) ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. 1973, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 5) ಮಾಲಗತ್ತಿ ಅರವಿಂದ, 1999, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- 6) ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. 1998, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- 7) ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 8) ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

**PH37 : ಪತ್ರಿಕೆ - 3 ಸಿರಸಂಗಿ ಕಾಳಮ್ಮ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ**

**Course Out Come :**

1. ಸಂಸ್ಕೃತಿ, ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿಗಳನ್ನು ಅರಿಯುವರು.
2. ಧರ್ಮ ಮತ್ತು ಸಮಕಾಲೀನ ಸಂದರ್ಭವನ್ನು ವಿವೇಚಿಸುವ ಸಾಮಥ್ರ್ಯ ಗಳಿಸುವರು.
3. ಹಬ್ಬ ಮತ್ತು ಜಾತ್ರೆಗಳ ಪ್ರಸ್ತುತತೆ ಅರಿಯುವರು.
4. ಸಿರಸಂಗಿ ಕ್ಷೇತ್ರದ ಅನನ್ಯತೆಯನ್ನು ತಿಳಿಯುವರು.
5. ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆಯ ಬಗೆಯನ್ನು ಅರಿಯುವರು.

1) ಸಂಸ್ಕೃತಿಯ ಅರ್ಥ, ಸ್ವರೂಪ, ಲಕ್ಷಣ  
ಸಂಸ್ಕೃತಿ - ಸಾಂಸ್ಕೃತಿಕ ಪರಿವರ್ತನೆ

2) ಧರ್ಮ ಮತ್ತು ಮಂತ್ರವಿದ್ಯೆ  
ಜನಪದ ದೇವತೆಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

3) ಹಬ್ಬ, ಜಾತ್ರೆ  
ನಂಬಿಕೆ-ಸಂಪ್ರದಾಯಗಳು, ವಿಧಿ-ನಿಷೇಧಗಳು  
ಕುಲ ಮತ್ತು ಕುಲದೇವತಾ ಪದ್ಧತಿ

**3) ಸಿರಸಂಗಿ ಕ್ಷೇತ್ರದ ಸಾಂಸ್ಕೃತಿಕ ಅನನ್ಯತೆ**

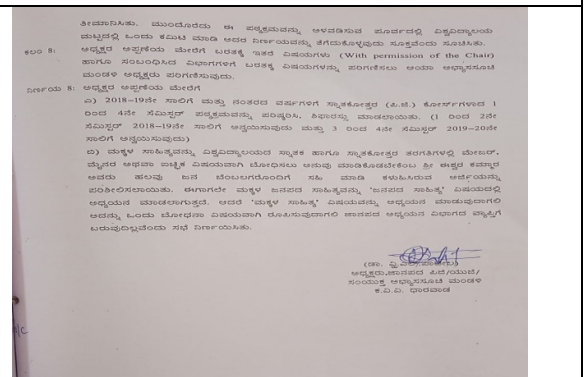
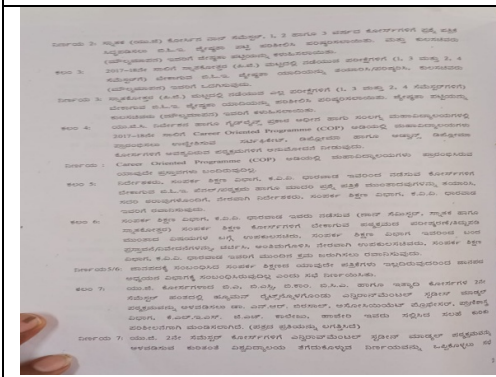
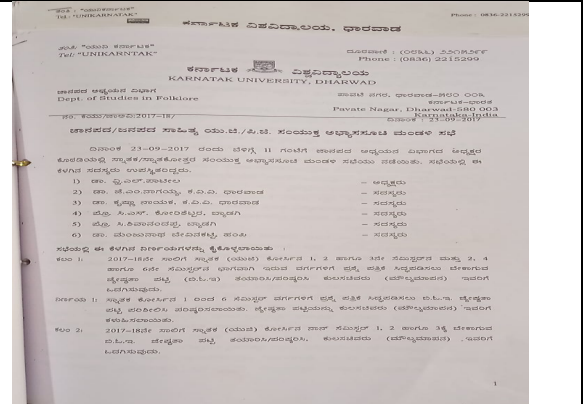
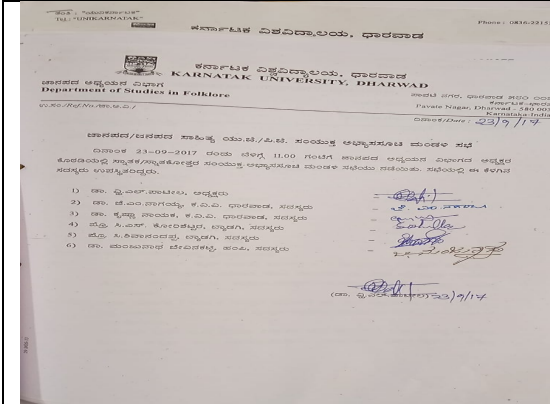
**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- 1) ಗುರುಮೂರ್ತಿ ಕೆ.ಜಿ. 1979, ಜನಪದ ಸಮಾಜ ಮತ್ತು ಸಂಸ್ಕೃತಿ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- 2) ತಪಸ್ವೀಕುಮಾರ್ ನಂ. 1980, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ, ಮೈಸೂರು
- 3) ಬಡಿಗೇರ ವಿರುಪಾಕ್ಷಿ, 1988 ಸಿರಸಂಗಿ ಸಂಸ್ಥಾನ : ಒಂದು ಅಧ್ಯಯನ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಶ್ರೀ ಜ.ತೋ.ಸಂ. ಗದಗ
- 4) ಭಟ್ಟ ಜಿ.ಎಸ್. (ಸಂ) 1990, ಸಂಸ್ಕೃತಿ : ಒಂದು ಅಧ್ಯಯನ, ಚೇತನಾ ಬುಕ್‌ಹೌಸ್, ಮೈಸೂರು
- 5) ಮಲ್ಲಿನಾಥಯ್ಯ ಡಿ.ಎಚ್. 1973, ಸಾಂಸ್ಕೃತಿಕ ಮಾನವಶಾಸ್ತ್ರ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 6) ಮಾಲಗತ್ತಿ ಅರವಿಂದ, 1999, ಪುರಾಣ-ದೇಶೀವಾದ ಮತ್ತು ಜಾನಪದ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು
- 7) ರಾಮಚಂದ್ರೇಗೌಡ ಎಚ್.ಎಸ್. 1998, ಜಾನಪದ ಸಾಂಸ್ಕೃತಿಕ ಆಯಾಮಗಳು, ಕನ್ನಡ ಮಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು
- 8) ವೆಂಕಟರಾಯಪ್ಪ ಕೆ.ಎನ್. ಮಾನವಶಾಸ್ತ್ರ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮೈಸೂರು
- 9) ಜಾನಪದ ಸಾಹಿತ್ಯ ದರ್ಶನ ಸಂಪುಟಗಳು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

This should be repeated for all the courses that have been revised

\* Modifications should be highlighted in **YELLOW** colour

The relevant copy of the BOS proceedings approving the revision/modification have to be sent.



At the end, the **Chairman, BOS** has to prepare the following certificate, sign it, scan it and send it to the IQAC, separately.

ತೆಲೆ: "ಯುನಿ ಕರ್ನಾಟಕ"  
Tel: "UNIKARNATAK"

ದೂರವಾಣಿ : (೦೮೩೬) ೨೨೧೫೨೯೯  
Phone : (0836) 2215299

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ  
KARNATAK UNIVERSITY, DHARWAD

ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ  
Dept. of Studies in Folklore

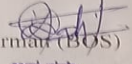
ಪಾವಟೆ ನಗರ, ಧಾರವಾಡ-೫೮೦ ೦೦೩  
ಕರ್ನಾಟಕ-ಭಾರತ  
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Karnataka-India

ನಂ: ಕಯು/ಜಾಅಪ/2022/

ದಿನಾಂಕ :

**CERTIFICATE**

This is to certify that the curriculum of M.A. (retain whichever is applicable) in **Folklore** has been revised during 2018-19 (mention year) and 10 % of content was replaced/added/modified.

  
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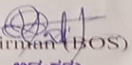
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ನಂ: ಕಯು/ಜಾಅಪ/2022/

ದಿನಾಂಕ :

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**C. Format for Indicating the Regional, State, National and Global relevance of the Outcomes in the current curriculum**

Programme Code and Name – PG37 - M.A. Folklore
Courses having <b>Regional</b> Relevance
1) PG37T104 - Janapada Gadya Sahitya
2) PG37T404A- Halakki Okkaligaru
3) PG37T404B- Janapada Vaidya
4) PG37T405 - Kshetrakarya Mattu Kiriprabandha Rachane
Courses having <b>State</b> level Relevance
1) PG37T102 - Janapada Addhyana Itihas
2) PG37T103 - Sanskri Addhyana
3) PG37T104 - Janapada Gadya Sahitya
4) PG37T105 - Janapada Mahakavya
5) PG37T202 - Janapada Bashavijnana
6) PG37T203 - Janapada Kalegalu
7) PG37T204 - Janapada Geeta Sahitya
8) PG37T205 - Janapada Parikalpane
9) PG37T301 - Janapada Mattu Samvahana
10) PG37T303 - Janapada Rangabhoomi
11) PG37T304A - Budakattu Janapada
12) PG37T304B- Parisara Janapada
13) PG37T305 - Janapada Mattu Jagatikanara
14) PG37T401 - Janapada Ittichina Pravrittigalu
15) PG37T402 - Janapada Khetrakarya Mattu Samsodhane
16) PG37T403 - Kannada Sahitya Parampare Mattu Janapadiya Amsagalu
17) PG37T404A- Halakki Okkaligaru
18) PG37T404B- Janapada Vaidya
Courses having <b>National</b> level Relevance
1) PG37T102- Janapada Addhyana Itihas
2) PG37T103- Sanskri Addhyana
3) PG37T104- Janapada Gadya Sahitya
4) PG37T201- Janapada Siddhantagalu-2
5) PG37T204- Janapada Geeta Sahitya
6) PG37T205- Janapada Parikalpane
7) PG37T301- Janapada Mattu Samvahana
8) PG37T304A-Budakattu Janapada
9) PG37T304B- Parisara Janapada
10) PG37T401- Janapada Ittichina Pravrittigalu
Courses having <b>Global</b> level Relevance
1) PG37T101- Janapada Parikalpane Mattu Siddhantagalu-1
2) PG37T102 - Janapada Addhyana Itihas
3) PG37T201- Janapada Siddhantagalu-2
4) PG37T205- Janapada Parikalpane
5) PG37T304B- Parisara Janapada
6) PG37T305- Janapada Mattu Jagatikanara
7) PG37T401- Janapada Ittichina Pravrittigalu

If a given course comes under multiple/all categories, it may be mentioned so.

**D. Format for Indicating Employability\*/Entrepreneurship\*\*/ Skill Development\*\*\* Aspects in the curriculum (to be prepared for all previous five years – 2016-17 to 2020-21, for whatever curriculum was/is in force)**

<b>Employability/Entrepreneurship/Skill Development Aspects of the Courses</b>	<b>One line description</b>
<b>2016-17</b>	
<b>I ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
೧.೧ ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧	ಜಾನಪದದ ವ್ಯಾಪ್ತಿ, ಬಹುಶಿಸ್ತೀಯ ಅಧ್ಯಯನದ ಕ್ರಮ ಹಾಗೂ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಬೆಳೆಸಿಕೊಳ್ಳುವರು.
೧.೨ ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ	ಭಾರತ ಮತ್ತು ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನ ಇತಿಹಾಸವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.
೧.೩ ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ	ದೇಶಿ ಸಂಸ್ಕೃತಿ ಹಾಗೂ ವಸಹಾತುಶಾಹಿ ಮತ್ತು ಜಾಗತೀಕರಣದ ಸಂದರ್ಭದಲ್ಲಿಯ ಸಂಸ್ಕೃತಿಯ ನಿಲುವುಗಳನ್ನು ಅರಿಯುವುದು.
೧.೪ ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ	ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ ಮೂಲಕ ಸಾಹಿತ್ಯಿಕ, ಸಾಂಸ್ಕೃತಿಕ, ಧಾರ್ಮಿಕ, ಭಾಷಿಕ ಇತ್ಯಾದಿ ಅಂಶಗಳ ಆಂತರಿಕ ಸತ್ವವನ್ನು ಗ್ರಹಿಸುವುದು.
೧.೫ ಜನಪದ ಮಹಾಕಾವ್ಯ	ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳನ್ನು ಗ್ರಹಿಸುವುದು ಹಾಗೂ ಗೊಂಡರ ರಾಮಾಯಣ ಕಾವ್ಯದ ಸಾಹಿತ್ಯಿಕ ಸತ್ವ ಹಾಗೂ ಅದರ ರಸಾನುಭೂತಿಯನ್ನು ಪಡೆಯುವುದು.
<b>II ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
೨.೧ ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨	ಜಾನಪದದ ಆಳವಾದ ಅಧ್ಯಯನ ಗ್ರಹಿಸುವುದು ಮತ್ತು ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.
೨.೨ ಜನಪದ ಭಾಷಾವಿಜ್ಞಾನ	ಜನಪದ ಭಾಷೆಯ ಸೊಗಡನ್ನು ಹಾಗೂ ಅದರ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ಅರಿಯುವುದು.
೨.೩ ಜನಪದ ಕಲೆಗಳು	ಜನಪದ ಕಲೆ ಹಾಗೂ ಅದರ ಸಾಂಸ್ಕೃತಿಕ ಶ್ರೀಮಂತಿಕೆಯನ್ನು ಅರಿಯುವುದು ಅಲ್ಲದೆ ಅದರ ಆನ್ವಯಿಕತೆ ಮಾಡಿಕೊಳ್ಳುವುದು.
೨.೪ ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ	ಜನಪದ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಅರಿಯುವುದು ಹಾಗೂ ಸಾಹಿತ್ಯಿಕ ರಸಾನುಭೂತಿ-ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಹೊಂದುವುದು.
೨.೫ ಜಾನಪದ ಪರಿಕಲ್ಪನೆ (ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ)	ಜಾನಪದದ ವ್ಯಾಪ್ತಿ ಹಾಗೂ ಇತರೆ ಜ್ಞಾನಶಿಸ್ತುಗಳ ಜೊತೆಗಿನ ಆಂತರಿಕ ಸಂಬಂಧವನ್ನು ಗ್ರಹಿಸುವುದು. ಅಲ್ಲದೆ ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಮತ್ತು ಸಾಹಿತ್ಯ ಸತ್ವವನ್ನು ಅರಿಯುವುದು.
<b>III ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
೩.೧ ಜಾನಪದ ಮತ್ತು ಸಂವಹನ	ಜಾನಪದ ಸಂವಹನ ಮಾಧ್ಯಮ ಮತ್ತು ಆಧುನಿಕ ಸಂವಹನ ಮಾಧ್ಯಮಗಳ ಸಹ ಸಂಬಂಧವನ್ನು ಅರಿಯುವುದು ಹಾಗೂ ಸಂವಹನ ಮಾಧ್ಯಮಗಳ ಕೌಶಲ್ಯವನ್ನು ವೃದ್ಧಿಸಿಕೊಳ್ಳುವುದು.
೩.೨ ಜನಪದ ಭಂಡಸ್ಸು-ಕಾವ್ಯಮೀಮಾಂಸೆ	ಜನಪದ ಕಾವ್ಯಗಳ ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಸೌಂದರ್ಯಗಳನ್ನು ಅರಿಯಲು ಬೇಕಾದ ಮೂಲ ತತ್ವಗಳನ್ನು ಗ್ರಹಿಸುವುದು.
೩.೩ ಜನಪದ ರಂಗಭೂಮಿ	ಜನಪದ ರಂಗಭೂಮಿ ಮತ್ತು ಆ ಕಲಾವಿದರನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವ ಮೂಲಕ ದೇಶಿ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ, ಕಲೆ, ಭಾಷೆ ಇತ್ಯಾದಿಗಳನ್ನು ಅರಿಯುವುದು.
೩.೪ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ	
೩.೪.೧ ಬುಡಕಟ್ಟು ಜಾನಪದ	ನೆಲಮೂಲ ಸಂಸ್ಕೃತಿಯನ್ನು ಅಪ್ಪಿಕೊಂಡು ಬದುಕುತ್ತಿರುವ ಬುಡಕಟ್ಟುಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಅವುಗಳ ವಿಶಿಷ್ಟತೆಗಳನ್ನು ಅರಿಯುವುದು.
೩.೪.೨ ಪರಿಸರ ಜಾನಪದ	ಪರಿಸರದತ್ತವಾದ ಜನಪದರ ಚಿಂತನಾ ಕ್ರಮವನ್ನು ಅರಿಯುವುದು ಮತ್ತು ಆನ್ವಯಿಸಿಕೊಳ್ಳುವ ಮನೋಧರ್ಮವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.
೩.೫ ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ (ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ)	ಜಾಗತೀಕರಣ ಸಂದರ್ಭದಲ್ಲಿ ದೇಶಿ ಸಂಸ್ಕೃತಿ ಜ್ಞಾನ, ಕಲೆ ಇತ್ಯಾದಿಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಆನ್ವಯಿಕತೆ ಮಾಡುವುದು.
<b>IV ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
೪.೧ ಜಾನಪದ ಮತ್ತು ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು	ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳನ್ನು ಅರಿಯುವುದರ ಮೂಲಕ ಜಾನಪದ ಜ್ಞಾನವನ್ನು ಉದ್ದೀಪನಕೊಳಿಸಿಕೊಳ್ಳುವುದು.
೪.೨ ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ	ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ತತ್ವಗಳನ್ನು ಹಾಗೂ ಸಂಶೋಧನೆಯ ಬರವಣಿಗೆಯನ್ನು ಅರಿಯುವುದು.
೪.೩ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಜಾನಪದೀಯ ಅಂಶಗಳು	ಜಾನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯಗಳ ಅಂತರ್ ಸಂಬಂಧಗಳನ್ನು ಅರಿಯುವುದು ಮತ್ತು ಸಾಹಿತ್ಯ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಆಸ್ವಾದಿಸುವುದು.

೪.೪ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ	
೪.೪.೧ ಹಾಲಕ್ಕಿ/ಸಿದ್ಧಿಯರು	ಹಾಲಕ್ಕಿ ಬುಡಕಟ್ಟು ಸಮುದಾಯವನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಅದರ ಅನನ್ಯತೆಗಳನ್ನು ಗ್ರಹಿಸುವುದು.
೪.೪.೨ ಜನಪದ ವೈದ್ಯ	ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವ ಮತ್ತು ಅದರ ಪ್ರಸ್ತುತತೆಯನ್ನು ಗ್ರಹಿಸಿ ಅದನ್ನು ಆಸ್ವಯಿಕ ಮಾಡಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
೪.೫ ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಕಿರುಪ್ರಬಂಧ ರಚನೆ	ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಕ ವಿಷಯ ಸಂಗ್ರಹಿಸಿ ಸಂಪ್ರಬಂಧ ರಚಿಸಿ ಸಂಶೋಧನೆ ಮಾಡುವ ಪ್ರವೃತ್ತಿ ಕಲಿಯುವುದು.
<b>2018-19</b>	
<b>I ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
1.1 PG37T101 ಜಾನಪದ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೧	ಜಾನಪದದ ವ್ಯಾಪ್ತಿ, ಬಹುಶಿಸ್ತೀಯ ಅಧ್ಯಯನದ ಕ್ರಮ ತಿಳಿದುಕೊಳ್ಳುವುದು ಹಾಗೂ ಸಿದ್ಧಾಂತಗಳ ಮೂಲಕ ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.
1.2 PG37T102 ಜಾನಪದ ಅಧ್ಯಯನದ ಇತಿಹಾಸ	ಕರ್ನಾಟಕ, ಭಾರತ ಹಾಗೂ ಜಗತ್ತಿನ ಜಾನಪದ ಅಧ್ಯಯನ ಇತಿಹಾಸವನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.
1.3 PG37T103 ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ	ದೇಶಿ ಸಂಸ್ಕೃತಿ ಹಾಗೂ ವಸಹಾತುಕಾಹಿ ಮತ್ತು ಜಾಗತೀಕರಣದ ಸಂದರ್ಭದಲ್ಲಿಯ ಸಂಸ್ಕೃತಿಯ ನಿಲುವುಗಳನ್ನು ಅರಿಯುವುದು.
1.4 PG37T104 ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ	ಜನಪದ ಗದ್ಯ ಸಾಹಿತ್ಯ ಮೂಲಕ ಸಾಹಿತ್ಯಿಕ, ಸಾಂಸ್ಕೃತಿಕ, ಧಾರ್ಮಿಕ, ಭಾಷಿಕ ಇತ್ಯಾದಿ ಅಂಶಗಳನ್ನು ಅರಿಯುವುದು ಹಾಗೂ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವವನ್ನು ಗ್ರಹಿಸುವುದು.
1.5 PG37T105 ಜನಪದ ಮಹಾಕಾವ್ಯ	ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳನ್ನು ಗ್ರಹಿಸುವುದು ಹಾಗೂ ಗೊಂಡರ ರಾಮಾಯಣ ಕಾವ್ಯದ ಸಾಹಿತ್ಯಿಕ ಸತ್ವ ಹಾಗೂ ಅದರ ರಸಾನುಭೂತಿಯನ್ನು ಪಡೆಯುವುದು.
<b>II ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
2.1 PG37T201 ಜಾನಪದ ಸಿದ್ಧಾಂತಗಳು-೨	ಜಾನಪದದ ಆಳವಾದ ಅಧ್ಯಯನ ಗ್ರಹಿಸುವುದು ಮತ್ತು ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.
2.2 PG37T202 ಜನಪದ ಭಾಷಾವಿಜ್ಞಾನ	ಜನಪದ ಭಾಷೆಯನ್ನು ವೈಜ್ಞಾನಿಕ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ಹಾಗೂ ಅದರ ಸೊಗಡನ್ನು ಮತ್ತು ಅದರ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ಅರಿಯುವುದು.
2.3 PG37T203 ಜನಪದ ಕಲೆಗಳು	ಜನಪದ ಕಲೆ ಹಾಗೂ ಅದರ ಸಾಂಸ್ಕೃತಿಕ ಶ್ರೀಮಂತಿಕೆಯನ್ನು ಅರಿಯುವುದು ಅಲ್ಲದೆ ಅದರ ಆಸ್ವಯಿಕತೆಗೆ ಪ್ರಯತ್ನಿಸುವುದು.
2.4 PG37T204 ಜನಪದ ಗೀತ ಸಾಹಿತ್ಯ	ಜನಪದ ಸಾಹಿತ್ಯದ ಆಂತರಿಕ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಅರಿಯುವುದು ಹಾಗೂ ಸಾಹಿತ್ಯಿಕ ರಸಾನುಭೂತಿ-ವಿಮರ್ಶಾ ಮನೋಭಾವವನ್ನು ಹೊಂದುವುದು.
2.5 PG37T205 ಜಾನಪದ ಪರಿಕಲ್ಪನೆ (ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ)	ಜಾನಪದದ ವ್ಯಾಪ್ತಿ ಹಾಗೂ ಇತರೆ ಜ್ಞಾನಶಿಸ್ತುಗಳ ಜೊತೆಗಿನ ಆಂತರಿಕ ಸಂಬಂಧವನ್ನು ಗ್ರಹಿಸುವುದು. ಅಲ್ಲದೆ ವಿಮರ್ಶಾ ದೃಷ್ಟಿಕೋನ ಮತ್ತು ಸಾಹಿತ್ಯ ಸತ್ವವನ್ನು ಅರಿಯುವುದು.
<b>III ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
3.1 PG37T301 ಜಾನಪದ ಮತ್ತು ಸಂವಹನ	ಜಾನಪದ ಸಂವಹನ ಮಾಧ್ಯಮ ಮತ್ತು ಆಧುನಿಕ ಸಂವಹನ ಮಾಧ್ಯಮಗಳನ್ನು ತಿಳಿಯುವುದರ ಜೊತೆಗೆ ಅವುಗಳ ಸಹ ಸಂಬಂಧವನ್ನು ಅರಿಯುವುದು ಹಾಗೂ ಸಂವಹನ ಮಾಧ್ಯಮಗಳ ಕೌಶಲ್ಯವನ್ನು ವೃದ್ಧಿಸಿಕೊಳ್ಳುವುದು.
3.2 PG37T302 ಜನಪದ ಭಂದಸ್ಸು-ಕಾವ್ಯಮೀಮಾಂಸೆ	ಜನಪದ ಕಾವ್ಯಗಳ ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಸೌಂದರ್ಯಗಳನ್ನು ಅರಿಯಲು ಬೇಕಾದ ಮೂಲ ತತ್ವಗಳನ್ನು ಗ್ರಹಿಸುವುದು.
3.3 PG37T303 ಜನಪದ ರಂಗಭೂಮಿ	ಜನಪದ ರಂಗಭೂಮಿ ಮತ್ತು ಆ ಕಲಾವಿದರನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವ ಮೂಲಕ ದೇಶಿ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ, ಕಲೆ, ಭಾಷೆ ಇತ್ಯಾದಿಗಳನ್ನು ಅರಿಯುವುದು.
<b>ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ</b>	
3.4.1 PG37T304A ಬುಡಕಟ್ಟು ಜಾನಪದ	ನೆಲಮೂಲ ಸಂಸ್ಕೃತಿಯನ್ನು ಅಪ್ಪಿಕೊಂಡು ಬದುಕುತ್ತಿರುವ ಬುಡಕಟ್ಟುಗಳನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಅವುಗಳ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ಅರಿಯುವುದು.
3.4.2 PG37T304B ಪರಿಸರ ಜಾನಪದ	ಪರಿಸರದತ್ತವಾದ ಜನಪದರ ಚಿಂತನಾ ಕ್ರಮವನ್ನು ಅರಿಯುವುದು ಮತ್ತು ಅದನ್ನು ಆಸ್ವಯಿಸಿಕೊಳ್ಳುವ ಮನೋಧರ್ಮವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವುದು.
3.5 PG37T305 ಜಾನಪದ ಮತ್ತು ಜಾಗತೀಕರಣ (ಮುಕ್ತ ಆಯ್ಕೆಯ ಪತ್ರಿಕೆ)	ಜಾಗತೀಕರಣ ಸಂದರ್ಭದಲ್ಲಿ ದೇಶಿ ಸಂಸ್ಕೃತಿ, ಜ್ಞಾನ, ಕಲೆ ಇತ್ಯಾದಿಗಳ ಪ್ರಸ್ತುತತೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಆಸ್ವಯಿಕತೆ ಮಾಡುವುದು.
<b>IV ಸೆಮಿಸ್ಟರ್ ಕಡ್ಡಾಯ ಪತ್ರಿಕೆ</b>	
4.1 PG37T401 ಜಾನಪದ ಮತ್ತು ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳು	ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಜಾನಪದ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳನ್ನು

	ಅರಿಯುವುದರ ಮೂಲಕ ಜಾನಪದ ಜ್ಞಾನವನ್ನು ಉದ್ದೀಪನಕೊಳಿಸಿಕೊಳ್ಳುವುದು.
4.2 PG37T402 ಜಾನಪದ ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಸಂಶೋಧನೆ	ಜಾನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯದ ತತ್ವಗಳನ್ನು ಹಾಗೂ ಸಂಶೋಧನೆಯ ಬರವಣಿಗೆಯನ್ನು ಅರಿಯುವುದು.
4.3 PG37T403 ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಜಾನಪದೀಯ ಅಂಶಗಳು	ಜಾನಪದ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯಗಳ ಅಂತರ ಸಂಬಂಧಗಳನ್ನು ಅರಿಯುವುದು ಮತ್ತು ಸಾಹಿತ್ಯ ಸತ್ವ ಸೌಂದರ್ಯವನ್ನು ಆಸ್ವಾಧಿಸುವುದು.
ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ	
4.4.1 PG37T404A ಹಾಲಕ್ಕಿ/ಸಿದ್ಧಿಯದು	ಹಾಲಕ್ಕಿ ಬುಡಕಟ್ಟು ಸಮುದಾಯವನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವುದು ಮತ್ತು ಅದರ ಅನನ್ಯತೆಗಳನ್ನು ಗ್ರಹಿಸುವುದು.
4.4.2 PG37T404B ಜನಪದ ವೈದ್ಯ	ಜನಪದ ವೈದ್ಯ ಪದ್ಧತಿಯನ್ನು ಪರಿಚಯಿಸಿಕೊಳ್ಳುವ ಮತ್ತು ಅದರ ಪ್ರಸ್ತುತತೆಯನ್ನು ಗ್ರಹಿಸಿ ಅದನ್ನು ಆಸ್ವಾದಿಸಿ ಮಾಡಿಕೊಳ್ಳುವ ಬಗೆಯನ್ನು ಅರಿಯುವುದು.
4.5 PG37T405 ಕ್ಷೇತ್ರ ಕಾರ್ಯ ಮತ್ತು ಕಿರುಪ್ರಬಂಧ ರಚನೆ	ಕ್ಷೇತ್ರಕಾರ್ಯದ ಮೂಲಕ ವಿಷಯ ಸಂಗ್ರಹಿಸಿ ಸಂಪ್ರಬಂಧ ರಚಿಸಿ ಸಂಶೋಧನೆ ಮಾಡುವ ಪ್ರವೃತ್ತಿ ಕಲಿಯುವುದು.

\* Employability aspects should be highlighted in **LIGHT GREEN** colour

\*\* Entrepreneurship aspects should be highlighted in **LIGHT BLUE** colour

\*\*\* Skill Development aspects should be highlighted in **LIGHT PURPLE** colour

**E. Format for the List and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics in the current curriculum**

Course code and Name	Indicate whether the course addresses <b>Gender, Environment and Sustainability, Human Values or Professional Ethics</b>
1. PG37T103 - Sanskri Addhyana PG37T104 - Janapada Gadya Sahitya PG37T105 - Janapada Mahakavya PG37T304A - Budakattu Janapada PG37T401 - Janapada Ittichina Pravrittigalu PG37T404A- Halakki Okkaligaru	Gender issues
2. PG37T105 - Janapada Mahakavya PG37T304B- Parisara Janapada	Environment and Sustainability
3. PG37T103 - Sanskri Addhyana PG37T203 - Janapada Kalegalu PG37T204 - Janapada Geeta Sahitya PG37T303 - Janapada Rangabhoomi PG37T304A- Budakattu Janapada PG37T403 - Kannada Sahitya Parampare Mattu Janapadiya Amsagalu PG37T404A- Halakki Okkaligaru PG37T404B- Janapada Vaidya	Human Values
4. PG37T101 Janapada Parikalpane Mattu Siddhantagalu PG37T104 - Janapada Gadya Sahitya PG37T105 - Janapada Mahakavya PG37T201 - Janapada Siddhantagalu PG37T202 - Janapada Bhashavijnana PG37T204 - Janapada Geeta Sahitya PG37T205 - Janapada Parikalpane PG37T302 - Janapada Chandassu Mattu Kavya Mimamshe PG37T303 - Janapada Rangabhoomi PG37T305 - Janapada Mattu Jagatikanara PG37T402 - Janapada Kshetrakarya Mattu Samshodane PG37T403 - Kannada Sahitya Parampare	Professional Ethics

Mattu Janapadiya Amsagalu	
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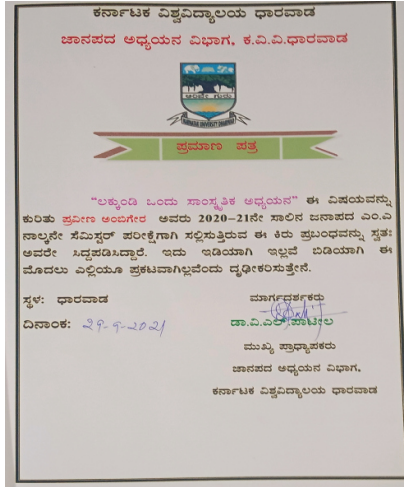
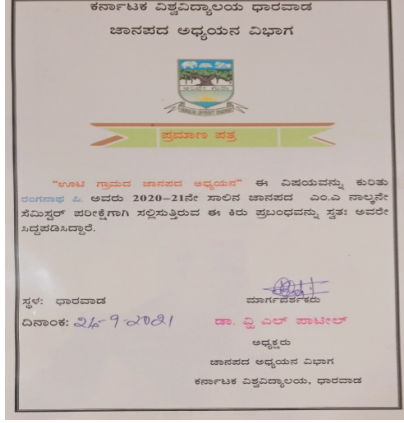
F. Format for information on students undertaking internships/Field Projects/Research projects  
(for the latest batch of students)



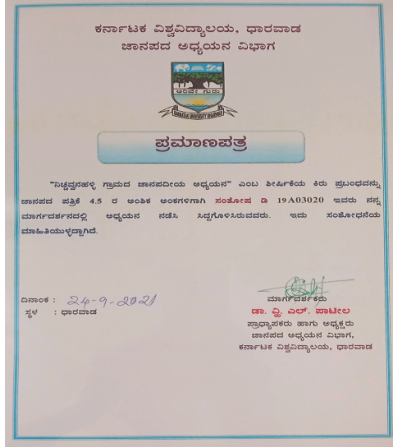
List of students undertaking field projects /Research Projects		
Sl. No.	Name of students / Exam. No.	undertaking field/research projects
	<b>2016-17</b>	
1	15ಎ03001	ಹೂವಿನ ಹಡಗಲಿ ತಾಲೂಕಿನ ಜನಪದ ಕಲಾವಿದರು
2	15ಎ03002	ಹಾವೇರಿ ಜಿಲ್ಲೆಯ ಜನಪದ ಕಲಾವಿದರು
3	15ಎ03006	ಬಸರಕೋಡ ಗ್ರಾಮದ ಶ್ರೀ ಪವಾಡ ಬಸವೇಶ್ವರ ಒಂದು ಅಧ್ಯಯನ
4	15ಎ03007	ಲಿಂಗನಾಯಕನಹಳ್ಳಿ ತಾಂಡಾದ ಲಂಬಾಣಿ ಸಂಸ್ಕೃತಿ
5	15ಎ03008	ಕುರಬರದಿನ್ನಿ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ
6	15ಎ03010	ಅಥಣಿ ತಾಲೂಕಿನ ಜನಪದ ಕಲಾವಿದರು
	<b>2017-18</b>	
1	ಸುನೀತ ಡಿ.ಎಚ್.	ಚೌಡಯ್ಯದಾನಪೂರದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ
2	ದೇವರಾಜ ಬ.ಇಟ್ಟಿಗೆ	ಶ್ರೀ ಮೈಲಾರಲಿಂಗೇಶ್ವರ ಜಾತ್ರಾ ವಿಶೇಷತೆ
3	ಮದನ ನಿಂ. ಓಲೇಕಾರ	ಹಾನಗಲ್ಲ ತಾಲೂಕಿನ ಕೆರೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ
4	ಮಹೇಶ ಬಿ.ಹೊಸಮನಿ	ವಿಜಯಪುರ ನಗರ ಜಾನಪದ
5	ಮರಿಯಪ್ಪ ಎಲ್.ಹರಿಜನ	ಕೊಪ್ಪಳ ತಾಲೂಕಿನ ಜಾನಪದ ಕಲಾವಿದರು
6	ಮುತ್ತರಾಜ	ಲಿಂಗಪ್ಪಯ್ಯನ ಕಾಡು ಸಮುದಾಯ ವಾಸಿಗಳ ಅಧ್ಯಯನ
7	ನಾಗರಾಜ ಫ.ಬಡಭೀಮಪ್ಪನವರ	ಗದಗ ನಗರ ಜನಪದ ಅಧ್ಯಯನ
8	ಪ್ರಕಾಶ ಹುಲ್ಲೂರ	ಗದಗ ಜಿಲ್ಲೆಯ ಶಿರಹಟ್ಟಿಯ ಶ್ರೀ ಜಗದ್ಗುರು ಫಕೀರೇಶ್ವರ ಸಂಸ್ಥಾನ ಮಠದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ
9	ಷಡಕ್ಷರಿ ಜಿ. ಸುರಗಿಮಠ	ಹಾನಗಲ್ಲಿನ ಮೌಖಿಕ ಪರಂಪರೆಯ ಅಧ್ಯಯನ
10	ಯು.ಎಂ.ಹರಿಜನ	ಸವಣೂರಿನ ಮೌಖಿಕ ಪರಂಪರೆಯ ಅಧ್ಯಯನ

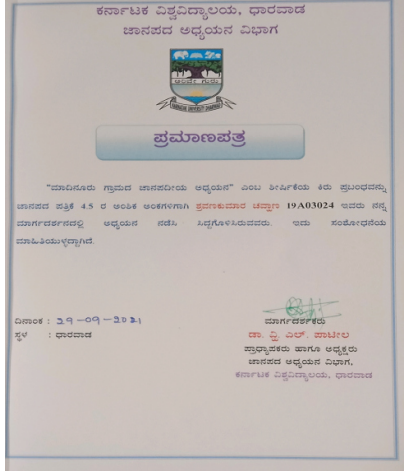
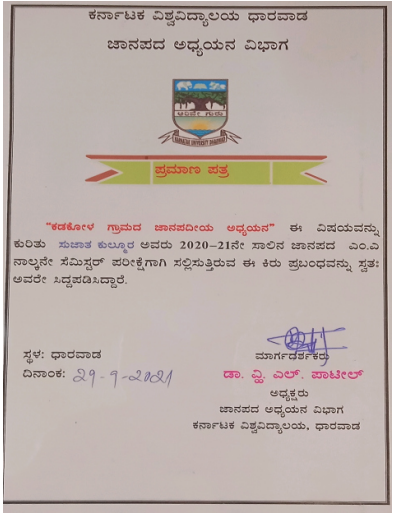
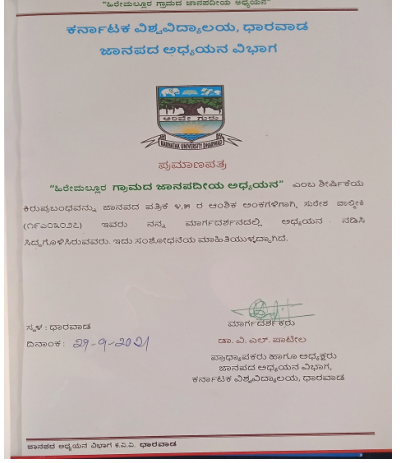
List of students undertaking field projects /Research Projects			
Program Code	Programme name	Name of students undertaking field/research projects	e-copy of certificates to be provided
2020-21			

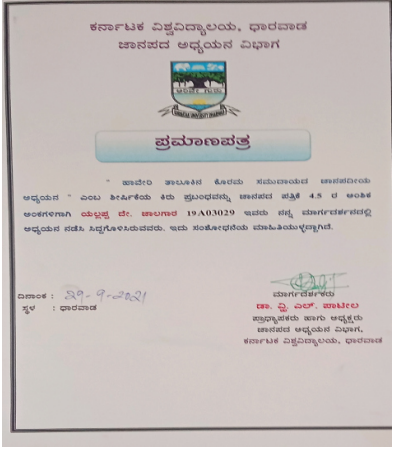
PG37	M.A. Folklore	Anand L. Sanamani	ಬಗರನಾಳ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣ ಪತ್ರ</b></p> <p>"ಬಗರನಾಳ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ಅನಂತ ಸಾಮಾನಿ ಅವರು 2020-21ರೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ ಸಾಧಾರಣ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕುರು ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 24.9.2021</p> <p>ಮಾನ್ಯರವರಿಗೆ ಡಾ. ಪ್ರ. ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Belleppa B. Kattimani	ಮಿಯ್ಯಾಪುರ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ಮಿಯ್ಯಾಪುರ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಎಂಬ ವಿಷಯವನ್ನು ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಜಾನಪದ ಪತ್ರಿಕೆ 45ರ ಅಂಕ 4ರ ಅಂಕಗಳಿಗಾಗಿ ಪಿಲ್ಲಪ್ಪಂಕೆ 19A03002 ಇವರು ಸಲ್ಲಿ ಸಿದ ಪ್ರಬಂಧವನ್ನು ಅಧ್ಯಯನ ಸಮಿತಿ ಸಿದ್ಧಗೊಳಿಸಿರುವುದು. ಇದು ಸಂಪೂರ್ಣವಾಗಿ ಸಾಕಾರಗೊಂಡಿದೆ.</p> <p>ದಿನಾಂಕ : 24/9/2021 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾನ್ಯರವರಿಗೆ ಡಾ. ಪ್ರ. ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>

		Dhanasing H. Pujar	ಸೇವಾನಗರ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣ ಪತ್ರ</b></p> <p>"ಸೇವಾನಗರ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ಧರ್ಮಪ್ರಸಾದ್, ಬೊಳವಾಡು ಅವರು 2020-21ನೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ. ನಾಲ್ಕನೇ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕೆಳ ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ.</p> <p>ಮಾನ್ಯರವರ ಡಾ. ಪ್ರಿ.ಎಲ್. ಪಾಟೀಲ್ ಪ್ರಾಧ್ಯಾಪಕರು ಜಾಗೃತ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ.</p> <p>ಸ್ಥಳ : ಧಾರವಾಡ ದಿನಾಂಕ : 17/04/2021</p>
		Joshef S. Ganachari	ಯರಗಟ್ಟಿ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣ ಪತ್ರ</b></p> <p>"ಯರಗಟ್ಟಿ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ಬೊಳವಾಡು ಜಿ. ಗಣಾಚಾರಿ ಅವರು 2020-21ನೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ. ನಾಲ್ಕನೇ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕೆಳ ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ.</p> <p>ಸ್ಥಳ : ಧಾರವಾಡ ದಿನಾಂಕ : 13-9-2021</p> <p>ಮಾನ್ಯರವರ ಡಾ. ಪ್ರಿ.ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Laxman G. Karigar	ಮುನವಳ್ಳಿ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ಮುನವಳ್ಳಿ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ" ಎಂಬ ವಿಷಯ ಕೆಳ ಪ್ರಬಂಧವನ್ನು ಜಾನಪದ ಪತ್ರಿಕೆ 4.5 ರ ಅಂಕಿತ ಅಂಕಣವಾಗಿ ಅಕ್ಟೋಬರ್ 19 2020ರಂದು 19A03009 ಇವರು ಪತ್ರಿಕೆ ಮಾನ್ಯರವರವರಲ್ಲಿ ಅಭ್ಯಯನ ಪತ್ರಿಕೆ ಸಿದ್ಧಗೊಳಿಸುವುದರಿಂದ ಇದು ಸಂಕೀರ್ಣವಾಗಿ ಪರಿಶೀಲಿಸಲ್ಪಟ್ಟಿದೆ.</p> <p>ದಿನಾಂಕ : 20-9-2021 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾನ್ಯರವರ ಡಾ. ಪ್ರಿ.ಎಲ್. ಪಾಟೀಲ್ ಪ್ರಾಧ್ಯಾಪಕರು ಜಾಗೃತ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>

		Maharaj Y. Kattimani	ಹಡಗಿನಾಳ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p>ಶ್ರೀಮತಿ ಪ್ರಮೋದ ಪತ್ನಿ</p> <p>"ಜನಗಣತಿಯ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಎಂಬ ವಿಷಯವನ್ನು ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಜಾನಪದ ಪತ್ರಿಕೆ 4.5 ರ ಅಂಕಿತ ಅಂಕಗಳಿಗಾಗಿ ಮಹಾರಾಜ ಕಟ್ಟಿಮನಿ ಇವರು ಸ್ವ. ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಅಧ್ಯಯನ ನಡೆಸಿ ಸಿದ್ಧಪಡಿಸಿದರು.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 29/9/2021</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ಪ್ರ. ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Manjunath A.	-	
		Praveen B. Ambiger	ಲಕ್ಕಂದಿ ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕ.ವಿ.ವಿ.ಧಾರವಾಡ</p> <p>ಶ್ರೀಮತಿ ಪ್ರಮೋದ ಪತ್ನಿ</p> <p>"ಲಕ್ಕಂದಿ ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ಪ್ರಮೋದ ಅಂಬಿಗರ ಅವರು 2020-21ನೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ ಸಾಬ್ಬನೇ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ. ಇದು ಇಡೀಯಾಗಿ ಇಲ್ಲವೇ ಬಿಡಿಯಾಗಿ ಈ ಮೊದಲು ಎಲ್ಲೆಡೆ ಪ್ರಕಟವಾಗಿಲ್ಲವೆಂದು ದೃಢೀಕರಿಸುತ್ತೇನೆ.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 29-9-2021</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ಪ್ರ. ಎಲ್. ಪಾಟೀಲ್ ಮುಖ್ಯ ಪ್ರಾಧ್ಯಾಪಕರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ</p>
		Ranganath P	ಊಟಿ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p>ಶ್ರೀಮತಿ ಪ್ರಮೋದ ಪತ್ನಿ</p> <p>"ಊಟಿ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ರಂಗನಾಥ ಪಿ. ಅವರು 2020-21ನೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ ಸಾಬ್ಬನೇ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 29-9-2021</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ಪ್ರ. ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>

		Ravikanth T. Lamani	ಗುತ್ತಲ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ಗುತ್ತಲ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ" ಎಂಬ ಹೆಸರಿನಲ್ಲಿ ಕೆಳಕಂಡಂತಿರುವ ಪ್ರಾಂಶುಪಾಲರು ಜಾನಪದ ಪತ್ರಿಕೆ 4.5 ರ ಅಂಕಿತ ಅಂಕಗಳನ್ನು <b>ವಿವರಣೆ ಬರಹ</b> 19A03018 ಇವರು ಸಿದ್ಧ ಮಾಡಿದಾಗಲಾಗಿದೆ ಅಧ್ಯಯನ ಕೆಲಸ ಸುಗಮವಾಗಿರುವುದು. ಇದು ಸಂಶೋಧನೆಯ ಮಾಹಿತಿಯನ್ನು ಒದಗಿಸುತ್ತದೆ.</p> <p>ದಿನಾಂಕ : 20-09-2020 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾನ್ಯ ಪ್ರಾಂಶುಪಾಲರು ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Revanasidda Banasode	ನಂದ್ರಾಳ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>ಕರ್ನಾಟಕ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಎಂಬ ಹೆಸರಿನಲ್ಲಿ ಕೆಳಕಂಡಂತಿರುವ ಪ್ರಾಂಶುಪಾಲರು ಜಾನಪದ ಪತ್ರಿಕೆ 4.5 ರ ಅಂಕಿತ ಅಂಕಗಳನ್ನು <b>ರೇವಣಸಿದ್ಧ ಬನಾಸೋಡೆ</b> 19A03019 ಇವರು ಸಿದ್ಧ ಮಾಡಿದಾಗಲಾಗಿದೆ ಅಧ್ಯಯನ ಕೆಲಸ ಸುಗಮವಾಗಿರುವುದು. ಇದು ಸಂಶೋಧನೆಯ ಮಾಹಿತಿಯನ್ನು ಒದಗಿಸುತ್ತದೆ.</p> <p>ದಿನಾಂಕ : 20-09-2020 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾನ್ಯ ಪ್ರಾಂಶುಪಾಲರು ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Santhosha D.	ನಿಜ್ಜವನಹಳ್ಳಿ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ನಿಜ್ಜವನಹಳ್ಳಿ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಎಂಬ ಹೆಸರಿನಲ್ಲಿ ಕೆಳಕಂಡಂತಿರುವ ಪ್ರಾಂಶುಪಾಲರು ಜಾನಪದ ಪತ್ರಿಕೆ 4.5 ರ ಅಂಕಿತ ಅಂಕಗಳನ್ನು <b>ಸಂಶೋಧನೆ</b> 19A03020 ಇವರು ಸಿದ್ಧ ಮಾಡಿದಾಗಲಾಗಿದೆ ಅಧ್ಯಯನ ಕೆಲಸ ಸುಗಮವಾಗಿರುವುದು. ಇದು ಸಂಶೋಧನೆಯ ಮಾಹಿತಿಯನ್ನು ಒದಗಿಸುತ್ತದೆ.</p> <p>ದಿನಾಂಕ : 20-09-2020 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾನ್ಯ ಪ್ರಾಂಶುಪಾಲರು ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Santhosha Kurubar	-	

		Shravankumar R. Chavhan	ಮಾದಿನೂರು ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ಮಾದಿನೂರು ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಎಂಬ ಶೀರ್ಷಿಕೆಯ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಜಾನಪದ ಪತ್ರಿಕೆ 45 ರ ಅಂಕಿತ ಅಂಕಗಳಿಗಾಗಿ ಪ್ರದರ್ಶನವಾಗಿ ಚಿವ್ವಾ 19A03024 ಇವರು ಉನ್ನತ ಮಾರ್ಗದರ್ಶನವನ್ನು ಅಧ್ಯಯನ ಮಾಡಿ ಸಿದ್ಧಗೊಳಿಸಿರುವುದು. ಇದು ಸಂಶೋಧನೆಯ ಮಾಹಿತಿಮೂಲವಾಗಿದೆ.</p> <p>ದಿನಾಂಕ : 29-09-2021 ಸ್ಥಳ : ಧಾರವಾಡ</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ವಿ. ಎಲ್. ಪಾಟೀಲ್ ಪ್ರಾಧ್ಯಾಪಕರು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Sujatha I. Kulmura	ಕಡಕೋಳ ಗ್ರಾಮದ ಜಾನಪದ ಅಧ್ಯಯನ	 <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣ ಪತ್ರ</b></p> <p>"ಕಡಕೋಳ ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಈ ವಿಷಯವನ್ನು ಕುರಿತು ಸುಜಾತಾ ಕುಲ್ಮೂರು ಅವರು 2020-21ನೇ ಸಾಲಿನ ಜಾನಪದ ಎಂ.ಎ ನಾಲ್ಕನೇ ಸೆಮಿಸ್ಟರ್ ಪರೀಕ್ಷೆಗಾಗಿ ಸಲ್ಲಿಸುತ್ತಿರುವ ಈ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಸ್ವತಃ ಅವರೇ ಸಿದ್ಧಪಡಿಸಿದ್ದಾರೆ.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 29-9-2021</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ವಿ. ಎಲ್. ಪಾಟೀಲ್ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>
		Suresh S. Walamiki	ಹಿರೇಮಲ್ಲೂರು ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	 <p>"ಹಿರೇಮಲ್ಲೂರು ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ"</p> <p>ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ</p> <p><b>ಪ್ರಮಾಣಪತ್ರ</b></p> <p>"ಹಿರೇಮಲ್ಲೂರು ಗ್ರಾಮದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ" ಎಂಬ ಶೀರ್ಷಿಕೆಯ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಜಾನಪದ ಪತ್ರಿಕೆ 45 ರ ಅಂಕಿತ ಅಂಕಗಳಿಗಾಗಿ ಸೂಕ್ತ ಮಟ್ಟದ (೧೯ಎಂಎಂಎಂಎಂ) ಇವರು ಸಿದ್ಧ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಅಧ್ಯಯನ ಮಾಡಿ ಸಿದ್ಧಗೊಳಿಸಿರುವುದು. ಇದು ಸಂಶೋಧನೆಯ ಮಾಹಿತಿಮೂಲವಾಗಿದೆ.</p> <p>ಸ್ಥಳ: ಧಾರವಾಡ ದಿನಾಂಕ: 29-9-2021</p> <p>ಮಾರ್ಗದರ್ಶಕರು ಡಾ. ವಿ. ಎಲ್. ಪಾಟೀಲ್ ಪ್ರಾಧ್ಯಾಪಕರು ಹಾಗೂ ಅಧ್ಯಕ್ಷರು ಜಾನಪದ ಅಧ್ಯಯನ ವಿಭಾಗ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ</p>

		Yallappa D. Jalagar	ಹಾವೇರಿ ತಾಲೂಕಿನ ಕೊರಮ ಸಮುದಾಯದ ಜಾನಪದೀಯ ಅಧ್ಯಯನ	
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G. Links for Feed backs on curricula (**WILL BE SHARED WITH YOU IN DUE COURSE**)

<b>2016-17</b>	To be circulated among teachers and students on roll during the year
Teachers	
Students	
<b>2017-18</b>	
Teachers	
Students	
<b>2018-19</b>	
Teachers	
Students	

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

**For**

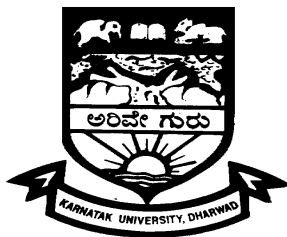
**POST GRADUATE DIPLOMA IN GANDHIAN STUDIES**

**CHOICE BASED CREDIT SYSTEM (PG DIPLOMA IN  
GANDHIAN STUDIES – CBCS)**



**2021-2022 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



## **REGULATIONS**

**For**

## **POST GRADUATE DIPLOMA IN GANDHIAN STUDIES**

**CHOICE BASED CREDIT SYSTEM (PG DIPLOMA IN  
GANDHIAN STUDIES – CBCS)**

**From**

**2021-2022 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning PG Diploma Programme**

### **Faculty of Social Sciences, from 2021-2022**

#### **PG Diploma Programme in Gandhian Studies (PG Diploma in Gandhian Studies- CBCS)**

Regulations Governing the Post-Graduate Diploma Programme under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

#### **POST GRADUATE DIPLOMA IN GANDHIAN STUDIES CHOICE BASED CREDIT SYSTEM (CBCS)**

##### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Post Graduate Diploma programme.

##### **Commencement:**

These Regulations shall come into force from the academic year 2021-2022.

##### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means PG Diploma Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G.Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These

grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.

- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

### **Entrance Test**

Not Applicable

### **Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for One Year (Non-semester).

### **Intake**

The total number of candidates to be admitted to the course would be 50 only for the One Year (Non-semester). Ten seats are allocated to other University/Enhanced Fees candidates. Total Seats is 40.

### **Course of Study:**

The courses of study for PG Diploma in Gandhian Studies course shall comprise of Theory, Social Service & Field Work as noted in the syllabus.

### **Duration of the Programme:**

The programme of study for the Post-Graduate Diploma shall normally extend over a period of one academic years, academic year comprising of non-semester/, and each semester comprising of sixteen weeks of class work.

### **Medium of Instruction**

The medium of instruction and examination is English and Kannada.

### **Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory course, Open Elective Course. Compulsory Course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

### **Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department.
- f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- g) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- h) The normal calendar for the semester would be as follows:
  - i. I Year Non-semester and OEC III semester - August to November

ii. OEC IInd Semester - January to April

**Attendance**

- Each paper shall be taken as a unit for the purpose of calculating the attendance.
- Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS or Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

**Course Outline for the PG Diploma in Gandhian Studies**

**NON-SEMESTER**

Paper Code	Title of the Paper	Max. Marks	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>				
<b>G01</b>	Life and Works of Mahatma Gandhi	100	100	4	4 Hrs / week
<b>G02</b>	Dimensions of Gandhian Philosophy	100	100	4	4 Hrs / week
<b>G03</b>	Gandhi and the Modern World	100	100	4	4 Hrs / week
<b>G04</b>	Social Service and Field Work Report	100	100	4	4 Hrs / week

**OEC SEMESTER - II**

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Open Elective Paper</b>					
<b>H - 84</b>	Moral and Social Thought of Mahatma Gandhi	75	25	100	4	4 Hrs / week

### OEC SEMESTER - III

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Open Elective Paper</b>					
<b>I - 77</b>	Moral and Social Thought of Mahatma Gandhi	75	25	100	4	4 Hrs / week

#### Social Service & Field Work

There shall be a Social Service & Field Work, which is compulsory and a student has to submit Field Work Report. The Social Service & Field Work will be conducted at the middle of the term

#### Submission of Field Work Report

- PG Diploma non-semester students shall have to choose a topic for Field Work and preliminary preparation be carried out under the guidance of a teacher.
- PG Diploma non-semester students shall have to submit the Field Work on the chosen topic, before the commencement of the theory examination.
- Candidates keeping terms but not appearing for the theory papers and not submitted the Field Work Report within the prescribed time, may appear for respective examination and submit the Field Work Report within the prescribed time.

#### Evaluation of PG Diploma :

- PG Diploma in Gandhian Studies Non-semester course exam is conducted at the end of the academic year. There are four compulsory papers in PG Diploma. Three Theory papers and one Social Service & Field Work paper. The total max marks would be 100 for the subject.
- Evaluation of paper IV is:
  - On the basis of Field Work Report (60 Marks)
  - Attendance/participation in constructive work (20 Marks)
  - Field visit to Gandhian organizations/performance in seminars and symposia in the camps and classes (20 Marks)

#### Evaluation of OEC Course :

- Each OEC Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total max marks would be 100 for the subject.
- The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.

- d. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- e. To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

Attendance	Marks Allotted
91 to 100%	3
81 to 90%	2
75 to 80%	1

- f. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone of shall be considered for the allotment of marks as under.
- g. There shall be one end semester examination of 3 duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluation

#### **Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Diploma course in one year from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for P.G. Diploma examinations only according to the new syllabus.
- c. The CBCS scheme is fully carry-over system. However, the non-semester one year course should be completed by a student within double duration of the normal course period (i.e. 1 year). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1,000/- per paper.

#### **Declaration of Results:**

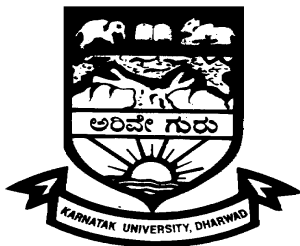
- a. PG Diploma Students Minimum for a pass in each paper shall be 40% of the total 100 marks OEC Students. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

## Marks and Grading

The grading of successful candidate at the examination shall be as follows:

Percentage	GPA/CGPA	Letter	Class
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction
60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**POST GRADUATE DIPLOMA IN  
GANDHIAN STUDIES**

**CHOICE BASED CREDIT SYSTEM  
(PG Diploma in Gandhian  
Studies – CBCS)**

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

- 1) Helps students to understand the Indian ethos as Gandhian thought is strongly rooted in Indian context (Swadeshi and Swaraj).
- 2) To motivate students to involve themselves in NGO's by training them in the constructive programme offered by Gandhiji.
- 3) The personality development of students is possible as they can practice a simple life style at societal level on Gandhian lines.
- 4) Helps students to understand the ground level realities through the Field Work (Survey/Questionnaire methods).

<b>Paper Code and Name</b>	<b>G01: LIFE AND WORKS OF MAHATMA GANDHI</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Contemplates the possibility of involving the students and the youth in non-violent non-cooperation movements in the present context.
CO 2	Helps students in their personality development through the reading of Gandhiji's Autobiography and other basic works .
CO 3	Helps the aspirants for competitive exams to understand the profile of Gandhiji and the modern Indian History better.
CO 4	To motivate students to bring home the message of Gandhiji through the audio-visual methods.
CO 5	To provide an opportunity to read the autobiography of Gandhiji along with other biographies and other works like Hind 'Swaraj' etc.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<p>Gandhi's life and works may be presented in three phases:</p> <p>i) Early phase, including his stay in England</p> <p>ii) The South African phase, and</p> <p>iii) The Freedom struggle.</p> <p>In each phase one or two major events are identified and the discussion centers on these events.</p>	
<b><u>Phase I : 1869-1893:</u></b>	
<p>i) The Cultural Background: Parents; religious background; attempts to conquer inclination to steal and to eat meat, impact of plays such as Harishchandra.</p> <p>ii) In England: Steps in vegetarianism, Experiments in dietetics, Reading of Gita.</p>	21 Hours

<b><u>Phase II: 1893-1915:</u></b>	
i) Experiments in community living: impact of ‘Unto this Last’: Phoenix settlement, Tolstoy Farm. ii) Organizing the Indian Community, the Birth of Satyagraha in the context of the Black Act and the practice of law.	21 Hours
<b><u>Phase III: 1915-1948:</u></b>	
i) 1915 to 1922: Non-Co-operation Movement, Rowlatt Act etc., ii) 1922 to 1932: Civil Disobedience, Salt Satyagraha etc., iii) 1932 to 1948: Quit India Movement, Independence and after. The dynamic aspect of the Satyagraha movement is brought out by showing the continuity from (i) to (iii) that is, from Non-co-operation to ‘Quit India’ Movement.	22 Hours
<b>TEXTS &amp; REFERENCES</b>	
<p><b><u>Texts:</u></b></p> <ol style="list-style-type: none"> <li>1) Gandhi M. K., Autobiography, Navajivan Publishing House, Ahmedabad, 1997.</li> <li>2) Gandhi M. K., Satyagraha in South Africa, Navajivan Publishing House, Ahmedabad, 1992.</li> <li>3) Tendulkar D. G. Mahatma (Relevant Sections), Bombay, 1951.</li> <li>4) Pyarelal, Mahatma Gandhi-The Last Phase - (Relevant sections)</li> <li>5) Navajivan Publishing House, Ahmedabad, 1966.</li> </ol> <p><b><u>References:</u></b></p> <ol style="list-style-type: none"> <li>1) Fischer Louis, The Life of Mahatma Gandhi, Bharatiya Vidya Bhavan, Bombay, 1956.</li> <li>2) Rolland Romain, Mahatma Gandhi, Ministry of Inf. And broadcasting, New Delhi, 1969</li> <li>3) Krishna Kripalani, ‘Gandhi M. K- A Life’, New Delhi, NBT, 2000.</li> </ol>	

<b>Paper Code and Name</b>	<b>G02: DIMENSIONS OF GANDHIAN PHILOSOPHY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To help students to realise an all inclusive, peaceful and harmonious life on Gandhian lines.
CO 2	To help students practice Ashrama vows and the life style which is inherent therein.
CO 3	Motivate students to involve themselves in social service activities on the lines of the constructive programme offered by Gandhiji.
CO 4	To help students to understand Gandhi through the study of texts.
CO 5	To acquaint students with the philosophical foundations of Gandhian thought.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
The message that comes through Gandhi's life is sought to be identified in terms of his moral-religious and social philosophy. They are:	
<b>A. Moral-Religious Philosophy :</b>	
i) Gandhi's perception of religion. The essence of Hinduism, Islam and Christianity. ii) God: Relation between Truth and God. Eleven Ashrama vows. iii) Gandhi's views on Private and Public morality and its relevance today. iv) The Ashram Life; Ashram as a training ground for dedicated Satyagrahis.	26 Hours
<b>B. Social Philosophy of Gandhi:</b>	
i) Gandhi's understanding of village communities and his constructive programme. Its meaning and place. ii) Sarvodaya Social Order: the concept, and rural reconstruction as a means. Sarvodaya after Gandhi. iii) Varna, caste system and removal of untouchability. iv) Communalism in India. Gandhi's efforts to bring about communal harmony. Role of Shantisena. v) Alcoholism as a social problem. Gandhi's efforts to bring about total prohibition.	38 Hours

vi) Emancipation of Women: Feminist and Gandhian approaches.	
vii) Health and Hygiene: Relation between physical, mental and moral aspects; problems of rural and urban sanitation in India.	
viii) Nature Cure – Gandhian experiments.	

### TEXTS & REFERENCES

#### **A) Texts:**

- 1) Gandhi M. K., All Religions are True, Pearl Bombay, 1962.
- 2) Gandhi M. K., Truth is God, Navajivan Publishing House, Ahmedabad, 1959.
- 3) Gandhi M. K., Ashram Observances in Action, Navajivan Publishing House, Ahmedabad, 1998.
- 4) Gandhi M. K., From Yervda Mandir, Navajivan Publishing House, Ahmedabad, 1999.
- 5) Gandhi M. K. Self-indulgence, Navajivan Publishing House, Ahmedabad, 1995.
- 6) ದಾದಾ ಧರ್ಮಾಧಿಕಾರಿ, ಸರ್ವೋದಯ ದೃಷ್ಟಿ, ಸಾಹಿತ್ಯ ಮಂದಿರ, ಬೆಂಗಳೂರು. 1994.

#### **B) References:**

- 1) Gandhi M. K., My Religion, Comp. and Ed Bharatan, Kumarappa, Ahmedabad, 1958.
- 2) Gandhi M. K., All men are Brothers, Navajivan Publishing House, Ahmedabad, 1971.
- 3) Gandhi M. K., In search of the Supreme, Navajivan Publishing House, Ahmedabad, 1961.
- 4) Gandhi M. K., Communal Unity – The Gandhian Way, Navajivan Publishing House, Ahmedabad, 1963.
- 5) Desai A. R., Social Background of Indian Nationalism, Popular Prakashan, Bombay, 1998.
- 6) Bipin Chandra, Communalism in Modern India, Vikas Publishing House, New Delhi, 1984.
- 7) Doctor Adi H, Sarvodaya, Asia Publishing House, Bombay, 1967.
- 8) Narayanaswamy S., Sarvodaya Movement in India, Gandhigram, 2005.

<b>Paper Code and Name</b>	<b>G03:GANDHI AND THE MODERN WORLD</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To relate the Gandhian perspective with classical Indian thought and the different ideological standpoints.
CO 2	To understand the problems of today's education vis-à-vis the Gandhian alternative.
CO 3	To compare and contrast Gandhian world view with other world leaders.
CO 4	To explore how far the experiments in Panchayat Raj system over the years have paved way for political decentralization.
CO 5	To understand the relevance of Gandhian philosophy in the contemporary world.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b><u>A)Political Philosophy:</u></b> i) Gandhi's understanding of Swaraj; The different aspects of self-rule. a) Gandhi's concept of State, the relation between State and the Individual, b) between Rights and Duties, c) between Means and ends and d) Political decentralization (Grama Swaraj).	20 Hours
<b><u>Economic Philosophy:</u></b> i) Sarvodaya; The welfare of all and the whole of humanity. The Fundamentals of Gandhian economic thought; minimization of wants; equitable distribution; man-machine relationship, production by and for the masses; bread-labour and right to work; trusteeship; contrast between Sarvodaya and Socialism. Comparison of Gandhi with other world leaders. ii) Swadeshi; Swadeshi as the means of attaining the goal of Sarvodaya; Khadi; Moral, Social and Educational aspects of Khadi; role of village/cottage industries in rural reconstruction; Gandhi's ideal self-reliant villages.	24 Hours
<b><u>C)Educational Philosophy:</u></b> i) Meaning and purpose of education; character building as the basis Problems of today's education; Gandhian alternative: Basic education through vocation; Principles of 'Nai Talim' Gandhi's experiments; Mother tongue as medium of education. ii) Removal of illiteracy, universal education; education for all and education for Life.	20 Hours

TEXTS & REFERENCES	
<b>A)Texts:</b>	
1) Gandhi, M. K., Hind Swaraj or Indian Home Rule, Navajivan Publishing House, Ahmedabad, 1989.	
2) Sriman Narayan (Ed), The Selected Works of Mahatma Gandhi, (Vol.1-5), Navajivan Publishing House, Ahmedabad, 1969.	
3) Gandhi, M. K., Economic and Industrial Life and Relations (in 3 Volumes–relevant sections), Navajivan Publishing House, Ahmedabad, 1959.	
4) Gandhi, M. K., Basic Education, Navajivan Publishing House, Ahmedabad, 1956.	
<b>B)References:</b>	
1) Gandhi, M. K., Satyagraha, A.I.C.C. Allahabad, 1935.	
2) Kumarappa J. C., Economy of Performance, Janapada Seva Trust, Malukoti, 1997.	
3) Iyer Raghavan, The Moral and Political Thought of Mahatma Gandhi, OUP, Delhi, 1973.	
4) Bandopadhyaya, J., Social and Political Thought of Mahatma Gandhi, Allied Bombay, 1966.	
5) Narayanasamy S., Mahatma Gandhi's Philosophy in the 21 <sup>st</sup> Century, Gandhigram, 2005.	
6) ಡಾ. ಕುಮಾರಪ್ಪ ಜೆ. ಸಿ. ಶಾಶ್ವತ ಅರ್ಥಶಾಸ್ತ್ರ, ಮೇಲುಕೋಟೆ, 1997.	

Paper Code and Name	G04: SOCIAL SERVICE AND FIELD-WORK
COURSE OUTCOMES (COs)	
CO 1	To a quant students with the ways and means of utilizing the items on the agenda of constructive programme for social service activities.
CO 2	Along with students it is intended to train the local youth in various social and cultural activities.
CO 3	Along with extension activities the course helps students to explore the ground level realities.
CO 4	Students will be exposed to fundamentals of social service research methods and report writing.
CO 5	To motivate students to develop leadership qualities by directly involving them in the organizations of camp activities.

PARTICULARS	Teaching Hours (Max. 64)
Social Service and Field work Camp is an integral part of the course. The camp is normally conducted in the mid-term vacation over a week involving students and villages in the constructive activities. Social and cultural activities will be carried out with an intention to bring about an awareness of the need for education, cleanliness, social and moral evils and other related issues. Along with these extension services students will have to study the problems of the villages. Research methods (survey through questionnaire) will be employed for collection of data on the basis of which students will have to prepare the dissertation and	64 Hours

submit it for evaluation. i) The social service aims at involving students in Gandhian constructive activities and these programmes will be conducted in villages/Gandhian institutions/places of constructive activities. ii) Participation in social service and field work camp is compulsory for all the students. iii) The Fieldwork aims at providing the students with an opportunity to explore the ground level reality to the rural problems in various contexts. iv) The Students will have to submit the report on the basis of the field study, which will be evaluated as an independent paper.	
<b>TEXTS &amp; REFERENCES</b>	
<b><u>A)Texts:</u></b> 1) Gandhi, M. K., Constructive Programme, Navajivan Publishing House, Ahmedabad, 1941. 2) Gandhi, M. K., Village Swaraj, Navajivan Publishing House, Ahmedabad, 1962. <b><u>B)References:</u></b> 1) Gandhi, M. K., India of my dreams, Navajivan Publishing House, Ahmedabad, 2001. 2) Gandhi, M. K., Social Service, Work and Reform, Navajivan Publishing House, Ahmedabad, 1976. 3) Young Paulin V., Scientific Social Surveys and Research, Prentice Hall, New Delhi, 1992. 4) Goode and Hatt, Methods in Social Research, Mc Graw Hill, Tokyo, 1952.	

<b>OEC II Sem Paper Code and Name</b>	<b>H - 84: Life and Message of Mahatma Gandhi.</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	To help students to realise an all inclusive, peaceful and harmonious life on Gandhian lines.
CO 2	To help students practice Ashrama vows and the life style which is inherent therein.
CO 3	Motivate students to involve themselves in social service actives on the lines of the constructive programme offered by Gandhiji.
CO 4	To help students to understand Gandhi through the study of texts.
CO 5	To acquaint students with the philosophical foundations of Gandhian thought.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1 : Childhood and formative years :</b>	
i. Cultural background of Gandhi's family. ii. Childhood influences : Attempts to conquer inclination to steal and to eat meat, impact of plays such as Harishchandra etc. iii. Gandhi in England : experiments in dietetics, etc. legal practice.	12 Hours
<b>Unit 2 : Gandhiji in South Africa :</b>	
i. Influences of personalities : John Ruskin's - Unto this Last, Tolstoy and Thoreau. ii. Birth of Satyagraha and Satyagraha in South Africa. iii. Phoenix settlement and Tolstoy farm.	12 Hours
<b>Unit 3 : In India – Phase I (1915-1924) :</b>	
i. Sabarmati Ashram and Ashrama life. ii. Champaran and Kheda Satyagraha. iii. Khilaphat and Non Co-operation movement.	14 Hours
<b>Unit 4 : In India - Phase II (1930-1948) :</b>	
i. Rowlatt Act, Civil Disobedience movement, Salt Satyagraha/Dandi March (1930). ii. Quit India Movement , Indian Independence. iii. The impact of the reading of Gandhiji's Autobiography/biographies.	14 Hours
<b>Unit 5 : India after Gandhi</b>	
i. Partition of India. ii. Assassination of Gandhi. iii. Message of Gandhiji.	12 Hours
<b>REFERENCES</b>	
1) Gandhi M. K., Autobiography, Navajivan Publishing House, Ahmedabad, 1997. 2) Gandhi M. K., Satyagraha in South Africa, Navajivan Publishing House, Ahmedabad, 1992. 3) Tendulkar D. G. Mahatma (Relevant Sections), Bombay, 1951. 4) Pyarelal, Mahatma Gandhi-The Last Phase - (Relevant sections) 5) Navajivan Publishing House, Ahmedabad, 1966. 6) Fischer Louis, The Life of Mahatma Gandhi, Bharatiya Vidya Bhavan, Bombay, 1956. 7) Rolland Romain, Mahatma Gandhi, Ministry of Inf. And broadcasting, New Delhi, 1969. 8) Krishna Kripalani, 'Gandhi M. K- A Life', New Delhi, NBT, 2000.	

<b>OEC III Sem Paper Code and Name</b>	<b>I - 77: Moral and Social Thought of Mahatma Gandhi</b>
<b>COURSE OUTCOMES (COs)</b>	
At the end of this paper the students will be able to:	
CO 1	To help students to realise an all inclusive, peaceful and harmonious life on Gandhian lines.
CO 2	To help students practice Ashrama vows and the life style which is inherent therein.
CO 3	Motivate students to involve themselves in social service actives on the lines of the constructive programme offered by Gandhiji.
CO 4	To help students to understand Gandhi through the study of texts.
CO 5	To acquaint students with the philosophical foundations of Gandhian thought.

<b>Particulars</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1 : Moral Thoughts :</b> <ol style="list-style-type: none"> <li>Relationship between religion and morality.</li> <li>Ashrama Life, Experiments in community living, Ashramas as training grounds for Satyagrahis.</li> <li>Ashrama Vows/Observances.</li> </ol>	12 Hours
<b>Unit 2 : Individual and Social Morality :</b> <ol style="list-style-type: none"> <li>The concept of Sarvodaya and the impact of Ruskin's "Unto This Last".</li> <li>Gandhiji's views on private and public morality and its relevance today.</li> <li>Necessity of inter-religious prayer and multi-faith dialogue.</li> </ol>	12 Hours
<b>Unit 3 : Constructive Programme : A blue print for social service.</b> <ol style="list-style-type: none"> <li>Constructive Programme : Its meaning and place.</li> <li>Gandhiji's views on equality of religions and his efforts to bring about communal harmony.</li> <li>Health and Hygiene, Swachch Bharat Abhiyan etc.</li> </ol>	14 Hours
<b>Unit 4 : Gandhiji's social ideas :</b> <ol style="list-style-type: none"> <li>Varna, Caste System and Gandhiji's views on removal of untouchability.</li> <li>Problem of alcoholism and drug addiction : Gandhiji's efforts to bring about total prohibition .</li> <li>Problems of women in India and Gandhian approach for the regeneration/emancipation of womenfolk.</li> </ol>	14 Hours
<b>Unit 5 : Gandhiji's views on Swadeshi and Education.</b> <ol style="list-style-type: none"> <li>Khadi and Village industries.</li> <li>Basic Education.</li> <li>Adult Education.</li> </ol>	12 Hours

<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1) Gandhi M. K., All Religions are True, Pearl Bombay, 1962.</li> <li>2) Gandhi M. K., Truth is God, Navajivan Publishing House, Ahmedabad, 1959.</li> <li>3) Gandhi M. K., Ashram Observances in Action, Navajivan Publishing House, Ahmedabad, 1998.</li> <li>4) Gandhi M. K., From Yervda Mandir, Navajivan Publishing House, Ahmedabad, 1999.</li> <li>5) Gandhi M. K. Self-indulgence, Navajivan Publishing House, Ahmedabad, 1995.</li> <li>6) ದಾದಾ ಧರ್ಮಾಧಿಕಾರಿ, ಸರ್ವೋದಯ ದೃಷ್ಟಿ, ಸಾಹಿತ್ಯ ಮಂದಿರ, ಬೆಂಗಳೂರು. 1994.</li> <li>7) Gandhi M. K., My Religion, Completed by Edt. Bharatan, Kumarappa, Navajivan Publishing House, Ahmedabad, 1958.</li> <li>9) Gandhi M. K., All men are Brothers, Navajivan Publishing House, Ahmedabad, 1971.</li> <li>10) Gandhi M. K., In search of the Supreme, Navajivan Publishing House, Ahmedabad, 1961.</li> <li>11) Gandhi M. K., Communal Unity – The Gandhian Way, Navajivan Publishing House, Ahmedabad, 1963.</li> <li>12) Desai A. R., Social Background of Indian Nationalism, Popular Prakashan, Bombay, 1998.</li> <li>13) Doctor Adi H, Sarvodaya, Asia Publishing House, Bombay, 1967.</li> <li>14) Narayanaswamy S., Sarvodaya Movement in India, Gandhigram, 2005. Gandhi, M. K., Basic Education, Navajivan Publishing House, Ahmedabad, 1956.</li> </ol>	

**KARNATAK UNIVERSITY, DHARWAD**



**Regulations**

**For**

**MASTER OF SCIENCE GEOGRAPHY**

**CHOICE BASED CREDIT SYSTEM (M. Sc - CBCS)**



**2016-17 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



**REGULATIONS**

**For**

**MASTER OF SCIENCE GEOGRAPHY  
CHOICE BASED CREDIT SYSTEM (M. Sc - CBCS)**

**From**

**2016-17 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

Regulations concerning Master Degree Programme

**Faculty of Science and Technology, from 2016-17**

**Master Degree Programme in Geography (M. Sc.-CBCS)**

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

## **MASTER OF SCIENCE IN GEOGRAPHY CHOICE BASED CREDIT SYSTEM (CBCS)**

### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree Programmes.

### **Commencement:**

These Regulations shall come into force from the academic year 2016-17

### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P. G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week.

Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.

- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.
- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

#### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

#### **Entrance Test:**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University as per the scheduled.

#### **Selection for Admission:**

The selection of students shall be made on merit in each category of reservations as per the University rules.

**Intake:**

The total number of candidates to be admitted to the course would be **35** only for the 1<sup>st</sup> semester. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state. Ten seats are under enhanced fee. Total Seats is **35**.

**Course of Study:**

The courses of study for M. Sc Degree shall comprise of Theory and Practicals as prescribed in the syllabus.

**Note: Specification of Degrees as per UGC notification dated March 2014 published in the Gazette of India, 5<sup>th</sup> July 2014 (Part III Section 4).**

**Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

**Medium of Instruction:**

The medium of instruction and examination is English.

**Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned Department only. The Open Elective is the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the Degree in any Department under any school and

faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

**Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Specialization Course or Optional Course and
  - iii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other Department. Student from the same Department are generally not allowed to opt the courses offered as Open Elective course in the same Department.
- f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.

- g) Master Degree Programmes are essentially semester system Programmes. There shall be Four Semesters in each Programme. There shall be Two Semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- h) The normal calendar for the semester would be as follows:
  - i. I and III semester - August to November
  - ii. II and IV Semester - January to April

### **Attendance**

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the Department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

## Course Outline for the M. Sc. Geography:

### SEMESTER – I

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
Geog-TP1.1	Geomorphology	75	25	100	4	4 Hrs / week
Geog -TP1.2	Climatology	75	25	100	4	4 Hrs / week
Geog -TP1.3	Oceanography	75	25	100	4	8 Hrs / week
Geog -TP1.4	Development of Geographical Thought	75	25	100	4	4 Hrs / week
Geog-Prc1.5	Interpretation of Toposheets	75	25	100	4	4 Hrs / week
Geog - Prc1.6	Interpretation of Weather Maps	75	25	100	4	8 Hrs / week

### SEMESTER – II

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
Geog -TP2.1	Geography of Agriculture	75	25	100	4	4 Hrs / week
Geog -TP2.2	Geography of Marketing	75	25	100	4	4 Hrs / week
Geog -TP2.3	Geography of Transport	75	25	100	4	8 Hrs / week
Geog -TP2.4	Regional Geography of India	75	25	100	4	4 Hrs / week
Geog -Prc2.5	Cartographic Methods	75	25	100	4	4 Hrs / week
Geog - Prc2.6	Basic Statistics.	75	25	100	4	8 Hrs / week

### SEMESTER - III

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
Geog-TP3.1	Theoretical and Quantitative Geography	75	25	100	4	4 Hrs / week
Geog-TP3.2	Geography of Settlements	75	25	100	4	4 Hrs /

						week
Geog -TP3.3	Population Geography	75	25	100	4	8 Hrs / week
Geog -TP3.4	Environmental Geography	75	25	100	4	4 Hrs / week
Geog -Prct3.5	Quantitative Methods	75	25	100	4	4 Hrs / week
Geog - Prct3.6	Aerial Photo Interpretation	75	25	100	4	8 Hrs / week

#### SEMESTER - IV

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
Geog-TP4.1	Natural Hazards and Management	75	25	100	4	4 Hrs / week
Geog -TP4.2	Geography of Tourism	75	25	100	4	4 Hrs / week
Geog -TP4.3	Principles of Remote Sensing	75	25	100	4	8 Hrs / week
Geog -TP4.4	Regional Planning.	75	25	100	4	4 Hrs / week
Geog -Prct4.5	Computer Applications and GIS	75	25	100	4	4 Hrs / week
Geog -Prct4.6	Project Work.	75	25	100	4	8 Hrs / week

#### **Project Report / Study Tour:**

There shall be a project report / study tour, which is compulsory as per the curricula and a student, has to submit a project report. The project report will be conducted at the beginning of the fourth semester.

#### **Submission of Journal:**

- a) The students shall have to submit the journal to the Chairman duly signed by the course teacher for their allotted practical papers of each semester before the commencement of the theory examination of each semester.

- b) Candidates keeping terms but not appearing for the theory and practical papers and not submitted the journal within the prescribed time may appear for respective examination and submit the journal within the prescribed time.
- c) Candidates appearing for the examination under the provision of (c) will be not eligible for the award of any rank, prize, medal etc.

**Evaluation:**

- a. Each Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance, if a Compulsory Course has a Credit award of 4, then the total max marks would be 100 for the subject.
- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- d. To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

Attendance	Marks Allotted
91 to 100%	3
81 to 90%	2
75 to 80%	1

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone of shall be considered for the allotment of marks as under.
- f. There shall be one end semester examination of three duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluations.

**Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Master Degree course in two years from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.
- c. The CBCS scheme is fully carry-over system. However, the four –semester two years course should be completed by a student within double duration of the normal course period (i.e. 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1,000/- per paper.

**Declaration of Results:**

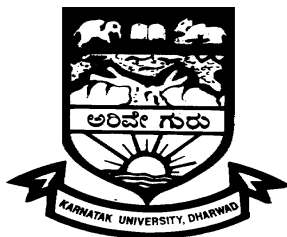
- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

**Marks and Grading:**

The grading of successful candidate at the examination shall be as follows:

Percentage	GPA/CGPA	Letter	Class
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction
60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF SCIENCE GEOGRAPHY  
CHOICE BASED CREDIT SYSTEM (M. Sc - CBCS)**

**From**

**2016-17 & Onwards**

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

- PO 1** Enrich the knowledge of understanding the relevant concepts and principles of geography and its evolutionary process in the historical past.
- PO 2** Enhanced the capabilities to understand the concepts and principles of geomorphology, climatology and oceanography in Physical Geography.
- PO 3** Enhanced the capability to explain the relevant theories and models in both Physical and human geography for geographical analysis.
- PO 4** Know the complex and interactive nature of physical and human environments and changing Process.
- PO 5** Understand Conceptual clarity about the human actions on nature, relationship between the man and environment and important issues related to human induced hazards and natural hazards.
- PO 6** Enhanced the existing knowledge with regards to the concepts related to settlements and population and spatial distribution, trends, pattern and spatio-temporal variations on any geographical space in the world.
- PO 7** Enrich the knowledge in the principles of spatial movements, interactions, arrangements, behavior and perception in past changing aspects in marketing, transportation and tourism activities on geographical environment.
- PO 8** Demonstrate the skill of analysis of geographical information, evidences and cause and effects and process of changes of physical and cultural aspects with socio-economic aspects.
- PO 9** Develop the consciousness of relevance of geography to understand and solving the contemporary environmental issues with rural, urban and regional development.
- PO 10** Enhance the knowledge and the skills in Map Making procedures and Principles of Cartography and exposé in the technology for handling the spatial and non-spatial data and to integrate in Geographical Environment and Remote Sensing.

## SEMESTER I

### Title of the Course: Geog-TP1.1: GEOMORPHOLOGY

Credits: 04

Maximum Marks: 75 + 25 IA Marks.

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes: After the completion of this course, students will be able to:**

COS	Content
1.	To define the Geomorphology and to explain the fundamental concepts of it.
2.	To understand the geotectonic hypothesis put forth by different scholars about the plate tectonics.
3.	To explain the earth movements, geosynclines and forces of crustal instability.
4.	To understand the concept of gradation, mass movement and slope replacement model.
5.	To explain the geomorphic processes erosion and depositional landforms.

### D: Detail Curriculum:

Unit	Content
I	Nature and Scope of Geomorphology, Fundamental Concepts: Multicyclic and Polygenetic evolution of landscape. The interior of the earth, Seismological evidences. Geological time scale. Davis & Penck views of cycle of erosion.
II	Geotectonic Hypothesis: Isostasy, Wagner's Continental Drift Theory, Holme's Convectional Current Theory, Jolley's Thermal Cycle Theory, Plate Tectonics.
III	Earth Movements: Epeirogenic, Organic and Cymatogenic earth movements. Mountain Building – Geosynclines, Hinter land, Foreland and Median Mass. Forces of crustal instability.
IV	Exogenic Processes: Concept of gradation, Agradation and degradation, classification of weathering, mass movement. Slope evolution, down wearing, parallel retreat and slope replacement model.
V	Geomorphic processes: Cycle of Erosion, Fluvial, Glacial, Aeolian, Marine and Karst processes and resulting landforms, erosion and depositional landforms.

### E: Suggested Readings

01	Dayal, P.	A text book of Geomorphology Shukla book Depot, Patna, 1996.
02	Monkhouse, F.J	Principles of Physical Geography, Hodder and London, 1960.
03	Sparks, B.W	Geography Longmans, London, 1960.
04	Strahler, A.N & Strahler, A.H	Modern Physical Geography: John Wiley and Sons, Revised Edition 1992.
05	Thornbury W.D	Principles of Geography, Wiley Eastern, 1969.
	Wooldridge, S.W &	The Physical basis of Geography: An outline of

06	Morgan, R.S	Geomorphology, Longman Green and Co, London, 1959.
07	Siddharth, K	The Earth's dynamic surface.
08	Ranganath	PrakritikaBhoogolaShastradaMoolatatwagalu(Kannada Version).

**Title of the Course:Geog -TP1.2: CLIMATOLOGY**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To define the Climatology, composition and structure of the atmosphere, insolation and heat balance.
2.	To understand the vertical and horizontal distribution of atmospheric pressure, Monsoons and it's mechanism.
3.	To explain the humidity and its types, hydrological cycle, types of clouds and rainfall.
4.	To understand the classification, air masses and fronts, cyclones and thunderstorms.
5.	To explain theclassification of climates with different scholars view point and globe climate changes.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Nature and scope of Climatology, composition and structure of the atmosphere. Insolation and heat balance. Vertical and Horizontal distribution of temperature.
<b>II</b>	Vertical and Horizontal distribution of atmospheric pressure, Isobaric maps, Pressure Zones and planetary winds. Mansoons: Mechanism and its distribution.
<b>III</b>	Humidity and its types, Hydrological Cycle, Process and forms of condensation. Types of Clouds, adiabatic cooling and precipitation, distribution and types of rainfall.
<b>IV</b>	Origin, Nature and source regions of air-masses, fronts Classification, air masses. Extra-Tropical and Tropical Cyclones. Thunder storms- their formation, types and distribution.
<b>V</b>	Climatic classification: Koeppen's and Thornthwaite's classification of climates: Global climatic changes: Human Impact on climate, ozone depletion, Heat Islands, Global Warming and its Consequences.

**E: Suggested Readings:**

01	Trewartha. G.T Horn	An Introduction to Climate.
02	Blair. T.A	Climatology.
03	Lal. D.S	Climatology.
04	Willin Donn	Meteorology.
05	Critch Field	Climatology.
06	Berry & Chorlay	Atmosphere weather and Climate.
07	Griffiths John .F	Applied Climatology.
08	Griffith Tailor	Introduction to Climatology.
09	Majid Hussain	Physical Geography.

**Title of the Course: Geog -TP1.3: OCEANOGRAPHY**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To define the oceanography and its concepts and bottom relief of oceans and their origin.
2.	To understand the Physical and Chemical Properties of Ocean water and Types of tides and theories.
3.	To understand the origin, causes and types of ocean currents and their effects, currents of Atlantic, Pacific and Indian Ocean.
4.	To discuss the ocean deposits, types and distribution of Coral Reefs and Theories of Origin of Coral Reefs.
5.	To explain ocean as a store house of mineral wealth, food resource and marine pollution.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	The permanency of Ocean Basins: Theories of Permanency, Bottom Relief of Oceans: Continental Shelf, Slope, Ocean Plains and Ocean Deep. Origin and their salient features, hypsographic curve, Indian Ocean, Atlantic Ocean and Pacific Ocean.
<b>II</b>	Origin and distribution of submarine canyons. Physical and Chemical Properties of Ocean water. Distribution of Temperature, Origin and distribution of Salinity, Dynamics of Ocean water. Waves, Tides, Types of tides, Theories of Tides, Progressive Theory, Stationary Wave Theory.
<b>III</b>	Ocean Currents: Origin, causes and types of Ocean currents and their effects, currents of Atlantic,

	Pacific and Indian Ocean.
<b>IV</b>	Ocean Deposits: Terrigenous and paleogenic deposits. The nature, types and distribution of Coral Reefs and Theories of Origin of Coral Reefs.
<b>V</b>	Ocean as a store house of mineral wealth, food resource and marine pollution.

**E: Suggested Readings:**

01	Sharma and Vatal	Oceanography for Geographers.
02	King C.A.M	Oceanography for Geographers.
03	Kuenen P.K	Marine Geology.
04	Sverdrup, Johnson & Fleming	The Ocean.
05	Lal. D.S	Oceanography.
06	Siddharth .K	Oceanography.

**Title of the Course: Geog -TP1.4: DEVELOPMENT OF GEOGRAPHICAL THOUGHT**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the contributions of the scholars during 18 <sup>th</sup> & 19 <sup>th</sup> centuries.
2.	To discuss the Development of Scientific Geography in 20 <sup>th</sup> Century, Quantitative Revolution and development of scientific method and theory building.
3.	To understand the Systems Analysis and Structure of Modern Geography.
4.	To discuss the dualism in geography and types of dualism.
5.	To discuss the themes in Geography in an effective manner.

**D: Detail Curriculum:**

Unit	Content
<b>I</b>	Development of Geography during 18 <sup>th</sup> century, Methodology, Motivation and Content. The contributions of J.R. Forster, Karl Ritter, Alexander Von Humboldt, Emmanuel Kant. The growth of Geographical Knowledge in the 19 <sup>th</sup> Centuries: Methodology, Motivation and content. Contributions of Ratzel, Peshel, Richthofen, Penk, Blach, Mackindar, W.M. Davis and Miss. Semple.
<b>II</b>	The Development of Scientific Geography in 20 <sup>th</sup> Century: Quantitative Revolution development of scientific method and theory building, locational patterns and regional analysis, Contributions of Taylor, Christaller, Hartshorne and Peter Haggett.
<b>III</b>	Systems Analysis and Structure of Modern Geography: System theory, Positivism, Pragmatism, Functionalism, Idealism, Existentialism, Marxism and Behaviouralism.
<b>IV</b>	Dualism in Geography and its need. Dualism between Man v/s Environment, General Geography v/s Regional Geography and Determinism v/s Possibilism.
<b>V</b>	Themes in Geography: Landscape Theme, Man- Environmental Relationship theme, Areal differentiation theme, Spatial and Geometric theme.

**E: Suggested Readings:**

01	Taylor (ED)	Geography of 20 <sup>th</sup> Century, Methew, London,.
02	Cooke and Johnson	Trends in Geography, Pergamon press, London.
03	Majid Hussain	Evolution of Geographical Thought, Rawat Publications, Jaipur, India.
04	Freeman T.W	A Hundred Years of Geography, London.
05	Hartshorne .R	Perspective on the Nature of Geography, Rand M.N and Co.Chicago.
06	Hart, Jensew	Geography: Its History and concepts, Longmans.
07	Dixit R.D.	The Art and Science of Geography.
08	Sudeepa Adhikari	Fundamentals of Geographical Thought, Chaitanya Publishing House, University Road Allahbad (UP).

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To understand the cartographic appreciation of Indian Toposheets.
2.	To interpret the Relief and Drainage, Settlements and Transport network and landuse.
3.	To understand the cartographic appreciation of Foreign Toposheets.
4.	To interpret the features of United Kingdom toposheets.
5.	To interpret the features of United States of American's toposheets.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Cartographic appreciation of Indian Toposheets.
<b>II</b>	Interpretation of Relief and Drainage, Settlements and Transport network and landuse.
<b>III</b>	Cartographic appreciation and interpretation of Foreign Toposheets.
<b>IV</b>	Interpretation of UK Toposheets.
<b>V</b>	Interpretation of USA Toposheets.

**E: Suggested Readings:**

01	Singh R.L	Elements of Practical Geography, Kalyani.
02	Ramamurthy .K	Map Interpretation, Krishnamurthy publishers, Madras.
03	Balbir Singh Negi	Practical Geography, Kedarnath Pub, Delhi.

**Title of the Course: Geog-Prct.1.6: INTERPRETATIONS OF WEATHER MAPS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To understand the Weather Maps, Signs and Symbols.
2.	To interpret the Interpretation of Indian Weather Maps based on the elements.
3.	To understand the Signs and Symbols of foreign weather maps and Station model.
4.	To interpret the Foreign Weather maps of their weather elements.
5.	To Forecasting the weather condition both Indian and Foreign Weather maps.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Weather Maps, Signs and Symbols.
<b>II</b>	Interpretation of Indian Weather Maps.
<b>III</b>	Signs and Symbols of foreign weather maps and Station model.
<b>IV</b>	Interpretation of Foreign Weather maps.
<b>V</b>	Weather Forecasting.

**E: Suggested Readings:**

01	Singh R.I	Elements of Practical Geography, Kalyani.
02	Ramamurthy .K	Map Interpretation, Krishnamurthy publishers, Madras.
03	Balbair Singh Negi	Practical Geography, Kedarnath Pub, Delhi.

## **Semester-II**

**Title of the Course: Geog-TP 2.1: GEOGRAPHY OF AGRICULTURE**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	<b>1.</b> To define the agriculture geography and factors affecting agriculture
2.	<b>2.</b> To employed the crop combination method of different scholars for the agriculture.
3.	<b>3.</b> To understand the agricultural models and their significance and classifications.

4.	4. To discuss green revolution in India and problems and prospects with regional disparities.
5.	5. To discuss the soil pollutions & erosion, health hazard from ecological point of view.

#### **D: Detail Curriculum:**

Unit	Content
<b>I</b>	Nature, Content and Scope of Agriculture Geography. Factors affecting Agriculture - Physical, Social- Economic and Technological.
<b>II</b>	Systems of Agriculture: Truck Farming (Horticultural) Commercial farming, Intensive and Extensive Agriculture. Concepts of Agricultural Region, Methods of regionalization - Crop combination (Weaver's Method), Crop concentration, diversification (S.S. Bhatia Method), and Agricultural efficiency (Kendal's Method).
<b>III</b>	Models in Agricultural Geography – Significance of Models, Classification of Agricultural Models- Normative, Descriptive and Diffusion Models. Von Thunen's Model and Johnson's Model.
<b>IV</b>	Green Revolution in India- Its problems and Prospects, Regional disparities, inter regional inequalities, intra- regional inequalities and inter crop disparities.
<b>V</b>	Ecological implications of Green Revolution- Salinisation, Water logging, Soil Pollution, Soil Erosion, Fallow Land, Health Hazards, Diffusion of agricultural innovations.

#### **E: Suggested Readings:**

01	Hussain M	Agricultural Geography Inter- India Publications Delhi.
02	Orgon and Munton	Agricultural Geography Mathuew London.
03	Symons L.	Agricultural Geography Bell and Sons London.
04	Tarrant J R.	Agricultural Geography David and Charls London.
05	Greger H.F	Geography of Agriculture themes and research Prentice HallEaglewood Cliff London.
06	Ilbury B W	Agricultural Geography Oxford university Press.
07	Singh Jasbir	Agricultural Geography New Delhi DhilionS.S

**Title of the Course: Geog-TP2.2: GEOGRAPHY OF MARKETING**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the marketing geography and its significance along with its development.
2.	To trace the evolutionary process of trade system and beginning of market place trade.
3.	To understand the classification of markets: Permanent, Periodic, Fair, Retailing, Wholesaling and Services.
4.	To discuss locational characteristics of markets, spatio-temporal distributions and Consumer and Trader behaviour and travel patterns.
5.	To discuss the locational characteristics of regulated markets and their development.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Nature, Scope and Significance of Marketing Geography, Development of Marketing Geography, Marketing as a Geographical Phenomenon, Marketing Geography as an area of specialization, Importance of market settlements among the settlement systems.
<b>II</b>	Evolutionary aspects of trade system: Early history of trade and beginning of market place trade.
<b>III</b>	Classification of Markets: Permanent, Periodic, Fair, Retailing, Wholesaling and Services.
<b>IV</b>	Periodic Markets: Locational and distribution characteristics, spatio- temporal relationships, Hierarchy of market centres and their tributary areas. Consumer and Trader behaviour and travel patterns.
<b>V</b>	Regulated Markets: Locational and Developmental characteristics.

**E: Suggested Readings:**

01	Davis R.L	:Marketing Geography, Mathuel and Co, London.
02	Garnier &Delobez	Geography of Marketing, Longman, London.
03	Saxena H.M	Geography of Marketing, Concepts and Methods, New Delhi.
04	Berry. B.J.L	Geography of market centres and retail Distribution, Prentice Hall Engle-wood Cliffs, New Jersey.
05	Bromley R.J	Periodic Markets Daily Markets and Fairs, Swanses.
06	Hugar S. I	Traditional and Non Traditional Market Exchange: a study in spatial development, Ganga Cauvery Publication, Varanasi.

**Title of the Course: Geog-TP 2.3: GEOGRAPHY OF TRANSPORT**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the geography of transportation, significance and its role in regional economies.
2.	To understand the significance of different means of transportation .
3.	To discuss the spatial interaction complementarities intervening opportunity, Transferability and place and time utility.
4.	To discuss the Graph Theoretic measures for network analysis.
5.	To handle the methods of flow analysis and gravity potential model for regional planning.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Nature, Scope and development of Geography of Transport, Significance of transportation and its role in the development of regional economies.
<b>II</b>	Characteristics and relative significance of different means of transportation Railways, Roads, Water ways and Air ways.
<b>III</b>	Basis for Spatial interaction complementarities intervening opportunity, Transferability and place and time utility.
<b>IV</b>	Graph Theoretic measures and network analysis, Location, Structure, Density Pattern, Order, Measures of connectivity and accessibility.
<b>V</b>	Concept and method of flow analysis, Gravity Potential Model, structure and efficiency. Transport and regional development planning.

**E: Suggested Readings:**

01	Eliot Hurst (ed)	Transportation Geography, McGraw Hill, New York.
02	Taffe, E.J & Gauthier	Geography of Transportation, Prince Hall, Englewood Cliff, New Jersey.
03	Sealy. Keneth	Geography of Air Transport, Rinenart, NewYork.
04	Lowe &Moryadas	Geography of movements.
05	Peter Heggett	Network Analysis, Edward Arnold, London.

**Title of the Course: Geog- TP 2.4: REGIONAL GEOGRAPHY OF INDIA AND KARNATAKA**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes: After the completion of this course, students will be able to:**

COS	Content
1.	To discuss the physical features of India, particularly the soil, drainage, vegetables along with water resources of India.
2.	To understand the forest and agricultural resources and their distributions.
3.	To understand the major mineral resources of India, production and distribution.
4.	To understand the major mineral industries their distribution and production.
5.	To discuss the physical aspects, major irrigation projects and major crops in Karnataka.

**D: Detail Curriculum:**

Unit	Content
<b>I</b>	Physical features of India: Soil types, Drainage, Vegetation. Water resources: Three major irrigation projects and Three major Hydro Electric Power projects (Multi Purpose Projects- Nagarjuna, Bhakranangal and Damodar).
<b>II</b>	Forest Resources: Types of forests and their distribution, Forest based industries: Paper Industry. Major Agricultural Crops, their distribution and production; Rice, Wheat, Cotton, Tea and Sugarcane.
<b>III</b>	Distribution, Production and Conservation of Major Mineral Resources: Iron-ore, Manganese, Mica and Coal.
<b>IV</b>	Distribution, Production and Problems of Major Industries; Iron and Steel, Cotton Textile and Fertilizer. India's Foreign Policy and Foreign Trade.
<b>V</b>	Karnataka: Physiography, Soils, Vegetation, and Rainfall, Major Irrigation Projects: Krishna, Tungabhadra and Cauvery. Energy Resources: Thermal, Hydro-Electric and Wind Projects. Distribution and Production of Major Crops: Rice, Jowar, Groundnut, Cotton, Sugarcane and Coffee. Transport and Industrial Development.

**E: Suggested Readings:**

01	Spate, O.H. K & Learmonth A.T.A	India and Pakistan, Methuen, London.
02	Negi. B.S	Geography of India, Kedarnath, New Delhi.
03	Singh R.N	India a Regional Geography, NGSI,4 Varanasi.
04	Sharma T.C & Coutinho .O	Economic and Commercial Geography of India.
05	Deshpande C.D	India Region Interpretation, ICSSR, New Delhi.
06	Sharma T.R	Location of Industries in India, Hind Kitab, Bombay.
07	Mallanna P.	Geography of Karnataka, Chetna Book house ChamrajaDouble, Mysore.

08	Sharma T.C	Technological Change in Indian Agriculture, Rawat Publishers, Jaipur.
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**Title of the Course: Geog-Prct. 2.5: CARTOGRAPHIC INSTRUMENTS AND METHODS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To handle the cartographic instruments of pantography, planimeter and opisometer.
2.	To prepare the Profiles, i.e. Super Imposed, Projected and Composite.
3.	To draw one point and two Point perspective block Diagrams for analysis.
4.	To prepare the slope analysis by employing Went Worth's method.
5.	To prepare the Simple Cylindrical, Conical, Bones and Mercator's Projections.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Cartographic Instruments: Enlargement and Reduction of Maps (Pantograph), Measurement of Area (Planimeter), Measurement of Length (Opisometer).
<b>II</b>	Profiles: Super Imposed, Projected and Composite.
<b>III</b>	Block Diagrams: One point and Two Point perspective block Diagrams,
<b>IV</b>	Slope Analysis: Went Worth's method.
<b>V</b>	Map Projection: Simple Cylindrical, Conical, Bones and Mercator's Projection.

**E: Suggested Readings:**

01	Singh R.L	Elements of Practical Geography, Kalyani Publishers, New Delhi.
02	Danghesty R	Data Collection, Science in Geography, Oxford University Press, London.
03	Mcculla. P	Data use and Interpretation, Science in Geography.
04	Toyne P. & Newby T.	Techniques in Human Geography, Macmillan and Co, London.
05	Aslam Mohammad	Statistical Methods in Geographical Studies, Rajesh Publications, New Delhi.

**Title of the Course: Geog-Pract.2.6: BASIC STATISTICS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To handle the cartographic instruments of pantography, planimeter and opisometer.
2.	To prepare the Profiles, i.e. Super Imposed, Projected and Composite.
3.	To draw one point and two Point perspective block Diagrams for analysis.
4.	To prepare the slope analysis by employing Went Worth's method.
5.	To prepare the Simple Cylindrical, Conical, Bones and Mercator's Projections.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Application of Statistics in Geographical Analysis.
<b>II</b>	Methods of Investigation and Sampling, Frequency distribution and Curves.
<b>III</b>	Measures of Central Tendency: Mean, Median, Mode, Harmonic and Geometric Mean.
<b>IV</b>	Measures of Dispersion: Range, Quartile Deviation, Mean deviation, Standard deviation and Co-efficient.
<b>V</b>	Correlation, Chi-Square Test and Confidence.

**E: Suggested Readings:**

01	Singh R.L	Elements of Practical Geography Kalyani Publishers New Delhi.
02	Danghesty R	Data Collection Science in Geography Oxford University Press London.
03	Mcculla. P	Data use and Interpretation Science in Geography.
04	Toyne P.& NewbyT	Techniques in Human Geography Macmillan and Co London.
05	Ebdon David	Statistics in Geography: A practical Approach Basil Black Wel Oxford.

06	Sunpon&Kefka	Basic Statistics Oxford and IBH publishing Co. Culcutta.
07	Dalton Retal	Correlation Techniques in Geography George Philp & sons London.
08	Aslam Mohammad	Statistical Methods in Geographical Studies Rajesh Publications New Delhi.

**Title of the Course: Geog-TP 3.1: THEORETICAL AND QUANTITATIVE GEOGRAPHY**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the physical features of India, particularly the soil, drainage, vegetables along with water resources of India.
2.	To understand the forest and agricultural resources and their distributions.
3.	To understand the major mineral resources of India, production and distribution.
4.	To understand the major mineral industries their distribution and production.
5.	To discuss the physical aspects, major irrigation projects and major crops in Karnataka.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	The need for theories in Geographical analysis, Scientific method and theory building, Location concepts and the importance of location theories in geographical studies. Location theories of Von Thunen, Alfred Weber and Walter Christaller.
<b>II</b>	Dichotomies in geography with special reference to Ideographic and Nomothetic studies. Interdependence of theoretical and quantitative geography. Quantitative revolution and the emergence of new geography.
<b>III</b>	Quantitative Geography: Its need, Purpose and Scope, Models, Analogies and paradigms and their use in geographical analysis, Gravity Potential Model. The nature of Geographical data and the need for data summarization.
<b>IV</b>	Comparing geographic relationship and the correlation within and between areas. Spatial and temporal variations.
<b>V</b>	Applications of quantitative and statistical techniques in geographical studies. The theoretical background of Shape Index, Centographic Analysis. Network analysis, Nearest Neighbour Analysis and Crop Combination Analysis,

**E: Suggested Readings:**

01	David Harvey	Explanation in Geography, Edward Arnold, N.J.
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02	Hartshorne R	Perspectives on the nature of Geography, Association of American Geographers, Washington.
03	Minshull R	The changing nature Geography, Hutchinson, London.
04	Peter Haggett.	Locational analysis in Human Geography, Edward Arnold, London
05	Anand & Golledge	An Introduction to Scientific Reasoning in Geography John Wiley and sons, New York,
06	Gregory's	Statistical Methods and the Geography, Longmans, London.
07	Haggett & Meade	Quantitative techniques in Geography, A Introduction Clarendon Press Oxford.
08	Yeates M	An Introduction to Quantitative Analysis in Human Geography, McGraw Hill New York.
09	Cole & King	Quantitative Geography, John Wiley and Sons, New York.
10	King L.J.	Statistical Analysis in Geography, Prentice Hall, Englewood Cliffs, New Jersey.
11	Wheeler	Statistical Techniques in Geographical Analysis, John Wiley.

### Title of the Course: Geog-TP 3.2: GEOGRAPHY OF SETTLEMENT

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the human settlements, evolution, size and growth, distribution and spatio-temporal trends of settlements.
2.	To understand the spatial distribution and pattern of settlements with theoretical models and empirical findings.
3.	To discuss the morphological structure of settlements and land use theories, functions of towns along with the difference between rural & urban.
4.	To apply the Christaller and Losch theories for determine the hierarchy of the settlements.
5.	To discuss the issues and policies on population & settlements as well as environment.

### **D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
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<b>I</b>	Evolution, Size and Growth of Human Settlements: Theories of Evolution of Settlements; Size, Distribution, Spatial and Temporal trends in Size and Growth of Settlements.
<b>II</b>	Distribution Pattern: Spatial Distribution pattern of settlements: Theoretical models and empirical findings.
<b>III</b>	Settlement Structure: Morphological aspects of settlements. Land use theories and functions of towns. Difference between Rural and Urban. Rural house types and building material.
<b>IV</b>	Settlement Hierarchy: Theories of Christaller and Losch .Determination of hierarchy.
<b>V</b>	Issues, perspective and policies on population and human settlements. Interface between human settlements and environment.

**E: Suggested Readings:**

01	Ambrse. Peter	Concepts in Geography Vol I Settlement pattern Longman 1970.
02	Haggett Peter, Andrew D Cliff & Allen Frey (Editor)	Locational models Arnolds Heinemann, 1979.
03	King, Leslie, J	Central Place Theory, Saga Publications New Delhi. 1986.
04	Mitra Ashok, Mukharji .S & Bose .R	Indian Cities Abhinav Publications New Delhi 1980.
05	Ramachandran .R	Urbanization and Urban systems in India Oxford University Press, New Delhi, 1992.
06	Singh R.L & Singh K.L	Readings in Rural settlement Geography, National Geographical Society of India, Varanasi, 1975.
07	Chishom .M	Rural settlements and land use, Hutchinson University library London.

**Title of the Course: Geog-TP 3.3: POPULATION GEOGRAPHY**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes:** After the completion of this course, students will be able to:

COS	Content
1.	To discuss the population geography and its development
2.	To understand the Malthusian and Karl Marx's theory of population
3.	To discuss the Migration
4.	To understand the determinants of population and the concept of optimum
5.	To the Population policies in developing and under developed countries

**D: Detail Curriculum:**

Unit	Content
<b>I</b>	Nature and Scope of Population Geography, Development of population Geography as specialized branch, Factors influencing the distribution of population. Growth trend of population in the world and India. Pattern, Density and Distribution of population.
<b>II</b>	Theories of Population Growth: Malthusian and Karl Marx's theory, theory of demographic transition and its stages.
<b>III</b>	Population Growth and economic development, Migration: Factors, Causes and Types, Internal and International migration.
<b>IV</b>	Fertility, Mortality, Mobility, Determinants of fertility and mortality. Population and resources: Concept of optimum population, over population and under population.
<b>V</b>	Population policies in developing and under developed countries, Population Policy in India.

**E: Suggested Readings:**

01	Garnier. B.J	Geography of Population, London: Longmans, 1966
02	Chanda R.c	Geography of Population, Kalyani publishers, 4779, Ansari Road 23, Daryaganj New Delhi-110002.
03	Clarke J.L	Population Geography, Oxford Pergamon Press.
04	Dermko, George	Population Geography, A Reader abnd Rose.
05	Ghosh B.N	Population Theories and Analysis.
06	Ghosh B.N	Fundamentals of population Geography, Sterling Publishers, New Delhi
07	TrewathaG.T	Geography of Population, Wiley, New York.
08	Jones H.R	Population Geography, Harper and Row Publishers, London.

**Title of the Course: Geog-TP 3.4: ENVIRONMENTAL GEOGRAPHY**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the significance of environmental geography and changing relationship between man& environment.
2.	To understand the major biomes, economic importance of forest and National Forest Policy in India.
3.	To discuss the Migration, Factors, Causes and Types, Internal and International migration.
4.	To understand the determinants of population and the concept of optimum, over and under population.
5.	To understand the population policies in developing and under developed countries, Population Policy in India.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Nature, Scope and significance of Environmental Geography, Meaning of Environment, Components of abiotic and biotic environment, the changing relationship of man and Environment.
<b>II</b>	Biomes: major biomes and their importance, Economic significance of Forests, Afforestation and Deforestation. Social Forestry and Agro- Forestry, National Forest Policy in India.
<b>III</b>	Population Growth and economic development, Migration: Factors, Causes and Types, Internal and International migration.
<b>IV</b>	Environmental Degradation: Nature and types of degradation, Causes and effects of Environmental degradation, Problems of Environmental Degradation.
<b>V</b>	Global Warming: Ozone Layer depletion and its consequences, Environmental planning and policies, Environmental Impact Assessment (EIA), Sustainable Development, management of environmental quality.

**E: Suggested Readings:**

01	Straler and Straler A.H	Geography of Man's Environment.
02	Frank R.G & Frank D.N	Man and the Changing Environment.
03	Smith R.L	Man and his Environment.
04	Savindra Singh	Environmental Geography. Pravalika Publication, Allahabad.
05	Haggett .P	Geography of Modern Synthesis.
06	Saxena H.M	Environmental Geography.

07	Tark J.	Introduction of Environmental Studies.
08	Majid Hussain	Environmental Geography.

**Title of the Course: Geog-Prct. 3.5 QUANTITATIVE METHODS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To employ the Crop Combination Analysis as per J.C. Weaver's Method, Crop Concentration As per S.S. Bhatia's Method.
2.	To able to apply the methods for Functional Classification of Towns Nearest Neighbour Analysis, Centographic Analysis.
3.	To use the Shape Index and Detour Index for different situations.
4.	To emphasis on the application of Quantitative Methods in Geographical Research.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Lorenz Curve, Rank Size Rule, Crop Combination Analysis as per J.C. Weaver's Method, Crop Concentration As per S.S. Bhatia's Method.
<b>II</b>	Functional Classification of Towns by Web's method, Nearest Neighbour Analysis, Centographic Analysis.
<b>III</b>	Applications of Shape Index and Detour Index.
<b>IV</b>	Gravity Potential Model, Break Point, Urban Sphere of Influence.
<b>V</b>	Application of Quantitative Methods in Geographical Research.

**E: Suggested Readings:**

01	Singh .R.L	Elements of Practical Geography, Nagi Varanasi.
02	Kothari C.R	Research Methodology, Prakashan New Delhi.
03	Mishra R.P	Research Methodology in Geography.
04	Hammod .S&Oullah M.C	Quantitative Techniques in Geography: an Introduction, Clarendon Press, Oxford.

**Title of the Course: Geog- Prct. 3.6 AERIAL PHOTO INTERPRETATIONS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the development of Aerial photography and their types and mechanism of taking the photographs.
2.	To determine the scales of aerial photography with different parameters.
3.	To use the Pocket Stereoscope and Sketch Master, Mirror Stereoscope instruments.
4.	To define the applications of Remote Sensing: Mechanism of remote sensing, types of remote sensing, types of satellites.
5.	To interpret the Satellite Imageries (Visuals) based on the elements of aerial photos.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Development of Aerial Photography, Types of Aerial Photographs and Mechanism of taking Aerial photographs.
<b>II</b>	Determination of Scale of Aerial Photographs.
<b>III</b>	Elements of Aerial Photo Interpretation, Interpretation of aerial Photo pairs, use of Pocket Stereoscope and Sketch Master, Mirror Stereoscope. Interpretation of Satellite Imageries.
<b>IV</b>	Remote Sensing: Mechanism of remote sensing, types of remote sensing, types of satellites.
<b>V</b>	Interpretation of Satellite Imageries (Visuals).

**E: Suggested Readings:**

01	Er.Jain. V.K	Computer for Beginners.
02	Heywood, Cornelius, Carver	An Introduction to Geographical Information System.
03	Kumaraswami .K	Remote Sensing for Environmental Studies

**Semester-IV**

**Title of the Course: Geog-TP 4.1: NATURAL HAZARDS AND MANAGEMENT**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the origin of natural hazards and their nature.
2.	To classify the natural hazards and their characteristics.
3.	To discuss the Dimensions of Various Natural Hazards.
4.	To understand the hazards managements and their mitigations.
5.	To discuss the hazards management policies and role of National Emergencies and Management Authorities.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Natural Hazards: Meaning, origin and their nature.
<b>II</b>	Classification of Natural Hazards: Climatic, Geomorphic, Geological, Biological and Human induced Hazards.
<b>III</b>	Dimensions of Various Natural Hazards: Earthquakes, Volcanic Eruptions, Land Sliding and Avalanches. Floods and Droughts, Cyclones and Tsunamis, Deforestation and degradation of Bio-diversity.
<b>IV</b>	Hazards Management: Hazard event and Vulnerability, Risk Factors, Prevention measures, Mitigation Responses, Research and Rescue, Survival Skills, Relief and Rehabilitation.
<b>V</b>	Hazard Management Policies: National, State, District, Block and Village level. Role of National Emergencies and Management Authorities.

**E: Suggested Readings:**

01	Saxena H.M.	Environmental Geography, Rawat Publication, New Delhi.
02	Burton Robert W.K & Gilbert F.W.	The Environment as Hazard, Oxford University Press, New York
03	Savindra Singh	Environmental Geography,

**Title of the Course: Geog-TP4.2: GEOGRAPHY OF TOURISM**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To discuss the nature and concept of tourism: Definition of tourism
2.	To understand the impact of tourism
3.	To discuss the perseveration and development of Costal Tourism
4.	To understand the role of transportation in tourism
5.	To understand the Planning of Tourism Development: Resort Tourism Planning

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Nature and Concept of Tourism: Definition of Tourism, Concept of Tourism and emergence of tourism as an industry. Robinson's classifications of tourism. Domestic and International Tourism.
<b>II</b>	Impact of Tourism: Physical impact, impact on air and water quality. Socio- economic impacts. Historical, Cultural Sites and important cities in India and Karnataka.
<b>III</b>	Tourism and Environment: Persevation and development of Costal Tourism, Island Tourism, Mountain Tourism, Inland Water and Countryside Tourism.
<b>IV</b>	Transport and Tourism: Water Transport, Railways and Roadways. Development of Air Transport and International Agencies.
<b>V</b>	Planning of Tourism Development: Resort Tourism Planning, Tourism Policy and Spatial Planning for Tourism.

**E: Suggested Readings:**

01	Tiwari S.P.	Tourism Dimensions, Atmaram Publishers New Delhi, 1994.
02	Singh P.G.	50 Years of India Toursm, Atmaram publishers, New Delhi.
03	Arvill R.	Man and Environment – London Publishers, 1962
04	Aldos T.	Battle of Environment- London Publishers, 1972
05	Cohen E.	The Impact of Tourism , on Physical Environment, Annals of Tourism vol .1.2. 1978
06	Hudson	Geography Tourism Daya Publishing House, New Delhi.
07	Mowa , Sushma	Piligrmiage Tourism Marketing Strategy withspecial reference to Shree Mata Vaishnave Deve Shrine, 2004.

08	Richard Sharpley	Travel and Tourism.
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**Title of the Course: Geog-TP 4.3: PRINCIPLES OF REMOTE SENSING.**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To define the basic principles of Remote Sensing and its concepts.
2.	To understand the historical background of Aerial remote Sensing, types of aerial photos and scales of photos.
3.	To discuss the different types of satellites, platforms and resolutions and orbiting mechanism.
4.	To understand the Principles of Image Interpretation. Visual Interpretation Techniques. Marginal information and decoding.
5.	To discuss the Advantages of Remote Sensing over conventional Surveys, thrust areas of Remote Sensing and development of remote sensing in India.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Introduction to Remote Sensing: History and Concepts: Energy sources and Radiation Principles- Energy Interactions in the Atmosphere: Electromagnetic Spectrum, Atmospheric Windows, Energy interactions with Earth Surface features; Spectral reflectance patterns of earth surface features in different wavelengths.
<b>II</b>	Aerial Remote Sensing: Historical and types of photographs, scales of aerial photograph; scale distributions, photographic resolution. Aerial photo interpretation techniques- photo recognition, elements and equipment.
<b>III</b>	Satellite Remote Sensing: Different Satellites: Remote Sensing Platforms, Resolutions: Spectral, Spatial, Temporal and Radiometric resolutions of Satellites, Sensors: Scanning mechanism and orbiting mechanism. Characteristics of IRS.
<b>IV</b>	Principles of Image Interpretation: Elements of Image Interpretation, Visual Interpretation Techniques. Marginal information and decoding.
<b>V</b>	Advantages of Remote Sensing over conventional Surveys. Development of Remote Sensing in India. Thrust areas of Remote Sensing.

**E: Suggested Readings:**

01	Anji Reddy. M	Text book of Remote Sensing and Geographical Information System, B.S.Publications Hyderabad, 2008.
02	Barret, E.C.&L.F.Curtis	Fundamentals of Remote Sensing and Air Photo Interpretation, Mcmillan, New York.1992
03	Bhatta. B.	Introduction to Remote Sensing and GIS Oxford University Press.

04	Compbell, J.	Introduction of Remote Sensing Guilford, New York, 1989.
05	Curran, Paul, J.	Principles of Remote Sensing, Longman, London, 1985.
06	Kumarswamy. K. (Ed)	Remote Sensing for Environmental Studies, Union OffsetPrinters, Tiruchi, 2005.

**Title of the Course: Geog-TP 4.4: REGIONAL PLANNING.**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To understand the concept of region, regional analysis and importance in regional planning.
2.	To understand the basic issues in regional planning and economic development.
3.	To discuss the types of planning, choice of region and planning strategy.
4.	To understand the issues, growth pole concept and theory, policies and problems involved in regional planning.
5.	To plan for Regional Planning in Karnataka: Policies and Program for Backward Area Development.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	The Concept of region, regional analysis. Resource analysis. (Physical, Human, land and water) and its importance in regional Planning.
<b>II</b>	Basic issues in Regional Planning. Grass root level and Systems approach to Regional Planning, Regional interactions and economic development.
<b>III</b>	Types of Planning and choice of regions for planning purposes. Development strategy and planning for natural, Social and economically backward regions: Tribal and problem regional. Regional Planning for Rural Development.
<b>IV</b>	Growth Pole concept: Growth Point theory and regional Planning. Regional imbalances and regional Planning in India, Policies, issues, Problems involved.
<b>V</b>	Regional Planning in Karnataka: Policies and Program for Backward Area Development.

**E: Suggested Readings:**

01	Misra Prakash Rao&Sundaram	Regional Development Planning in India.
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02	Glasson	Introduction to Regional Planning.
03	Minshull, H.	Regional Geography.
04	Sundaram K.V.	Urban & Regional Planning in India.
05	Chamdana Puri	Regional Planning.

**Title of the Course: Geog-Prct. 4.5: COMPUTER APPLICATIONS & GIS**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

**Teaching Hours: 56**

**04 Hours per week.**

**C: Course Outcomes: After the completion of this course, students will be able to:**

<b>COS</b>	<b>Content</b>
1.	To understand the basics of computer and operate the M.S. Office.
2.	To handle the operational procedures of Graphical Representation of the data.
3.	To understand the applications of Geographical Information System
4.	To understand the Components of Geographical Information System and Operation of GIS.
5.	To classify the raster and vector data and to handle meta data for data analysis.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Basic of Computer Applications and operation of M.S. Word, M.S. Office, Excel and Power Point.
<b>II</b>	Graphical Representation of the data.
<b>III</b>	Applications of Geographical Information System in Geographical Analysis.
<b>IV</b>	Components of Geographical Information System and Operation in GIS.
<b>V</b>	Types of Geographical data: Vector and Raster, Meta data. Data Analysis.

**E: Suggested Readings:**

01	Anji Reddy. M	Text book of Remote Sensing and Geographical Information System, B. S. Publications, Hyderabad.
02	Er. V.K. Jain.	Computer for Beginners.
03	Heywood, Cornelius, Carver	An introduction to Geographical Information System.
04	K. Kumaraswamy	Remote Sensing for Environmental Studies.

**Title of the Course: Geog-Prct. 4.6: PROJECT WORK**

**Credits: 04**

**Maximum Marks: 75 + 25 IA Marks.**

Teaching Hours: 56

04 Hours per week.

**C: Course Outcomes:** After the completion of this course, students will be able to:

<b>COS</b>	<b>Content</b>
1.	To identify the project problem.
2.	To understand the data collection through the field work.
3.	To form the hypothesis for the project.
4.	To analyse the data by using different techniques suits to the problem.
5.	To finalise the project report.

**D: Detail Curriculum:**

<b>Unit</b>	<b>Content</b>
<b>I</b>	Identification of Problem.
<b>II</b>	Field Work and Data Collection.
<b>III</b>	Formation of hypothesis.
<b>IV</b>	Data Analysis.
<b>V</b>	Finalization of Dissertation and Submission.

**E: Reference:**

01	Hagget P.	Locational Analysis in Human Geography.
02	Douglas and Colledge	An Introduction to scientific Reasoning in Geography.
03	Harvey D.	Explanation in Geography.
04	Chorley R.J.	Directions in Geography.
05	Waye & Davis	The conceptual Revolution in Geography.
06	Roger Minshull	An Introduction to Models in Geography.
07	Gosh B.N.	Scientific Method and Social Research.
08	Arya A.S.	Guide to thesis and Paper writing.
09	Beaheu Garnier	Methods and Perspectives in Geography.

**A: Ph. D PROGRAMME SPECIFIC OUTCOMES (PSOS) IN GEOGRAPHY**

<b>Course Code</b>	<b>Compulsory/ Specializations</b>	<b>Title of the Paper</b>	<b>IA Marks</b>	<b>Exam Marks</b>	<b>Total Marks</b>
Geog- CTP- I	<b>Compulsory Paper</b>	Research Methodology	<b>50</b>	<b>50</b>	<b>100</b>
Geog- CTP -II	<b>Compulsory Paper</b>	Geography (Core).	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -I	Specialization Paper	Geomorphology and Hazard Studies	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -II	Specialization Paper	Resource Analysis and Management	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -III	Specialization Paper	Settlements Analysis	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP- IV	Specialization Paper	Marketing Analysis	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP- V	Specialization Paper	Population Studies	<b>50</b>	<b>50</b>	<b>100</b>
Geog-SPT -VI	Specialization Paper	Regional Planning and Development	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -VII	Specialization Paper	Environmental Geography	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -VIII	Specialization Paper	Geography of Agriculture	<b>50</b>	<b>50</b>	<b>100</b>
Geog-STP -IX	Specialization Paper	Geography of Tourism	<b>50</b>	<b>50</b>	<b>100</b>

**B: Ph. D Programme Outcome in Geography:**

<b>PO 1</b>	Enrich the knowledge of understanding the approaches in geographical research with historical, experimentation and case studies.
<b>PO 2</b>	Enhanced the capabilities to prepare the research design in geographical research.
<b>PO 3</b>	Capable to conduct field survey and able to collect the relevant information required for geographical research.
<b>PO 4</b>	Enhanced the capabilities to prepare the maps by handling the Quantitative Techniques, Statistical Methods, and Cartographic Methods in geographical research.
<b>PO 5</b>	Enhance the knowledge and the skills in Map Making procedures and Principles of Cartography and exposure in the technology for handling the spatial and non-spatial data and to integrate in Geographical Environment and Remote Sensing.
<b>PO 6</b>	Enhanced the skills in thesis writing with an effective Introduction, related to the Topic, Review of Literature, Content, Critical Analysis, Language, Planning Strategy and References along with appendix.
<b>PO 7</b>	Enhanced the knowledge in geography through the research not only from the academic point of view, but also the societal needs on any geographical space.
<b>PO 8</b>	Demonstrate the innovative skill developed in the specialized areas of geographical research to extend the horizon of the knowledge in the discipline.
<b>PO 9</b>	Encouragement to develop the multi - discipline in the research to enrich the knowledge in different discipline.
<b>PO 10</b>	Capable to conduct the research and to gain research knowledge by handling the important issues related both human aspects as well as natural point of view with special focuses on Environment.

**Title of the Course: Geog- CTP- I: RESEARCH METHODOLOGY**

**Teaching Hours: 04 Hours Per Week.  
Marks.**

**Maximum Marks: 50 + 50 IA**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the approaches in research and able to discuss.
CO2	Identify the research problem and prepare the research design.
CO3	Collect the information/ data through the field survey.
CO4	Analyze the data by employing the research techniques and prepare the maps by using GIS and Remote Sensing.
CO5	Write the thesis as per the frame of the research and prepare the planning strategy.

**D: Detail Curriculum:**

Unit	Content
I.	Attitude to Research, Approaches in Science Research Historical, Descriptive, Experimental, Case study, Nomothic and Ideographic, Deductive & Inductive, Scientific geographic research.
II.	Research Topic and Design: Identification of problem Study Area, Formulation of Hypothesis, Testing of the Hypothesis and Organization of the chapters
III.	Field survey Data collection: Primary and Secondary sources, observation, perception, Interview, Questionnaire, scheduled and checklist.
IV.	Data Analysis and Mapping: Quantitative Techniques, Statistical Methods, Cartographic Methods, GIS and Remote Sensing.
V.	Thesis writing: Effective Introduction, Concepts Related to the Topic, Review of Literature, Content, Critical Analysis, Language, Planning Strategy and References with Required appendix.

**E: REFERENCES:**

01	Hagget P.	Locational Analysis in Human Geography.
02	Douglas and Colledge	An Introduction to scientific Reasoning in Geography.

03	Harvey D.	Explanation in Geography.
04	Chorley R.J.	Directions in Geography.
05	Waye & Davis	The conceptual Revolution in Geography.
06	Alber, Adams and Gould	Spatial Organization
07	Roger Minshull	An Introduction to Models in Geography.
08	Gosh B.N.	Scientific Method and Social Research.
09	Arya A.S.	Guide to thesis and Paper writing.
10	Beaheu Garnier	Methods and Perspectives in Geography.

**Title of the Course: Geog- CTP -II: GEOGRAPHY (CORE)**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the Principles of Geomorphology and discuss effectively.
CO2	Discuss the fundamental elements of Climate, structure and composition.
CO3	Identified the Endangered Species of Plants and Animals. Deforestation and Desertification of regions.
CO4	Discuss the Man-Environmental Relationships and human interaction on environment.
CO5	Delineate the regions based on the concept of regions and their types.

**D: Detail Curriculum:**

Unit	Content
I.	Principles of Geomorphology, Interior of the Earth, Isostasy, Thermal Cycles convection current theory, Plate Tectonics Earth Movements, Phases of Mountain Building, Denudation, Cycle of Erosion, Landforms of Humid, Arid, Karst, Glacial and coastal Regions, Erosional and Depositional Features. Types of Streams and Drainage Pattern Development / watersheds. Morphometric Analysis. Gravity & Mass Wasting, Hills lope Development.

II.	Weather and Climate, Structure and Composition of the Atmosphere: Horizontal and Vertical Distribution of Temperature, Air pressure Belts and Planetary Winds. Air Masses, Types of Cyclones and their Effects, Mechanism of Manson winds, classification of Climate, Climate change, origin and Distribution of oceans and continents, Hypsographic Curve, Hydrological cycle, ocean currents, salinity, temperature, Oceans as storehouse of food and Mineral Wealth.
III.	Phytogeographic Regions of the world. Zoogeographical Regions of the world. Endangered Species of Plants and Animals. Deforestation and Desertification Soil-Water and plant systems, Soil Erosion.
IV.	Man-Environmental Relationships, Types of Resource and Resource Analysis Agricultural systems in the world. Main Aspects of Mining Activities, Means of Transportation in the world and their Significance, Growth and Distribution of Population in the world , and Composition of Population, Fertility, Mortality and Mobility(Migration) Patterns, Rural and Urban Settlement systems, and settlement analysis, Settlements as Market centres and their hierarchy, Major Fisheries Grounds in the world. Major Industrial Regions of the world, Trade and Commerce in the world, Main Tourism in the world.
V.	Concept of Region, types of Region, Methods of Regionalization, Regional Analysis, Regional Planning and Stages of Planning, Planning Authorities. Urban and Rural Planning, Land Suitability and Landuse Planning, Planning for Transportation and Marketing Centers; Planning for Backward Ares and Tribal area Areas.

#### **E: REFERENCES:**

01	Wooldrige S.W&Morgan R.S.	An outline of Geomorphology, Longman - 1959
02	Strahler A.N. &Strahler A.H.	Modern Physical Geography, Jhon Wiley -1992
03	Thornburg W.D.	Principles of Geomorphology, Wiley – 1963
04	Trewarthe G.T.	An Introduction to Climate
05	Critch Filed	Climatology
06	Shorma and Vatal	Oceanography for Geographers
07	Majid Hussain	Agricultural Geography
08	Jasbir Singh	Agricultural Geography
09	Saxena H.M	Geography of Marketing
10	Eliot Hurst(Ed)	Transportation Geography

11	Negi B.S.	Human Geography
12	Herold Carter	Settlement Geography
13	Singh R.Y	Geography of Settlement
14	Peter Hegget	Locational Analysis in Human Geography
15	Hudson F.S.	Urban Geography
16	Ramegouda K.S.	Urban and Regional Planning
17	Chandana R.C.	Geography of Population
18	Savindra Singh	Environmental Geography
19	Sundaram K.V.	Urban and Research Planning in India,
20	Memoria C.B.	Economic and Commercial Geographical of the world
21	Mallappa P.	Economic and Commercial Geographical of the world

### Area of Specialization

**Title of the Course: Geog-STP-I: GEOMORPHOLOGY AND HAZARD STUDIES**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Define the principles of Geomorphology, evolution, structure and process.
CO2	Discuss the Isostasy, Continental Drift, Plate tectonics, thermal Cycles, and Convectional Currents
CO3	Understand the concepts of denudation i.e. Weathering and Erosion Physical, Chemical and Biological weathering.
CO4	Discuss the Geomorphic Hazards their Origin and Nature, classification, changing Landform structure.
CO5	Analyze the Hazards Management through the Policies, Risk Management and Mitigation, Survival Skills, Rescue operations, Relief and Rehabilitation.

### **D: Detail Curriculum:**

Unit	Content
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I	Principles of Geomorphology: Uniformitarian's, Orderly Sequence of Landforms, Complexity of Geomorphic Evolution and Structure, Process and Stage /time etc.
II	Geotectonic Hypothesis:Isostasy, Continental Drift, Plate tectonics, thermal Cycles, and Convectional Currents
III	Denudation:Weathering and Erosion Physical, Chemical and Biological weathering.Maswasting and Slope Development. Fluvial Process and Marphometric Analysis.
IV	Geomorphic Hazzard;Origin and Nature, classification, changing Landform structure with special reference to flood and drought.
V	Hazards Management:Policies, Risk Management and Mitigation, Survival Skills, Rescue operations, Relief and Rehabilitation.

**E: REFERENCES:**

01	Arther Bloom	Geomorphology.
02	Spark B.W.	Geomorphology.
03	Thornburry W.D.	Principles of Geomorphology
04	Saxena H.M.	Environmental Geography
05	Burthon R.W.K. & Gilbert F.W.	The Environment As Hazard.

**Area of Specialization**

**Title of the Course: Geog-STP -II: RESOURCE ANALYSIS AND MANAGEMENT**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the Concept of Resource, Classification, Significance and Economic importance.
CO2	Discuss the different types of land resources and utilization along with management of the resource
CO3	Discuss the importance of the Soil Resources and Mineral Resource of economic importance.
CO4	Understand the Climatic regions, Agro-climatic regions, Hydrological Cycle, Green house effect in the region under investigation.
CO5	Discuss the Animal wealth and potentiality, Livestock and dairying Economic Significance of animal wealth, Human Resource Development and Polices.

**D: Detail Curriculum:**

Unit	Content
I.	Concept of Resource, Classification, Significance and Economic importance.
II.	Resources: Land and Water. Land-use, Land capability, Wasteland reclamation, Land Erosion, Degradation, Wasteland reclamation, Sources of water and potential, watershed Management, rain water harvesting water pollution, and Land water Management.
III.	Soil Resources and Mineral Resource. Soil types, Profile Soil Properties, Permeability, and Infiltration soil fertility, Ph-value, Soil erosion, Soil Pollution, Soil Management, Metallic and Non-Metallic Minerals, Economic Significance of Minerals.
IV.	Climate and Vegetation Resource: Climatic regions, Agro-climatic regions, Hydrological Cycle, Green house effect, Air pollution, and controlling measures, Types of Vegetation and distribution of biomes, deforestation and its consequences, a afforestation and forest polices.
V.	Animal and Population Resources: Animal wealth and potentiality, Livestock and dairying Economic Significance of animal wealth, Human Resource Development and Polices.

**E: REFERENCES:**

01	Harald Smith	Conservation of Natural Resources.
02	Khanna and Gupta	Economic and Commercial Geography.
03	Negi B.S.	Geography of Resource.
04	Tikka R.N.	World Regional Geography.
05	Zimmerman E.W.	World Resources and Industries.
06	Bruce Mitchell	Geography and Resource Analysis  1) Land Resource2) Water Resource  3) Vegetation. Resource4) Climate Resource

		5) Animal Resource 6) Population Resource 7) Soil and Mineral Resources.
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### Area of Specialization

**Title of the Course: Geog-STP -III: SETTLEMENTS ANALYSIS**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Discuss the concept of settlements and their types.
CO2	Trace the urbanization process, trends, stages and migration.
CO3	Understand the Rural depopulation, Socio-Economic conditions of Rural Settlements: Spatial patterns of Rural Settlements.
CO4	Prepare the strategic urban planning based on the theories and models.
CO5	Prepare the Rural Development Planning and deal with Policies.

**D: Detail Curriculum:**

Unit	Content
I.	Origin and Evolution of Settlements, Concept of Rural and Urban Settlements, Rural Urban Continuum, Urban Fringe and Urban Corridor.
II.	Process of Urbanizations, trends, phases/stages, Urban sphere of influence, spatial movements and interaction, migration.
III.	Types of Rural Settlements, Rural depopulation, Socio-Economic conditions of Rural Settlements: Spatial patterns of Rural Settlements.
IV.	Urban Planning: Theories/models of Urban, Land –use, Principles of Urban Planning/Master Plan.
V.	Rural Development Planning and Policies.

**E: REFERENCES:**

01	Hugh D. Clout	Rural Geography, An Introductory Survey, Peramon Press, New York.
02	Baker ARH	The Geography of Rural Settlements, Trends in Geography, By Cooke & Johnson, Peergamon, Oxford
03	Singh R.L.	Rural Settlements in Monsoon Asia, NGSI, Varanasi
04	Mandal R.B.	Introduction of Rural Settlements Concepts, New Delhi.
05	Berry Horton	Geography perspectives on urban systems, Prentice Hall, Englewood Cliffs, New Jersey
06	Ghosh	Settlement Geography.
07	Mayer and Khon	Readings in Urban Geography, McGraw-Hill, New-York.
08	Murphy R.E.	The American City: An urban Geography. McGraw-Hill,

### **Area of Specialization**

**Title of the Course: Geog-STP- IV: MARKETING ANALYSIS**

**Teaching Hours: 04 Hours Per Week. Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the Concepts of Marketing Geography and its significance.
CO2	Discuss the evolutionary process of markets with the theories.
CO3	Classify the markets based on its functioning process.
CO4	Determine the hierarchy of the market settlements with related parameters.
CO5	Prepare the planning strategy for rural development as well as regional development.

**D: Detail Curriculum:**

Unit	Content
I.	Concepts of Marketing Geography: Marketing as Geographical Phenomena, Marketing Geography as an area of specialization, Importance of Market Settlements among the settlement systems.
II.	Evolutionary aspects of trade system: Early history of trade and beginning of market place trade, Emergence of periodic markets, Theories of market origin.
III.	Classification of Market: Permanent, Periodic, Fair, Retailing, Wholesaling and Services
IV.	Spatio-Temporal distribution of markets, Synchronization, characteristics of Markets, Hierarchical Integration of Periodic markets in the market systems
V.	Market centers and Integrated Area development, Role of Periodic markets in the developments of rural India, Regulated markets and regional development.

**E: REFERENCES:**

01	Davis R.L.	Marketing Geography, Mathuen and Co, London
02	Carnier&Delobez	Geography of Marketing, Longman, London
03	Saxena H.M.	Geography of Marketing, Concepts and Methods, New Dehli
04	Dixit R.S.	Market Centers and Their Spatial Development in the Umland of Kanpur, Kitab Mahal, Alabhabad.
05	Berry B.J.L.	Geography of Market centres and retail distribution, Prentice-Hall, Englewood Cliffs, New Jersey.
06	Beishaw C.S.	Traditional Exchange and Modern markets. Prentice Hall, Englewood Cliffs.
07	Bormely R.J.	Periodic Markets, Daily Markets and Fair Swanses.
08	Hugar S.I.	Traditional and Non-Traditional Market Exchange.A Study in Spatial Development. Ganga Cauveri Publication, Varanasi.
09	Mulimani A.A.	Marketing Geography: A Spatio - Functional Perspective.
10	Wanmali.S.	Periodic Markets and Rural Development in India. B.R.Publication.

### Area of Specialization

#### Title of the Course: Geog-STP- V: POPULATION STUDIES

Teaching Hours: 04 Hours Per Week.

Maximum Marks: 50 + 50 IA Marks.

#### C: Course Outcomes: After the completion of this course, researcher will be able to:

CO1	Discuss the Geographical Perspective of Population studies and population distribution.
CO2	Understand the Theories of population and its distribution in India and world with Fertility Morality and Mobility Factors.
CO3	Analyze the Growth of Population and its distribution in India and World. Fertility Morality and Mobility Factors.
CO4	Discuss the Concepts of Optimum, over and under population, Population explosion. Population and resource balance
CO5	Critically assess the Population Polices in Developing and Underdeveloped countries Population Polices, Measure of Population Control

#### D: Detail Curriculum:

Unit	Content
I.	Geographical Perspective of Population studies Physical/Socio-Economicdeterments of Population distribution.
II.	Theories of population and its distribution in India and world Fertility, Mortality and Mobility Factors. Demographic Transition model Phases.
III.	Growth of Population and its distribution in India and World. Fertility Morality and Mobility Factors
IV.	Concepts of Optimum, over and under population, Population explosion. Population and resource balance
V.	Population Polices in Developing and Underdeveloped countries Population Polices, Measure of Population Control

#### E: REFERENCES:

01	Garnier B.J.	Geography of Population
02	Chandana R.C	Geography of Population
03	Clerk J.L.	Population Geography
04	Ghosh B.N.	Population Theories and Analysis

05	Trewartha G.T.	Geography of Population.
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**Area of Specialization**

**Title of the Course: Geog-STP- VI:REGIONAL PLANNING AND DEVELOPMENT**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the Conceptual Basics of Regional Planning, Scope, Goals, Objective and need for Regional Planning and Regionalization.
CO2	Discuss the Concept of Region, Types of Region, Formal and Functional, Economic and Physical Planning Region.
CO3	Understand the basics of planning and types of Physical and Economic Planning, Sectoral and Spatial Planning, Centralized and decentralized planning.
CO4	Prepare the Planning strategy for Urban and Rural land use, Industries, Draught prone areas, Resource and Environmental issues.
CO5	Discuss the Management and Sustainable Development of Resources: Human, Water, Land, Forest, Mineral and Food

**D: Detail Curriculum:**

Unit	Content
I.	Conceptual Basics of Regional Planning: Definition, Scope, Goals, Objective and need for Regional Planning and Regionalization.
II.	Region in Regional Planning: Concept of Region, Types of Region, Formal and Functional, Economic and Physical Planning Region, Methods of Regionalization.
III.	Basics of Planning: Concepts of Types of Planning : Physical and Economic Planning, Sectoral and Spatial Planning, Centralized and decentralized planning.
IV.	The Practical of Regional Planning: Planning for Urban and Rural land use, Industries, Draught prone areas, Resource and Environmental issues.
V.	Management and Sustainable Development of Resources: Human, Water, Land, Forest, Mineral and Food.

**E: REFERENCES:**

01	R.P. Mishra, K.V. Sundaram and VLS Prakash Rao,	Regional Development Planning in India, 1976.
02	R.P. Mishara	Regional Planning, Concepts, Techniques, Policies and Caste Studies, 2004.

03	R.P. Mishra, D.V. Ura & V.K. Nataraj	Regional Planning and National Development, 1997
04	Jhon Glasson	An Introduction to Regional Planning: Concepts, Theory and Practices.
05	Pandey D.D. & Tiwari P.C.	Dimensions of development Planning
06	Mahesh Chand, V.K. Puri	Regional Planning in India, 1993.
07	Roger Minshall	Regional Geography: Theory and Practice.
08	Jayasri Ray Chaudhari	An Introduction to Development and Regional Planning.

### Area of Specialization

**Title of the Course: Geog-STP VII: ENVIRONMENTAL GEOGRAPHY**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Understand the Nature, Scope and Significance of Environmental Geography
CO2	Discuss the Biomes, importance and economic significance of forests. Afforestation, deforestation – causes and Consequences
CO3	Examine the Nature and Types of degradation, Cause and effects of Environmental degradation.
CO4	Discuss the Environmental Pollution – Air, Water, Land and noise pollution, and their consequences. Measures to control environmental Pollutions.
CO5	Discuss the Global Warming, Ozone Layer depletion and its consequences. Environmental Impact assessment (EIA), Sustainable Environmental Development

**D: Detail Curriculum:**

Unit	Content
I.	Nature, Scope and Significance of Environmental Geography, Meaning of Environment, biotic and abiotic Components of environment
II.	Biomes: Forest and types of Forest biomes. Importance and economic significance of forests. Afforestation, deforestation – causes and Consequences. Social forestry and Agro forestry, National forest policy and India.

III.	Environmental Degradation – Nature and Types of degradation, Cause and effects of Environmental degradation.
IV.	Environmental Pollution – Air, Water, Land and noise pollution, and their consequences. Measures to control environmental Pollutions.
V.	Global Warming, Ozone Layer depletion and its consequences. Environmental Impact assessment (EIA), Sustainable Environmental Development

#### **E: REFERENCES:**

01	Straler and Straler A.H.	Geography of Man's Environment.
02	Frant R.G. and Frank D.N.	Man and the Changing Environment.
03	Smith R.L.	Man and his Environment.
04	Savindra Singh	Environmental Geography.
05	Hagger P.	Geography of Modern Synthesis.
06	Saxena H.M.	Environmental Geography.
07	Mazid Hussain	Environmental Geography.

#### **Area of Specialization**

**Title of the Course: Geog-STP VIII: GEOGRAPHY OF AGRICULTURE**

**Teaching Hours: 04 Hours Per Week.**

**Maximum Marks: 50 + 50 IA Marks.**

**C: Course Outcomes: After the completion of this course, researcher will be able to:**

CO1	Examine the Physical, Socio-Economic and Technological Factors Affecting the Agriculture.
CO2	Discuss the Agricultural Systems in the World: Commercial Farming, Truck Farming, Intensive and Extensive Agriculture, Subsistence Agriculture.
CO3	Discuss the agricultural regions by employing the Weavers Crop-Combination technique. Kendal's method of Agricultural Efficiency, Von Thunen's Model, S.S. Bhatia's Crop Concentration Method.
CO4	Discuss the Green Revolution in India and different pattern of agricultural crops.
CO5	Analyse the problems of agriculture and Agricultural policies in India.

**D: Detail Curriculum:**

Unit	Content
I.	Nature and Scope of Agricultural Geography. Physical, Socio-Economic and Technological Factors Affecting the Agriculture.
II.	Agricultural Systems in the World: Commercial Farming. Truck Farming, Intensive and Extensive Agriculture, Subsistence Agriculture.
III.	Agricultural Region and Regionalization: Weavers Crop-Combination technique. Kendall's method of Agricultural Efficiency, Von Thunen's Model, S.S. Bhatia's Crop Concentration Method.
IV.	Green Revolution in India: Regional Disparities. Production and Distribution of Major agricultural crops: Wheat, Rice, Jowar, Maize, Sugarcane, Cotton, Tea & Coffee plantations.
V.	Agricultural Problems: Soil Erosion and Pollution, Salinization, Water logging, Fallow land, Use of Chemical fertilizers and Health Hazards, Remedial measures to overcome the problems. Agricultural policies in India

**E: REFERENCES:**

01	Hussain M	Agriculture Geography, Inter-India Publications Delhi
02	Orgon and Munton	Agriculture Geography, Methuen, London.
03	Symons L.	Agriculture Geography, Bell and Sons, London
04	Tarrant J.R.	Agriculture Geography, David and Charles, Newton
05	Greger H.F.	Geography of Agriculture: Themes in Research Prentice-Hall, Eaglewood Cliff, London
06	Ilbury B.W.	Agriculture Geography, Oxford University Press.
07	Singh Jasbir & Dhillion S.S.	Agriculture Geography, New-Delhi.

### Area of Specialization

#### Title of the Course: Geog-STP IX: GEOGRAPHY OF TOURISM

Teaching Hours: 04 Hours Per Week.

Maximum Marks: 50 + 50 IA Marks.

#### C: Course Outcomes: After the completion of this course, researcher will be able to:

CO1	Discuss the Emergence of Tourism as an Industry, Classification of Tourism, Domestic and International Tourism.
CO2	Discuss the Types of Tourist Sites and Heritage buildings in India and Karnataka
CO3	Critically Assess the Impact of tourism on environment.
CO4	Examine the Infrastructural Facilities, Transport Routes: Waterways, Railways, Roadways and Airways Transport Agencies and Guides. Hotels and Motels.
CO5	Prepare the Tourism Planning in India and Karnataka, Tourism Policies. Spatial Dimensions in Tourism Planning.

#### D: Detail Curriculum:

Unit	Content
I.	Meaning and Nature of Tourism, Emergence of Tourism as an Industry, Classification of Tourism, Domestic and International Tourism.
II.	Types of Tourist Sites: Physical, Cultural and Religious Sites, Major Tourist sites in the world, India and Karnataka significance of tourist sites and buildings. Heritage buildings and sites in India and Karnataka
III.	Tourism and Environment: Impact of tourism on environment. Physical, Cultural and economic impacts. Coastal Tourism, Island Tourism, Mountain Tourism Inland water and Countryside Tourism, Hill Stations.
IV.	Tourism Development: Infrastructural Facilities, Transport Routes: Waterways, Railways, Roadways and Airways Transport Agencies and Guides. Hotels and Motels.
V.	Tourism Planning in India and Karnataka, Tourism Policies. Spatial Dimensions in Tourism Planning.

#### E: REFERENCES:

01	Tiwari S.P.	Tourism Dimensions, Atmaram Publishers New Delhi, 1994.
02	Singh P.G.	50 Years of India Tourism, Atmaram publishers New Delhi.
03	Arvill R.	Man and Environment – London Publishers, 1967.
04	Aldos T.	Battle of Environment- London Publishers, 1972.

<b>05</b>	Cohen E.	The Impact of Tourism, on Physical Environment, Annals of Tourism Vol.1&2, 1978.
<b>06</b>	Hudson	Geography Tourism Daya Publishing House, New Delhi.
<b>07</b>	Mowa , Sushma	Piligrmiage Tourism Marketing Strategy with special reference to Shree Mata Vaishnave Deve Shrine, 2004.
<b>08</b>	Richard Sharpley	Travel and Tourism.
<b>09</b>	A. K. Bhatia	Tourism Development: Principles and Practice Sterling Publishers Pvt. Ltd, New Delhi, 2002.

# KARNATAK UNIVERSITY, DHARWAD



P.G. Department of Studies in Geology

SYLLABUS

For

GEOLOGY-M.SC. APPLIED GEOLOGY

Under CBCS (New Scheme)

With effect from 2011-12

KARNATAK UNIVERSITY, DHARWAD



## SYLLABUS

For

P.G. DEPARTMENT OF STUDIES IN

Geology

M.Sc. APPLIED GEOLOGY

Choice Based Credit System (CBCS)

(New Scheme)

With effect from

2011-12

**Theory Question Paper pattern for Semester Examinations of 2011-12 onwards**

M.Sc. \_\_\_\_\_ Semester Examination

Subject \_\_\_\_\_

Paper Title \_\_\_\_\_

Time : 3 hours

Max. Marks : 75

**SECTION – A**

4 X 4 = 16 marks

- QUE. 1    (a) \_\_\_\_\_ (Unit I)  
              (b) \_\_\_\_\_ (Unit II)  
              (c) \_\_\_\_\_ (Unit III)  
              (d) \_\_\_\_\_ (Unit IV)

**SECTION – B**

6 X 4 = 24 marks

- QUE. 2    (a) \_\_\_\_\_ (Unit I)  
              (b) \_\_\_\_\_ (Unit II)  
              (c) \_\_\_\_\_ (Unit III)  
              (d) \_\_\_\_\_ (Unit IV)

## SECTION – C

- QUE. 3 (a) 

OR

 } (Unit I) 09 marks
- (b) 

OR

 } (Unit II) 09 marks
- (c) 

OR

 } (Unit III) 09 marks
- (d) 

OR

 } (Unit IV) 08 marks

**KARNATAK UNIVERSITY, DHARWAD**  
**POST-GRADUATE DEPARTMENT OF STUDIES IN GEOLOGY**  
**Course Structure and Scheme of Examination**

**PROGRAM OUTLINES**

**FIRST SEMESTER**

Description of Papers	Credits	No. of Hrs/ Week Theory / Practical	Duration of exam in Hrs Theory / Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
<b>Theory</b>						
CT AG.1.1 : Stratigraphy and Palaeontology	4	4	3	25	75	100
CTAG.1.2 : Mineralogy	4	4	3	25	75	100
CTAG.1.3:Geodynamics and Structural Geology	4	4	3	25	75	100
CTAG.1.4: Gemstones and Industrial Minerals	4	4	3	25	75	100
<b>Practical's</b>						
CPAG.1.5: Palaeontology (35) and Viva (05)	2	4	4	10	40	50
CPAG.1.6: Mineralogy (35) and Viva (05)	2	4	4	10	40	50
CPAG.1.7: Structural Geology (35) and Viva (05)	2	4	4	10	40	50
	<b>22</b>	<b>28</b>	<b>24</b>	<b>130</b>	<b>420</b>	<b>550</b>

## SECOND SEMESTER

Description of Papers	Credits	No. of Hrs/ Week Theory / Practical	Duration of exam in Hrs Theory / Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
<b>Theory</b>						
CTAG.2.1: Petrology	4	4	3	25	75	100
CTAG.2.2: Mining Geology	4	4	3	25	75	100
CTAG.2.3: Ore Geology, Indian Mineral Deposits and Energy Resources	4	4	3	25	75	100
ETAG.2.4: Earth Science – I (Elective)	4	4	3	25	75	100
<b>Practical's</b>						
CPAG.2.5: Petrology (35) and Viva (05)	2	4	4	10	40	50
CPAG.2.6: Ore Geology (35) and Viva (05)	2	4	4	10	40	50
CPAG.2.7 : Ore Reserve Estimation (35) and Viva (05)	2	4	4	10	40	50
	<b>22</b>	<b>28</b>	<b>24</b>	<b>130</b>	<b>420</b>	<b>550</b>

### THIRD SEMESTER

Description of Papers	Credits	No. of Hrs/ Week Theory / Practical	Duration of exam in Hrs Theory / Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
<b>Theory</b>						
CTAG.3.1: Geochemistry	4	4	3	25	75	100
CTAG.3.2:Hydrogeology	4	4	3	25	75	100
CTAG.3.3:Mineral Economics and Engineering Geology	4	4	3	25	75	100
ETAG.3.4: Earth Science-II (Elective)	4	4	3	25	75	100
<b>Practical's</b>						
CPAG.3.5: Geochemistry (35) and Viva (05)	2	4	4	10	40	50
CPAG.3.6:Hydrogeology (35) and Viva (05)	2	4	4	10	40	50
CPAG.3.7: Geostatistics and Computer Application (35) and Viva (05)	2	4	4	10	40	50
	<b>22</b>	<b>28</b>	<b>24</b>	<b>130</b>	<b>420</b>	<b>550</b>

## FOURTH SEMESTER

Description of Papers	Credits	No. of Hrs/ Week Theory / Practical	Duration of exam in Hrs Theory / Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
<b>Theory</b>						
CTAG.4.1: Mineral Beneficiation and Environmental Geology	4	4	3	25	75	100
CTAG.4.2: Geochemical Exploration (40) and Geophysical Exploration (40)	4	4	3	25	75	100
CTAG.4.3: Photogeology and Remote Sensing	4	4	3	25	75	100
CTAGP.4.4: Project Work	6	4	Dissertation Evaluation 75 Marks	25	* Viva Voce 50 marks	150
<b>Practical's</b>						
CPAG.4.5:Mineral Beneficiation (35) and Viva (05)	2	4	4	10	40	50
CPAG.4.6: Exploration Geophysics (35) and Viva (05)	2	4	4	10	40	50
CPAG.4.7: Photogeology and Remote Sensing (35) and Viva (05)	2	4	4	10	40	50
	<b>26</b>	<b>28</b>	<b>21</b>	<b>130</b>	<b>395</b>	<b>600</b>

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Understand the different branches, concepts and its application in the field of Geology.
2. Learn the practical skills to work in the field as a professional Geologist, Hydrogeologist and Geophysicist.
3. Understand the needs and requirements of different agencies/stakeholder in the field of mineral development and water technology.
4. Effectively use Information and Communication Technology (ICT) in the study of remote sensing and geographic information systems and work as a GIS Analyst.

**KARNATAK UNIVERSITY, DHARWAD**  
**POST-GRADUATE DEPARTMENT OF STUDIES IN GEOLOGY**  
**SYLLABUS FOR M.SC. APPLIED GEOLOGY**

**CHOICE BASED CREDIT SYSTEM**  
**(CBCS)**

**M.Sc. I Semester**  
**THEORY**

<b>Paper Code and Name</b>	<b>CTAG:1.1 STRATIGRAPHY AND PALAEONTOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Student will understand the principle of chronological information
Unit-II	Student will understand the different lithologies
Unit-III	Student will be able to reconstruct taphanomic history of fossil assemblage
Unit-IV	Student will be able to understand the various morphological features, ages and their depositional environment

**CTAG-1.1. STRATIGRAPHY AND PALAEONTOLOGY**

**UNIT I**

Definitions of Craton, Shield, Basement and Supracrustals. Archeans of Aravallis, Extra Peninsular, Central India and Karnataka craton.

**12 hrs.**

**UNIT II**

Proterozoic successions – Cuddapah, Kaladgi and Vindhyan basins. Gondwana Formations of India – their tectonic relations, origin and distribution. Cretaceous Formations of Tiruchirapally. Deccan Traps – Classification, distribution and age. Siwalik Formations.

**12 hrs.**

**UNIT III**

Principles and procedures in paleontology, Nature and methods of preservation of fossils, Importance and use of fossils, Origin and evolution of life, Life zones in the ocean..

**12 hrs.**

**UNIT IV**

Taxonomic classification, Morphological features, Evolutionary trends and geological distribution of Principle groups of invertebrates - Corals, Brachiopods, Pelcypods, Cephalopods, Trilobites and echinoids. Plant life through ages, Gondwana flora.

Micropalaeontological studies – study of shell morphology, Classification and the geological distribution of foraminifera, Pollen and Spores.

**12 hrs.**

**Total 48 hrs**

**Books Recommended :**

1. Geology of India D. N. Wadia Tata Mac Graw Hill Co 1975.
2. Pre-Cambrian Geology of India : S.M. Naqvi & JJW Rogers, Oxford University, Press London.
3. Pre-Cambrian of South India : S.M. Naqvi & JJW Rogers, Memoir No. 7, Geol.Soc.of India 1988
4. Geology of Karnataka: B.P. Radhakrishna & R. Vaidyanadhan 1994.
5. Purana Basis of Peninsular India – middle & late Proterozoic: B.P. Radhakrishna (Ed) Memoir no.6, Geol.Soc.of India.
6. Purana Basins of Peninsular India Memoir 6, Geol. Soc. Of India.
7. Precambrian of the eastern Indian Shield Memoir 8, Geol. Soc. Of India.
8. Precambrian of the Eastern Aravalli Mountain Memoir 7, Geol. Soc. Of India.
9. Decan volcanisim memoir 3, Geol. Soc. Of. India.
10. Cretaceous Stratigraph and Palaeoenvironments, Memoir 73, Geol. Soc. Of. India.
11. Elements of Palaeontology Claude Babin John Witney & Sons 1980.
12. Hand Book of Palaeontological Technique: B. Kummel Freeman Co., 1965.
13. Introduction to Micro Fossils : D. Jones Harper, 1956.
14. Out lines of Palaeontology: H.H. Swinnerton Edward Homold 1965.
15. Palaeontology: Invertebrates Henry woods Cambridge University Press 1982.
16. Invertebrate Palaeontology and Evolution.. IV Ed. Blackwell: Clarkson, E.N.K. 1998
17. Brinting Fossils to Life- An introduction to Palaeobiology: MC Graw Hill : Prothero. D.R. 1998.
18. Plant Life through the ages: A.C. Seward Hafner Publication 1959.
19. Principles of Micropalaeontology: M.F. Glaesser Hafner Publication 1972.
20. Microfossils : M.D. Brassier George Allan 1981.
21. Applications of Micropalaeontology : P.K. Kathal.

<b>Paper Code and Name</b>	<b>CTAG:1.2 MINERALOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Student will be able to clearly understand and differentiate Physical and Optical properties of different groups of minerals.
Unit-II	Students will be able to understand the crystal structures, different types of silicate structures along with the role of Isomorphism and Polymorphism.
Unit-III	Students will be able to understand the role of light in the optical mineralogy and behaviour of light in Isotropic and Anisotropic substances.
Unit-IV	Students will be able to understand the crystal structures developed in the different minerals with their symmetric classes, classification and twinning structures.

## **CTAG -1.2. MINERALOGY**

### **UNIT I**

General introduction to subject mineralogy, Physical and optical properties of minerals. General study of the following groups of minerals: Native elements- Gold, Silver, Copper and platinum

Sulphides- Stibnite group, Oxides–Carbonates (Calcite and aragonite), Silicates-Mica , feldspar & Feldspathoids, pyroxenes, amphibolites, Garnet and olivine

**12 hrs.**

### **UNIT II**

Crystal structure in general, Silicate structure (Types of silicate structures), Isomorphism and polymorphism

**12 hrs.**

### **UNIT III**

Conception of Optics (nature of light, simple harmonic motion, wave motion and wave surface). A general study of isotropic and anisotropic substances. Reflection, refraction, index of refraction, critical angle birefringence, pleochroism and extinction angle

**12 hrs.**

### **UNIT IV**

Elementary concept of crystallography

Classification of crystals into six crystal systems. A brief study of 32 symmetry classes of crystals. Hermann Maugan and Schoenflies symbols. Crystal formation and irregularities (both internal & external) in crystals. Twinning in crystals

12 hrs.

**Total 48 hrs.**

### **Books Recommended :**

1. Introduction to Rock forming Minerals Vol. 1 to 4: Deer, Howie & Zussman, Longmans, 1966.
2. Dan's manual of Mineralogy : Hurlbut, C.S. Hohn Wiley 1959.
3. Mineralogy of Students : Belady Mill Oliver & Boyd, 1972.
4. Optical Crystallography : Earnst E. Wahlstrom, John Wiley & Sons.
5. Elements of Optical Mineralogy : Winchel & Winchel, Wiley Eastern 1968.
6. Optical Mineralogy, Roger, S.R.F. & Kerr. P.G. Mc. Graw Hill 1960.
7. Elementary Crystallography : Burger. M.
8. Essentials of Crystallography : Flint Peace Publi.
9. Elements of X-ray Crystallography : Azaroff.
10. A text book of Mineralogy : E.S. Dana.
11. Elements of crystallography by Phillips.

<b>Paper Code and Name</b>	<b>CTAG:1.3 GEODYNAMICS AND STRUCTURAL GEOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Major divisions of the Earth and concepts of Plate Tectonics
Unit-II	Understand different Orogenic Belts of India and Global tectonics
Unit-III	Understand the basic concept of Structural Geology-stress & strain
Unit-IV	Understand the concepts of Shear Zones, Faults, Unconformities & Joints

## **CTAG.1.3. - GEODYNAMICS AND STRUCTURAL GEOLOGY**

### **UNIT I**

Introduction to Major divisions/layers of the earth. Continental and Oceanic crusts. Plate tectonics. Seafloor spreading, Mid oceanic ridges

**12 hrs.**

### **UNIT II**

Island Arcs, Oceanic Trenches, Continental Margins, Hot spots, Orogenic Mountain Belts, Orogenic Belts of India, Global tectonics in relation to Plate Tectonics.

**12 hrs.**

### **UNIT III**

Concept of Stress and Strain. Strain analysis using deformed objects. Geometric Classification of Folds. Mechanics of folding. Foliations and Lineation.

**12 hrs.**

#### UNIT IV

Shear Zones – Geometry and Mechanics, Large scale thrusts and their significance in tectonics Classification of unconformities. Faults – Mechanics, classification and their recognition in the field Joints- Mechanics and classification

**12 hrs.**  
**Total 48 hrs**

#### Books Recommended :

1. Principles of Physical Geology : A Holmes, Nelson, London 1965
2. Basic concepts of physical Geology : E.W. Spencer, Oxford & I.B. 1971.
3. Physical Geology : Strahler Wiley & Sons. 1974.
4. Dynamic Earth : H. Leep, Mc Graw Hill 1973
5. Changing Earth : B. Meers Reinhold N.Y. 1973.
6. The Dynamic Earth System: A.M. Patvardhan, Prentice Hall of India Pvt. Ltd., 1999
7. Plate Tectonics & Crustal Evolution: K.C. Condie, Pergamon Press, 1986.
8. Palaeomagnetism & Plate tectonics : M.M. Elhimagy, Cambridge Univ. Press.
9. Understanding Earth by Traak Press, Raymond Seiver Treeman & Co.,
10. Tectonics by E.M. Moores, R.J. Twiss, Freeman & Co.,

Paper Code and Name	CTAG:1.4 GEMSTONES AND INDUSTRIAL MINERALS
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
Unit-I	Understand the basics of gemstones and able to identify originality and qualities of different types of gemstones.
Unit-II	differentiate the Inorganic and organic Gemstones, further able to identify natural and synthetic gemstones.
Unit-III	identify suitable industrial Mineral for Abrasive, Chemical and Refractory industries
Unit-IV	identify specified industrial Mineral for Fertilizer Glass and building materials

### CTAG.1.4. – GEMSTONES AND INDUSTRIAL MINERALS

#### UNIT I

Introduction to precious and semi-precious stones. Gem Industry in India, Qualities of Gemstones. Classification of Gemstones. Study of the following gemstones: Diamond, Topaz, Ruby, Sapphire, Emerald, Aquamarine, Tourmaline, Alexandrite, Lazurite and Turquoise.

**12 hrs.**

## **UNIT II**

Quartz varieties of gemstones, Pearl, Coral and Amber, Zodiacal and astrological gemstones, Distribution of gemstones in India.

**12 hrs.**

## **UNIT III**

Characters of different materials used in following industries with respects to their specification and preparations. Ceramic, Abrasives, Chemical and Refractory industries.

**12 hrs.**

## **UNIT IV**

Fertilizers, Paints, Glass, and Cement industries, Building materials.

**12hrs.**

**Total 48 hrs.**

## **Books Recommended :**

1. The geology of ore deposits – John, M. Guilbert and Chartes, F. Park. Jr. W.H. Freeman and Co., New York 1986.
2. Interpretation of ore textures – Bastin E.S.
3. Economic Mineral Deposits – Bastin A.H.
4. Ore Microscopy – Cameron E.N.
5. Ore Deposits – Park Jr. C.G.
6. Geology of Mineral Deposits Smirnor U.J.
7. The Ore Minerals and their intergrowths – Raibor
8. India's Mineral resources – Krishna Swamy S.
9. Metallic and Industrial Minerals Lamey Carl. A.
10. Introduction to India's Economic Minerals – Sharma N.L. and Ram K.S.
11. A treatise an Industrial Minerals of India – Sinha R.L.
12. Non Fuel Mineral Deposits of India – Mukarjee 1999 – Allied publications.
13. Minerals in world affairs – loving
14. Minerals in worlds and Industry – Vorkii
15. Mineral Economics – Sinha R.K. and Sharma N.L. Oxford I.B.H. Publications Co.,
16. Concerning Mineral Sesouran – Allen
17. An introduction to Mineral Economics by K.K. Chatterjee New Age International Ltd., 2004
18. Granite Industry : Emerging Trends and Developments by N.C. Ghose, A.N. Trivedy and S.N. Virhave 2000.

## **PRACTICALS**

<b>Paper Code and Name</b>	<b>CRAG:1.5 PALAEONTOLOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Student will be able to interpret the modes of life of fossil organism and evolutionary relationships of invertebrates.	

### **CRAG. 1.5. -PALAEONTOLOGY AND VIVA**

Illustration and identification of important taxa of mega and micro fossils belonging to the following groups :- Brachiopoda, Pelecypoda, Gastropoda, Cephalopoda, Trilobita, Foraminifera, Gondwana Flora.

<b>Paper Code and Name</b>	<b>CRAG:1.6 MINERALOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Students will be able to identify and spot the different physical properties of various minerals in the lab as well as in the field; identify different minerals under petrological microscope by understanding the optical properties of various minerals; identify the crystal forms and the crystal system of the various minerals; calculate the axial ratio of different crystal systems using stereonet.	

### **CRAG. 1.6. -MINERALOGY AND VIVA**

Study of minerals belonging to major groups and their identification with aid of megascopic characters and optical properties. Identification of crystals and crystal systems. Calculation of axial ratios of minerals of tetragonal, orthorhombic and monoclinic systems by stereographic methods.

<b>Paper Code and Name</b>	<b>CRAG:1.7 STRUCTURAL GEOLOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Measure strike and dip in the field; prepare base map and geological map and construct cross-sectional map

## **CRAG. 1.7. – STRUCTURAL GEOLOGY AND VIVA**

Study of Geological maps, tracing of outcrops, construction of geological cross sections. Dip and strike problems. Interpretation of underground structure from borehole data.

### **M.Sc. II Semester** **THEORY**

<b>Paper Code and Name</b>	<b>CTAG:2.1 PETROLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand the basics concepts of magma, its composition and classification
Unit-II	Understand different systems of magma
Unit-III	Understand the concepts of Metamorphic rocks
Unit-IV	Understand the concepts of Sedimentary rocks

## **CTAG.2.1: PETROLOGY**

### **UNIT I**

Petrography and composition of Magmatic rocks (Fabric, rock forming minerals and classification). The Origin and evolution of magma.

A brief study of the following groups of rocks:

1. Calc- alkali volcanic rock body
2. Calc-alkali plutonic rock body
3. Basaltic and Ultramafic rock bodies
4. Alkali rock bodies

**12 hrs.**

### **UNIT II**

A general study of the composition of magma, crystal-liquid-vapor equilibrium in magma system and magma generation and diversion

**12 hrs.**

### **UNIT III**

A general study of metamorphic bodies and systems. Petrography and compositional aspects of metamorphic rock bodies. Metamorphic facies, types of metamorphism. Role of temperature and pressure in metamorphism. General metamorphic rock bodies: schists, gneisses, amphibolites, granulites and eclogites.

**12 hrs.**

#### UNIT IV

Origin of sediments and formation of sedimentary rocks. Weathering, transportation and deposition. Lithification and diagenesis. Structures and textures of sedimentary rocks. A general study of the following sedimentary rocks. Sandstone, limestone and argillaceous rocks. Important sedimentary basins of India.

**12 hrs.**

**Total 48 hrs.**

#### Books Recommended :

1. Igneous and Metamorphic Petrology, Turner & Verhoogen, Mc Graw Hill.
2. Principles of Petrology : G.W. Tyrell, Asia Publ. House.
3. Metamorphic Petrology : H.G.F. Winkler.
4. Igneous & Metamorphic rocks: Antony.
5. Interpretation of Igneous rocks : K.G. Cox & Others.
6. Metamorphic Petrology : Bhaskar Rao.
7. Metamorphic Petrology : Miyashiro
8. Sedimentary Petrology : Petti John CBS Publ.
9. Principles of Sedimentation : Twenhofel.
10. Procedures of Sedimentary Petrology : R.E. Carver.
11. Introduction to Sedimentology : S.M. Sena Gupta, Oxford IBH.
12. Principles of Sedimentary Basin Analysis : Miall, A.D. Springer Verlag, 2000
13. Analysis of Sedimentary Successions : Bhattacharya, A & Chakraborti, C. Oxford IBH 2000.
14. Petrography : William Turner & Martin Frey, CBS Public
15. Sedimentary Rocks : Pettijohn, F.J. Harper & Row 1975.
16. Principles of Sedimentary Basin Analysis : G.M. Freeman & Others, John Wiley 1978.
17. Methods of Sedimentary Petrology : Garmon Muller, Hafner Public.
18. Igneous and Metamorphic petrology : MYRON.G. BEST, Brigham young University.

Paper Code and Name	CTAG:2.2 MINING GEOLOGY
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
Unit-I	Understand different concepts and method involved in mining
Unit-II	Understand how to develop mines (open and underground) and sampling techniques
Unit-III	Understand different types and methods of drilling
Unit-IV	Understand different concepts involved in Coal Mining

## **CTAG 2.2. MINING GEOLOGY**

### **UNIT I**

Introduction of Mining and mining technologies. Methods of mining: Alluvial, Opencast and Underground mining methods.

**12 hrs.**

### **UNIT II**

Shaft sinking and Development of mines. Mine sampling. Guides to ore search – Mineralogic, Stratigraphic, Lithologic and Structural guides.

**12 hrs.**

### **UNIT III**

Geological parameters for mine planning and designing. Drilling: Methods and types of drills their uses. Type and specification of drilling methods in various geological formations.

**12 hrs.**

### **UNIT IV**

Coal mining: A comparative study of room and pillar with Long and wall method of mining

**12 hrs.**

**Total 48 hrs.**

### **Books Recommended :**

1. Elements of Mining Geology C.J. Young Mc Graw Hill.
2. Courses in Mining Geology Arogyaswami Oxfords & IBH
3. Mining Geology W.C. Peter
4. Mining Geology MC Kinsty
5. Mining Geology C.S. Fox
6. Exploration and Mining Geology. W.C. Peter

<b>Paper Code and Name</b>	<b>CTAG:2.3 ORE GEOLOGY, INDIAN MINERAL DEPOSITS AND ENERGY RESOURCES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Introduce students to various processes of mineral formation
Unit-II	Students understands why certain parts of the Earth are mineralized by introducing mineralization
Unit-III	Students will know occurrence, origin and economic importance of metallic and non-metallic deposits
Unit-IV	Students will understand various energy resources and distribution of coal and petroleum in India

## **CTAG.2.3: ORE GEOLOGY, INDIAN MINERAL DEPOSITS AND ENERGY RESOURCES**

### **UNIT I**

Introduction. Geological processes of formation of economic mineral deposits, Magmatic, Hydrothermal, Residual and Mechanical concentration, Oxidation and supergene enrichment.

**12 hrs.**

### **UNIT II**

Sedimentation and Evaporation, Metamorphism and Metasomatism. Geothermometry, Metallogenic Provinces and Epochs, Global metallogeny as related to plate tectonics.

**12 hrs.**

### **UNIT III**

Study of important metallic and non-metallic deposits of India with reference to Geology, Mode of occurrence, Mineralogy and Indian distribution of the following:- **Metallic deposits:** Iron, Manganese, Copper, Lead, Zinc, Gold, Silver and Aluminum. **Non metallic deposits:** Asbestos, Barites, Magnesite, Mica, Clay, Phosphorite, Sillimanite, Kyanite and Andalusite.

**12 hrs.**

### **UNIT IV**

**Non-Renewable – Petroleum :**Types of hydrocarbons, Origin, migration and entrapment of petroleum. Properties of source and reservoir rocks.**Structural traps:** Anticlinal traps, Fault traps, Diapiric traps, Combination traps and Hydrodynamic traps. **Techniques of exploration:** oil exploration, exploration methods and elements of a petroleum prospect, Reserves and resources. Petroliferous basins of India – Assam Kutch Gujarat, Bombay High, Cauvery, Godavari and Krishna Basins. **Coal:** Origin of Peat, Lignite, Bitumenous and Anthracite. Important coal measures of India – Gondwana, Tertiary. **Renewable Energy Resources:** Solar, Wind and Water.

**12 hrs.**

**Total 48 hrs.**

### **Books Recommended :**

1. The geology of ore deposits – John M. Guilbert and Charles F. Park, Jr. W.H. Freeman and Co., New York 1986
2. Interpretation of ore textures – Bastin E.S.
3. Economic Mineral Deposits – Bateman A.H.
4. Ore Microscope – Cameron E.N.
5. Ore Deposits – Park Jr. C.F.
6. Geology of Mineral Deposits – Smirhor U.J.
7. The Ore Minerals and their intergrowths – Raibor
8. India's Mineral resources – Krishna Swamy S.
9. Metallic and Industrial Minerals Lamey Carl. A.
10. Introduction to India's Economic Minerals – Sharma N.L. and Ram K.S.
11. A treatise on Industrial Minerals of India – Sinha R.L.

12. Non Fuel Mineral Deposits of India – Kukarjee 1999 - Allied publications.
13. Minerals in world affairs –Loverning
14. Minerals in worlds and Industry – Vorkii
15. Mineral Economics – Sinha R.K. and Sharma N.L. Oxford I.B.H. Publication co.,
16. Concerning Mineral Sesouran – Allen
17. An introduction to Mineral Economics by K.K. Chatterjee New Age International Ltd., 2004
18. Granite Industry : Eerging Trends and Developments by N.C. Chose , A.N. Trivedy and S.N. Virhave 2000.

<b>Paper Code and Name</b>	<b>ETAG:2.4 EARTH SCIENCE-I (ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand the origin and divisions of the Earth
Unit-II	Understand different types of Igneous, Sedimentary and Metamorphic Rocks
Unit-III	Understand concepts of weathering and erosion
Unit-IV	Understand concepts of Hydrologic Cycle

## **ETAG 2.4 : EARTH SCIENCE - I (ELECTIVE)**

### **UNIT I**

Origin of the Earth. Four subsystems of the Earth : lithosphere, biosphere, atmosphere, hydrosphere, Uniformitarianism. Importance of Earth science. Materials of Lithosphere.

**12hrs.**

### **UNIT II**

Rock cycle, Igneous rocks, Sedimentary rocks and Metamorphic rocks. Resources from rocks and minerals

**12hrs.**

### **UNIT III**

Weathering: Definition, Mechanical and Chemical weathering. Rates of weathering, Soil formations, Soil types and erosion.

**12hrs.**

### **UNIT IV**

Hydrologic cycle, Running Water: Work of streams, stream valleys and floods. Drainage basins and pattern. Groundwater: Distribution and movement of groundwater, Hot springs, Geysers

**12hrs.**

**Total 48 hrs.**

**Books Recommended :**

1. Principles of Physical Geology : A Holmes, Nelson, London 1965
2. Basic concepts of physical Geology : E.W. Spencer, Oxford & I.B. 1971
3. Physical Geology : Strahler Wiley & Sons. 1974
4. Dynamic Earth : H Leep Mc. Graw Hill 1973
5. Changing Earth : B. Meers Rein hold N.Y. 1973
6. The Dynamic Earth System : A.M. Patvardhan, Prentice Hall of India Pvt. Ltd., 1999
7. Plate Tectonics & Crustal Evolution : K.C. Condie, Pergamon Press, 1986
8. Palaeomagnetism & Plate tectonics : M.M.Mc. Elhimony, Cambridge Univ. Press
9. Understanding Earth by Traak Press, Raymond Seiver Treeman & Co.,
10. Tectonics by E.M. Moores, R.J. Twiss, Freeman & Co.,

**PRACTICALS**

<b>Paper Code and Name</b>	<b>CRAG:2.5 PETROGRAPHY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Identify and classify megascopically and microscopically different igneous, sedimentary and metamorphic rocks	

**CRAG. 2.5 – PETROGRAPHY AND VIVA**

Classification, identification and petrographic study of the following groups / families based on megascopic, microscopic and structural studies of Igneous rocks ; Granites, granodiorites, gabbros-ultramafics, lamprophyres, andesites, dacites, rhyolites and volcanic glasses, Sedimentary rocks- megascopic and microscopic identification of common sedimentary rocks : sandstones, greywackes, siltstones, shales, limestone, dolomite, conglomerate, Heavy mineral analysis. Metamorphic rocks – megascopic and microscopic identification of schists, amphibolites, gneisses, granulites, eclogites and hornfelses.

<b>Paper Code and Name</b>	<b>CRAG:2.6 ORE GEOLOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Students will be able to interpret various properties exhibited by the different ores	

## **CRAG. 2.6 – ORE GEOLOGY AND VIVA**

Megascopic and microscopic identification of important ore minerals, study of typical structures / textures and their genetic significance.

<b>Paper Code and Name</b>	<b>CTAG:2.7 ORE RESERVE ESTIMATION AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand concepts of estimation and calculation of Ore reserves and generate different cross-sectional and contour maps

## **CRAG. 2.7 ORE RESERVE ESTIMATION AND VIVA**

Estimation and calculation of ore reserves. Regular and irregular samples, Underground mine samples. Ore deposits with over burden. Hidden ore bodies, use of trigonometric functions in estimation of ore reserve. Preparation of cross section of underground mine data and calculation of ore reserves. Preparation of contour maps to represent depth to ore body and concentration specific metals.

## M.Sc. III Semester THEORY

<b>Paper Code and Name</b>	<b>CTAG:3.1 GEOCHEMISTRY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand different geochemical classification of the Earth
Unit-II	Understand different geochemical processes involved in sedimentation and metamorphism
Unit-III	Understand Thermodynamics of magmatic crystallization and introduction to concepts of meteorites
Unit-IV	Thermodynamics of metamorphism, Metamorphic phase rule and diagrams

### CTAG. 3.1. GEOCHEMISTRY

#### UNIT I

Geochemical classification of elements: Lithophile, Siderophile, Chalcophile and Atmophile elements with examples. Structure of the earth : composition of crust, Mantle and core. Lattice energy of crystals: Ions, Atoms and Energy, Lattice energy estimated using Born – Haber Cycle. Gibb's Free Energy : Thermodynamic system, Thermodynamic potential, State function, STP and Rule of thumb and Derivation of Gibbs free energy. Oxygen Fugacity: Definitions, concepts and geology. Godich's stability series.

**12 hrs.**

#### UNIT II

Physico-chemical factors in sedimentation: Ionic potential, Redox potential and Hydrogen ion concentration. Colloids and Colloidal processes: Collidal stability system, Classification of colloids. Metamorphism as geochemical processes.

**12 hrs.**

#### UNIT III

Thermodynamics of magmatic crystallization, Introduction of magma : Composition of the magma, Partial melting Geochemical implications of partial melting, Effect of composition on physical properties of magmas, Fractional melting, Fractional Crystallization, assimilation and magma mixing. Introduction to Meteorites, origin and their composition and classification and mineral constituents of meteorites.

**12 hrs.**

#### UNIT IV

Mineralogy of metamorphic rocks and stability of minerals. Thermodynamics of metamorphism, Metamorphic phase rule: Illustration of phase rule, Metamorphic phases and phase diagrams. Principal types of phase diagrams (ACF, AKF and AFM Diagrams) Geochemical cycle, the Earth as a physico chemical system, Crust as a separate system.

**12 hrs.**

**Total 48 hrs.**

### Books Recommended :

1. Principles of Geochemistry B. Mason John Wiley & Sons.
2. Principles of Geochemistry B. Mason John Wiley & Sons.
3. Handbook of Geochemistry Vol I K.H. Wodephol
4. Principles of Agrochemical Prospecting Ginsberg & Sokol.
5. Geochemistry in Mineral Exploration M.S. Balasundarm
6. Geobotany and Biogeochemistry in Mineral Exploration. A.R. Brooks Harper & Row, 1972
7. Inorganic Geochemistry P.K. Anderson.
8. Geochemistry in Mineral Exploration A.W. Rose, H.E. Howkers and J.A. Webb Academic Press. 1979.

Paper Code and Name	CTAG:3.2 HYDROGEOLOGY
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
Unit-I	Understand the origin of water and Hydrological Cycle
Unit-II	Understand the concept of Vertical distribution of Water; Hydrogeological Properties of Rocks.
Unit-III	Understand the concepts of Springs, Aquifer, Pumping Tests, Water Quality for different purposes and Well technology
Unit-IV	Understand the concepts of Rain Water Harvesting, Artificial Recharge & Conjunctive Use of SW & GW; Concepts of Sea Water Intrusion; Groundwater Provinces of India; Groundwater Exploration by various methods.

### CTAG.3.2 : HYDROGEOLOGY

#### UNIT I

Definition of hydrology, hydrogeology and groundwater hydrology, Importance of water, Worldwide water resources. Different states of water. Comparison of surface water and groundwater. Origin and types of water. Hydrological cycle : Definition and components of hydrological cycle. Precipitation – types of precipitation raingauge, spacing of raingange stations, Factors controlling evaporation, evapotraspiration, surface runoff, infiltration influent and effluent situations. Water budgeting, water balance studies.Impact of hydrological cycle.

**10 hrs.**

#### UNIT II

Subsurface distribution of water: Zone of aeration soil zone, intermediate zone (pellicular & gravitational water), zone of saturation, water table, ground water. Factors influencing seepage of water in different ways. Occurrence of groundwater: Agencies that produce and destory openings Hydrogeological properties of rocks : porosity, permeability, specific yield, specific retention, specific absorption, Transmissivity, storativity, hydraulic

conductivity specific capacity, void ratio, specific storage, hydraulic diffusivity, hydraulic resistivity, leakage coefficient, leakage factor, drainage factor, storativity ratio. Laws governing porosity. Groundwater in fractured formations. Factors influencing porosity and permeability. Yield in different rocks. Classification of rocks based on degree of permeability. Classification of rocks with respect to hydrogeological characters.

**10 hrs.**

### **UNIT III**

Springs: Definition, origin, types of springs: Causes for water table fluctuations: Groundwater flow, equation of continuity, properties of water in relation to flow. Laminar (viscous) and turbulent (non viscous) flow, flow nets, flow lines Definitions of aquifer, aquiclude, aquitard, aquifuge. Types of aquifers: unconfined, confined, perched, semi unconfined and semi confined. Darcy's law and its application. Pumping Tests: Definition, purpose of pumping test, Well and aquifer tests Precautions before pumping tests, Assumptions in analytical methods, Selection of observation well, Water level measurements, Discharge measurements: Volumetric, Orifice weir, Rectangular and triangular V notch, Jet methods, Estimation of storativity and transmissivity. Water Quality: Physical and chemical characters, Major, Secondary, minor and trace constituents, Criteria for different uses, Graphical representations of chemical data, Determination of agricultural suitability, Role of rocks and minerals in water quality Well technology : Classification of wells – vertical, horizontal, cased, Well development, sterilization, stimulation, Pump and power units, Deterioration and maintenance of wells, Incrustations in wells, Corrosion and its protection in wells, Abandoned wells

**12 hrs.**

### **UNIT IV**

Hydrogeology of arid and wet lands: Occurrence of Groundwater and its characters. Artificial recharge of groundwater: Criteria to adopt, Feasibility, Pre-study, Different methods: basin, ditch – furrow, channel, pit flooding, irrigation and agricultural practices, induced recharge, recharge well method, subsurface dams, recharge of urban storms. Rain water harvesting: Definition, Requirement of harvesting (essential and solution). Methods of rainwater harvesting. Direct storing and recharge of rainwater, roof top harvesting, open space harvesting, Rainwater harvesting structures. Conjunctive use of surface and groundwater: Definition, basic studies, advantages of storing water on surface or groundwater, Restrictions in exploration of groundwater, Beneficial effects of conjunctive use in canal commands. Disadvantages in implementing conjunctive use programmes. Surface water harvesting management techniques. Groundwater provinces of India: Precambrian crystalline and sedimentary, Gondwana, Deccan Trap, Cenozoic sedimentary and fault basin, Ganges – Brahmaputra Alluvial Himalayan high lands. Sea water intrusion in coastal aquifers: Definition, interface, different situation during sea water intrusion, Ghyben – Herzberg relation, Identification of saline zones and interface, prevention and control of sea water intrusion. Occurrence of water in consolidated, semi consolidated and unconsolidated rocks. Consolidated rocks: fracture systems, weathering, groundwater occurrence and movement, aquifer characters and well yield. Yield in igneous metamorphic and volcanic rocks. Semi consolidated rocks: Aquifer characters and well yield in sandstones shales and limestones, Unconsolidated rocks: Aquifer characters in alluvial fans, piedmont deposits, valley fills, flood plain deposits, coastal deposits, glacial deposits, eolian deposits. Groundwater Exploration: Definitions, Study of features related to

geomorphology, climate, geology, aquifer characters, hydrogeochemistry, Land and water use, Remote Sensing application (land use and land formations), Study of toposheets, Water dowsing and Electrical resistivity method. Radio isotopes in hydrogeological studies. Paleohydrological studies.

**16 hrs.**

**Total 48 hrs.**

### **Books Recommended :**

1. Groundwater Hydrogeology – D.K. Todd
2. Hydrogeology – S.N. Davis and R.J.M. Dewiest
3. Groundwater Studies – R.H. Brown & Others
4. Groundwater Hydrology – Hermand Bouver
5. Groundwater resources Evaluation – W.C. Walton
6. Hydrogeology – C.W. Fetter
7. Hand book of Applied Hydrology – Ven Te Chew
8. Groundwater and wells - Hohnson Publication.
9. Physical dn Chemical Hydrogeology – Patrick A. Dominics
10. Applied hydrogeology – chow M.Mays Mac. Graw Hil Publications.
11. Hydrogeology and Wethoused conservation – Gulman – Wiley publications.
12. Groundwater Survey and Investigation – Gautham Mahajan ApH Puls.
13. Hydrology – Raghunath
14. Hydrogeology – Karanth
15. Groundwater Assessment Development and Management – Karanth
16. Groundwater – S. Ramakrishnan
17. Palehydrology and Environmental change by wiley, chichester, Bemite, V.R. Baber and K.J. Gregong
18. Global Environmental changes, the context of paleolydrology, wiley Chichester, J Brauson, A.G. Brown, K.S. Gregory.

<b>Paper Code and Name</b>	<b>CTAG:3.3 MINERAL ECONOMICS AND ENGINEERING GEOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Present status of availability of metallic minerals in India and other countries, its production and its market value/economy.
Unit-II	availability of Energy minerals in India and other countries, its production and its market value/economy and further administrative aspects.
Unit-III	select the suitable locations and materials for construction of major and minor projects like Dam, Reservoir, Bridges, Tunnel etc
Unit-IV	anticipate the geological problems occurring during and post construction of major geotechnical projects

## **CTAG. 3.3. MINERAL ECONOMICS AND ENGINEERING GEOLOGY**

### **UNIT I**

Role of India in the world market of the following minerals: Iron, Manganese, Barytes, Asbestos, Lead and zinc, Copper, Mica, Role of India in the world market of following minerals

**12 hrs.**

### **UNIT II**

Coal, Petroleum, Atomic Minerals, Strategic, Critical and Essential minerals: Definition, Production and Reserves, Listing of various minerals of India into the above categories Exclusive economic zones of India and their strategic importance in the production of marine minerals, National mineral policy of India and Mineral Legislation.

**12 hrs.**

### **UNIT III**

Mechanical properties of rocks and soils, Geological investigations of river valley projects Dams and Reservoirs, Tunnels – types methods and problems. Bridges – types and foundation problems

**12 hrs.**

### **UNIT IV**

Shore line engineering, Concrete aggregate – Sources, alkali aggregate reaction, A seismic designing – Seismicity in India, Earthquake resistant structures, Groundwater problems related to foundation work, mining canals and tunnels, Geotechnical case studies of major projects in India, Role of minerals in National economy and development of indigenous production

**12 hrs.**

**Total 48 hrs.**

### **Books Recommended :**

1. Introduction to India's Economic Minerals – Sharma N.L. and Ram K.S.
2. A treatise on Industrial Minerals of India – Sinha R.L.
3. Non Fuel Mineral Deposits of India – Mukarjee 1999 – Allied publications.
4. Minerals in world affairs – Lovering
5. Minerals in worlds and Industry – Vorkii
6. Mineral Economics – Sinha R.K. and Sharma N.L. Oxford I.B.H. Publication co.,
7. Concerning Mineral Resources – Allen
8. An introduction to Mineral Economics by K.K. Chatterjee New Age International Ltd., 2004
9. Granite Industry : Emerging Trends and Developments by N.C. Chose, A.N. Trivedy and S.N. Virhava 2000
10. Principles of Engineering Geology and Geotectonics – Krymimine
11. Geology in Engineering – Schulz and Cleaves, John Wiley and Sons.
12. Eng. Geology – Fox, C.S. Technical Press, London.
13. Applications of Geology to engineering practice (Berkly vol.)

14. Engineering Geology – Roice H & Watson, Jhon Wiley & Sons.
15. Geology in Engineering – Legget. F.R. McGraw Hill Co.,
16. Elements of engineering Geology – Raichey E.E. Pitman 1964
17. Engineering Geology & Hydrology – Danisev
18. Foundation Engineering – Peak, Hanson & Thornburn.
19. Rock Mechanics – Fairhurst, C. Pergamon Press.
20. Dam Geology – Walters. R.c. Butterworth & Co., Ltd., London.
21. Geology for Engineers – Blyth, F.c. H. Edward Arnold Ltd.,
22. Engineering Geology – Parbin Singh, CBS Publication.

<b>Paper Code and Name</b>	<b>ETAG:3.4 EARTH SCIENCE-II (ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand the concepts of Glaciers and Earthquakes
Unit-II	Understand the concepts of Major layers of the Earth and Theory of Plate Tectonics
Unit-III	Understand the concept of Geological Time Scale which describes the major events happening
Unit-IV	Concepts of oceans, Renewable and non-renewable resources and Natural Hazards

### **ETA.G. 3.4. EARTH SCIENCE – II (ELECTIVE)**

#### **UNIT I**

Glaciers, Deserts and wind: Glacier erosion and deposits. Geologic process in arid climates. Wind erosion and deposits. Earthquakes and Earth interior: Earthquake waves, epicenters, intensity and magnitude of Earthquakes. Prediction of Earthquakes.

**12hrs.**

#### **UNIT II**

Major layers of the Earth. Plate Tectonics: Plate boundaries, Sea floor spreading, continental margins, ocean ridges, Island arcs, hotspots, mountain building activities. Volcanoes: Magma and its composition, Lava flows, Types of volcanoes.

**12hrs.**

#### **UNIT III**

Geologic Time Scale: Evolution of Earth's atmosphere, Precambrian time, Paleozoic era, Mesozoic era, Cenozoic era and introduction to Paleontology.

**12hrs.**

#### **UNIT IV**

Oceans: Composition of sea water, Ocean's layered structure. Earth Resources: Renewable and non renewable resources. Natural Hazards.

**12hrs.**

**Total 48 hrs.**

**Books Recommended :**

1. Principles of Physical Geology : A Holmes, Nelson, London 1965
2. Basic concepts of Physical Geology : E.W. Spencer, Oxford & I.B. 1971
3. Physical Geology : Strahler Wiley & Sons 1974
4. Dynamic Earth : H Leep, Mc Graw Hill 1973
5. Changing Earth : B. Meers Rein hold N.Y. 1973
6. The Dynamic Earth System : A.M. Patvardhan, Prentice Hall of India Pvt. Ltd., 1999
7. Plate Tectonics & Crustal Evolution : K.C. Condie, Pergamon Press 1986
8. Palaeomagnetism & plate tectonics : M.M. Mc Elhimony, Cambridge Univ., press.
9. Understanding Earth by Traak Press, Raymond Seiver Treeman & Co.,
10. Tectonics by E.M. Moores, R.J Twiss, Freeman & Co.,

**PRACTICALS**

<b>Paper Code and Name</b>	<b>CRAG:3.5 GEOCHEMISTRY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Understand and analyse various geochemical parameters using titration method and using instruments such as AAS, Spectrophotometer etc	

**CRG. 3.5: GEOCHEMISTRY AND VIVA**

Analysis of Iron Mangnese, Copper ores. Analysis of Limestones and dolomites, Demonstration of working AAS, IR, Spectrometer, Flame Photometer, pH meter, Conductivity meter and other related analytical instruments.

<b>Paper Code and Name</b>	<b>CRAG:3.6 HYDROGEOLOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Understand the concept of Drainage basin analysis, Rain gauge and Rainfall data analysis, collection and analysis of different water samples for different purposes; prepare contour maps etc	

**CRAG. 3.6 : HYDROGEOLOGY AND VIVA**

Morphometric analysis of basins Calculation of mean areal annual Rainfall, Preparation of water table contours and their interpretation. Study of Depth and yield of bore wells. Analysis of water samples and their interpretation.

<b>Paper Code and Name</b>	<b>CTAG:3.7 GEOSTATISTICS AND COMPUTER APPLICATION IN GEOLOGY AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Understand and interpret the data using statistical approach; Further, learn to use different geological, hydrological and geophysical softwares and its interpretation.	

### **CRA. 3.7: GEOSTATISTICS AND COMPUTER APPLICATION IN GEOLOGY AND VIVA**

#### **GEOSTATISTICS**

1. Frequency distribution table and graphical representation of data
2. Measures of Central Tendency
3. Measures of Dispersion
4. Correlation studies – simple and bivariate
5. Regression Analysis
6. Principal Components Analysis (PCA)
7. Hierarchical Cluster Analysis

#### **COMPUTER APPLICATION IN GEOLOGY**

1. Executing of HYCHEM Programme- Analysis of hydrogeochemical data
2. Executing of GW\_CHART-Plotting on Piper's diagram
3. Executing of PLOCHEM – Plotting on Piper's Stiff diagrams
4. Executing of GWW (Ground Water for Windows) software
5. Calculation of Saturation Indices (SI) of mineral species using WATEQ4F programme
6. Analysis of electrical resistivity data using RESIST software
7. Analysis of electrical resistivity data using IGIS VES software
8. Analysis of electrical resistivity data using IPI2 WIN software
9. Principal Component analysis using PCA software
10. Preparation of Rose Diagram using ROZETA software – for plotting structural data related to joints and faults.

**M.Sc. IV SEMESTER APPLIED GEOLOGY  
THEORY**

<b>Paper Code and Name</b>	<b>CTAG:4.1 MINERAL BENEFICIATION AND ENVIRONMENTAL GEOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand the concept of Mineral processing
Unit-II	Understand the processes involved and Flowsheet of different metallic and non-metallic minerals
Unit-III	Understand the different concepts involved in Environmental Geology
Unit-IV	Understand the concepts of Volcanoes, Earthquakes and Pollution

**CTAG.4.1: MINERAL BENEFICIATION AND ENVIRONMENTAL GEOLOGY**

**UNIT I**

Principles and scope of mineral processing. Properties of ores and minerals applied to mineral beneficiation. Size reduction – Crushing, Rittinger law, Kick’s law, Bond’s theory Crushers and grinding mills. Sizing and screening. Principles of concentration processes. Gravity concentration. Jigging, Bring’s test. Operation of Wilfley Table, comparison of jigging and tabling.

**12 hrs.**

**UNIT II**

Magnetic separators primary magnet type and secondary magnet type; Flotation principles, types and functions of reagents used. Heavy media separation. Flow sheets of metallic ores; gold, copper, lead, zinc. Flow sheets of non-metallics; barite and Coal.

**12 hrs.**

**UNIT III**

Definition of Environmental Geology, Scope and objectives of environmental Geology Ecosystem, concepts of ecosystem: Energy transformation, Food chain, Stratification of biotic communities. Atmosphere: Clean air, major layers of atmosphere, Global temperature, Greenhouse effect, Greenhouse gases and their characters, Ozone depletion, CFC’s emission, Sources of Air pollution, Overview of the global warming problems, Landslides : Definition, Roles of gravity and slope, water earth quake in landslides, slides, flows and creeps, Rockslides and snow slides, Debris slides Talus and Talus creep, Mud slides, earth flows, Recognizing areas, Prone to slope instability, Ways to reduce incidence and severity of landslides Floods: Origin of streams, stream discharge, stream velocity, stream load, Flash floods, occurrence of floods, flood frequency, Urbanization and flooding, Anticipating and controlling of floods, Flood control : channelization; building levees, along streams building dams across rivers. Water quality and Pollution: Definition of pure water, water quality of different uses, Point and non point sources of pollution. Types of pollution sources, Sources

of groundwater quality deterioration. Degree and extent of pollution heavy metal pollution, Pesticide pollution. Trace metals in waste water, DO, BOD, COD, Problems of As and F in water. Restoration of groundwater.

**12 hrs.**

#### **UNIT IV**

Earth quakes: Definition, magnitude and intensity of earthquakes, Forecasting of earthquake : Animal Sense, Science of forecasting paleoquakes, Protecting from earthquakes: building construction, personal preparation, Official forecasts and public response, Earthquake hazards and Tsunamis. Volcanoes: Definition, Occurrence of volcanoes, Types of volcanoes, Forecasting eruption, volcanic hazards and benefits. Mining and Environment : Problems and issues as a result of mining industry, Geomorphological changes, Geohydrological changes, Biological changes, Cultural changes, Climatological changes, Effect air quality, Noise pollution and vibrations

**12 hrs.**

**Total 48 hrs.**

#### **Books Recommended :**

1. Principles of Mineral Dressing A.M. Gaudin Mc. Graw Hill
2. Elements of Ore Dressing. A.F. Taggart, John Wiley
3. Principles of Mineral Beneficiation Wells & Wells.
4. Mineral Processing. Pray Elsevier
5. Ore Processing S.K. Jain Prayor Elsuvier
6. Environmental Geology, L.L. Lundgren
7. Environmental Geology, C.W. Montgomery
8. Environmental Geology, Keller Bell and Howell, USA 1978
9. Environmental Geology, Indian Context K.S. Valdiya Tata MacGraw Hill 1987
10. Environmental Geology, P. Flawn
11. Environmental Geoscience, Strahler
12. Our Physical Environment, S.N. Davis
13. The Earth and its Environment Hesse and Macdonald
14. Geological Hazards, Bvell, F.G. Routledge, London, 1999
15. Natruual Hazarrds, Bryant E., Cambridge University, Press 1985
16. Text Book in Environmental Science V. Subramaniam, Sarosa International 2001.
17. Environment Impact of Mining Down and Stokes.

<b>Paper Code and Name</b>	<b>CTAG:4.2 GEOCHEMICAL EXPLORATION AND GEOPHYSICAL EXPLORATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	understand the Geochemical principles and its cycle, further in turn leads to find new favourable locations of mineral deposits.
Unit-II	understand the how the chemical analysis of different geological material and flora will help find new favourable locations of mineral deposits.
Unit-III	Get acquainted with the basic principles, instrumentation and interpretation of different geophysical methods (Gravity and Magnetic) and further to find new favourable locations of mineral deposits.
Unit-IV	acquainted with the basic principles, instrumentation and interpretation of different geophysical methods (Electrical and Seismic method) and further to find new favourable locations of mineral deposits.

## **CTAG.4.2:GEOCHEMICAL EXPLORATION AND GEOPHYSICAL EXPLORATION**

### **UNIT I**

Geochemical cycle, Principles of geochemical exploration, Geochemical environment, Dispersion, Mobility of the elements and tracers, Patterns of geochemical distribution and geochemical anomalies.

**12 hrs.**

### **UNIT II**

Primary and Secondary dispersions and classifications, Geochemical soil surveys, Soil profiles in drainage sediments, Geochemical drainage survey, Biogeochemical anomalies, Biogeochemical survey techniques. Geobotanical indicators in mineral exploration.

**12 hrs.**

### **UNIT III**

Variation of gravity over the surface of the earth. Principles of gravimeters, Eotvos, Torsion balance, Thyssen and Worden gravimeters, Field procedure, various corrections applied to gravity data, Interpretation of the data in terms of slope, Shape, size and depth. Magnetic properties of the rocks, Working principles of Schmidt, Fluxgate, Proton, Precision and alkali, vapor magnetometers, Field procedure, Data reductions, Removal of regional effects, Interpretation of the data, Introduction to aero magnetic surveys,

**12 hrs.**

### **UNIT IV**

Classification of electrical methods, Resistivity method, Basic principles and various types of electrode configurations, field procedures of profiling and VES. Seismic methods - fundamental principles of wave propagation, general field procedures of reflection and refraction surveys, shooting patterns, Instruments used in seismic surveys. Radioactivity methods - principle, instruments used, interpretation of the data well logging methods.

**12 hrs.**

**Total 48 hrs.**

**Books Recommended :**

1. Geochemistry in Mineral exploration – Awkes H & Wobb J.S. Harper and Row New York.
2. Principles of Geochemical procespecting Ginzburg I.I. Pergaman Press. N.Y. London.
3. Geochemistry of rare and dispersed chemical elements in Society – Vimogroudev
4. Biochemical Methods of prospecting – Malyuga D.P.
5. Geochemistry of epigeneis – Faibidge
6. Principles of Mining Geology – Arogyswamy
7. Geochemistry of epigenesist – Farbidge

<b>Paper Code and Name</b>	<b>CTAG:4.3 PHOTO GEOLOGY, REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Unit-I	Understand the concept and scope of Photo Geology
Unit-II	Learn the interpretation techniques of photo interpretation
Unit-III	Understand the concept and scope of Remote sensing & different satellites
Unit-IV	Learn the physics behind concept of remote sensing data and techniques of interpretation of digitally processed image

**CTAG. 4.3: PHOTO GEOLOGY, REMOTE SENSING AND GIS PHOTO GEOLOGY****Unit I**

Definition and Scope of Photo Geology. Advantages and limitations of photo geology. Flight lines and over lap and side laps, tilt and tip, drift and crab. Scale of Photographs and its significance. Types of aerial photographs: vertical, low oblique, high oblique, black and white, colour, infra red, colour infrared (FCC), Multiband spectra (MSS), Thermal infra red, Radar imagery, Spectra zonal. Geometrical properties of vertical and oblique Photographs. Instruments for interpretation: Viewing instruments- lens and mirror stereoscopes. Measuring instruments-stereo meter, parallax bar. Plotting instruments- sketch master and stereo sketch.

**12 hrs.****Unit II**

Criteria for photo interpretation: Photographic tone, photographic texture and scale, shape and size of the objects, drainage pattern. Interpretation of Geological structures: Linear features, faults, folds, dip slopes, unconformities, dikes and sills, domal structures. Interpretation of rocks and types and land forms: Igneous rocks- Intrusive and extrusive igneous rocks. Sedimentary rocks-conglomerates, shales, sandstones, gravels, limestones. Metamorphic rocks- Gneisses, schist's.

**12 hrs.**

## REMOTE SENSING

### Unit III

Definition and Scope of Remote Sensing. History and development of Remote Sensing: Remote Sensing satellites, Evolution of Indian remote sensing satellites. Electromagnetic spectrum and its parts. Spectral reflectance properties of common earth surface features: vegetation, soil, water and rock. Radiation Laws (Thermal emission laws): Kirchhoff's law, Planck's law, Wein's law and Stefan-Boltzmann's law. Atmospheric effects and scattering, atmospheric window and atmospheric absorption scattering. Sensing Sensors: Active and Passive. Multi band cameras, multi band video cameras, opto mechanical scanners, modular multispectral scanners, land sat multispectral scanners, thermal mapper, linear imaging self scanning sensors (LISS sensors).

**12 hrs.**

### Unit IV

Earth Stations: Main reflector, servo system, feed, Low noise amplifier, down converter, tracking receiver, data demodulator, bit synchroniser. Processing of Remote sensed data: (A) Geometric corrections: Earth rotation correction, line – length correction, detector offsets, band to band offsets, altitude variation, velocity change. (B) Radiometric corrections and Atmospheric effects. Principles of Microwave remote sensing and Digital Image processing technique. Application of Remote Sensing: Spectral signature of rocks, significance of drainage analysis. Application for Lithologic discrimination: igneous, sedimentary and metamorphic rocks. Criteria for structural mapping: attitude of beds, folds, linear features, unconformities. Application for land use and land cover: land sat thematic mapper spectral bands, classification of land use and land cover systems, and classification for use with remote sensor data.

**12 hrs.**

**Total 48 hrs.**

### Books Recommended :

1. Photogeology, Millder, V.C. Mc. Graw Hill
2. Manual of Photogrammetry M.M. Thomposn
3. Remote Sensing Principles and application. A.N. Patel and Surendra Singh.
4. Manual of Remote Sensing Robert G. Reeves.
5. Remote Sensing Principles and applications Sabbins, F.F. Free man 1985
6. Image interpretation in Geology, Drury, S.A. Allen and Unwin 1987.
7. Photogrammetry Moffit F.H. and Mikhail. E.M. Harper and Row 1980
8. Aerial Photography and Image Interpretation for Resource Management. Paine, D.P.Jhn Wiley, 1981
9. Remote Sensing Geology, Gupta, M.R.P. Springer, Verlag, 1990
10. Principles and Applications of Photogeology. Pandely, S.N. wiley Eastern, New Delhi 1987
11. Aerial Photographs in Geological Interpretation and Mapping Ray, R.G. Usgs Prof. papers.

12. Geographic Information Systems, Author – Pratap, Rana, Year 2006 Geographical Information Systems an Spatial Analysis in Veterinary Science, Author –Durr, P. & A Gatrell Year 2004.
13. Geoinformatics for Environmental Management, Author Reddy, M. Anji, Year 2004, Rs. 895/-
14. GIS Applications for water waste water and Stormwater Systems, Author – Shamsi, U.M. Year 2005
15. GPS Principles and Applications, Author – Ganesh. A. & R. Narayanakumar, year 2006.
16. Remote Sensing and Geographical Information Systems : An introduction : Author – Reddy, M Anji year 2000.
17. The Science of Earth, author Bonney T.g. Year 2004
18. Sensors and Environmental Applications of Remote Sensing, Author – Askne, Jan Year 2005
19. The Social Implications of Geographic Information Systems, Author Pickles, John Year 2006
20. Textbook of Remote Sensing and Geographic Information Systems 3<sup>rd</sup> edn. Author – reddy, M Anji, year 2006
21. Trends in Geological Remote Sensing / Ramaswamy S M Year 1996
22. Remote Sensing and Urban analysis : Edited by Jean Paul Donny, Mike J Barsley & Paul Alongley. Pub : Taylo and Frances : ISBN : 0748408606
23. Introduction of Environmental Remote Sensing 4<sup>th</sup> ed. Eric Chales Barrelt and Leonard F Curtis.
24. Waste land mapping in India, Goutam N.C. and L.R.a. Narayan, pink publishing house.
25. Geo-Interpretation Model for Land – cover / Land – Use classification Jiancheng, Z.C.L. and H. Lin, 1999.
26. Suggested land use / land cover classification system for Indian sing remote sensing technique : Gautam N. C. and Narayan L.R.A..Pink publishing house, Mathura.
27. Remote Sensing and Urban Analysis : Edited by Tem – Paul Donnay Taylor and Frances.
28. Introduction of Environmental remote sensing – Eric Charles Barelt Rontledge 4<sup>th</sup> edn.
29. Remote Sensing in hydrology and water management by Schultz.
30. Hydrological application of GIS by Gurnell.
31. Remote sensing in hydrology & water management by Schultz.
32. Introduction to remote sensing – Jams B Campbell. 3<sup>rd</sup> ed.
33. Remote sensing and Urban analysis / edited by Jean – Paul Donny Michael J. Barnsley Paul A Logley. London
34. Remote sensing for sustainable forest management / Steven E. Franklin, Boca Raton
35. Fundamentals of Remote Sensing and airphoto > interpretation / Thomas Eugene Avery
36. Remote sensing for soil survey / L.P. White
37. Manual of aerial photography / Ron Graham, Roger E Read
38. Remote sensing and Geographical information system Author Chandra A.M. Year 2006
39. Introduction Digital Image Processing – A Remote Sensing Perspective Author – Jensen Prentice Hal Publication

40. Remote Sensing in Water Resources Author Ramaswamy S.M. Rawat Publishers
41. Remote Sensing of the Environment : An Earth Resources Perspective (2nd Edition)  
Author by John R Jense Publishers Prentice Hall \$ 113.33
42. Introduction to Remote Sensing, 3<sup>rd</sup> Edition Author – James B Campbell Year 2002
43. Remote Sensing and Urban Analysis : GISDATA, Author – J.P. Donnay, Mike Barnsley and Paul Longle Publishers John Wiley \$119.95
44. Physical Principles of Remote Sensing (Topics in Remote Sensing), Author W.G. Rees
45. Urban Remote Sensing, Author – Qihao Weng and Dale A Quattrochi year 2006
46. Manual of Remote Sensing, Remote Sensing for Natural Resource Management and Environmental Monitoring (Manual of Remote Sensing – 3<sup>rd</sup> edition), Author – Susan Ustin
47. Introduction to Remote Sensing 2nd edition Year 2007 author – Arthur P. Cracknell and Ladson Hayes
48. Handbook of Aerial Photography and Interpretation year Jun 1999, Author K.K. Rampal
49. Aerial Photography (Teachers Guide) Jan 2002, Author Laurel Tilbury and Mike Corbishley
50. Digital Photogrammetry : A Practical Course, Author Wilfried Linder year Mar 8, 2006

<b>Paper Code and Name</b>	<b>CRAG:4.4 PROJECT WORK</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Work on different projects in the field of Geological, Mining, Structural and Hydrogeology which requires field work, laboratory work, interpretation and drafting of thesis	

#### **PRACTICALS**

<b>Paper Code and Name</b>	<b>CRAG:4.5 MINERAL BENEFICIATION AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Understand the working principle of Jaw crushers, ball mill, rod mill and roll crusher	

#### **CRAG. 4.5 : MINERAL BENEFICIATION AND VIVA**

Size reduction :Jaw crushers, Roll crushers, Ball mill and Rod mills. Study of reduction samples using, Roll crusher : angle of nip and ratio between size of feed and size of product, Ball and rod mills. Size analysis of ground material and their graphical representation. Study

of settling rate of solids with reference to Stoke's law and Rittinger's law using clay sample. Gravity concentration experiments using hydro cyclone. Froth flotation experiments using Denver flotation. Calculation of ratio of concentration and recovery percentages.

<b>Paper Code and Name</b>	<b>CTAG:4.6 EXPLORATION GEOPHYSICS AND VIVA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
The students able handle the different geophysical instruments and data acquisition	

#### **CRAG. 4.6: EXPLORATION GEOPHYSICS AND VIVA**

Computation of gravity anomaly, gravity gradient and gravity curvature due to buried ore body. Case study of gravity anomalies. Computation of magnetic intensity due to buried magnetic ore bodies. Case study of magnetic anomalies. Computation of thickness / depth of beds and velocity of seismic waves by refraction and reflection methods for single and two layer horizontal discontinuity. Electrical resistivity technique – determination of resistivity and thickness of subsurface layers (VES) – Preparation of geoelectrical cross sections and their interpretation.

<b>Paper Code and Name</b>	<b>CTAG:4.7 PHOTO GEOLOGY AND REMOTE SENSING</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
Learn how to use photogeologic instruments to interpret photogeology data and criterion to interpret remote sensing data (satellite images)	

#### **CRAG. 4.7 : PHOTOGEOLOGY AND REMOTE SENSING**

Equipments used in Photogeology and Remote Sensing. Stereoscopic study of aerial photographs. Interpretation of aerial Photographs, (Geomorphological, structural and lithological). Study of Satellite Imageries and their Visual Interpretation (Geomorphological structural and lithological).



# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

**For**

**MASTER OF ARTS IN HINDI**

**CHOICE BASED CREDIT SYSTEM**



**2020-2021 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



# **REGULATIONS**

**For**

**MASTER OF ARTS IN HINDI  
CHOICE BASED CREDIT SYSTEM**

**From**

**2020-2021 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning Master Degree Programme**

### **Faculty of Humanities, from 2020-2021**

#### **Master Degree Programme in HINDI**

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

#### **MASTER OF ARTS IN HINDI**

##### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree programmes.

##### **Commencement:**

These Regulations shall come into force from the academic year 2021-2022.

##### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G.Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These

grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.

- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

### **Minimum Eligibility for Admission:**

The students who have successfully completed BA Degree course with Hindi as Optional Subject. B.A. course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course. Minimum 45% marks in Hindi for General Merit. 40% Marks for SC/ST/ Cat-I candidates is must.

### **Entrance Test**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University, for the 1<sup>st</sup> Semester.

### **Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1<sup>st</sup> Semester.

### **Intake**

The total number of candidates to be admitted to the course would be 65 only for the 1<sup>st</sup> semester. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state. Twenty seats are under enhanced fee. forty five seats are under normal fee, Total Seats are 65.

### **Course of Study:**

The courses of study for M.A in Hindi degree shall comprise of Theory as noted in the syllabus.

### **Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

## **Medium of Instruction**

The medium of instruction and examination is Hindi

## **Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks.
- c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.
- e) The intake capacity of the Department for the Open Electives: 40 students from other Departments.
- f) For Open Elective Eligibility Criterion is 50% minimum in the Basic (MIL) Hindi paper at the Under Graduate Degree.

## **Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Specialization Course or Optional Course and
  - iii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are

generally not allowed to opt the courses offered as Open Elective course in the same department.

- f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ / seminars/ Project work/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- g) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- h) The normal calendar for the semester would be as follows:
  - i. I and III semester - August to November
  - ii. II and IV Semester - January to April

### Attendance

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

### Course Outline for the MA in Hindi

#### SEMESTER - I

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
1.1	History of Hindi Literature	75	25	100	4	4 Hrs / week
1.2	General Linguistics	75	25	100	4	4 Hrs / week
1.3	Prayojanmulak Hindi	75	25	100	4	4 Hrs / week
1.4	Adhunik Hindi Kavya	75	25	100	4	4 Hrs / week
<b>Specialization Course or Optional Course</b>						
1.5A	Special form of Literature-Short story	75	25	100	4	4 Hrs / week

	<b>Or</b>					
<b>1.5B</b>	Special form of Literature- Novel	75	25	100	4	4 Hrs / week

### SEMESTER - II

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
<b>2.1</b>	<b>History of Morden Hindi Literature</b>	75	25	100	4	4 Hrs / week
<b>2.2</b>	<b>History of Hindi Language</b>	75	25	100	4	4 Hrs / week
<b>2.3</b>	<b>Sattotari Hindi Kavya</b>	75	25	100	4	4 Hrs / week
<b>Specialization Course or Optional Course</b>						
<b>2.4A</b>	<b>Karnatak Sanskruti Aur Kannada Sahitya</b>	75	25	100	4	4Hrs / week
<b>2.4B</b>	<b>Or Hindi Drama</b>	75	25	100	4	4 Hrs / week
	<b>Open Elective Paper</b>					
<b>2.5</b>	Hindi Grammar & Short Story	75	25	100	4	4 Hrs / week

### SEMESTER - III

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
<b>3.1</b>	<b>Indian Poetics</b>	75	25	100	4	4 Hrs / week
<b>3.2</b>	<b>Hindi Patrakarita</b>	75	25	100	4	4 Hrs / week
<b>3.3</b>	<b>Medieval Poetry</b>	75	25	100	4	4 Hrs / week
<b>Specialization Course or Optional Course</b>						
<b>3.4A</b>	<b>Modern Hindi Prose</b>	75	25	100	4	4 Hrs / week
<b>3.4B</b>	<b>Or Hindi Autobiography and Biography</b>	75	25	100	4	4Hrs / week
	<b>Open Elective Paper</b>					
<b>3.5</b>	<b>General Hindi and Hindi One Act Play</b>	75	25	100	4	4 Hrs / week

## SEMESTER – IV

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
4.1	<b>Western Poetics</b>	75	25	100	4	4 Hrs / week
4.2	<b>Hindi Criticism</b>	75	25	100	4	4 Hrs / week
4.3	<b>Indian Literature</b>	75	25	100	4	4 Hrs / week
<b>Specialization Course or Optional Course</b>						
4.4A	<b>Research Methodology</b>	75	25	100	4	4 Hrs / week
4.4B	<b>Or Contemporary Literature</b>	75	25	100	4	4Hrs / week
4.5	<b>Dissertation</b>	75	25	100	4	4Hrs / week

### Submission of Dissertation

- a) MA in Hindi–IV semester students shall have to submit the dissertation on the chosen topic, before the commencement of the theory examination.
- b) Candidates keeping terms but not appearing for the theory papers and not submitted the dissertation within the prescribed time, may appear for respective examination and submit the dissertation within the prescribed time.
- c) Candidates appearing for the examination under the provision of (b) will be not eligible for the award of any rank, prize, medal etc.

### Evaluation:

- a. Each Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance, if a Compulsory Course has a Credit award of 4, then the total max marks would be 100 for the subject.
- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- d. To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

Attendance	Marks Allotted
91 to 100%	3
81 to 90%	2
75 to 80%	1

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone of shall be considered for the allotment of marks as under.
- f. There shall be one end semester examination of 3 duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluation

#### **Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Master Degree course in two years from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.
- c. The CBCS scheme is fully carry-over system. However, the four –semester two years course should be completed by a student within double duration of the normal course period (i.e. 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1,000/- per paper.

#### **Declaration of Results:**

- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

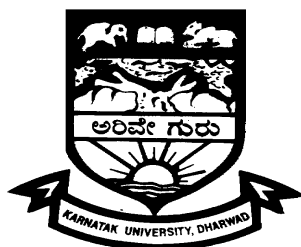
#### **Marks and Grading**

The grading of successful candidate at the examination shall be as follows:

Percentage	GPA/CGPA	Letter	Class
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction

60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

## **KARNATAK UNIVERSITY, DHARWAD**



### **SYLLABUS**

**For**

## **MASTER OF ARTS IN HINDI CHOICE BASED CREDIT SYSTEM PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Understand the logic of knowledge of Literature and its importance in daily life.
2. Learn the practical skills to handle the translator Jobs.
3. Understand the information needs and requirements of different user communities and their by develop new services and facilities.
4. Effectively use Information and Communication in Hindi patrachar. (NEWS Sector)
5. Contribute to Language expert profession by inculcating research aptitude, communication skills and other necessary soft skills.

<b>Paper Code and Name</b>	<b>1.1 History of Hindi Literature</b> (Adikal to Reetikal )
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn Classification ni Hindi Literature
CO 2	Familiar with salient features with Bhakthikaal.
CO 3	Familiar with Nirgun Bhakti & Poets.
CO 4	Familiar with sagun Bhakti & Poets.
CO 5	Familiar with Krishnabhakti & Poets
CO 6	Familiar with Rambhakti & Poets
CO 7	Familiar with ancient learn about Reetikal & Poets.
CO 8	Understand the basic philosophy of Librarianship / LIS profession.
<b>Paper Code and Name</b>	<b>1.2 General Linguistics</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn Classification in Hindi Language
CO 2	Familiar with salient features with Linguists
CO 3	Familiar with dhvani vigyan
CO 4	Familiar with roop & Roopim.
CO 5	Familiar with Arth vigyaan and arth vistar and Arthapakarsh
<b>Paper Code and Name</b>	<b>1.3 Prayojanmulak Hindi &amp; Translation</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Analyze problem of translation in Literature.
CO 2	Analyze problem of translation in Banking.
CO 3	Analyze problem of translation in Journalism.

CO 4	Analysis problem of translation in Business & Sports
CO 5	Apply Translation Skills in Various Languages like Kannada, Hindi & English.
<b>Paper Code and Name</b>	<b>1.4 Adhunik Hindi Kavya</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn About Kamayini Mahakyavya (Jayashankar Prasad)
CO 2	Learn About Poems of Prasad.
CO 3	Learn About Poems of Nirala.
CO 4	Learn About Poems of Pant.
CO 5	Learn About Poems of Verma
<b>Paper Code and Name</b>	<b>1.5 Special form of Literature-Short story</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn About Various part of Katha sahitya.
CO 2	Learn About kahani sahitya.
CO 3	Learn About Upanyas Sahitya
CO 4	Learn About Tamas Upanyas
CO 5	Learn About Godan
<b>Paper Code and Name</b>	<b>2.1 History of Morden Hindi Literature</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn Various Situation & Specialties of Adhunik kaal. (Modern period)
CO 2	Study develop and literary Persons of rebirth literature of Hindi.
CO 3	Study develop & literary persons of Chayavad, Pragativad & Prayogvad
CO 4	Learn develop of New Poet & Poems
CO 5	Learn Various Situation of Ahunikata & uttaradhunikata
<b>Paper Code and Name</b>	<b>2.2 History of Hindi Language</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn origin & growth of language.
CO 2	Analysis dialects.
CO 3	Learn about Kadi boli.

CO 4	Learn Important aspects of linguistics.
CO 5	Learn Important of devanagari lipi &
<b>Paper Code and Name</b>	<b>2.2 History of Hindi Language</b>
<b>COURSE OUTCOMES (COs)</b>	
CO 1	Learn origin & growth of language.
CO 2	Analysis dialects.
CO 3	Learn about Kadi boli.
CO 4	Learn Important aspects of linguistics.
CO 5	Learn Important of devanagari lipi
<b>Paper Code and Name</b>	<b>2.3 Sattotari Hindi Kavya</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn about Lambi Kavita ( Dheerg Kavitayen)
CO 2	Learn About Chayavadottar Kavi-muktibodh, dhumil, nagarjun, bhavaniprasad misra etc
CO 3	Learn about Dalit vimarsh
CO 4	Learn about stree vimarsh
CO 5	Learn about hasya aur vyanga in poetry
<b>Paper Code and Name</b>	<b>2.4 Karnatak Sanskruti Aur Kannada Sahitya Or Hindi Drama</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn various situations & specialties of kannada Literature.
CO 2	Learn about pilgrims & historical places of culture & Customs.
CO 3	Learn about : Vachana & Keertana (psalmists)
CO 4	Characters of Saints & Philosopher like Basavanna, Akkamahadevi, Kanakdas, Kuvempu etc.
CO 5	Study to Kavya, Novel, Short Story & Drama, Growth & Developments.
<b>Paper Code and Name</b>	<b>2.5 Hindi Grammar &amp; Short Story (OEC)</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn About Shabdh Bhed

CO 2	Learn About Preranarthk Aur Sayukt Kriya.
CO 3	Learn About kriya visheshan .
CO 4	Learn About ling, vachan aur karak.
CO 5	Learn About kaal aur vacha
<b>Paper Code and Name</b>	<b>3.1 Indian Poetics</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn Various Stage of Indian Poetics
CO 2	Analysis of types of Epics.
CO 3	To learn value & Importance of Indian Poetics.
CO 4	Evaluation of theories like Rasa, Alankaar & reeti sampradaya.
CO 5	Evaluation of theory like Dwani, Auchitya & Vakarothei.
<b>Paper Code and Name</b>	<b>3.2 Hindi Patrakarita</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Recall of historical development of Journalism in Hindi.
CO 2	Learn about Journalism.
CO 3	Gain knowledge about various dimensions of mass communication.
CO 4	Learn rules of the press.
CO 5	Know the difficulties of Agencies
<b>Paper Code and Name</b>	<b>3.3 Medieval Poetry</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn about Kabirdas
CO 2	Learn About Padmavat
CO 3	Learn about Bhramar Geet
CO 4	Learn about Ramcharit Manas
CO 5	Learn about Bihari Saurabha
<b>Paper Code and Name</b>	<b>3.4 Modern Hindi Prose Or Hindi Autobiography and Biography</b>
<b>COURSE OUTCOMES (Cos)</b>	

CO 1	Learn about Vicaradhara (Nibhandha)
CO 2	Learn about Saat Ekanki .
CO 3	Learn about : Caturi Chamar
CO 4	Learn about : Kya Bhoolu Kya Yad Karu
CO 5	Learn about : Ek Kahani Yah Bhi
<b>Paper Code and Name</b>	<b>3.5 General Hindi and Hindi One Act Play</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn About Patralekhan Sampreshan Kala
CO 2	Learn Anuvad.
CO 3	Learn About Prayojanmulak hindi
CO 4	Learn About official letter
CO 5	Learn About Informal letter
<b>Paper Code and Name</b>	<b>4.1 Western Poetics</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn Various Stage of Western Poetics
CO 2	To learn value & Importance of Polto-Virechan Siddanth, Aristotle- Anukaran Siddanth.
CO 3	To learn theory of Siment fried, T.S.Eliot, Richards, Lognus etc.
CO 4	Study about marksism existentialism
CO 5	Analysis of adhunikathavad & Uttaradhunikatavad etc.
<b>Paper Code and Name</b>	<b>4.2 Hindi Criticism</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn about Criticism.
CO 2	Learn about Ramachandra Shukl,
CO 3	Learn about Hajariprasad Dvivedi,.
CO 4	Learn about Nandadulare Vajapeyi,
CO 5	Learn about Dr. Nagendra
<b>Paper Code and Name</b>	<b>4.3 Indian Literature</b>
<b>COURSE OUTCOMES (Cos)</b>	

CO 1	Learn about Bharatiya sahitya
CO 2	Learn About Adhunik Bharatiy Kavita
CO 3	Learn about ‘ Charitraheen’ kriti
CO 4	Learn about Hayavadan (Drama)
CO 5	Learn about Kannada sahitya
<b>Paper Code and Name</b>	<b>4.4 Research Methodology Or Contemporary Hindi Drama &amp; theatre</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Learn About : Anusandhan-Paribhasha Evam Swaroop
CO 2	Learn About Anusandhan Aur Alochana
CO 3	Learn About Anusandhan Ke Mool Tatwa
CO 4	Learn About Anusandhan Ki Parikalpana
CO 5	Learn About Anusandhan ke Prakar
<b>Paper Code and Name</b>	<b>4.5 Dissertation</b>
<b>COURSE OUTCOMES (Cos)</b>	
CO 1	Gain the practical knowledge of Hindi Language
CO 2	Development of writing skill.
CO 3	Develop leadership qualities.
CO 4	Learn about Research Methods

<b>1.1 History of Hindi Literature : (Adikal to Reetikal )</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-1.</b> Hindi sahity ke itihās ki lekhan parampara, hindi sahitya ke itihās ka kalavibhajan aur namakaran, apabhraṁsh aur hindi ka sabandh.	16 Hours

<b>Unit 2:</b>	
<b>Unit-2. Adikal,-</b> peethikaa-raajanaitik dhaarmik aur samajik parivesh, jain saahity, siddha saahity, raaso saahity, pratviraj raso, Amir khusaro, vidyapati.	16 Hours
<b>Unit 3:</b>	
<b>Unit-3. bhktikal-</b> Reethika- raajanaitik dhaarmik aur samajik parivesh, bhakti andolan, nirgun dhara, sant kavya aur visheshata aur pramukh kavi	16 Hours
<b>Unit 4: Tertiary Sources</b>	
<b>Unit-4. Reetikal-</b> peethika- raajanaitik dhaarmik aur samajik parivesh, ritikalin kaviyon ka acharyatv, reetimukt, ritisiddha, ritimukt kavyadharayen, reetikal ke pramukh kavi	16 Hours
<b>REFERENCES</b>	
1. Hindi Sahitya Ka itihas- Acharya Ramachandra Shukla 2. Hindi Sahitya Ki Bhumika-Acharya Hajariprasad Dvivedi 3. Hindi Sahitya Ka itihas- Dr. Nagendra	

<b>1.2 General Linguistics</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-1.</b> Bhasha Aur Bhasha Vigyan- Bhasha Ki paribhasha, swaroop aur Lakshan, Lkhith-uccarit bhasha, bhasha aur boli, bhasha vigyan aur vyakaran, bhasha ki utpatti, bhasha mein parivartan ke karan, adhyan ki dishayen, Bhasha vaigyanik visleshan ke ikaiyan- vyakya, roopim, swanim	16 Hours
<b>Unit 2:</b>	
<b>Unit-2.</b> swan, prakrioya, swan vigyan ka svaroop aur shakhaye, vaag avayav aur unake kaarya. Swan ki avadhaarana, swanim ke bhedh.	16 Hours
<b>Unit 3:</b>	
<b>Unit-3.</b> .vyakaran: roop prakriya ka swaroop aur shakaye- roopim ki avadharana aur bhed : mukt abaddha, arthadarshi aur sambandhadarshi, sambandhadarshi roopim ke	16 Hours

bhedha aur prakarya [(prakriya). Vaakya ki avadharana, abhihitavayavad aur anvitatbhidanvad, vakya ke bhedh	
<b>Unit 4:</b>	
<b>Unit-4</b> Arthvigyan : arth ki avadharana, Shabd aur arth ka sambandh, anekarthta, vilomata, arth parivartan. prokti sanrachana: ek parichay	16 Hours
<b>REFERENCES</b>	
1. Bhasha vigyan- Dr, Bholanath Tiwari( Kitab mahal Ilahabad) 2. Samanyva Bhasha vigyan-Baburao Sekshena(Hindi Sahity sammelan Prayag) 3. Bhasha vigyan Ki bhoomika-Devendranath Sharma(Radha Kriushana Prakashan New Delhi.	

<b>1.3 Prayojanmulak Hindi &amp; Translation</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-1</b> 1.hindi ke savaidhanik sthiti 2.prayojanmoolak hindi ki avadharana 3.prashasanik hindi 4.praroopan aur Tippan 5.aavedan	16 Hours
<b>Unit 2:</b>	
<b>Unit-2</b> 6.Dhak, tar, rel vibhag mein hindi 7.janasanchar madham mein hindi 8.bainking, vidhi tathavanijya hindi 9.paribhashik Shabdavali	16 Hours
<b>Unit 3:</b>	
<b>Unit-3</b> 10.anuvad ka swaroop, paribhasha aur kShetra 11.Anuvad vigyan hai yak ala 12. Anuvad ke Prakar 13.Anuvad se bhashavigyan ka sambandh 14.anuvad prakriya 15.anuvad Aur Shaili	16 Hours

<b>Unit 4:</b>	
<b>Unit-4</b> 16.Srujanatmak sahity evam vaigyanik sahity ke anuvad ki samasyayen 17.muhavare aur lokoktiyon ka Anuvad 18. karyalayin Anuvad 19.Anuvad aru Computer.	16 Hours
<b>REFERENCES</b>	
1. Anuvada vigyan- Dr, Bholanath Tiwari( Kitab mahal Ilahabad) 2. Anuvad Kala-Dr, NE Vishwanatan Ayyaer(Prabhat prakashan Delhi) 3. Anuvad Siddhant Ki Roop rekha-Dr, Suresh kumar(Vani Prakashan Delhi)	

<b>1.4 Adhunik Hindi Kavya</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-1.</b> Kamayini : jayshankar Prasad (sandarbh ke liye : lajja ida sarg)	16 Hours
<b>Unit 2:</b>	
<b>Unit- 2.</b> prasad, nirala, ki shrestha racanaye	16 Hours
<b>Unit 3:</b>	
<b>Unit-3</b> pant, mahadevi ki shrestha racanaye	16 Hours
<b>Unit 4:</b>	
<b>Unit-4.</b> Rashmirathi : Dinakar	16 Hours
<b>REFERENCES</b>	
1. Kanayani Ki Adhyayan Ki Samasyayen Dr. Nagendra(National Publishing House Delhi) 2. Krantikari Nirala-Dr. Bachan singh	

3. Sumitranandan Pant-Dr. Nagendra
4. Mahadevvarma Kavya Aur Jeevan Darshan-Shachirani Gurtu
5. Rashtra Kavi Dinakara Aur Unki Sahitya Sadhan-Pratapchand Jaiswal

<b>1.5 Special form of Literature-Short story -A</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
21kahaniyayen : adhyayan ke liye – maahavarav sapre, premchand, chandradhar Sharma guleri,	16 Hours
<b>Unit 2:</b>	
Jayashankar Prasad, Jainendra, phanishwarnath Renu,	16 Hours
<b>Unit 3:</b>	
Agyeya, Bhishm sahani, gyana ranjan, kamaleshwar.	16 Hours
<b>Unit 4:</b>	
Nayisadi Ki pahachan: shresht kahila kathakar	16 Hours
<b>REFERENCES</b>	
1. Hindi Kahni : Udbhav Aur Vikas —Dr. Suresh Shinha 2. Nayi Kahani Ke Bhoomika-Kamaleshwar 3. Samanantar Kahani-Dr. Vinay 4. Samakalin Kahani-Dr. Dhananjay	

<b>1.5 Special form of Literature-Novel-B</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit- 1. Godan-Premchand</b>	16 Hours

<b>Unit 2:</b>	
<b>Unit- 2.</b> Banbhatta ki atmakatha-hajariprasad dvivedi	16 Hours
<b>Unit 3:</b>	
<b>Unit- 3.</b> tamas-Bhishma Sahani	16 Hours
<b>Unit 4:</b>	
<b>Unit- 4.</b> Apaka Banti-Mannu Bhandari	16 Hours
<b>REFERENCES</b>	
1. Hindi Upanyas-Pahachan Aur Parakh-Dr. Indranath Madan 2. Upanyas Shilp-Dr, Gopaldas 3. Hindi Upanyas Stiti aur gati-Dr.Chandrakant Bandivadekar	

<b>2.1 History of Morden Hindi Literature</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit- I</b> Adhunik Kal: adhunik kal ki peethika- rajanitik, dharmik, samajik, sanskritik, sahityik parivesh, bharatendu poorva hindi gadya1857 ke rajya kranti aur sanskritik punarjagaran, bharatendu yug, Dvedi yug,	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Chayavadi Yug, Pramukh pravruttiyan aur Visheshtayen, pramukh kavi, Prasad, pant, nirala, varma, halavad, Pragativadi Yug, Pramukh pravruttiyan aur Visheshtayen, pramukh kavi Nayi Kavita, Nayi kavita ka swaroop, visheshatayen, pramukh kavi. Samakalin kavita akavita navageet.	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Hindi Upanyas: premachand poorva upanyas, premchan aur unaka yug, premachandottar yug, pramukh aupanyasik dharayen, pramukha upanyasakar, - jainedra, agyeya, hajariprasad dvivedi, yashapal, phaniswarnath renu, amRutalal nagar, samakalin hindi upanyas aur pramukh upanyasakar, Hindi khani : udbhav aur vikas, nayi kahani aur vibhinna kahani andolan, pramukh kahanikar.	16 Hours

<b>Unit 4:</b>	
<b>Unit-IV</b> Hindi Natak : Hindi natak aur rangmanch, vikas ke charan, pramukh natakakar- Baratendu Harischandra, Jayashankar Prasad, harikrishna Premi, Lakshminarayan lal aur anya Pramukh samakalin Natakakar , Hindi Ekanki : Udbhav aur vikas, Pramukh alochak, ramachandra shukla, Nanda dulare vajapeyi, hajari Prasad dvivedi, ram vilas Sharma, hindi Ki Anya Vidhayen : Rekhachitra, Sansmaran, Yatrasahitya, Atmakatha, jeevani, Hindi Ka Pravasi Sahtya : Avadharana Aur Pramukh sahtyakar.	16 Hours
<b>REFERENCES</b>	
1. Hindi Sahitya Yug aur Pravrittiyan-Dr. Shivkumar Sharma 2. Hindi Sahitya Ka Itihas-Dr. Lakshmisagar Varshaney 3. Hindi Sahitya Ka Dusara Itihas-Dr. Bacchan Songh	

<b>2.2 History of Hindi Language</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I.</b> Bhasha Ki Etihāsik Prushtbhoomi: Sansar Ki bhashaon ka vargikaran ke adhar, prachi bharatiya aya bhasha, vaidik, loukik, Sanskrit aur unaki visheshatayen, Madhya kalin bharatiya aya bhashayen : pali, prakri, shaurasheni, ardhmagadi, magadi, apabransh aur unaki visheshatayen.	16 Hours
<b>Unit 2:</b>	
<b>Unit-II.</b> Hindi Ka Bhaugolik Vistar : Hindi Ki upabhashayen, pashchimi hindi, poorvi hindi, rajastani, bihari, tatha pahadi aur unaki boliya	16 Hours
<b>Unit 3:</b>	
<b>Unit-III.</b> Hindi Bhasha Ka Udbhav Aur Vikas : Pracheen kal, madhaya kal aur adhunik kal, Hindi ka Shabda Samuha : srotgat parichaya, tatsam, tadbhav, deshaj aur videshi.	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV.</b> Devanagari Lipi : utpatti, vikas, bramhi, kharosti, devanagari lipiyan, devanagari lipi ki vaigyanikata, gun-dosh evam sudhar.	16 Hours
<b>REFERENCES</b>	

1. Nayi Kavita Ke Pratiman-Lakshmikanth Varma, (Bhratiy pres Prakashan ilahabad)
2. Nayi Rachana Aur Rachanakar- Dr. Dayanand Sharma(Annapurna Prakashana Kanpur)
3. Nayi Kavita Ke sat Adhyay-Dr. Devesh Thakur(Sankalp Prakashan Mumbai)

<b>2.3 Sattotari Hindi Kavya</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I.</b> Dheerg Kavitayen : Muktibodh – Bramharaksha, agyeya- Asadhyaveena.	16 Hours
<b>Unit 2:</b>	
<b>Unit-II.</b> Chayavadottar Kavya Sangraha. : kuvaranarayan, nagarjun,	16 Hours
<b>Unit 3:</b>	
<b>Unit III</b> bhavaniprasad mishra, kedarnath shingh.	16 Hours
<b>Unit 4:</b>	
<b>Unit IV</b> raghuveer sahaya, dhumil	16 Hours
<b>REFERENCES</b>	
1. Nayi Kavita Ke Pratiman-Lakshmikanth Varma, (Bhratiy pres Prakashan ilahabad)	
2. Nayi Rachana Aur Rachanakar- Dr. Dayanand Sharma(Annapurna Prakashana Kanpur)	
3. Nayi Kavita Ke sat Adhyay-Dr. Devesh Thakur(Sankalp Prakashan Mumbai)	

<b>2.4 Karnatak Sanskruti Aur Kannada Sahitya-A</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> 1.Kannad Aur Karnatak Ki Prachinata Aur vyutpatti 2.karnatak Ke Sangeet, Shilpakala Aur Vastushilp Ka SankShipt Parichaya 3.karnatak Ke Pramukh Dharmik Aur Darshanik Stan.	16 Hours

<b>Unit 2:</b>	
<b>Unit-II</b> 4.Kannad Sahity itihās ka Samanya Parichay(Kalkramanuser)	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> 5.Pramukh Kaviyon Ka Samanya Parichaya	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> 6.Kannad Sahity Ke vidharon ka Samanya Parichaya	16 Hours
<b>REFERENCES</b>	
1. The Heritage of Karnataka-Dr. R.S. Mugali 2. Karnatal Sanskriti- Shareshchandra Chulakimath 3. Popular Culture in Karnataka-Masti Venkatesh Iyyangar	

<b>2.4 Hindi Drama-B</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Skand Gupt-jayaShankar Prasad	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Andha Yug-Dharmaveer Bharati	16 Hours
<b>Unit 3:</b>	
<b>Unit-III.</b> AShad Ka Ek Din-Mohan Rakesh	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV.</b> Ek Aur Dronacharya-Sankar Shesh	16 Hours
<b>REFERENCES</b>	

1. Hindi Natak Udbhav Aur Vikas-Dr. Dasharat Oza
2. Rangamanch Aur Natak Ki Bhoomika-Lakshminaran Lal
3. Hindi Natak Sahitya Ka Alochanatmak Adhayan-Dr. Ramacharan

<b>2.5 Hindi Grammar &amp; Short Story (OEC)</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> 1.Shabdh Bhedh 2.Preranarthk Aur Sayukt Kriya	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> 3.kriya visheshan 4.ling, vachan aur karak .	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> 5.kaal aur vacha 6.Ne Prayog	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> 7.pratinidhi kahaniyan (Kahani Sangrah)	16 Hours
<b>REFERENCES</b>	
1. Hindi Kahaniyon Ki Shilpavidhi Ka Vikas-Lakshminarayan Lal 2. Hindi Kahani Ka Idbhav Aur Vikas-Dr. Suresh Shinha 3. Vyavaharik Hindi Vyakaran Aur Rachana- Dr. Harivansha, Tarun prakashan, New Delhi	

<b>3.1 Indian Poetics</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	

<b>Unit-I</b> Kavyashastra Ka Namakaran, Kavya Lakshan, Kavya Ke Vividh Roop,	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Bharatiya Kavya Sampradaya : Rasa Sampradaya.	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Alankar sampradaya, dvani, reeti sampradaya	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> Vakrokti aur auchitya sampradaya	16 Hours
<b>REFERENCES</b>	
1. Kavyashastra-bhagirat Mishra(Vishwavidyalaya Prakashan, Varanashi) 2. Kavya Ke Roop-Gulab Ray 3. Shastreeya Samiksha ke Siddhant-Givind Vishnugupta	

<b>3.2 Hindi Patrakarita</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Paribhasha, Swaroop, Prakar, Hindi Patrakarita Ka Udbhav Aur Vikas,	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Patrakarita Ka Dayitva, samachar Patrakarita Ke Mool Tatva, Sampadan Kala Ke Samanya Siddhant, Samachar Patron Ke vibhinna Stambon Ki Yojana,	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Drush Samagri, samachar ke vibhinna srot, Samachar Agency, sampadan tatha savadaata ki yogyata, Patrakarita sambandhit lekhan,	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> Elektranik Media Ki Patrakarita, Lokasampark tatha partrakarita	

	16 Hours
<b>REFERENCES</b>	
1. Samachar Sampadan Aur Prisht-Ramesh kumar Jain 2. Bharatiya Patrakarita-Kal Aaj Aur Kal-Suresh Goutam, Vani Goutam 3. Hindi Patrakarita Vividh Adhaya- ved Pratap Shingh	

<b>3.3 Medieval Poetry</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Kabir racanavali 160 to 209	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Padmavat	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Bramar Geet	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> Ramcharit Manas, Bihari Saurabha.	16 Hours
<b>REFERENCES</b>	
1. Sant Kabir-Ramakumar Verma 2. Kabir Ki Vicharadhar-Govind Trigunayan 3. Soor Sahitya-Chandrabhan Ravat 4. Bihari Ki Kavyakala-Rajakishor Singh 5. Tulasi ki kavya miumaansa-udaya bhanu singh	

<b>3.4 Modern Hindi Prose</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Vicaradhara bhag –(Nibhandha),	21 Hours

<b>Unit 2:</b>	
<b>Unit-II</b> Saat Ekanki	21 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Caturi Chamar	22 Hours
<b>REFERENCES</b>	
1. Atmakatha Swaroop Evam Sahitya-Dr. Kamaladas 2. Hindi Atmakatha- Swaroop Evam Sahitya-Dr. Kamaleswar 3. Swatantrottar hindi atmakatha sahity me janavadi chintan ruzan- Dr. Subedar Singh	

<b>3.5 General Hindi and Hindi One Act Play</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Patralekhan Sampreshan Kala,	21 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Anuvad: Paribhasha, swaroop, mahatva, anuvad ke prakar, Anuvad prakriya	21 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Ekanki Kunj	22 Hours
<b>REFERENCES</b>	
1. Vanijya Hindi-Pra, A.V. Narti 2. Hindi Ekanki Aur Ekankikar-Ramsud 3. Anuvad Vigyan –Bholanath Tivari	

<b>4.1 Western Poetics</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Pleto Aur Arastu Ka Anukaran Shiddhant, Arastu Ka Virechan Sidhant,	16 Hours

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<b>Unit 2:</b>	
<b>Unit-II</b> Lonjayans-Kavya Mein Udatta Tatva, Swachandata Vad, Manovisleshan Vad, I.A. Richard	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> T.S. Iliot Ke Kavya Siddhant, Kroche Ka Abhivyanjanavad, Wardsvarth Ka Kavya Siddhant,	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> Samrachanavad Uttar Samrachanavad, Adhunikata .uttara adhinikata Vikhandanvad	16 Hours
<b>REFERENCES</b>	
1. Hindi Alochana Udbhava Aur Vikas-Bhagavatswaroop Mishra 2. Hindi Alochana Ke Adhar stambh-Dr. Sureshchandra Gupta 3. Hindi Alochana Ka Itihas- Dr. Makhanlal Sharma	

<b>4.2 Hindi Criticism</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Alochana Ki Paribhasha, Tattva, Swaroop, Prakar, Hindi Alochana Ke udbhav Aur Vikas,	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Hindi Ke Pramukh Alochak-Ramachandra Shukl, Hajariprasad Dvivedi,	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> Nandadulare Vajapeyi, Dr. Nagendra,	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> Ramavilas Sharma, Dr. Namavar singh.	16 Hours

<b>REFERENCES</b>	
1. Hindi Alochana Udbhav Aur Vikas-Bhagavat Swaroop Mishara 2. Hindi Alochana-Dr. Vishwanath Tripathi(Rajkamal Prakashan,New Delhi) 3. Itihas aur Alochana-Dr. Namvarsingh	

<b>4.3 Indian Literature</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
<b>Unit-I</b> Bharatiya Sahitya Ka swaroop, Bharatiya Sahitya Ki Adhyayan Ki Seemaayen, Bhartiya Sahitya Mein Aaj Ke Bhart Ka Bimb, Bharatiya Sahitya Mein Bharatiya Mulyon Ki Abhivyakti	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> Adhunik Bharatiy Kavita.	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> .Charitraheen,	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> .Hayavadan	16 Hours
<b>REFERENCES</b>	
1. Adhunik bharatiya kavita-Dr. Avadesh Narayan Mishra 2. Caritrahin –Ramachandra Chattopadhyaya 3. Havavadan-Girish Karanad	

<b>4.4 Research Methodology -A</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	

<b>Unit-I</b> 1. Anusandhan-Paribhasha Evam Swaroop 2. Anusandhan Aur Alochana	16 Hours
<b>Unit 2:</b>	
<b>Unit-II</b> 3. Anusandhan Ke Mool Tatwa 4. Anusandhan Ki Parikalpana	16 Hours
<b>Unit 3:</b>	
<b>Unit-III</b> 5. Anusandhan ke Prakar 6. Anusandhan Ki Prakriya	16 Hours
<b>Unit 4:</b>	
<b>Unit-IV</b> 7. Anusandhan Ke Guna 8. Tulanatmak Anusandhan	16 Hours
<b>REFERENCES</b>	
1. Hindi Shodhatantra Ki Rooprekha-Dr. Manmohan sagal 2. Sahityik Shodh Ke Siddhant Evam Samasyayen-Dr. Devaraj Upadyay 3. Hindi Shodh Samasyayen Evam Samadhan- Dr. Kuvarshigh Prakash singh	

<b>4.4 Contemporary Hindi Drama &amp; theatre-B</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1:</b>	
1.jindagi 50-50	21 Hours
<b>Unit 2:</b>	
2. Agara Bazar	21 Hours
<b>Unit 3:</b>	
3. khidakiyon par Tange Log.	22 Hours
<b>REFERENCES</b>	
1. Hindi Natak-Dr. Veena Goutam	

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|---|
| 2. Hindi Natak Vimarsh-Devadas Yashavant<br>3. Samakalin Sahitya Chintan-Dr. Ramadas Mishra |
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<b>4. 5 Desrtarion</b>	<b>Teaching Hours (Max. 64)</b>
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<b>PG42T101- History of South India to 757 AD</b>	
Realize the significance of geographical factors and sources for the reconstruction of the South Indian History of ancient times.	
Understand the Ethical values propagated in Ashokan Edicts and his concept of Dhamma besides tracing the extent of his empire in the South.	
Perceive the socio-political and economic conditions of South India as reflected in Sangam Literature.	
Grasp the cultural contributions of early ruling dynasties of the Deccan.	
understand the zenith of Political Power of Chalukyas of Badami and Pallavas of Kanchi along with their contributions to art and architecture.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Geographical Factors and Sources</b>	8hrs
a) Geographical Factors	
b) Archaeological Sources	
c) Literary Sources	
<b>Mauryan Rule in South India</b>	8hrs
a) Ashokan Edicts in South India	
b) Mauryan Administration in South India	
c) Ashokan Dhamma	
<b>The Sangam Age</b>	8hrs
a) Literature	
b) Polity and Society	
c) Socio-Economic and Religious condition	
<b>Satavahana, Ikshvaku and Vishnukundin Rule</b>	8hrs
a) Satavahana Genealogy, Early Rulers- Gautamiputra Satakarni and his achievements	
b) Socio-Economic, Religious conditions and Art and Architecture of Satavahanas	
c) Ikshvakus and Vishnukundins' Rule	
<b>The Chalukyas of Badami and Pallavas of Kanchi</b>	8hrs
a) Pulakesi-II and Pallava Narasimhavarma-II	
b) Chalukya – Pallava conflicts	
c) Art and Architecture of Chalukyas and Pallavas	

Yazdani, G.; <i>The Early History of Deccan Vol.I &amp; II</i> , New Delhi, 1982	
Sastri, K.A.N.; <i>A History of South India from Prehistoric Times to the Fall of the Vijayanagara</i> , Oxford, 1966.	
Subramanian, N.; <i>Sangam Polity</i> , Bombay, 1966	
Krishnarao, B.B.; <i>A History of the Early Dynasties of Andhradesa</i> Madras, 1942.	
Ramesh, K.V.; <i>Chalukyas of Vatapi</i> , Delhi, 1984.	
Sheik Ali, B. (Ed.) ; <i>Karnataka Charitre</i> , Vols.1-2 Hampi, 1997	
<b>PG42T102- Ancient Indian Polity - Theories and Concepts</b>	
Understand the trends in Historiography of Ancient Polity	
Realize the significance of sources in the reconstruction of history of Political thought.	
Understand the evolution of various theories of origin of state.	
Comprehend the concepts and elements of state as propagated by Kautilya	
View Contemporary Inter-state problems in light of ancient Indian theory and concept of Raja-Mandala.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>History of Research in Ancient Indian Polity- Imperial and Nationalist Views.</b>	8hrs
a) Survey of Research	
b) Imperialist view	
c) Nationalist view	
<b>Sources</b>	8hrs

a) Manusmriti and Mahabharata	
b) Arthashastra	
c) Kamandaka’s Nitisara and Dighanikaya	
<b>Theories on the Origin of Kingship;</b>	8hrs
a) Origin of State: State of Nature	
b) Brahmanical view- Divine origin theory	
c) Buddhist view- Social Contract Theory	8hrs
<b>Elements of the State</b>	
a) Concept of Elements of State	
b) Saptanga theory of Kautilya	8hrs
c) Importance of Swami and Amatya	
<b>Inter-State Relations</b>	
a) The Rajamandala concept	8hrs
b) Kautilya’s Rajamandala theory	
c) Its Relevance to Inter-State relations	
Saletore, B.A; <i>Ancient Indian Political Thought and Institution</i> , Bombay, 1968.	
Kane, P.V.; <i>The History of Dharmasastras</i> (Vol.3), Poona, 1962.	
Goshal, U.N.; <i>A History of Indian Political Ideas</i> , OUP, 1959.	
Sharma, R.S.; <i>Aspects of Political Ideas and Institutions in Ancient India</i> , Delhi, 1959.	
Altekar, A.S.; <i>State &amp; Government in Ancient India</i> , Banaras, 1949.	
Mookerji, R.K.; <i>Local Government in Ancient India</i> , Oxford, 1920.	
Shama Sastry R.; <i>Kautilya’s Arthasastra</i> , Mysore, 1967.	
<b>PG42T103- History of Indian National Movement</b>	
Recognize the process and impact of the colonization of India	

Understand ideological dimensions and trends in the writings on Indian National Movement	
Trace the course and methods of liberal and radical nationalists.	
Understand the emergence of urbanized mass politics and the popular movements.	
Understand the tangle of communal and caste politics and their remedial measures.	
Particulars	Teaching Hours
<b>Introduction:</b>	8hrs
a) Historiography of the Indian National Movement.	
b) Ideological Dimensions and Strategy of the Movement.	
c) The Revolt of 1857 and Economic Policies of the Colonial Rule	
<b>Rise and Growth of the National Movement</b>	8hrs
a) Myth and Reality of Indian National Congress	
b) Moderate Phase (1885-1905) –Partition of Bengal.	
c) Extremist Phase (1905- 1919) -Split in Congress, Socialists V/S Conservatives	
<b>Emergence of Mahatma Gandhi:</b>	8hrs
a) Non Co-operation Movement.	
b) Civil Disobedience Movement	
c) Quit India Movement	
<b>Emergence of Communal &amp; Caste Politics</b>	8hrs
a) Partition of India – Jinna’s Two Nation Theory & Dr. Ambedkar’s thoughts on the formation of Pakistan	
b) Gandhiji on Chaturvarna and Upliftment of Dalits.	
c) Crusade against caste system and untouchability- the approaches of Dr.Ambedkar	
<b>The Popular Movements during Freedom Struggle</b>	8hrs
a) Peasant and Working Class Movements	
b) Tribal Movements.	
c) Role of Women in Freedom Struggle	
Majumdar, R.C. (Ed.)- <i>Advanced History of India</i> (Part-III) London, Macmillan, 1949.	
Bishweshwar Prasad, <i>Changing Modes of Indian National Movement</i> , New Delhi 1966.	

Tara Chand, History of the Freedom Movement in India (2 Vols.), Delhi, 1967	
Percival Spear, <i>A History of India</i> Vol. II New Delhi, 1990.	
Suntharalingam, <i>Indian Nationalism: Historical Analysis</i> , New Delhi, 1963.	
Ambedkar, B.R., <i>Thoughts on Pakistan</i> , Bombay, 1941.	
Keer Dhananjay- <i>Life and Mission of Dr. Babasaheb Ambedkar</i> , Popular Prakshan, Bombay.	
Bipan Chandra- <i>India's Struggle for Independence 1857–1947</i> , Penguin Books New Delhi 1997.	
Desai., A.R., <i>Peasant Struggles in India</i> , Oup, Bombay, 1979.	
Sumit Sarkar- <i>Modern India 1885-1947</i> , Delhi, 1983.	
Sukomal Sen- <i>Working Class of India, History of Emergence and Movement, 1830-1970</i> , Calcutta, 1977.	
Girja Shankar, <i>Socialist Trends in Indian National Movement</i> , Meerut, 1987.	
<b>PG42T104- Society and Religion in Ancient India: Part I</b>	
Equipped with the ability to analyze causes and consequences of Varna and Caste system that prevailed in early India.	
Able to understand the Socio-religious and philosophical development of early and later Vedic ages.	
Enlightened about the status of Women and Shudras in the Epic age.	
Able to perceive Dharmashastras and Smriti as the legal codes of that period and the riddle of castes.	
Able to realize the impact of Shakti and Tantric Cult on Ancient Indian Society and Religion.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Vedic Society and Religion</b>	8hrs

a) Chaturvarna and Caste System	
b) Religious rites and Ashrama System	
c) Institution of Marriage and Position of Women	
Later Vedic Society and Religion	8hrs
a) Sources: Vedas, Upanishads and Puranas	
b) Conflicts between Brahmins and Kshatriyas	
c) Philosophy of Upanishad– Concept of Ahimsa and war on Vedas	
Society and Religion during Epic Age	8hrs
a) Concept of the Yugas – Riddle of Kaliyuga	
b) Rajadharma and Varnashram- Fate of Shambhuka, Ekalavya and Karna	
c) Position of Women- Sita, Draupadi and others	
Emergence of Communal & Caste Politics	8hrs
a) Sources	
b) Social order- The Riddle of Castes	
c) Law and Rituals	
Shakti and Tantric Cults	8hrs
a) Origin and development	
b) Downfall of Male Dities and rise of Female Goddesses.	
c) Impacts of Shakti and Tantric Cults	
Apasthamba Dharma Sutra, (Ed) Bihler Bombay, 1894.	
Aitareya Brahmana Commentary of Sayana, Culcutta 1895.	
Atharva Veda, VVR Institute Hoshiarpur, 1960.	
Rigveda, OUP 1890 (1935)(1954)	
Ambedkar B.R. Writings and Speeches Vol.3, 4, and 5. Govt of Maharastra Bombay 1987.	
A.L. Basham; The Wonder That Was India, London, 1967.	
Thapar Romila: History of India, 1965.	
PG42T105A- Principles and Methods of Archaeology	

Understand the basic concept of Archaeology and its course.	
Trace the development of archaeology in west and India and its evolution as a disciplined helps student to realize the trends of Archaeological Studies.	
The Study of inter-relationship between Archaeology and other Sciences will helps student to develop interdisciplinary approach.	
Become familiarized with the technique of excavation, prospecting.	
Particulars	Teachin g Hours
<b>Introduction to Archaeology</b>	8hrs
a) Meaning and Definitions	
b) Nature	
c) Scope of Archaeology	
<b>II. Development of Archaeology</b>	8hrs
a) Development in West	
b) Development in India Pre- independence	
c) Development in Post- Independence India	
<b>Relationship of Archaeology with other Sciences</b>	8hrs
a) Natural Sciences	
b) Physical Sciences	
c) Social Sciences	
<b>Methods of Archaeological Excavation</b>	8hrs
a) Horizontal	
b) Vertical	
c) Quadrant	
<b>Relative and Absolute Dating Methods in Archaeology</b>	8hrs
a) Statigraphy	
b) C. 14	
c) Dendrochronology and Thermoluminescence	
<i>Frank Hole R.Heizer; Introduction to Prehistoric Archeology, Newyork,1977.</i>	
Glyn Daniel ; A Hundred and Fifty Years of Archaeology, London 1979	

D.Brothwell and E Higgs; Science in Archaeology, London-NewYork, 1963.	
K.V.Raman Principles and Methods of Archaeology, Madras, 1986.	
H.D. Sankalia ; Prehistory and Protohistory in India and Pakistan Pune, 1974.	
S.V.Padigar; Puratatvashastra Parichaya Dharwad, 1987	
<b>PG42T105B- Indian Art and Architecture (Select Themes)</b>	
Understand the purpose and significance of Cave Architecture in Ancient India.	
appreciate the importance of the Study of Stupa Architecture will help students to understand the evolution and maturity of Stupa architecture over centuries.	
Appreciate Chalukyan Center as cradles and centers of experimentation of styles of temple architecture in parallel to pallava architecture.	
Trace the transition of architectural styles from Cave temples to Structural Shrines.	
Visualize the Zenith of Vesara and Dravidian styles respectively under Hoysalas and Cholas.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Cave Architecture in India</b>	8hrs
a) Mauryan Caves	
b) Later Caves in Western Deccan	
c) Khandagiri and Udayagiri (Orissa)	
<b>Mauryan Art:</b>	8hrs
a) Nature of Mauryan Art	
b) Ashokan Pillars	
c) Yakshas & Yaskhis	
<b>Stupa Architecture</b>	8hrs
a) Origin and growth of stupa architecture	
b) Essential features of stupa	
c) Sanchi and Amaravati stupa	
<b>Structural Temples</b>	8hrs

a) Early Chalukya and Pallava Architecture	
b) Centers	
c) Salient features	
<b>Structural Temples of Hoysala and Chola period</b>	8hrs
a) Centers of Hoysala and Chola architecture	
b) Main temples	
c) Characteristic features	
Rajendra Prasad, B.; <i>Art of Andhra Pradesh</i> Delhi, 1980	
Brown, Percy; <i>Indian Architecture (Buddhist and Hindu Periods)</i> Bombay, 1971.	
Rajasekhara, S.; <i>Early Chalukya Art at Aihole</i> . New Delhi, 1985.	
Gupte, R.S.; <i>Ajanta, Ellora and Aurangabad Caves</i> . Bombay, 1962.	
Sivaramamurti, C.; <i>The Chola Temples – Thanjavur, Gangaikonda Cholapuram, Darasuram</i> . New Delhi, 1960.	
Dhaky M.A.;- <i>Encyclopedia of Indian Temple Architecture (South India: Upper Dravida Desa) Early Phase</i> . Delhi, 1986	
Settar, S.- <i>The Hoysala Temples, Vol. I &amp; II</i> . Bangalore, 1991	
Rajasekhara, S.; <i>Karnataka vatsusilpa mattu Chitrakale</i> (Kannada), Dharwad, 1988	
Sivaramamurthi, C; <i>Indian Sculptures</i> . New Delhi, 1961	
Barrett, Douglas; <i>Early Chola Architecture and Sculpture</i> London, 1974	
<b>PG42T106A- Economic History of Medieval North India -1200 to 1756</b>	
Understand the agrarian Structure and land tenures of the Delhi Sultanate period.	
After understanding the market and price regulation during Delhi Sultanate, in will provide some hint to current economic crisis.	
Trace the technological advances and growth of craftsmanship that lead to the emergence of new towns and cities.	

Comprehend the relationship between Mughals and the European Companies as well as monetization of the economy.	
Particulars	Teaching Hours
<b>Agrarian System under the Sultanate</b>	8hrs
a) Sultanate Ideas on Land Taxation, Land Revenue Administration Under the Delhi Sultanate	
b) Land Tenures – Iqta System, Agrarian structure	
c) Irrigation under the Tughlaqs	
<b>Markets and General Economy</b>	8hrs
a) Markets and Market Regulations	
b) Urban Economy, Prices in Agricultural Goods	
c) Currency System	
<b>Urbanization</b>	8hrs
a) Growth of Towns and Cities	
b) Trade and Commerce	
c) Technological Changes and Craft Production	
<b>Economy under the Mughals</b>	8hrs
a) The status and role of the Mughal nobility in the countryside with special reference to the Zamindari	
b) The state and the Economy: Agrarian relations and the Mughal revenue and Monetary System and prices.	
c) Internal and Foreign Trade with special reference to the nature, extent and commodity.	
<b>European Trade during the Mughals</b>	8hrs
a) European Trading Companies	
b) Monetization of the Economy	
c) Material Condition of the people	
Tapan Ray Chowdhary; <i>The Cambridge Economic History of India</i> – Vol- I and II, Delhi, 1982- 1984	
Morland; <i>Agrarian System of Muslim India, Akbar to Aurangajeb</i>	
Irfan Habib; <i>Agrarian System of Mughal India, 1556-1707</i> , Asia, Bombay, 1963. Revised edition, Oxford, Delhi, 1999.	

Irfan Habib; <i>An Atlas of the Mughal Empire</i> , Oxford, New Delhi, 1982; 2 <sup>nd</sup> ed., 1983.	
Irfan Habib; <i>The Agrarian System of Mughal India 1556-1707</i> Third edition OUP India Paperback, 2013	
Narasimha Reddy D. and Srijit Mishra (Ed.), <i>Agrarian Crisis in India</i> OUP India, 2010.	
<b>PG42T106B- Archaeology of Karnataka: Prehistoric</b>	
The study of this course helps to understand the geographical features, phases of human evolution during pre-historic Karnataka.	
It helps students to discern developmental patterns of man from primitive to proto-modern stages during stone and metallic ages.	
Further it helps and to identify the industrial and dwelling sites discovered and excavated in Karnataka.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Introduction to Karnataka Archaeology</b>	8hrs
a) Nature	
b) Scope	
c) Importance	
<b>Development of Archaeology in Karnataka- Pre-historic</b>	8hrs
a) Paleolithic	
b) Mesolithic	
c) Neolithic	
<b>Development of Archaeology in Karnataka: Early Historic</b>	8hrs
a) Epigraphy,	
b) Numismatics,	
c) Art and Architecture	
<b>The Palaeolithic Cultures of Karnataka</b>	8hrs
a) Lower Paleolithic	

b) Middle Paleolithic	
c) Upper Paleolithic.	
<b>The Neolithic-Chalcolithic Cultures of Karnataka</b>	8hrs
a) Sanganakallu,	
b) Tekkalakota	
c) Maski	
Joshi, R.V., Pleistocene Studies in the Malaprabha Basin, Poona-Dharwad, 1956.	
Pappu, R.S., Pleistocene Studies in the Upper Krishna Basin, Poona, 1974	
Paddayya, K., <i>The Lower Palaeolithic Cultures of the Hunsgi Valley: A Settlement system Perspective</i> , Pune, 1982.	
Allchin, B. and Allchin F.R., <i>The Rise of Civilization in India and Pakistan</i> .	
Sheik Ali B. (Ed.), <i>Karnataka Charitre</i> , Vol.I (Hampi, 1997).	
<b>II SEMESTER</b>	
<b>History of South India 757 to 1336 A.D.</b>	
Understand the useful archaeological and literary sources available for the study of South Indian History	
Understand the process of consolidation of power in the Deccan by the Rashtrakutas and their Northern Policy.	
This course also provides an insight into the Chalukya - Chola Conflicts as well as Shri Basaveshwara's Veerashaivism.	
It enables students to appreciate overseas expeditions of Cholas and their cultural contributions.	
This course also helps students to understand the Hoysala role in Southern Karnataka and their contribution to Art and Architecture	
<b>Particulars</b>	<b>Teachin g Hours</b>
<b>Sources</b>	8hrs
a) Archaeological Sources	
b) Literary Sources	
c) Foreigners' Accounts	

<b>Rashtrakutas</b>	
a) The Emergence of the Rastrakutas	8hrs
b) Political history- Northern Policy	
c) Administration.	
<b>Development of Archaeology in Karnataka: Early Historic</b>	
a) Career and achievements of Somesvara-I- Vikramaditya-VI and the Kalachuri Bijjala	8hrs
b) Conflict with the Cholas	
c) Sri. Basaveshwara,– Virasaivism	
<b>Imperial Cholas</b>	
a) Career and achievements of Rajaraja-I and Rajendra-I.	8hrs
b) Administration, Agriculture, Trade and Commerce.	
c) Art and Architecture.	
<b>Hoysalas</b>	
a) Career and achievements of Vishnuvardhana and Ballala-III	8hrs
b) Causes for The Decline of the Hoysalas	
c) Art and Architecture	
Yazdani G. - The Early History of Deccan, Vol. I & II New Delhi, 1982.	
Sastri K.A.N. - A History of South India from Prehistoric Times to the Fall on the Vijayanagara, Oxford, 1996.	
Basavaraja, K.R. - History and Culture of Karnataka, Dharwad, 1984.	
Desai, P.B. - A History of Karnataka, Dharwad, 1970.	
Gopal, B.R. - The Rashtrakutas of Malkhed (Studies in their History and Culture), Bangalore, 1996.	
Rajashekhara, S. - Karnataka Architecture, Dharwad, 1986.	
Sheik Ali B. (Ed) - Hoysala Dynasty, Mysore, 1972	
<b>Ancient Indian Political Institutions</b>	
This course helps students to understand the nature of Vedic Polity and the role of Sabha and Samiti.	
Further, it enables students to appreciate the emergence of the republican states and the democratic nature of their administration	
It also enriches the students with knowledge on earliest forms of taxation and the ethical constraints of the same.	
Students will be enlightened on the nature of recruitments and organization of the army.	

Overall, students will be able to evaluate political institutions and laws of the ancient period.	
Particulars	Teachin g Hours
<b>Vedic Polity</b>	8hrs
a) Vidatha,	
b) Gana,	
c) Sabha and Samiti	
<b>Republican States</b>	8hrs
a) The Emergence of the Rastrakutas	
b) Political history- Northern Policy	
c) Administration.	
<b>Revenue</b>	8hrs
a) Principles of Taxation	
b) Sources of State Income	
c) Items of Expenditure	
<b>Military</b>	8hrs
a) Recruitment and Training	
b) Organization	
c) Administration	
<b>Law in Ancient India</b>	8hrs
a) Sources of Law-Manu, Yajnavalkya, Narada Smritis	
b) Kantaka Shodana and Vyavaharapada	
c) Administration of Justice.	
Saletore, B.A.- <i>Ancient Indian Political Thought and Institution</i> , Bombay, 1968.	
Kane, P.V. <i>The History of Dharmasastras</i> (Vol.3) Poona, 1962	
Ghoshal, U.N.- <i>A History of Indian Political Ideas</i> 1959.	
Derrett, J.D.M.- <i>Religion, Law and State in Ancient India</i> , London, 1968.	
Sharma, R.S.- <i>Aspects of Political Ideas and Institutions in Ancient India</i> , Delhi, 1959.	
Altekar, A.S.- <i>State and Government in Ancient India</i> , Delhi, 1958.	
Shastri, K.A.N.- <i>Early History of South Indian from Prehistoric Time to the fall of Vijayanagar</i> , Oxford, 1966.	
<b>History of Constitutional Development in India</b>	

This course enables students to grasp the introduction and evolution of democratic principles and institutions in India.	
In addition enables them to understand the curtailment of company powers and extension of parliamentary control over company administration.	
Further this helps them to understand the process of implementation and impact of British Constitutional reform Acts. Especially the Policy of Association, Policy Self and Responsible Government, Provincial Autonomy, Federal Principles and etc.	
Moreover make student to realize the nature and importance of Communal and Class electorates, reservation policy and representation in the administrative machinery and governance.	
In addition this enables them to make a critical analysis of the reports of British Commissions and their proposals and plans. This also makes them to assess the work of the Constituent Assemble and salient features of the Indian Constitution.	
Particulars	Teaching Hours
<b>Early Acts</b>	8hrs
a) Regulating Act, 1773.	
b) The Charter Act of 1833.	
c) Act of 1858 and Queen’s Proclamation	
<b>The Acts of 1909 and 1919</b>	8hrs
a) The Minto – Morley Reforms (1909)	
b) The Montague-Chelmsford Reforms (1919) – the Dyarchy	
c) Swarajistis Attitude	
<b>Constitutional Developments (1927 to 1930)</b>	8hrs
a) The Simon Commission (1927)	
b) The Nehru Report	
c) The Fourteen Points of M.A. Jinnah	
<b>Constitutional Deadlock and 1935 Act</b>	8hrs
a) The Round Table Conferences (1930-32) – Poona Pact.	
b) Government of India Act of 1935-Features and Provincial Autonomy.	
c) Cripps Mission	
<b>The Making of the New Constitution</b>	8hrs
a) Cabinet Mission Plan (1946).	
b) The Constituent Assembly-Important Committees:	
c) Salient Features of Constitution (1950)	
Banerjee, A.C.; <i>Constitutional History of India</i> (1919-1977), Vol.3 Delhi, 1978.	

Desikachar, S.V.(Ed.); <i>Readings in the Constitutional History of India (1757-1947)</i> , Delhi, 1983.	
Shree Govind Mishra; <i>Constitutional Development and National Movement in India</i> , Patna, 1978.	
Hasan Mushiral ; <i>Nationalism and Communal Politics in India (1916-1928)</i> ,New Delhi, 1979.	
Ahir D.C. ; Dr.Ambedkar and the Indian Constitution, Lucknow, 1973.	
Sigh S.P and Sigh A.K.; <i>Ambedkar's Vision of the Indian Constitution</i> , Swarna publication, Patna, 1987.	
Chhabra G.S.; <i>Advanced Study in the Constitutional History of India (1773-1947)</i> New Academic Pub. Co.Jullundar 1973.	
Singh G.N.; <i>Landmarks in Indian Constitutional and National Development Vol-I (1600-1919)</i> Delhi, 1952.	
A.B.Keith - <i>Constitutional History of India</i> .	
<b>Society and Religion in Ancient India: Part-II</b>	
This course helps students to realize the heterodox pre-Buddhist Philosophies such as Ajivaka, Lokayata and so on	
The students learn and inculcate the humanitarian values of Ahimsa and Aparigraha propagated in Jainism.	
Similarly, it also fosters the values of realism and morality preached by the Buddha in the students.	
Students are enabled to identify the influence of Buddhism outside India.	
Evaluate the post-Buddhist Hindu sects namely Shaivism and Vaishnavism.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Ajivikas and Lokayats</b>	8hrs
a) Sources	
b) Philosophy	
c) Carvaka	
<b>Jainism</b>	8hrs

a) Origin and growth of Jainism	
b) Mahaveer and his Teachings	
c) Sects in Jainism and its decline	
<b>Buddhism</b>	8hrs
a) Background	
b) Origin and Growth of Buddhism	
c) Buddha and his Teachings	
<b>Influence of Buddhism</b>	8hrs
a) Buddhist Rulers of India	
b) Buddhist Monks and Nuns	
c) Buddhism Outside India	
<b>Shaiva and Vaisnava Sects</b>	8hrs
a) Origin, growth and expansion of Shaivism and Vaisnavism	
b) Important Sects of Shaivism	
c) Vaisnavism – Its Philosophy	
C.J.Shah- Jainism in North India	
A. Warder- Indian Buddhism	
P.V. Kane- History of Dharmasastras	
R. Shamashastry: Koutilya, Mysore 1905	
R.S. Sharma- Advent of the Aryans in India, Motilal Banarasidass Delhi-1992.	
Chattopadhyaya Debiprasad: Lokayata- a study in Ancient Indian Materialism- New Delhi, 1992	
Basham A.L.: The Wonder that was India, London, 1954	
Moon Vasant: Dr.B.R. Ambedkar Writings and Speeches Vol.I, III, IV, V, VII Govt. of Maharashtra Bombay-1991	
<b>Open Elective Course-I: History of Karnataka Up to 1336 AD (Select Themes)</b>	

Realize the importance of sources in the reconstruction of history of Karnataka	
Appreciate the cultural contributions of Maurya to Kadambas.	
Further, the students will be able to visualize the features of Chalukyan and Rashtrakuta Art and Architecture.	
They will be able to analyze the socio-religious factors for the emergence of Veerashaiva Movement.	
Appreciate the salient features of Hoysalas temples and secular structures.	
Particulars	Teaching Hours
<b>Sources of Karnataka History</b>	8hrs
a) Importance	
b) Literary sources	
c) Archaeological sources	
<b>Early Historical Karnataka: Cultural Aspects</b>	8hrs
a) Maurya, Satavahana,	
b) Gangas of Talakadu	
c) Kadambas of Banavasi	
<b>Early Medieval Karnataka</b>	8hrs
a) Chalukyas of Badami- Art and Architecture.	
b) Rastrakutas- art.	
c) Development of Literature during the Rastrakutas	
<b>Medieval Karnataka: Chalukyas of Kalyan</b>	8hrs
a) Society	
b) Religious conditions	
c) Veerashaiva Movement	
<b>Hoysalas of Dorsamudra.</b>	8hrs
a)Art and Architecture, Centers and Salient features;	
b) Religious conditions	
c) Srivaishnavism	
K.A.Nilakanta Shastri - A History of South India from Prehistoric Times to the Fall of the Vijayanagara (Oxford, 1966)	
G. Yazdani - The Early History of the Deccan (OUP, New Delhi, 1982)	
K.V. Ramesh - <i>Chalukyas of Vatapi</i> (Delhi, 1984)	

S. Rajashekara - Early Chalukyan Art at Aihole (NewDelhi, 1985)	
S. Rajashekara - Karnataka Architecture (Dharwad, 1985)	
K.R.Basavaraja - <i>History and Culture of Karnataka</i> (Dharwad, 1984)	
A.S.Altekar - <i>The Rastrakutas and Their Times</i> (Poona, 1967)	
S.Settar - <i>Hoysala Temples</i> , (Two Volumes) (Bangalore, 1991)	
S.Settar - <i>Hoysala Sculptures in the National Museum</i> Copenhagen (Copenhagen, 1975)	
B.Sheik Ali (Ed.) - <i>Karnataka Charitre</i> vols. I and II (Hampi, 1997)	
B.Sheik Ali (Ed.) - <i>The Hoysala Dynasty</i> (Mysore, 1972)	
<b>Socio-Religious Movements in Medieval North India (1200 to 1707)</b>	
Understand the background to the socio-religious movements that prevailed during medieval period.	
Further they will be inspired to inculcate the religious harmony and humanitarian features of Sufi and Bhakti Sects	
It helps students to understand the Hindu Social order, Muslim Society and position of women of that period.	
This course helps student to understand the salient features of medieval education system and the centers of learning.	
Finally, the students will notice the influence of Bhakti and Sufi Movements.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Social condition</b>	8hrs
a) Hindu Society – Caste system – Position of Women.	
b) State attitude towards Hindus – Imposition of Jazia.	
c) Religious discrimination against Hindus – Jainism – Buddhism	
<b>Muslim society</b>	8hrs

a) Privileged classes	
b) Attitude towards shias	
c) Position of Muslim women	
<b>Education and Learning</b>	8hrs
a) Salient features of Hindu education	
b) Salient features of Islamic education	
c) Hindu and Muslim learning centers	8hrs
<b>Sufi Movement</b>	
a) Sufi saints – Their teaching and practices.	
b) Schools of Sufism – Suhrawardi order – The Chisti order – Firdausia order – Qadri order – Nakshbandi order – Shattari order.	8hrs
c) Impact of sufism on Indian Society	
<b>The Bhakti movement</b>	
a) Bhakti saints – Their teaching and practices	8hrs
b) Ramananda – Chaitanya – Guru Nanak – Kabir	
c) Contribution of the bhakti movement	
Chitnis K N Socio-economic History Of Medieval India	
S. Nurul Hasan <i>Religion, state, and society in medieval India</i> : collected works of Saiyid Nurul Hasan, Satish Chandra, Oxford University Press, 2005	
Sharma B.N. <i>Social and Cultural History of Northern India</i> , Abhinav Publication, New Delhi, 1972	
Luniya B.N. <i>Life and Culture in Medieval India</i> , Kamal Prakashan, Indore, 1978	
Jaffar, S.M. <i>Education in Muslim India</i> , Peshawar, 1936	
Rashid, A, <i>Society and Culture in Medieval India</i> , New Delhi, 1980.	
Shrivastava M.P. <i>Culture Society and Culture in Medieval India, 1206 to 1707</i> , Chugh Publication, 1975, New Delhi.	
Subhan, J. <i>Sufism, Its Saints and Shrines</i> Lucknow 1930.	
Majumdar R.C.(ed) <i>History and Culture of the Indian People</i> Vol. IV and Vol. V	
Yadava, B.N.S. <i>Society &amp; Culture in North India in the 12<sup>th</sup> Century</i> .	

Archaeology of Karnataka: Early Historic	
Differentiate between prehistoric and protohistoric phases of settlements in Karnataka	
Get inspired by the moral messages propagated in rock edicts of Ashoka discovered in Karnataka	
The case study of Satavahana sites such as Vadgaon Madhavpur, Banavasi and so on provide students with field knowledge of Archaeology	
Students will be able to identify the features of early historic settlements such as Banavasi, Brahmagiri and others.	
Appreciate the contributions of stalwart archaeologists to the development of archaeology.	
Particulars	Teaching Hours
<b>Early Historical Phase</b>	8hrs
a) Transition from Later Prehistory to Early History	
b) The Megalithic Phase in Karnataka	
c) Megalithic sites	
<b>The Mauryan Phase:</b>	8hrs
a) Its Socio-Political Importance	
b) Ashokan Edicts.	
c) Mauryan Rule in Karnataka	
<b>The Satavahana Phase</b>	8hrs
a) Satavahana Sites,	
b) Inscriptions and Coinage	
c) Art	
<b>Early Historic Sites in Karnataka</b>	8hrs
a) Banavasi and Brahmagiri	
b) Sannati	
c) Vadgaon-Madhavpur	
<b>Archaeologists and Their work in Karnataka</b>	8hrs
a) B. Subbarao	
b) R.E.M.Wheeler, R. Narasimhachar,	
c) M.H. Krishna, M.Sheshadri	

Sundara, A. <i>The Early Chamber Tombs of South India</i> , Delhi, 1975	
Sheikh Ali B. (Ed.), <i>Karnataka Charitre Vol.I</i> Hampi, 1997	
Allchin B.& Allchin, F.R., <i>The Rise of Civilization in India and Pakistan</i> , New Delhi, 1982	
Moorti, U.S., <i>Megalithic Culture of South India: Socio-economic Perspectives</i> , Varanasi, 1994	
Thapar, R., <i>Asoka and the Decline of the Mauryas</i> , London, 1960.	
<b>III SEMESTER</b>	
<b>History of South India (1336-1686) (Political)</b>	
Students will be able to distinguish between primary and Secondary sources available for the study of south India	
Realize the importance of Epigraphical sources and Chronicles in the study of history of Vijayanagara and Deccan Sultanate	
The study of this paper helps students to sketch the political history of South India from 1336 to 1686.	
Further, they learn the political aspects of successive royal families of Vijayanagara, their emergence, administration, and their declines.	
This course also makes the students aware of the role of Adil Shahis in the Deccan Politics.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Sources</b>	8hrs
a) Archaeological Sources with Special Reference	
b) Literary – <i>Madhuravijayam</i> and <i>Achyutarayabhyudayam</i> and Portuguese Accounts – <i>Paes</i> and <i>Nuniz</i>	
c) Muslim Chronicles -Basatin - Salatin and Burhan-i-Maasir	8hrs
<b>The Establishment of the Vijayanagara Rule</b>	
a) Circumstances Leading to the Emergence of the Vijayanagara	
b) The Sangamas: Bukka I, Harihara II, Devaraya-I, Devaraya II, Sangama-Hoysala Relations, Sangama-Reddi Relations	8hrs
c) The Saluvas – Saluva Narasimha	

<b>The Tuluvas</b>	8hrs
a) Krishnadevaraya:- His Campigns and Conquests – Ummathur and Kalinga- His Relations with: Bahmanis and Portuguese	
b) Achyutaraya – Battle of Tambraparni	
c) Ramaraya – i) Foreign Policy - Battle of 1565 and Its Consequences	
<b>The Aravidus and the Disintegration of the Vijayanagara Empire</b>	8hrs
a) The Causes for the disintegration of the Vijayanagara Empire	
b) Rise of the Bahmani Kingdom: Early rulers & their achievements Sihabuddin Ahmad-I- Muhammad – III, Shihabuddin Ahmad-II.	
c) Allauddin and Disintegration of the Bahmani Kingdom.	
<b>Rise of the Adil Shahis of Bijapur</b>	8hrs
a) Early rulers-Ibrahim-II, and his achievements	
b) Adil Shahi - Mughal Relations	
c) Decline and Fall of the Adil Shahi Rule.	
Nilakanta Sastri K.A.(Ed.) - Further Sources of Vijayanagara History, Madras, 1946.	
Saletore, B.A., Social and Political Life in the Vijayanagara Empire, 2 Vols. Madras, 1934.	
Krishnaswami Aiyangar; The Tamil country under Vijayanagara, Annamalai, 1964.	
Mahalingam, T.V., Administration and Social Life under Vijayanagara, Parts I & II, Madras, 1975.	
Sherwani, H.K., Bahamanis of the Deccan, Hyderabad, 1970	
. Rajasekhara, S., Masterpieces of Vijayanagara Art, Bombay, 1983.	
Sivaramamurti, C. Vijayanagara Paintings, New Delhi, 1987.	
Desai, P.B. (Ed.), A History of Karnataka, Dharwad, 1970.	
Verma D.C., History of Bijapur, New Delhi, 1974.	
Verma D.C., Social, Economic and Cultural History of Bijapur, New Delhi,1990.	
Eaton Richard., Sufis of Bijapur, New Delhi, 1996. Maxwell	
Cousen Henry., Bijapur and its Architectural Remains, New Delhi,1977.	
Sherwani H.K ., History of Medieval Deccan Vols.I & II, Hyderabad, 1973-74. & Joshi P.M	

Shaik Ali (Ed.), Karnataka Charitre (Kannada), Vol.3, Hampi, 1997.	
<b>Social Reform Movements in India: Indian Renaissance</b>	
This study enables students to trace the deep rooted causes of the social evils and practices viz; Sati system, Female infanticide, Widowhood, Kulinism, etc.	
Further, this course enables them to understand the impact of western education and culture on Indian Society.	
The study of this course enables them to assess the contributions of social reform movements with reference Brahmo Samaj, Arya Samaj and Theosophical Society.	
In addition, the socio-religious views of Swami Vivekananda will inspire the youth and make them enterprising.	
The Study of Aligarh Movement will also inspire modernization and advancement in Muslim Society.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Indian Society &amp; Religion- an Interface</b>	8hrs
a) Society :Varna System, Women & Patriarchy	
b) Religious practices and Blind beliefs	
c) British Administration: Educational & Cultural Impacts	
<b>Rajaram Mohan Roy's Brahmo Samaj</b>	8hrs
a) Socio- religious views of Rajaram Mohan Roy	
b) Brahmo Samaj- Aims and Achievements	
c) British Social Legislations	
<b>Dayanand Saraswati and the Theosophical Society</b>	8hrs
a) Social Ideas of Dayanand Saraswati	
b) Arya Samaj Movement- Mode of Reforms	
c) Theosophical Society and its work	
<b>Ramakrishna Mission</b>	8hrs
a) Swami Vivekananda as a Social Reformer	
b) His Vision of Hinduism	
c) Ramakrishna Mission: Aims and Objectives	
<b>Social Reforms among Indian Muslims</b>	8hrs

a) Socio-Economic conditions	
b) Aligarh Movement	
c) Sir-Syed Ahmad Khan	
Mitter D.N.; Position of Women in Hindu Law	
Mujumadar R.; Vivekanand Centenary Memorial Volume. Calcutta	
A.Biswas & J.C.Aggarwal; Seven Indian Educationist, New Delhi, 1968	
Heimsath Charles (Ed); Indian Nationalism and Hindu Social Reforms, Princeton, 1964	
Datta Kalikinkar; <i>Education and Social Amelioration of Women in Pre-Mutiny India</i> , Patna, 1936	
Chakravarti S.C. (Ed.); The Father of Modern India (Commemoration Volume of Rajaram Mohan Roy), 1933	
Sophia Dobson Collet; Life & Letters of Rammohan Roy, Calcutta, 1913	
Shan Mohammad (Ed); Writing and Speeches of Sir Syed Ahmed Khan, Meerut, 1972.	
Bose N.S.; The Indian Awakening and Bengal, Calcutta, 1969	
R.S.Sharma (Ed); Indian Society: Historical Probings, PPH, New Delhi, 1974.	
P.N. Chopra and Others; A Social, Cultural and Economic History of India, Vol.III, Macmillan, Delhi, 1974.	
12. V.P. Varma; Modern Indian Political Thought, L.N. Agarwal, Agra, 2002	
<b>Method and Theory in History</b>	
After the completion of the course, students will be able to understand the basic concepts and practices of method and theory of history.	
Further, it helps them in the preparation outline of study, development of research tools, etc.	

The paper also helps students to inculcate research ethics and publication morality.	
This enriches them with a sound knowledge of research process and general theories of history.	
Overall, this course helps them in the synthesis and exposition of their research work convincingly.	
Particulars	Teaching Hours
<b>Introduction to History</b>	8hrs
a) Meaning and scope of history	
b) Ancillary and Auxiliary Sciences	
c) Sources – Their Nature and Classification	
<b>Nature of History</b>	8hrs
a) History as a Science or an Art	
b) Objectivity and Causation in History	
c) Value Judgment in History	
<b>Analytical Operation</b>	8hrs
a) Meaning and Importance of Criticism	
b) External Criticism	
c) Internal Criticism	
<b>Synthetic Operation</b>	8hrs
a) Determining Particular Facts	
b) Grouping of the Facts	
c) Constructive Reasoning	
<b>Concluding Operation</b>	8hrs
a) Generalization and Exposition	
b) Foot notes and Bibliography	
c) Use of Computer in Historical Research	
Khurana K.L. <i>Concepts and Methods of Historiography</i> , LNA Agra, 2006.	
Collingwood, R.G.- <i>The Idea of History</i> , Oxford University Press, Oxford, 1946.	
Carr E.H.- <i>What is History?</i> Macmillan, London, 1983.	
Elton G.R.- <i>The Practice of History</i> , London, 1967.	
Garraghan G.J.- <i>A Guide to Historical Method</i> , New York, 1957.	

Sheik Ali B.- <i>History-Its Theory and Method</i> , Mac Millan, Madras, 1978.	
Renier G.J.- <i>History: its Purpose and Method</i> , George Allen and Unwin Ltd., London, 1961.	
Sankalia, H.D.- <i>Prehistory and Protohistory of India and Pakistan</i> Pune Deccan College 1974	
<b>History of Modern World (1900-1939)</b>	
This course enables the students to analyze the foreign policy of European countries before and after First World War.	
This also enables them to critically assess the work and failure of the League of Nations and the significance of collective security.	
Moreover, students will be able to analyze the impact of Internal and External Policies of Theodore Roosevelt and the establishment of American hegemony in Central America.	
This further enables them to understand the features of socio-economic transformation in Russian under Lenin.	
Further, it helps to critically assess the consequences of Great Depression as well as emergence of fascism in Italy and Nazism in Germany.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Europe on the Eve of the First World War</b>	8hrs
a) Background conditions	
b) Alliances and Counter-Alliances	
c) Division of the world into two camps	
<b>American Imperialism-Theodore Roosevelt:</b>	8hrs
a) The Big Stick Policy	
b) The Open Door Policy – American Interests in the Pacific	
c) Central American Policy	
<b>The First World War and League of Nations</b>	8hrs
a) Causes, Course and Results of the War	
b) Fourteen Points of Woodrow Wilson	
c) Structure, Work and Failure of the League of Nations	
<b>Russian Revolution (1917) and Communist Rule</b>	8hrs
a) The October Revolution of 1917	

b) Emergence of Communist Rule	
c) The New Economic Policy of Lenin	
<b>The Great Depression (1929) and the Rise of Fascism in Europe</b>	8hrs
a) Causes and Impacts of Economic Crisis (1929)	
b) Fascism in Italy and Germany	
c) Policy of Appeasement and its Impact	
W.S. Churchill: <i>The World Crisis</i> 1911-1928	
E.H. Carr; <i>International Relations – The Two World Wars</i>	
David Thompson; <i>Europe since Napoleon</i> - Penguin Harmondsworth, 1978.	
Lipson E.; <i>The League of Nations</i>	
M.G. Gupta: <i>International Relations since 1919</i> ,Allahabad, 1957	
Graham Stephenson: <i>A History of Russia (1812-1945)</i> , 1989.	
Hazen C.R. & V.D. Mahajan: <i>Modern Europe, since 1789 (sixth edition)</i> New Delhi, 2000.	
Allan Nevin & Henry Steele Commager: <i>A Short History of the United States</i> , 1976.	
Mowat (Ed.): <i>The New Cambridge Modern History</i> : Vol.XII Cambridge, 1968.	
William Bermford Parkes: <i>The United States of America</i> , 1975.	
<b>OEC-II: Socio-Political Movements of Modern Karnataka (Select Themes)</b>	
The study of history of Non-Brahmin movements in Bombay Karnataka, enables the students to understand the impact and contributions of Mahatma Phule, Shahu Maharaj and Nalwadi Krishanaraj Wodeyar.	
It also enables to understand the impact of Dr. Ambedkar and the emergence of Dalit Movements in Karnataka	
In addition, this course enables students to analyze the inter-state disputes especially border disputes, inter-river disputes and pro-Kannada movements	

Further, it helps to understand the course and impacts of Socialist and Peasant Movements in Karnataka.	
Lastly, students will grasp the essence of progressive and rebellious literature of Karnataka.	
Particulars	Teaching Hours
<b>Non-Brahmin Movement in Karnataka:</b>	8hrs
a) Satya Shodhak Movement of Mahatma Phule and Shahu Maharaj and its Impact on Karnataka.	
b) Non-Brahmin Movement in Bombay Karnataka	
c) Nalwadi Krishnaraj Wodeyar-Miller Commission	
<b>Dalit Movement in Karnataka</b>	8hrs
a) Dr.Ambedkar's Movement in Karnataka	
b) Devaray Ingale and Shamasundar	
c) Boosa Episode – B.Basavalingappa and Emergence of Dalit Sangharsh Samiti	
<b>Inter-State Disputes Pro-Kannada Movements</b>	8hrs
a) Border Disputes – Belagavi and Kasaragodu	
b) Water Disputes – Krishna and Kaveri	
c) Gokak Movement for Primacy of Kannada	
<b>Socialist and Peasant Movements in Karnataka</b>	8hrs
a) Socialist Movements in Karnataka	
b) Emergence of Peasant Movement- the Role of Gopal Gouda and Prof.Nanjundaswamy	
c) Peasant Uprisings in Naragund and Nipani	
<b>Modern Progressive &amp; rebellious literary movements</b>	8hrs
a) Influence of Dr.Ambedkar, Marx & Lohia	
b) Bandaya Tradition – its Icons	
c) Dalit Tradition – Poetry and Novels.	
Patil, P.G.; <i>Collected Works of Mahatma Jotirao Phule</i> Vol-1 &.II, Govt. of Maharashtra Publication, Bombay, 1991.	
Keer Dhanajay ; <i>Mahatma Phule- Social Revolutionary</i> , Popular Prakashan, Bombay, 1991.	
Lathe A.B. ; <i>Memories of His Highness Shri Shahu Chhatrapati Maharaj of Kolhapur</i> , Vol-I & II, The Times Press, Bombay, 1924.	
Salunkhe, P.B.; <i>Chhatrapati Shahu the Pillar of Social Democracy</i> , Govt. of Maharashtra, Bombay, 1994.	
Vijay Mankar ; <i>Poona Pact: Historical Harms by Gandhi, Gandhism and Congress-An Inquiry</i> , Blue world Series, Nagapur, 2010.	

Patil Puttappa; <i>Sir Sahebaru, Life and Work of Sir Siddapa Kambli</i> , Sahitya Prakashana, Hubli, 1998	
Halappa.G.S.; <i>History of Freedom Movement in Karnataka</i> , Vol-II, Govt of mysore, 1964.	
Vasant Moon; <i>Dr. Babasaheb Ambedkar Writings and Speeches, (Vol.1-18)</i> Maharastra Govt, Bombay, 2002.	
Zellot Eleanor; <i>Ambedkar and the Mahar Movement</i> , University of Pennsylvania, 1969.	
S.K. Kallollikar & Y.B. Himmadi (Eds.); <i>B. Basavalingappa Commemoration Volume</i> , HDMC, Hubli, 2009.	
V.T. Rajasekhar; <i>History of Dalit Movement in Karnataka</i> , Bangalore	
ವಿಜಯ ಪೂಣಚ್ಚ ತಂಬಂಡ (ಪ್ರ.ಸಂ) ಮತ್ತು ಚಿನ್ನಸ್ವಾಮಿ ಸೋಸಲೆ (ಸಂ); <i>ಸಮಕಾಲೀನ ಕರ್ನಾಟಕ-ಚರಿತ್ರೆಯ ವಿವಿಧ ಆಯಾಮಗಳು</i> , ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ, 2010.	
Raghavendara Rao H.S.(Ed); <i>Shatamaanada Saahitya Vimarshe</i> , Karnataka Sahitya Academy Banglore, 2009.	
Purushottama Bilimale ; <i>Bandaya- Dalita Sahitya</i> , Karnataka Sahitya Academy Banglore, 1995.	
Baraguru Ramchandrappa : <i>Bandaya Sahitya Mimamse</i> , Anveshane Publication Banglore	
Ashok Shettar; <i>Charitre,Samaaja, Saahitya</i> . (CVG Publications,Bangalore, 2004)	
Ashok Shettar; “Progressive Literary Movement in Karnataka: An Overview”, <i>Aniketana</i>	
Ashok Shettar; <i>Journal of Karnataka Sahitya Academy</i> , Vol.3 No.3 (Bangalore-1992).	
ಗಣೇಶ ಕದಂ ಹಾಗೂ ಶೀಲಾಧರ ಮುಗಳಿ (ಅನು): <i>ಮೂಕ ನಾಯಕ, ದರ್ಶನ ಪ್ರಕಾಶನ, ಧಾರವಾಡ</i> , 2012	
ಶೀಲಾಧರ ಮುಗಳಿ; “ಧಾರವಾಡ ಜಿಲ್ಲೆಯಲ್ಲಿ ಬ್ರಾಹ್ಮಣೇತರ ಚಳುವಳಿ”, ಬಿ.ಆರ್. ಗೋಪಾಲ (ಸಂ) <i>ಧಾರವಾಡ ಜಿಲ್ಲೆಯ ಇತಿಹಾಸ ಹಾಗೂ ಪುರಾತತ್ವ, ಮೈಸೂರು</i> , 2008	
<p style="text-align: center;"><b>Architects of Modern India (Life and thoughts of M.G. Ranade and Mahatma Gandhi)</b></p>	
Students will understand the the prevailing socio-political conditions that influenced the life and thoughts of M. G. Ranade	

This course will help the students to understand the philosophical basis to and strategy of Ranade's Social Reforms.	
Further, it enriches the students with the socio-economic ideas of M G Ranade	
Students also understand the Gandhian strategy and strategy of social-reformation	
Moreover, it enables students to analyze the economic thoughts of Gandhi and their relevance.	
Particulars	Teaching Hours
<b>Introduction</b>	8hrs
a) Socio-Political Conditions	
b) Influence on Ranade - Career and Works	
c) Influence on Gandhi- Early Career and Works	
<b>Ranade: Political Ideas and Struggle</b>	8hrs
a) The Philosophical Basis of his thought	
b) Strategies of his struggle.	
c) Ranade’s views on Nationalism, Liberalism and Civil society	
<b>Ranade: Socio-Economic Ideas</b>	8hrs
a) His views on Caste and Social Reforms	
b) His Religious and Economic Ideas –Poverty	
c) Ranade’s views on Agricultural Economy and Industrization	
<b>Gandhi’s views on select issues</b>	8hrs
a) National Movement- Gandhian strategy	
b) Gandhi on Hindu- Muslim Relations.	
c) His views on Women and Education	
<b>Gandhi: Upliftment of Untouchables and Economic Development</b>	8hrs
a) His views on Chaturvarna and upliftment of Untouchables.	
b) Harijan Sevak Sangha	
c) Gandhiji on Economic Development.	
D.G. Karve 1942; Ranade: <i>The Prophet of Liberated India</i> , Poona.	
G.A. Mankar, 1902; <i>A Sketch of the Life and Works of the Late Mr. Justice M.G. Ranade</i> , Bombay.	
Ramabai Ranade (Ed.) 1992; (Reprint of the Original 1915 edition) <i>Miscellaneous Writings of Late Mr. Justice M.G. Ranade</i> , New Delhi, Sahitya Academy.	
P.G. Jagirdar, 1971; <i>Mahadeo Govind Ranade</i> , New Delhi, Publications Division, Government of India.	

Richard P. Tucker, 1972; <i>Ranade and the Roots of Indian Nationalism</i> , Bombay, Popular Prakashan.	
Bipan Chandra (ed.), <i>Ranade's Economic Writings</i> , Gian Publishing House, New Delhi, 1990.	
Vasant Moon (ed.), <i>Dr. Babasaheb Ambedkar-Writings and Speeches</i> , Vol-1, Govt. of Maharashtra, Bombay, 1987.	
Nanda B.R.; <i>Mahatma Gandhi- A Biography</i> , London, 1958.	
Nanda B.R.; <i>Gandhi and His Critics</i> , Delhi, 1985.	
Bakshi, S.R.; <i>Gandhi and Concepts of Swaraj</i> , New Delhi, 1988.	
Gargi Chakravarthi; <i>Gandhi; A Challenge to Communalism</i> , New Delhi, 1987.	
<b>Urbanization in Ancient India (From Early Times to the End of the Guptas)</b>	
The study of literary and Archaeological sources equips students in the process of reconstruction of history of urban settlements.	
This course helps students to understand the natural history of Urbanization and Urban Revolution.	
Students will appreciate the scientific town-planning and civil amenities of Harappan Urbanization	
Further, students will be able to trace the urban trends in the Post-Vedic periodn and their features.	
Students will be able to visualize the towns and cities that flourished under the rule of Mauryas and Guptas.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Sources of Study</b>	8hrs
a) Importance	
b) Literary Sources and Foreigners' accounts	
c) Archaeological sources	
<b>Urbanization and Urban Revolution</b>	8hrs
a) Natural history of Urbanization	
b) Urban revolution	

c) Importance	
<b>Harappan Urbanism</b>	
a) Town Planning,	8hrs
b) Arts and Crafts,	
c) Trade and Commerce	
<b>Second Urbanization</b>	
a) Urban Trends in the Post-Vedic Period	8hrs
b) Causative factors	
c) Main features	
<b>Urbanization in the Mauryan Period</b>	
a) Towns and Cities,	8hrs
b) Arts, Crafts, Industries,	
c) Trade and Commerce	
<b>Urbanization in the Gupta Period</b>	
a) Arts, Crafts and Industries	8hrs
b) Trade and Commerce	
c) Guilds	
V.Gordon Childe- Man Makes Himself (London 1936)	
R.E.M.Wheeler- The Indus Civilization (Cambridge, 1982)	
B and R Allchin - Birth of Indian Civilization (Cambridge-NewDelhi, 1983)	
G.Possehl - Ancient Cities of the Indus (New Delhi, 1989)	
V.K.Thakur- Urbanization in Ancient India (NewDelhi,2003)	
R.C.Majumdar - Corporate Life in Ancient India (Calcutta, 1969)	
Himanshu Prabha Ray- Monastery and Guild	
D.P.Datta-Town Planning in Ancient India (Delhi, 1977)	
<b>History of South India (Cultural) (1336-1686)</b>	

After studying this paper, the students are able to understand the administrative system, Socio-economic conditions of the Vijayanagara empire	
Further, students understand the society, economy and administration of the Bahamanis and Adil Shahis.	
In addition to this, students will understand Educational and literary developments in Kannada, Telugu and Persian languages of the period.	
Students will understand and inculcate the values propagated by Bhakti and Sufi Saints in Karnataka	
This study will help students to analyze the features of Art and Architecture of Vijayanagara and Deccan Sultans	
Particulars	Teaching Hours
<b>Administration</b>	8hrs
a) Administration under the Vijayanagara- Central- Provincial and Nayankara System	
b) Administration under the Bahamanis	
c) Administration under the Adilshahis of Bijapur	
<b>Social and Economic conditions</b>	8hrs
a) Social and Economic conditions under the Vijayanagar	
b) Hindu and Muslim Society under the Bahamanis and Adil Shahis	
c) Industries under the Bahamanis and Adil Shahis	
<b>Education and Literature</b>	8hrs
a) Education System under the Vijayanagar	
b) Kannada, Telugu, Parsian and Sanskrit literature	
c) Educational Centers	
<b>Sufi and Bhakti Movements</b>	8hrs
a) Sufi saints and their Philosophy	
b) Bhakti saints and their Philosophy	
c) Impact on Society	
<b>Art and Architecture</b>	8hrs
a) Vijayanagar Art and Architecture	
b) Bhahamani Architecture at Gulburga and Bidar	
c) Adil Shahi Architecture at Bijapur	
Nilakanta Sastri K.A.(Ed.)- <i>Further Sources of Vijayanagara History</i> , Madras, 1946	
Saletore, B.A. - <i>Social and Political Life in the Vijayanagara Empire</i> , 2 Vols. Madras, 1934.	

Krishnaswami - <i>The Tamil country under Vijayanagara</i> , Annamalai, 1964.	
Mahalingam, T.V. - <i>Administration and Social Life under Vijayanagara</i> , Parts I & II, Madras, 1975.	
Sherwani, H.K. - <i>Bahamanis of the Deccan</i> , Hyderabad, 1970.	
Rajasekhara, S. - <i>Masterpieces of Vijayanagara Art</i> , Bombay, 1983.	
Desai, P.B. (Ed.) - <i>A History of Karnataka</i> , Dharwad, 1970.	
Verma D.C. - <i>History of Bijapur</i> , New Delhi, 1974.	
Verma D.C. - <i>Social Economic and Cultural History of Bijapur</i> , New Delhi, 1990.	
Eaton Richard - <i>Sufis of Bijapur</i> , New Delhi, 1996. Maxwell	
Cousens Henry - <i>Bijapur and its Architectural Remains</i> , New Delhi, 1977.	
Sherwani H.K. - <i>History of Medieval Deccan Vols.I &amp; II</i> , Hyderabad, & Joshi P.M, 1973-74.	
Sheik Ali (Ed.) - <i>Karnataka Charitre (Kannada)</i> , Vol.3, Hampi, 1997	
Karashima, N. <i>South Indian History and Society : Studies from inscriptions</i>	
<b>Social Movements for the Uplitment of the Oppressed</b>	
The course enables the students to critically analyze the graded inequality of caste system and its effects on Shudras, Depressed classes and women.	
It enables them to realize the significance of Satya Shodhak and Social reforms and reservation policy of Shahu Maharaj.	
Further it enlightens the students on the unique contributions of Shri Narayan Guru and Ezva Movement	
It also helps to understand the influence of Self-Respect Movement and Justice Party Movement in South India	

Lastly, it enables students to understand multi-faceted work and contributions of Dr. Ambedkar towards upliftment of Dalit and Backward Classes and to entire India, thus, to assess him as an architect of modern society.

Particulars	Teaching Hours
<b>Indian Society: Theoretical Concepts</b>	8hrs
a) Chaturvarna System	
b) Caste-System- Shudra Castes	
c) Untouchability and Gender Discrimination	
<b>Satya Shodhak Samaja Movement</b>	8hrs
a) Mahatma Phule : The Upliftment of Women, Shudras and Untouchables.	
b) Satya Shodhak Samaj: Its Work and Achievements	
c) The Social Reforms of Chh. Shahu Maharaj	
<b>Ezva Movement of Narayan Guru</b>	8hrs
a) Socio- Religious Conditions of Ezvas	
b) Narayan Guru’s views on Social Reforms.	
c) Nature and work of the Ezva Movement- SNDP	
<b>Self-Respect Movement in South India</b>	8hrs
a) Sufi saints and their Philosophy	
b) Bhakti saints and their Philosophy	
c) Impact on Society	
<b>Dr.Ambedkar’s Movement</b>	8hrs
a) His views on Social Issues & ‘Broken Men Theory’	
b) Constitutional Remedies and the Mission of Dr.Ambedkar.	
c) His Strategies for the Emancipation of Dalits, OBC’s and Women	
Keer Dhananjay: <i>Mahatma Jyotirao Phule – Father of Indian Social Revolution, Bombay, 1974.</i>	
Patil, P.G. (Transd.); <i>Collected works of Mahatma Jotirao Phule</i> Vol-I, and II, Government of Maharashtra Publication, Bombay, 1991.	
Mundale Asha (Translated); <i>Collected works of Mahatma Phule</i> Vol.III, <i>Cultivator’s Whip cord.</i>	
Raikar Sitaram (Tran.): <i>Collected works of Mahatma Phule Vol.IV The Universal Religion of Truth.</i>	
Madhavan Ayyappath (Translated): <i>Narayan Guru: Bharatiya Vidya Bhavan, Mumbai, 1978.</i>	
Padmanabhana Natarajan: <i>The World of Guru</i> , Gurukul House New Delhi, 1977.	

Mukottu Kumgyanppan : <i>Sri.Narayan Guru</i> , National Book Trust, New Delhi, 1982.	
Sundara Raju & R Hardgrave Jr: <i>Religion and Society-selections from Periyar's speeches and writings</i> , (Translated) Emerald Publishers, Madras, 1994.	
E.Sa. Vishwanathan; <i>The Political career of E.V.Ramaswami Naiker</i> , Madras, 1983.	
Devanandan P.D.; <i>The Dravid Kazalgam- A Revolt against Brahmanism</i> , Bangalore, 1959	
Keer Dhananjaya- <i>Dr.Ambedkar Life and Mission</i> , Popular Prakashan Mumbai (10 <sup>th</sup> Reprint-2002)	
Vasanta Moon (Ed) <i>Dr.Babasaheb Ambedkar Writing and speeches</i> , Vol.1.18 & Government of Maharashtra Publication, Mumbai.	
Bhagwan Das, <i>Revival of Buddhism in India and Role of Dr.Babasaheb Ambedkar</i> , Dalit Prakashan, Lucknow, 2000.	
Zelliot Elenor, <i>Dr.Ambedkar and the Untouchables Movement</i> , Blue Moon Books, New Delhi, 2004.	
Jatava D.R.; <i>Social Philosophy of Dr.B.R.Ambedkar</i> , Rawat Publications, New Delhi.	
Chandra Bharill: <i>Social and Political Ideas of Dr.B.R.Ambedkar</i> , Aalekh Publishers, Jaipur, 1977.	
Jahannes Beltz: <i>Mahar, Buddhist and Dalit: Religious Conversion and Socio-Political Emancipation</i> Manohar Publishers, New Delhi, 2005.	
<b>Historiography</b>	
After studying Greek and Roman historiographies, students understand the style of historical narrations in ancient times.	
The study of Medieval Historiography makes students to realize the impact of Divine Interpretations in	
By studying modern historiography students will be able to understand the trends in the historical writings.	
Further, students get a view of elitist and sub-altern representations of the various schools of thoughts.	
The select study of Indian Historiographers enriches the students on various aspects of history.	

Particulars	Teachin g Hours
<b>Ancient</b>	8hrs
a) Greek Historiography- background	
b) Herodotus and Thucydides	
c) Roman Historiography- Livy & Tacitus	
<b>Medieval Historiography</b>	8hrs
a) St.Augustine	
b) Ibn Khaldun	
c) Kalhana	
<b>Modern Historiography</b>	8hrs
a) Gibbon and Ranke	
b) Spangler and Arnold Toynbee	
c) Karl Marx	
<b>Indian Historiography</b>	8hrs
a) Imperialist and Nationalist	
b) Marxist and Subaltern	
c) Dalit Historiography	
<b>Some Indian Historiographers</b>	8hrs
a) R.G. Bhandarkar, K.P.Jayswal and Jadunath Sircar	
b) D.D. Kosambi, Romila Thapar and Irfan Habib	
c) KAN Shastry S.K. Aiyangar, and S. Settar	
Kitson Clark G.; <i>The Creational Historians</i> , London, 1967	
Philips C.H. (Ed.); <i>Historians of India, Pakistan and Cylon</i> , OUP, 1961.	
Correa – Afonso, John (Ed.); <i>Historical Research in India</i> , New Delhi, 1979.	
Sheik Ali B.; <i>History – Its Theory and Method</i> , Madras, 1978	
Collingwood R.G.; <i>Idea of History</i> , OUP, 1966	
Gardiner Patrick; <i>Theories of History</i> , Free Press, 1959.	
Iranna K.P& Others ; <i>Itihasa Chintakaru</i> , (Kannada), Manu Sahitya Prakashan, Dharwad, 2003.	
Sreedharan, E ; <i>A Textbook of Historiography 500 BC to AD 2000</i> .	

Shettar Ashok, “S. Settar”, in Sadanand Kanavalli and Others (Ed.); <i>Maha Marga</i> , M.M.Kalburgi Felicitation Volume, Gadag-Belgaum 1998.	
Khurana K.L. and Others: Concepts and Methods of Historiography L.N.A. Agra, 2006.	
<b>History of Modern World (1939-1991)</b>	
The course enables the students to critically assess the work and achievements of Mao-Tse-Tung and Communist China.	
The Study of this course will enable the student to assess the impacts of World War-II on human life and international peace and order.	
In addition this enables them to realize the importance of international morality and law in view of the commendable work and role of the UNO.	
This course enables them to perceive the tangle of ideological conflict and effects of Cold war on the world.	
Students will be able to critically assess as well as understand the significance of Non Aligned Movement led by Third World Countries.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Communism in China</b>	8hrs
a) Growth of Communism in China	
b) People’s Republic of China	
c) Role of Mao-Tse-Tung	
<b>The Second World War (1939-45)</b>	8hrs
Nature, Causes and Course of War	
Results of the Second World War	
Paris Peace Treaty(1945) and Subsequent Treaties	
<b>United Nations Organization</b>	8hrs
a) The Aims and Purpose,	
b) Its Structure	
c) Work and Evaluation	
<b>The New World Order</b>	8hrs
a) Cold War-Ideological and Political Basis of Cold War	
b) Pacts and Treaties – Its Impact	
c) Disintegration of Soviet Bloc – Uni-Polar World System	

Non-Aligned Movement	8hrs
a) Aims and Purpose	
b) Its work and Achievement	
c) Third World Countries and Their Role	
Taylor, A.J.P.; <i>Origin of the Second World War</i> , London, 1962.	
Churchill, W.S.; <i>History of the Second War</i> , New York, 1960.	
Dutta, R.P.; <i>Fascism and Social Revolution</i>	
Coyle David (Cushman); <i>The U.N. and Law it works</i> .	
Micheal H.G. ; <i>The U.N. as a political Institution</i> .	
Knapp Wilfred; <i>A History of War and Peace, (1939-1965)</i>	
Pannikar, K.M.; <i>Regionalism and Security</i> , New Delhi, 1948.	
Kingh Hall Sir Stephen; <i>Defence in the Nuclear Age</i>	
Clyde P.H. and Beers B.F.; <i>A History of the Far East</i> , New Delhi, 1968.	
Pannikar K.M.; <i>Asia and Western Dominance</i> , London, 1959.	
Willetts Peter ; <i>Non-Aligned Movement-Origin of Third World Alliance, 1978</i> .	
Dromnjak Milos; <i>Policy and Movement-Non- Aligned Movement</i>	
Grant A. J.; <i>Europe in the 19th and 20th Centuries(1789-1950)</i> .	
Project Work	
This course aims to familiarize the students with the method and theory of historical research	

This course creates ecological awareness in the students as well as hygiene.	
The students are enabled to identify the heritage remains around them and create public awareness about the same.	
It nurtures budding researchers and prepares them to take up research on higher scales.	
Lastly, students gain field experience and first-hand knowledge in handling historical sources.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Compulsory for all students</b> Project Work (Based on Field Work, Field Survey, reference work, (Library/Archives) depending on the topic, as Compulsory Sixth Course for the MA IV Semester (CBCS) programme in History and Archaeology from the academic year 2011-12.	16hrs
<b>Architects of Modern India (Life and thoughts of Dr. Babasaheb Ambedkar and Pt. Jawaharlal Nehru)</b>	
Analyze the Socio-political influences on the life and thoughts of Dr. Ambedkar and Pt. Nehru.	
This course enlightens students on the socio-economic and political ideas and struggles of Dr. Ambedkar.	
Appreciate the farsightedness of Dr. Ambedkar as an architect of Modern Indian Society and Economy.	
Assess the relevance of Nehru's socialist and liberal political views.	
This course enables students to critically analyze the economic and foreign policy of Pandit Nehru.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Introduction</b>	8hrs
a) Socio-Economic Situations	
b) Influence on Dr. Ambedkar- Early Career and Works	
c) Influence on Pt. Nehru – Career and Works	
<b>Dr. Ambedkar: Social Ideas and Movements</b>	8hrs

a) His views on Chaturvarna, Caste system and Untouchability.	
b) Social Movements: Mahad Satyagraha	
c) Hindu Code Bill and The Emancipation of Dalits and Backward Classes	
<b>Dr. Ambedkar: Economic and Political ideas and Contributions</b>	8hrs
a) His views on State Socialism and Labour Reforms	
b) His Contribution to Economic Planning and Development	
c) His views on Parliamentary Democracy and Revival of Buddhism	8hrs
<b>Nehru: Political and Socialist Ideas and activities</b>	
a) Nehru’s Political Ideas: Nationalism, Freedom and Democracy.	
b) His Approach to Minorities- Muslims and Depressed Classes and Peasants.	8hrs
c) Home Policy of Nehru; Socialism and Socialist Society.	
<b>Nehru: Industrial Growth and Foreign Policy</b>	
a) Nehru on Capitalism and Industrialization	8hrs
b) His concept of ‘Panchaseela’ and views on Kashmir Issue	
c) India’s Foreign Policy during Nehru regime	
Keer Dhanjaya- <i>Life and Mission of Dr. Ambedkar</i> , Popular Publication, Bombay, 1961.	
Chandra Bharil- <i>Social and Political Ideas of B.R. Ambedkar</i> Aalekh Publishers, Jaipur, 1977.	
Lokhande, G.S.- <i>Bhimrao Ramji Ambedkar</i> New Delhi, 1982.	
Vasant Moon (Ed)- <i>Dr.Babasaheb Ambedkar, Writings and Speeches</i> , Vol.1 to 18, Government of Maharashtra Publication, Bombay.	
P. Abraham- <i>Ambedkar’s Contribution for Economic Planning Developments – Its Relevance</i> , New Delhi, 2002.	
Naranaware R.V.: <i>Dr.Babasaheb Ambedkar An Emanicipator of Indian Working Class</i> , S.K. Publication, Nagapur, 2005.	
Patil, V.T.(Ed.)- <i>Studies on Nehru</i> , New Delhi, 1987.	
Gopal, S. – <i>Jawaharlal Nehru</i> London, 1975.	
Nehru, J.- <i>The Unity of India</i> London, 1941.	
Nehru, Jawaharalal- <i>India’s Foreign Policy (1946-1961)</i> Govt. of India, New Delhi, 1961.	
Smith, Donald Eugene- <i>Nehru &amp; Democracy</i> , Orient Longman, Calcutta, 1958.	

<b>History of Indian Painting (Select Styles)</b>	
This course introduces students to the development of different styles of painting in India.	
Students will learn to appreciate the intricacy of Miniature traditions of paintings.	
Trace the popularization of Portrait painting during the reign of Mughals.	
This course familiarizes the students with rare and unique styles of paintings developed in Kangra valley and Basohli.	
Appreciate the treasure of Murals and other styles of paintings that flourished during Vijayanagara and Deccan Sultanate.	
<b>Particulars</b>	<b>Teaching Hours</b>
<b>Buddhist Paintings at Ajanta</b>	8hrs
a) Stages of Development	
b) Themes	
c) Stylistic features	
<b>Miniature Paintings of India</b>	8hrs
a) Beginning of miniature tradition	
b) Eastern Indian Miniatures	
c) Western Indian Miniatures	
<b>The Mughal Paintings</b>	8hrs
a) Painters of Mughal Court	
b) Development of Painting- Akbar's period	
c) Development of painting- Jahagir's period	
<b>Kangra Valley and Basohli Paintings</b>	8hrs
a) Importance	
b) Style and Characteristic features	
c) Themes and centers	
<b>The Vijayanagara Paintings</b>	8hrs

a) Phases of Development	
b) Style	
c) Themes	
<b>Deccani Paintings</b>	8hrs
a) Features	
b) Bahamani paintings	
c) Adilshahi Paintings	
R.S.Gupte-Ajanta, Ellora and Aurangabad Caves (Bombay, 1962)	
Motichandra- Studies in Early Indian Painting (Bombay,1974)	
C.Sivaram Murti.-South Indian Paintings (New Delhi,1978)	
C.Sivaram Murti-Vijayanagara Paintings (New Delhi, 1968)	
A.G.Rao-Lepakshi (New Delhi,1968)	
Percy Brown-Indian Paintings Under the Mughals	
Ashok Kumar Das-Paintings Under the Mughals	
M.S.Randhawa-Kangra Valley Painting (New Delhi, 1966)	
M.S.Randhawa-Basohli Paintings (New Delhi, 1981)	
S.K.Aruni-Dakhani Chitrakale (Bangalore, 2002)	
<b>: PAPER. I. (COMPULSORY): RESEARCH METHODOLOGY</b>	

The Course helps researcher to develop heuristic technique in establishing the authenticity of the historical data.	
Further it helps them to develop the writing skills, presentation and interpretation of the historical work.	
The understanding of ancient historiographies and Marxian view of history helps them to grasp the features and trends of historical narrations.	
The understanding of the cyclical and progressive philosophy of history helps researcher to develop the logical reasoning and analytical skill.	
Further this enables them to understand the trends and nature of South Indian Historiography.	
<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
A) Heuristics - Criticism ( External and Internal) Synthesis and- Exposition	10 hrs
B) View of History; Greek, Roman and Hindu	10 hrs
C) Marxian View of History and Its impact on Writing History	10 hrs
D) Philosophy of History ; Cyclical and Progressive	10 hrs
E) South Indian Historiography ; Trends in South Indian Historiography	10 hrs
F) Review of Sources of South Indian History	10 hrs
Barzom and Graff – <i>The Modern Researcher</i>	
Renier G.J – <i>History ; The Purpose and Method</i>	
Collingwood.R.G – <i>The Idea of History</i>	
Hocket – <i>Critical Method in Historical Research and Writing</i>	
Kitson – <i>The Critical Historian</i>	
Gopal M. R – <i>Research Reporting in Social Sciences</i>	
Kosambi .D.D – <i>Introduction to the Study of Indian History</i>	

Marx and Engles – <i>Historical Materialism</i>	
Narain A.K – <i>Problems of Historical Writing in India</i>	
Proceedings of Indian History Congress	
Proceedings of south Indian History Congress	
Proceeding of Karnataka History Congress	
<b>: PAPER II (A) (SPECIALIZATION) : HISTORY OF MODERN KARNATAKA</b>	
The study of history of Palegars, of post Vijayanagara period helps the researcher to realize an importance and contributions of local chief.	
This course enables them to assess the progressive and developmental works of modern Mysore.	
This course help them to understand the nature and course of Freedom Movement in the various regions of Karnataka	
The study of Unification Movement in various regions will enrich their understanding of linguistic problems and contribution of various associations.	
Over all course enable the researcher to grasp scope and possibility of new areas of research especially regional and local studies.	
<b>PARTICULARS</b>	<b>Teaching Hours</b>
<b>Palegars of Karnataka</b>	16 hrs
1) Nayakas of Keladi	
2) Nayak of Chitradurga	
3) Nayak of Yalahanka	
<b>Princely Mysore</b>	16 hrs
1) Role of Commissioners in Mysore	
2) Mysore under the Diwans- MirzaIsamail – M Vishewarayya	
<b>Freedom movement</b>	16 hrs
1) In Bombay Karnataka	
2) In Hydrebad Karnataka	
3) In Princely Mysore	
<b>Unification of Karnataka</b>	16 hrs

1) Movement in Bombay Karnataka	
2) Movement in Hyderabad Karnataka	
3) Movement in the Princely state of Mysore	
HayavadanaRao – <i>History of Mysore Volume 1 and 3</i>	
ShamaRao H - <i>Modern Mysore</i> , Bangalore , 1936.	
Halappa. G. S ,- <i>History of Freedom movement in Karnataka</i> , Volume I and II , Bangalore , 1964.	
Swaminatahan. K. D. – <i>The Nayakas of Keladi</i> ,Madras, 1957.	
Divakar R.R. <i>Karanataka Through the Ages</i> ,Banglore , 1968.	
Krishna Rao and KeshavBhat- <i>KarantakaIthihasDarshan</i> ,Banglore, 1970.	
Basavaraj, K.H – <i>Histroy and Culture of Karnataka</i> , Dharawad, 1984.	
<b>: PAPER II (B) (SPECIALIZATION) HISTORICAL ARCHAEOLOGY AND ART OF KARNATAKA</b>	
The course helps to assess the contributions of Art Historians.	
The course helps student to acquire the practical knowledge regarding Fieldwork and sites study.	
This course enables the students to understand the main features and styles of temple architecture in Karnataka.	
This course helps them to understand the features of paintings of before and during Vijayanagar period.	
Over all the course help the student to undertake research on historical archaeology.	
<b>PARTICULARS</b>	<b>Teachin g Hours</b>
<b>Contribution of R Narasimhacharya , H Cousens and M.H. Krishna.</b>	16 hrs
<b>Study of Select Sites</b>	16 hrs
A) Brahmagiri	
B) Sannati	

C) Hampi	
<b>Main trends in Temple Architecture</b>	16 hrs
A) Early Chalukyas	
B) Hoyasala	
C) Vijayanagara	
<b>Painting</b>	16 hrs
A) Pre –Vijayanagar	
B) Vijaynagar	
Cousens. H – <i>The Chalukyan Architecture of the Canarese District</i> , Calcutta, 1926.	
<i>Ancient India No- 4</i> 1947-48	
Sivarammurthy a) <i>South Indian Painting</i> , New delhi, 1968.	
<i>VijayanagarPainting</i> , New delhi, 1985.	

KARNATAK UNIVERSITY. DHARWAD



**'A' Grade  
NAAC Accredited 2014**



# KARNATAK UNIVERSITY, DHARWAD



'A' Grade  
NAAC Accredited 2014

*Regulations and Syllabus*  
*For*  
*P.G Diploma*  
*in*  
*Reproductive Health Management*

The Karnatak University, Dharwad has always been striving to widen its horizon of academic activities by providing a base for interaction with students and faculty members of various national and overseas institutions. In this context, the Karnatak University took a landmark step to encourage foreign students to pursue their Post Graduate course, by making a special provision for their admission in 2002, by starting International Diploma in reproductive Health Management.

The Karnatak University has been in academic contact with University of Groningen, the Netherlands, since long time. When Population Research Centre (PRC) of University of Groningen extended its field research in the domains of Population Studies and Reproductive Health, it also came into contact with the JSS's Institute of Economic Research, Dharwad. This longstanding academic interaction has paved way for collaborative endeavor of these institutions to address to the current population and reproductive health issues.

In fact, the present collaboration envisages to build up an international scholarship on Reproductive and sexual health Management through a constant flow of students and faculty between the collaborating institutions.

This Diploma course provides ample opportunities for employment in various RCH, HIV/AIDS programmes and projects launched by the Government, Non-Governmental organizations and Private sectors, and also in state and National level teaching and Research Institutions.

### **Objectives of the Course:**

The course aims to train persons in the design, organization, monitoring, and evaluation of Reproductive, sexual and child health programmes in Government and Non-Government sector, thus contributing to the Reproductive, Sexual child health programmes of Government of India and reproductive health projects by NGOs, and in the final analysis to the improvement in the overall reproductive health status of the communities and Nation as a whole. The specific objectives of the courses are:

To provide a broad interdisciplinary understanding of the core areas of Reproductive health, its related aspects and also the causes and consequences of Reproductive health problems.

To develop, through a field-intense practical training, the individual ability to assess reproductive health needs of the community, to evaluate the reproductive health programmes and projects in government, private and NGO sector, to devise management strategies to achieve improved coverage and quality of services.

To impart knowledge and skills to conceptualize reproductive health research questions, design a community-based study to investigate the problem, collect relevant data from the field, analyze the data and present in a policy or scientific context.

Karnatak University, Dharwad  
P.G Diploma in Reproductive Health Management  
Program Code: DP15

**Program outcome:**

PO1: The candidate will acquire knowledge and skills to provide assistance to society in general and in particular to woman, newborn infants and their families.

PO2: Helps the society to use health care system with confidence.

PO3: The course helps its graduates to provide reproductive health care in most effective and efficient manner.

PO4: It helps its graduates to support and sustain the quality of Reproductive Health issues and services.

**Program Specific outcome:**

PSO1: The course helps its graduates to effectively assess and address clients' Reproductive Health problems, assist in decision making. Also helps managers and trainers in their efforts to improve health of mothers and new born babies at all levels of health care system.

PSO2: the graduate of this course will be able to address the basic biological mechanisms that underline male, female reproduction and that pertain to Reproductive Health issues such as contraception, infertility, sexually transmitted diseases, reproductive ageing.

PSO3: Graduates are acquainted with the concepts of Reproductive Health management.

PSO4: Graduates shall acquire counseling skills in maternal health, newborn and family planning.

**The courses offered are:**

DP15T01	4 Credits	4 Teaching hours/week	Year end exam of 100 marks
DP15T02	4 Credits	4 Teaching hours/week	Year end exam of 100 marks
DP15T03	4 Credits	4 Teaching hours/week	Year end exam of 100 marks
DP15T04	4 Credits	4 Teaching hours/week	Year end exam of 100 marks

**Course Outcomes:****DP15T01: Introduction to reproductive Health**

After studying this course, the candidates will be able to

- Address the basic biological aspects in males, females, reproduction and Reproductive Health issues such as contraception, infertility, sexually transmitted diseases, etc.
- Understand family planning methods, policy issues, quality of care, etc.

**DP15T02: Reproductive Health Risk Analysis and Management**

After completing this course, the candidate will be able to

- Overview health risks of pregnant woman, new born, predict health risks and uncertainty in human life and in particular reproductive cycle.

**DP15T03: Reproductive Health Program Management**

The candidate will learn about

- Reproductive Health program management through principles, strategies, case studies and evaluation of reproductive health policies.

**DP15T04: Reproductive Health Research Methods**

- The candidate will be prepared to take up research in Reproductive Health through research methods, research data, research hypothesis and data collection , data processing techniques.

**DP15T201A: Population Studies and Reproductive Health (OEC Paper for Second Sem)**

- By opting this course, the candidate will be able to understand and analyze population concept such as population density, age-sex composition, urbanization, age pyramids.

**DP15T301A: Epidemiology and Reproductive Health (OEC Paper for Third Sem)**

- The candidate is trained in epidemiological and public health studies, epidemiological study designs and their analysis. Also get to know the determinants of health and disease risks.

## **INTRODUCTION TO REPRODUCTIVE HEALTH**

### **Unit 1:**

The concept of Reproductive Health, Reproductive Health programs and policies in India, family planning programs, problems, approach towards Reproductive and child Health (RCH) programs.

(10 HOURS)

### **Unit 2:**

Topics of Reproductive Health: Safe motherhood-medical and socio-cultural aspects of safe pregnancies and deliveries, levels and causes of maternal mortality, use of antenatal care and policies of GOI. Child Survival-Medical and socioeconomic aspects of child morbidity and survival, levels and causes of neonatal, infant and child mortality. Reproductive System and sexuality-basic physical aspects of reproductive health, sexual response cycles in males and females, community studies on sexuality, menstruation and other reproductive health issues.

### **Unit 3:**

(10 HOURS)

Reproductive Technologies: Family planning methods and abortion- methods of contraception, abortion, child spacing and cultural perceptions about fertility and contraceptive methods. Technologies such as IVF, sonography, etc. Reproductive morbidity- Prevalence of RTI(reproductive tract infection), gynaecological diseases of woman, male reproductive illness, medical and perceived causes, policies and interventions.

(10 HOURS)

### **Unit 4:**

STDs and HIV/AIDS: medical and social aspects of STDs and HIV/AIDS, estimated levels of AIDS and interventions of GOI and NGOs. Special groups-reproductive health of special groups, policy issues and quality of care, reproductive rights and gender, male involvement, reproductive health issues of adolescents.

(10 HOURS)

### **Unit 5:**

Theories on Reproductive Health Behaviour: The process context approach towards reproductive health, individual reproductive health behaviour as an outcome of process (behavioural, biological, chance), decision making, motivation and reproductive health behaviour in institutional and cultural contexts.

(10 HOURS)

Unit 6:

Models on Reproductive Health Behaviour: Bongaarts and Potter (1983) Fertility model, Mosley and Chen(1985) mortality model, Norren and Vianen(1986) mortality model, the epidemiological transition. Theories and models are illustrated with applications in research projectson nutrition during pregnancy and birth weight of children in Karnataka, reproductive health and child spacing in rural India.

(10 HOURS)

**References**

Pachuri, S,(ed) 1999. Implementing a Reproductive Health Agenda in India: The beginning. New Delhi. Population Council.

Koenig, M A and Khan, M E 1999. Improving quality of care in India' Family Welfare Program, New York: Population Council

Anil Kumar (ed) 2002. Epidemiology, Health and Population-Statistical applications. New Delhi. B R Publishing corporation

Anderson B A 2005. Reproductive Health: Women' and Men' shared responsibility. Jones and Bartlet Publishers

Bongaarts, J and Potter, R G 1983. Fertility, Biology and Behaviour: an analysis of Proximate Deteerminants. New York. Academic Press.

Mosley, W H and Chen, L C (1984). An analytical Framework for the Study of Child Survival in Developing Countries. Supplement to Population and Development Review. Vol 10.

## **Reproductive Health Risk Analysis and Management**

### **Unit 1**

Introduction to Concepts in Statistics: Variable, types of variable, measurement of variables with examples. Classification, types of classification, measures of central tendency, measures dispersion skewness, kurtosis, correlation and regression. Relevance of these concepts in risk analysis.

(10 HOURS)

### **Unit 2**

Risk and Uncertainty: Risk factors that impair reproductive system, occurrence of events, risk factors associated with Reproductive health, events of interest, risks to healthy reproductive life path ( diseases, injury, genetically determined defects). Individual risks and societal (public health) risks.

(10 HOURS)

### **Unit 3**

Risk Measures and Risk Assessment: Rates, ratios, and proportions, and their inter-relationships. Measures of Risk- prevalence, incidence, point and period prevalence, relationship between point and period prevalence with examples of reproductive health. Risk measures based on relative risk, risk ratio, odds ratio-calculation, importance in health risk analysis. Comparison of risk levels in different population, prediction risks, assessment of effects of interventions.

(10 HOURS)

### **Unit 4**

Risk Assessment: Identification of risk factors and risk indicators, assignment of individuals to risk groups, segmentation of population with respect to type and level of health risks, assignment of situations to risk categories on the basis of measurable characterizations. Prediction of probability of disease impairment, health status of population. Introduction to models in epidemiology and public health research. Demographic models to predict changes in health status of population. Quantification of risk factors and risk indicators-logistic and Poisson regressions.

(10 HOURS)

## Unit 5

Risk Impact Assessment and Mangement: impact of risk factors and interventions on risk levels, models of impact assessment, measurement of differential risk levels, strategies to reduce risk, reduction of risk, management of consequences of risk-sharing the burden of risk and uncertainty, health insurance, etc.

(10 HOURS)

## Unit 6

Case Study: Risk analysis and risk measurements through health programs. A study population will be identified, health risks are determined, quantified. Using the information from sample screening, the health status of the study population will be assessed and predictions will be made for future changes.

(10 HOURS)

## References

Srinivasan, K 1998. Basic Demographic Techniques and Applications New Delhi, Sage Publications. YooYoung, T. K. 1998. Population Health: Concepts and Methods. Oxford University Press.

Park, J E 1986. Text Book of Preventive and Social Medicine. New Delhi.

Peat, J K (ed). Health Science research: A Handbook of Quantitative Methods. New Delhi, Sage Publications.

Kumar, A 2002. Epidemiology, Health and Population, Delhi B P Publishing Corporation.

## **Reproductive Health Program Management**

### **Unit 1**

Introduction to Management: Concept, definition, evolution. Functions qualities and aims of managers. Components of management. Skills- Technical, human, conceptual and design skills. Management-Principles, HRD system, performance appraisal, feedback and counselling, career planning and development, training and human resource information system. Theories of motivation, its contributions, noise encoding and decoding. Authority, responsibility or supervisory style. Project planning and control-PERT.

(10 HOURS)

### **Unit 2**

Reproductive Health Program Management Strategies: Strategic management approach-Service beneficiary sequence (SBS) strategy, Demand supply resource strategy, Targeting the people in need-marketing approach, client segmentation, community needs assessment, unmet need approach, health seeking behaviour.

(10 HOURS)

### **Unit 3**

Reproductive Health Program Services and Design: Commercial distribution, community based distribution systems, social marketing. Management information system, structural interventions, management training, organizational development and management assistance related to Reproductive health.

(10 HOURS)

### **Unit 4**

Case Studies of Reproductive Health Programs: Case studies from INDIA (integration of health and family planning, VIKALP, SEWA, FPAI). Integration of contraceptive services with nutrition. Adding infrastructure , training, supplies and advisory support .

(10 HOURS)

### **Unit 5**

Quality of Care in Reproductive Health Program: A management Perspective: Definition and importance of quality care. Quality care in family planning- A frame work by Judith Bruce(1990). Choice of methods, information given to clients, technical competence,

interpersonal relation, mechanism to encourage continuity, appropriate counselling services. Quality issues to be addressed in family planning program-preparation, service delivery and outcomes.

(10 HOURS)

## Unit 6

Evaluation of Reproductive Health Policies and Programs: Cost-benefit analysis in reproductive health, input –process-output evaluation. Impact evaluation. Evaluation of Programs in terms of organizational structure and management efficiency. Line command , staffing pattern, motivation to work, incentives. Time utilization analysis of various reproductive health program personnel. Use of service statistics in monitoring and evaluating reproductive health programs.

### References

Koontz, H and WEhrich, H 2003. Essentials of Management. New Delhi, McGraw-Hill Publishing .

Horstman, R G 2002. Monitoring and Evaluation of Sexual and Reproductive Health Interventions. The Hague, NIDI

Basu, R V 1998. Private Health Care in India. Social characteristics and trends. Sage Publications, New Delhi.

Zeigenfuss, J T 2002. Organization and Management Problem Solving. Systems and Consulting approach. Sage Publications, New Delhi.

Goel S L2001. Healthcare Systems and Management. Health care organization and structure. Deep and Deep Publications, New Delhi. Reproductive Health Research Management

## **OEC Paper: 2.1: Population Studies and Reproductive Health**

### **Unit -1 Population Studies:**

Meaning, Basic Concepts and Importance, Size and Patterns of Population Growth in India, Population Projections, Population Density, Age and Sex Composition, Declining Sex Ratio, Socio-Economic Composition. **10 Hours**

### **Unit – 2 Sources of Population Data:**

Census, Registration System in India, Sample Surveys, Coverage and Content errors, Problems of Estimation. **10 Hours**

### **Unit – 3 Mortality and Population Change:**

Mortality, Measures of Mortality, Mortality Rate and Trends in India, Infant Mortality, Differential Mortality, Maternal Mortality. **10 Hours**

### **Unit – 4 Fertility and Population Change:**

Fertility and Fecundity, Fertility Rates and trends in India, Measures of Fertility, Differential Fertility, Social Theories of Fertility. **10 Hours**

### **Unit –5 Reproductive Health:**

Meaning, Processes, Functions. Biological Foundations: Anatomy and Physiology Sex Determinations: Reproductive health problems in India. **10 Hours**

### **References:**

1. Aijazuddin, Ahmad, DaivelNoin, H.N.Sharma (eds); Demographic Transition; The Third World Scenario”, Rawat Publications, Japur.
2. AshaBhende& Tara Kanitkar: Principles of Population Studies. Mumbai, Himalaya publishing House , 1999
3. Barclay, George W. (1968) Techniques of population analysis, John Wiley and sons, New York.
4. Bose.Ashish: Demographic Diversity of India Delhi; B.R.Publishing Corporation 1991.
5. Donald, J. Bogue – Principles of Demography, London, John Wiley and Sons, Inc. 1969.
6. Jone R. Human reproductive biology, 3<sup>rd</sup>edu. Elservice Academic Press 2006.
7. Keyfitz N. (1968). Introduction to the Mathematics of Population. Addison-Wesley Publishing Co, Reading, Messachusetts.
8. Kingsley, Davis – Population of India and Pakistan, Princeton University Press, Princeton, 1951
9. Mascarenhas, Population Education, II Edition, Oxford and IBH, New Delhi. 1982.

10. National Family Health Survey 1998-99 and 2005-06. International Institute of Population studies, Bombay
11. O.S.Srivatsava ; Demography and Population Studies, Vikas Publishing House New Delhi, 1996
12. P.M.Houser and Duncan; Study of Population, Chicago: University of Chicago Press. 1973.
13. Peterson William – Population; London:Macmillan.1969.
14. Population Reference Bureau – Latest world population data sheet.
15. R. Ramkumar (1986) Technical Demography, Wiley Eastern, New Delhi.
16. S.Chandrashekar (ed): Infant Mortality, Population growth and family planning in India; London; George Allen &Unwin Ltd. 1974
17. Shryock, Henry S, Jacob S, Siegel and Associates (1964) Methods and materials of demography (condensed edition) Academic press, London.
18. W.S.Thompson and D.T.Lewis – Population Problems, New Delhi, TMH, 1976.

## **OE Paper: 3.1: Epidemiology and Reproductive Health**

### **Unit -1 Introduction:**

Epidemiology: Meaning, History, Types of Epidemiology: Communicable and Non-Communicable, Types of Transmission, Infectious Diseases, Reproductive Health: Meaning, Concepts and Components. **10 Hours**

### **Unit – 2 Epidemiological problems of women in India:**

Reproductive health problems, Pregnancy and Child Birth, Depression and anxiety, HIV, STD, Breast Cancer. Ovaries and Cervical cancer. **10 Hours**

### **Unit -3 Prevention and Control of Diseases:**

Epidemiological Investigation, Herd Immunity, Vaccination, Reproductive Technologies. **10 Hours**

### **Unit -4 Policies and Programmes:**

National Programmes related to Communicable and non – Communicable diseases. Role of NGO's in controlling diseases, Differential access to health delivery system NRHM. **10 Hours**

### **Unit- 5 Reproductive Health and Rights:**

Key Dimensions of Women's Health. Reproductive health and rights in India. Violation of Women's sexual and reproductive health and rights. The subordination of women and control over women's sexuality. Access to safe Abortion – challenges. Abortion law in India & Abroad. Women's Health in Disasters and Conflicts. **10 Hours**

### **Reference:**

- 1) ARROW, RUWSEC and Sida. 2014. Country profile on universal access to sexual and reproductive health: India.
- 2) ASIAN-PACIFIC RESOURCE & RESEARCH CENTRE FOR WOMEN (ARROW). Access at: [http://arrow.org.my/wp-content/uploads/2015/04/ICPD-20-Asia-Pacific\\_Monitoring-Report\\_2013.pdf](http://arrow.org.my/wp-content/uploads/2015/04/ICPD-20-Asia-Pacific_Monitoring-Report_2013.pdf) Sexuality, gender and rights: exploring theory and practice in South and Southeast Asia. 2005. Ed. by Geetanjali Misra and Radhika Chandiramani. Sage Publications India Pvt Ltd: New Delhi.
- 3) Bhattacharya, Sanghita et al. 2015. "Neither we are satisfied nor they"-users and provider's perspective: a qualitative study of maternity care in secondary level public health facilities, Uttar Pradesh, India. BMC Health Services Research, 15:421.
- 4) Bhopal, R.S. (2002) Concepts of Epidemiology: An Integrated Introduction to the Ideas, Theories, Principles and Methods of Epidemiology. Oxford: Oxford University Press.

- 5) Center for Reproductive Rights. 2009. Reproductive Rights are Human Rights. United States of America. Access at: [http://www.reproductiverights.org/sites/crr.civicactions.net/files/documents/RRareHR\\_fi nal.pdf](http://www.reproductiverights.org/sites/crr.civicactions.net/files/documents/RRareHR_fi nal.pdf)
- 6) Das Gupts Monica & Krishnan T.N. (1998). "Women and Health". Oxford, New Delhi.
- 7) Family Welfare Statistics in India. 2011. Statistics Division, Ministry of Health and Family Welfare, Government of India.
- 8) Ghosh, Sancheetha. 2010. Increasing trend in Caesarean Section Delivery in India: Role of Medicalisation of Maternal Health. Institute for Social and Economic Change, Working Paper Series 236.
- 9) Government of India. "Census Reports".
- 10) Grimes, David A et al. 2006. Unsafe abortion: the preventable pandemic. The Lancet , 368 (9550), 1908 – 1919
- 11) Haddad, Lisa B. et al. 2009. Unsafe Abortion: Unnecessary Maternal Mortality. Rev ObstetGynecol, 2(2): 122-126.
- 12) J.R. Park and K.Prak. (1983). "Text Book of Preventive and Social Medicines". Habalpure, M.S.Banarside.
- 13) K.AjitDalal and Subha Ray. (2005). "Social Dimensions of Health". Rawat Publications, Jaipur.
- 14) Kate Millet. 1968, Sexual Politics. An Essay. (Feminist Classic Reading) Access at: <https://www.marxists.org/subject/women/authors/millett-kate/sexual-politics.htm> CREA. 2006. Sexual Rights and Social Movements in India. CREA: New Delhi.
- 15) KrishnarajMaithrey (ed). (1999). "Gender, population and development". Oxford, New Delhi.
- 16) Lale Say, Doris Chou, Alison Gemmill, et al. 2014. Global causes of maternal death: a WHO systematic analysis. The Lancet Global Health, 2(6), e323 – e333, [http://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(14\)70227-X/fulltext](http://www.thelancet.com/journals/langlo/article/PIIS2214-109X(14)70227-X/fulltext)
- 17) Marge Berer. 2003. Integration of Sexual and Reproductive Health services: A Health Sector Priority
- 18) Mohan Rao (Ed). (2004). "The Unheard Scream: Reproductive Health and Women's Rights in India". Zubaan, New Delhi.
- 19) National Family Health Survey Report.
- 20) Rebecca J. Cook, Bernard M Dickens, and Mahmoud F. Fathalla. 2003. Reproductive health and Human rights. Integrating Medicine, ethics and law. Oxford University Press, New York.
- 21) Reclaiming and redefining rights: ICPD + 20: Status of sexual and reproductive health and rights in Asia Pacific. 2013.
- 22) Repoliticizing Sexual and Reproductive Health and Rights. 2010. Report of a Global Meeting, Langkawi, Malaysia.

- 23) Rosalind Pollack Petchesky. (2003). "Gendering Health and Human Rights". Jed Book, London.
- 24) Rothman, K. and Greenland, S. (1997) Modern Epidemiology 2<sup>nd</sup>edn. Philadelphia: Lippincott-Raven.
- 25) Sexual and Reproductive Health Care: A Position Paper of the Society for Adolescent Health and Medicine. 2014. Journal of Adolescent Health , Volume 54 , Issue 4 , 491 – 496.
- 26) Sharon Fonn and T.K. SundariRavindran. 2011. The Macro Economic Environment of Sexual and Reproductive Health: A Review of Trends Over the Past 30 Years. Reproductive Health Matters, 19(38); p. 11 - 25.
- 27) ShrinHeidari, 2015. Sexual Rights and Bodily integrity as Human Rights. Reproductive Health Matters, 23(46); p. 1-6.
- 28) Shukla P.K. (1982). "Nutritional Problems of India". Prentice Hall of India, New Delhi.
- 29) Susan Carr, Nigel Unwin and TanjaPless – Mulloli (2007). An Introduction to public health and Epidemiology, second edition, open university press.
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- 31) Tulsi Patel, (Ed.). (2007). "Sex selective Abortion in India: Gender, Society and New Reproductive Technologies". Sage, New Delhi.
- 32) Uma Chakravarthi. 2013. Gendering caste through a feminist lens. Stree Publication, Calcutta.
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- 35) UNOHCHR. Information series on sexual and reproductive health and rights. Lesbian, Gay, Bisexual and Transgender and Intersex People.
- 36) Vora, Kranti S. 2008. Maternal Health Situation in India: A Case Study. Indian Institute of Ahmedabad. Working Paper No. 2008-03-02.
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- 38) World Health Organization. (2000). "Women of South East Asia: A health profile". WHO, Regional Office for South East Asia, New Delhi.

**Karnatak University, Dharwad**



**Syllabus for**

**Regulations and Syllabus for two year Programme**

**In**

**Master of Arts in Journalism and Mass Communication**

**(Course Code: PG 47)**

**Under CBCS Scheme**



**W.e.f 2018-19 and onwards**

**KARNATAK UNIVERSITY DHARAWAD  
DEPARTMENT OF MASS COMMUNICATION AND JOURNALISM**

Rules and regulation for two year programme in MA in Mass Communication and Journalism under CBCS scheme from 2018 -19 onwards.

### **Programme Specific Outcomes (PO's):**

After successful completion of the M.A. Journalism and Mass Communication course graduates are able to:

- 1) Be proficient in theories and practices of the Journalism and Mass Communication.
- 2) Ready to get recruited in the media houses around the globe.
- 3) Understand the fundamentals of journalism and mass communication concepts, principles and processes underlying the academic field and practice in print media, Television media, Radio media, New media, Public Relations, Corporate communication, Advertising, Digital media, Event Management, Graphics and Animation and Computer applications.
- 4) Understanding the media writing skills like translation, reporting, feature writing, script writing, writing special stories, writing editorials, caption writing, headline writing, column writing, article writing, advertising copy writing, writing for multimedia, writing for blogs/web, content writing, writing news bulletin for radio, television and digital media.
- 5) Understand the social responsibilities of media, practice of ethics in mass media along with understanding various media laws and cyber laws.

### **Eligibility for Admission**

A graduate in any discipline with 45 percentage of marks in aggregate( 40 percentage of marks for SC/ ST and category-I students )from this University or any other University recognized as equivalent is eligible for the course.

A candidate shall have scored minimum of 45% of marks in the concerned equal important subject /cognate in the qualifying examination( 40% percent marks for SC/ ST category-I students )

The intake for the course shall be 30 including all provisions/ categories. out of 30 ,Five seats will be allotted under Enhanced fee schemes.

The admission is based on the Entrance Test.

The Entrance Test shall consist of objective type questions on mass media and Communication Technology for 100 marks. The duration of the test shall be 2 hours.

Selection of the candidate shall be made on the basis of marks obtained in the Entrance Test and marks scored in the Degree Examination (marks scored in the language and cognate subject )50% of the marks obtained in the Degree Examination and 50% of the marks scored in the Entrance Test shall be taken for the finalising the merit list. Admission shall be made in accordance with the government order on reservation.

### **2 Duration**

**2.1** The program shall be of 4 semesters of 16 weeks each.

### **3 Numbers of Papers**

**3.1** Each semester will have 5 theory papers and two practical papers with practice journal.

**3.2** Medium of instruction shall be in English however a candidate is permitted to write the examination in Kannada also.

### **4 . Attendance**

**4.1.** Each semester shall be taken as a unit for the purpose of calculating attendance.

**4.2** A student shall obtain 75% of attendance as per the university regulation.

**4.3** A student who does not satisfy the above requirement of attendance shall not be eligible to appear for the examination and should seek fresh admission to the semester.

### **5. Scheme of Examination**

**5.1** There shall be University examination at the end of each semester. Each semester examination will have five papers as the each paper will carry 75 marks.

**5.2.** The composition of the marks shall be as under

- a) Each theory course/ paper will have 75 marks for the semester examination and 25 marks for internal assessment.
- b) Duration of the theory examination shall be of 2 hours for 50 marks course/ paper and 3 hours for 75 marks.
- c) The Question Paper format shall be as follows  
The question paper will consist of 8 questions of which 5 have to be answered including question number 8 which is compulsory.

### **6. Internal Assessment marks**

**6.1.** Each course will have 25 marks for Internal Assessment .The award for Internal Assessment mark shall be based on two class test conducted.

**6.2 .** No minimum marks is prescribed for internal assessment.

**6.3 .**Internal assessment marks once awarded will hold good even if a candidate reappears for the examination.

### **7 Practice journals**

**7.1.** Student admitted to course shall take active part in the publication of the Practice Journal brought out by the department.

**7.2 .**The number of issues per semester shall be decided by the department council.

**7.3.** Students are also required to work for any other publication to be brought out by the department.

a) Practice Journal shall carry 25marks in each semester.

b) There shall be continues assessment of student contribution to the Practice Journal in all the semester,

- c) Each student shall be assessed on the basis of articles /reports published in the Practice Journal.

7.4 No minimum marks is Prescribed for Practice Journal.

## **8 Internship**

8.1. The internship is compulsory for students. They shall work in any recognized media institution as an Internee for a period of four weeks immediately after the completion of the fourth semester examination.

8.2. The internship is a compulsory academic obligation. A student shall submit a Certificate to the Chairmen of the Department, for having successfully completed four weeks of Internship from recognized media institution.

8.3. The award of degree shall be withheld if the candidate fails to submit the internship certificate.

## **9. Miscellaneous**

9.1 Students are required to take active part in the research / survey programmes arranged by the department.

9.2 Students are required to learn Typing and computer applications.

9.3 Students shall visit leading media house within the state including print and electronic media.

## **10 Practical batches**

10. 2.6B Digital Media Production Practicals, 3.6A Radio and TV Practicals, 4.6A TV Production Practical, making two batches containing fifteen (15) students in each batch for practical training.

**(CBCS)**  
**First Semester**

Sem/Code	Paper Title	Week/Hour	Duration Of Examination	IA Marks	Exam Marks	Total	Credits
PG47T101	Introduction to communication	04	3hrs	25	75	100	04
PG47T102	News Reporting and Writing	04	3hrs	25	75	100	04
PG47T103	News Processing and Editing	04	3hrs	25	75	100	04
PG47T104	Indian Journalism and Contemporary Issues	04	3hrs	25	75	100	04
PG47T105	Media Law and Ethics	04	3hrs	25	75	100	04
PG47P106	Reporting and Editing Practical	(04)2	1hrs	15	35(PR)	50	02
PG47P107	Lab Journal/ Media Activities	(04)2		15	35(PR)	50	02
						600	24

**Second Semester**

Sem / Code	Paper Title	Week/Hour	Duration Of Examination	IA Marks	Exam Marks	Total	Credits
PG47T201	Theories Of Communication	04	2hrs	25	75	100	04
PG47T202	Introduction To Digital Media	04	3hrs	25	75	100	04
PG47T203	Feature writing and Photo Journalism	04	2hrs	25	75	100	04
PG47T204	Advertising and Corporate Communication	04	3hrs	25	75	100	04
PG47T205O	Communication Skills (OEC)	04	3hrs	25	75	100	04
PG47P206	Translation and Writing skills Practicals	(04)2	1hrs	15	35(PR)	50	02
PG47P207	Digital Media Production Practicals	(04)2	1hrs	15	35(PR)	50	02
PG47P208	Lab Journal/ Media Activities	(04)2		15	35	50	02
						650	26

**Third Semester**

Sem/Code	Paper Title	Week/Hour	Duration Of Examination	IA Marks	Exam Marks	Total	Credits
PG47T301	Communication For Development	04	3hrs	25	75	100	04
PG47T302	Media Research Methods	04	3hrs	25	75	100	04
PG47T303	Writing For Radio	04	3hrs	25	75	100	04
PG47T304	Content Creation for TV	04	3hrs	25	75	100	04
PG47T305 O	Radio and Television (OEC )	04	3hrs	25	75	100	04
PG47P306	Radio and TV Practical	04(2)	1hrs	15	35(PR)	50	02
PG47P307	Lab Journal & Media Activities	04(2)		15	35(PR)	50	02
						600	24

#### Fourth Semester

Sem/ Code	Paper Title	Week/ Hour	Duration Of Examination	IA Marks	Exam Marks	Total	Credits
PG47T401	Introduction To Film Studies	04	3hrs	25	75	100	04
PG47T402	Advance Television Production Techniques	04	3hrs	25	75	100	04
PG47T403	Media Management and Marketing	04	3hrs	25	75	100	04
PG47T404	Folk Media	04	3hrs	25	75	100	04
PG47T405	Dissertation	04	3hrs	25 Viva	75 Thesis	100	04
PG47P406	TV Production Practical	04(2)	1hrs	15	35(PR)	50	02
PG47P407	Lab Journal and Media Activities	04(2)		15	35(PR)	50	02
Total Credits - 24							
Internship		One Months Compulsory Internship In Reputed Media Organizations					

KARNATAK UNIVERSITY, D

All Semester Total Marks= 2450  
All Semester Total Credits= 98

**DEPT. OF JOURNALISM AND MASS COMMUNICATION**  
**SYLLABUS - 2018-19**

**First Semester**

**Paper Code : PG47T 101 - Title : Introduction To Communication**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

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- CO-1** Get the knowledge about the process of Communication.
  - CO-2** Understand various dimensions of Journalism profession
  - CO-3** Patterns in the changing media scenario in contemporary society.
  - CO-4** Understand the effective communication skills
  - CO-5** Get improves the communication skills in their personal life and professional life.
- 

- Unit - I** Communication- definitions. Nature and scope, kinds of communications- Intra, Inter personal, Group and Mass communication, verbal and non-verbal communication public and mass communication. Models: SMR, SMCR, Shannon and Weaver, Lasswel, Osgood, Dance, Schramm, Gerbener, Newcomb, convergent and gate-keeping, communication and socialization. Nature and process of mass communication, media of mass communication, characteristics.
- Unit - II** Introduction to Journalism- nature, scope and role of Journalism- Journalism as a profession.
- Unit - III** Growth and development of radio - Evolution and growth of radio in India- Commercial radio, organizational structure of radio, Present status of radio in India, impact and reach of radio.
- Unit - IV** Private radio channels in India :Community radio, satellite radio. Major radio networks in India.
- Unit - V** Television in India: SITE, Organizational structure of Doordarshan, Emergence of cable and satellite channels, news and entertainment networks, National and regional channels.

**Books for Reference:**

- 1) Singhal Arvind and M. Rogers Everett. (2007) India's Communication Revolution- Sage Publication.
- 2) J. Kumar Keval. (2012) Mass Communication in India, Jaico publication. Mumbai.
- 3) Chatterjee P.C. (2018) Broadcasting in India, Sage Publication. New Delhi.
- 4) Hasan Seema. (2010) Principles of Mass communication, CBS Publishers & Distributors. New Delhi.
- 5) ಉಷಾರಾಣಿ, ಎನ್. (೨೦೧೫) ಸಂವಹನ ಕ್ರಿಯೆ-ಪ್ರಕ್ರಿಯೆ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.

**Paper Code : PG47T 102 - Title : News Reporting And Writing**

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

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CO-1	Introduce the writing skills for the various media.
CO-2	Get knowledge and inculcate specialized reporting skills.
CO-3	Understand the different types of news reporting
CO-4	Understand the various sources of news and their management.
CO-5	Know professional ethics in reporting for media.

---

<b>Unit - I</b>	<b>The news:</b> Meaning, Principles of News: Changing value of news. Are the five W's And 1 H News Value. News writing techniques; lead and body, organizing story, sources, Reporter qualifications & responsibilities.
<b>Unit - II</b>	<b>Routine Reporting:</b> Accidents, scandals, speeches and covering celebrities; Page 3 reporting sunshine stories, court And legislative reporting, press conferences, planted stories, crime, sports stories and interviews.
<b>Unit - III</b>	<b>Specialized reporting:</b> In-Depth analysis of events and individuals; Interpretation Of political, scientific, economics, sociological events, covering various movements; Investigative reporting, reporting war and conflicts, Communal riots and ethical issues (with relevant examples); Special reporting; agriculture, drought, floods and other national disasters; covering foreign affairs.
<b>Unit - IV</b>	<b>Sources of news:</b> Traditional sources, media sources, cross media sources including - radio, T.V, and internet. News is what newspaper man make it- Gate keeping and news making process.
<b>Unit - V</b>	<b>News reporting professionalism:</b> Some constrains defining objectivity, internal-external pressures- political, economic and sociological and spin doctors. Professional norms and ethics. Present status Of Indian news reporting

**Reference books**

- 1) Ahuja B. N and Chhabra S. S. (2013) News Reporting, Surjit publication. New Dehli
- 2) M Neal James & S Brown Suzanne (2014) News Writing and Reporting. Iowa state university press.
- 3) Williams P. N. (2014) Investigative Reporting and Editing.
- 4) Fedler F. (1993) Reporting for the Print Media - Thomson Learning.
- 5) V Charnley Mitchell. Reporting (1978)- Holt, Rinehart & Winston. Canada.
- 6) Copple Neal - Depth Reporting. Prentice-Hall publication
- 7) Stevall Glen James - Writing for the Mass Media. Pearson publication.
- 8) Kamath M. V. (2018) - Journalists Hand Book - S Chand publication.
- 9) Kamath M. V. (2018) Professional Journalism - S Chand publication.
- 10) Mirchandani G. G. (1975) Reporting India. Abhinav Publications.
- 11) Srivastava. K. M. (2015) News Reporting and Editing - Sterling Publishers.
- 12) ರಂಗನಾಥರಾವ್ ಜಿ.ಎನ್. ಪತ್ರಿಕೋದ್ಯಮ - ಕಾಮಧೇನು ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು.
- 13) ಡಾ. ಗುರುಪ್ರಸಾದ್ ಬಿ. ವಿ. ಕ್ರೈಮ್ ರಿಪೋರ್ಟಿಂಗ್, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು.
- 14) ಹೆಗಡೆ ಗೋಪಾಲಕೃಷ್ಣ, ಕ್ರೀಡಾ ಪತ್ರಿಕೋದ್ಯಮ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು.

**Paper Code : PG47T 103 - Title : News Processing And Editing**

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

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<b>CO-1</b>	Acquire editing skills to make news more attractive and readable.
<b>CO-2</b>	Have the knowledge of news writing techniques.
<b>CO-3</b>	Understand various types of headlines.
<b>CO-4</b>	Make effective sense of language skills.
<b>CO-5</b>	Train the students in news layout and page designing techniques.

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<b>Unit - I</b>	Editorial department setup: Role and functions of editor, Chief sub – editor, sub – editors, News editors and other staff.
<b>Unit - II</b>	Principles of editing : Editing Process Checking facts, correcting language, rewriting news stories, condensing stories, editing agency copies, Rewriting different copies, Computer editing, style sheet.
<b>Unit - III</b>	Techniques of headline Writing: News and Feature Headlines, Types and functions of headlines, polishing headlines.
<b>Unit - IV</b>	Editorials: Function Principles types, Letters to the editor, Edit page analysis-articles edits, letters, middles, Newsletters.
<b>Unit - V</b>	Newspaper Design and layout: Design of inside pages, Designing newspaper special supplements, Computer page make up.

**Books for reference**

- 1) Barzum Jacques. (2002) Simple & Direct, London Harpar And Row.
- 2) Ostnous John (2004) Better Paragraphs, London Harper And Row.
- 3) Basket, Scissors And Brooks (Eds)(2002). Book Of Art Editing, London,Harper And Row.
- 4) Joseph (2002) Outlines Of Editing, Amol Publication. New Delhi.
- 5) Desai M V & Nainan Sevanti (1996) Beyond Those Headlines. Bangalore Allied Publishers Limited.
- 6) Parthasarathy Rangaswamy (1984) Basic Journalism. Macillan India Ltd, New Delhi.
- 7) Jeorge (1998).TJS, Editing, A Hand Book For Journalist, New Delhi IIMC.
- 8) Quinn (1999). Digital Sub Editing & Design, New Delhi, Sage Publication.
- 9) K. Baskette and J.L.Sissors The Art of Editing.
- 10) Hides Michael: The Sub Editors Communications.
- 11) ಹಬ್ಬ ಅರುಣಕುಮಾರ, ಸುದ್ದಿ ಜಗದಗಲ-ಮುಗಿಲಗಲ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 12) ಕುಂದೂರು ಉಮೇಶಭಟ್, ವನ್ಯಜೀವಿ ಮತ್ತು ಮಾಧ್ಯಮ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 13) ಚ ಹ, ರಘುನಾಥ, ಅಂಕಣ ವ್ಯಾಯೋಗ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 14) ಕಾಮತ್, ಎಂ ವಿ. ವೃತ್ತಿ ಪತ್ರಿಕೋದ್ಯಮ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು.
- 15) ಜೋಸೆಪ್ ಕೆ.ಜೆ. ಪತ್ರಿಕೋದ್ಯಮ ಪರಿಚಯ, ಪ್ರಸಾರಾಂಗ ಮೈಸೂರು ವಿ.ವಿ, ಮೈಸೂರು.
- 16) ಜೋಶಿ ಶಿವಾನಂದ, ಪತ್ರಿಕೋದ್ಯಮ: ವೃತ್ತಿ ಮಾರ್ಗದರ್ಶಿ, ಸವಿ ಸ್ನೇಹ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ

**Paper Code : PG47T 104 - Title : Indian Journalism And Contemporary Issues in Media**

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

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CO-1	Introduce students about contemporary issues of media.
CO_2	critically analyze the Contemporary issues published in media.
CO_3	Understand the importance of history Indian Journalism
CO_4	Know the eminent journalists and their contributions to the journalism.
CO_5	Understand the history of Kannada Journalism.

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<b>Unit - I</b>	A brief history of British and American journalism Benjamin Franklin, Benjamin Harris -Penny press - Yellow Journalism.
<b>Unit - II</b>	Origin, growth and development of Press in India - Contribution of Christian missionaries to the development of printing. Early newspapers in India- publications of Hicky, Buckingham and Raja Ram Mohan Roy and language journalism, Role of newspaper during freedom struggle publication of Balagangadhar Tilak, Mahatma Gandhiji and Jawaharlal Neharu.
<b>Unit - III</b>	A brief history of Kannada Journalism, Herman mogling, M Venktakrishaniah, T T Sharma, DVG, B.N.Gupta, Mohare Hanumantharaya, Kannada dailies and Magazines.
<b>Unit - IV</b>	Contemporary Issues in Media
<b>Unit - V</b>	Contemporary Issues in Media

The Contemporary Issues in Media syllabus will be framed by the Department council (DC) based on the political ,economic ,social ,scientific, cultural, crime, and sports ,issues widely reported, discussed and debated in the mainstream media consisting of print, electronic and new media during the semester. The examiners for the theory examinations of this Unit shall confine only to the issues that are prescribed and discussed during the semester,

**Books for reference**

- 1) Natarajan S – History of Press in India.
- 2) Krishnamurthy Nadig – Indian Journalism.
- 3) Parthasarthy P – Journalism in India.
- 4) Jeffery Robin – India's News Paper Revolution.
- 5) ಮಂಗಳಾ ಸಿ ಜೆ, ಕನ್ನಡ ಪತ್ರಿಕಾಲೋಕ ಮಹಿಳೆ ಹೆಜ್ಜೆ ಗುರುತು, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು.
- 6) ಮಂಗಳಾ ಕೆ ಅರ್, ಪತ್ರಿಕೋದ್ಯಮದ ಬಾಗಿಲು, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು.
- 7) ಡಾ. ಬಾಲಸುಬ್ರಹ್ಮಣ್ಯ, ಎ. ಎಸ್, ಎಂ ಎ ಜರ್ನಲಿಜಂ ನಂತರ ಮುಂದೇನು? ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 8) ಡಾ. ರವಿ, ಬಿ ಕೆ. ಕನ್ನಡ ಜರ್ನಲಿಸಂ & ಟಿ ಎಸ್ ಅರ್, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 9) ಡಾ. ಚಂದುನವರ ಜೆ. ಎಂ, ಪತ್ರಕರ್ತರಾಗಿ ಮೊಹರೆ ಹಣಮಂತರಾಯ : ಒಂದು ಅಧ್ಯಯನ, ಮಧುರಾ ಪ್ರಕಾಶನ, ಧಾರವಾಡ.
- 10) ಡಿ ವಿ ಜಿ, ವೃತ್ತ ಪತ್ರಿಕೆ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.

**Paper Code : PG47T 105 - Title : Media Law And Ethics**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1** Understand the responsibilities of media and the ethical dimensions of media creations, provisions and consumption.
  - CO-2** Learn the ethical obligations that media providers have towards society.
  - CO-3** Make ethical decisions regarding media, whether as providers or consumers, professionals or non-professionals, or as mere users of social media.
  - CO-4** Understand the context and effect of relevant laws, guidelines, policies and codes of journalistic practice.
  - CO-5** Aware of power and privileges of media laws and ethics in media fields.
- 

- Unit - I** Salient features of Indian Constitution, Fundamental Rights, Freedom of Speech and Expression, Directive Principles of State Policy, Parliamentary Privileges.
- Unit - II** Defamation, Sedition, Obscenity, Censorship, Case studies.
- Unit - III** Right to Information Act 2005, Right to Privacy, Official Secrecy, The copyright Act, The Press Council, The contempt of Court Act, The Press and Registration of Books Act, Working Journalist Act.
- Unit - VI** Press Commission, Law related to Broadcasting, Telecasting and Advertising in India.
- Unit - V** Media Ethics Related to ownership of media, Yellow journalism, media ombudsman, cyber laws in India. IT Act 2000.

**Books for References**

- 1) Basu, D.D. Laws of Press in India.
- 2) Venketeshwaran K S, Media laws and Regulations in India
- 3) Padhy K S, Mass Media and Freedom of press in India.
- 4) Grover A.N, Press and the Law
- 5) Agarwal S. K, Media and Ethics.
- 6) ದೇವ ಅರ್ಜುನ್, ಎನ್. ಪತ್ರಿಕಾ ಕಾನೂನು, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು
- 7) ರಂಗನಾಥರಾವ್, ಜಿ.ಎನ್. ಪತ್ರಿಕೋದ್ಯಮ, ಕಾಮಧೇನು ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು.
- 8) ಡಾ. ಅಂಡಿಂಜೆ ಸತೀಶ ಕುಮಾರ, ಭಾರತೀಯ ಮಾಧ್ಯಮ ಕಾನೂನುಗಳು ಮತ್ತು ನೀತಿ ಸಂಹಿತೆ, ಸ್ನೇಹಾ ಪಬ್ಲಿಷಿಂಗ್ ಹೌಸ್, ಬೆಂಗಳೂರು

## Practical

**Paper Code : PG47P 106 - Title : Reporting & Editing Practical**

**15+20 =35Marks**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

**CO-1** Understand the techniques of reporting.

**CO-2** Learn the process of editing.

**CO-3** Improve the skills to report various events happening in society.

**CO-4** Understand the practice of various software's involving in page design.

**CO-5** Get overall practical knowledge about reporting and editing of newspaper.

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Reporting Practical: News Reporting, events, speeches, accidents, sports, Interviews and profiles.

Reporting practical examination **15 Marks**

Editing Practical **20 Marks**

Newspaper layout: front page-inside page make up. (Using In design software)

**Note: Reporting practical details should be recorded in the practical record book and submit the same at the semester end.**

**Paper Code : PG47P 107 - Title : Lab Journal & Media Activities**

**25+10=35Marks**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

**CO-1** Understand the techniques of reporting.

**CO-2** Learn the process of editing.

**CO-3** Improve the skills to report various events happening in university campus.

**CO-4** Understand the practice of various software's involving in page design.

**CO-5** Get overall practical knowledge about reporting and editing for vidya samachar.

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Vidya Samachar fortnightly practice journal **25 Marks**

Media Activities – Communication Club activities **10 Marks**

## SECOND SEMESTER

**Paper Code : PG47T 201 - Title : Theories Of Communication**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

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<b>CO-1</b>	Expose to the classical theories of communication.
<b>CO-2</b>	Understand various theories of foreign and Indian context.
<b>CO-3</b>	Explain the contemporary theories of communication
<b>CO-4</b>	Understand the concepts theoretical perspective communication.
<b>CO-5</b>	Find the various dimensions of communication models

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<b>Unit - I</b>	The nature of Theories: Theories in communication; definition, Nature, Scope, Importance. Indian communication theories. Models of communication.
<b>Unit - II</b>	Normative theories of media: Four theories of media, Development Media theories. Democratic participatory theory. A review of important theories of media effects theories of learning, perception, Dissonance, Attention.
<b>Unit - III</b>	Cultural Theories of Media: Theories of H.A. Innis, Marshall M'cluhan. Information Theory, persuasion- propaganda theory, Marxist Theories of Media, Theories of political, Economics of Media.
<b>Unit - IV</b>	Diffusion of innovation theories, uses and gratification theories, Agenda setting theories theories of Media convergence.
<b>Unit - V</b>	Media and audiences : Uses and gratification theory, Marshall Mcluhan, Harold Innis, Agenda setting.

### **Books for reference:**

- 1) Mcquail Denis - Mass communication theory : An introduction
- 2) Schramm Wilbur - The process and effects of mass communication
- 3) Schramm Wilbur - Meaning, messages and media
- 4) Klapper Joseph - The effects of mass communication
- 5) J.Baran Stanley and K.Davis Dennis - Mass communication theory
- 6) Mcquail Denis (2004) Mass Communication Theory, Sage publication New Delhi.
- 7) Baran Stanley S. and Davis Dennis K (1999), Mass Communication Theory : Foundations Ferment and future, Singapore.
- 8) Caporaso J. and Lenine D. (1992) : Theories of political economy, Cambridge University, Press Cambridge.
- 9) Severin W and Tankard J. (2000) Communication Theories, New York,
- 10) Baran S.J. & Davis D.K. (2001) Mass communication theory-

**Paper Code : PG47T 202 - Title : Introduction to Digital Media**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

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- CO-1** Learn and understand the basics of digital media.
  - CO-2** Identify various storage devices of digital media
  - CO-3** Have knowledge about various digital media platforms
  - CO-4** Capable to create a digital presentation using multimedia elements.
  - CO-5** Produce digital media content.
- 

- Unit - I** Introduction to Digital media: Definitions, nature and scope, Web Design And Web Development, Image enhancing Tools Dreamweaver, Flash, Final Cut Pro AVID- Publishing Your Own Webpage and Security Issues.
- Unit - II** Introduction to various Digital Platforms - Website; Facebook; Twitter; YouTube; Instagram, Digital images – pixels and resolutions, digital image characteristics, JPEG, GIF, PNG, TIFF Storage and memory issues of digital images.
- Unit - III** Digital video and audio equipments, their types and their usage. Video & Audio capturing, amplifying, transmitting and recording devices. Types of video and audio formats, WAV, MP3, MP4 audio storage media and types. Audio mixers. component video, composite video. PAL video, Scan video. Types of video formats, MPEG, FLV, AVI, WMV.
- Unit - IV** Writing For The Web Multimedia - Adopting writing techniques to suit Digital Media platforms. The elements of digital content: news & views, web Advertising, computer assisted research, web casting.
- Unit - V** Blogging- Blogging sites, Content writing for digital Media. .

**Books for References**

- 1) Whittaker Jason (2000) Producing for the Web.
- 2) Garrand Timothy, Writing For Multimedia and The Web - A Practical guide to content development for interactive Media.
- 3) Pite Stepen - The digital Designer, 101 Graphics Design Project for Print, The web Multimedia, Motion graphics.
- 4) Miller Michel - Absolute beginners guide to computer basics.
- 5) Gray Shelly B (2007) - Thomas J Cashman and Misty E vermat, Discovering computers.
- 6) Walsh Bob - Clear Blogging.

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

- CO-1 Understand the importance of feature writing.
- CO-2 Gain the knowledge in photography for news and feature.
- CO-3 Identify the concept of different features for writing stories.
- CO-4 Get to know about editing skills of digital photography with different software's.
- CO-5 Follow the ethics in photo journalism.

- Unit - I** Writing for Media, Principles, methods, types skills, feature writings,: Definitions, functions, nature, scope, Types of Feature: Humanist News, Travel, Historical and etc.
- Unit - II** Article Writing - columns, Prominent Indian Columnists.
- Unit - III** Critical writing for mass media, How to appreciate - Art, Cinema, Folk Arts Theatre, Music, Books, Principles and Methods of writings Reviews. Freelancing, Importance, Types and Procedure, Fundamentals of Technical writing.
- Unit - IV** Evolution of cinematography, Basic elements of cinematography, Types of cameras, principles of camera, mounting equipment. Functions and, Camera Lens and types. Depth of field, Depth of focus, Hyper focal distance.
- Unit - V** Characteristics of photography and photo journalism: Sources of photographs, photo editing, caption writing analogue and digital photography. Basics of digital Cinematography. Foundation of Photography, graphics and art.

**Books For References:**

- 1) Gunning Robert - Techniques of clear writing.
- 2) Stonell J.G - Writing for MassMedia.
- 3) Sheenfield C.A - Effective Feature Writing.
- 4) Nelson R.P - Article Writing.
- 5) Stewart Harral - The Feature Writers Handbook.
- 6) Brain Nicholls - Features with Flair.
- 7) J Alfred Gerald and Others - Handbook of Technical Writing.
- 8) Jacobs Mark: Photography in Focus
- 9) Langford M J: Basic photography.
- 10) Millerson Gerald: Video Camera Techniques, Focal Press.
- 11) Peter John: Techniques of TV Cameraman.
- 12) Lyver Des : Graham Swainson, Basics of Video Lighting, Focal Press.
- 13) ಆಸ್ಟೋಮೋಹನ್, ಛಾಯಾಚಿತ್ರ ಪತ್ರಿಕೋದ್ಯಮ. ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು.
- 14) ಕಟ್ಟಿಮನಿ ಆರ್.ಎ, ಚಿತ್ರ ಜಗತ್ತು. ಸೋನು.ಎಂಟರ್ಪ್ರೈಸಿಸ್, ಬೆಂಗಳೂರು.

**Paper Code: PG47T 204 - Title: Advertising And Corporate Communication**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

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- CO-1 Understand the aims and objectives of advertising.
  - CO-2 Design and develop advertisement for modern media.
  - CO-3 Handle the challenges of corporate world.
  - CO-4 Have the knowledge about the creative writing for advertising.
  - CO-5 To understand the financial factors of corporate communication.
- 

- Unit - I** Advertising- Definition, concept, evolution of advertising, Types and Functions of Advertising, Advertising and Society, Economic effects of advertising. ASCI.
- Unit - II** Advertising Agency- Types of agency, structure, functions & scope, Planning and advertising campaigns: market research, product research, consumer analysis, Media planning and scheduling. Marketing mix, Brand building, Brand loyalty, unique selling proposition.
- Unit - III** Corporate communication- definition and functions. Internal and external communication. Tools of corporate communication. CSR, Crisis management.
- Unit - IV** Importance Of Corporate Communication - Nature ,Meaning Of Corporate Communication -Corporate Communication Practices- Organising, Budgeting, Internal Communication Department.
- Unit - V** Functions Of Corporate Communication ; Brand Strategy , Media Relations, Internet Communication, Corporate Advertising, Corporate Identity, Internet Communication, Marketing Communication, Ethics Code, Corporate Communication Practices. Government Relations, Corporate Culture, Corporate Philanthropy, Labor Relations Employee or Internal Communications, Reputation Management. press Conference, Press together, Press Meet, Press kit, PR and Media Relations. Event Management, CSR Corporate Social ,Responsibility - PR code of ethics.

**Books For References:**

1. Agarwal C.D : Media and Advertising, Mohit publication.
2. Ulmar S.S : Effective Crisis Communication, Sage publication.
3. Batra Rajiv : Advertising Management, Prentice publication
4. Paul A Argenti : Corporate Communication, Irwin Publication.
5. Al Ries & Laora Ries : The Fall of Advertising and the Rise of PR, Harper Business Publication.
6. Clow and Baack : Integrated Advertising Promotion and Marketing communication.

**Paper Code : PG47T 205O - Title : Communication Skills (OEC)**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

CO-1	Aware of Communication Process.
CO -2	To understand the various dimensions of Journalism Profession
CO-3	Understands the techniques of reporting for newspapers.
CO-4	Gain the technical knowledge about page design.
CO-5	Understand the responsibilities of journalist.

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<b>Unit - I</b>	Fundamentals of Communications : Process Of Communication, Acquiring Skills in Communications writing Skills ,Speech skills, Listening Skills.
<b>Unit - II</b>	Writing for News papers : News Features, Articles, Columns, Letters to the editor.
<b>Unit - III</b>	Newspaper Production Process: News Collection, News sources, channels of news flow, News agencies, newspaper printing process.
<b>Unit - IV</b>	Magazine Productions: Types of magazines, magazine write-ups, Production Process.
<b>Unit - V</b>	Newspaper page makeup: Pagination, latest trends and writing career prospects.

**Books for References**

- 1) Peterson,T – Magazines in the twentieth century.
- 2) Williamson - Feature writing for News Paper.
- 3) Willsand Walter – Technical Writing.
- 4) Birjan Nicholoson – Feature with Flair.
- 5) William Rivers – News in Print Writing and Reporting.

**Paper Code : PG47P 206 - Title : Translation Practical**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Translate news item in to English to Kannada and Kannada to English language.
- CO-2 Learn the grammar and translation technique.
- CO-3 Gain practical knowledge translation application software's.
- CO-4 Understand the glossary of journalism.
- CO-5 Gain the knowledge about technical words.

35 marks

Students shall translate five (item) exercises on practical examination.

**Paper Code : PG47P 207 - Title : Digital Media Production Practical**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Learn the image and text scanning and image resolutions for different production.
- CO-2 Learn the different applications of digital photo editing.
- CO-3 Gain practical knowledge working with digital media concern software's.
- CO-4 Understand how to record and save files in different digital formats.
- CO-5 Gain the knowledge about various formats of multimedia elements

35 marks

Students should perform following exercise on practical examination

a) Scan text, photo and other materials and convert in to digital file.
b) Record your voice and save the file in different audio formats.
c) Video format conversion- MPEG1, MPEG2, MPEG4, AVI, WMV, FLV, H264.
d) VIDEO AND AUDIO compression (any contents).

**PG47P 208 Lab Journal & Media Activities**

25+10=35Marks

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- CO-1 Understand the techniques of reporting.
- CO-2 Learn the process of editing.
- CO-3 Improve the skills to report various events happening in university campus.
- CO-4 Understand the practice of various software's involving in page design.
- CO-5 Get overall practical knowledge about reporting and editing for vidya samachar.

Vidya Samachar fortnightly practice journal 25 Marks

Media Activities – Communication Club activities 10 Marks

### Third Semester

Paper Code : PG47T 301 - Title : Communication For Development

**COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:**

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- CO-1 Understand the concept and parameters of development.
  - CO-2 Identify different models, strategies and barriers of development communication
  - CO-3 Understand development theories and models.
  - CO-4 Prepare developmental messages for different electronic media.
  - CO-5 Understand various areas for hold developmental activities.
- 

- Unit - I** Concepts of development: definition, nature, concept, process and models of development – theories – origin- approaches to development and indicators of development. Modernization, problems and issues in development, Economic growth theories.
- Unit - II** Development communication: Definition, development communication policies and practices in India. Indian media and development, Sustainable development concepts. Social change; Role of communication in social change, Diffusion of innovation concept of modernisation. Role of folk and ICT in development.
- Unit - III** Alternative Theories of Communication for Development: Strategies for participatory communication; Ethical perspective, Need for alternative communication.
- Unit - IV** TV and development: Family planning, national integration, education, environment and ecology, health hygiene and nutrition, Development support communication: population and family welfare – health – education and society – environment and development, Developmental and rural extension agencies: governmental, semi- government, nongovernmental organizations.
- Unit - V** Development and Society: Media and agricultural development programmes, rural journalism, Panchayat Raj, Agricultural communication and rural development

### Books For Reference

- 1) Melkata Srinivas R. Communication for development in third world
- 2) Rogers M. Singhlal Aravind Ana and India's information revolution
- 3) Modi Bella, Design and development message
- 4) Uma Narula - Development commercial
- 5) Roger Everest M - Definition of innovations
- 6) Usha Rani N. - Folk media for development
- 7) ಈಶ್ವರ ದೈತೋಟ - ಅಭ್ಯುದಯ ಪತ್ರಿಕೋದ್ಯಮ
- 8) Sainath. P - Everybody loves a good drought
- 9) Rogers, Everett and Floyd Shoemaker - *Communication of innovations*.
- 10) Narula Uma: Development Communication: theory and practice. Har- Ananda Publications, New Delhi:
- 11) ಬಿ.ಪಿ.ಮಹೇಶಚಂದ್ರಗುರು, ಅಭಿವೃದ್ಧಿ ಸಂವಹನ ಮತ್ತು ಪತ್ರಿಕೋದ್ಯಮ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು

**Paper Code : PG47T 302 - Title : Media Research Methods**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

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- CO-1 Define research and differentiate pure and applied research.
  - CO-2 Understand the areas and concepts of research in media fields.
  - CO-3 Cope up with various methodologies involving in media research.
  - CO-4 Understand the tools and techniques of conduct research in the area of electronic media.
  - CO-5 Study the data collection techniques and data analysis methods with different statistical software's and tools.
  - CO-6 Understand the ethics involve in research activities and research report writing techniques.
- 

- Unit - I** Definition - elements of research - scientific approach - research and communication theories - role - function - scope and importance of communication research - basic and applied research.
- Unit - II** Research design components - experimental, bench mark, longitudinal studies - panel studies. Hypothesis and Objectives Methods of communication research - census method, survey method, observation method, clinical studies - case studies - content analysis.
- Unit - III** Tools of data collection: sources, media source books, questionnaire and schedules, diary method, field studies, telephone surveys, online polls. Random sampling methods and representativeness of the samples, sampling errors and distributions in the findings.
- Unit - IV** Media research - evaluation, feedback - public opinion surveys - pre-election studies and exit polls. Report writing - data analysis techniques - coding and tabulation - non-statistical methods- descriptive - historical - statistical analysis - tests of reliability and validity - SPSS and other statistical packages.
- Unit - V** Preparation of research reports / project reports / dissertations / thesis.

**Books for References**

- 1) Wimmer and Dominick; introduction to Media Research.
- 2) Bowers and Courtight.; Communication Research methods.
- 3) Curlinger; Foundation of Behavioral Research.
- 4) Rice and Roger's; Research Methods and New Media.
- 5) Hsia; Mass communication and Research Methods.
- 6) Mc Quil Dennis; Milestone in Mass communication Research.
- 7) ಶಂಕರರಾವ್ ಚ.ನ - ಸಾಮಾಜಿಕ ಸಂಶೋಧನೆಯ ಕೈಪಿಡಿ

**Paper Code : PG47T 303 - Title : Writing For Radio**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

- 
- CO-1 Get to know the Organizational structure of A.I.R.  
CO-2 Aware of the importance of Radio Broadcasting in India  
CO-3 Undertake professional skills to produce radio programmes.  
CO-4 Understand the techniques of reporting for radio.  
CO-5 Understand the basics of single track and multi track sound editing
- 

- Unit - I** Evolution of Radio Growth of Radio Broadcasting in India, Organizational structure of A.I.R.
- Unit - II** Prasar Bharati Act: Privatization of Radio, Private FM station, Community Radio, Code of Ethics for Broadcasting, Interactive Radio Programmes, Phone in programs, Radio commercial and Marketing
- Unit - III** Types of Radio program, News, Features , Music based programs, Radio jockey ,Nature of sound, Voice Modulation, Pronunciation , Radio Announcement ,Sound Effect, Editing.
- Unit - IV** Structure and operation of broadcast studio: Types Of Microphones, Digital Sound Recording, Types Of Recording Equipments, Radio Production Software's.
- Unit - V** Writing for Radio: News Writing, Feature Programs, Documentary, Writing Commercial Story Board, Production Techniques Of Radio News And Weather Bulletin, Phone In Programme, Music Interview Special Interest Programs.

**Books for references**

- 1) Kumar J Keval- (2015) Mass communication in india
- 2) Choler D K- Broadcast Journalism.
- 3) Shreevastava K M - Radio and TV journalism
- 4) Massani Mehara - Broadcasting and people
- 5) PC Chattarje - Broadcasting in India.
- 6) Wills EE - Writing Television and Radio programme
- 7) Singhal Arvind - India's Information Revolution.
- 8) Smeyak Paul G - Broadcast News Writing.
- 9) ಸಿ.ಯು. ಬೆಳ್ಳೆಕ್ಕಿ, ರೇಡಿಯೋ ಲೋಕ, ಸಾಹಿತ್ಯ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ
- 10) ಬಿ ಎನ್ ಗುರುಮೂರ್ತಿ, ರೇಡಿಯೋ ಟೆಲಿವಿಷನ್ ಭಾಷಾ ಸಂವಹನ, ಕರ್ನಾಟಕ ಮಾಧ್ಯಮ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು
- 11) ಬಿ.ಕೆ. ರವಿ, ಬಾನುಲಿ ಬರಹಗಳು, ಚೈತ್ರ ಕಮ್ಯೂನಿಕೇಷನ್,ಬೆಂಗಳೂರು

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Understand the essentials of television production techniques.
  - CO-2 Undertake TV production independently.
  - CO-3 Practice the Vocabulary, usages, grammar and spellings in connection with television production.
  - CO-4 Write various types of television scripts.
  - CO-5 Learn the techniques of story boarding.
- 

- Unit - I** Content Writing Process : Concept, Outline, Gathering information, Prewriting, Research, Drafting, Review, Copy Editing, Rough edit, Re-Editing, Proof reading, Final edit, Publishing, Promoting.
  
- Unit - II** Fundamentals of Writing: Writing as an essential communication skill. , Vocabulary, usages, grammar, spellings, punctuation and syntax, Sentence construction and structure: Clarity, emphasis, rhythm and length, Paragraph writing. , The Process of Writing- Composition, Comprehension, Precise writing.
  
- Unit - III** Writing for Television: Writing to visuals: Reference writing, story board and visualization, Writing TV production scripts: features, Soap operas, documentaries and commercials, Writing for TV News: Structure of TV news, structure of TV report, PTC, bytes and writing for other visual inputs.
  
- Unit - IV** Television as a medium of communication- changing trends in television production. Script writing to story boarding - concept story, Screenplay - construction of sequences- scenes. script writer, storyboard writer, art director etc.
  
- Unit - V** Television program formats - styles and genres, news, entertainment and infotainment programs. Introduction to stages of production: pre production, production and post production.

**Books for references**

- 1) Ali Amjad - Introducing News Media, Essess publication.
- 2) Allen Robert C - The Television Studies Reader, Annette Hill
- 3) Creeber Glen, TELE-VISIONS: An Introduction to Television Studies.
- 4) Wolfe Ronald, A guide to scripting for TV, Radio and Film
- 5) Bretz Rudy, Techniques to TV Production, (McGraw Hill) Prager, Understanding TV

**Paper Code : PG47T 305 - Title : Radio and Television (OEC)**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Understand the history of Radio and Television.
  - CO-2 Aware of the importance of Radio Broadcasting in India.
  - CO-3 Get knowledge about writing for Radio and Television
  - CO-4 Understand the techniques of interview.
  - CO-5 Aware of trends of Radio and Television
- 

**Unit - I**      Brief Introduction To Radio: Origin And Growth, Characterization Of Radio.

**Unit - II**      Brief Introduction To TV: Origin And Growth, Characterization Of TV.

**Unit - III.**      Writing for Radio : Different Radio Programmes, Radio - Talks ,Discussion, Interview Documentary ,Phone In Programs, Features, Commercial Radio Programmes, Production Stages.

**Unit - IV.**      Writing for TV: Different TV programs ; producing TV programs Talk shows, panel discussion, interview, Infotainment programs -TV program production process.

**Unit - V**      Recent trends in TV and Radio programmes

**Books for references:**

- 1) Hillard Robert : Radio Broadcasting.
- 2) Sureya Paul Broadcast News Writing: Radio,The fifth Estate.
- 3) Chakravarthy Jagadeesh : Changing Trends In Public Broadcasting Journalism.
- 4) Gerald Millerson : Effective TV Production.
- 5) Gerald Millerson : The Techniques of TV Production.

**Paper Code : PG47P 306 - Title : Radio & TV: Practical**

**15 + 20 = 35 Marks**

**Radio Production**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

CO-1 Learn to record and convert the audio files in different formats.

CO-2 Learn the different techniques of sound editing.

CO-3 Gain practical knowledge working with audio equipments and software

CO-4 Equip with different production techniques of television programmes.

CO-5 Develop graphic presentation and lighting techniques in television production.

---

- 1) Prepare short Radio talk by selecting appropriate topic and giving suitable title. The duration of the talk 5 minutes. **15 marks**
- 2) Prepare 5 minutes duration news bulletin for radio local broadcast and make presentation.

**OR**

1. Prepare As a radio Jockey present 15 minutes program interspersed with songs.

**Television Production**

**20 Marks**

- 1) Prepare a television News bulletin production(one) based on high quality visual which includes narration, anchoring, editing- duration (5- 6 minutes)

**OR**

- 1) Prepare a television special News bulletin with PTC (3to 5 minutes)

**Paper Code : PG47P 307 - Title : Lab Journal & Media Activities**

**25+10 =35Marks**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

CO-1 Understand the techniques of reporting.

CO-2 Learn the process of editing.

CO-3 Improve the skills to report various events happening in university campus.

CO-4 Understand the practice of various software's involving in page design.

CO-5 Get overall practical knowledge about reporting and editing for vidya samachar.

---

Vidya Samachar fortnightly practice journal

**25 Marks**

Media Activities – Communication Club activities

**10 Marks**

## Fourth Semester

**Paper Code : PG47T 401 - Title : Introduction To Film Studies**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Prepare Students to analyze and appreciate good cinema.
  - CO-2 Understand the relationship of film with other mass media
  - CO-3 Gain the knowledge about technical aspects of cinema production.
  - CO-4 Identify various forms of cinema along with film awards and festivals.
  - CO-5 Understand national and international film makers and their contributions to the cinema.
- 

- Unit - I**      The origin of films, film as entertainment and art in the 20th century, relationship with other media like theatre, print, radio and television.
  
- Unit - II**      Film genres, film movement: Expressionism, Italian neorealism, Soviet montage, French new Wave, great masters of cinema: D W Griffith, Eisenstein, Vittorio De Sica, Godard, Bergman, Kurosawa.
  
- Unit - III**      Indian cinema- evolution- themes- sociology of Indian cinema- landmarks in Indian cinema, Satyajit Ray - Mrinal Sen- Adoor Gopalakrishnan, Shyam Benegal, Girish Kasaravalli, - awards and film festivals.
  
- Unit - IV**      Institutions of cinema in India, production, distribution and exhibition. Public sector film organizations and their functions. Film Associations and their contribution.
  
- Unit - V**      Growth and Structure of Documentaries, Television and Documentary films. Problems and prospects of Indian cinema, criticism, appreciation, film certification- film society movement in India- censorship.

### **Books for Reference:**

- 1) Berkeley, California UV: What is cinema?
- 2) Gledhill C: Genre and gender: The case of soap opera
- 3) Staiger J : Film Criticism
- 4) Williams L, Oxford UV Press : The Oxford guide to film studies, New York.
- 5) Barnouw Eric - Film Theories,  
Wolverton Mike - Documentary films

**Paper Code : PG47T 402 - Title : Advance Television Production Techniques**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Understand the evolution television and its growth in India.
  - CO-2 Handle the television programme production task independently.
  - CO-3 Gain the knowledge about different types of video cameras and this operations
  - CO-4 Equip with different production techniques of television programmes.
  - CO-5 Develop graphic presentation and lighting techniques in television production.
- 

- Unit - I** Evolution present status of telecasting in India; TV as a medium of communication; TV production formats; news bulletins, documentary, serials, talk shows, sitcoms, phone-in, quix and emerging formats.
- Unit - II** Production Process: Production process, pre-production stage-conception, research and development of story and script; Storyboard; Writing scripts, selection of talents, costumes, location, backdrop, Planning and execution as per pre-production plan; Post-production: writing voice-over (narration), dubbing, Titling/subtitling, caption writing, graphics and animation-editing and mixing.
- Unit - III** Multi-camera studio production and Working principles of Electronic Field Production (EFP) - team members and their roles. Studio equipment. Floor plan, sound design, lighting design, set and props design.
- Unit - IV** Basic Television news production techniques: production of news magazine, Electronic News Gathering, PTC, Sound byte, Current affair programs, news interviews, Production Control room.
- Unit - V** Evolution present status of telecasting in India; TV as a medium of communication; TV production formats; news bulletins, documentary, serials, talk shows, sitcoms, phone-in, Documentary.

**Reference books :**

- 1) Mitch Mitchel, Visual 2004. Effects & for Film Television. Singapore Focal Press.
- 2) Roger Laycock 1999 Audio Techniques For Television Production, Singapore Focal Press.
- 3) Rod Fainweather, (Edt) 2002. Basic Studio Directing, Singapore Focal Press.
- 4) Tony Grant, (Edt) 2000 Audio for Single Camera Operation, Singapore Focal Press.
- 5) Robert L Hartwig (Edt), 2004. Basic T.V Technology, Singapore Focal Press.
- 6) Bernard Wilkie (Edt) 2006. Creating Special Effects for T.V & Video, Singapore Focal Press.
- 7) Gerald Millerson, (Edt) 2000. Effective T.V Production, Singapore Focal Press.
- 8) Gerald Millerson, (Edt) 2000. Lighting for Video, Singapore Focal Press.
- 9) Patric Morris, (Edt) 2000. Nonlinear Editing, Singapore Focal Press.
- 10) Glyn Alkin, (Edt) 2006. Sound Recording and Reproduction, Singapore Focal Press.
- 11) Peter Ward (Edt) 2005. Studio and Outside Broadcast Camerawork, Singapore Focal Press.
- 12) Gerald Millerson, (Edt) 2000. Video Camera Technologies, Singapore Focal Press.
- 13) Peter Ward (Edt) 2003. T.V. Technical Operations, Singapore Focal Press.

14) ಡಾ.ಬಿ.ಟಿ.ಮುದ್ದೇಶ, ಟಿ.ವಿ ಸುದ್ದಿಲೋಕ, ಸೃಷ್ಟಿ ಪ್ರಕಾಶನ, ತುಮಕೂರು

**Paper Code : PG47T 403 - Title : Media Management & Marketing**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

CO-1 Understand the nature, scope and principles of media management.

CO-2 Identify the economics of mass media.

CO-3 Understand the different media organizations.

CO-4 Gain the knowledge about ownership patterns of media.

CO-5 Impart practical knowledge about media marketing strategies.

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**Unit - I** Management: Definition, Nature and Scope, Principles, Process.

**Unit - II** Ownership patterns of mass media in India- sole proprietorship, partnership, private limited companies, public limited companies, trust, co-operatives, religious institutions (societies) and franchises, transnational ownership.

**Unit - III** Principles of media Management and their significance- media as an industry and profession, Different Media organizational structure, delegation, decentralization, motivation, control and co-ordination.

**Unit - IV** Marketing Communication: Role of advertising in the marketing communication process; The importance of marketing to advertising; The key participants in the marketing process: Consumers, Markets, Marketers.

**Unit - V** Consumer behavior from advertiser's perspectives; Communication strategies for global marketing; Globalization of the media and worldwide advertising.

**Books For Reference:**

- 1) Rucker and Williams : - Newspaper Management.
- 2) Herbert and Williams : - Newspaper Organization and Management.
- 3) Mehra - News Paper Management.
- 4) Mocavalt and Pvingle ; - Electronic Media Management.

**Paper Code : PG47T 404 - Title : Political Communication**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

CO-1 Understand the concept of political communication and its strategies.

CO-2 Understand political communication theories.

CO-3 Analyses the foreign policy and mass media.

CO-4 Get knowledge about the importance of FDI

CO-5 Analyze the working conditions of media in democratic set up

---

**Unit - I** Introduction to Political Communication: The democratic process, the media in modern times, media shape public perceptions.

**Unit - II** Political Communication Theories: Agenda Setting: Priming, Framing; The effect of media in the formation and change of political attitudes.

**Unit - III** Political News Coverage: Media bias; press - government relations; election campaigns and media coverage. Communication and civic engagement: Role of media in political participation. Political ownership of media: Agenda setting; Social media- its impact on politics-case studies.

**Unit - IV** Foreign Policy and Mass Media: Mass Media as an instrument of foreign policy; Global Media influences; FDI in media-Govt policies.

**Unit - V** Online Media and Political Communication: The diverse uses of internet and mobile phones in politics, online political campaigns; Political communication by civic actors, social movements and NGOs.

**Books For Reference:**

- 1) Bennett, .W. L; Entman, R M (Ed.s) (2004). Mediated Politics: Communication and Future of Democracy, Cambridge: Cambridge University Press.
- 2) Graig, G (2004). The Media, Politics and Public Life, Auckland: Allen and Unwin.
- 3) Darren G. Lilleker (2006). Key Concepts in Political Communication, New Delhi: SagePublications Ltd.
- 4) Esser, F; P fersch B (Ed.s) (2004). Comparing Political Communication: Theories, Cases and Challenges, Cambridge University Press, Cambridge.
- 5) Foster, S (2010). Political Communication- Politics Study Guides, Edinburgh: Edinburgh University Press.
- 6) Iyengar S (2011). Media Politics: A Citizen's Guide, NY, USA: WW Norton & Co

**Paper Code : PG47T 405 - Title : Dissertation**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Understand the basics of research and its application.
  - CO-2 Gain the knowledge about identify various problems of mass media
  - CO-3 Understand the important objectives of the research in mass media.
  - CO-4 Understand the different data collection tools and techniques.
  - CO-5 Know the different research methods of conducting research.
  - CO-6 Understand different sampling techniques
  - CO-7 Understand the data analysis and structure of research report writing.
- 

Student shall select a media related topic of his/ her choice with the consultation of his/ her guide.

- I. Identifying the research topic about print, electronic media, new media. Selection and finalize the topic for dissertation (First two weeks of the semester)
- II. Review of literature for the research topics (three weeks)
- III. Adopting methodology for research topics and preparing questionnaires
- IV. Field work and data collection, Data tabulation (three weeks)
- V. Preparation of report and Submission (three weeks)

**Paper Code : PG47P 407 - Title : TV Production Practical**

**10+25= 35 Marks**

**Camera Angle Examination**  
**Video Editing**

**10 marks**  
**25 marks**

**Paper Code : PG47P 408 - Title : Lab Journal & Media Activities**

**25+10 =35Marks**

***COURSE OUTCOMES: (CO's) after completing this paper, the students will be able to:***

---

- CO-1 Understand the techniques of reporting.
  - CO-2 Learn the process of editing.
  - CO-3 Improve the skills to report various events happening in university campus.
  - CO-4 Understand the practice of various software's involving in page design.
  - CO-5 Get overall practical knowledge about reporting and editing for vidya samachar.
- 

Vidya Samachar fortnightly practice journal

**25 Marks**

Media Activities – Communication Club activities

**10 Marks**

# **KARNATAK UNIVERSITY, DHARWAD**



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## ***SYLLABUS***

**FOR**

**P.G.DIPLOMA (Non Sem. and CBCS) IN KANAKADASA AND  
OPEN ELECTIVECOURSE-II & III SEM.(CBCS) IN KANAKADASA  
STUDIES**

**2018-2019 and onwards**



'A' NAAC Accredited  
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ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

**KARNATAK UNIVERSITY, DHARWAD**

“University with potential for excellence”

ದೂರವಾಣಿ : ೦೮೩೬-೨೪೪೧೮೮

(O):0836-2441889

ಕನಕ ಅಧ್ಯಯನ ಪೀಠ

**INSTITUTE OF KANAKA STUDIES**

**Kanaka Adhyayana Peetha  
(Estd. 1996)**

Regulations Governing P.G. Diploma Programme in Kanaka Studies Under the Non Semester and Non-CBCS System

#### **I. Commencement**

These Regulations shall come into force from the academic year 2018-19.

#### **II. Definitions**

In these Regulations unless otherwise mentioned, provided.

- a) ‘University’ means Karnatak University, Dharwad.
- b) ‘Board of Studies’ (Ad-hoc) means Board of Studies (Ad-hoc) in Kanaka Studies of the Karnatak University.

#### **III. Admission**

The details of the admission rules are governed by the notifications issued by the University from time to time. However the applicant should have studied any Degree for admission to the PG Diploma in Kanaka Studies.

**Total Intake Capacity: 15 (Normal +05 (Enhanced)) = 20 for PG Diploma (Non CBCS)  
And 60 for OEC (CBCS).**

#### **IV. Duration of the Programme**

:Kanaka Dasa is their main activities of Peetha. The Peetha is conducting Post Graduate Diploma Course in Kanaka Studies Since 1988 Non Sem/Non CBCS and Open Elective Course under CBCS Scheme for all P.G. Students Since-2012.

The programme of study to one year for PG Diploma and one Semester for OEC in Kanaka Studies The normal calendar for the course shall be August to May and August to May respectively

Life and Literature of Kanakadasa's)

**Duration of Course:** Semester System

**Allotment of Marks:** Theory-75 Marks

**Two Internal Test-1** 1x2=22 Marks

**Attendance** – 03 Marks

**Total: 100 Marks**

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**Intake Capacity:** 60 Students.

**V. Teaching Course**

The Course has consists of Four papers, each paper comprising with Five units and 4 hours in a weeks of class work. General holidays and the calendar of events prescribed by the University from time to time.

**VI. Medium of Instruction**

The medium of instruction shall normally be English and Kannada. However, the students may write the examinations in Kannada also.

**VII. Scheme of Papers and Marks**

**Programme: PG Diploma and Open Elective Papers in Kanaka Studies(Theory)**

Course Code	No.of Paper	Tittle of the Paper/Course	Max. Marks
<b>PG Diploma (Non Sem &amp; Non CBCS)</b>			
DP17101	I	Kanakadasara Jeevana Mattu Sahitya	100
DP17102	II	Kanakadasar Kavyagala Adhyana	100
DP17103	III	Kanakadasara Keerthana Sahitya Adhyana	100
DP17104	IV	Toulanika Adhyana(Samajika,Dharmika, Vaicharika Nelegal Hinnaleyalli)	100
		<b>Total</b>	<b>400</b>
<b>Open Elective(CBCS)</b>			
DP17201	Sem-II	Kanakadasara Jeevana Mattu Sahitya	100
DP17301	Sem-III	Anubhava Sahitya Parampare Mattu Kanakadasaru	100

**VIII. Attendance**

- The student shall be considered to have satisfied the requirement of attendance if He/she has attended not less-than 75% of total number of classes held till the end of the year. Each paper shall be taken as a unit for calculating the attendance.
- Each student will have to sign his/her attendance for every hour of teaching in each paper. The Course Teacher shall submit monthly attendance report to the Chairman/Coordinator of the Kanaka Peetha at the end of every month. The Chairman of the Peetha shall notify the attendance of every student on the Notice Board of the Peetha during the second week of the subsequent month. The Chairman/Coordinator of the Peetha shall send to the Registrar

(Evaluation) and other Officers, as directed by the Registrar from time to time, at the end of every year for given the detailed statement of attendance.

- c) However, if a student represents the Department/ University/State/ Nation in sports, NCC, NSS or Cultural or any other officially sponsored activities he/she shall be eligible to claim the Attendance for the actual number of days utilized in such activities (including travel days) subject to the production of certificate from the relevant authority within two weeks after the event.
- d) A student who does not satisfy the requirement of attendance of 75% in each paper shall not be permitted to appear the examination. Such candidates may seek admission afresh to the course.

#### **IX. Evaluation**

Evaluation of the papers will have end Examination and each paper has consists of - 100 Marks.

#### **X. Challenge Evaluation**

There shall be a provision for challenge valuation as per the rules and regulation of the University issued from time to time.

#### **XI. Completion of the Course**

- a) A candidate is expected to successfully complete the Degree programme within one year from the date of admission.
- b) Whenever the syllabus is revised, the candidate reappearing will have to write the examination as per the syllabi prevailing at that time.

#### **XII. Declaration of Results**

- a) Minimum for a pass in each paper shall be 40% of the total 100 marks in the examination.
- b) The improvement of the performance is permitted as per the rules and regulations of the University.

  
ಸಂಯೋಜಕರು  
ಕನಕ ಅಧ್ಯಯನ ವಿಭಾಗ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ-03

  
Prof Mallikarjun Patil  
Dean, Arts Faculty  
K.U. Dharwad-580003

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**CHAIRMAN/DEAN, FACULTY OF ARTS**



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INSTITUTE OF KANAKA STUDIES

ಪಿ.ಜಿ.ಡಿ.ಪ್ಲೋಮಾ ಕನಕ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ

ಪಠ್ಯಕ್ರಮ-2018ನೇ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ

ಕೋರ್ಸಿನ ಮುಖ್ಯ ಫಲಿತಾಂಶಗಳು :

1. ಕನಕದಾಸರ ಕಾಲ ಜೀವನ ಮತ್ತು ಅವರ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
2. ಮಧ್ಯಕಾಲೀನ ಘಟ್ಟದ ಪ್ರಮುಖ ಕವಿ, ಕೀರ್ತನಕಾರ, ಸಮಾಜೋದ್ಧಾರಕ ಸಂತಶ್ರೇಷ್ಠ ಕನಕದಾಸರು ಬದುಕು-ಬರಹಗಳೆರಡರಲ್ಲಿ ಏಕತೆಯನ್ನು ಸಾಧಿಸಿರುವುದನ್ನು ಅರಿತುಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
3. ನಳಚರಿತ್ರೆ, ಮೋಹನತರಂಗಿಣಿ, ಹರಿಭಕ್ತಿಸಾರ, ರಾಮಧಾನ್ಯ ಚರಿತೆ ಕಾವ್ಯಗಳ ರಚನೆಯ ಮೂಲಕ ಮತ್ತು ಮೌಲಿಕ, ಸಮಾಜಮುಖಿ ಶ್ರೇಷ್ಠಮಟ್ಟದ ಕೀರ್ತನೆಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಕಾರಿಯಾಗುವುದು.
4. ಅನುಭಾವಿ, ಭಕ್ತ ಶ್ರೇಷ್ಠ, ಸಮಾಜ ವಿಜ್ಞಾನಿ ಕನಕದಾಸರ ಬದುಕು-ಬರಹಗಳನ್ನು ಅವರ ಸಾಹಿತ್ಯದ ಮೂಲಕ, ಮತ್ತು ಭಾರತೀಯ ಅನುಭಾವ ಮತ್ತು ಭಕ್ತಿ ಪರಂಪರೆಯಲ್ಲಿ ಬರುವ ಇತರ ಚಿಂತಕರ ಜೊತೆಗೆ ಇವರ ಜೀವಪರ ವಿಚಾರಧಾರೆಗಳನ್ನು ತೌಲನಿಕವಾಗಿ ಅಧ್ಯಯನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುವುದು.
5. ಕನಕದಾಸರ ಕುರಿತು ಸಂಶೋಧನೆಯ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕವಾಗುವುದು.

ಪತ್ರಿಕೆಗಳ ವಿವರ

- 1) ಒಟ್ಟು ಪತ್ರಿಕೆಗಳು ನಾಲ್ಕು(4)
  - 2) ಪ್ರತಿಯೊಂದು ಪತ್ರಿಕೆಗೆ 100 ಅಂಕಗಳು
  - 3) ಬೋಧನಾವಧಿ ಪ್ರತಿ ಪತ್ರಿಕೆಗೆ 3 ಗಂಟೆ
- ಒಟ್ಟು : 400 ಅಂಕಗಳು

**DP17101 ಪತ್ರಿಕೆ-1. ಕನಕದಾಸರ ಜೀವನ ಮತ್ತು ಪರಿಸರ ಅಧ್ಯಯನ**

**ಒಟ್ಟು : 100 ಅಂಕಗಳು**  
**ಬೋಧನಾವಧಿ ವಾರಕ್ಕೆ 3 ಗಂಟೆ**

**ಉದ್ದೇಶ:**

- ಕನಕದಾಸರ ಜೀವನ, ಕಾಲ ಮತ್ತು ಅವರ ಸಾಧನೆಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.
- ಕನಕದಾಸರ ಸಾಧನೆಗೆ ಪ್ರಭಾವ ಬೀರಿರುವ ತಾತ್ವಿಕ ಅಂಶಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವುದು.

**ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು:**

1. ಕನಕದಾಸರ ಕಾಲ ಜೀವನ ಮತ್ತು ಅವರ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
2. ಸಾಮಾಜಿಕ ಸುಧಾರಣೆಗಳಲ್ಲಿ ಕನಕದಾಸರ ಪಾತ್ರವನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳು ಅರಿತುಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
3. ಕವಿ ಮತ್ತು ಸಾಮಾಜಿಕ ಸುಧಾರಕನಾಗಿ ಸಂತ ಕನಕದಾಸರನ್ನು ಕಂಡುಕೊಳ್ಳುವುದು.
4. ಕನಕದಾಸರ ಸಾಧನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಾಯವಾಗುವುದು.
5. ಕನಕದಾಸರ ಕುರಿತು ಸಂಶೋಧನೆಯ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕವಾಗುವುದು.

**ಪಠ್ಯಕ್ರಮ ವಿವರ :**

- 1) ಕನಕದಾಸರ ಸಾಹಿತ್ಯ ರಚನೆಯ ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ, ಪರಿಸರದ ಸ್ಥಿತ್ಯಂತರಗಳು, ಕನಕದಾಸರ ಜೀವನ ಇತಿವೃತ್ತ (ಕಾಲ, ಜಾತಿ, ಜನನ-ಮರಣ, ಗುರುಪರಂಪರೆ, ಸಾಧನೆ, ಸಿದ್ಧಿ ಇತ್ಯಾದಿ)
- 2) ಕನಕದಾಸರ ಸಮಕಾಲೀನ ವಿವಿಧ ಪರಿಸರಗಳ ಅಧ್ಯಯನ : ರಾಜಕೀಯ-ಸಾಮಾಜಿಕ-ಧಾರ್ಮಿಕ ಹಾಗೂ ಕೌಟುಂಬಿಕ ಕನಕದಾಸರು ಸಂದರ್ಶಿಸಿದ ಪಾರಂಪರಿಕ ಸ್ಥಳಗಳು.
- 3) ಭಕ್ತಿಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂ-1) ದೇಜಗೌ(ಸಂ)ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990
2. ಕರ್ನಾಟಕ ಭಕ್ತಿವಿಜಯ :ಬೇಲೂರು ಕೇಶವದಾಸರು, ಉಷಾ ಸಾಹಿತ್ಯ ಮಾಲೆ, ಬೆಂಗಳೂರು-1932
3. ಕನಕಕಿರಣ : ಕಾ.ತ.ಚಿಕ್ಕಣ್ಣ, ಕಾಳಿದಾಸ ಸಾಂಸ್ಕೃತಿಕ ಸಂಘ,ಬೆಂಗಳೂರು-1982
4. ಕಾಗಿನೆಲೆಯ ಕನಕದಾಸೋತ್ತಮ : ಪ್ರೊ.ಸುಧಾಕರ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ,ಮೈಸೂರು-1997
5. ಭಕ್ತಿ ಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು (ಸಂ)ಡಾ.ಬಿ.ವಿ.ಯಕ್ಕುಂಡಿಮಠ, ಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ
6. ಕನಕದಾಸರ ಜೀವನ ವಿಚಾರ : ಜ್ಯೋತಿ ಹೊಸೂರ, ಕಾಲಗತಿ ಪ್ರಕಾಶನ,ರಾಯಚೂರು-1983
7. ಕನಕದಾಸರ ಒಂದು ಅಧ್ಯಯನ (ಸಂ)ಡಾ.ಎಸ್.ಎಚ್.ಭಗವತಿ ಮತ್ತು ಡಾ.ಎಚ್.ಎಸ್.ಮೇಲಿನಮನಿ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
8. ಕನಕದಾಸರ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ : ಡಾ.ಹರಿಲಾಲ ಪವಾರ & ಡಾ.ಚಂದ್ರಶೇಖರ ರೊಟ್ಟಿಗವಾಡ,ಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ
9. Kanakadasa's Message of Social Justice: Edr-Dr.B.K.Ravi, Publisher Prasaraanga Karnatak University,Dharwad
10. ನೀ ಮಾಯೆಯೊಳಗೊ ನಿನ್ನೊಳು ಮಾಯೆಯೊ : ಪ್ರ. ಕನಕದಾಸ ಅಧ್ಯಯನ ಪೀಠ, ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ,ಮಂಗಳೂರು

**DP17102 ಪತ್ರಿಕೆ-II. ಕನಕದಾಸರ ಕಾವ್ಯಗಳ ಅಧ್ಯಯನ**

**ಒಟ್ಟು : 100 ಅಂಕಗಳು**  
**ಬೋಧನಾವಧಿ ವಾರಕ್ಕೆ 3 ಗಂಟೆ**

**ಉದ್ದೇಶ :**

- ಕನ್ನಡ ಸಾಹಿತ್ಯಕ್ಕೆ ಕನಕದಾಸರು ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
- ಕನಕದಾಸರ ಕಾವ್ಯಗಳು, ಕೀರ್ತನೆಗಳು, ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳನ್ನು ಅಧ್ಯಯನಿಸುವುದು.

**ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು :**

1. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತಿಳಿಯಲು ಸಹಾಯಕವಾಗುವುದು.
2. ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ಕನಕದಾಸರು ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
3. ಕನಕದಾಸರ ಕಾವ್ಯಗಳಲ್ಲಿಯ ಭಕ್ತಿ, ವರ್ಗ-ವರ್ಣ ಸಂಘರ್ಷ, ವೈರಾಗ್ಯಗಳ ಕುರಿತು ಅರಿತುಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
4. ಕನಕದಾಸರ ಕಾವ್ಯಗಳಲ್ಲಿಯ ಪ್ರೇಮ-ವಿರಹವೇದನೆ, ಸರಸಲ್ಲಾಪ, ಆದರ್ಶ ದಾಂಪತ್ಯದ ಕುರಿತು ತಿಳಿದುಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
5. ಕನಕದಾಸರ ಕಾವ್ಯಗಳಲ್ಲಿಯ ನಿಸರ್ಗ, ಜೀವಸಂಕುಲಗಳ ಕುರಿತು ಅಧ್ಯಯನ ಮಾಡಲು ಸಹಕಾರಿಯಾಗುವುದು.

**ಪಠ್ಯಕ್ರಮ ವಿವರ :**

ಅ) ತಾತ್ವಿಕ : 12-15ನೇ ಶತಮಾನಗಳ ನಡುವಿನ ಕಾಲ ಘಟ್ಟದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ರಚನೆಯ ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ

ಪ್ರಮುಖ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು : ಪ್ರಮುಖ ಕವಿಗಳು-ಧರ್ಮ.ಸಾಹಿತ್ಯ-ಸಮಾಜ ಇವುಗಳ ಅಂತರ್ ಸಂಬಂಧ

ಆ) ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ (ವಿವಿಧ ನೆಲೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ)

i) ನಳಚರಿತ್ರೆ

ii) ಮೋಹನತರಂಗಿಣಿ

iii) ರಾಮಧಾನ್ಯ ಚರಿತೆ

iv) ಹರಿಭಕ್ತಿಸಾರ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂ-2) ಸಾ.ಶಿ.ಮರುಳಯ್ಯ(ಸಂ)ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990
2. ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂ-3) ಜಿ.ಜಿ.ಮಂಜುನಾಥ(ಸಂ)ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990
3. ನಳಚರಿತ್ರೆ(ಸಂ) ದೇ.ಜವರೇಗೌಡ ಕನಕ ಚತುಶ್ವತಮಾನೋತ್ಸವ ಸಮಿತಿ,ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು
4. ಕನಕ ಚಿಂತನ(2009-10)ಕನಕದಾಸ ಸಂಶೋಧನ ಪೀಠ,ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ,ಮಂಗಳೂರು ಸಂ: ಡಾ.ಶಿವರಾಮಶೆಟ್ಟಿ, ಅಕ್ಷಯಶೆಟ್ಟಿ, ರಾಧಿಕಾ, ಡಾ.ಹಜರತ್ ಎಚ್.ನದಾಫ್
5. ಮೋಹನತರಂಗಿಣಿ : ಸಾಂಸ್ಕೃತಿಕ ಸಂವಾದ ಡಾ.ರವಿರಾಜಶೆಟ್ಟಿ ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ-2011
6. ನಳಚರಿತ್ರೆ ಒಂದು : ಹೊಸನೋಟ : ಡಾ.ಬಿ.ಬಿ.ಬಿರಾದಾರ, ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ-2008
7. ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-1. ರಾಮಧಾನ್ಯಚರಿತೆ : ಡಾ.ಸರೋಜಿನಿ ಹಿರೇಮಠ ಮತ್ತು ಡಾ.ಬಿ.ಕೆ.ರವಿ, ಪ್ರ : ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2013

8. ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-2. ನಳಚರಿತ್ರೆ : ಡಾ.ಎಚ್.ಎಚ್.ನದಾಫ್ ಮತ್ತು ಡಾ.ಬಿ.ಕೆ.ರವಿ,  
ಪ್ರ : ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2013
9. ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-3. ಮೋಹನತರಂಗಿಣಿ : ಡಾ.ಸಿ.ಡಿ.ದೊಡ್ಡಮನಿ ಮತ್ತು ಪ್ರ:  
ಡಾ.ಬಿ.ಕೆ.ರವಿ, ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2013
10. ಕನಕದಾಸರ ಸಾಹಿತ್ಯದ ತಾತ್ವಿಕ ನೆಲೆಗಳು : ಡಾ.ಕೆ.ಕೇಶವಶರ್ಮ ಪ್ರ : ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ  
ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2015
11. Kanaka's Revolution A Readical Reading By Dr.K.Raghavendra Rao,  
Publisher Prasaraṅga Karnatak University,Dharwad-2017
12. ಕನಕ ಸಮಗ್ರ ಕಾವ್ಯ ಸಂಪುಟ (ಸಂ)-ಪ್ರೊ.ಎ.ವಿ.ನಾವಡ

### DP17103 ಪತ್ರಿಕೆ-III ಕನಕದಾಸರ ಕೀರ್ತನ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ

ಒಟ್ಟು : 100 ಅಂಕಗಳು

ಬೋಧನಾವಧಿ ವಾರಕ್ಕೆ 3 ಗಂಟೆ

ಉದ್ದೇಶ :

- ಕನ್ನಡ ಸಾಹಿತ್ಯಕ್ಕೆ ಕನಕದಾಸರು ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
- ಕನಕದಾಸರ ಕಾವ್ಯಗಳು, ಕೀರ್ತನೆಗಳು, ಮುಂಡಿಗೆಗಳು, ಸುಳಾದಿಗಳು, ಉಗಾಭೋಗಗಳು ಮತ್ತು ಇತರೆ ಲಘು ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳನ್ನು ಅಧ್ಯಯನಿಸುವುದು.

ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು:

1. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತಿಳಿಯಲು ಸಹಾಯಕವಾಗುವುದು.
2. ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳನ್ನು ವಿವಿಧ ವೈಚಾರಿಕ ನೆಲೆಗಳ ಹಿನ್ನೆಲೆಯ ಜೊತೆಗೆ ಭಾಷಿಕ-ಜಾನಪದೀಯ ನೆಲೆಯ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಅಧ್ಯಯನ ಕೈಕೊಳ್ಳುವುದು.
3. ಕೀರ್ತನೆಗಳಲ್ಲಿಯ ವಿವಿಧ ಆಯಾಮಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.
4. ಕನಕದಾಸರ ಲಘುಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳಲ್ಲಿ ಅಡಕವಾಗಿರುವ ಲೌಕಿಕ ಮತ್ತು ಅಲೌಕಿಕ ಬದುಕಿನ ವಿಚಾರಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು
5. ಕನಕದಾಸರ ಕುರಿತು ಸಂಶೋಧನ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕ ವಾಗುವುದು.

ಪಠ್ಯಕ್ರಮ ವಿವರ :

- 1) ಕೀರ್ತನ ಸಾಹಿತ್ಯ ಪರಿಕಲ್ಪನೆ : ಕೀರ್ತನ ಸಾಹಿತ್ಯದ ಹುಟ್ಟು-ಬೆಳವಣಿಗೆ : ಸ್ವರೂಪ-ಲಕ್ಷಣಗಳು
- 2) ಕೀರ್ತನ ಸಾಹಿತ್ಯ ರಚನೆಯ ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ-ಪ್ರಮುಖ ಕೀರ್ತನಕಾರರು
- 3) ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳು -ವಿವಿಧ ಆಯಾಮಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ : ಸಾಮಾಜಿಕ-ಧಾರ್ಮಿಕ, ಭಕ್ತಿ ಪರಿಕಲ್ಪನೆ, ವಿಡಂಬನೆ, ಆತ್ಮನಿವೇದನೆ, ಜಾನಪದೀಯ ಮತ್ತು ಭಾಷಿಕ ಅಂಶಗಳು
- 4) ಕನಕ-ಪುರಂದರದಾಸರ ಕೀರ್ತನೆಗಳು : ತೌಲನಿಕ ವಿವೇಚನೆ
- 5) ಕನಕದಾಸರ ಲಘು ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು : ಅವಲೋಕನ-ಕೀರ್ತನೆಗಳು, ಮುಂಡಿಗೆಗಳು, ಸುಳಾದಿಗಳು, ಉಗಾಭೋಗಗಳು(ಸ್ವರೂಪ-ಲಕ್ಷಣ-ವಸ್ತು ವೈವಿಧ್ಯತೆ ಇತ್ಯಾದಿ)

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು:

- 1) ನಾವಡ ಎ.ವಿ.(ಡಾ)ನಾವಡ ಗಾಯತ್ರಿ -ಸಾವಿರಾರು ಕೀರ್ತನೆಗಳು-ಕನಕದಾಸ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ,ಎಂ.ಜಿ.ಎಂ.ಕಾಲೇಜು, ಉಡುಪಿ-೨೦೧೧
- 2) ಕನಕದಾಸರು ಮತ್ತು ಆಧುನಿಕ ಚಿಂತನೆಗಳು : ಮುಖಾಮುಖಿ-ಡಾ.ಬಿ.ವಿ.ಶಿರೂರ ಪ್ರ : ಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ
- 3) ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳು-ಬಿ.ಶಿವಮೂರ್ತಿಶಾಸ್ತ್ರಿ ಮತ್ತು ಎಂ.ವೆಂಕಟರಾವ್ , ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು
- 4) ಕನಕದಾಸರ ಜನಪ್ರಿಯ ಕೀರ್ತನೆಗಳು : ಹೊ.ರಾ.ಸತ್ಯನಾರಾಯಣ(ಸಂ)ಅಂಕಿತ ಪ್ರಕಾಶನ,ಬೆಂಗಳೂರು
- 5) ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂ-4) ಕನಕದಾಸರ ಮುಂಡಿಗೆಗಳು-ಸುಳಾದಿಗಳು-ಪ್ರೊ.ಸುಧಾಕರ (ಸಂ) ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990
- 6) ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳು : ವೈಚಾರಿಕ ನೆಲೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ-ಪ್ರೊ.ಎಂ.ಎನ್.ಜೋಶಿ ಪ್ರಕಾಶಕರು, ಪ್ರಸಾರಾಂಗ,ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2019
- 5) ಪುರಂದರ ಮುಂಡಿಗೆಗಳು : ಭಾಗ-1 :ಪಂಡಿತ ಜಯತೀರ್ಥಾಚಾರ್ಯ ಮಳಗಿ, ಶ್ರೀ ಪುರಂದರೋತ್ಸವ ಸಮಿತಿ,ಧಾರವಾಡ-2010.

ಉದ್ದೇಶ :

- ಕನಕದಾಸರು ಮತ್ತು ಇತರ ಅನುಭಾವಿಗಳ(ತತ್ವಜ್ಞಾನಿಗಳ)ನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.
- ಕನಕದಾಸರೊಂದಿಗೆ ಇತರ ಭಾರತೀಯ ತತ್ವಶಾಸ್ತ್ರಜ್ಞರ(ದಾರ್ಶನಿಕರ) ಹಾಗೂ ಪಾಶ್ಚಿಮಾತ್ಯ ತತ್ವಶಾಸ್ತ್ರಜ್ಞರ (ದಾರ್ಶನಿಕರ)ಚಿಂತನೆಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವುದು

ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು

1. ಕನಕದಾಸ ಮತ್ತು ಇನ್ನಿತರ ತತ್ವಶಾಸ್ತ್ರಜ್ಞರ ವಿಚಾರಗಳನ್ನು ಕಲಿತುಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
2. ಭಾರತೀಯ ತತ್ವಶಾಸ್ತ್ರಜ್ಞರುಗಳ(ದಾರ್ಶನಿಕತೆ) ನಡುವಿನ ಸಂಬಂಧವನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತಿಳಿದುಕೊಳ್ಳಲು ಸಹ ಸಹಾಯಕಾರಿಯಾಗುವುದು.
3. ಕನಕದಾಸರು ಮತ್ತು ಇತರ ಹರಿದಾಸರ ಕಾವ್ಯ-ಕೀರ್ತನೆಗಳಲ್ಲಿಯ ಸಾಮಾಜಿಕ-ಆರ್ಥಿಕ-ಧಾರ್ಮಿಕ ಮನೋವೃತ್ತಿಯ ತಾತ್ವಿಕ ವಿಷಯಗಳನ್ನು ಕಂಡುಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
4. ಕನಕದಾಸರ ಸಾಮರಸ್ಯತೆಯ ಬದುಕಿನ ಘಟ್ಟಗಳ ಕುರಿತು ಅರಿತುಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
5. ಕನಕದಾಸರ ಕುರಿತಾಗಿ ಸಂಶೋಧನಾ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕವಾಗುವುದು.

ಪಠ್ಯಕ್ರಮ ವಿವರ :

1. ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ : ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳು, ಪ್ರಮುಖ ಕವಿಗಳು, ಕೃತಿಗಳು, ಚಿಂತನೆಗಳು(ಸಾಮಾಜಿಕ-ಧಾರ್ಮಿಕ ಚಿಂತನೆಗಳು)
2. ಮಹಾವೀರ-ಬುದ್ಧ-ಬಸವ-ಪುರಂದರ-ಕನಕದಾಸರ ಚಿಂತನೆಗಳ ವಿಶ್ಲೇಷಣೆ : ರಾಜಕೀಯ, ಧಾರ್ಮಿಕ-ಸಾಮಾಜಿಕ ಪರಿಸರಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ
3. ಕನಕದಾಸರು-ಪ್ರಮುಖ ವಚನಕಾರರು ಹಾಗೂ ಪ್ರಮುಖ ಕೀರ್ತನಕಾರರು ತೌಲಿಕನೋಟ
- 4) i) ಕನಕ-ತಿರುವಳ್ಳುವರ್  
ii) ಕನಕ-ವೇಮನ  
iii) ಕನಕ-ಕಬೀರ  
iv) ಉತ್ತರ ಭಾರತದ ಸಂತ ಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು  
v) ಮಹಾರಾಷ್ಟ್ರ ಸಂತ ಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು  
vi) ಕನಕ-ಸರ್ವಜ್ಞ vii) ಕನಕ-ಶಿಶುನಾಳ ಶರೀಫ್  
viii) ಕನಕ-ಕಡಕೋಳ ಮಡಿವಾಳಪ್ಪ ix) ಕನಕ-ಕುವೆಂಪು x) ಕನಕ-ಮಹಾವೀರ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

1. ಅಕ್ಕೂರಮಠ ಷಣ್ಮುಖಯ್ಯ (ಸಂ ವಚನಕಾರರ ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳು),ಶ್ರೀ ಸರ್ಪಭೂಷಣ ಶಿವಯೋಗೀಶ್ವರಮಠ,ಬೆಂಗಳೂರು-೧೯೯೪
2. ಕುಲಕರ್ಣಿ ಮೇಧಾ ಎಂ. -ಕನಕದಾಸ ಹಾಗೂ ಏಕನಾಥ : ಒಂದು ತೌಲಿಕ ಅಧ್ಯಯನ- ಅಭಿಜಿತ ಪ್ರಕಾಶನ,ಮುಂಬಯಿ-೨೦೦೭
3. ಕೇಶವಶರ್ಮಾ ಕೆ. (ಡಾ) -ಕಾವ್ಯತತ್ವಗಳು ಮತ್ತು ಕನಕರ ಕಾವ್ಯಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-೨೦೧೯


4. ಗುಬ್ಬಣ್ಣವರ ಶಿವಾನಂದ(ಸಂ) - ಶಿಶುನಾಳ ಶರೀಫರ ತತ್ವಪದಗಳು, ರಾಷ್ಟ್ರೀಯ ಸಂತಕವಿ ಕನಕದಾಸ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನ ಕೇಂದ್ರ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ,ಬೆಂಗಳೂರು
5. ಜಯರಾಮನ್ ಕೆ.- ತಿರುಕ್ಕುರಳ್ ಜೀವನ ಧರ್ಮ ಭಾರತೀ ಪಬ್ಲಿಕೇಷನ್ಸ್, ಮೈಸೂರು
6. ದತ್ತಾತ್ರೇಯ ಅವಧೂತರು-ಸಂತರ ಆತ್ಮ ಚರಿತ್ರೆ ಚೈತನ್ಯ ಪ್ರಕಾಶನ,ಹೆಬ್ಬಳ್ಳಿ-೨೦೦೨
- 7.ನಾಗರತ್ನ ಟಿ.ಎನ್.(ಡಾ.)-ಹರಿದಾಸರ ಭಕ್ತಿಸ್ವರೂಪ- ಪ್ರಸಾರಾಂಗ ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ,ಮೈಸೂರು-೧೯೮೬
- 8.ಮರುಳಯ್ಯ,ಸಾ.ಶಿ.-ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂಪುಟ-೨)- ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-೧೯೯೦
- 9.ಮಂಜುನಾಥ ಜಿ.ಜಿ.-ಕನಕ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂಪುಟ-3)- ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990
- 10.ಸಬರದ ಬಸವರಾಜ (ಡಾ.) (ಸಂ)-ಪುರಂದರದಾಸರ ಕೀರ್ತನೆಗಳು ಭಾಗ-೧ ಮತ್ತು ೨. ಸಂಪುಟ-೧-೨.ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು 1990.
- 11.ಶ್ರೀನಿವಾಸ ಪಾ.ಶ.(ಡಾ.)- ಕಬೀರ ಬೀರಿದ ಬೆಳಕು-ಸ್ವಾಮಿ ಪುರುಷೋತ್ತಮಾನಂದ ತಿರುಕ್ಕುರಳ್
- 12.ಸತ್ಯನಾರಾಯಣ ಎಚ್.ಆರ್.-ಕನಕದಾಸರ ಜನಪ್ರಿಯ ಕೀರ್ತನೆ ಅಂಕಿತ ಪುಸ್ತಕ,ಬೆಂಗಳೂರು-೨೦೦೩

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ವಿವರ

ಒಟ್ಟು ಅಂಕಗಳು : 100

ಒಟ್ಟು 5 ಪ್ರಶ್ನೆಗಳು : ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಸಮಾನ ಅಂಕಗಳು(20)

- ಪ್ರಶ್ನೆ : 1. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 20 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 2. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 20 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 3. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 20 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 4. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 20 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 5. ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ ಬೇಕಾದ ಮೂರಕ್ಕೆ 5x4 = 20 ಅಂಕಗಳು  
(ಆರು ಟಿಪ್ಪಣಿಗಳು)

  
ಸಂಯೋಜಕರು  
ಕನಕ ಅಧ್ಯಯನ ವಿಠೆ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ-03

  
Prof Mallikarjun Patil  
Dean, Arts Faculty  
K.U. Dharwad-580003



'A' NAAC Accredited  
University With Potential for Excellence

ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

KARNATAK UNIVERSITY, DHARWAD

“University with potential for excellence”

ದೂರವಾಣಿ : ೦೮೩೬-೨೪೪೧೮೮೯

(O):0836-2441889

ಕನಕ ಅಧ್ಯಯನ ಪೀಠ

INSTITUTE OF KANAKA STUDIES

DP17201 ಕನಕದಾಸರ ಜೀವನ ಮತ್ತು ಸಾಹಿತ್ಯ

ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯ(Open Elective Course)

ಪಿ.ಜಿ.ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್

ಪಠ್ಯಕ್ರಮ-2018ನೇ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ

ಬೋಧನಾ ಅವಧಿ : ವಾರಕ್ಕೆ 4 ಗಂಟೆ

ಒಟ್ಟು : 100 ಅಂಕಗಳು

ಪತ್ರಿಕೆ

ಅಂಕಗಳು : 75

ಆಂತರಿಕ ಕಿರುಪರೀಕ್ಷೆ : 11+11=22

ಹಾಜರಾತಿ : 03

ಉದ್ದೇಶ :

- ಕನಕದಾಸರ ಜೀವನ, ಕಾಲ ಮತ್ತು ಅವರ ಸಾಧನೆಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವುದು.
- ಕನಕದಾಸರ ಸಾಧನೆಗೆ ಪ್ರಭಾವ ಬೀರಿರುವ ತಾತ್ವಿಕ ಅಂಶಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವುದು.

ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು :

1. ಕನಕದಾಸರಸಮಗ್ರ ಬದುಕು-ಬರಹಗಳನ್ನು ಸಾಹಿತ್ಯದ ವಿವಿಧ ಆಯಾಮಗಳ ನೆಲೆಯಲ್ಲಿ, ಅಧ್ಯಯನ ಕೈಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
2. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ತಿಳಿಯಲು ಸಹಾಯಕವಾಗುವುದು.
3. ಕವಿ ಮತ್ತು ಸಾಮಾಜಿಕ ಸುಧಾರಕನಾಗಿ ಸಂತ ಕನಕದಾಸರನ್ನು ಕಂಡುಕೊಳ್ಳುವುದು.
4. ಕನಕದಾಸರ ಸಾಧನೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಾಯವಾಗುವುದು.
5. ಕನಕದಾಸರ ಕುರಿತು ಸಂಶೋಧನೆಯ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕವಾಗುವುದು.

## ಪತ್ಯಕ್ರಮ ವಿವರ :

1. ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ : ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ, ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳು  
ಪ್ರಮುಖ ಕವಿಗಳು-ಕೃತಿಗಳು
2. ವಚನ ಸಾಹಿತ್ಯ-ದಾಸ ಸಾಹಿತ್ಯ : ಸ್ವರೂಪ-ಲಕ್ಷಣ-ಪರಂಪರೆ-ವಸ್ತುವೈವಿಧ್ಯತೆ : ಪ್ರಮುಖ  
ವಚನಕಾರರು-ಪ್ರಮುಖ ಕೀರ್ತನಕಾರರು
3. ಕನಕದಾಸರ ಜೀವನ-ಕಾಲ-ಕೌಟುಂಬಿಕ ಹಿನ್ನೆಲೆ, ಸಮಕಾಲೀನ ಪರಿಸರ (ಸಾಮಾಜಿಕ-  
ಧಾರ್ಮಿಕ-ರಾಜಕೀಯ)
4. ಕನಕದಾಸರ ಸಾಹಿತ್ಯ : ಸಂಕ್ಷಿಪ್ತ ಅವಲೋಕನ
  - 4.1 ಕಾವ್ಯ
    - 4.1.1 ನಳಚರಿತ್ರೆ
    - 4.1.2 ಹರಿಭಕ್ತಿಸಾರ
    - 4.1.3 ಮೋಹನತರಂಗಿಣಿ
    - 4.1.4 ರಾಮಧಾನ್ಯ ಚರಿತೆ
  - 4.2 ಕನಕದಾಸರ ಕೀರ್ತನ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ
    - 4.2.1 ಕೀರ್ತನ ಸಾಹಿತ್ಯ ; ಪರಂಪರೆ-ಸ್ವರೂಪ-ಲಕ್ಷಣಗಳು-ವಸ್ತುವೈವಿಧ್ಯತೆ-ಪ್ರಮುಖ  
ಹರಿದಾಸರು ಮತ್ತು ಅವರ ಕೀರ್ತನೆಗಳು
    - 4.2.3 ಕನಕದಾಸರ ಕೀರ್ತನಗಳು :ವಿವಿಧ ನೆಲೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ
      - 4.2.3.1 ಸಾಮಾಜಿಕ ಚಿಂತನೆಗಳು
      - 4.2.3.2 ಧಾರ್ಮಿಕ-ತಾತ್ವಿಕ
      - 4.2.3.3 ಆತ್ಮನಿವೇದನೆ
      - 4.2.3.4 ವಿಡಂಬನೆ-ಮೂಢನಂಬಿಕೆಗಳು
      - 4.2.3.5 ಭಕ್ತಿ ಪರಿಕಲ್ಪನೆ
      - 4.2.3.6 ವೈಚಾರಿಕ ಪ್ರಜ್ಞೆ
      - 4.2.3.7 ಜಾನಪದೀಯ ಅಂಶಗಳು
      - 4.2.3.8 ಭಾಷಿಕ ನೆಲೆಗಳು
5. ಕನಕದಾಸರ ಇತರ ಲಘು ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು
  - 5.1 ಮುಂಡಿಗೆಗಳು
  - 5.2 ಸುಳಾದಿಗಳು
  - 5.3 ಉಗಾಭೋಗಗಳು

## ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

ಅರಗಂಜಿ ಧೂಳೇಂದ್ರ (ಡಾ.)-ಕನಕದಾಸರ ಭಕ್ತಿ ಪದಗಳು- ಪಾರು ಪ್ರಕಾಶನ,ಗದಗ-೨೦೦೦  
ಅಂಗಡಿ ಎಸ್.ಎಸ್. (ಡಾ.)- ದಾಸಸಾಹಿತ್ಯ ಶಿಲ್ಪಿ ,ಪ್ರಸಾರಾಂಗ ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಹಂಪಿ-2005  
ಕಟ್ಟಿ ಶೇಷಾಚಾರ್ಯ&ಕಟ್ಟಿ ಎನ್.ಜಿ - ಕವಿ ಕನಕದಾಸ, ನಾಗನೂರು ರುದ್ರಾಕ್ಷಿಮಠ,ಬೆಳಗಾವಿ-1938  
ಗುಡಿ ಆರ್.ಜಿ.- ದಾಸ ಸಾಹಿತ್ಯ ; ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ- ಶ್ರೀನಿಧಿ ಪ್ರಕಾಶನ ಅಥಣಿ  
ಚಿಕ್ಕಣ್ಣ ಕಾ.ತಾ., ಕನಕ ಕಿರಣ- ಕಾಳಿದಾಸ ಸಾಹಿತ್ಯ ಸಂಘ,ಬೆಂಗಳೂರು-1982  
ಜವರೇಗೌಡ ದೇ.(ಸಂ)-ಕನಕದಾಸರ ಸಾಹಿತ್ಯ ದರ್ಶನ(ಸಂಪುಟ-1) ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990.  
ಜವರೇಗೌಡ ದೇ.(ಸಂ)-ಜನಪ್ರಿಯ ಕನಕ ಸಂಪುಟ(ಸಂ-1) ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು-1990.  
ಜೋಶಿ ಎಂ.ಎನ್.(ಪ್ರೊ.)- ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳು ; ವೈಚಾರಿಕ ನೆಲೆಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ, ಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ  
ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ  
ತಳಗೇರಿ ಕೆ.ಬಿ.-ದಾಸವರೇಣ್ಯ ಕನಕದಾಸರ ರಾಮಧಾನ್ಯ ಚರಿತ್ರೆ- ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ-೧೯೯೮  
ನಾರಾಯಣ ಪಿ.ವಿ.- ವಚನ ಸಾಹಿತ್ಯ : ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ ತೋಟದಾರ್ಯ  
ಮಠ, ಗದಗ-2010  
ನಾಗರತ್ನ ಟಿ.ಎನ್. (ಡಾ.)- ಕನಕದಾಸ -ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು-2000  
ನಾಗರತ್ನ ಟಿ.ಎನ್. (ಡಾ.)- ಕನಕದಾಸರ ಸಾಹಿತ್ಯ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು-2000

ನಾವಡ ಎ.ವಿ.(ಡಾ)ನಾವಡ ಗಾಯತ್ರಿ -ಸಾವಿರಾರು ಕೀರ್ತನೆಗಳು-ಕನಕದಾಸ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ,ಎಂ.ಜಿ.ಎಂ.ಕಾಲೇಜು, ಉಡುಪಿ-  
೨೦೧೧

ಪಂಚಮುಖಿ ಎಸ್.ಆರ್.- ಕರ್ನಾಟಕ ಹರಿದಾಸ ಸಾಹಿತ್ಯ ಪ್ರಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು,ಬೆಂಗಳೂರು

ಭಟ್ಟ ಶಂಕರನಾರಾಯಣ ಹಾತೂರು- ಕನಕದಾಸರ ನಳಚರಿತ್ರೆ- ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು,ಬೆಂಗಳೂರು-೨೦೦೪

ಮರುಳಯ್ಯಸಾ.ಶಿ.-ಕನಕದಾಸರ ಸಾಹಿತ್ಯ ದರ್ಶನ-ಸಂ-2 ಕನ್ನಡ ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ,ಬೆಂಗಳೂರು-1991

ರವಿ ಬಿ.ಕೆ. (ಡಾ.), ಹಿರೇಮಠ ಸರೋಜಿನಿ (ಡಾ)- ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-1, ರಾಮಧಾನ್ಯಚರಿತೆ,ಪ್ರಸಾರಾಂಗ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ-2013

ರವಿ ಬಿ.ಕೆ. (ಡಾ.) ನದಾಫ್ ಎಚ್.ಎಚ್. (ಡಾ) ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-2.ನಳಚರಿತ್ರೆ- ಪ್ರಸಾರಾಂಗ ಕರ್ನಾಟಕ  
ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ

ರವಿ ಬಿ.ಕೆ. (ಡಾ), ದೊಡ್ಡಮನಿ ಸಿ.ಡಿ. (ಡಾ)- ಕನಕದಾಸರ ಸಮಗ್ರ ಕಾವ್ಯಾಧ್ಯಯನ ಭಾಗ-3, ಮೋಹನತರಂಗಿ ಪ್ರಸಾರಾಂಗ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ,ಧಾರವಾಡ

ವೆಂಕಟೇಶಮೂರ್ತಿ ಎಚ್.ಎಸ್- ಕೀರ್ತನಕಾರರು-ಭಾರತೀ ಪ್ರಕಾಶನ,ಬೆಂಗಳೂರು-೨೦೧೦

ಸುಧಾಕರ (ಪ್ರೊ).-ಕನಕದಾಸರ ಕೀರ್ತನೆಗಳು ಮತ್ತು ಮುಂಡಿಗೆಗಳು(ಸಂಪುಟ-4)-(ಸಂ ಕರ್ನಾಟಕ ಸರ್ಕಾರ, ಬೆಂಗಳೂರು-1994.

ಸುನಂದಮ್ಮ ಟಿ. (ಡಾ).-ದಾಸಸಾಹಿತ್ಯದಲ್ಲಿ ಜನಪದೀಯ ಅಂಶಗಳು: ಒಂದು ಅಧ್ಯಯನ- ಪ್ರಸಾರಾಂಗ ಬೆಂಗಳೂರು

ವಿಶ್ವವಿದ್ಯಾಲಯ,ಬೆಂಗಳೂರು-1984

ಹೊಸೂರು ಜ್ಯೋತಿ (ಪ್ರೊ)- ಕನಕದಾಸರ ಜೀವನ ವಿಚಾರ -ಕಾಲಗತಿ ಪ್ರಕಾಶನ,ರಾಯಚೂರು-1983

ಹೊಸೂರು ಜ್ಯೋತಿ (ಪ್ರೊ)- ಅಂತಃಸತ್ತ್ವದ ಸಾಧಕ ಕನಕದಾಸ -ಕಾಲಗತಿ ಪ್ರಕಾಶನ,ಬೆಳಗಾವಿ-2006

ಶೆಟ್ಟಿ ಶಿವರಾಮ (ಡಾ.), (ಸಂ)- ಕನಕ ಚಿಂತನ-ಪ್ರಧಾನ ಕನಕದಾಸ ಸಂಶೋಧನ ಪೀಠ, ಮಂಗಳೂರು-2009-2010.

ಸತ್ಯನಾರಾಯಣ ಹೊ.ರಾ. (ಸಂ)- ಸಾವಿರ ಕೀರ್ತನೆಗಳು ಕನಕದಾಸರ ಜನಪ್ರಿಯ ಕೀರ್ತನೆಗಳು- ಅಂಕಿತ ಪ್ರಕಾಶನ,ಬೆಂಗಳೂರು

ಸಣ್ಣಯ್ಯ ಬಿ.ಎಸ್.- ಕನಕದಾಸರ ಮೋಹನತರಂಗಿಣಿ -ಜನಪದ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ,ಮೈಸೂರು-೧೯೬೩

## ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ವಿವರ

ಒಟ್ಟು ಅಂಕಗಳು : 75

ಒಟ್ಟು 5 ಪ್ರಶ್ನೆಗಳು : ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಸಮಾನ ಅಂಕಗಳು(15)

ಪ್ರಶ್ನೆ : 1. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

ಅಥವಾ

ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

15 ಅಂಕಗಳು

ಪ್ರಶ್ನೆ : 2. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

ಅಥವಾ

ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

15 ಅಂಕಗಳು

ಪ್ರಶ್ನೆ : 3. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

ಅಥವಾ

ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

15 ಅಂಕಗಳು

ಪ್ರಶ್ನೆ : 4. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

ಅಥವಾ

ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ

15 ಅಂಕಗಳು

ಪ್ರಶ್ನೆ : 5. ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ ಬೇಕಾದ ಮೂರಕ್ಕೆ 5x3 =

15 ಅಂಕಗಳು

(ಆರು ಟಿಪ್ಪಣಿಗಳು)



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KARNATAK UNIVERSITY, DHARWAD

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ದೂರವಾಣಿ : ೦೮೩೬-೨೪೪೧೮೮೯

(O):0836-2441889

ಕನಕ ಅಧ್ಯಯನ ಪೀಠ

INSTITUTE OF KANAKA STUDIES

DP17301 ಅನುಭಾವ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು

ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯ(Open Elective Course)

ಪಿ.ಜಿ.ತೃತೀಯ ಸೆಮಿಸ್ಟರ್

ಪಠ್ಯಕ್ರಮ-2018ನೇ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ

ಬೋಧನಾ ಅವಧಿ : ವಾರಕ್ಕೆ 4 ಗಂಟೆ

ಒಟ್ಟು ಅಂಕಗಳು : 100

ಪತ್ರಿಕೆ ಅಂಕಗಳು : 75

ಆಂತರಿಕ ಅಂಕಗಳು(ಕಿರುಪರೀಕ್ಷೆ)+ ಹಾಜರಾತಿ =25

ಉದ್ದೇಶ :

6. ಕನ್ನಡ ಸಾಹಿತ್ಯಕ್ಕೆ ಕನಕದಾಸರು ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವುದು.
7. ಅನುಭಾವಿ ಕವಿಗಳ ಜೊತೆ-ಜೊತೆಗೆ ಕನಕದಾಸರ ಅನುಭವಾತ್ಮಕ ನೆಲೆಗಳನ್ನು ಅಧ್ಯಯನಿಸುವುದು.

ಕಲಿಕೆಯ ಫಲಿತಾಂಶಗಳು:

1. ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಆಧುನಿಕ ಸಾಹಿತ್ಯ(18-19ನೇ ಶತಮಾನ) : ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ ; ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳು, ಪ್ರಮುಖ ಕವಿಗಳು, ಕೃತಿಗಳು ಕನಕದಾಸರ ಬದುಕು-ಬರಹ ; ಸಂಕ್ಷಿಪ್ತ ಅವಲೋಕನ
2. ಅನುಭಾವ ಪದಗಳು, ನುಡಿಗಳು, ತತ್ವಪದಗಳು, ವಚನಗಳು, ಕೀರ್ತನೆಗಳು ಸಮಾಜದ ಸರ್ವಾಂಗೀಣ ಬೆಳವಣಿಗೆಗೆ, ಪರಿವರ್ತನೆಗೆ ಹೇಗೆ ಮೂಲ ಸೆಲೆಗಳಾಗಿವೆ. ಇವರಿಗೆ ತಿಳಿಯಲು ಸಹಾಯಕವಾಗುವುದು.
3. ಅನುಭಾವ ಪರಂಪರೆಯಲ್ಲಿ ಆಗಿ ಹೋಗಿರುವ ನಿಜಗುಣ ಶಿವಯೋಗಿಗಳು, ಮುಖ್ಯನ ಪಡಕ್ಷರಿಗಳು, ಪುರಂದರದಾಸರಾದಿಯಾಗಿ ಇತರ ದಾಸರು, ಶಿಶುನಾಳ ಶರೀಫ್, ಸರ್ವಜ್ಞ, ಕಡಕೋಳ ಮಡಿವಾಳಪ್ಪ ಮುಂತಾದವರು ತಮ್ಮ ಜೀವನಾನುಭವಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ರಚಿಸಿರುವ ದಾಸಶ್ರೇಷ್ಠ, ಶ್ರೇಷ್ಠ ಅನುಭಾವಿ ಕವಿ ಕನಕದಾಸರ ಪ್ರಗಲ್ಭಚಿಂತನೆಗಳನ್ನು ಇತರ ಅನುಭಾವಿ ಕವಿಗಳೊಡನೆ ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.
4. ದಾಸಶ್ರೇಷ್ಠ, ಶ್ರೇಷ್ಠ ಅನುಭಾವಿ ಕವಿ ಕನಕದಾಸರ ಚಿಂತನೆಗಳನ್ನು ಇತರ ಉತ್ತರ ಭಾರತದ ಸಂತಪರಂಪರೆಯ ಅನುಭಾವಿ ಕವಿಗಳೊಡನೆ ಕಲಿಕೆದಾರರು ಅರ್ಥೈಸಿಕೊಳ್ಳಲು ಸಾಧ್ಯವಾಗುವುದು.

5. ಕನಕದಾಸರ ಕುರಿತು ಸಂಶೋಧನ ಅಧ್ಯಯನಕ್ಕೆ ವಿದ್ಯಾರ್ಥಿಗಳಲ್ಲಿ ಆಸಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಲು ಸಹಾಯಕ ವಾಗುವದು.

**ಪಠ್ಯಕ್ರಮ ವಿವರ :**

- 1) ನಡುಗನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಆಧುನಿಕ ಸಾಹಿತ್ಯ(18-19ನೇ ಶತಮಾನ) : ಹಿನ್ನೆಲೆ-ಪ್ರೇರಣೆ-ಪ್ರಭಾವ ; ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿವಿಧ ಪ್ರಕಾರಗಳು, ಪ್ರಮುಖ ಕವಿಗಳು, ಕೃತಿಗಳು ಕನಕದಾಸರ ಬದುಕು-ಬರಹ ; ಸಂಕ್ಷಿಪ್ತ ಅವಲೋಕನ
- 2) ಅನುಭಾವ ಪದನಿಷ್ಪತ್ತಿ ; ಪರ್ಯಾಯ ಪದಗಳು ; ಭಾರತೀಯ-ಪಾಶ್ಚಾತ್ಯ ಸಂದರ್ಭದಲ್ಲಿ ; ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಅನುಭಾವ ಪರಂಪರೆ ವಿವೇಚನೆ
- 3) ಕನಕದಾಸರು -ಪ್ರಮುಖ ಅನುಭಾವಿ ಕವಿಗಳು : ತೌಲನಿಕ ವಿವೇಚನೆ
  - 4 : 1. ಕನಕದಾಸರು-ತಿರುವಳ್ಳವರ್
  - 4 : 2. ಕನಕದಾಸರು-ವೇಮನ
  - 4 : 3. ಕನಕದಾಸರು--ಬಸವಣ್ಣ ಹಾಗೂ ಪ್ರಮುಖ ವಚನಕಾರರು
  - 4 : 4. ಕನಕದಾಸರು--ಪುರಂದರದಾಸರು ಮತ್ತು ಪ್ರಮುಖದಾಸರು
  - 4 : 5. ಕನಕದಾಸರು-ಮಹಾರಾಷ್ಟ್ರ ಸಂತಪರಂಪರೆ
  - 4 : 7. ಕನಕದಾಸರು-ಕಬೀರದಾಸರು
  - 4 : 8. ಕನಕದಾಸರು-ಶಿಶುನಾಳ ಶರೀಫ್ ಶಿವಯೋಗಿಗಳು,
  - 4 : 9. ಕನಕ-ಸರ್ವಜ್ಞ
  - 4 : 10. ಕನಕ-ಕಡಕೋಳ ಮಡಿವಾಳಪ್ಪ
  - 4 : 11. ಕನಕ-ಮೀರಾಬಾಯಿ
- 5) ಸಮಕಾಲೀನ ಸಂದರ್ಭದಲ್ಲಿ ಅನುಭಾವ ಸಾಹಿತ್ಯದ ಪ್ರಸ್ತುತೆ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

1. ಗುಡಿ ಆರ್.ಜಿ., ದಾಸ ಸಾಹಿತ್ಯ ; ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ- ಶ್ರೀನಿಧಿ ಪ್ರಕಾಶನ ಅಥಣಿ ನಾರಾಯಣ ಪಿ.ವಿ ವಚನ ಸಾಹಿತ್ಯ : ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ- ಪಿ.ವಿ.ನಾರಾಯಣ, ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ ತೋಟದಾರ್ಯ ಮಠ, ಗದಗ-2010
3. ಗುಬ್ಬಣ್ಣವರ ಶಿವಾನಂದ ಶಿಶುನಾಳ ಶರೀಫರ ತತ್ವಪದಗಳು(ಸಂ) ಪ್ರ: ರಾಷ್ಟ್ರೀಯ ಸಂತಕವಿ ಕನಕದಾಸ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನ ಕೇಂದ್ರ, ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ,ಬೆಂಗಳೂರು
4. ಸಬರದ ಬಸವರಾಜ ಪುರಂದರದಾಸರ ಕೀರ್ತನೆಗಳು ಭಾಗ-೧ ಮತ್ತು ೨. ಸಂಪುಟ-೧-೨)-(ಸಂ), ಕರ್ನಾಟಕ ಸರ್ಕಾರ,ಬೆಂಗಳೂರು.

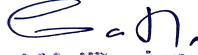
**ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ವಿವರ**

**ಒಟ್ಟು ಅಂಕಗಳು : 75**

**ಒಟ್ಟು 5 ಪ್ರಶ್ನೆಗಳು : ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ ಸಮಾನ ಅಂಕಗಳು (15)**

- ಪ್ರಶ್ನೆ : 1. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 15 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 2. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 15 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 3. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 15 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 4. ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ  
ಅಥವಾ  
ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ 15 ಅಂಕಗಳು
- ಪ್ರಶ್ನೆ : 5. ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ ಬೇಕಾದ ಮೂರಕ್ಕೆ 5x3 = 15 ಅಂಕಗಳು  
(ಆರು ಟಿಪ್ಪಣಿಗಳು)

  
ಸಂರಕ್ಷಣಾತ್ಮಕ  
ಕನಕ ವಿಶ್ವವಿದ್ಯಾಲಯ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ-03

  
Prof Mallikarjun Patil  
Dean, Arts Faculty  
K.U. Dharwad-580003



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**ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ**

# KARNATAK UNIVERSITY, DHARWAD

“University with potential for excellence”

ದೂರವಾಣಿ : ೦೮೩೬-೨೪೪೧೮೮೯

(O): 0836-2441889

## ಕನಕ ಅಧ್ಯಯನ ಪೀಠ

INSTITUTE OF KANAKA STUDIES

Ref. No:KU/Co.Kanaka Peetha/2017-18/

Date: 23-09-2017

### ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

### ಕನಕ ಅಧ್ಯಯನ ಪೀಠ

### ಅಡ್‌ಹಾಕ್ ಕಮೀಟಿ ಸಮಿತಿ ಸಭೆಯ ನಡಾವಳಿಗಳು

ಕನಕ ಅಧ್ಯಯನ ಪೀಠದ 2017-18ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನ ಅಡ್‌ಹಾಕ್ ಕಮೀಟಿ ಸಮಿತಿ ಸಭೆಯು ದಿನಾಂಕ 22-09-2017ರಂದು(ಶುಕ್ರವಾರ)ಸಾಯಂಕಾಲ 4 ಗಂಟೆಗೆ ಕ.ವಿ.ವಿ.ಸಂಸ್ಕೃತ ವಿಭಾಗದಲ್ಲಿ ಡಾ.ಬಿ.ಎಲ್.ನಡೋಣಿ ಡೀನರು ಕಲಾ ನಿಖಾಯ ಕ.ವಿ.ವಿ.ಧಾರವಾಡ ಇವರ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ಕ.ವಿ.ವಿ.ಸಂಸ್ಕೃತ ವಿಭಾಗದಲ್ಲಿ ಜರುಗಿತು. ಸಭೆಗೆ ಈ ಕೆಳಗೆ ಸೂಚಿಸಿರುವ ಸದಸ್ಯರು ಹಾಜರಿದ್ದರು.

- 1) ಡಾ.ಬಿ.ಎಲ್.ನಡೋಣಿ, ಡೀನರು ಕಲಾ ನಿಖಾಯ, ಅಧ್ಯಕ್ಷರು ಸಂಸ್ಕೃತ ವಿಭಾಗ ಕ.ವಿ.ವಿ.ಧಾರವಾಡ
- 2) ಡಾ.ಜಿ.ಎಂ.ನಾಗಯ್ಯ, ಅಧ್ಯಕ್ಷರು ಡಾ.ಆರ್.ಸಿ.ಹಿರೇಮಠ ಕನ್ನಡ ಅಧ್ಯಯನ ಪೀಠ ಕ.ವಿ.ವಿ.ಧಾರವಾಡ
- 3) ಡಾ.ಬಿ.ವಿ.ಯಕ್ಕುಂಡಿಮಠ, ಸಂಯೋಜಕರು ಕನಕ ಅಧ್ಯಯನ ಪೀಠ ಕ.ವಿ.ವಿ.ಧಾರವಾಡ

### ಸಭೆಯ ನಡಾವಳಿಗಳು

**ವಿಷಯ 1 :** 2016-17ನೇ ಸಾಲಿನ ಸ್ನಾತಕೋತ್ತರ ಕನಕ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನದಲ್ಲಿ ಡಿಪ್ಲೋಮಾ ಕೋರ್ಸ್ ಮತ್ತು ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯ(OEC)ಪರೀಕ್ಷೆಗಳ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಗಳನ್ನು ಪರಿಶೀಲಿಸುವ ಕುರಿತು.

**ನಿರ್ಣಯ :** 2016ರ ಡಿಸೆಂಬರ ಮತ್ತು 2017ರ ಮೇ/ಜೂನ್ ತಿಂಗಳಿನಲ್ಲಿ ಜರುಗಿದ ಡಿಪ್ಲೋಮಾ

ಕೋರ್ಸ್ ಮತ್ತು ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯ(OEC)ಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಗಳನ್ನು ಪರಿಶೀಲಿಸಿ, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಗಳು ಪಠ್ಯಕ್ರಮಕ್ಕನುಗುಣವಾಗಿ ಸರಿಯಾಗಿವೆ ಎಂದು ಸಭೆ ಅಭಿಪ್ರಾಯ ಪಟ್ಟಿತು.

**ವಿಷಯ 2 :** 2017-18ನೇ ಸಾಲಿನ ವಿವಿಧ ಪರೀಕ್ಷೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಪರೀಕ್ಷಕರ ಯಾದಿ (ಪ್ರಶ್ನೆಪತ್ರಿಕೆ ಸಿದ್ಧಪಡಿಸುವುದರ ಮತ್ತು ಮೌಲ್ಯಮಾಪಕರ)ಸಿದ್ಧಪಡಿಸುವ ಕುರಿತು.

**ನಿರ್ಣಯ:** 2017-18ನೇ ಸಾಲಿನ ವಿವಿಧ ಪರೀಕ್ಷೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಪರೀಕ್ಷಕರ ಯಾದಿಯನ್ನು ಪರಿಶೀಲಿಸಿ, ಒಪ್ಪಿಗೆಯನ್ನಿತ್ತು ಪರೀಕ್ಷಕರ ಯಾದಿಯನ್ನು ಪರೀಕ್ಷಾ ವಿಭಾಗಕ್ಕೆ ಕಳಿಸಲು ಸಭೆ ಸೂಚಿಸಿತು.

**ವಿಷಯ 3:** ಸ್ನಾತಕೋತ್ತರ ಕನಕ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನದಲ್ಲಿ ಡಿಪ್ಲೋಮಾ ಕೋರ್ಸ್‌ನ ಪಠ್ಯಕ್ರಮದ

(Syllabus) ಪರಿಷ್ಕರಣೆ ಕುರಿತು.

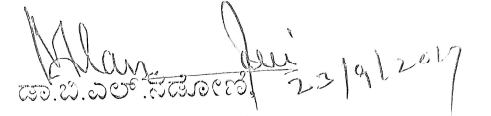
**ನಿರ್ಣಯ:** ಸ್ನಾತಕೋತ್ತರ ಕನಕ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನದಲ್ಲಿ ಡಿಪ್ಲೋಮಾ ಕೋರ್ಸ್‌ಗೆ ಸಂಬಂಧಿಸಿದ ನಾಲ್ಕು ಪತ್ರಿಕೆಗಳ ಪಠ್ಯಕ್ರಮಗಳ ಕುರಿತು ಆಮೂಲಾಗ್ರವಾಗಿ ಚರ್ಚಿಸಿ, ನಾಲ್ಕು ಪತ್ರಿಕೆಗಳ ಪರಿಷ್ಕೃತ ಪಠ್ಯಕ್ರಮ(2018ನೇ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ)ವನ್ನು ಮುಂದಿನ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ವಿದ್ಯಾಮಂಡಳ ವಿಭಾಗಕ್ಕೆ ಕಳಿಸಲು ನಿರ್ಣಯಿಸಲಾಯಿತು.

**ವಿಷಯ 4:** ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯ(OEC)ಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ದ್ವಿತೀಯ(2ನೇ)ಸೆಮಿಸ್ಟರ್‌ದ ಪಠ್ಯಕ್ರಮದ ಪರಿಷ್ಕರಣೆ ಮತ್ತು ತೃತೀಯ(3ನೇ)ಸೆಮಿಸ್ಟರ್‌ಗೆ ಪಠ್ಯಕ್ರಮವನ್ನು ಸಿದ್ಧಪಡಿಸುವ ಕುರಿತು.

**ನಿರ್ಣಯ:** ಕಳೆದ ಐದು ವರ್ಷಗಳಿಂದ ಪ್ರಚಲಿತದಲ್ಲಿದ್ದ ಮುಕ್ತ ಆಯ್ಕೆ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್(2ನೇ) 'ಕನಕದಾಸರ ಜೀವನ ಮತ್ತು ಸಾಹಿತ್ಯ' ಪಠ್ಯಕ್ರಮವನ್ನು ಹೊಸ ಹೊಸ ಆಯಾಮ ಮತ್ತು ಸೈದ್ಧಾಂತಿಕ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಪರಿಷ್ಕರಿಸಿದ ಪ್ರಸ್ತುತ ಪಠ್ಯಕ್ರಮವನ್ನು(2018ನೇ ಸಾಲಿನ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ)ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ವಿದ್ಯಾಮಂಡಳ ವಿಭಾಗಕ್ಕೆ ಕಳಿಸಲು ತೀರ್ಮಾನಿಸಲಾಯಿತು. ಇದರಂತೆ ತೃತೀಯ(3ನೇ) ಸೆಮಿಸ್ಟರ್‌ಗೆ ಹೊಸದಾಗಿ ಸಿದ್ಧಪಡಿಸಿದ 'ಭಾರತೀಯ ಅನುಭಾವ ಪರಂಪರೆ ಮತ್ತು ಕನಕದಾಸರು' ಪಠ್ಯಕ್ರಮ(2018ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ)ವನ್ನು ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ವಿದ್ಯಾಮಂಡಳ ವಿಭಾಗಕ್ಕೆ ಕಳಿಸಲು ತೀರ್ಮಾನಿಸಲಾಯಿತು.

**ವಿಷಯ5:** 2018-19ನೇ ಶೈಕ್ಷಣಿಕ ವರ್ಷದಿಂದ ಎಂ.ಎ.(ಕನಕ ಸಾಹಿತ್ಯ)ಕೋರ್ಸ್ ಪ್ರಾರಂಭಿಸುವ ಕುರಿತು ಹಾಗೂ ಪಠ್ಯಕ್ರಮದ ರೂಪುರೇಷೆಗಳ ಕುರಿತು.

**ನಿರ್ಣಯ;** ಎಂ.ಎ.(ಕನಕ ಸಾಹಿತ್ಯ)ಕೋರ್ಸ್‌ನ್ನು 2017-18ನೇ ಶೈಕ್ಷಣಿಕ ಸಾಲಿನಿಂದ ಪ್ರಾರಂಭಿಸುವ ಕುರಿತು ಸಭೆಯಲ್ಲಿ ಸುದೀರ್ಘವಾಗಿ ಚರ್ಚಿಸಿ, ಪಸ್ತುತ ಸ್ನಾತಕೋತ್ತರ ಕೋರ್ಸ್‌ನ್ನು ಪ್ರಾರಂಭಿಸಲು ಹಾಗೂ ಪಠ್ಯಕ್ರಮ ರಚಿಸಲು ಒಪ್ಪಿಗೆ ಸೂಚಿಸುವುದರೊಂದಿಗೆ ಪಠ್ಯಕ್ರಮದ ರೂಪುರೇಷೆಗಳನ್ನು ವಿದ್ಯಾಮಂಡಳಕ್ಕೆ ಕಳಿಸಲು ಸಭೆ ಸೂಚಿಸಿತು.

  
ಡಾ.ಬಿ.ಎಲ್.ನಿರೋಣಿ 22/9/2017  
ಡೀನರು ಕಲಾ ನಿಲಯ,  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ

**Dr. R. C. HIEMATH INSTITUTE OF KANNADA STUDIES**  
**KARNATAK UNIVERSITY, DHARWAD.**

**POST-GRADUATE DIPLOMA IN LINGUISTICS**

**Programme Outcome**

1. The course is designed to enable the students to have a fundamental understanding of the basic nature, branches and history of Linguistic Inquiry.
2. This course teaches students to understand and analyse the structure, sound, meaning, use and development of Languages.
3. It improves critical thinking and analytical skills.
4. It deals with describing individual languages or describing how languages differ from each other.
5. The course aims at enhancing the analytical skills of students to conduct research, provides language related technological services and contribute important insights on issues of Law, Language Policy, Education etc.

Duration	:	One Year	
Teaching Total Hours	:	60 Hours per Paper	
Scheme of Examination	:	Essay Types Questions – 80 Marks (4 Out of 8 Questions)	
		Short Notes – 20 Marks (4 Out of 8 Questions)	
		Total :	100 Marks
		Maximum Marks :	100 Marks
Medium of Examination	:	English/Kannada	
Hours of Examination	:	Three Hours Per Paper	

**Titles of the Papers :**

Paper – 1    Language and Linguistics  
ಪತ್ರಿಕೆ – ೧    ಭಾಷೆ ಮತ್ತು ಭಾಷಾವಿಜ್ಞಾನ

Paper – 2    Historical Linguistics  
ಪತ್ರಿಕೆ – ೨    ಐತಿಹಾಸಿಕ ಭಾಷಾವಿಜ್ಞಾನ

Paper – 3 Language Teaching Methods  
ಪತ್ರಿಕೆ – ೩ ಭಾಷಾ ಬೋಧನಾ ಪದ್ಧತಿಗಳು

Paper – 4 Language and Media  
ಪತ್ರಿಕೆ – ೪ ಭಾಷೆ ಮತ್ತು ಮಾಧ್ಯಮ

## **Paper - 1 Language and Linguistics** ಪತ್ರಿಕೆ – ೧ ಭಾಷೆ ಮತ್ತು ಭಾಷಾವಿಜ್ಞಾನ

### **Course Outcome:**

1. The course helps increase our knowledge and understanding of the world.
2. Students will develop skills in analysing language to present linguistics data in various formats.
3. It exposes the students to the core areas such as phonology, morphology, syntax and semantics.
4. It also exposes the students to the interdisciplinary disciplines like socio-linguistics, psycholinguistics, anthropological linguistics, folk linguistics etc.,
5. Linguistic knowledge can be applied to improving communication between people contributing to translation activities assisting in literacy efforts and treating speech disorders.

Unit – 1 **Language** – Nature, Definitions.

ಘಟಕ – ೧ ಭಾಷೆ : ಸ್ವರೂಪ, ವ್ಯಾಖ್ಯೆಗಳು.

Unit – 2 **Language and Society.**

ಘಟಕ – ೨ ಭಾಷೆ ಮತ್ತು ಸಮಾಜ

Unit – 3 **Linguistics** – Nature and Scope.

ಘಟಕ – ೩ ಭಾಷಾವಿಜ್ಞಾನ – ಸ್ವರೂಪ ಮತ್ತು ವ್ಯಾಪ್ತಿ.

Unit – 3 **Language Variation** : Idiolect, Dialect, Style, Register, Slang, Taboo.

ಘಟಕ – ೩ ಭಾಷಾ ಪರಿವರ್ತನೆ : ವ್ಯಕ್ತಿಭಾಷೆ, ಉಪಭಾಷೆ, ಶೈಲಿ, ಭಾಷಾಪ್ರಬೇಧ, ಗ್ರಾಮ್ಯಭಾಷೆ/ಅಶಿಷ್ಟಭಾಷೆ, ನಿಷೇಧಭಾಷೆ.

Unit – 4      **Branches of Linguistics:** Descriptive, Historical, Sociolinguistics, Psycholinguistics, Applied Linguistics etc.

ಘಟಕ – ೪      ಭಾಷಾವಿಜ್ಞಾನದ ಶಾಖೆಗಳು : ವರ್ಣನಾತ್ಮಕ, ಐತಿಹಾಸಿಕ, ಸಾಮಾಜಿಕ, ಮನೋವೈಜ್ಞಾನಿಕ, ಅನ್ವಯಿಕ ಭಾಷಾವಿಜ್ಞಾನ ಮುಂ.

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10. Rajeshwari Maheshwariah: Adhunika Varnanatmaka Bhashavijnana. (ಆಧುನಿಕ ವರ್ಣನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನ)

**Paper - 2 Historical Linguistics**

ಪತ್ರಿಕೆ – ೨      ಐತಿಹಾಸಿಕ ಭಾಷಾವಿಜ್ಞಾನ

**Course Outcome:**

1. It helps to reconstruct the pre history of language to determine their relatedness.
2. It helps to group the language into various language families.
3. The course studies history of speech communities to study the history of words i.e. Etymology.
4. The study of dilectology teaches the types of dialects, dialect boundaries, dialect Atlases etc.
5. The course also provides information in research to collection of data, informants, fieldwork, questionnaire etc.

Unit – 1      **Historical Linguistics:** Nature and Scope.

ಘಟಕ-೧      ಭಾಷೆ-ಭಾಷಾವಿಜ್ಞಾನ : ವರ್ಣನಾತ್ಮಕ –ಐತಿಹಾಸಿಕ- ತೌಲನಿಕ-ಏಕಲಾಲಿಕ-ದ್ವಿಕಾಲಿಕ

Unit – 2	<b>Types of Linguistic Change :</b> Sound Change, Phonological Change, Morphophonemic Change, Grammatical Change, Lexical Change, Semantic Change
ಘಟಕ-೨	ಭಾಷಾವೈಜ್ಞಾನಿಕ ಬದಲಾವಣೆಗಳ ವಿಧಗಳು : ಧ್ವನಿ ಬದಲಾವಣೆ, ಧ್ವನಿಮಾ ಬದಲಾವಣೆ, ಆಕೃತಿ - ಧ್ವನಿಮಾತ್ಮಕ- ಬದಲಾವಣೆ, ವ್ಯಾಕರಣಾತ್ಮಕ ಬದಲಾವಣೆ, ನಿಘಂಟಿಕ ಬದಲಾವಣೆ, ಅರ್ಥಾತ್ಮಕ ಬದಲಾವಣೆ.
Unit – 3	<b>Mechanisms of Linguistic Changes :</b> Major and Minor Mechanisms. Major Mechanisms - Borrowing, Analogical, Creation, Sound Change Minor Mechanisms - Assimilation, Dissimilation, Haplology, Metathesis, Back Formation, Recutting, Folk Etymology
ಘಟಕ-೩	ಭಾಷಾ ವೈಜ್ಞಾನಿಕ ತಂತ್ರ : ಪ್ರಮುಖ ಮತ್ತು ಗೌಣ ತಂತ್ರಗಳು ಪ್ರಮುಖ ತಂತ್ರಗಳು : ಸ್ವೀಕರಣೆ, ಅನುರೂಪಿಕ/ಸಾದೃಶ್ಯ, ಸೃಜನಾತ್ಮಕ, ಧ್ವನಿ ಬದಲಾವಣೆ. ಗೌಣ ತಂತ್ರಗಳು : ಸಮರೂಪಧಾರಣೆ ಅಸಮರೂಪಧಾರಣೆ, ಎಕ್ಸೋಚ್ಯಾರಣೆ, ಧ್ವನಿ ಪಲ್ಲಟ, ಹಿಂಪದ ರಚನೆ ಪುನರ್ವಿಚ್ಛೇದನ, ಜಾನಪದ ವೃತ್ತಿ.
Unit – 4	<b>Language Classification :</b> Genealogical, Aerial and Typological,.
ಘಟಕ-೪	ಭಾಷಾ ವರ್ಗೀಕರಣ : ಜನಾಂಗೀಯ, ವಿಭಾಗ/ಪ್ರದೇಶ ಮತ್ತು ಸ್ವರೂಪ,
Unit – 5	<b>Language Families, Reconstruction :</b> Internal, External/Comparative.
ಘಟಕ -೫	ಭಾಷಾ ಕುಟುಂಬ, ಪುನರಚನೆ : ಆಂತರಿಕ, ಬಾಹ್ಯ/ವೈದೃಶ್ಯಾತ್ಮಕ

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7. Kempe Gowda: Samanya Bhashavijnana. (ಸಾಮಾನ್ಯ ಭಾಷಾವಿಜ್ಞಾನ)

## **Paper – 3 Language Teaching Methods**

### **ಪತ್ರಿಕೆ – ೩ ಭಾಷಾ ಬೋಧನಾ ಪದ್ಧತಿ**

### **Course Outcome:**

1. The course teaches to understand the various methods of techniques.
2. The course enhances problems solving skills.

3. It enhances creative thinking capacity.
4. The course introduces multimedia to enhance the learning experience.
5. Overall the course provides language teaching and learning strategic used by modern language teaching.

Unit – 1      **Language** : Mother Tongue, Native Language/First Language (L-1) and Foreign Language (L-2).

ಘಟಕ – ೧      ಭಾಷೆ : ಮಾತೃಭಾಷೆ, ಸ್ವಭಾಷೆ/ಪ್ರಥಮ ಭಾಷೆ ಎಲ್-೧ ಮತ್ತು ಅನ್ಯ ಭಾಷೆ ಎಲ್-೨.

Unit – 2      Language Learning and Teaching : Principles.

ಘಟಕ – ೨      ಭಾಷಾ ಕಲಿಕಾ ಮತ್ತು ಬೋಧನೆ : ತತ್ವಗಳು.

Unit – 3      **Teaching Methods** : Direct Method, Grammar Translation Method, Programmed Teaching Method, Linguistic Method, etc.

ಘಟಕ – ೩      ಬೋಧನಾ ಪದ್ಧತಿಗಳು : ನೇರ ಪದ್ಧತಿ, ವ್ಯಾಕರಣ ಅನುವಾದ ಪದ್ಧತಿ, ಯೋಜಿತ ಬೋಧನಾ ಪದ್ಧತಿ, ಭಾಷಾ ವೈಜ್ಞಾನಿಕ ಪದ್ಧತಿ, ಮುಂ.

Unit – 4      Testing Methods.

ಘಟಕ – ೪      ಭಾಷಾ ಪರೀಕ್ಷೆಗಳು.

Unit – 5      **Language Teaching Aids** : Traditional and Technological.

**Traditional** - Black Board, Flash Cards

**Technological** - Radio, T.V, Tape recorder, V.C.R, Language Lab and Computer.

ಘಟಕ – ೫      ಭಾಷಾ ಬೋಧನಾ ಸಲಕರಣೆಗಳು: ಪರಂಪರಾಗತ/ಸಾಂಪ್ರದಾಯಿಕ ಮತ್ತು ತಂತ್ರಜ್ಞಾನಿಕ.

ಪರಂಪರಾಗತ/ಸಾಂಪ್ರದಾಯಿಕ – ಕಪ್ಪುಹಲಗೆ, ಹೊಳಪು ಬಿಲ್ಲೆಗಳು

ತಂತ್ರಜ್ಞಾನಿಕ – ರೇಡಿಯೋ, ಟಿ.ವಿ., ಟೇಪ ರೆಕಾರ್ಡರ್, ವಿಸಿಆರ್, ಭಾಷಾ ಪ್ರಯೋಗಾಲಯ ಮತ್ತು ಗಣಕಯಂತ್ರ.

### **Bibliography:**

1. Robert Lado: Language Teaching – A Scientific Approach.
2. Robert Lado: Language Testing.
3. Halliday: Linguistic Sciences and Language Teaching.
4. Thirumalai: Learning Theories and Linguistics.
5. Wilkins: Linguistics in Language Teaching.
6. William Madtha: Anya Bhashabodhe. (ಅನ್ಯ ಭಾಷಾಬೋಧನೆ)
7. Veerabhadrappe: Bhasha Bhodhane. (ಭಾಷಾ ಭಾಷಾಬೋಧನೆ)
8. Nanjundappa: Bhasha Bhodhane. (ಭಾಷಾ ಭಾಷಾಬೋಧನೆ)
9. Krishnappa: Kannada Bhodhane. (ಕನ್ನಡ ಬೋಧನೆ)

## Paper – 4 Language and Media

### ಪತ್ರಿಕೆ – ೪ ಭಾಷೆ ಮತ್ತು ಮಾಧ್ಯಮ

#### Course Outcome:

1. The course introduces the key concepts of language and communication system.
2. It teaches about the role of language in different domains of communication systems.
3. Students will be able to understand and apply knowledge of human communication and language processes as they occur across various controls.
4. Students will be able to develop Knowledge, skills and judgement around human communication.
5. Student will be able to communicate effectively, orally and in writing.

Unit - 1 **Introduction of key concepts in language and media :** Mass media and mass communication; Register and style.

ಘಟಕ -೧ ಭಾಷೆ ಮತ್ತು ಮಾಧ್ಯಮದ ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳ ಪರಿಚಯ: ಸಮೂಹ ಮಾಧ್ಯಮ ಮತ್ತು ಸಮೂಹ ಸಂವಹನ; ಭಾಷಾಪ್ರಬೇಧ ಮತ್ತು ಶೈಲಿ.

Unit - 2 **Development: studies in media language :** Role of language in mass media and mass communication; Speech, visuals, writing and media.

ಘಟಕ -೨ ಅಭಿವೃದ್ಧಿ: ಮಾಧ್ಯಮದ ಭಾಷೆಯ ಅಧ್ಯಯನ: ಸಮೂಹ ಮಾಧ್ಯಮ ಮತ್ತು ಸಮೂಹ ಸಂವಹನದಲ್ಲಿ ಭಾಷೆಯ ಪಾತ್ರ; ಮಾತು, ದೃಶ್ಯ, ಬರಹ ಮತ್ತು ಮಾಧ್ಯಮ.

Unit - 3 **Different styles of media language;** Schema and genre theory; Persuasion and power; Telling stories; Anchoring visual meanings; Coarseness and incivility in broadcast talk; Looking into the future; ಮಾಧ್ಯಮ ಭಾಷೆಯ ವಿವಿಧ ಶೈಲಿಗಳು ; ಸಾರಾಂಶ ಮತ್ತು ಪ್ರಕಾರ ಸಿದ್ಧಾಂತ; ಒಲಿಸುವಿಕೆ ಮತ್ತು ಶಕ್ತಿ; ಕಥೆ ಹೇಳುವುದು; ದೃಶ್ಯ ಅರ್ಥವನ್ನು ನಿರೂಪಿಸುವುದು; ಪ್ರಸಾರ ಮಾತುಕತೆಯಲ್ಲಿ ಒರಟು ಮತ್ತು ಅಸಾಮಾಜಿಕ ಭಾಷೆಯ ಉಪಯೋಗ; ಭವಿಷ್ಯದಲ್ಲಿ ಮಾಧ್ಯಮ.

ಘಟಕ -೩

Unit - 4 **Alternative Median of Mass communication :** Newspaper, Radio, Television, Film-Cinema, Folk Media, new media (internet, mobile)

ಘಟಕ - ೪ ಸಮೂಹ ಮಾಧ್ಯಮದ ಪರ್ಯಾಯ ಜಗತ್ತು: ಸಮಾಚಾರ ಪತ್ರಿಕೆ, ರೇಡಿಯೋ, ಟೆಲಿವಿಷನ್, ಚಲನಚಿತ್ರ, ಕಿರುಚಿತ್ರ, ಜಾನಪದ ಮಾಧ್ಯಮ, ನವಮಾಧ್ಯಮ (ಅಂತರ್ಜಾಲ/ಮೊಬೈಲ್).

Unit - 5 **Exploration: analyzing media language :** Types of language use in mass media e.g. news, editorials, advertising, Entertainment, internet, Messages, blog, cinema, posters, sports, political spheres; Comparing kinds of studio talk; Purposes of persuasion; Media fiction and fact ; Soundtrack and multimodal discourse; Media language and acceptability; Media change in the future.

ಘಟಕ - ೫ ಪರಿಶೋಧನೆ: ಮಾಧ್ಯಮ ಭಾಷೆಯ ವಿಶ್ಲೇಷಣೆ; ಸಮೂಹ ಮಾಧ್ಯಮದಲ್ಲಿ ಉಪಯೋಗಿಸಲ್ಪಡುವ ಭಾಷೆಯ ವಿಧಗಳು, ಉದಾ: ಸಮಾಚಾರ, ಸಂಪಾದಕೀಯ,

ಜಾಹೀರಾತು, ಮನರಂಜನೆ, ಅಂತರ್ಜಾಲ, ಸಂದೇಶಗಳು, ಬ್ಲಾಗ್, ಚಲನಚಿತ್ರ, ಭಿತ್ತಿಚಿತ್ರ, ಕ್ರೀಡೆ, ರಾಜಕೀಯ ಕ್ಷೇತ್ರ, ವಿವಿಧ ಬಗೆಯ ಸ್ಪಡಿಯೋ ಮಾತುಕತೆಯ ಹೋಲಿಕೆ, ಒಲಿಸುವಿಕೆಯ ಉದ್ದೇಶ, ಮಾಧ್ಯಮ: ಕಲ್ಪನೆ ಮತ್ತು ವಾಸ್ತವ, ಧ್ವನಿಪಥ ಮತ್ತು ಬಹುರೀತಿಯ ಮಾತುಕತೆ; ಮಾಧ್ಯಮ ಭಾಷೆ ಮತ್ತು ಒಪ್ಪಿಕೊಳ್ಳುವಿಕೆ; ಭವಿಷ್ಯದಲ್ಲಿ ಮಾಧ್ಯಮದ ಬದಲಾವಣೆ.

### **Bibliography:**

1. Bell, A. 1991. *The Language of News Media*. Wiley-Blackwell.
2. Boardman, M. 2005. *The language of Websites*. London, USA, Canada: Routledge.
3. Crystal, D. 2001. *Language and the Internet*. Cambridge: Cambridge University Press.
4. Durant, A. and M. Lambrou. 2009. *Language and Media: A Resource Book for Students*. London: Routledge
5. Goddard, A. 2002. *The Language of Advertising: Written Texts*. Routledge.
6. Jackson, K. 1998. *The Language of Cinema*. Routledge.
7. Monovich, L. 2002. *The Language of New Media*. MIT Press.
8. Reah, D. 2002. *Language of Newspapers*. London, USA, Canada: Routledge.

### **Suggested readings:**

1. Dimbleby, R. and G. Burton, 1995, *More than words: An introduction to communication*. London, Routledge.
2. McLuhan, M. 1964, *Understanding Media*. New York, McGraw –Hill
3. DeFleur. M. L. and E. E. Dennis, 1991, *Understanding mass communication*. New Delhi, Goyal Saab.
4. Penman, R. 1990. Facework and politeness: Multiple goals in courtroom discourse. *Journal of Language and Social Psychology*. 9.1/2:15-38.
5. Yan, X. 2008. TV talk show therapy as a distinct genre of discourse. *Discourse Studies* 10.4:469-91.

## From the Academic Year 2019 – 2020 Onwards

### KARNATAK UNIVERSITY, DHARWAD

#### Dr. R.C. Hiremath Institute of Kannada Studies

#### M.A Degree Course in Linguistics

#### Semester System

#### CHOICE BASED CREDIT SYSTEM (CBCS)

**Eligibility:** Any Graduate of a recognized University.

**Semesters:** Four Semesters, (M.A Previous: Semesters 1 and 2, M.A Final: Semesters 3 and 4).

#### MARKS:

1. Compulsory Course and Specialization Course:  $75 + 3 + 22 = 100$   
1 and 4 semesters 1000 marks/40 credits for the compulsory and specialization courses. 2 and 3 semesters 800 marks/32 credits for the compulsory and specialization courses.

#### Per Paper per Course

<b>Semester End Exam</b>	<b>:</b>	<b>75</b>
<b>Attendance</b>	<b>:</b>	<b>03</b>
<b>Test 1</b>	<b>:</b>	<b>11</b>
<b>Assignment 1</b>	<b>:</b>	<b>11</b>

2. Open Elective:  $75 + 3 + 22 = 100$

#### Per Paper per Course

<b>Semester End Exam</b>	<b>:</b>	<b>75</b>
<b>Attendance</b>	<b>:</b>	<b>03</b>
<b>Tests 1</b>	<b>:</b>	<b>11</b>
<b>Assignment 1</b>	<b>:</b>	<b>11</b>

Sl. No.	Courses	Credits	Marks	Teaching Hours	Examination Hours
1.	Compulsory Course	4	$75+3+22=100$	4	3
2.	Specialization Course	4	$75+3+22=100$	4	3
3.	Open Elective Course	4	$75+3+22=100$	4	3

M.A Linguistics students have to offer Open Electives from other departments for 8 credits or more. Total credits should be 72 minimum.

### **Programme Outcome**

1. The course is designed to enable the students to have a fundamental understanding of the basic nature, branches and history of Linguistic Inquiry.
2. This course teaches students to understand and analyse the structure, sound, meaning, use and development of Languages.
3. It improves critical thinking and analytical skills.
4. It deals with describing individual languages or describing how languages differ from each other.
5. The course aims at enhancing the analytical skills of students to conduct research, provides language related technological services and contribute important insights on issues of Law, Language Policy, Education etc.

### **QUESTION PAPER PATTERN:**

#### **Compulsory and Specialized courses**

1. **Essays:** Four out of Eight (4 x 15 = 60 marks)
2. **Short Notes:** Three out of Six (3 x 5 = 15 marks)

#### **Open Electives courses**

1. **Essays:** Four out of Eight (4 x 15 = 60 marks)
2. **Short Notes:** Three out of Six (3 x 5 = 15 marks)

### **COURSES:**

#### **SEMESTER – I**

##### **1. Compulsory Courses**

**PG45T101: Phonetics and Phonology**  
**PG45T102: Morphology and Syntax**  
**PG45T103: Semantics**  
**PG45T104: Sociolinguistics**

##### **2. Specialization Courses**

**PG45T105A: Anthropological Linguistics**  
**OR**  
**PG45T105B: Computer and Language**

## **SEMESTER – II**

### **1. Compulsory Courses**

**PG45T201: Historical Linguistics and Dialectology**

**PG45T202: Translation Theory**

**PG45T203: Language Teaching Methods**

### **2. Specialization Courses**

**PG45T204A: Kannada Linguistics**

**OR**

**PG45T204B: Language and Communication**

### **3. Open Elective Course**

**PG45O205: Language and Linguistics**

## **SEMESTER – III**

### **1. Compulsory Courses**

**PG45T301: Psycholinguistics**

**PG45T302: Lexicography**

**PG45T303: Schools of Linguistics**

### **2. Specialization Courses**

**PG45T304A: Stylistics**

**OR**

**PG45T304B: Semiotics**

### **3. Open Elective Course**

**PG45O305: Fundamentals of Translation**

## **SEMESTER – IV**

### **1. Compulsory Courses**

**PG45T401: Comparative Dravidian**

**PG45T402: Shabdamanidarpana and Linguistics**

**PG45D403: Dissertation (as decided by the course Teacher)**

**PG45T404: Language and Media.**

## **2. Specialization Courses**

**PG45T405A: Folk Linguistics**

**OR**

**PG45T405B: Languages of the World**

### **SEMESTER – I**

**(From the Academic Year 2019 – 2020 Onwards)**

## **1. Compulsory Courses**

### **PG45T101: Phonetics and Phonology**

#### **Course Outcome:**

1. The course enhances the pronunciation skill.
2. It teaches about transcriptions.
3. Students are able to develop the ability to identify and produce key sounds as well as rhythm, stress and intonation etc.
4. The course enhances the pronunciation skill.
5. Students are able to develop the ability to identify and produce key sounds as well as rhythm, stress and intonation etc.

Unit – 1	<b>Language:</b> Nature-Definition-Characteristic Features- Use.
Unit – 2	<b>Linguistics:</b> Main Branches.
Unit – 3	<b>Phonetics:</b> Branches of Phonetics.
Unit – 4	<b>Articulatory Phonetics in detail:</b> Speech Organs–Speech Sounds–Nature, Production, Classification and Transcription–IPA and Modified American Chart–Cardinal Vowels.
Unit – 5	<b>Phonology</b> –Phone, Phoneme, Allophone, Distinctive Features–Pike’s Theory of Phonemic Analysis–Basic Premises–Separating and Uniting Procedures–Segmental and Supra-segmental

Phonemes–Syllable and its Structure–Relevant Problems from  
Different Languages for Phonemic analysis.

**Bibliography:**

1. Bloch & Trager: An Outline of Linguistic Analysis.
2. Bertil Malmberg: Phonetics.
3. Sadanand Singh and Kala S. Singh: Phonetics.
4. C.F. Hockett: A Course in Modern Linguistics.
5. Abercrombie: Elements of General Phonetics.
6. Bansal: Outline of Phonetics.
7. T. Balasubramaniam: A Text Book of English Phonetics for Indian Students.
8. John Laver: Principles of Phonetics.
9. K.L. Pike: Phonemics.
10. A.C. Gimson: An Introduction to the Pronunciation of English.
11. Chidanand Murthy: Bhashavijnanada Mula Tatvagalu.
12. J.S. Kulli: Varnanatmaka Bhashavijnana.
13. Rajeshwari Maheshwariah: Adhunika Varnanatmaka Bhashavijnana.

**PG45T102: Morphology and Syntax**

**Course Outcome:**

1. Through this course students get acquainted with basic nature, branches and history of Linguistics Inquiry.
2. Students are able to comprehend to analyse and use relevant linguistic theories and work independently on problems to do with language and linguistics.
3. To learn and develop broad interdisciplinary study with various disciplines for empowering themselves to train for jobs, skills for teaching, translation and other skills.
4. To get the knowledge of various languages of world and its structures to enable them to enhance their horizons.
5. To enable students in a meaningful learning experience that prepares them to meet their goals after earning a degree.

- Unit – 1      The place of Morphology and Syntax in Linguistics. The Boundary between Morphology and Syntax.
- Unit – 2      Morph-Morpheme-Allomorph-Principles of Identification of Morphemes according to Nida-Problems to work out.
- Unit – 3      **Types of Morphemes-**  
**I Structural:** a) Additive (Roots, Affixes: Prefix, Infix, Suffix, Simulfix, Reduplicative); b) Replacive; c) Subtractive.  
**II Distributional:** a) Free and bound; b) Roots and Non-roots; c) Root and Stem; d) Nucleus and Nonnucleus; e) Nuclear and Peripheral; f) Closing and Non-closing.  
**III Other:** Zero, Empty, Portmanteau, Unique, Homophonous, Discontinuous, Morphological Processes-Addition, Deletion, Suppletion, Zero-modification etc.
- Unit – 4      **Morphological Constructions** – Inflectional, Derivational – I A, I P, W P, Models – Word – Grammatical Categories – Morphophonemics.
- Unit – 5      **I C Analysis** –Types of I Cs–Principles of determining I Cs– Syntactic Linkages: by Selection, Context–Marker, Impure Marker– Concord, Government and Cross Reference, T. G. Grammar: Basic Sentences, P-Rules, T-Rules, Optional and Obligatory Rules– Transformations.

### **Bibliography:**

1. Bloch & Trager: An Outline of Linguistic Analysis.
2. E. Nida: Morphology.
3. C.F. Hockett: A Course in Modern Linguistics.
4. P.H. Mathews: Morphology.
5. Chomsky: Syntactic Structures.
6. Chomsky: Aspects of Theory of Syntax.
7. J.S. Kulli: Varnanatmaka Bhashavijnana.
8. Rajeshwari Maheshwariah: Adhunika Varnanatmaka Bhashavijnana.
9. Kempe Gowda: Samanya Bhashavijnana.
10. David Crystal: Linguistics.

## PG45T103: Semantics

### Course Outcome:

1. This course introduces students to the basic problems in the study of meaning in all areas language.
2. The course teaches why meaning is more complex than simply the words formed in a sentence,
3. It helps how semantic play a large part in our daily communication, understanding and language learning.
4. Students are also exposed to understand the key issues involved in the study of semantic fields.
5. Students will be able to use the appropriate analytical skills to specify the meaning of words, phrases and sentences.

Unit – 1	Place of Semantics in Linguistics, Definition and Scope.
Unit – 2	Meaning of Meaning–Earlier Semantic Studies–Structural Semantics, Descriptive Semantics, Historical Semantics–Relationship.
Unit - 3	<b>Descriptive Semantics:</b> Word–Context–Meaning Triangle of Ogden and Richards, Theories of Meaning. Structural Semantics: Paradigmatic and Syntagmatic Relations–Semantic Fields–Synonymy, Antonym and Hyponymy–Hierarchical Structure of Vocabulary. <b>Historical Semantics:</b> Historical Changes in Meaning–Types, Causes and Consequences.
Unit – 4	Lexical Semantics–Componential Analysis, Lexicology Leech’s Seven Types of Meaning, Motivation in Meaning.
Unit – 5	Modern Trends in Semantic Studies, Semantics and Translation–Semantics and Natural Language Processing.

### Bibliography:

1. Palmer: Semantics.
2. Ogden and Richards: The Meaning of Meaning.
3. S. Ullman: Semantics – An Introduction to the Science of Meaning.
4. Nida: Componential Analysis.
5. Cruse: Lexical Semantics.
6. Lehrer: Semantic fields and Lexical Structure.
7. Lehrer and Lehrer: Theory of Meaning.

8. John Lyons: Semantics Vol. 1 & 2.
9. Stren: Meaning and Change of Meaning.
10. Bloomfield: Language.
11. Shankara Bhat: Kannada Shabda Racane.
12. David Crystal: A Dictionary of Linguistics and Phonetics.
13. Hadumod Bussman: Routledge Dictionary of Language and Linguistics.
14. W.A. Woods: "Semantics and Quantification in Natural Language Questions Answering", in Advances in Computers Vol. 117. PP. 71-88. (1978).

### **PG45T104: Sociolinguistics**

#### **Course Outcome:**

1. Students will be able to understand language as a social and cultural phenomenon.
2. The course provides knowledge of different sociocultural factors that may have relevance for language development and change.
3. It helps to recognise how language diversity and variability can lead to historical development of language.
4. It explains how people speak differently in different social context.
5. This course can prepare students to better participate in our everyday life for their own benefit and for the benefit of other people around it.

- |          |   |
|----------|---|
| Unit – 1 | <b>Linguistics</b> – Sociology–Sociology of Language, Sociolinguistics–Nature and Scope.  |
| Unit – 2 | <b>Language and Society</b> – Group Formation – Social Class, Ethnic Group, Sex, - Monolingual Bilingual and Multilingual Groups, Interdependence of Language and Society, Linguistic Attitudes–Code Mixing, Switching, Shifting. |
| Unit – 3 | <b>Speech World</b> – Domain–Situation–Event–Act–Components of Speech Act –Speech Repertoire–Specialized Linguistic Activities.   |
| Unit – 4 | <b>Linguistic Variation</b> – Social Stratification of Speech–Correlation Rules–Variables, Methods and uses of analyzing Linguistic Variation –Language Loyalty, Language Shift–Linguistic Convergence.                           |

Unit – 5     **Applied Sociolinguistics:** Language Planning : Theory and Practice–Aspects of Language Planning : Standardization, Modernization and Graphization–Stages of Language Planning : Policy Formulation, Detailed Planning, Implementation, Evaluation–Reformulation, Sociolinguistic Survey Methods : Nature of Social Surveys–Questionnaire–Pilot Survey–Selection of Informants–Collection of Materials–Analysis–Presentation of the findings.

**Bibliography:**

1. Trudgill: Sociolinguistics.
2. Platt and Platt: The Social Significance of Speech.
3. Bright (ed): Sociolinguistics.
4. Fishman: Advances in the Sociology of Language.
5. Gumperz and Hymes (eds): Directions in Sociolinguistics.
6. Hymes (ed): Language in Culture and Society.
7. Pride (ed): Sociolinguistics.
8. Rubin and Jernudd: Can Languages be Planned ?.
9. Fishman: Advances in Language Planning.
10. Karunakaran: Studies in Tamil Sociolinguistics.
11. Renate Bartsch and Theo Vennemann: Linguistics and Neighbouring Disciplines.

## **2. Specialization Courses**

### **PG45T105B: Anthropological Linguistics**

**Course Outcome:**

1. The course helps in understanding the complex relationship between culture and language.
2. It helps to understand how language is used in order to understand culture.
3. It provides practical solutions to everyday language and cultural issues.
4. It throws light on how language shaped human behaviour and social life.
5. It also focuses on language and its importance to understanding human history, culture and biology.

- Unit – 1     **Anthropological Linguistics Nature and Scope:** Subject matter of Anthropological Linguistics, Definitions, Relationship with Sociology, Psychology, Folklore, Neuro-physiology, Language and Communication, Sign, Symbol and Language, Pragmatics, Anthropology and Language Planning.
- Unit – 2     **Language and Biological Evolution,** Acquisition of Language, development of writing systems.
- Unit – 3     **Non-verbal Communication** (Paralinguistics), Kinesics, proxemics and American Sign Language (ASL), Verbal communication (Phonology, Grammar and Semantics), Language maintenance.
- Unit – 4     **Language and Culture Analysis:** Language and worldview, inter-relationship between language, race, culture and ethno science and cognitive Anthropology, Ethnography of communication, Language variation, Linguistic changes recent trends in Anthropological Linguistics etc.

#### **Bibliography:**

1. Ardener, E. (ed.) : Social Anthropology and Language.
2. Duranti, A. : Linguistic Anthropology.
3. Fishman, I. A. : Language in social-cultural change.
4. Gumpertz, J. J. & Pier Paola Giglioli (ed.) : Speech Community in Language and Social Context.
5. Hickerson, N. : Linguistic Anthropology.
6. Hockett, C.F.: A Course in Modern Linguistics.
7. Hymes, D. H.: Language in Culture and Society.
8. Lieberman, Philip : On the origins of Language.
9. Misra, Kamal, K.: Text Book of Anthropology Linguistics.
10. Salzmann Zdenek: Language, Culture, Society: An Introduction to Linguistic Anthropology.

**OR**

#### **PG45T105B: Computer and Language**

##### **Course Outcome:**

1. It teaches about fundamentals of computer.
2. It provides knowledge of internet and its uses in academic activities.
3. The course also teaches how computer can be used as a research tool.
4. It also provides knowledge about corpus based dictionaries, lexical database and online dictionaries.
5. The course enhances problem solving skills.

- Unit 1      **Introduction to Computer Fundamentals of computer;** Hardware (input, output, processing, etc.) and Software (OS and Application); computer generation; programming languages; Database and database type, DBMS; flowchart and algorithm; Compilers and interpreters (information processing, structuring and manipulating data).
- Unit – 2      **Internet:** Introduction, LAN and WAN, dial-up and broadband networking, internet protocols, TCP/IP Protocol, Microsoft Internet Explorer, Netscape, Netscape navigator, properties and customization, world wide web (WWW), HTML, creation of web page using templates.
- Unit – 3      **As an Effective Tool** for Receiving and Transmitting Information on Global level on Mass Scale Instantaneously. As a Research Tool, E-mail, Chatting, Special Interest Groups, Browser – Search Engine.
- Unit 4      **Computational Lexicography** E-Dictionary (E-Thesaurus, World Net, Frame Net, Concept Net, Verb Net, MRD and others), corpus based dictionaries, lexical databases and online dictionaries.
- Unit 5      **Speech Technology** Spectrogram analysis, phonetics and phonology; Speech synthesis (Text to Speech) and Speech analysis (Speech to Text); speaker recognition; Automatic Speech Recognition. Models (HMM, DTW, ect.)

### **Bibliography:**

1. B. P. B. Publications: P. C. Complete.
2. Gini Courter and Annette Marquis: Microsoft Office Professional Edition.
3. -----: Longman Dictionary of Contemporary English with CD
4. -----: Encyclopedia Britannica CD/DVD
5. Oxford English Dictionary with CD
6. Macmillan Dictionary with CD
7. Mysore University English/Kannada Dictionary CD
8. Mysore University Encyclopedia with CD
9. M.D. Harris: Introduction to Natural Language Processing.
10. Ralph Grishman: Computational Linguistics.
11. B.P.B. Publications: Internet Complete.
12. David Crystal: Language and the Internet.
13. Important Websites like SIL in the internet.

14. Dutoit, T. 2001. An Introduction to Text-to-Speech Synthesis. Kluwer Academic Publishers.
15. Jurafsky, D. and J. H. Martin. 2008. Speech & Language Processing. Pearson.
16. Noble, H. M. 1988. Natural Language Processing. Blackwell.
17. Pereira, F. and B. Grosz. (ed.). 1994. Natural Language Processing. MIT Press.
18. Rajapurohit, B. B. 1994. Technology and Languages. Mysore, CIIL.
19. Sangal, R. et al. (ed.) 2003. Recent Advances in Natural Language Processing. Mysore, CIIL.
20. Taylor, P. 2009. Text to Speech Synthesis. Cambridge University Press.

Link:

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22. [http://en.wikipedia.org/wiki/computational\\_linguistics](http://en.wikipedia.org/wiki/computational_linguistics)
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24. <http://ai-depot.com/intro.html>
25. <http://library.thinkquest.org/2705/istory.html>
26. <http://www.logos-ca.com>
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28. [http://liceu.uab.es/~joaquim/speech\\_technology/tecnol\\_parla/recognition/refs\\_reconexament.html](http://liceu.uab.es/~joaquim/speech_technology/tecnol_parla/recognition/refs_reconexament.html)
29. [http://www.dukehealth.org/eye\\_center/specialties/low\\_vision\\_rehabilitation/care\\_guides/speech\\_recognition\\_and\\_text\\_to\\_speech\\_technology](http://www.dukehealth.org/eye_center/specialties/low_vision_rehabilitation/care_guides/speech_recognition_and_text_to_speech_technology)

## SEMESTER – II

### (From the Academic Year 2019 – 2020 Onwards)

#### 1. Compulsory Courses

##### PG45T201: Historical Linguistics and Dialectology

##### Course Outcome:

1. It helps to reconstruct the pre history of language to determine their relatedness.
2. It helps to group the language into various language families.
3. The course studies history of speech communities to study the history of words i.e. Etymology.
4. The study of dialectology teaches the types of dialects, dialect boundaries, dialect Atlases etc.
5. The course also provides information in research to collection of data, informants, fieldwork, questionnaire etc.

Unit – 1      **Language – Linguistics:** Descriptive–Historical–Comparative–Synchronic–Diachronic.

- Unit – 2     **Classification of Languages:** Aerial, Typological, Genealogical.
- Unit – 3     **Languages on the Move: Linguistic Changes**–Types of Linguistic Changes (Sound Change, Phonological Change, Morphophonemic Change, Grammatical Change, Lexical Change, Semantic Change)–Mechanisms of Linguistic Changes–Major Mechanisms (Borrowing, Analogical, Creation, Sound Change)–Minor Mechanisms (Assimilation, Dissimilation, Haplology, Metathesis, Back Formation, Recutting, Folk Etymology)–Motives of Change (Prestige and Necessity).
- Unit – 4     Internal Reconstruction–External Reconstruction (Comparative Method)–Glottochronology.
- Unit – 5     Idiolect–Dialect–Language–Common core–Overall Pattern, Dimensions of Dialect: Regional, Social and Temporal, Reasons for the variation, Dialect Studies in Germany, France, England and America, Dialect Studies in India – Linguistic Survey of India.
- Unit – 6     **Field Methods and Techniques**–Preparation of Questionnaires, Conducting Survey and Analytical Procedures.

### **Bibliography:**

1. W.P. Lehmann: Historical Linguistics – An Introduction.
2. C.F. Hockett: A Course in Modern Linguistics.
3. Watermann: Perspectives in Linguistics.
4. Bynon: Historical Linguistics.
5. Crowley: An Introduction to Historical Linguistics.
6. H.H. Hock: Principles of Historical Linguistics.
7. J. S. Kulli: Aithihasika Bhashavijnana.
8. C. S. Ramachandra: Charitrika bhashavijnana adhyayana mattu Vidhanagalu.
9. Kempe Gowda: Samanya Bhashavijnana.
10. P. S. Subramanyam: Dravidian Verb Morphology.
11. V. I. Subramoniam (ed): Dialectology (Seminar Papers).
12. Grierson: Linguistic Survey of India.
13. William Samarin: Field Linguistics.
14. Kempe Gowda: Upabhashavijnana
15. Rajendra Nayak: Upabhashavijnana, Prasaraṅga, Karnatak University, Dharwad.

## **PG45T202: Translation Theory**

### **Course Outcome:**

1. Translation enables effective communication between the people from different languages.
2. Translation studies helps practitioners develop skills.
3. The course also examines the current trends in translatory fields.
4. It explores the art of translation as a creative act in literary translation and international marketing.
5. Students are able to learn translative skills at the end of the programme.

Unit – 1	<b>Nature and Scope of Translation</b> – Transliteration, Transcription, Translation, Interpretation–Linguistics and Translation.
Unit -2	<b>Source Language</b> –Target Language–Linguistic Structure–Related Languages–Unrelated Languages–Unique Features of Individual Languages–Problems Involved in Translation: Cultural, Linguistic–Computer and Translation.
Unit – 3	<b>Types of Translation:</b> At Extent–full vs Partial, At Levels–Total vs Restricted, At Rank–Rank bound vs Rank free, verbatim, Graphological Translation.
Unit – 4	<b>Language Varieties in Translation:</b> Permanent Varieties–Idiolects, Dialects (Social, Temporal, Geographical). Translation Varieties, Register, Style, Mode–Target Audience and Choice of Varieties.
Unit – 5	<b>Text Varieties in Translation:</b> Aesthetic (Literary), Social Science and Scientific and Technical Literature, Prose–Poetry, Importance of Translation: National Integrity and International Understanding–Education–Trade and Commerce–Scientific and Technological Advancement–Tourism.

### **Bibliography:**

1. J.C. Catford: Linguistic Theory of Translation.
2. T.H. Savory: The Art of Translation.
3. G.A. Finch: An Approach to Technical Translation.
4. I. Pinchuk: Scientific and Technical Translation.
5. Nida and Taber: The Theory and Practice of Translation.
6. Nida: Bible Translating – An Analysis of Principles and Procedures.
7. Nida: Towards a Science of Translation.
8. J.S. Kulli and Others: Anuvada Kale.
9. -----: Nagavalli (Nagegowda Sambhavana Grantha).
10. Somashekara Gowda: The Structure of Legal and Administrative Kannada.

## PG45T203: Language Teaching Methods

### Course Outcome:

1. The course teaches to understand the various methods of techniques.
2. The course enhances problems solving skills.
3. It enhances creative thinking capacity.
4. The course introduces multimedia to enhance the learning experience.
5. Overall the course provides language teaching and learning strategic used by modern language teaching.

- Unit – 1      The Nature of Language, Classification of Languages in to Mother Tongue, Native Language/First Language (L-1) and Foreign Language (L-2) Importance of Learning More Languages in the Modern World.
- Unit – 2      **Different Methods of Foreign Language Teaching:** Direct Method, Grammar Translation Method, Oral–Aural Method, Structural Method, Linguistic Method, Programmed Teaching Method, Critical Evaluation of the Above Methods.
- Unit – 3      The Main Principles of Language Learning and Language Teaching–Basic Language Skills.
- Unit – 4      Role of Contrastive Grammars, Transformational Grammars, Dictionaries, Encyclopedia, Thesaurus and Phrase Books in Language Teaching.
- Unit – 5      **Language Teaching Aids: Traditional:** Black Board, Flash Cards  
**Technological:** Radio, T.V, Tape recorder, V.C.R, Language Lab and Computer.

### Bibliography:

1. Robert Lado: Language Teaching – A Scientific Approach.
2. Robert Lado: Language Testing.
3. Halliday: Linguistic Sciences and Language Teaching.
4. Thirumalai: Learning Theories and Linguistics.
5. Wilkins: Linguistics in Language Teaching.
6. William Madtha: Anya Bhashabodhe.
7. Veerabhadrappe: Bhasha Bhodhane.
8. Nanjundappa: Bhasha Bhodhane.
9. Krishnappa: Kannada Bhodhane.

## 2. Specialization Courses

### PG45T204A: Kannada Linguistics

#### Course Outcome:

1. The place of Kannada in Dravidian family is introduced.
2. Students are also exposed to Kannada grammatical systems pertaining to phonology, morphology, Sandi rules and syntax.
3. The course enhances communication skills and linguistic competencies in Kannada.
4. The course trains the students effectively in the learning process of Kannada language and literature.
5. It helps the students to learn Kannada for day to day translations with ease and confidence.

- Unit – 1      **Kannada Language:** Place of Kannada in Dravidian Family, Influence of other languages on Kannada (Sanskrit-Perso-Arabic-English).
- Unit – 2      **Phonology:** Segmental Phonemes: Vowels and Consonants, Non segmental Phonemes: Terminal contour and juncture, Syllables and their types: Open–Closed.
- Unit – 3      **Morphophonemics:** Internal and External Sandhi, The types of Sandhi: Addition, Deletion and Substitution (Replacement).
- Unit – 4      **Morphology:** Classification of Stems: Nominal, Verbal and Indeclinable, Affixes: Prefix and Suffix, Classification of Suffixes: Inflectional and Derivational, Noun Morphology: Gender–Number markers and Case markers, Verb Morphology: Tense markers and person markers, finite forms and non finite forms, Adjectives–Adverbs, Clitics: Proclitics, Post clitics.
- Unit – 5      **Syntax:** Syntactic constructions: Endocentric and Exocentric, Kannada Sentence types: Simple, Complex, Compound, Negative sentences, Interrogative sentences etc.

#### Bibliography:

1. Andronov M.S.: Kannada Language.
2. Kushalappa Gowda K.: A Course in Modern Kannada
3. Schiffman H.: A Reference Grammar of Kannada
4. William Madhta: Kannada Bhashe, Prasaraṅga, Karnatak University, Dharwad.

5. William Madtha: Kannada Bhasheya Rupareshegalu, Prasara, Karnatak University, Dharwad.
6. Sangamesha Savadattimath: Kannada Bhasa Vyasanga.

**OR**

### **PG45T204B: Language and Communication**

#### **Course Outcome:**

1. Students will be able to understand the interrelationship between language and society.
2. The course teaches about different theories of communication.
3. Students will be able to develop knowledge, skills and judgement around human communication.
4. The course helps the students to understand information more accurately and quickly.
5. The course teaches importance of sharing out ones thoughts and feelings to live a fuller and happier life.

- Unit – 1     **Language, Society and Communication:** Inter-relationship of languages, society and communication-meaning of communication need for communication-means of communication-the process of communication and types of communication-barriers of communication-communication gap-verbal vs non-verbal communication.
- Unit – 2     **Communication Systems and Models:** Communication theories-models of communication-Shannon-weaver, Lass Well-Schrm, Osgood, Westly, New Comb, gate Keeper theories-writing and speech systems in communication.
- Unit – 3     **Mass Media:** Characteristics of Mass Media-print media-news papers-magazines, periodicals, advertisements, announcements and books- other media radio, television, cinema and photographic communication-Mass media society and language, use of language in different media-modernization of language for use in different media-case studies.
- Unit – 4     **Language use and Skills of Communication:** Principles and Technique of Spoken and Written Communication, Skills for Personality Development, Language use in different media, Language use-choice of Styles, registers words and other Linguistic structures for specific purpose in communication, Social

developments and communication, Roll of translation in the development of Modern Indian Languages used in Mass Media.

### **Bibliography:**

1. B. N. Ahuja and Chhabra S.S.: Communications, Surjeet Publications, New Delhi.
2. Andal N.: Communication Theories and Models, New Delhi.
3. Borden G.A.: An Introduction of Human Communication.
4. Chery Colin: On Human Communication: A Survey and Criticism.
5. Chatterjee R. K.: Mass Communication, National Book Trust, New Delhi.
6. Guiyre A.: Sociology of Mass Communication.
7. Hind J., (ed): Verbal and Non-verbal Communication.
8. Hashmi A. H.: Communication, New Delhi.
9. Karunakaran K.: Modernization of Indian Languages in News Media.
10. Keval J. Kumar: Mass Communication in India, Jaico Publishing House, Mumbai.
11. Michael V. P.: Communication and Research for Management, Mumbai.
12. Miller G. A.: Language and Communication.

### **3. Open Elective Course**

#### **PG45O205: Language and Linguistics**

##### **Course Outcome:**

1. The course helps increase our knowledge and understanding of the world.
2. Students will develop skills in analysing language to present linguistics data in various formats.
3. It exposes the students to the core areas such as phonology, morphology, syntax and semantics.
4. It also exposes the students to the interdisciplinary disciplines like socio-linguistics, psycholinguistics, anthropological linguistics, folk linguistics etc.,

5. Linguistic knowledge can be applied to improving communication between people contributing to translation activities assisting in literacy efforts and treating speech disorders.

- Unit – 1      **Language** – Its Nature–Definitions–Characteristic Feature.
- Unit – 2      **Linguistics** – Definition, Scope and Branches.
- Unit – 3      **Phonetics and Phonology:** Phonetics–Branches of Phonetics: Articulatory, Acoustic and Auditory, Speech Organs- Production of Sounds–Classification of Sounds–Transcription of Sounds–Phonemics–Phone, Allophone–Phoneme.
- Unit – 4      **Morphology and Syntax** – Morphology–Morph, Allomorph and Morpheme, Principles of Identification of Morpheme laid down by Nida. Types of Morphemes and Morphological Processes in a Condensed format. **Syntax:** Types of Sentences.
- Unit – 5      **Semantics and Lexicon:** Semantics–Meaning of Meaning–Synonym, Antonym, different types of Dictionaries (in brief).

#### **Bibliography:**

1. Bloch and Trager: An Outline of Linguistic Analysis.
2. C. F. Hockett: A Course in Modern Linguistics.
3. Robert Hall: Introductory Linguistics.
4. Lyons: New Horizons in Linguistics.
5. F. Dinneen: An Introduction to General Linguistics.
6. Pike: Phonemics.
7. Nida: Morphology.
8. Chomsky: Syntactic Structure.
9. Palmer: Semantics.
10. J.S. Kulli: Varnanatmaka Bhashavijnana.
11. Rajeshwari Maheshwariah: Adhunika Varnanatmaka Bhashavijnana.
12. William Madtha: Kannada Bhasheya Roopa Reshegalu.
13. Shankara Bhat: Kannada Shabda Racane.
14. Shankara Bhat: Kannada Vakyagalu.

**SEMESTER – III**  
**(From the Academic Year 2019 – 2020 Onwards)**

**1. Compulsory Courses**

**PG45T301: Psycholinguistics**

**Course Outcome:**

1. Major schools of psychology such as structuralism, functionalism, Psychoanalysis, Behaviourism are introduced.
2. Students are exposed to different theories of learning.
3. It also studies how human beings acquire, understand and store language.
4. The course also focuses on the application of the actual language and communication.
5. The course examines the processes that occur in brain with producing and perceiving both written and spoken discourse.

- Unit -1      **Nature and Scope of Psycholinguistics**, Major Schools of Psychology: Structuralism, Functionalism, Psychoanalysis, Behaviorism and Gestalt Theory.
- Unit – 2      **Theories of Learning** – Theories of Language Acquisition, Linguistic Competence and Performance.
- Unit – 3      **Developmental Psycholinguistics** – Association theories, Content Theory, Cognitive Theory and Other Theories.
- Unit – 4      **Psycholinguistic Studies: A Brief Survey of Areas and Impact.**
- Unit – 5      **Speech Disorders** – Stuttering, Stammering, Aphasia etc.

**Bibliography:**

1. Susan Houston: A Survey of Psycholinguistics.
2. Sol Soporta: Psycholinguistics.
3. Lyons and Walls (eds): Psycholinguistics Papers.
4. James Deese: Psycholinguistics
5. -----: Encyclopedia Britannica: Deluxe Edition CD/DVD.
6. Hadumod Bussmann: Routledge Dictionary of Language and Linguistics.
7. Renate Bartsch and Theo Vennemann: Linguistics and Neighboring Disciplines.

8. S. Rosenberg (ed): Advances in Applied Psycholinguistics Vol.-1, Disorders of First Language Development Vol.-2 Reading, Writing and Language Learning.

## **PG45T302: Lexicography**

### **Course Outcome:**

1. This course addresses fundamental issues of general lexicology and lexicography.
2. It acquaints students with new developments in the field of dictionary making.
3. Students will understand how lexical entries relate to semantic and grammatical analysis socio-linguistic variation etymology and broader encyclopaedic knowledge.
4. This course introduces the craft of dictionary making and looks at questions about the nature of languages and their descriptions that arise when making a dictionary.

- Unit – 1      **Lexicography** – Lexicology Nature and Scope, Lexicography as Applied Linguistics.
- Unit – 2      **Types of Dictionaries:** Encyclopaedic, Synchronic vs Diachronic, General vs Restricted, Monolingual–Bilingual–Multi Lingual, Descriptive, Pedagogical, Phonetic, Pocket, Medium, Big, Single Volume; Multi Volume; Alphabetical Conceptual, Reverse, CD, Online, Dialect Dictionaries.
- Unit – 3      **Lexicographical Methods** – Basic Decision. Collection of Materials–Database–Selection of Entries, Lemma, Pronunciation, Grammar, Definition, Use of Synonyms, Antonyms etc. Examples. Glosses and Labels, Usage Notes Visual Aids, Subentries, Reduced entries, Presentation of Polysemy, Arrangement of Entries–Alphabetical etc. Arrangement of Meanings–Chronological, Relative Importance–Etymology, etc. Problem of Monolingual, Bilingual and Multilingual Dictionaries, Lexical Equivalents, Overlapping Nature, Cultural Uniqueness.
- Unit – 4      **Kannada Dictionaries and English Dictionaries** an Overview Kittel’s Kannada–English Dictionary, Kannada Sahitya Parishat Kannada–Kannada Nighantu, Mysore University English–Kannada Dictionary, Oxford Advanced Learners Dictionary, Oxford English

- Dictionary Online, Longman Dictionary of Contemporary English, Cambridge International Dictionary.
- Unit – 5      Dictionaries as Source of Variety of Information, spelling, Pronunciation, Grammatical Notes, Meaning, Usage Notes, Relationship of Words and different lines, Classified Vocabularies for Ready Use, General Knowledge Data Book. Prelims in Dictionaries such as Introduction, Pronunciation Guidelines, Appendix and their use, Effective use of Dictionaries for Study and Research.

### **Bibliography:**

1. Zgusta: Manual of Lexigraphy.
2. Katre: Lexicography
3. Allen (ed): Readings in Applied English Linguistics.
4. Hartmann (ed): Lexicography – Principles and Practice.
5. R.A. Singh: An Introduction to Lexicography.
6. William Madtha: Nighantu Vijnana.
7. Rev. F. Kittel: Kannada – English Dictionary.
8. -----: Kannada Ratna Kosha.
9. -----: Sahityaparishattina Kannada – Kannada Nighantu.
- 10.-----: Mysore University's English – Kannada Dictionary.
- 11.-----: Oxford Advanced Learners Dictionary.
- 12.-----: Oxford English Dictionary Online.
- 13.-----: Longman Dictionary of Contemporary English CD.
- 14.-----: Cambridge International Dictionary.
- 15.-----: Madras University's Tamil Lexicon.
- 16.-----: Kannada University's Dialect Dictionaries.

## **PG45T303: Schools of Linguistics**

### **Course Outcome:**

1. The course introduces the linguistic tradition of India.
2. The course teaches about the different schools of linguistics.
3. The course exposes the thoughts and concepts of leading linguistics such as Noam Chomsky, F.D. Saussure, Sapir and Bloom Field.
4. It also highlights the works of Panini, Keshiraja and Tolkappiar.
5. Students will be able to understand the development of linguistics theories from ancient to modern times.

- Unit – 1     **Linguistic Tradition in India** – Astadhyayi of Panini–Aindra and Katyayana Tradition–Tolkappiyam, Shabhamanidarpana.
- Unit – 2     **American School of Linguistics – I:** Descriptive/Structural (Sapir, Bloomfield, Harris, Hockett).
- Unit – 3     **American School of Linguistics - II:** Tagmemics (K.L. Pike)–Stratificational Grammar (S. Lamb)–Case grammar (Fillmore).
- Unit – 4     **American School of Linguistics – III:** Transformational Generative Grammar (Chomsky)–Generative Semantics (Lakoff).
- Unit – 5     **European Schools:** Prague School–London School (Firth, Halliday) Geneva School.

### **Bibliography:**

1. F. Dinneen: Introduction to General Linguistics.
2. Robins: History of Linguistics.
3. S.M. Katre: (English Translation of) Astadhyayi of Panini.
4. S. Ilakkuvanar: (English Translation of) Tolkappiyam.
5. J.S. Kulli: Shabdamanidarpana (Linguistic Interpretation)
6. Bloomfield: Language.
7. Hockett: A Course in Modern Linguistics.
8. Lamb: Introduction to Stratificational Linguistics.
9. Chomsky: Syntactic Structures.
10. Firth: Papers in Linguistics.
11. David Crystal: A Dictionary of Linguistics and Phonetics.
12. Hadumod Bussmann: Routledge Dictionary of Language and Linguistics.

## **2. Specialization Courses**

### **PG45T304A: Stylistics**

#### **Course Outcome:**

1. Students will be able to demonstrate an understanding of the principles of stylistics as a discipline.
2. It enhances the skills of stylistics analysis of literary texts and poetry.
3. The course enhances the way we think about language and its uses.
4. It helps the learners in making meaningful interpretation of the text.
5. The course is helpful for students to read and study literature with excellence language practice.

- Unit – 1     Nature and Scope of Style & Stylistics.

- Unit – 2      Traditional Stylistic Studies in the Indian Context, North Indian and South Indian Approaches, Contribution of Literary Criticism for the Refinement of Stylistics.
- Unit – 3      **Stylistic Approaches:** Literary, Linguistic and Structural, Stylistic Study of different varieties of Literature: Prose–Poetry: Short story, Novel, Drama and Non-Literary Writings.
- Unit – 4      **Stylistic Features:** At Phonological, Grammatical, Lexical, Semantic level, Selection of different media/genre (Prose, Poetry, Novel, Drama etc.) as a Macro Style, Macro Structure (Beginning, ending and in between structures) as a Stylistic Component.
- Unit – 5      **Interdependence of Style** – Author, Audience and Subject matter.

**Bibliography:**

1. Enkvist and others: Linguistics and Style.
2. Omkar N. Koul (ed): Language Style and Discourse.
3. L. Wright and J. Hope: stylistics a Practical Course Book.
4. Crystal and Davy: Investigating English Style.
5. Fowler: Essays on Style and Language.
6. Hough Graham: Style and Stylistics.
7. Thirumalai: Stylistics.
8. Turner: Stylistics.
9. Ullman : Language and Style.

**OR**

**PG45T304B: Semiotics**

**Course Outcome:**

1. The course exposes the students to the nature of signs, signs as an object of perception and semiotics approach to language.
2. The study reveals the way in which a sign communicates ideas, attitudes and beliefs.
3. It trains the students to investigate into how meaning is created and how meaning is communicated.
4. It makes the students to understand semiotic and linguistic effects occur at an interdisciplinary level from fine literature to everyday conversation.
5. The course highlights the difference between human communication and animal communication.

- Unit – 1      **Semiotic Science** – dimensions and levels of Semiotics. The nature of sign–the sign as an object of perception–semiotic approach to language.
- Unit – 2      Linguistic and non-linguistic structure, semantic dimensions of semiotics.
- Unit – 3      **Pragmatics and Semiotics:** Practical dimensions of Semiotics–pragmatic use of signs.
- Unit – 4      **Animal Communication:** Zoo Semiotics–difference between human language and animal communication–communication signs of honey bees.

**Bibliography:**

1. Charles Morris: ‘Foundations of the theory of Signs’ Vol. – I No. 2, The University of Chicago Press, Chicago, 1938.
2. Thomas A. Sebeok, “Semiotics – A Survey of the state of Art” in Current Trends in Linguistics, Ed. By Thomas, A Sebeok – Publication, Mouton Co. 1974.
3. Hockett, C.F., ‘ A Course in Modern Linguistics’ J.R.H. Publishing co., New Delhi, 1958.
4. John Smith W., ‘Zoo Semiotics’, 1974.
5. William, C, Stokoe Jr. ‘Semiotic and Human Sign Language, 1972.
6. William Madtha, ‘Janapada Vaidjnanika Adhyayana mattu Sanketa Vaidjnanika Vishleshane, Gadag, 1999.

**3. Open Elective Courses**

**PG45O305: Fundamentals of Translation**

**Course Outcome:**

1. This course teaches about the difference between Transliteration, Transcription, Interpretation and Translation.
2. Students will be able to translate different types of texts i. e., literary and non literary.
3. It enhances the translative skills of the learners.
4. The course exposes the practical experiences of the translator.
5. Students will be able to acquire professional skills in language transfer and get a job in the field to work as translator, interpreter, terminologist etc.

- Unit – 1      **Nature and Scope of Translation** – Transliteration, Transcription, Translation, Interpretation–Linguistics and Translation.
- Unit -2      **Source Language** – Target Language–Linguistic Structure–Related Languages–Unrelated Languages–Unique Features of Individual Languages–Problems Involved in Translation : Cultural, Linguistic–Computer and Translation.
- Unit – 3      **Types of Translation:** At Extent–full vs Partial, At Levels–Total vs Restricted, At Rank–Rank bound vs Rank free.
- Unit – 4      **Text Varieties in Translation:** Aesthetic (Literary), Social Science and Scientific and Technical Literature, Prose–Poetry, Importance of Translation: National Integrity and International Understanding–Education–Trade and Commerce–Scientific and Technological Advancement–Tourism.

**Bibliography:**

1. J.C. Catford: Linguistic Theory of Translation.
2. T.H. Savory: The Art of Translation.
3. G.A. Finch: An Approach to Technical Translation.
4. I. Pinchuk: Scientific and Technical Translation.
5. Nida and Taber: The Theory and Practice of Translation.
6. Nida: Bible Translating – An Analysis of Principles and Procedures.
7. Nida: Towards a Science of Translation.
8. J.S. Kulli and Others: Anuvada Kale.
9. -----: Nagavalli (Nagegowda Sambhavana Grantha).
10. Somashekara Gowda: The Structure of Legal and Administrative Kannada.

**SEMESTER – IV**  
**(From the Academic Year 2019 – 2020 Onwards)**

**1. Compulsory Courses**

**PG45T401: Comparative Dravidian**

**Course Outcome:**

1. The course teaches about Dravidian languages, language families of India and the history of comparative Dravidian.
2. It helps the students to enrich the knowledge about Dravidian concept.
3. It trains the students in comparative studies.
4. The study will motivate the students to their literary interests and tastes and creative abilities.
5. Students will be able to understand this significance of carrying out comparative studies.

- Unit – 1      Origin and Development of the Term “Dravidian”, Enumeration of Dravidian Languages, Language Families of India, Mutual Influence of Dravidian and Indo Aryan, History of Comparative Dravidian Studies.
- Unit – 2      **Comparative Dravidian Phonology:** Proto Dravidian Vowels and Consonants and their Development in the Different Consonants i/e and u/o alteration in the Literary Languages. Metathesis in the Telugu-Kuvi subgroup, The Voiced Stops in Dravidian. Post nasal Voiceless Plosives in Dravidian.
- Unit – 3      **Comparative Dravidian Noun Morphology:** Types of Nouns. Gender Number Markers. Plural Suffixes, Case Markers and Post Positions. Adjectives, Numbers–Cardinals, Ordinals, Pronouns–Personal, Demonstrative, Interrogative and Reflexive.
- Unit – 4      **Comparative Dravidian Verb Morphology:** Classification of Verbs –Intransitive, Transitive and Causative, Transitive Causative Suffixes, Tense Markers–Past and Non–Past (Present and Future) Negative Markers, Auxiliary Verbs, Pronominal Terminations, Adverbs, Aspects and Moods Verbal Participles, Relative Participles, Verbal Nouns, Verbal Participial Nouns.
- Unit – 5      **Classifications of Dravidian Languages:** Characteristic Features of South Dravidian, Central Dravidian and North Dravidian Languages, Family Tree Diagram of Dravidian Languages.

**Bibliography:**

1. M.B. Emenau: Dravidian Comparative Phonology.
2. Kamil Zvelebil: Comparative Dravidian Phonology.
3. Kamil Zvelebil: Comparative Dravidian Morphology.
4. P.S. Subramanyam: Comparative Dravidian Phonology.
5. P. S. Subramanyam: Dravidian Verb Morphology.
6. S. V. Shanmugam: Dravidian Nouns.
7. T. Burrow: Collected Papers.
8. Robert Caldwell: A Comparative Grammar of the Dravidian or South Indian Family of Languages.
9. D.L.A: Dravidian Encyclopedia.
10. D.L.A: Encyclopedia of Dravidian Tribes.
11. Emeneau and Burrow: Dravidian Etymological Dictionary.
12. N. Kumaraswami Raja: Post Nasal Voiceless Plosives in Dravidian.
13. Grierson (ed): Linguistic Survey of India Vol. – 1 and Vol. – 4.

**PG45T402: Shabdamanidarpana and Linguistics****Course Outcome:**

1. Students are exposed to the ancient and modern grammatical tradition of Kannada.
2. It trains the students to read and understand Shabdamanidrapan and other classical texts.
3. The course provides Kannada Phonology, Sandi rules, nouns and verbs etc.,
4. It trains the students to analyse Shabdmanidarpana using modern linguistic techniques.
5. Students will be able to understand the significance of studying classical grammars.

Unit – 1	<b>Kannada Grammatical Tradition:</b> Ancient and Modern – Brief study.
Unit – 2	<b>Shabdamanidarpana</b> – Its Author, Time, Structure and Scope.
Unit – 3	Treatment of Kannada Phonology in Shabdamanidarpana–Strength and Weakness of the Treatment.
Unit – 4	Treatment of Sandi and Samasa in Shabdamanidarpana–Merits and Demerits.
Unit – 5	Treatment of Nouns and Verbs in Shabdamanidarpana–Salient Features.

**Bibliography:**

1. J. S. Kulli: Shabdamanidarpana (Linguistic Interpretation).
2. William Madtha: Kannada Vyakarana Samasyegalu.
3. Padamnabha Sharma: Shabdamanidarpana Nalnudigannadi
4. F. Kittel (ed): Shabdamanidarpana.
5. Shivananda (ed): Shabdamanidarpana.

**PG45D403: Dissertation****Course Outcome:**

Dissertation may be based on Field Work (Collecting data from Informant) OR Table Work. All the Students may work on the Same Topic OR Different Topics as Decided by the Course Teacher.

**PG45T404: Language and Media****Course Outcome:**

1. The course introduces the key concepts of language and communication system.
2. It teaches about the role of language in different domains of communication systems.
3. Students will be able to understand and apply knowledge of human communication and language processes as they occur across various controls.
4. Students will be able to develop Knowledge, skills and judgement around human communication.
5. Student will be able to communicate effectively, orally and in writing.

**Unit 1 Introduction of key concepts in language and media :** Mass media and mass communication; Register and style; Mediated communication; Media discourse genres; Media rhetorics; Media storytelling; Words and images, Boundaries of media discourse.

**Unit 2 Development: studies in media language :** Role of language in mass media and mass communication; Speech, visuals, writing and media; Different styles of media language; Schema and genre theory; Persuasion and power; Telling stories; Anchoring visual meanings; Coarseness and incivility in broadcast talk; Looking into the future;

- Unit 3      Alternative Median of Mass communication :** Newspaper, Radio, Television, Film-Cinema, Folk Media, new media (internet, mobile)
- Unit 4      Exploration: analyzing media language :** Types of language use in mass media e.g. news, editorials, advertising, Entertainment, internet, Messages, blog, cinema, posters, sports, political spheres; Comparing kinds of studio talk; Purposes of persuasion; Media fiction and fact ; Soundtrack and multimodal discourse; Media language and acceptability; Media change in the future.
- Unit 5      Extension: language and media readings :** Varieties of media language; Media and modernity; Broadcast talk; News and advertising angles; Narrative strategies; Windows on the world; Media trouble; impact of mass media on language; Media language and social change.

**Course Readings:**

1. Bell, A. 1991. *The Language of News Media*. Wiley-Blackwell.
2. Boardman, M. 2005. *The language of Websites*. London, USA, Canada: Routledge.
3. Crystal, D. 2001. *Language and the Internet*. Cambridge: Cambridge University Press.
4. Durant, A. and M. Lambrou. 2009. *Language and Media: A Resource Book for Students*. London: Routledge
5. Goddard, A. 2002. *The Language of Advertising: Written Texts*. Routledge.
6. Jackson, K. 1998. *The Language of Cinema*. Routledge.
7. Monovich, L. 2002. *The Language of New Media*. MIT Press.
8. Reah, D. 2002. *Language of Newspapers*. London, USA, Canada: Routledge.

**Suggested readings:**

1. Dimpleby, R. and G. Burton, 1995, *More than words: An introduction to communication*. London, Routledge.
2. McLuhan, M. 1964, *Understanding Media*. New York, McGraw –Hill
3. DeFleur. M. L. and E. E. Dennis, 1991, *Understanding mass communication*. New Delhi, Goyal Saab.
4. Penman, R. 1990. Facework and politeness: Multiple goals in courtroom discourse. *Journal of Language and Social Psychology*.9.1/2:15-38.
5. Yan, X. 2008. TV talk show therapy as a distinct genre of discourse. *Discourse Studies*10.4:469-91.

## 2. Specialization Courses

### PG45T405B: Folk Linguistics

#### Course Outcome:

1. Students will be able to understand the key concepts of folklore, verbal art and folklinguistics.
2. The course enhances the skills in analyzing folk songs, proverbs, riddles etc.
3. Students will be able to demonstrate thorough understanding of knowledge of people and 'Lores'.
4. Will be able to reflect critical thinking through the ability to analyze not only written but oral texts too.
5. Students will be able to apply the folklorist skills to the real life situations.

- Unit – 1      **Nature and Scope:** Folklore – Verbal Art – Folk Linguistics.
- Unit – 2      **Varieties of Verbal Art:** Folk Songs, Folk Tales, Folk Drama, Proverbs, Riddles.
- Unit – 3      **Linguistic Study of Folk Songs:** Rhyme, Rhythm, Vocabulary, Syntactic Pattern, Stylistic Analysis, Linguistic Study of Folk Tales : Varieties of Situations, Discourse Pattern, Exposition, Style, linguistic study of Folk Drama: Language of Dialogues, Sociolinguistic Appropriateness, Language of Songs, Impromptu Dialogues.
- Unit – 4      **Linguistic Study of Proverbs and Riddles:** Nature of Proverbs–Pithy, Simple, Straightforward–Structure of Proverbs–Statements, Comparisons etc. Nature of Riddles–Ambiguous, Complicated, Testing General Knowledge, Elaborate, Misleading, Structure of Riddles–Direct Question, Statement, Excluding the Guessed Answer, Incorporating Stories, Prose and Poetry Form.
- Unit – 5      **Role of Verbal Arts in the Overall Development of Sociolinguistic Competence:** Folk Tales and Exposure of varieties of situations and apt use of language–Folk Dramas and effective use of powerful speech–Proverbs and colorful and powerful speech–Riddles and comprehensive view of different things and expressing them from different angles, similarity to modern quiz programs.

**Bibliography:**

1. Hendricks: Essay on Sociolinguistics and Verbal Art.
2. Levi Strauss: The Structural Study of Myth.
3. Lyons (ed): New Horizons in Linguistics.
4. Maranda and Maranda: Structural Models in Folklore and Transformational Essays.
5. Vladimir Propp: Morphology of Folklore.
6. Fr. C.C. A. Pai: Janapada Vajjanika Kshetrakarya.
7. William Madtha: Janapada Bhashavijnana.
8. S.G. Imrapur: Savirada Ogatugalu.
9. Fr. C.C. A. Pai: Konkni Huminyom.
10. Rev. F. Kittel: Kannada – English Dictionary.

**OR**

**PG45T405A: Languages of the World**

**Course Outcome:**

1. Students will be able to understand the classification of world language on the basis of Area, Typology and Genology.
2. The course also provides information about languages of India.
3. Students will understand more about Amerindians, African, Australian languages.
4. It exposes the languages of rest of the world.
5. Students will be able to understand the similarities and dissimilarities between various world languages.

Unit – 1	Idiolect, Dialect, Language, Language Family, Classification of Languages: Areal, Typological and Genealogical.
Unit – 2	<b>Languages of India:</b> Indo–Aryan, Dravidian, Sino-Tibetan and Austro-Asiatic–Their Distribution and Enumeration.
Unit – 3	<b>Languages of America</b> -Amerindian Languages–Classification.
Unit – 4	<b>Languages of Africa</b> – Classification, Languages of Europe and West Asia – Classification.
Unit – 5	<b>Languages of Far East and Rest of the World</b> – Classification.

**Bibliography:**

1. Encyclopaedia Britannica: Deluxe Edition CD/DVD
2. Kenneth Katzner: The Languages of the World.

3. G.A. Zograph: Languages of South Asia – A guide.
4. Lehmann: Historical Linguistics – An Introduction
5. Grierson: Linguistic Survey of India.
6. Hadumod Bussman: Routledge Dictionary of Language and Linguistics.
7. B. Krishnamurthi (ed): South Asian Languages.

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ಡಾ. ಆರ್.ಸಿ. ಹಿರೇಮಠ ಕನ್ನಡ ಅಧ್ಯಯನ ಪೀಠ



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2018-2019 (1ನೇ ಹಾಗೂ 2ನೇ ಸೆಮಿಸ್ಟರ್) ಮತ್ತು ಆನಂತರದ ಅವಧಿಗಾಗಿ  
ಸಿ.ಐ.ಸಿ.ಎಸ್. ಪಠ್ಯಕ್ರಮ ಅನ್ವಯ



# KARNATAK UNIVERSITY, DHARWAD

## Arts Faculty of CBCS Regulations

With effect from the academic year 2018-19

### 1.0 Title

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Arts under the Choice Based Credit System” in Karnatak University, Dharwad.

### 2.0. Commencement

These Regulations shall come into force with effect from the academic year 2008-09.

### 3.0. Definitions

- a** In these Regulations, unless otherwise provided:  
“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- b** “Board of Studies” means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.
- c** “Compulsory Course” means fundamental course, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d** “Course Weightage” means number of credits assigned to a particular course.
- e** “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f** “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g** “Degree” means Post-Graduate Degree.
- h** “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i** “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j** “Open Elective Course” means a course offered by a Department to the students of other Departments.

- k** “Post Graduate Programme” means semesterised Master’s Degree Programmes in the Faculty of Arts under CBCS excluding P.G. Diploma, Post Graduate International Diploma.
- l** “Specialization course” means advanced course offered by a Department that a student of that Department can opt as a special course.
- m** “Student” means the student admitted to programmes under (k).
- n** “University” means Karnatak University, Dharwad.

#### **4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of study for all the Post-Graduate Degree programmes shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with 90 working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation.**

The medium of instruction for all programmes except languages shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

- 7.1** The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.
- 7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.

- 7.4 In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.
- 7.5 Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University from time to time. P.G. Centers and affiliated colleges can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6 The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course 4; and for Open Elective Course, from 1 to 4. Wherever practical component/ project work/ field work/ dissertation/ orals is involved in the course, the total credits may extend to 6 or as otherwise provided.
- 7.7 A student shall register for a minimum of 72 credits during the whole duration of PG Programme.
- 7.8 The students shall undertake project/extension/field work/dissertation/ during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.
- 7.9 The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10 The detailed programme structure for Faculty of Arts shall be as prescribed and shown below:

Semester	No. of Compulsory courses (credit per course)	Total no. of credits of compulsory courses	Specialisation Courses (credit per course)	Total no. of credits for Specialisation courses	Open Elective Course (credit per course)	Total no. of credits of Open Elective Course (OEC)	Total no. of credits for the semester
Sem. I	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+ OEC
Sem. II	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
Sem. III	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
Sem. IV	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
For the entire Programme	12	48	4-12(4)	16	4-12 (2-4)	8-16	64 + 8 ( = 72

- 7.11 The Open Elective Courses shall have oral component if so prescribed by the concerned Board of Studies. The number of students admitted to the course shall be commensurate with the availability of infrastructure.

## 8.0 Attendance

- 8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

- 8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours in that course.
- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.
- 9.0 Examination**
- 9.1.** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G.Centres/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1** There shall be semester-end examination of 3 hours duration for 75 marks; 2 hours for 50 marks, 1.5 hours for 35 marks and 1 hour for 25 marks course.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 9.1.4** The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiner (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar's (Evaluation) Office at the conclusion of the valuation at the respective centres.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report/dissertation/practical) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In case of programmes with oral examination, details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

**9.4.1** Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25/25/15 marks and the Semester End Examination shall carry 75/50/35 marks respectively, as the case may be. Courses having 25 marks and 15 marks as IA component shall have a maximum of 3 marks allotted for attendance. However, in case of project work, the distribution marks for internal assessment and examination shall be left to discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table. For courses carrying 25 / 15 of marks for IA, the attendance marks shall be:

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1
75	No marks

**9.4.4** Internal Assessment (IA) shall be based on written tests/ assignments/ seminars/orals and /or any other instructional activity as specified in the Faculty Regulations from time to time. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking the improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to a Semester Examination, shall be preserved by the Departments/ Centres/ Colleges for a period of one year from the date of the semester Examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The Viva-voce shall be conducted by an internal and external examiner.

**9.4.10** The marks distribution per course shall be as follows:

Max. marks per course	IA marks			Semester-end examination	No. of teaching hours	No. of credits
	Test/Orals/Assignments	Maximum marks for Attendance	Total			
100	22	3	25	75	4	4
75	22	3	25	50	3	3
50	12	3	15	35	2	2

**10.0. Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

**11.0. Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 7.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 5.00	D
less than 40.00 %	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Sem + Sum of the CP of II Sem. ÷  
Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

<b>Cumulative Grade Point Average (CGPA)</b>	<b>Class to be awarded</b>
7.5 to 10.0	First class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

### **13.0 Miscellaneous:**

- A** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- B** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- C** The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- D** The procedural details may be given by the University from time to time.
- E** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

**Illustrative Model:**  
**Name of the candidate:**

**Grade Card**  
**Semester: I**

**Programme:**

**Seat No:**

**Month & Year:**

Course	Course code no	Credits	Max Marks	Mark Obtained	Semester Grade Point	Credit Points
<b>Compulsory Courses</b>						
• Course-I		04	100	60	6.00	24.00
• Course-II		04	100	74	7.40	29.60
• Course-III		04	100	43	4.30	17.20
○ ----						
○ -----						
<b>Specialisation Course</b>						
Course-I		04	100	52	5.20	20.80
Course –II		04	100	65	6.50	26.00
*						
*						
<b>Open Elective Course</b>						
Course-I		02	50	40	8.00	16.00
Course-II		02	50	35	7.00	14.00
<b>Total</b>		<b>24.00</b>	<b>600</b>	<b>369</b>		<b>147.60</b>

**GPA for I Semester = Total no. of CP ÷ Total no. of Credits=147.60/ 24.00 = 6.15**

**CGPA for I Semester = GPA = 6.15**

**Calculation of CGPA for II, III and the Final Semester**

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$$\text{CGPA for II Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)} + \text{CP (IV Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)} + \text{Credits(IV Sem)}}$$

(\*CP: Credit Points)

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**ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ**  
**ಡಾ. ಆರ್.ಸಿ. ಹಿರೇಮಠ ಕನ್ನಡ ಅಧ್ಯಯನ ಪೀಠ**

**ಎಂ.ಎ. ಕನ್ನಡ ಪರಿಷ್ಕೃತ ಪಠ್ಯಕ್ರಮ**  
**2018-2019(1 ನೇ ಮತ್ತು 2 ನೇ ಸೆಮಿಸ್ಟರ್) ಹಾಗೂ**  
**2019-2020 (3ನೇ ಮತ್ತು 4ನೇ ಸೆಮಿಸ್ಟರ್) ಮತ್ತು ಆನಂತರದ ಅವಧಿಗಾಗಿ**  
**ನಿ.ಐ.ನಿ.ಎಸ್. ಪಠ್ಯಕ್ರಮ ಅನ್ವಯ**

**Programme Specific Outcome(PSO):**

- PSO 1** ವಿವಿಧ ಬರಹಗಾರರು, ಸಾಹಿತ್ಯ ಕೃತಿಗಳು ಮತ್ತು ಸಾಹಿತ್ಯ ಚಳುವಳಿಗಳ ಅವಿವರಣೆ ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದರ ಮೂಲಕ ವಿವಿಧ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳ ರೂಪ, ಸ್ವರೂಪಗಳ ಬಗೆಗೆ ತಿಳುವಳಿಕೆ ಮೂಡಿಸುವುದು.
- PSO 2** ಭಾಷಾ ಸಾಹಿತ್ಯದ ಶ್ರೀಮಂತಿಕೆಯ ಜೊತೆಗೆ ಮಾನವೀಯ ಮೌಲ್ಯಗಳನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು.
- PSO 3** ಸಾಹಿತ್ಯದ ಮೂಲಕ ಸಾಮಾಜೋದಾರ್ಮಿಕ, ರಾಜಕೀಯ, ಸಾಂಸ್ಕೃತಿಕ ತಿಳುವಳಿಕೆಯ ಸಾಮರ್ಥ್ಯವನ್ನು ಗಳಿಸಿಕೊಳ್ಳುವುದು.
- PSO 4** ವೈಚಾರಿಕ-ವೈಜ್ಞಾನಿಕ ಚಿಂತನೆಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳುವುದು. ಸಮಕಾಲೀನ ವಿದ್ಯಮಾನಗಳ ಅರಿವು, ಸಾಮಾಜಿಕ ಹೊಣೆಗಾರಿಕೆಯ ಅರಿವನ್ನು ಗಳಿಸಿಕೊಳ್ಳುವುದರ ಮೂಲಕ ಸದೃಢ, ಬೌದ್ಧಿಕ ವ್ಯಕ್ತಿತ್ವವನ್ನು ರೂಪಿಸಿಕೊಳ್ಳುವುದು.
- PSO 5** ಭಾಷಾ ಕೌಶಲ್ಯಗಳನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವುದರ ಜೊತೆಗೆ ಸ್ಪರ್ಧಾತ್ಮಕ ಮನೋಭಾವವನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು. ಸಾಹಿತ್ಯದ ಓದು, ತಿಳುವಳಿಕೆ ಹಾಗೂ ಬರವಣಿಗೆಯನ್ನು ರೂಢಿಸಿಕೊಳ್ಳುವುದರ ಮೂಲಕ ನಾಡು-ನುಡಿಯ ಕುರಿತಾದ ಜ್ಞಾನವನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು.

**ಸೂಚನೆ :**

೧. ನಾಲ್ಕು ಸೆಮಿಸ್ಟರ್‌ಗಳಲ್ಲಿ ಪ್ರತಿಯೊಂದು ಸೆಮಿಸ್ಟರ್‌ಗಳಿಗೆ ಐದು ಪತ್ರಿಕೆಗಳಂತೆ ಒಟ್ಟು ಇಪ್ಪತ್ತೈದು ಘಟಕಗಳು. ಪ್ರತಿ ಪತ್ರಿಕೆಯ ಬೋಧನಾ ಅವಧಿ ವಾರಕ್ಕೆ ಐದು ಗಂಟೆಗಳು.

**೨. (ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳ ಆಯ್ಕೆಗೆ ಸಂಬಂಧಿಸಿ)**

೧ನೇ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ೧ನೆಯ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಯನ್ನು ತೆಗೆದುಕೊಳ್ಳುವವರು ೨, ೩, ಮತ್ತು ೪ ನೆಯ ಸೆಮಿಸ್ಟರ್‌ಗಳಲ್ಲಿ ೧ನೆಯ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಯನ್ನೇ ತೆಗೆದುಕೊಳ್ಳುವುದು ಕಡ್ಡಾಯ. ಹಾಗೆಯೇ ೧ನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ೨, ೩, ೪ ನೆಯ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುವವರು ಮುಂದಿನ ಸೆಮಿಸ್ಟರ್‌ಗಳಲ್ಲಿ ಕ್ರಮವಾಗಿ ೨, ೩, ೪ನೆಯ ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುವುದು ಕಡ್ಡಾಯ.

೩. ಪ್ರತಿ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಅಂಕಗಳು: ೧೦೦

ಪರೀಕ್ಷೆಗೆ : ೭೫

ಎರಡು ಕಿರುಪರೀಕ್ಷೆ: ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ: ೦೩

**೧ನೇ ಸೆಮಿಸ್ಟರ್ :**

PG43T101: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಭಾಗ-೧: (ತಾತ್ವಿಕತೆ ಮತ್ತು ಪಠ್ಯಗಳು)

PG43T102: ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ

PG43T103: ಭಾರತೀಯ ಮತ್ತು ಪಾಶ್ಚಾತ್ಯ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆಯ ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳು

PG43T104: ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ

ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ - PG43T105A: ಸೃಜನ ಸಾಹಿತ್ಯ ಮತ್ತು ವೈಚಾರಿಕ ಸಾಹಿತ್ಯ

PG43T105B: ಹಸ್ತಪ್ರತಿ ಶಾಸ್ತ್ರ

PG43T105C: ನವೋದಯ ಪೂರ್ವ ಕನ್ನಡ ಸಾಹಿತ್ಯ

#### ೨ನೇ ಸೆಮಿಸ್ಟರ್ :

PG43T201: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಭಾಗ-೨ (ನವ್ಯ-ದಲಿತ-ಬಂಡಾಯ ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯ: ಪಠ್ಯಗಳು)

PG43T202: ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ

PG43T203: ಜನಪದ ಸಾಹಿತ್ಯ : ತಾತ್ವಿಕ ಅಧ್ಯಯನ

ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ - PG43T204A: ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ತಾತ್ವಿಕತೆ ಮತ್ತು ಪ್ರಾಯೋಗಿಕತೆ

PG43T204B: ಶಾಸನ ಶಾಸ್ತ್ರ ಅಧ್ಯಯನ

PG43T204C: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ: ವಿಶೇಷ ಕವಿ ಅಧ್ಯಯನ

PG43O205: O.E.C. ಕನ್ನಡ ಭಾಷೆ : ಬಳಕೆ, ಕೌಶಲ ಮತ್ತು ವೃತ್ತಿ ಪಠ್ಯ

#### ೩ನೇ ಸೆಮಿಸ್ಟರ್ :

PG43T301: ಅಭಿಜಾತ ಸಾಹಿತ್ಯ ಭಾಗ-೧

PG43T302: ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ

PG43T303: ಕನ್ನಡ ಗ್ರಂಥ ಸಂಪಾದನೆ ಮತ್ತು ಛಂದಸ್ಸು

ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ PG43T304A: ಸಾಹಿತ್ಯ ಕೃತಿಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

PG43T304B: ಕನ್ನಡ ಶಾಸ್ತ್ರಸಾಹಿತ್ಯ ಅಧ್ಯಯನ

PG43T304C: ಕನ್ನಡ ಮಹಾಕಾವ್ಯಗಳ ಅಧ್ಯಯನ

PG43O305: O.E.C. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ

#### ೪ನೇ ಸೆಮಿಸ್ಟರ್ :

PG43T401: ಅಭಿಜಾತ ಸಾಹಿತ್ಯ ಭಾಗ-೨

PG43T402: ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ

PG43T403: ಕನ್ನಡ ಸಂಶೋಧನೆ ಮತ್ತು ಕಿರು ಪ್ರಬಂಧ ರಚನೆ

PG43T404: ನುವಾದ : ತತ್ವ-ತಂತ್ರ-ವಿಧಾನ

ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ PG43T405A: ಮಹಿಳಾ ಸಾಹಿತ್ಯ  
PG43T405B: ನಿಘಂಟು ವಿಜ್ಞಾನ ಮತ್ತು ನಾಮ ವಿಜ್ಞಾನ ಅಧ್ಯಯನ  
PG43T405C: ಕರ್ನಾಟಕ ರಂಗಭೂಮಿ ಅಧ್ಯಯನ

### ೧ನೇ ಸೆಮಿಸ್ಟರ್

#### PG43T101: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ -ಭಾಗ ೧ (ತಾತ್ವಿಕತೆ ಮತ್ತು ಪಠ್ಯಗಳು)

##### Course Outcomes:

೧. ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಮೇಲಾದ ಪ್ರಭಾವ-ಪ್ರೇರಣೆಗಳನ್ನು ಗ್ರಹಿಸುವುದು.
೨. ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ನವೋದಯ ಚಳುವಳಿಯ ಪಾಶ್ಚಿಮಾತ್ಯ ರೋಮ್ಯಾಂಟಿಕ್ ಚಿಂತನೆಯೊಂದಿಗೆ ಹೊಂದಿರುವ ಸಾತತ್ಯ ಸಂಬಂಧವನ್ನು ವಿವೇಚಿಸಲು ಸಮರ್ಥರಾಗುವರು.
೩. ನವೋದಯ ಚಳುವಳಿಯ ಕೃತಿಗಳನ್ನು ಅಭ್ಯಾಸ ಮಾಡುವ ಮೂಲಕ ಅದು ಪ್ರತಿನಿಧಿಸುವ ಬದುಕಿನ ಕ್ರಮಗಳು ಮತ್ತು ಸವಾಲುಗಳಿಗೆ ಮುಖಾಮುಖಿಯಾಗುವ ವಿಧಾನವನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
೪. ಪ್ರಗತಿಶೀಲ ಸಾಹಿತ್ಯ ಚಳುವಳಿಯು ಸಮಕಾಲೀನ ಸಾಮಾಜಿಕ ಸಂದರ್ಭದ ಒತ್ತಡಗಳನ್ನು ಅನುಸಂಧಾನ ಮಾಡಿಕೊಂಡ ಪರಿಯನ್ನು ಪರಾಮರ್ಶಿಸುವರು.
೫. ಕನ್ನಡ ಪರಂಪರೆಯು ಆತ್ಮಸಾಧ್ ಮಾಡಿಕೊಂಡ ಉದಾರವಾದಿ ಮಾನವೀಯ ಚಿಂತನೆಗಳನ್ನು ಮುನ್ನಲೆಗೆ ತಂದ ಪರಿಯನ್ನು ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಕೆಲವು ಆಯ್ದ ಪಠ್ಯಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಮನನಮಾಡಿಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
ತಾತ್ವಿಕತೆ : ೧೫, ಪಠ್ಯಗಳು : ೬೦  
ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
ಹಾಜರಾತಿ : ೦೩

೧. ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಪ್ರೇರಣೆಗಳು ಮತ್ತು ಆಶಯಗಳು, ಪ್ರಮುಖ ಸಾಹಿತ್ಯರೂಪಗಳು, (ಭಾವಗೀತೆ/ ಸಣ್ಣಕತೆ/ಕಾದಂಬರಿ/ನಾಟಕ ಇತ್ಯಾದಿ) ಮತ್ತು ಕವಿಗಳು (ಬೇಂದ್ರೆ, ಕುವೆಂಪು, ಬಿ.ಎಂ.ಶ್ರೀ, ಗೋಕಾಕ, ಮಧುರಚೆನ್ನರು, ಪು.ತಿ.ನ) ಕಥೆಗಾರರು ಮತ್ತು ಕಾದಂಬರಿಕಾರರು (ಗುಲ್ಲಾಡಿ ವೆಂಕಟರಾಯರು, ಎಂ.ಎಸ್.ಪುಟ್ಟಣ್ಣ, ತಿರುಮಲಾಂಬಾ, ಕಲ್ಯಾಣಮ್ಮ, ಕೊಡಗಿನಗೌರಮ್ಮ, ಮಾಸ್ತಿ, ಕಾರಂತ, ಕುವೆಂಪು)
೨. ಪ್ರಗತಿಶೀಲ ಸಾಹಿತ್ಯ: ಪ್ರಗತಿಶೀಲ ಚಳುವಳಿಯ ಹಿನ್ನೆಲೆ, ಸಿದ್ಧಾಂತಗಳು, ಪ್ರಗತಿಶೀಲ ಸಾಹಿತ್ಯದ ಪ್ರೇರಣೆಗಳು, ಮಾರ್ಕ್ಸವಾದ, ಸಮಾಜವಾದ, ಸಮತಾವಾದ, ಗಾಂಧಿವಾದ, ಪ್ರಮುಖ ಸಾಹಿತ್ಯ ರೂಪಗಳು ಮತ್ತು ಪ್ರಮುಖ ಲೇಖಕರು (ಅ.ನ.ಕೃ, ತ.ರಾ.ಸು, ನಿರಂಜನ, ಬಸವರಾಜ ಕಟ್ಟೀಮನಿ, ಶ್ರೀರಂಗ, ಕೈಲಾಸಂ , ಚದುರಂಗ, ಅನುಪಮಾ ನಿರಂಜನ, ದೇವಾಂಗನಾ ಶಾಸ್ತ್ರಿ,ಶ್ಯಾಮಲಾ ದೇವಿ ಬೆಳಗಾವಕರ)

#### ಪಠ್ಯಗಳು :

೧. ನಾಟಕ : ಜಲಗಾರ - ಕುವೆಂಪು
೨. ಕಾವ್ಯ : ನನ್ನ ನಲ್ಲ - ಮಧುರ ಚೆನ್ನ
೩. ಕತೆ : ಕೆಲವು ಸಣ್ಣ ಕಥೆಗಳು - ನಿರಂಜನ
೪. ಕಾದಂಬರಿ : ಮಾಡಿಮಡಿದವರು - ಬಸವರಾಜ ಕಟ್ಟೀಮನಿ

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

೧. ಯುಗಧರ್ಮ ಮತ್ತು ಸಾಹಿತ್ಯ ದರ್ಶನ : ಕೀರ್ತಿನಾಥ ಕುರ್ತುಕೋಟೆ-ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ, ಬೆಂಗಳೂರು ೧೯೮೩
೨. ಆಧುನಿಕ ಕನ್ನಡ ಕಾವ್ಯ : ಗೋವಿಂದರಾಜ ಗಿರಡ್ಡಿ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು-೧೯೮೯
೩. ಹತ್ತೊಂಬತ್ತನೆಯ ಶತಮಾನದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ : ಜಯರಾಂ ಸಿ.ಎನ್: (ಸಂ) ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ ೧೯೮೩
೪. ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯದ ಉದಯಕಾಲ : ಧಾರವಾಡಕರ ರಾ.ಯ. ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ -೧೯೭೫
೫. ಹಾಡೆ ಹಾಡಿಯ ತೋರಿತು : ರಾಘವೇಂದ್ರರಾವ್ ಎಚ್.ಎಸ್. ಕನ್ನಡ ಸಂಘ, ಕ್ರೈಸ್ತ ಕಾಲೇಜ್, ಬೆಂಗಳೂರು ೧೯೯೫
೬. ರಾಷ್ಟ್ರೀಯತೆ ಮತ್ತು ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ: ಶಿವರುದ್ರಪ್ಪ ಜಿ.ಎಸ್. ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು-೧೯೮೯
೭. ಕನ್ನಡದ ಹಾಡು ಪಾಡು : ಕೆ.ಸಿ. ಶಿವಾರೆಡ್ಡಿ, ಅಧ್ಯಯನ ಮಂಡಲ -೨೦೦೩
೮. ಬಸವರಾಜ ಕಟ್ಟೀಮನಿಯವರ ಕಾದಂಬರಿಗಳು : ಡಾ. ಬಸವರಾಜ ಸಾದರ : ವೀರಶೈವ ಅಧ್ಯಯನ ಅಕಾಡೆಮಿ, ಶ್ರೀ ನಾಗನೂರು ರುದ್ರಾಕ್ಷಿ ಮಠ, ಬೆಳಗಾವಿ -೨೦೦೦
೯. ಪ್ರಗತಿಶೀಲತೆ : ಎಚ್.ಎಸ್. ರಾಘವೇಂದ್ರರಾವ್: ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು ೧೯೯೦
೧೦. ಕನ್ನಡದಲ್ಲಿ ಭಾವಗೀತೆ : ಡಾ. ಪ್ರಭುಶಂಕರ
೧೧. ಹೊಸಗನ್ನಡ ಕವಿತೆಯ ಮೇಲೆ ಇಂಗ್ಲೀಷ್ : ಎಸ್. ಅನಂತ ನಾರಾಯಣ : ಗಂಗಾತರಂಗ ಪ್ರಕಾಶನ ಮೈಸೂರು ೧೯೬೨
೧೨. ನೂರು ಮರ ನೂರು ಸ್ವರ : ಕೀರ್ತಿನಾಥ ಕುರ್ತುಕೋಟೆ : ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ ೧೯೯೭

೧೩. ನಾಡು ನುಡಿಯ ರೂಪಕ	: ಶಿವರಾಮ ಪಡಕ್ಕಲ್ (ರಾಷ್ಟ್ರ ಆಧುನಿಕತೆ ಮತ್ತು ಕನ್ನಡದ ಮೊದಲ ಕಾದಂಬರಿಗಳು)
ಮಂಗಳೂರು	ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮಂಗಳಗಂಗೋತ್ರಿ, ೨೦೦೧
೧೪. ಮಧುರ ಚೆನ್ನ	: ಜೀವನ ಹಾಗೂ ಕೃತಿಗಳ ಸಮೀಕ್ಷೆ : ಡಾ. ಗುರುಲಿಂಗ ಕಾಪಸೆ ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ ೧೯೭೬
೧೫. ಹೊಸಗನ್ನಡದ ಅರುಣೋದಯ	: ಶ್ರೀನಿವಾಸ ಹಾವನೂರು : ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ
೧೬. ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ	: ಎಲ್.ಎಸ್. ಶೇಷಗಿರಿರಾವ್ : ಅಂಕಿತ ಪುಸ್ತಕ ಪ್ರಕಾಶನ ಬೆಂಗಳೂರು ೧೯೯೯
೧೭. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ	: ರಹಮತ್ ತರೀಕೆರೆ (ಸಂ) ಪ್ರಸಾರಾಂಗ, ಕ.ವಿ.ವಿ. ಹಂಪಿ ೨೦೧೧

## PG43T102: ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ

### Course Outcomes:

೧. ಪ್ರಾಚೀನ ಕನ್ನಡ ಕಾವ್ಯಗಳಲ್ಲಿನ ಜನ ಜೀವನವನ್ನು ತಿಳಿಯಲು ಸಮರ್ಥರಾಗುವರು.
೨. ಪ್ರಾಚೀನ ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿತುಕೊಳ್ಳಲು ಸಮರ್ಥರಾಗುವರು.
೩. ಪ್ರಾಚೀನ ಕರ್ನಾಟಕ ಜೀವನ ಮೌಲ್ಯಗಳನ್ನು ಗ್ರಹಿಸುತ್ತಾರೆ.
೪. ಆ ಕಾಲದ ಸಾಹಿತ್ಯದ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ಗುರುತಿಸಿಕೊಳ್ಳುತ್ತಾರೆ.
೫. ಪ್ರಾಚೀನ ಕನ್ನಡ ಭಾಷೆಯ ಸ್ಥಿತ್ಯಂತರಗಳನ್ನು ಗುರುತಿಸುತ್ತಾರೆ.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ೩೫

ಮಧ್ಯಕಾಲೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ೪೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

### I. ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ :

೧. ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಪ್ರಭಾವಗಳು ಮತ್ತು ಪ್ರೇರಣೆಗಳು, ಧೋರಣೆಗಳು, ಸಾಹಿತ್ಯ ರೂಪಗಳು (ಚಂಪು, ರಗಳೆ, ಷಟ್ಪದಿ)ಮಾರ್ಗ-ದೇಶಿ, ಲೌಕಿಕ-ಆಗಮಿಕ, ವಸ್ತುಕ-ವರ್ಣಕ.
೨. ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂವೇದನೆಗಳು : ಸಾಹಿತ್ಯ ಮತ್ತು ಸಮಕಾಲೀನತೆ, ಸಾಹಿತ್ಯದಲ್ಲಿ ಧರ್ಮ ಪ್ರತಿಪಾದನೆ, ಪ್ರಭುತ್ವಪರ-ವಿರೋಧ ನೆಲೆಗಳು, ದೇಶೀಯತೆ, ಸ್ತ್ರೀಪರ ಚಿಂತನೆ, ಮಾನವೀಯ ಮೌಲ್ಯಗಳು ಜಾತಿ ವರ್ಗ ವ್ಯವಸ್ಥೆ, ಅಹಿಂಸೆ, ಯುದ್ಧ ಮತ್ತು ಶಾಂತಿ.

೨. ಶಾಸ್ತ್ರ ಸಾಹಿತ್ಯ : ಪರಂಪರೆ, ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಕವಿರಾಜಮಾರ್ಗ, ಕಾವ್ಯಾಲೋಕನ, ಶಬ್ದಾನುಶಾಸನ, ಛಂದೋಬುಧಿ, ಶಬ್ದಮಣಿದರ್ಪಣ, ಲೋಕೋಪಕಾರ, ಮಾನಸೋಲ್ಲಾಸ, ರಸರತ್ನಾಕರ.

## II. ಮಧ್ಯಕಾಲೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ:

೧. ವಚನ ಸಾಹಿತ್ಯ : ವಚನ ಚಳುವಳಿ, ವಚನ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪ ಮತ್ತು ಲಕ್ಷಣ, ಆಶಯಗಳು, (ಸಾಮಾಜಿಕ, ಧಾರ್ಮಿಕ, ವೈಚಾರಿಕ, ಸಾಹಿತ್ಯಿಕ), ಮೌಲ್ಯನಿರೂಪಣೆ.
೨. ಮಧ್ಯಯುಗದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪ್ರಮುಖ ಕವಿಗಳು ಮತ್ತು ಸಾಹಿತ್ಯ ರೂಪಗಳು, (ಹರಿಹರ ಮತ್ತು ಕನಕದಾಸರ ಕೃತಿಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ.)
೩. ಷಟ್ಪದಿ ಸಾಹಿತ್ಯ : ದೇಸಿಕಾವ್ಯ ಪರಂಪರೆ ಪ್ರಮುಖ ಕಾವ್ಯಗಳ ವಸ್ತು-ರೂಪ, ಧೋರಣೆಗಳು (ರಾಘವಾಂಕ, ಕುಮಾರವ್ಯಾಸ, ಚಾಮರಸ, ಲಕ್ಷ್ಮೀಶರ ಕೃತಿಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ)
೪. ಕೀರ್ತನ ಸಾಹಿತ್ಯ: ಸ್ವರೂಪ-ಲಕ್ಷಣ, ಆಶಯಗಳು: ಭಕ್ತಿ, ಸಮಾಜ ವಿಮರ್ಶೆ, ಮೌಲ್ಯನಿರೂಪಣೆ, ವಿಡಂಬನೆ (ಪುರಂದರದಾಸ, ಕನಕದಾಸ ಮುಂತಾದವರ ಕೃತಿಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ)

## ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು:

೧. ಕನ್ನಡ ಕವಿ ಚರಿತೆ ಸಂಪುಟಗಳು ೧,೨,೩ - ಆರ್.ನರಸಿಂಹಚಾರ್
೨. ಜನಪ್ರಿಯ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ - ತ.ಸು.ಶಾಮರಾಯ
೩. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ - ರಂ.ಶ್ರೀ ಮುಗಳಿ ಸಮಗ್ರ ಸಂಪುಟ
೪. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಸಂಪುಟಗಳು - ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈ.ವಿ.ವಿ.ಮೈಸೂರು.
೫. ಸಮಗ್ರ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಸಂಪುಟಗಳು - ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
೬. ಸಾಮಾನ್ಯನಿಗೆ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ - ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
೭. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪುನರ್ ಮೌಲೀಕರಣ - ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂ. ಮಾಲಿಕೆ ಸಂಪುಟಗಳು
೮. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚಾರಿತ್ರಿಕ ಬೆಳವಣಿಗೆ ೧,೨ - ಸಿ. ವೀರಣ್ಣ
೯. ವಚನ ಧರ್ಮಸಾರ - ಎಂ.ಆರ್. ಶ್ರೀನಿವಾಸಮೂರ್ತಿ
೧೦. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಮೀಕ್ಷೆ - ಡಾ. ಜಿ.ಎಸ್ ಶಿವರುದ್ರಪ್ಪ
೧೧. ವಚನ ಅಧ್ಯಯನ - ಡಾ. ವೀರಣ್ಣ ರಾಜೂರ
೧೨. ಕವಿರಾಜಮಾರ್ಗ ಪರಿಸರದ ಕನ್ನಡ ಸಾಹಿತ್ಯ - ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ
೧೩. ವಚನಗಳಲ್ಲಿ ವೈಚಾರಿಕತೆ - ಎಚ್. ತಿಪ್ಪೆರುದ್ರಸ್ವಾಮಿ
೧೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಸಮೀಕ್ಷೆ - ಎಚ್. ತಿಪ್ಪೆರುದ್ರಸ್ವಾಮಿ.
೧೫. ನಡುಗಾಲದ ಕನ್ನಡ ನಾಡು - ಏಕೀಕರಣೋತ್ತರ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂಸ್ಕೃತಿ ಕಥನ ಮೊಗಳ್ಳಿ ಗಣೇಶ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿ.ವಿ., ಹಂಪಿ ೨೦೦೮

## PG43T103: ಭಾರತೀಯ ಮತ್ತು ಪಾಶ್ಚಾತ್ಯ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆಯ ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳು

### Course Outcomes:

೧. ಕಾವ್ಯಾಭ್ಯಾಸಕ್ಕೆ ಬೇಕಾದ ತಾತ್ವಿಕ ಮತ್ತು ತಾಂತ್ರಿಕ ಪರಿಜ್ಞಾನವನ್ನು ಸಂಪಾದಿಸುವರು.
೨. ಸಂಸ್ಕೃತ ಕಾವ್ಯಮೀಮಾಂಸೆ ಪ್ರಾದೇಶಿಕ ಭಾಷಾ ಸಾಹಿತ್ಯ ಚಿಂತನೆಯನ್ನು ಪ್ರಭಾವಿಸಿದ ಬಗೆಯನ್ನು ಗ್ರಹಿಸುವರು.
೩. ಕನ್ನಡ ಕವಿಗಳ ಕಾವ್ಯಕಲ್ಪನೆ ರೂಪುಗೊಂಡ ಕ್ರಮವನ್ನು ಅರಿಯುವರು.

೪. ಪಾಶ್ಚಾತ್ಯ ಸಾಹಿತ್ಯವಾದಗಳು ಕನ್ನಡ ಸಾಹಿತ್ಯವನ್ನು ಪ್ರೇರಿಸಿದ ಬಗೆಯನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.  
 ೫. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ವಿಧಿ-ವಿಧಾನಗಳನ್ನು ಗ್ರಹಿಸುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
 ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ : ೭೫  
 ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
 ಹಾಜರಾತಿ : ೦೩

೧. ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ : ಅರ್ಥ, ಸ್ವರೂಪ, ಇತಿಹಾಸ, ಸಂಸ್ಕೃತ ಕಾವ್ಯ ಮೀಮಾಂಸೆಯ ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳು, ಪ್ರತಿಭೆ, ಔಚಿತ್ಯ, ರೀತಿ, ಧ್ವನಿ, ವಕ್ರೋಕ್ತಿ, ರಸ, ಸಾಧಾರಣೀಕರಣ
೨. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ : ಪ್ರಾಚೀನ ಕನ್ನಡ ಕವಿಗಳ ಕಾವ್ಯಕಲ್ಪನೆ-ಕವಿ ಮತ್ತು ಪರಂಪರೆ, ಜನಪದ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ, ವಚನಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ, ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ.
೩. ಪಾಶ್ಚಾತ್ಯ ಸಾಹಿತ್ಯ ಮೀಮಾಂಸೆ : ಅರಿಸ್ಟಾಟಲ್ (ಅನುಕರಣ ಸಿದ್ಧಾಂತ, ಭಾವವಿರೇಚನ), ಎಡ್ಜರ್ಡ್ ಬುಲ್ಲೊ (ಮಾನಸಿಕ ದೂರ), ವಿಲ್ಯಂ ವರ್ಡ್ಸ್‌ವರ್ಥ (ಲಿರಿಕಲ್ ಬ್ಯಾಲೆಡ್-ಮುನ್ನುಡಿ), ಆರ್.ಎ.ರಿಚರ್ಡ್ಸ್ (ಚತುರ್ವಿದ ಅರ್ಥಗಳು), ಟಿ.ಎಸ್.ಎಲಿಯಟ್ (ಪರಂಪರೆ ಮತ್ತು ವ್ಯಕ್ತಿ ಪ್ರತಿಭೆ), ಎಫ್.ಆರ್.ಲೀವಿಸ್- (ಪುನರ್ ಮೌಲ್ಯೀಕರಣ)
೪. ವಿಮರ್ಶೆ : ಪರಿಕಲ್ಪನೆ, ಅರ್ಥ, ಸ್ವರೂಪ, ಇತಿಹಾಸ, ವಿಮರ್ಶೆಯ ಉದ್ದೇಶ ಮತ್ತು ಪ್ರಯೋಜನ, ವಿಮರ್ಶಕನ ಅರ್ಹತೆಗಳು.
೫. ವಿಮರ್ಶೆಯ ಪ್ರಕಾರಗಳು : (ನವೋದಯ, ರೂಪನಿಷ್ಠ, ಸಮಾಜವಾದಿ, ಪ್ರಾಯೋಗಿಕ, ಓದುಗ ಕೇಂದ್ರಿತ, ಸಂಸ್ಕೃತಿನಿಷ್ಠ, ಸ್ತ್ರೀವಾದಿ ವಿಮರ್ಶೆ)

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು:

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| ೧. ಭಾರತೀಯ ಕಾವ್ಯಮೀಮಾಂಸೆ                                | - ತೀ.ನಂ.ಶ್ರೀ.  |
| ೨. ಶತಮಾನದ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ                             | - ಸಂ. ಎಚ್.ಎಸ್. ರಾಘವೇಂದ್ರರಾವ್ ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು |
| ೩. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಮಾದರಿಗಳು                          | - ಡಾ. ಸಿ.ಆರ್. ಯರವಿನತೆಲಿಮಠ                                      |
| ೪. ವಿಮರ್ಶೆಯ ವಿನಯ                                      | - ಜಿ.ಎಚ್. ನಾಯಕ   |
| ೫. ಓದುವ ದಾರಿಗಳು                                       | - ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು                            |
| ೬. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ                                    | - ಸಿ. ಎನ್. ರಾಮಚಂದ್ರನ್, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು       |
| ೭. ವಿಮರ್ಶೆಯ ಪೂರ್ವ-ಪಶ್ಚಿಮ                              | - ಡಾ.ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ                                       |
| ೮. ಕಾವ್ಯಾರ್ಥ ಚಿಂತನ                                    | - ಡಾ.ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ                                       |
| ೯. ಅಮೃತ ಮತ್ತು ಗರುಡ                                    | - ಡಿ.ಆರ್. ನಾಗರಾಜ   |
| ೧೦. ಪ್ರಾಯೋಗಿಕ ವಿಮರ್ಶೆ                                 | - ಸಂ. ಡಾ. ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ                                  |
| ೧೧. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಮೂಲ ತತ್ವಗಳು                      | - ಡಾ. ಎಚ್.ತಿಪ್ಪೆರುದ್ರಸ್ವಾಮಿ                                    |
| ೧೨. ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ಸ್ತ್ರೀ ಸಂವೇದನೆ ಪುನರ್ ಮೌಲ್ಯೀಕರಣ | - ಸಂ. ಡಾ. ಬರಗೂರ ರಾಮಚಂದ್ರಪ್ಪ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು  |
| ೧೩. ತೌಲನಿಕ ಕಾವ್ಯ ಚಿಂತನ                                | - ಸಂ. ಪ್ರೊ. ಮಲ್ಲೇಪುರಂ, ಜಿ. ವೆಂಕಟೇಶ ತಳುಕಿನ                      |

## PG43T104: ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ

### Course Outcomes:

೧. ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಲೋಕದೃಷ್ಟಿಯನ್ನು ಬೆಳಗುವಲ್ಲಿ ಮಾಧ್ಯಮಗಳು ವಹಿಸುವ ಪಾತ್ರಗಳನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೨. ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗಳ ವರ್ಧನೆಯಲ್ಲಿ ಪರಂಪರಾಗತ ಮತ್ತು ಆಧುನಿಕ ಮಾಧ್ಯಮಗಳು ನೀಡಿದ ಕೊಡುಗೆಯನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡುವಲ್ಲಿ ಯೋಗ್ಯರಾಗುವರು.
೩. ಕರ್ನಾಟಕ ಏಕೀಕರಣ ಚಳುವಳಿಗೆ ಪತ್ರಿಕೆಗಳು ಕೊಟ್ಟ ಕೊಡುಗೆಯನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
೪. ಕನ್ನಡ ಪತ್ರಿಕಾರಂಗ ವಿಕಾಸಕ್ಕೆ ದುಡಿದ ಮಹನೀಯರ ಪರಿಶ್ರಮವನ್ನು ಮತ್ತು ಅವರ ಸಾಧನೆ ಸಿದ್ಧಿಗಳನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.
೫. ಸಮೂಹ ಮಾಧ್ಯಮಗಳ ವಲಯದಲ್ಲಿ ಕಾರ್ಯನಿರ್ವಹಿಸಬೇಕಾದ ಕೌಶಲ್ಯಗಳನ್ನು ಕಲಿಯುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಸಮೂಹ ಮಾಧ್ಯಮ-ಪರಿಕಲ್ಪನೆ, ಸಮೂಹ ಮಾಧ್ಯಮಗಳ ಉಗಮ ವಿಕಾಸ, ಪ್ರಯೋಜನ, ಪ್ರಕಾರಗಳು, ಸಮೂಹ ಮಾಧ್ಯಮಗಳು ಮತ್ತು ಸಾಮಾಜಿಕ ಬದ್ಧತೆ, ಸಾಮಾಜಿಕ ನ್ಯಾಯ, ಮಹಿಳಾ ಸಬಲೀಕರಣ, ಮಾನವ ಹಕ್ಕುಗಳ ರಕ್ಷಣೆ, ಪರಿಸರ ಪ್ರಜ್ಞೆ.
೨. ಸಮೂಹ ಮಾಧ್ಯಮಗಳ ಪ್ರಭೇದಗಳು- ಪಾರಂಪರಿಕ (ಭಾಷೆ, ಕುಣಿತ, ಸಂಗೀತ, ಸಾಹಿತ್ಯ ಚಿತ್ರಕಲೆ, ಅಭಿನಯ) ಆಧುನಿಕ (ಪತ್ರಿಕೆ, ಬಾನುಲಿ, ದೂರದರ್ಶನ, ಚಲನಚಿತ್ರ, ಗಣಕಯಂತ್ರ, ಅಂತರ್ಜಾಲ, ಈ-ಮೇಲ್, ಇ-ಪತ್ರಿಕೆ, ಸಾಮಾಜಿಕ ಸಂಪರ್ಕ ತಾಣಗಳು(ಪೇಸ್‌ಬುಕ್), ಜಾಲತಾಣಗಳು.
೩. ಕನ್ನಡ ಪತ್ರಿಕೆಗಳ ಇತಿಹಾಸ: ಕನ್ನಡದಲ್ಲಿ ಮುದ್ರಣಕಲೆ, ಮೊದಲ ಕನ್ನಡಪತ್ರಿಕೆ, ಪತ್ರಿಕೆಯ ಪ್ರಕಾರಗಳು (ದಿನಪತ್ರಿಕೆ, ವಾರಪತ್ರಿಕೆ, ಮಾಸಪತ್ರಿಕೆ) ಸಂಪಾದಕೀಯ, ಸಾಪ್ತಾಹಿಕ ಪುರವಾಣಿ, ವಾಚಕರವಾಣಿ, ಅಗ್ರಲೇಖನ.
೪. ಕನ್ನಡ ಪತ್ರಿಕೋದ್ಯಮ ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ: (ರಾ.ಹ. ದೇಶಪಾಂಡೆ, ಘ.ಗು. ಹಳಕಟ್ಟಿ, ಆಲೂರು ವೆಂಕಟರಾಯರು, ಹರ್ಷೇಕರ ಮಂಜಪ್ಪ, ಚಂಪಾ)
೫. ಕನ್ನಡದ ಪ್ರಮುಖ ಪತ್ರಿಕೆಗಳು: ವಾಗ್ಭೂಷಣ, ಸಾಕ್ಷಿ, ಜಯಂತಿ, ಶಿವಾನುಭವ, ಜಯಕರ್ನಾಟಕ, ಪ್ರಬುದ್ಧಕರ್ನಾಟಕ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತಿನ ಪತ್ರಿಕೆ, ಪ್ರಪಂಚ. ಸಂಕ್ರಮಣ, ಕರ್ನಾಟಕ ಭಾರತಿ.

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

೧. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪತ್ರಿಕೆಗಳು, ಇತಿಹಾಸ, ಬೆಂಗಳೂರು ವರ್ತಮಾನ - ಪ್ರ. ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ೧೯೯೩.

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| ೨. ಕನ್ನಡದಲ್ಲಿ ಕಲೆ ಮತ್ತು ಸಾಹಿತ್ಯ ಪತ್ರಿಕೆಗಳು           | - ಲೇಖಕ ನಿರಂಜನ ವಾಣಳ್ಳಿ-ಶಿವರಾಮಕಾರಂತ ಅಧ್ಯಯನ ಕೇಂದ್ರ, ಪುತ್ತೂರು. |
| ೩. History of Kannada Journalism an analytical study | - K.V. Nagaraj 1987  |
| ೪. ಫ.ಗು. ಹಳಕಟ್ಟಿಯವರ ಪತ್ರಿಕಾ ಸಾಹಿತ್ಯ                  | - ಡಾ. ಪಂಡಿತ ರಾಠೋಡ  |

## ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳು

### PG43T105A: ಸೃಜನ ಸಾಹಿತ್ಯ ಮತ್ತು ವೈಚಾರಿಕ ಸಾಹಿತ್ಯ

#### Course Outcomes:

೧. ಧರ್ಮನಿಷ್ಠೆಯ ಭಾರತೀಯ ಮನಸ್ಸಿಗೆ ವಾಸ್ತವವಾದದ ವೈಜ್ಞಾನಿಕ ಧೋರಣೆಯ ತರ್ಕನಿಷ್ಠ ಪ್ರವೃತ್ತಿಯ ವೈಚಾರಿಕತೆ ಪರಿಚಯವಾಗುತ್ತದೆ.
೨. ಸೃಜನಶೀಲ ಪ್ರಜ್ಞೆ ರೂಪುಗೊಳ್ಳುವುದಕ್ಕೆ ಕಾರಣವಾದ ಮೂಲಭೂತ ಅಂಶಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
೩. ವಿಚಾರ ಶೀಲತೆಯ ಪ್ರಜ್ಞೆಯು ಸ್ವಾತಂತ್ರ್ಯ ಮತ್ತು ಸ್ವಂತಿಕೆಯನ್ನು ಪ್ರಶ್ನಿಸುವ ಗುಣವನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.
೪. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆಯು ವೈಚಾರಿಕತೆಯನ್ನು ಪೋಷಿಸಿಕೊಂಡ ಬಂದ ಕ್ರಮವನ್ನು ವಿಮರ್ಶಿಸುವವರು.
೫. ಆಧುನಿಕ ಬದುಕಿನ ದ್ವಂದ್ವ ವಿರೋಧಭಾಸಗಳು ಕನ್ನಡ ಕೃತಿಗಳಲ್ಲಿ ಚಿತ್ರವಾದ ಬಗೆಯನ್ನು ಆಯ್ದ ಪಠ್ಯಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಗ್ರಹಿಸುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೨೫

ಪಠ್ಯಗಳು : ೫೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಸೃಜನಶೀಲತೆ - ಪರಿಕಲ್ಪನೆ, ಸ್ವರೂಪ ಮತ್ತು ಲಕ್ಷಣಗಳು (ವಿವಿಧ ವಿದ್ವಾಂಸರ ವ್ಯಾಖ್ಯೆಗಳು) ಸೃಜನಶೀಲತೆ ಮತ್ತು ಸಾಹಿತ್ಯದ ಸಂಬಂಧ, ಸೃಜನಶೀಲತೆ ಮತ್ತು ಪ್ರಯೋಗಶೀಲತೆ, ವ್ಯಕ್ತಿ ಮತ್ತು ಸೃಜನಶೀಲತೆ. ಸೃಜನಶೀಲತೆಯ ವಿಭಿನ್ನ ನೆಲೆಗಳು - ಪ್ರತಿಭೆ, ವೃತ್ತಿ, ಸ್ಫೂರ್ತಿ ಮತ್ತು ಸೃಜನಶೀಲತೆಯ ಸಂಬಂಧ, ಸಾಹಿತ್ಯದಲ್ಲಿ ಸೃಜನಶೀಲತೆ, ಸೃಜನಶೀಲ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳು
೨. ವೈಚಾರಿಕತೆ ಎಂದರೇನು? ಗುಣ, ಸ್ವರೂಪ, ವೈಚಾರಿಕತೆಯ ಇತಿಹಾಸ ಬೆಳವಣಿಗೆ : ಜಾಗತಿಕ ಸಂದರ್ಭ ಮತ್ತು ಭಾರತೀಯ ಸಂದರ್ಭ
೩. ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ವೈಚಾರಿಕತೆ: ವಚನ, ಸಾಹಿತ್ಯ, ರಗಳೆ, ಕೀರ್ತನೆಗಳಲ್ಲಿ ತತ್ವಪದಕಾರದಲ್ಲಿ ವೈಚಾರಿಕತೆ.

೪. ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ವೈಚಾರಿಕತೆ: [ಪ್ರಮುಖ ಚಿಂತಕರು: ಕುವೆಂಪು, ಶಂಬಾಜೋಶಿ, ಎ.ಎನ್. ಮೂರ್ತಿರಾಯರು, ಶ್ರೀರಂಗರು, ಶಿವರಾಮಕಾರಂತ, ಎಚ್.ನರಸಿಂಹಯ್ಯ, ಪೂರ್ಣಚಂದ್ರ ತೇಜಸ್ವಿ, ಗೌರೀಶ ಕಾಯ್ಕಿಣಿ.]
೫. ಕನ್ನಡ ವೈಚಾರಿಕ ಸಾಹಿತ್ಯದ ಪ್ರಮುಖ ನೆಲೆಗಳು: ದೇವರು ಧರ್ಮ, ತತ್ವಜ್ಞಾನ, ವ್ಯವಸ್ಥೆ ವಿರೋಧ, ವ್ಯಕ್ತಿತ್ವಾಂತರ್ಯ, ಜಾತ್ಯತೀತ ಧೋರಣೆ, ಕೋಮುವಾದ, ವಿಚಾರವಾದ, ಸಮನ್ವಯ, ಸಮಾಜವಾದ, ಲಿಂಗಸಮಾನತೆ ಮತ್ತು ಸ್ತ್ರೀಪರ ಚಿಂತನೆ.

#### ಪಠ್ಯಗಳು :

- |                      |   |                   |
|----------------------|---|-------------------|
| ೧) ವರ್ಧಮಾನ           | - | ಗೋಪಾಲ ಕೃಷ್ಣ ಅಡಿಗ  |
| ೨) ಅಗ್ನಿ ಮತ್ತು ಮಳೆ   | - | ಗಿರೀಶ ಕಾರ್ನಾಡ     |
| ೩) ದೇವರು             | - | ಎ.ಎನ್. ಮೂರ್ತಿರಾವ್ |
| ೪) ಎದೆಗೆ ಬಿದ್ದ ಅಕ್ಷರ | - | ದೇವನೂರು ಮಹಾದೇವ    |

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |  |   |   |
|--|---|---|
| ೧) ವಿಚಾರ ಸಾಹಿತ್ಯ ನಿರ್ಮಾಣ                         | - | ಶಿವರಾಮ ಕಾರಂತ  |
| ೨) ಶಂಬಾ ಸಂಪುಟಗಳು (೬)                             | - | ಕನ್ನಡ ಪುಸ್ತಕ ಪ್ರಾಧಿಕಾರ, ಸಂ. ಮಲ್ಲೇಪುರಂ, ಜೀ. ವೆಂಕಟೇಶ್ |
| ೩) ಸ್ವಾತಂತ್ರ್ಯೋತ್ತರ ವಿಚಾರ ಸಾಹಿತ್ಯ                | - | ಗೌರೀಶ ಕಾಯ್ಕಿಣಿ                                      |
| ೪) ಬಡತನ ಸಾಹಿತ್ಯವಸ್ತು ವೇಕಾಗಿದೆ? (ಲೇಖನ)            | - | ದ.ರಾ. ಬೇಂದ್ರೆ                                       |
| ೫) ಸಾಹಿತ್ಯ ಕಾರ್ಯ (ಲೇಖನ)                          | - | ಯಶವಂತ ಚಿತ್ತಾಲ                                       |
| ೬) ಭಾರತೀಯವೆನ್ನುವ ಒಂದು ಚಿಂತನಕ್ರಮ ಇದೆಯೇ? (ಲೇಖನ)    | - | ಎ.ಕೆ. ರಾಮಾನುಜನ್                                     |
| ೭) ಆಧುನಿಕ ಸಾಹಿತ್ಯಕ್ಕೆ ಹೀಗೆ ಬನ್ನಿ (ಲೇಖನ)          | - | ಕೆ.ವಿ. ಸುಬ್ಬಣ್ಣ                                     |
| ೮) ಸಾಹಿತ್ಯ ಮಿಮರ್ಶೆಯಲ್ಲಿ ವೈಚಾರಿಕ ಸಮಸ್ಯೆಗಳು (ಲೇಖನ) | - | ರಾಜೀವ ತಾರಾನಾಥ                                       |
| ೯) ಕನ್ನಡ ಸಾಹಿತ್ಯ ಬೇರು ಕಾಂಡ ಮತ್ತು ಚಿಗುರು (ಲೇಖನ)   | - | ಕೆ.ವಿ. ನಾರಾಯಣ                                       |
| ೧೦) ತರುಣ ಸಾಹಿತಿಗಳನ್ನು ಕುರಿತು (ಲೇಖನ)              | - | ಪಿ. ಲಂಕೇಶ್  |
| ೧೧) ವಿಚಾರ ಸಾಹಿತ್ಯ ಮತ್ತು ಮಹಿಳೆ                    | - | ಅನಸೂಯಾ ಕಾಂಬಳೆ                                       |
| ೧೨) ಕಾವ್ಯ ಕುತೂಹಲ                                 | - | ಪು.ತಿ.ನ.  |
| ೧೩) ಕಾವ್ಯ ಸಿದ್ಧಾಂತ                               | - | ಡಾ. ವಿ.ಕೃ.ಗೋಕಾಕ                                     |

### PG43T105B: ಹಸ್ತಪ್ರತಿ ಶಾಸ್ತ್ರ

#### Course Outcomes:

೧. ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಲಿಪಿಶಾಸ್ತ್ರವನ್ನು ತಿಳಿದುಕೊಳ್ಳಲು ಸಮರ್ಥರಾಗುವರು.
೨. ಪ್ರಾಚೀನ ಕಾಲದಲ್ಲಿ ಹಸ್ತಪ್ರತಿಗಳನ್ನು ಸಿದ್ಧಗೊಳಿಸುವ ಮತ್ತು ಸಂರಕ್ಷಿಸುವ ವಿಧಾನವನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
೩. ಪ್ರಾಚೀನ ಹಸ್ತಪ್ರತಿಗಳ ಅಜ್ಞಾತ ಕವಿಗಳನ್ನು ಕಾವ್ಯ ಕೃತಿಗಳನ್ನು ಮುನ್ನೆಲೆಗೆ ತರುವ ಬಗೆಯನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
೪. ಧಾರ್ಮಿಕ ಕೇಂದ್ರಗಳು ಹಸ್ತಪ್ರತಿಗಳ ಸಂರಕ್ಷಣೆಯಲ್ಲಿ ವಹಿಸಿದ ಪಾತ್ರವನ್ನು ಅರಿವರು.
೫. ಹಸ್ತ ಪ್ರತಿಗಳ ಕ್ಷೇತ್ರ ಕಾರ್ಯಗಳ ವಿಧಿವಿಧಾನಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
 ಪತ್ರಿಕೆ : ೭೫  
 ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
 ಹಾಜರಾತಿ : ೦೩

೧. ಹಸ್ತಪ್ರತಿ : ಸ್ವರೂಪ, ಪ್ರಯೋಜನ ಹಸ್ತಪ್ರತಿಗಳ ಪರಂಪರೆ, ಸಂರಕ್ಷಣೆ ಸಂರಕ್ಷಣಾ ವಿಧಾನಗಳು. [ಆಧುನಿಕ ಮತ್ತು ಪ್ರಾಚೀನ ಹಸ್ತಪ್ರತಿ ಭಂಡಾರಗಳು, ಕನ್ನಡ ಹಸ್ತಪ್ರತಿ ಸೂಚಿಗಳು, ಹಸ್ತಪ್ರತಿ ಮತ್ತು ಗಣಕೀಕರಣ, ಹಸ್ತಪ್ರತಿ ಓದುವಿಕೆ]
೨. ಹಸ್ತಪ್ರತಿ ಸಿದ್ಧತೆಯ ವಿಧಾನ: ಲೇಖನ ಪೂರ್ವಹಂತ, ಲೇಖನ ಹಂತ, ಲೇಖನೋತ್ತರ ಹಂತ
೩. ಹಸ್ತಪ್ರತಿ ಲಿಪಿಕಾರರು: ಲಿಪಿಕಾರರ ಪ್ರಕಾರಗಳು- ನಿಯುಕ್ತ ಲಿಪಿಕಾರರು, ವೃತ್ತಿ ಲಿಪಿಕಾರರು, ಹವ್ಯಾಸಿ ಲಿಪಿಕಾರರು, ಲಿಪಿಕಾರರ ಗುಣ ಸ್ವಭಾವ, ಆದರ್ಶ, ದೋಷಗಳು
೪. ಹಸ್ತಪ್ರತಿ ಪ್ರಶಸ್ತಿಗಳು: ಸ್ವರೂಪ, ಚಾರಿತ್ರಿಕ, ಧಾರ್ಮಿಕ, ಸಾಮಾಜಿಕ ಮಹತ್ವ. ಹಸ್ತಪ್ರತಿ ಪೋಷಣೆ, ಪ್ರಸರಣ ಮತ್ತು ಪೋಷಕರು
೫. ಹಸ್ತಪ್ರತಿ ಸಂಗ್ರಹ ಮತ್ತು ಸಂರಕ್ಷಣೆ: ಹಸ್ತಪ್ರತಿ ಸರ್ವೇಕ್ಷಣ, ಕ್ಷೇತ್ರಕಾರ್ಯ ಮತ್ತು ಸಂಗ್ರಹ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- |   |   |
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| ೧. ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ                       | - ಎಂ.ಎಂ.ಕಲಬುರ್ಗಿ                        |
| ೨. ಕನ್ನಡ ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ                 | - ಎಂ.ವಿ.ಸೀತಾರಾಮಯ್ಯ, ಡಾ.ಎಂ.ಚಿದಾನಂದಮೂರ್ತಿ |
| ೩. ಕನ್ನಡ ಹಸ್ತಪ್ರತಿಗಳು :ಒಂದು ಅಧ್ಯಯನ        | - ಡಾ.ಬಿ.ಕೆ.ಹಿರೇಮಠ                       |
| ೪. ಕನ್ನಡ ಹಸ್ತಪ್ರತಿ: ಲಿಪಿಕಾರರು ಪ್ರಶಸ್ತಿಗಳು | - ಡಾ.ಬಿ.ಆರ್.ಹಿರೇಮಠ                      |
| ೫. ಮಣಿಹ                                   | - ವಿ.ಸೀತಾರಾಮಯ್ಯ                         |
| ೬. ಹಸ್ತಪ್ರತಿ ಸಂರಕ್ಷಣೆಯ ವಿಧಾನಗಳು           | - ಬಿ.ಎಸ್.ಸಣ್ಣಯ್ಯ                        |
| ೭.  |   |

**PG43T105C: ನವೋದಯ ಪೂರ್ವ ಕನ್ನಡ ಸಾಹಿತ್ಯ**

**Course Outcomes:**

೧. ಅರುಣೋದಯ ಕಾಲದ ಸಾಹಿತ್ಯಿಕ ಸಂವೇದಗಳನ್ನು ಗ್ರಹಿಸುವರು.
೨. ಮುಮ್ಮಡಿ ಕೃಷ್ಣರಾಜರು ಅರುಣೋದಯ ಕಾಲದ ಸಾಹಿತ್ಯವನ್ನು ಪೋಷಿಸಿದ ಬಗೆಯನ್ನು ವಿಮರ್ಶಿಸುವರು.
೩. ಪಾಶ್ಚಾತ್ಯ ಮಿಶನರಿಗಳು ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಬೆಳವಣಿಗೆಗೆ ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಮರ್ಥರಾಗುವರು.
೪. ಸಂಧಿ ಕಾಲದ ಸಾಹಿತ್ಯದ ವೈಲಕ್ಷಣಗಳನ್ನು ಅರಿಯುವರು.
೫. ಅರುಣೋದಯ ಕಾಲದಲ್ಲಿ ಬೆಳೆದು ಬಂದ ಅನುವಾದ ಸಾಹಿತ್ಯ ದೇಶಿ ಸಂಸ್ಕೃತಿಗೆ ತೋರಿದ ಪ್ರತಿಕ್ರಿಯೆಗಳನ್ನು ವಿವೇಚಿಸುವರು.

ಅಂಕಗಳು : ೧೦೦  
 ತಾತ್ವಿಕತೆ : ೨೫  
 ಪಠ್ಯಗಳು : ೫೦  
 ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
 ಹಾಜರಾತಿ : ೦೩

೧. ನವೋದಯಪೂರ್ವ ಕನ್ನಡ ಪರಿಸರ : ರಾಜಕೀಯ, ಸಾಮಾಜಿಕ, ಸಾಹಿತ್ಯಿಕ ಮತ್ತು ಶೈಕ್ಷಣಿಕ. ಪಾಶ್ಚಾತ್ಯ ಸಂಪರ್ಕ, ಮಿಶ್ರನರಿಗಳ ಆಗಮನ, ಸುಧಾರಣಾವಾದಿ ಚಳುವಳಿಗಳ ಪ್ರಭಾವ, ಮುದ್ರಣಕಲೆ, ಕನ್ನಡ ಪತ್ರಿಕೆಗಳು.
೨. ಪಾಶ್ಚಾತ್ಯ ವಿದ್ವಾಂಸರ ಕನ್ನಡ ಸೇವೆ : ಶಾಸನ, ಸಾಹಿತ್ಯ, ವ್ಯಾಕರಣ, ನಿಘಂಟು (ಮೆಕೆಂಡ್ರಿ, ಬಿ.ಎಲ್.ರೈಸ್, ಕಿಟೆಲ್, ಜೆ.ಎಫ್. ಪ್ಲೀಟ್)
೩. ಅರುಣೋದಯಕಾಲದ ಕನ್ನಡ ಸಾಹಿತ್ಯ : ಮೈಸೂರು ಅರಸರ ಆಸ್ಥಾನ ಸಾಹಿತ್ಯ, ಅನುಭಾವಿ ಕವಿಗಳು, ತತ್ವಪದಕಾರರು.
೪. ಅನುವಾದ ಸಾಹಿತ್ಯ : ಬಂಗಾಲಿ, ಮರಾಠಿ, ಇಂಗ್ಲಿಷ್, ಸಂಸ್ಕೃತ, ತೆಲುಗು, ಮಲೆಯಾಳಂ, (ಬಿ. ವೆಂಕಟಾಚಾರ್, ಬಸವಪ್ಪ ಶಾಸ್ತ್ರಿಗಳು, ಗಳಗನಾಥರು, ಎಂ.ಎಸ್. ಪುಟ್ಟಣ್ಣ)
೫. ಸ್ವತಂತ್ರ ಸಾಹಿತ್ಯ : ಕಾದಂಬರಿ, ನಾಟಕ, ವ್ಯಾಕರಣ, ಕೋಶ, ಚರಿತ್ರೆ, ಇತಿಹಾಸ, ಕೃತಿಗಳು.

#### ಪಠ್ಯಗಳು:

೧. ಮುದ್ದಣ್ಣನ ರಾಮಾಶ್ವಮೇಧ - ಸಂ. ತೆಕ್ಕಂಜೆ ಗೋಪಾಲ ಕೃಷ್ಣಭಟ್ಟ (ಆಶ್ವಾಸ ೧,೪,೫)
೨. ಶಿಶುನಾಳ ಶರೀಫರ ಪದಗಳು - ಸಂ. ಶಿವಾನಂದ ಗುಬ್ಬಣ್ಣನವರ (ತತ್ವಪದ ಸಾಹಿತ್ಯ)
೩. ಮಾಡಿದ್ದುಣ್ಣೋ ಮಾರಾಯ - ಎಂ. ಎಸ್. ಪುಟ್ಟಣ್ಣ

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |                                   |                           |
|-----------------------------------|---------------------------|
| ೧. ಹೊಸಗನ್ನಡ ಅರುಣೋದಯ               | - ಡಾ. ಶ್ರೀನಿವಾಸ ಹಾವನೂರ    |
| ೨. ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯದ ಉದಯ ಕಾಲ      | - ಡಾ. ರಾ.ಯ. ಧಾರವಾಡಕರ      |
| ೩. ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯವಿಕಾಸ          | - ಡಾ. ಹರಿಕೃಷ್ಣ ಭರಣ್ಯ      |
| ೪. ಗಳಗನಾಥ ಮಾಸ್ತರರು                | - ಡಾ. ಶ್ರೀನಿವಾಸ ಹಾವನೂರ    |
| ೫. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಇತಿಹಾಸ          | - ಡಾ. ರಾ.ಶ್ರೀ. ಮುಗಳಿ      |
| ೬. ಕರ್ನಾಟಕದ ಕವಯಿತ್ರಿಯರು           | - ಡಾ. ಸರೋಜಿನಿ ಮಹಿಷಿ       |
| ೭. ನಡೆದುಬಂದ ದಾರಿ                  | - ಮನೋಹರ ಗ್ರಂಥಮಾಲೆ, ಧಾರವಾಡ |
| ೮. ಸಾಹಿತ್ಯ ಸಂಪ್ರದಾಯ ಮತ್ತು ಹೊಸವರ್ಗ | - ವೀ.ಸೀ.                  |
| ೯. ಯುಗಧರ್ಮ ಮತ್ತು ಸಾಹಿತ್ಯ ದರ್ಶನ    | - ಡಾ. ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ |

## ೨ ನೇ ಸೆಮಿಸ್ಟರ್

### PG43T201: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಭಾಗ-೨ (ನವ್ಯ-ದಲಿತ-ಬಂಡಾಯ-ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯ ಪಠ್ಯಗಳು)

#### Course Outcomes:

೧. ನವ್ಯ ಸಾಹಿತ್ಯದ ಧೋರಣೆಗಳನ್ನು ಅರಿಯುವರು.
೨. ದಲಿತ ಸಾಹಿತ್ಯ ಮತ್ತು ಚಳುವಳಿಗಳ ಸಂಬಂಧವನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
೩. ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ಮಾನವೀಯ ಪ್ರಜ್ಞೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯದ ಆಶಯ-ಧೋರಣೆಗಳನ್ನು ಅರಿಯುವರು.
೫. ನವೋತ್ತರ ಸಾಹಿತ್ಯದ ಕಾಳಜಿಗಳನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
ತಾತ್ವಿಕತೆ : ೨೫, ಪಠ್ಯಗಳು : ೫೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

- ೧) ನವ್ಯ ಸಾಹಿತ್ಯ : ಪ್ರೇರಣೆಗಳು, ಧೋರಣೆಗಳು, ನವ್ಯಸಾಹಿತ್ಯದ ಪ್ರಮುಖ ಲೇಖಕರು ಮತ್ತು ಅವರ ಕೃತಿಗಳ ಪರಿಚಯ. [ವಿ.ಕೃ.ಗೋಕಾಕ, ಗೋಪಾಲಕೃಷ್ಣ ಅಡಿಗ, ಪಿ.ಲಂಕೇಶ, ಗಿರೀಶ ಕಾರ್ನಾಡ, ಯಶವಂತ ಚಿತ್ತಾಲ, ಶಾಂತಿನಾಥ ದೇಸಾಯಿ ಮತ್ತು ಯು.ಆರ್. ಅನಂತಮೂರ್ತಿ]
- ೨) ದಲಿತ ಸಾಹಿತ್ಯ : ದಲಿತ ಸಾಹಿತ್ಯದ ಪ್ರೇರಣೆಗಳು, ಸ್ವರೂಪ-ಲಕ್ಷಣಗಳು, ಪ್ರಮುಖ ಕಾಳಜಿಗಳು. ಪ್ರಮುಖ ಲೇಖಕರು ಮತ್ತು ಕೃತಿಗಳ ಪರಿಚಯ, [ದೇವನೂರು ಮಹಾದೇವ, ಸಿದ್ದಲಿಂಗಯ್ಯ, ಕೆ.ಬಿ.ಸಿದ್ದಯ್ಯ, ಅರವಿಂದ ಮಾಲಗತ್ತಿ]
- ೩) ಬಂಡಾಯ ಸಾಹಿತ್ಯ : ಹುಟ್ಟು, ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ಮೇಲೆ ಲೋಹಿಯಾ, ಅಂಬೇಡ್ಕರ, ಮಾರ್ಕ್ಸ್‌ವಾದಗಳ ಪ್ರಭಾವ, ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪ-ಲಕ್ಷಣ, ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ಪ್ರಮುಖ ಲೇಖಕರು ಮತ್ತು ಅವರ ಕೃತಿಗಳ ಪರಿಚಯ [ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ, ಚಂದ್ರಶೇಖರ ಪಾಟೀಲ, ಜಂಬಣ್ಣಅಮರ ಚಿಂತ, ಸುಕನ್ಯಾ ಮಾರುತಿ]
- ೪) ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯ: ಪ್ರೇರಣೆಗಳು-ಕಾಳಜಿಗಳು, ಧೋರಣೆಗಳು, ಸಿದ್ಧಾಂತಗಳು. ಪ್ರಮುಖ ಲೇಖಕಿಯರು: [ವೀಣಾ ಶಾಂತೇಶ್ವರ, ಶಶಿಕಲಾ ವೀರಯ್ಯಸ್ವಾಮಿ, ಸಾರಾ ಅಬೂಬಕರ್, ಬಿ.ಟಿ.ಲಲಿತಾ ನಾಯಕ್, ಗೀತಾ ನಾಗಭೂಷಣ, ಡಾ. ಮಲ್ಲಿಕಾ ಘಂಟಿ ಇವರ ಕೃತಿಗಳ ಪರಿಚಯ]

**ಪಠ್ಯಗಳು :**

- |  |   |                   |
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| ೧. ಮುಕ್ತಿ (ಕಾದಂಬರಿ)                    | - | ಶಾಂತಿನಾಥ ದೇಸಾಯಿ   |
| ೨. ಸಿರಿಸಂಪಿಗೆ (ನಾಟಕ)                   | - | ಚಂದ್ರಶೇಖರ ಕಂಬಾರ   |
| ೩. ಸುಗ್ಗಿ (ಕಥೆ)                        | - | ಬೆಸಗರಹಳ್ಳಿ ರಾಮಣ್ಣ |
| ೪. ಬೆಲ್ಲದಚ್ಚು ಮತ್ತು ಇರುವೆ ದಂಡು (ಕಾವ್ಯ) | - | ಡಾ. ಮಲ್ಲಿಕಾ ಘಂಟಿ  |

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- |   |   |  |
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| ೧. ದಲಿತ ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ಮೇಲೆ ಮಾರ್ಕ್ಸ್‌ವಾದದ ಪ್ರಭಾವ      | - | ಪ್ರಹ್ಲಾದ ಅಗಸನಕಟ್ಟೆ   |
| ೨. ಸಮಗ್ರ ವಿಮರ್ಶೆ                                      | - | ಗಿರಡ್ಡಿಗೋವಿಂದರಾಜ (ಸಂಪುಟ ೧&೨)   |
| ೩. ಅಧ್ಯಯನ   | - | ರಾಜೇಂದ್ರ ಚನ್ನಿ   |
| ೪. ಪ್ರಸ್ತುತ   | - | ಪಿ. ಲಂಕೇಶ  |
| ೫. ಸಾಹಿತ್ಯ ಮತ್ತು ಭಾಷೆ                                 | - | ಶಾಂತಿನಾಥ ದೇಸಾಯಿ  |
| ೬. ಬಂಡಾಯ ದಲಿತ ಸಾಹಿತ್ಯ                                 | - | ಪುರುಷೋತ್ತಮ ಬಿಳಿಮಲೆ   |
| ೭. ಬಂಡಾಯ ಕಾವ್ಯ  | - | ಸಂ. ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ   |
| ೮. ಸಂಸ್ಕೃತಿ ಮತ್ತು ಸೃಜನ ಶೀಲತೆ                          | - | ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ   |
| ೯. ಬಂಡಾಯ ಸಾಹಿತ್ಯದ ತಾತ್ವಿಕ ನೆಲೆಗಳು                     | - | ಬಸವರಾಜ ಸಬರದ  |
| ೧೦. ಆಯ್ದ ಲೇಖನಗಳು                                      | - | ಆರ್. ಕೆ. ಮಣಿಪಾಲ  |
| ೧೧. ಕನ್ನಡ ಬಂಡಾಯ ಸಾಹಿತ್ಯ                               | - | ಸಂ. ಸರಜು ಕಾಟ್ಕರ್, ಕೇಂದ್ರ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ನವದೆಹಲಿ  |
| ೧೨. ಹೊಸಗನ್ನಡ ಕಥೆಯ ಒಲವು ನಿಲುವುಗಳು                      | - | ಡಾ. ಗಿರಡ್ಡಿ ಗೋವಿಂದರಾಜ  |
| ೧೩. ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ                              | - | ಕೃಷ್ಣಮೂರ್ತಿ ಎಂ.ಜಿ., ಅಕ್ಷರ ಪ್ರಕಾಶನ, ಸಾಗರ-೧೯೭೦   |
| ೧೪. ಪ್ರಗತಿಶೀಲ-ನವ್ಯ-ದಲಿತ ಬಂಡಾಯಗಳ ಅಂತಸ್ಸಂಬಂಧ ಇಲಾಖೆ ೨೦೦೬ | - | ಅರೈ ಮಣಿಪಾಲ, ಸುವರ್ಣ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ(ಲೇಖನ) ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ  |
| ೧೫. ಕಾದಂಬರಿಯಲ್ಲಿ ಆಧುನಿಕತೆ ಮತ್ತು ನವ್ಯತೆ                | - | ಅಮೂರ ಜಿ.ಎಸ್., ಶತಮಾನದ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ, (ಸಂ.) ಎಚ್.ಎಸ್. ರಾಘವೇಂದ್ರರಾವ್, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು-೨೦೦೧ |

೧೬. ದಲಿತ ಸಾಹಿತ್ಯ ಮತ್ತು ಇತರ ಲೇಖನಗಳು -	ದೇವಯ್ಯ ಹರವೆ, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು-೧೯೯೧
೧೭. ಪಾಶ್ಚಾತ್ಯ ವಾದಗಳು ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂದರ್ಭ -	ಪ್ರೊ. ಸಿ.ಆರ್, ಯರವಿನತೆಲಮಠ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ-೨೦೦೦
೧೮. ನವ್ಯ ವಿಮರ್ಶೆ -	ಗಿರಡ್ಡಿ ಗೋವಿಂದರಾಜ, ಅಕ್ಷರ ಪ್ರಕಾಶನ ಸಾಗರ ೧೯೭೫
೧೯. ಅಡಿಗರು ಮತ್ತು ನವ್ಯಕಾವ್ಯ -	ಸುಮತೀಂದ್ರನಾಡಿಗ, ಎಸ್.ಬಿ.ಎಸ್. ಪಬ್ಲಿಷರ್ಸ್ ಡಿಸ್ಟ್ರಿಬೂಟರ್ಸ್ ಬೆಂಗಳೂರು ೧೯೯೭
೨೦. ನವ್ಯಕಾವ್ಯ ಪ್ರಯೋಗ -	ಕೀರ್ತಿನಾಥ ಕುರ್ತುಕೋಟಿ, ಮನೋಹರ ಗ್ರಂಥ ಮಾಲೆ, ಧಾರವಾಡ ೧೯೭೫
೨೧. ಶಕ್ತಿ ಶಾರದೆಯ ಮೇಳ -	ನಾಗರಾಜ ಡಿ.ಆರ್.ಆಕ್ಷರ ಪ್ರಕಾಶನ ಹೆಗ್ಗೋಡು ೧೯೮೭
೨೨. ನವ್ಯತೆ -	ಡಾ. ನರಹಳ್ಳಿ ಬಾಲಸುಬ್ರಹ್ಮಣ್ಯ ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು ೧೯೯೯
೨೩. ಸಿರಿಸಂಪಿಗೆ -	ಸಂ. ಡಾ. ಶಿವ ಪ್ರಕಾಶ್. ಎಸ್.ಎಚ್. (ಅಭಿನಂದನಾಗ್ರಂಥ) ರಂಗ ನಿರಂತರ ಬೆಂಗಳೂರು ೧೯೯೭
೨೪. ಕನ್ನಡ ನವ್ಯನಾಟಕ ಮತ್ತು ಪಾಶ್ಚಾತ್ಯ ಪ್ರಭಾವ -	ಹೆಗಡೆ ದಿವಸ್ವತಿ: ಕದಂಬ ಪ್ರಕಾಶನ ಬೆಂಗಳೂರು ೧೯೯೪
೨೫. ಕಂಬಾರರ ನಾಟಕಗಳು -	ವಿಸಾಜಿ ವಿಕ್ರಂ: ಸಂಚಯ ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು ೨೦೦೧
೨೬. ಗಿರೀಶ ಕಾರ್ನಾಡ ಹಾಗೂ ಭಾರತೀಯ ರಂಗಭೂಮಿ -	ಜಿ.ಎಸ್. ಅಮೂರ, ಮನೋಹರ ಗ್ರಂಥ ಮಾಲಾ, ಧಾರವಾಡ ೨೦೧೨

## PG43T202: ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ

### Course Outcomes:

೧. ಸಂಸ್ಕೃತಿಯ ಪರಿಕಲ್ಪನೆಯನ್ನು ಗ್ರಹಿಸುವರು.
೨. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿಯ ವಿಕಾಸಕ್ಕೆ ಪ್ರಮುಖ ರಾಜಮನೆತನಗಳು ನೀಡಿದ ಕೊಡುಗೆಗಳನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡುವರು.
೩. ಪ್ರಾಚೀನ ಕರ್ನಾಟಕದ ಜೀವನ ಮೌಲ್ಯಗಳನ್ನು ಪರಾಮರ್ಶಿಸುವರು.
೪. ಕರ್ನಾಟಕದ ಪ್ರಮುಖ ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರಗಳ ಐತಿಹಾಸಿಕ ಮಹತ್ವವನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
೫. ಕರ್ನಾಟಕದ ಸಂಸ್ಕೃತಿ ಶೋಧಕರ ಬಗ್ಗೆ ಅರಿವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಸಂಸ್ಕೃತಿ ಎಂದರೇನು? ಸಂಸ್ಕೃತಿಯ ವ್ಯಾಖ್ಯೆ-ಸ್ವರೂಪ-ಸಂಸ್ಕೃತಿಯ ವಿಕಾಸ, ಸಂಸ್ಕೃತಿ-ನಾಗರಿಕತೆ (ಶಿಷ್ಟ ಮತ್ತು ಜನಪದ) ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಆಕರಗಳು: ಶಾಸನ, ಸಾಹಿತ್ಯ, ಕೈಫಿಯತ್ತು, ನಾಮ, ಬಖೈರು, ದಾಖಲು ಸಾಹಿತ್ಯ, ಪುರಾಣ-ಐತಿಹ್ಯ ವಾಸ್ತುಶಿಲ್ಪ, ಉತ್ಖನನದ ವರದಿಗಳು, ಭೌತಿಕ ದಾಖಲೆಗಳು.
೨. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಮತ್ತು ರಾಜಮನೆತನಗಳು: ಧರ್ಮ, ಸಾಹಿತ್ಯ, ಶಿಲ್ಪಕಲೆ, ರಾಜಕೀಯಕ್ಕೆ ಕದಂಬ, ಗಂಗ, ಚಾಲುಕ್ಯ, ರಾಷ್ಟ್ರಕೂಟ, ಕಲ್ಯಾಣ ಚಾಲುಕ್ಯ, ವಿಜಯನಗರ ಅರಸರ ಕೊಡುಗೆ.
೩. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ: ಮೌಲ್ಯಗಳು-ಶೌರ್ಯ ಧರ್ಮ, ದಾನ, ಶರಣಾಗತರಕ್ಷಣೆ, ಶುಚಿತ್ವ, ಸ್ವಾಭಿಮಾನ, ಧರ್ಮಸಮನ್ವಯ, ಲಿಂಗಸಮಾನತೆ, ಪ್ರಭುತ್ವದ ಪರ-ವಿರೋಧ ನಿಲುವುಗಳು.
೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಶೋಧಕರು: ಶಂಬಾ ಜೋಶಿ ಮತ್ತು ಬೆಟಗೇರಿ ಕೃಷ್ಣಶರ್ಮರ ಸಂಸ್ಕೃತಿ ಚಿಂತನೆಗಳು. ಕರ್ನಾಟಕದ ಪ್ರಮುಖ ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರಗಳು: ಬಾದಾಮಿ, ಐಹೊಳೆ, ಪಟ್ಟದಕಲ್ಲು, ಬಸವಕಲ್ಯಾಣ, ಶ್ರವಣಬೆಳಗೊಳ, ಹಂಪಿ ಇವುಗಳ ಸಾಂಸ್ಕೃತಿಕ ಮಹತ್ವ.

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |                                   |   |  |
|-----------------------------------|---|--|
| ೧. ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ | - | ಎಂ.ಚಿದಾನಂದಮೂರ್ತಿ                             |
| ೨. ಸಂಸ್ಕೃತಿ                       | - | ದೇವುಡು                                       |
| ೩. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ               | - | ಶಂಬಾ ಜೋಶಿ ಸಂ.೩                               |
| ೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಸಮೀಕ್ಷೆ       | - | ಎಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ                       |
| ೫. ಕರ್ನಾಟಕದ ಅರಸುಮನೆತನಗಳು ಭಾಗ-೧&೨  | - | ಆರ್.ಎಸ್. ಪಂಚಮುಖಿ ಮತ್ತು ನೆಲಮಂಗಲ ಲಕ್ಷ್ಮೀನಾರಾಯಣ |
| ೬. ಕರ್ನಾಟಕ ಜನಜೀವನ                 | - | ಬೆಟಗೇರಿ ಕೃಷ್ಣಶರ್ಮ                            |
| ೭. ಸಂಸ್ಕೃತಿ ವಿಕೃತಿ                | - | ಎಂ. ಎಂ. ಕಲಬುರ್ಗಿ                             |
| ೮. ದಾಖಲು ಸಾಹಿತ್ಯ                  | - | ಡಾ. ಕೆ. ರವೀಂದ್ರನಾಥ                           |
| ೯. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ               | - | ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ                            |
| ೧೦. ಅಕ್ಷರ ಮೇರು ಬಾಗಲಕೋಟೆ           | - | ಚಾಲುಕ್ಯ ಉತ್ಸವ ಸಮಿತಿ-೨೦೧೧                     |
| ೧೧. ಜೀವನ ಮೌಲ್ಯಗಳು                 | - | ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ                            |
| ೧೨. ಆತ್ಮಬಲಿದಾನ                    | - | ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ                            |
| ೧೩. ಆರನೆಯ ವಿಕ್ರಮಾದಿತ್ಯನ ಶಾಸನಗಳು   | - | ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ                            |
| ೧೪. ಮುಳುಗುಂದನಾಡು ಅಧ್ಯಯನ           | - | ಡಾ. ಧನವಂತ ಹಾಜವಗೋಳ                            |

### PG43T203: ಜನಪದ ಸಾಹಿತ್ಯ : ತಾತ್ವಿಕ ಅಧ್ಯಯನ

#### Course Outcomes:

೧. ಜನಪದ- ಜಾನಪದಗಳ ಅಂತರವನ್ನು ಗ್ರಹಿಸುವರು.
೨. ಕರ್ನಾಟಕದಲ್ಲಿ ಮೌಖಿಕ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಬೆಳೆದು ಬಂದ ಬಗೆಯನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
೩. ಜನಪದ ಸಾಹಿತ್ಯದ ಗುಣ-ಲಕ್ಷಣಗಳನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಜನಪದ ಸಾಹಿತ್ಯ-ಶಿಷ್ಟ ಸಾಹಿತ್ಯದ ಬೆಳವಣಿಗೆಗೆ ಒದಗಿಸಿದ ಪ್ರೇರಣೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೫. ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ನಿರೂಪಿತವಾದ ಜೀವನಮೌಲ್ಯಗಳನ್ನು ಅರಿತುಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
ತಾತ್ವಿಕತೆ : ೨೫  
ಪಠ್ಯಗಳು : ೫೦  
ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
ಹಾಜರಾತಿ : ೦೩

೧. ಜನಪದ-ಜಾನಪದ: ಜಾನಪದದ ಸ್ವರೂಪ, ವ್ಯಾಖ್ಯೆ ಮತ್ತು ವರ್ಗೀಕರಣ,
೨. ಕರ್ನಾಟಕದಲ್ಲಿ ಜಾನಪದ ಅಧ್ಯಯನ ಪರಂಪರೆ, ಪ್ರಮುಖ ವಿದ್ವಾಂಸರ ಕೊಡುಗೆ. ಜನಪದ ಸಾಹಿತ್ಯ ಸಂಗ್ರಹ-ಸಂಪಾದನೆ, ಕ್ಷೇತ್ರಕಾರ್ಯ.
೩. ಕನ್ನಡ ಜನಪದ ಪದ್ಯಸಾಹಿತ್ಯ: ಪದ್ಯ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪ-ಲಕ್ಷಣ ಮತ್ತು ಪ್ರಕಾರಗಳು. (ತ್ರಿಪದಿ, ಸಂಪ್ರದಾಯದ ಹಾಡುಗಳು, ಲಾವಣಿ, ಹಂತಿ, ಗೀಗಿ, ಕಥನಕವನಗಳು, ಮಹಾಕಾವ್ಯ)
೪. ಕನ್ನಡ ಜನಪದ ಗದ್ಯಸಾಹಿತ್ಯ: ಗದ್ಯ ಸಾಹಿತ್ಯದ ಸ್ವರೂಪ-ಲಕ್ಷಣ ಮತ್ತು ಪ್ರಕಾರಗಳು. (ಕಥೆ, ಗಾದೆ, ಒಗಟು, ಒಡಪು, ಒಡಬು, ಬಯಲಾಟಗಳು)
೫. ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮೌಲ್ಯ ಪ್ರತಿಪಾದನೆ: ಸಮಷ್ಟಿ ಸಂಸ್ಕೃತಿ, ಜೀವನಶ್ರದ್ಧೆ, ದೈವನಂಬಿಕೆ, ಪ್ರೀತಿ, ಪ್ರಣಯ, ಸ್ತ್ರೀ ಸಂವೇದನೆ ಮತ್ತು ಬಂಡಾಯ.

#### ಪಠ್ಯಗಳು:

೧. ಗರತಿಯ ಹಾಡು - ಸಂ. ಹಲಸಂಗಿ ಗೆಳೆಯರು, ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು ಬೆಂಗಳೂರು
೨. ಫ್ಲೀಟರ ಲಾವಣಿಗಳು - (ಕಿತ್ತೂರ ಚೆನ್ನಮ್ಮನ ಸೊಸೆ, ಸಂಗೊಳ್ಳಿರಾಯಣ್ಣನ ದಂಗೆ, ಹಲಗಲಿ ಬೆಡರು ನರಗುಂದ ಪದ, ಆದಾಯ ತೆರಿಗೆ) ಸಂ. ಕ್ಯಾತನಹಳ್ಳಿ ರಾಮಣ್ಣ, ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿ.ವಿ, ಮೈಸೂರು
೩. ನಮ್ಮ ಒಗಟುಗಳು - ಸಂ. ರಾ.ಗೌ.
೪. ಉತ್ತರ ಕರ್ನಾಟಕದ ಜನಪದ ಕಥೆಗಳು - ಸಂ. ಡಾ. ಸಿಂಪಿ ಲಿಂಗಣ್ಣ (ರಮ್ಯ ಕಥೆಗಳು, ಅತಿಮಾನುಷ ಕಥೆಗಳು, ಬುದ್ಧಿವಂತಿಕೆಯ ಕಥೆಗಳು, ನೀತಿ ಕಥೆಗಳು, ಪ್ರಾಣಿ ಕಥೆಗಳು) ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ನವದೆಹಲಿ. ೧೯೭೨

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

೧. ಜಾನಪದ ಅಧ್ಯಯನ - ದೇ.ಜ.ಗೌ.
೨. ಜಾನಪದ ಸ್ವರೂಪ - ಹಾ.ಮಾ ನಾಯಕ
೩. ಜಾನಪದ ವಿಜ್ಞಾನ - ಡಾ. ಸೋಮಶೇಖರ ಇಮ್ಮಾಪುರ
೪. ನಮ್ಮ ಗಾದೆಗಳು - ರಾ.ಗೌ.
೫. ಜನಪದ ಸಾಹಿತ್ಯ ರೂಪಗಳು - ರಾ.ಗೌ.

### ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳು

**PG43T204A: ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ತಾತ್ವಿಕತೆ ಮತ್ತು ಪ್ರಾಯೋಗಿಕತೆ**

## Course Outcomes:

೧. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಅರಿವರು.
೨. ಪಾಶ್ಚಾತ್ಯದಲ್ಲಿ ವಿಮರ್ಶಾ ಪರಂಪರೆ ಸಾಗಿ ಬಂದ ದಾರಿಯನ್ನು ಗ್ರಹಿಸುವರು.
೩. ವಿಮರ್ಶಾವಾದಗಳು ಸಾಹಿತ್ಯ ಅಧ್ಯಯನಕ್ಕೆ ಒದಗಿಸುವ ಒಳನೋಟಗಳನ್ನು ತಿಳಿಯುವರು.
೪. ವಿಮರ್ಶಾ ಪ್ರಕಾರಗಳ ಸಾಧ್ಯತೆ ಮತ್ತು ಮಿತಿಗಳನ್ನು ಅರಿಯುವರು.
೫. ಕನ್ನಡ ವಿಮರ್ಶಾ ಸಾಧನ ಸಿದ್ಧಿಗಳ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಸಮರ್ಥರಾಗುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೩೫

ಪಠ್ಯಗಳು : ೪೦

ಕಿರುಪರೀಕ್ಷೆ : ೨೨

ಹಾಜರಾತಿ : ೦೩

## I. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ: ತಾತ್ವಿಕತೆ

೧. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಪರಿಕಲ್ಪನೆ, ಪರಂಪರೆ ವ್ಯಾಖ್ಯೆಗಳು ವಿಮರ್ಶೆಯ ಮೂಲತತ್ವಗಳು, ಮೀಮಾಂಸೆ ಮತ್ತು ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ,
೨. ಪಾಶ್ಚಾತ್ಯದಲ್ಲಿ ವಿಮರ್ಶೆಯ ಪರಂಪರೆ, ವಿಮರ್ಶೆಯ ವಿವಿಧ ವಾದಗಳು, ಜಾನಸನ್, ಡ್ರೈಡನ್, ವಡ್ಸ್‌ವರ್ತ್ ಕ್ರೋಚೆ, ಬುಲ್ಲೊ, ಎಫ್, ಆರ್.ಲಿವೀಸ್, ಎ.ಐ.ರಿಚರ್ಡ್ಸ್, ಟಿ.ಎಸ್. ಎಲಿಯಟ್.
೩. ವಿಮರ್ಶಕನ ಅರ್ಹತೆಗಳು, ವಿಮರ್ಶಕ- ಸಹೃದಯ, ವಿಮರ್ಶಕ-ಓದುಗ
೪. ವಿಮರ್ಶೆಯ ಪ್ರಕಾರಗಳು- ಪ್ರಾಯೋಗಿಕ, ಚಾರಿತ್ರಿಕ, ಮನಃಶಾಸ್ತ್ರೀಯ ವಿಮರ್ಶೆ.
೫. ರೂಪನಿಷ್ಠ ವಿಮರ್ಶೆ, ಸಮಾಜವಾದಿ ವಿಮರ್ಶೆ, ಸ್ತ್ರೀವಾದಿ ವಿಮರ್ಶೆ

## II. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ- ಪ್ರಾಯೋಗಿಕ ಮಾದರಿಗಳು

೧. ನವೋದಯ ವಿಮರ್ಶೆ - ಸಾಮಾನ್ಯ ಚಿತ್ರಕ್ಕೆ ಸುವರ್ಣದ ಚೌಕಟ್ಟು - ಎಸ್.ವಿ. ರಂಗಣ್ಣ  
ಸರೋವರದ ಸಿರಿಗನ್ನಡಿಯಲ್ಲಿ - ಕುವೆಂಪು
೨. ನವ್ಯ ವಿಮರ್ಶೆ - ಬೇಂದ್ರೆಯವರ ಕಾವ್ಯ ಶೈಲಿ - ಕೆ.ವಿ. ತಿರುಮಲೇಶ  
ದೇವನೂರ ಮಹಾದೇವರ ಒಡಲಾಳ - ಯು.ಆರ್. ಅನಂತಮೂರ್ತಿ
೩. ಸಮಾಜ ಶಾಸ್ತ್ರೀಯ ವಿಮರ್ಶೆ - ಕುವೆಂಪು ಕೃತಿಗಳಲ್ಲಿ ದಲಿತ ಜೀವನ ಚಿತ್ರಣ - ಬಿ. ಕೃಷ್ಣಪ್ಪ
೪. ಸ್ತ್ರೀವಾದಿ ವಿಮರ್ಶೆ - ಕಿರಗೂರಿನ ಗಯ್ಯಾಳಿಗಳು - ಡಾ.ಬಿ.ಎಸ್. ಸುಮಿತ್ರಾಬಾಯಿ  
ಸ್ತ್ರೀವಾದಿ ಓದು

## ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

೧. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಮಾದರಿಗಳು : ಡಾ. ಸಿ.ಆರ್. ಯರವಿನತೆಲಿಮಠ, ಕನ್ನಡ ವಿ.ವಿ. ಹಂಪಿ. ೨೦೦೮
೨. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆಯ ಮಾದರಿಗಳು: ಅನು. ಡಾ.ಸಿ.ಆರ್.ಯರವಿನತೆಲಿಮಠ, ನ್ಯೂ ಎಚ್ ಭಾಗ ೨ ಮತ್ತು ೩ ಪಬ್ಲಿಕೇಷನ್ ಕಲಬುರ್ಗಿ ೨೦೧೭
೩. ಅನ್ಯಚ್ಛಿನ್ನ ಶಿಸ್ತುಗಳ ಮೂಲಕ : ಸಂ. ನಾರಾಯಣ ಕೆ.ವಿ., ಬಿ. ಕೃಷ್ಣಮೂರ್ತಿ, ಕರ್ನಾಟಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ೧೯೯೨
೪. ಪಾಶ್ಚಾತ್ಯ ವಿಮರ್ಶೆಯ ಇತಿಹಾಸ : ಶಂಕರ ಮೂಕಾಶಿ ಪುಣೇಕರ,

೫. ಕನ್ನಡ ವಿಮರ್ಶೆಯ ಮಾರ್ಗ:	ಸಂ. ಪ್ರೊ. ಅರವಿಂದ ಮಾಲಗತ್ತಿ, ಮೈಸೂರು ವಿ.ವಿ. ೨೦೦೪
೬. ಕನ್ನಡದಲ್ಲಿ ಕಾವ್ಯ ಮೀಮಾಂಸೆ ಮತ್ತು ವಿಮರ್ಶೆ	ಸುಶೀಲಾ ನೆಲ್ಲಿಸರ
೭. ಪಾಶ್ಚಾತ್ಯ ಸಾಹಿತ್ಯ ವಾಗ್ವಾದಗಳು :	ಸಿ.ಆರ್. ಯರವಿನತಲೆಮಠ
೮. ಸಾಹಿತ್ಯ ಪ್ರವೇಶ (ಅನು. ಸಿ.ಪಿ.ಕೆ.) :	ಅಡ್ವನ್
೯. ಹೊರಸನ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ : ರಾಘವೇಂದ್ರರಾವ್, ಬೆಂಗಳೂರು. ೨೦೦೧	ಓ.ಎಲ್. ನಾಗಭೂಷಣ, ಹೆಚ್. ಎಸ್. ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ
೧೦. ಶತಮಾನದ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ:	ಹೆಚ್. ಎಸ್. ರಾಘವೇಂದ್ರರಾವ್, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು. ೨೦೦೧
೧೧. ಸ್ತ್ರೀವಾದಿ ಪ್ರವೇಶಿಕೆ :	ಸಂ. ಸುಮಿತ್ರಾಬಾಯಿ ಬಿ. ಎನ್., ಎನ್. ಗಾಯತ್ರಿ ಕರ್ನಾಟಕ ಲೇಖಕಿಯರ ಸಂಘ, ಬೆಂಗಳೂರು ೧೯೯೫.
೧೨. ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ :	ಸಂ. ತೇಜಸ್ವಿನಿ ನಿರಂಜನ, ಸೀಮಂತಿನಿ ನಿರಂಜನ
೧೩. ಮಹಿಳೆ ಮತ್ತು ಕನ್ನಡ : ಸಾಹಿತ್ಯ ಸಂದರ್ಭ	ಸಂ. ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ
೧೪. ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ :	ಸಂ. ರಾಮಚಂದ್ರನ್ ಸಿ.ಎನ್. ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು ೨೦೦೨
೧೫. ವಿಮರ್ಶೆಯ ಸವಾಲು (ಲೇಖನ):	ಆರ್ಕೆ ಮಣಿಪಾಲ್, ಕನ್ನಡ ವಿಮರ್ಶೆಯ ಮಾರ್ಗ, ಸಂ. ಪ್ರೊ. ಅರವಿಂದ ಮಾಲಗತ್ತಿ, ಮೈಸೂರು. ವಿ.ವಿ., ೨೦೦೪
೧೬. ಶೈಲಿ :	ಜೆ.ಮಿಡಲ್ವನ್ ಮರಿ : (ಅನು) ಎಡ್ವರ್ಡ್ ನೊರೋನ, ಭಾಗ್ಯವಾನ್ ಪ್ರಕಾಶನ, ಮೈಸೂರು ೧೯೯೯
೧೭. ವಿಮರ್ಶಾಶಾಸ್ತ್ರ (ಲೇಖನ):	ಗಿರಡ್ಡಿ ಗೋವಿಂದರಾಜ, ಸಮಗ್ರ ವಿಮರ್ಶೆ (ಸಂ. ೧) ಸಪ್ತ ಬುಕ್ ಹೌಸ್ ಬೆಂಗಳೂರು ೨೦೧೨
೧೮. ವಿಮರ್ಶೆಯ ಪೂರ್ವ-ಪಶ್ಚಿಮ:	ಶಿವರುದ್ರಪ್ಪ ಜೆ.ಎಸ್. ಶಾರದಾ ಪ್ರಕಾಶನ, ಗಾಂಧಿನಗರ ಬೆಂಗಳೂರು ೨೦೧೨

## PG43T204B: ಶಾಸನಶಾಸ್ತ್ರ ಅಧ್ಯಯನ

### Course Outcomes:

೧. ಶಾಸನಗಳ ಕರಡಚ್ಚು ತೆಗೆಯುವದನ್ನು ಕಲಿಯುವರು.
೨. ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಮಹತ್ವವನ್ನು ಅರಿಯುವರು.
೩. ಕನ್ನಡದಲ್ಲಿ ಶಾಸನ ಅಧ್ಯಯನ ಪರಂಪರೆ ಸಾಗಿ ಬಂದ ಕ್ರಮವನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
೪. ಶಾಸನೋಕ್ತ ಮೌಲ್ಯಗಳನ್ನು ಪರಾಮರ್ಶಿಸುವುದು.
೫. ಚರಿತ್ರೆಯನ್ನು ಅರ್ಥೈಸುವಲ್ಲಿ ಶಾಸನಗಳು ವಹಿಸುವ ಮಹತ್ವವನ್ನು ಅರಿಯುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಶಾಸನ: ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಾಮುಖ್ಯತೆ, ಬೆಳವಣಿಗೆಯ ಸಾಮಗ್ರಿಗಳು, ಲಿಪಿವಿಕಾಸ, ಬ್ರಾಹ್ಮಿಲಿಪಿ-ಕನ್ನಡ ಲಿಪಿಯ ಬೆಳವಣಿಗೆ, ಶಾಸನಗಳ ರಚನಾ ಪೂರ್ವಸಿದ್ಧತೆ,
೨. ಶಾಸನ ಪ್ರಕಾರಗಳು: ದಾನಶಾಸನ, ಪ್ರಶಸ್ತಿ ಶಾಸನ, ವೀರಗಲ್ಲು, ಮಾಸ್ತಿಗಲ್ಲು, ನಿಷಿಧಿಗಲ್ಲು, ಯೂಪ ಶಾಸನಗಳು, ಆತ್ಮಬಲಿದಾನ, ಕೂಟ ಶಾಸನಗಳು.
೩. ಶಾಸನಗಳ ವಿಷಯಾನುಪೂರ್ವಿಕ: ಸ್ತುತಿ, ವಂಶಾವಳಿ, ಕಾಲ ನಿರೂಪಣೆ, ವಿಕ್ರಮಶಕೆ, ಶಾಲಿವಾಹನ ಶಕೆ, ಚಾಲುಕ್ಯ ವಿಕ್ರಮ ಶಕೆ, ಶಾಸನ ಭಾಷೆ-ಪರಿಭಾಷೆ, ಶಾಸನಗಳ ಛಂದಸ್ಸು, ಶಾಪಾಶಯ
೪. ಶಾಸನಗಳ ಅಧ್ಯಯನ ಮತ್ತು ಸಂರಕ್ಷಣೆ: ಶಾಸನಗಳ ಸಾಹಿತ್ಯಿಕ, ಸಾಮಾಜಿಕ, ರಾಜಕೀಯ, ಚಾರಿತ್ರಿಕ ಧಾರ್ಮಿಕ ಮಹತ್ವ, ಶಾಸನಗಳ ಸಂರಕ್ಷಣೆಯ ವಿಧಾನಗಳು, ಸಂರಕ್ಷಣೆಯ ಮಹತ್ವ
೫. ಶಾಸನಗಳ ಓದು: ಶಾಸನಗಳ ಪಡಿಯಚ್ಚು ತೆಗೆಯುವ ವಿಧಾನ, ಶಾಸನಗಳನ್ನು ಓದುವುದು, ಶಾಸನಗಳ ಪಾಠ ಪರಿಷ್ಕರಣ, ಶಾಸನಗಳ ವ್ಯಾಖ್ಯಾನ.

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು -

- |  |                               |
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| ೧. ಭಾರತೀಯ ಶಾಸನಶಾಸ್ತ್ರ ಪರಿಚಯ                | - ಜೆ.ಎಫ್.ಫ್ಲೀಟ್ ಅನು-ಸಿ.ಪಿ.ಕೆ. |
| ೨. ಶಾಸನಶಾಸ್ತ್ರ ಪ್ರವೇಶ                      | - ಸಿ.ಪಿ.ಕೆ.                   |
| ೩. ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ          | - ಡಾ.ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ        |
| ೪. ಶಾಸನ ವ್ಯಾಸಂಗ (ಭಾಗ-೧)                    | - ಡಾ.ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ          |
| ೫. ಕನ್ನಡ ನಾಡಿನ ಶಾಸನಗಳು                     | - ಡಾ.ಪಿ.ಬಿ. ದೇಸಾಯಿ            |
| ೬. ಆರನೆಯ ವಿಕ್ರಮಾದಿತ್ಯನ ಶಾಸನಗಳು ಒಂದು ಅಧ್ಯಯನ | - ಡಾ.ಜೆ.ಎಂ. ನಾಗಯ್ಯ            |
| ೭. ಎಪಿಗ್ರಾಫಿಯ ಕರ್ನಾಟಕ ಸಂಪುಟಗಳು             | - ಸಂ. ಬಿ.ಎಲ್. ರೈಸ್            |
| ೮. ಶಾಸನ ಮತ್ತು ಗದ್ಯ                         | - ಸಂ. ಬೆಂ.ವಿ.ವಿ. ಬೆಂಗಳೂರು     |
| ೯. ಮುಳಗುಂದನಾಡು ಒಂದು ಅಧ್ಯಯನ                 | - ಡಾ. ಧನವಂತ ಹಾಜವಗೋಳ           |

### PG43T204C: ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ- ವಿಶೇಷ ಕವಿ ಅಧ್ಯಯನ : ಕುವೆಂಪು

#### Course Outcomes:

೧. ಆಧುನಿಕ ಸಾಹಿತ್ಯದ ನಿಲುವುಗಳನ್ನು ಅರಿಯುವರು.
೨. ಕುವೆಂಪು ಸಾಹಿತ್ಯದ ಆಶಯಗಳನ್ನು ಅರಿಯುವರು.
೩. ವಿಶ್ವಮಾನವ ಪ್ರಜ್ಞೆಯನ್ನು ಬೆಳೆಸಿಕೊಳ್ಳುವರು.
೪. ಕನ್ನಡ ನಾಡುನುಡಿಯ ಕುರಿತು ಜಾಗೃತಿ ಪಡೆಯುವರು
೫. ಕುವೆಂಪು ಸಾಹಿತ್ಯದ ವೈಚಾರಿಕ ನೆಲೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೧೫

ಪಠ್ಯಗಳು : ೬೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

**I. ತಾತ್ವಿಕತೆ :** ಕುವೆಂಪುರವರ ಜೀವನ, ಪ್ರಭಾವ, ಪ್ರೇರಣೆ, ನಾಡು-ನುಡಿ ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿಯ ಕುರಿತಾದ ನಿಲುವುಗಳು, ವಿಶ್ವಮಾನವ ಪ್ರಜ್ಞೆ, ಅಧುನಿಕ ಸಾಹಿತ್ಯದ ಮೇಲೆ ಅವರ ಪ್ರಭಾವವನ್ನು ಗುರುತಿಸುವುದು.

**II.ಪಠ್ಯಗಳು :**

- |                           |                                       |
|---------------------------|---------------------------------------|
| ೧. ಪಕ್ಷಿಕಾಶಿ              | - ಕಾವ್ಯ                               |
| ೨. ರಸೋ ವೈಸ                | - ಸಾವಿತ್ಯ ವಿಮರ್ಶೆ ಮತ್ತು ಕಾವ್ಯ ಮೀಮಾಂಸೆ |
| ೩. ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು      | - ಕಾದಂಬರಿ                             |
| ೪. ವಿಚಾರ ಕ್ರಾಂತಿಗೆ ಆಹ್ವಾನ | - ವೈಚಾರಿಕ ಸಾಹಿತ್ಯ                     |

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- |   |  |
|---|--|
| ೧. ಗಂಗೋತ್ರಿ                               | - (ಅಭಿನಂದನಾ ಗ್ರಂಥ) ಸಂ. ಜವರೇಗೌಡ ದೇ, ಗೀತಾ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು ೧೯೬೮                           |
| ೨. ಸಹ್ಯಾದ್ರಿ<br>ಸಿ.ಪಿ.ಕೆ.                 | - (ಅಭಿನಂದನಾ ಗ್ರಂಥ) ಸಂ. ಪರಮಶಿವಯ್ಯ, ಜೀ.ಶಂ.ಪ. ಶ್ರೀ ಕುವೆಂಪು ವಿದ್ಯಾವರ್ಧಕ ಟ್ರಸ್ಟ್, ಮೈಸೂರು ೧೯೭೫ |
| ೩. ಹೀಗಿದ್ದರು ಕುವೆಂಪು                      | - (ಲೇ) ಪ್ರಭುಶಂಕರ, ಪ್ರ. ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ, ಮೈಸೂರು ೨೦೦೨                                     |
| ೪. ಕುವೆಂಪು ಯುಗ                            | - ಭಗವಾನ್ ಕೆ.ಎಸ್. ಸಹ್ಯಾದ್ರಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು ೧೯೯೦  |
| ೫. ಕುವೆಂಪು ಯುಗದ ಕವಿ                       | - ಜಿ.ಎಸ್. ಅಮೂರ, ಮನೋಹರ ಗ್ರಂಥಮಾಲೆ, ಧಾರವಾಡ ೨೦೧೫   |
| ೬. ಕುವೆಂಪು ಕಾವ್ಯ ಮೀಮಾಂಸೆ                  | - ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ, ಸಂ. ವಸಂತ ಕುಮಾರ ಎಂ. ೧೯೭೨   |
| ೭. ಕುವೆಂಪು ಕಾದಂಬರಿಗಳು                     | - ಮರಿಗುದ್ದಿ ಗುರುಪಾದ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ ಬೆಂಗಳೂರು ೨೦೦೪                               |
| ೮. ಕುವೆಂಪು ಕಾವ್ಯ                          | - ನರಹಳ್ಳಿ ಬಾಲಸುಬ್ರಹ್ಮಣ್ಯ, ಅಂಕಿತ ಪ್ರಕಾಶನ, ಬೆಂ. ೨೦೦೪                                       |
| ೯. ಕುವೆಂಪು ಸಾಹಿತ್ಯ ದರ್ಶನ                  | - ಡಿ.ಎಸ್. ನಾಗಭೂಷಣ, ಪ್ರಗತಿ ಗ್ರಾಫಿಕ್ಸ್ ಬೆಂ. ೨೦೦೭   |
| ೧೦. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಸಂದರ್ಭ ಮತ್ತು ಕುವೆಂಪು    | - ಎನ್.ಬೋರಲಿಂಗಯ್ಯ, ದಾರಿದೀಪ ಪ್ರಕಾಶನ ಮೈಸೂರು, ೨೦೦೫   |
| ೧೧. ಕುವೆಂಪು ದರ್ಶನ ಸಂಪುಟ ೧,೨,೩             | - ದೇಜಗೌ, ಕನ್ನಡ ವಿ.ವಿ. ಹಂಪಿ ೨೦೦೬  |
| ೧೨. ಕುವೆಂಪು                               | - ಪುನರ್ಮನನ, ಸಂ. ಪ್ರೊ. ಅಂಬಳಿಕೆ ಹಿರಿಯಣ್ಣ ಪ್ರೊ ನೀಲಿಗಿರಿ ತಳವಾರ, ಮೈಸೂರು ವಿ.ವಿ. ೨೦೦೪           |
| ೧೩. ಕುವೆಂಪುಗೆ ಪುಟ್ಟ ಕನ್ನಡಿ                | - ಕೆ.ವಿ. ಸುಬ್ಬಣ್ಣ ಸುವರ್ಣ ಸಾಹಿತ್ಯ ಗ್ರಂಥಮಾಲೆ, ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ ಬೆಂ. ೨೦೦೬         |
| ೧೪. ಕುವೆಂಪು ಸಮಗ್ರ ಗದ್ಯ ಸಂ.೧,೨             | - ಸಂ. ಡಾ. ಕೆ.ಸಿ. ಶಿವಾರೆಡ್ಡಿ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ ೨೦೦೩                              |
| ೧೫. ಮಲೆಗಳಲ್ಲಿ ಮದುಮಗಳು ಸಾಂಸ್ಕೃತಿಕ ಮುಖಾಮುಖಿ | - ಸಂ. ರಹಮತ್ ತರೀಕೆರೆ : ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ ೨೦೧೦                                     |

**PG43O205: O.E.C. ಕನ್ನಡ ಭಾಷೆ: ಬಳಕೆ, ಕೌಶಲ ಮತ್ತು ವೃತ್ತಿಪರತೆ**

**Course Outcomes:**

೧. ಕನ್ನಡ ಭಾಷಾ ಬಳಕೆಯ ಕೌಶಲ್ಯಗಳನ್ನು ತಿಳಿಯುವರು.
೨. ಆಡಳಿತ ಭಾಷೆಯಾಗಿ ಕನ್ನಡವನ್ನು ಕಟ್ಟುವ ಬಗೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೩. ವ್ಯಾಪಾರ-ವಾಣಿಜ್ಯ ಉದ್ದೇಶಗಳಿಗೆ ಕನ್ನಡ ಭಾಷೆಯನ್ನು ಬಳಸುವ ಬಗೆಯನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಕಛೇರಿ ಟಿಪ್ಪಣಿ ಸಿದ್ಧಪಡಿಸುವ ವಿಧಾನ ಅರಿಯುವರು.
೫. ಉದ್ಯೋಗ ಮಾರ್ಗದರ್ಶಿ ಕೇಂದ್ರಗಳ ಕುರಿತು ತಿಳಿದುಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

- ೧) ಭಾಷಾ ಕೌಶಲ ಎಂದರೇನು? ಅದರ ಪ್ರಯೋಜನಗಳು ವ್ಯಕ್ತಿತ್ವ ಮತ್ತು ಭಾಷೆಯ ನಡುವಿನ ಸಂಬಂಧ ವೃತ್ತಿ ನಿರ್ವಹಣೆ ಮತ್ತು ಭಾಷಾ ಕೌಶಲ.
- ೨) ಆಡಳಿತ ಕನ್ನಡ: ಕಛೇರಿ ಕೈಪಿಡಿಗಳ ಪರಿಚಯ, ಕಛೇರಿ ಕಡತಗಳು.
- ೩) ವ್ಯವಹಾರಿಕ ಕನ್ನಡ: ವಿವಿಧ ರೀತಿಯ ಅರ್ಜಿ ಬರೆಯುವಿಕೆ, ಸುದ್ದಿ ಸಂಗ್ರಹ, ಮತ್ತು ಸಂಪಾದನೆ ವರದಿ ತಯಾರಿಕೆ, ಸುದ್ದಿ ಓದುವಿಕೆ, ಜಾಹಿರಾತುಗಳು, ಕರಡು ಪ್ರತಿ ತಿದ್ದುವುದು, ಅನ್ಯಭಾಷಾ ಲೇಖನಗಳ ಭಾಷಾಂತರ, ನಿರೂಪಣ ಕಲೆ ಮತ್ತು ಭಾಷಣಕಲೆ.
- ೪) ಸ್ಪರ್ಧಾತ್ಮಕ ಕನ್ನಡ: ಸ್ಪರ್ಧಾತ್ಮಕ ಪರೀಕ್ಷೆಗಳ ಸಿದ್ಧತೆ, ತರಬೇತಿ ವಿಷಯ ಸಂಗ್ರಹ, ಅಧ್ಯಯನ, ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆಗಳ ಪರಿಶೀಲನೆ, ಪರೀಕ್ಷೆ ಎದುರಿಸುವುದು, ಸಂದರ್ಶನಕ್ಕೆ ಹಾಜರಾಗುವುದು.
- ೫) ಉದ್ಯೋಗ ಮಾರ್ಗದರ್ಶಿ ಸಂಸ್ಥೆಗಳ ಪರಿಚಯ: ಪತ್ರಿಕೆಗಳಲ್ಲಿರುವ ಉದ್ಯೋಗ ಸಂಬಂಧಿ ಜಾಹಿರಾತುಗಳು, ಅಂತರ್ ಜಾಲದಲ್ಲಿ ಜಾಹಿರಾತು ಹಾಗೂ ಕರ್ನಾಟಕ ರಾಜ್ಯ ಪ್ರತಿದ ಪರಿಚಯ.

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- ೧) ಕನ್ನಡ ಸಾಹಿತ್ಯ ಕೋಶ: ರಾಜಪ್ಪ ದಳವಾಯಿ
- ೨) ಕನ್ನಡ ಕೈಪಿಡಿ: ಸಂ.ಡಾ.ಕೆ.ವಿ.ಪುಟ್ಟಪ್ಪ
- ೩) ಕನ್ನಡ ಭಾಷೆಯ ರೂಪ-ರೇಷೆಗಳು: ಡಾ.ವಿಲಿಯಂ ಮಾಡ್ಡಾ, ಕೆ.ವಿ.ವಿ. ಧಾರವಾಡ
- ೪) ವ್ಯವಹಾರಿಕ ಕನ್ನಡ: ಎಚ್‌ಸೈ, ಚೇತನ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು
- ೫) ಕನ್ನಡಕ್ಕೆ ಬೇಕು ಕನ್ನಡದ್ದೇ ವ್ಯಾಕರಣ: ಡಿ.ಎನ್.ಶಂಕರಭಟ್ಟ
- ೬) ಸಾಮಾನ್ಯ ಭಾಷಾ ವಿಜ್ಞಾನ: ಡಾ.ಕೆ.ಕೆಂಪೇಗೌಡ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ
- ೭) ಆಧುನಿಕ ವರ್ಣಾನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನ: ಡಾ.ರಾಜೇಶ್ವರಿ ಮಹೇಶ್ವರಯ್ಯ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯ, ಧಾರವಾಡ
- ೮) ಆಡಳಿತ ಭಾಷೆ: ಕೆಲವು ವಿಚಾರಗಳು: ಡಾ.ಪ್ರಧಾನ ಗುರುದತ್ತ, ಡಿ.ವಿ.ಕೆ.ಮೂರ್ತಿ ಪ್ರಕಾಶನ, ಮೈಸೂರು
- ೯) ಕಾಯಕದರ್ಶಿ : ಡಾ. ಜಿ.ಎಂ. ನಾಗಯ್ಯ, ವಿಜಯ ವಿಕ್ರಮ ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ

೧೦) ಆಡಳಿತ ಕನ್ನಡ : ಸಂ. ಮುಖ್ಯಮಂತ್ರಿ ಚಂದ್ರ, ಮುರಿಗೆಪ್ಪ. ಎ.

1.

## ೨ನೆಯ ಸೆಮಿಸ್ಟರ್

### PG43T301: ಅಭಿಜಾತ ಸಾಹಿತ್ಯ ಭಾಗ - ೧

#### Course Outcomes:

೧. ಪರಂಪರೆ ಮತ್ತು ಪ್ರಯೋಗಶೀಲತೆಯನ್ನು ಅನುಸಂಧಾನ ಮಾಡಿಕೊಳ್ಳುವ ಕುರಿತು ವಿವೇಚನೆಯನ್ನು ಹೊಂದುವರು.
೨. ಪ್ರಭುತ್ವ ಮತ್ತು ಧರ್ಮ, ಜನಮನ್ಯರ ಬದಕನ್ನು ತಿಳಿವರು.
೩. ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಜನಪರ ಆಶಯಗಳನ್ನು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಪ್ರಾಚೀನ ಸಾಹಿತ್ಯದಲ್ಲಿ ವ್ಯಕ್ತವಾದ ಜೀವನ ಮೌಲ್ಯವನ್ನು ತಿಳಿವರು.
೫. ವಚನ ಸಾಹಿತ್ಯದ ಕಾಳಜಿಗಳನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೧೫

ಪಠ್ಯಗಳಿಗೆ : ೬೦ (೨೦x೩)

ಕಿರುಪರೀಕ್ಷೆ : ೨೨ (೧೧+೧೧)

ಹಾಜರಾತಿ : ೦೩

**ತಾತ್ವಿಕತೆ :** ವಚನ, ಷಟ್ಪದಿ ಮತ್ತು ಸಾಂಗತ್ಯ ಇವುಗಳ ಉಗಮ-ವಿಕಾಸ-ಪ್ರೇರಣೆ-ಧೋಣಿಗಳು ಈ ಪ್ರಕಾರಗಳಲ್ಲಿ ರಚಿತವಾದ ಪ್ರಮುಖ ಕೃತಿಗಳು ಸಾಹಿತ್ಯಿಕ-ಸಾಂಸ್ಕೃತಿಕ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು (ವಸ್ತು, ಭಾಷೆ, ಧೋರಣೆಯ ಹಿನ್ನೆಲೆಯಲ್ಲಿ) ಅಧ್ಯಯನ ಮಾಡುವುದು.

#### ಪಠ್ಯಗಳು :

- |  |   |   |
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| ೧. ಶ್ರೀ ಬಸವೇಶ್ವರ ವಚನಾಮೃತ                                     | - | ಡಾ. ಆರ್.ಸಿ. ಹಿರೇಮಠ, ಪ್ರ. ಶ್ರೀ ರುದ್ರಾಕ್ಷಿಮಠ, ನಾಗನೂರು, ಬೆಳಗಾವಿ ೧೯೯೬ |
| ೨. ಕರ್ನಾಟ ಭಾರತ ಕಥಾ ಮಂಜರಿ(ಕರ್ಣಪರ್ವ)                           | - | ಸಂ. ಮಾಸ್ತಿ ಮತ್ತು ಕೆ.ವಿ. ಪುಟ್ಟಪ್ಪ                                  |
| ೩. ನಂಜುಂಡ ಕವಿ ವಿರಚಿತ ರಾಮನಾಥ ಚರಿತೆ (ಪೂರ್ವಾರ್ಧ) ಸಂಧಿ ೧ ರಿಂದ ೧೨ | - | ಸಂ. ಎಚ್. ದೇವಿರಪ್ಪ, ಮೈ.ವಿ.ವಿ. ಮೈ. ೧೯೫೯                             |

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು-

- |                                  |   |                     |
|----------------------------------|---|---------------------|
| ೧. ವಚನ ಶೋಧ                       | - | ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ   |
| ೨. ವಚನ ಸಾಹಿತ್ಯ-ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ | - | ಡಾ. ಪಿ.ವಿ.ನಾರಾಯಣ    |
| ೩. ವಚನ ಅಧ್ಯಯನ                    | - | ಡಾ. ವೀರಣ್ಣ ರಾಜೂರ    |
| ೪. ವಚನಾನುಶೀಲನ                    | - | ಡಾ. ಎಸ್. ವಿದ್ಯಾಶಂಕರ |
| ೫. ಕನ್ನಡದಲ್ಲಿ ಸಾಂಗತ್ಯ ಸಾಹಿತ್ಯ    | - | ಡಾ. ವೀರಣ್ಣ ರಾಜೂರ    |

- |                                      |  |
|--------------------------------------|--|
| ೬. ಗದುಗಿನ ಭಾರತ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ     | - ಡಾ. ಜವರೇಗೌಡ  |
| ೭. ಕುಮಾರವ್ಯಾಸನ ರೂಪಕಗಳು               | - ಡಾ. ಶ್ರೀನಿವಾಸ ಕುಲಕರ್ಣಿ                             |
| ೮. ಕುಮಾರರಾಮನ ಸಾಂಗತ್ಯಗಳು              | - ವರದರಾಜರಾವ್ (ಜಿ), ಮೈಸೂರು.ವಿ.ವಿ. ೧೯೬೬                |
| ೯. ಬಳ್ಳಾರಿ ಜಿಲ್ಲೆಯ ಸಾಂಸ್ಕೃತಿಕ ಇತಿಹಾಸ | - ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ, ಬಳ್ಳಾರಿ, ಲೋಹಿಯಾ ಪ್ರಕಾಶನ, ೨೦೦೨   |
| ೧೦. ಕರ್ನಾಟಕದ ಕೈಪಿಯತ್ತುಗಳು            | - ಸಂ. ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ, ಹಂಪಿ. ಕನ್ನಡ. ವಿ.ವಿ., ೧೯೯೪ |

## PG43T302: ಕನ್ನಡ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ

### Course Outcomes:

೧. ಭಾಷಾ ಸಿದ್ಧಾಂತಗಳನ್ನು ಅರಿವರು.
೨. ಕನ್ನಡ ಭಾಷೆಯ ಆವಸ್ಥೆಗಳನ್ನು ಗ್ರಹಿಸುವರು.
೩. ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣ ಸಂಬಂಧವನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಕನ್ನಡ ವರ್ಣಮಾಲೆ ಬೆಳೆದು ಬಂದ ಬಗೆಯನ್ನು ತಿಳಿವರು.
೫. ಕನ್ನಡ ವ್ಯಾಕರಣ ನಿಯಮವನ್ನು ಅರಿವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಭಾಷೆಗೆ : ೨೫, ವ್ಯಾಕರಣಕ್ಕೆ : ೫೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

### ೧) ಭಾಷಾವಿಜ್ಞಾನ :

೧. ಭಾಷೆ ಎಂದರೇನು? ವಿವಿಧ ವ್ಯಾಖ್ಯೆಗಳು, ಭಾಷೆಯ ಸ್ವರೂಪ, ಮಾನವ ಭಾಷೆಯ ವೈಶಿಷ್ಟ್ಯಗಳು
೨. ಭಾಷಾವಿಜ್ಞಾನದ ಸ್ವರೂಪ, ಮಹತ್ವ, ಬೆಳವಣಿಗೆ, ಭಾಷಾವಿಜ್ಞಾನದ ಶಾಖೆಗಳು, ವ್ಯಾಕರಣ ಮತ್ತು ಭಾಷಾವಿಜ್ಞಾನದ ಸಂಬಂಧ ಮತ್ತು ವ್ಯತ್ಯಾಸ.
೩. ಕನ್ನಡ ಭಾಷೆಯ ಬೆಳವಣಿಗೆ, ಕನ್ನಡದ ಅವಸ್ಥಾ ಭೇದಗಳು.

### ವ್ಯಾಕರಣ :

೧. ವ್ಯಾಕರಣದ ವ್ಯಾಖ್ಯೆ - ವಿವರಣೆ, ಉದ್ದೇಶಗಳು ಮತ್ತು ಕನ್ನಡ ವ್ಯಾಕರಣ ಪರಂಪರೆ.
೨. ಕನ್ನಡ ವರ್ಣಮಾಲೆ - ಶುದ್ಧಗಳು, ದ್ವನಿಮಾ ಶಾಸ್ತ್ರ.
೩. ಪದರಚನೆ - ಪದವ್ಯವಸ್ಥೆ, ನಾಮಪದ, ಕ್ರಿಯಾಪದ, ಗುಣವಾಚಕ (ನಾಮವಿಶೇಷಣ, ಕ್ರಿಯಾವಿಶೇಷಣ.)
೪. ಪ್ರತ್ಯಯಗಳು - ಸಂಧಿ, ಸಮಾಸ, ವಿಭಕ್ತಿ ಪ್ರತ್ಯಯಗಳು, ಕಾಲ ಪ್ರತ್ಯಯಗಳು, ಲಿಂಗ-ವಚನ ಪ್ರತ್ಯಯಗಳು. ವಾಕ್ಯ ರಚನೆ.

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

- |                           |                                      |
|---------------------------|--------------------------------------|
| ೧. ಕನ್ನಡ ಕೈಪಿಡಿ           | - ಸಂ ಕೆ.ವಿ. ಪುಟ್ಟಪ್ಪ                 |
| ೨. ವರ್ಣನಾತ್ಮಕ ಭಾಷಾವಿಜ್ಞಾನ | - ಜೆ.ಎಸ್. ಕುಳ್ಳಿ                     |
| ೩. ಸಾಮಾನ್ಯ ಭಾಷಾವಿಜ್ಞಾನ    | - ಕೆ. ಕೆಂಪಗೌಡ                        |
| ೪. ಶಬ್ದಮಣಿದರ್ಪಣ           | - ಸಂ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ, ಬಿ.ಟಿ. ಸಾಸನೂರ |

೫. ನಲ್ಲುಡಿಗನ್ನಡಿ	- ಪದ್ಮನಾಭ ಶರ್ಮ
೬. ಕನ್ನಡಕ್ಕೆ ಬೇಕು ಕನ್ನಡದ್ದೇ ವ್ಯಾಕರಣ	- ಡಿ. ಎನ್. ಶಂಕರಭಟ್ಟ
೭. ಕನ್ನಡ ಸಂಕ್ಷಿಪ್ತ ವ್ಯಾಕರಣ	- ಕೆ. ಕುಶಾಲಪ್ಪಗೌಡ
೮. ಕನ್ನಡ ಭಾಷೆಯ ರೂಪ-ರೇಷೆಗಳು	- ವಿಲಿಯಂ ಮಾಡ್ಡಾ
೯. ಆಧುನಿಕ ವರ್ಣನಾತ್ಮಕ ಭಾಷಾ ವಿಜ್ಞಾನ	- ರಾಜೇಶ್ವರಿ ಮಹೇಶ್ವರಯ್ಯ
೧೦. Modern Linguistics	- Krishnamurthy
೧೧. ಶಬ್ದಮಣಿ ದರ್ಪಣ ವಿಳಾಸ	- ಡಾ. ವಿ. ಶಿವಾನಂದ
೧೨. ಭಾಷಾವಿಜ್ಞಾನದ ಮೂಲತತ್ವಗಳು	- ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ
೧೩. ಭಾಷಾವಿಜ್ಞಾನ-ತತ್ವ, ಇತಿಹಾಸ ಮತ್ತು ಅನುಷ್ಠಾನ	- ಡಾ. ಬಿ.ಬಿ. ರಾಜಪುರೋಹಿತ
೧೪. ಕನ್ನಡ ಭಾಷಾ ಅಧ್ಯಯನ	- ಸಂ. ಲಿಂಗದೇವರು ಹಳೆಮನೆ

### PG43T303: ಕನ್ನಡ ಗ್ರಂಥ ಸಂಪಾದನೆ ಮತ್ತು ಭಂದಸ್ಸು

#### Course Outcomes:

೧. ಗ್ರಂಥ ಸಂಪಾದನೆ ಬೆಳೆದು ಬಂದ ಬಗೆಯನ್ನು ಅರಿಯುವರು.
೨. ಹಸ್ತಪ್ರತಿಗಳ ವಂಶ ಸಂಬಂಧವನ್ನು ನಿರ್ಣಯಿಸಲು ಸಮರ್ಥರಾಗುವರು.
೩. ಸ್ವಾಲಿತ್ಯದ ಸ್ವರೂಪ ಮತ್ತು ಬಗೆಗಳನ್ನು ಗುರುತಿಸಲು ಸಮರ್ಥರಾಗುವರು.
೪. ಪಾಠ ಪರಿಷ್ಕರಣೆಯ ವಿಧಾನಗಳನ್ನು ಅರಿಯುವರು.
೫. ಕನ್ನಡ ಭಂದಸ್ಸಿನ ವೈಶಿಷ್ಟ್ಯಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಗ್ರಂಥ ಸಂಪಾದನೆ : ೪೫

ಭಂದಸ್ಸು : ೩೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

#### ಗ್ರಂಥ ಸಂಪಾದನೆ :

೧. ಗ್ರಂಥ ಸಂಪಾದನೆಯ ಸ್ವರೂಪ ಮತ್ತು ಉದ್ದೇಶ, ಗ್ರಂಥ ಸಂಪಾದನೆಯ ಇತಿಹಾಸ ಪಾಶ್ಚಾತ್ಯ ಮತ್ತು ಭಾರತೀಯ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಗ್ರಂಥಲೇಖನ ಸಾಮಗ್ರಿಗಳು- ಆಧಾರ-ಆಧೇಯ-ಲೇಖನ ಸಾಮಗ್ರಿಗಳು, ಲಿಪಿಕಾರರು
೨. ಹಸ್ತಪ್ರತಿಯ ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಪ್ರಕಾರಗಳು, ಹಸ್ತಪ್ರತಿಗಳ ವಂಶ ಸಂಬಂಧ- ಸ್ವಾಲಿತ್ಯದ ಕಾರಣಗಳು- ಕವಿ-ಸಹೃದಯ-ಲಿಪಿಕಾರ. ಲಿಪಿಕಾರನ ಅನ್ಯಥಾ ಜ್ಞಾನ, ಅನವಧಾನ, ಅಜ್ಞಾನ
೩. ಸ್ವಾಲಿತ್ಯದ ಸ್ವರೂಪ- ಲೋಪ, ಆಗಮ, ಆದೇಶ, ಪಲ್ಲಟ ಇತರ ಸ್ವರೂಪದ ಸ್ವಾಲಿತ್ಯಗಳು.
೪. ಗ್ರಂಥಪರಿಷ್ಕರಣ ಕಾರ್ಯದ ಹಂತಗಳು, ಸಂಕೇತಗಳು-ಸಂಕ್ಷೇಪಗಳು ಗ್ರಂಥ ಸಂಪಾದಕನ ಅರ್ಹತೆಗಳು.

#### ಭಂದಸ್ಸು

೧. ಭಂದಸ್ಸು- ಸ್ವರೂಪ, ಪ್ರಯೋಜನ, ಭಂದಸ್ಸು ಬೆಳೆದು ಬಂದ ಬಗೆ, ಲಯ ಮತ್ತು ಲಯದ ಪ್ರಭೇದಗಳು. ಯತಿ, ವಡಿ, ಪ್ರಾಸ
೨. ಅಕ್ಷರ ವೃತ್ತಗಳು- ಖ್ಯಾತ ಕರ್ನಾಟಕ ವೃತ್ತಗಳು, ಸ್ವರೂಪ ಮತ್ತು ಅವು ಕನ್ನಡಕ್ಕೆ ಹೊಂದಿಕೊಂಡ ಬಗೆ
೩. ಮಾತ್ರಾ ಭಂದಸ್ಸು- ಕಂದ, ರಗಳೆ

೪. ಅಂಶ ಭಂದಸ್ಸು- ಕರ್ನಾಟಕ ವಿಷಯ ಜಾತಿಗಳು- ತ್ರಿಪದಿ, ಸಾಂಗತ್ಯ, ಷಟ್ಪದಿ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು-**

- |                                    |   |
|------------------------------------|---|
| ೧. ಕನ್ನಡ ಗ್ರಂಥ ಸಂಪಾದನಶಾಸ್ತ್ರ       | - ಡಾ.ಎಂ.ಎಂ.ಕಲಬುರ್ಗಿ                         |
| ೨. ಕನ್ನಡ ಗ್ರಂಥ ಸಂಪಾದನೆ             | - ಡಾ.ಡಿ.ಎಲ್.ನರಸಿಂಹಾಚಾರ್                     |
| ೩. ಗ್ರಂಥ ಸಂಪಾದನಶಾಸ್ತ್ರ ಪರಿಚಯ       | - ಡಾ.ಸೀತಾರಾಮ ಜಾಗೀರ್‌ದಾರ್                    |
| ೪. ಮಣಿಹ                            | - ಸಂ.ಎಂ.ವಿ.ಸೀತಾರಾಮಯ್ಯ ಮತ್ತು ಆರ್.ಶೇಷಶಾಸ್ತ್ರಿ |
| ೫. ಕನ್ನಡ ಭಂದೋವಿಕಾಸ                 | - ಡಾ.ಡಿ.ಎಸ್.ಕರ್ಕಿ                           |
| ೬. ಕನ್ನಡ ಭಂದಃಸ್ವರೂಪ                | - ಡಾ.ಟಿ.ವಿ.ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ                 |
| ೭. ಕನ್ನಡ ಭಂದಸ್ಸಿನ ಚರಿತ್ರೆ (ಸಂ.೧,೨) | - ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ |
| ೮. ಕನ್ನಡ ಭಂದಸ್ಸು                   | - ಡಾ.ಟಿ.ವಿ.ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ                 |
| ೯. ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ                | - ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ                           |
| ೧೦. ಹಸ್ತಪ್ರತಿ ಸಂರಕ್ಷಣೆಯ ವಿಧಾನಗಳು   | - ಬಿ.ಎಸ್. ಸಣ್ಣಯ್ಯ                           |
| ೧೧. ಕನ್ನಡ ಹಸ್ತಪ್ರತಿಗಳು ಒಂದು ಅಧ್ಯಯನ | - ಡಾ. ಬಿ.ಕೆ. ಹಿರೇಮಠ                         |

## ಐಚ್ಛಿಕ ಪತ್ರಿಕೆಗಳು

### PG43T304A: ಸಾಹಿತ್ಯ ಕೃತಿಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

**Course Outcomes:**

೧. ಕನ್ನಡ ನಾಡಿನ ಸಂಸ್ಕೃತಿಯನ್ನು ಅರಿಯುವರು.
೨. ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಮಾದರಿಗಳನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.
೩. ಜೈನ ಧರ್ಮದ ಮೌಲ್ಯಗಳನ್ನು ಅರಿಯುವರು.
೪. ಹರಿಹರನ ರಗಳೆಗಳ ಭಾಷಿಕ ವೈಶಿಷ್ಟ್ಯವನ್ನು ಗುರುತಿಸುವರು.
೫. ಕನಕದಾಸರ ಕೃತಿಗಳಲ್ಲಿ ಮೂಡಿ ಬಂದ ವರ್ಗ ಪ್ರಜ್ಞೆಯನ್ನು ಅರ್ಥೈಸಿಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦  
ತಾತ್ವಿಕತೆ : ೨೫, ಪಠ್ಯಗಳು : ೫೦  
ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨  
ಹಾಜರಾತಿ : ೦೩

**ಘಟಕ- ೧**

ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಮುಖ್ಯ ಪರಿಕಲ್ಪನೆಗಳು- ಮಾನವ ಪರಿಸರ, ರಾಜಕೀಯ, ಧಾರ್ಮಿಕ ಪರಿಸರ, ನಂಬಿಕೆಗಳು, ಸಂಪ್ರದಾಯಗಳು, ಆಚರಣೆಗಳು, ಜೀವನಮೌಲ್ಯಗಳು, ಪ್ರಕೃತಿ, ಭಾಷೆ, ನುಡಿಗಟ್ಟು, ಲೋಕೋಕ್ತಿಗಳು,

**ಘಟಕ- ೨**

ಸಾಹಿತ್ಯ ಕೃತಿಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನದ ಮಹತ್ವ ಮತ್ತು ಮಾದರಿಗಳು, ಕನ್ನಡದಲ್ಲಿ ನಡೆದಿರುವ ಪ್ರಮುಖ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನಗಳು, ಕವಿರಾಜ ಮಾರ್ಗ, ವಡ್ಡಾರಾಧನೆ, ಪಂಪ ಭಾರತ, ಕುಮಾರವ್ಯಾಸ ಭಾರತ.

#### ಪಠ್ಯಗಳು:

- |                           |  |
|---------------------------|--|
| ೧. ಜನ್ನನ ಯಶೋಧರ ಚರಿತೆ      | - ಸಿ.ಪಿ.ಕೆ.  |
| ೨. ಕನಕದಾಸರ ರಾಮಧಾನ್ಯ ಚರಿತೆ | - ಸಂ. ದೇಜಗೌ, ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ, ಬೆಂ                                       |
| ೩. ಹರಿಹರನ ರಗಳೆಗಳು         | - ಸಂ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ ಹಂಪಿ.ವಿ.ವಿ., ಪ್ರಕಟಣೆ<br>(ಮಾದಾರ ಚೆನ್ನಯನ ರಗಳೆ, ಸಾಮವೇದಿಯ ರಗಳೆ). |

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |  |                                  |
|--|----------------------------------|
| ೧. ಜನ್ನ                                    | - ಸಂ. ವಿ. ಸೀತಾರಾಮಯ್ಯ             |
| ೨. ಜನ್ನ ಕವಿಯ ಯಶೋಧರ ಚರಿತೆ                   | - ಗದ್ಯಾನುವಾದ: ತೆಕ್ಕಂಜ ಗೋಪಾಲಕೃಷ್ಣ |
| ೩. ಜನ್ನನ ಯಶೋಧರ ಚರಿತೆ (ಲೇಖನ)                | - ಗಿರಡ್ಡಿ ಗೋವಿಂದರಾಜ              |
| ೪. ಜನ್ನನ ಯಶೋಧರ ಕಾವ್ಯದ ಧ್ವಂಸ ವಿನ್ಯಾಸ (ಲೇಖನ) | - ಜಿ. ರಾಜಶೇಖರ                    |
| ೫. ಹರಿಹರನ ರಗಳೆಗಳು                          | - ಡಾ. ಎಂ.ಎಂ.ಕಲಬುರ್ಗಿ             |
| ೬. ಹರಿಹರನ ರಗಳೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಮುಖಾಮುಖಿ       | - ಸಂ.ಶಿವಾನಂದ ವಿರಕ್ತಮಠ            |
| ೭. ಕುಲಕ್ಕೆ ತಿಲಕ ಮಾದಾರ ಚೆನ್ನಯ್ಯ             | - ಚಂದ್ರಶೇಖರ ವಸ್ತದ                |
| ೮. ಜನತೆಯ ಸಂಸ್ಕೃತಿ                          | - ಮಾಸ್ತಿ                         |
| ೯. ಹರಿಶ್ಚಂದ್ರ ಚಾರಿತ್ರ-ಸಾಂಸ್ಕೃತಿಕ ಮುಖಾಮುಖಿ  | - ಸಂ.ಅಮರೇಶ ನುಗಡೋಣಿ               |
| ೧೦. ವಡ್ಡಾರಾಧನೆ ಸಮಗ್ರ ಅಧ್ಯಯನ                | - ಡಾ. ಹಂಪ ನಾಗರಾಜಯ್ಯ              |
| ೧೧. ಹರಿಹರನ ರಗಳೆಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ        | - ಡಾ. ಸದಾನಂದ ಪಾಟೀಲ               |
| ೧೨. ಸಾಹಿತ್ಯ ಶ್ರೀಗಂಧ                        | - ಡಾ. ಧನವಂತ ಹಾಜವಗೋಳ              |

### PG43T304B: ಕನ್ನಡ ಶಾಸ್ತ್ರಸಾಹಿತ್ಯ ಅಧ್ಯಯನ

#### Course Outcomes:

೧. ಶಾಸ್ತ್ರ ಸಾಹಿತ್ಯದ ಲಕ್ಷಣ, ಪ್ರಭಾವ ಮತ್ತು ಪ್ರಯೋಜನಗಳನ್ನು ತಿಳಿಯುವರು.
೨. ಧರ್ಮಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳ ತಾತ್ವಿಕ ಗ್ರಹಿಕೆಗಳನ್ನು ಅರಿಯುವರು.
೩. ತಾಕಿಕ ಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳು ನಮ್ಮ ಜ್ಞಾನ ಪರಂಪರೆಗೆ ಕೊಟ್ಟ ಕೊಡುಗೆಗಳನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.
೪. ಸಾಹಿತ್ಯ ಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳ ಮೇಲಾದ ಸಂಸ್ಕೃತ ಪ್ರಭಾವಗಳನ್ನು ಗುರುತಿಸುವರು.
೫. ಕನ್ನಡದಲ್ಲಿ ಶಾಸ್ತ್ರ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ ನಡೆದು ಬಂದ ಪರಂಪರೆಯನ್ನು ಅರಿಯುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

**ಘಟಕ - ೧**

ಶಾಸ್ತ್ರಸಾಹಿತ್ಯದ ಲಕ್ಷಣ, ಕನ್ನಡ ಶಾಸ್ತ್ರಸಾಹಿತ್ಯದ ಮೇಲೆ ಸಂಸ್ಕೃತ ಶಾಸ್ತ್ರಸಾಹಿತ್ಯದ ಪ್ರಭಾವ, ಶಾಸ್ತ್ರಗಳ ಪ್ರಯೋಜನ, ಶಾಸ್ತ್ರ-ವಿಜ್ಞಾನದ ಸಂಬಂಧಾಂತರ, ಶಾಸ್ತ್ರ ಮತ್ತು ಸಾಹಿತ್ಯದ ಸಂಬಂಧ

**ಘಟಕ - ೨**

ಅಲೌಕಿಕ ಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳ ಲಕ್ಷಣಗಳು ಮತ್ತು ಪ್ರಕಾರಗಳು, ಪ್ರಮುಖ ಜೈನ, ವೈದಿಕ ಮತ್ತು ವೀರಶೈವ ಧರ್ಮಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳ ಸಂಕ್ಷಿಪ್ತ ಪರಿಚಯ

**ಘಟಕ - ೩**

ಲೌಕಿಕ ಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳ ಲಕ್ಷಣಗಳು ಮತ್ತು ಪ್ರಕಾರಗಳು, ಪ್ರಮುಖ ಲೌಕಿಕ ಶಾಸ್ತ್ರ ಗ್ರಂಥಗಳು ವೈದ್ಯಶಾಸ್ತ್ರ, ಸೂಪಶಾಸ್ತ್ರ, ಶಿಲ್ಪಶಾಸ್ತ್ರ, ಕಾಮಶಾಸ್ತ್ರ, ಗಜಶಾಸ್ತ್ರ, ಹಯಶಾಸ್ತ್ರ, ಸಂಗೀತಶಾಸ್ತ್ರ ಇತ್ಯಾದಿಗಳ ಪರಿಚಯ

**ಘಟಕ - ೪**

ಸಾಹಿತ್ಯ ಶಾಸ್ತ್ರಗ್ರಂಥಗಳು ಮತ್ತು ಪ್ರಕಾರಗಳು, ಅಲಂಕಾರಶಾಸ್ತ್ರ, ವ್ಯಾಕರಣಶಾಸ್ತ್ರ ಭಂಡಸ್ಸು, ಗ್ರಂಥಸಂಪಾದನಾಶಾಸ್ತ್ರ, ಲಿಪಿಶಾಸ್ತ್ರ, ಕಾವ್ಯಮೀಮಾಂಸೆ ಗ್ರಂಥಗಳು, ನಿಘಂಟುಶಾಸ್ತ್ರ ಇವುಗಳನ್ನು ಉದಾಹರಣೆಗಳೊಂದಿಗೆ ಪರಿಚಯಿಸುವುದು.

**ಘಟಕ - ೫**

ಕನ್ನಡದಲ್ಲಿ ನಡೆದಿರುವ ಶಾಸ್ತ್ರಗಳ ಕುರಿತಾದ ಅಧ್ಯಯನದ ಸಂಕ್ಷಿಪ್ತ ಚರಿತ್ರೆ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ, ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ, ಸೀತಾರಾಂ ಜಾಗಿದಾರ್, (ಕೃತಿಗಳು ಹಾಗೂ ಪಿಎಚ್.ಡಿ ಪ್ರಬಂಧಗಳು), ಶಾಸ್ತ್ರೀಯ ಭಾಷೆಯಾಗಿ ಕನ್ನಡ, ಶಾಸ್ತ್ರವಿಷಯಗಳ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನೆಯ ಸಾಧ್ಯತೆಗಳು.

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- |   |                                      |
|---|--------------------------------------|
| ೧. ಕನ್ನಡ ಶಾಸ್ತ್ರ ಸಂಕಥನ                                | - ಡಾ. ಎ.ಎಂ.ಎಂ. ಕೊಟ್ಟಸ್ವಾಮಿ           |
| ೨. ಶಾಸ್ತ್ರಸಾಹಿತ್ಯ ಸಾಮಾನ್ಯನಿಗೆ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಸಂಪುಟ-೩ | - ಎಂ.ವಿ. ಸೀತಾರಾಮಯ್ಯ, ಬೆಂ.ವಿ.ವಿ.      |
| ೩. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ                              | - ಸಂ. ೧,೨,೩ ಕನ್ನಡ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಮೈ. |
| ೪. ಬ್ರಹ್ಮಶಿವನ ಸಮಯ ಪರೀಕ್ಷೆ                             | - ಕೆ. ಅನಂತರಾಮು, ಮೈಸೂರು               |
| ೫. ಭಾರತೀಯ ಸಾಹಿತ್ಯ                                     | - ಸಂ. ಕುವೆಂಪು, ಮೈ.ವಿ.ವಿ., ಮೈಸೂರು     |
| ೬. ಲೋಕೋಪಕಾರ ಒಂದು ಅಧ್ಯಯನ                               | - ಡಾ. ಎ. ರಂಗಸ್ವಾಮಿ, ಮೈಸೂರು           |
| ೭. ವೃತ್ತಾವಲಾಸ   | - ರಾಘವೇಂದ್ರ ರಾವ, ಬೆಂಗಳೂರು            |
| ೮. ಕಾವ್ಯವಲೋಕನ ಒಂದು ಅಧ್ಯಯನ                             | - ಸಂಗಮೇಶ ಬಿರಾದಾರ, ಕ.ವಿ.ವಿ., ಧಾರವಾಡ   |
| ೯. ಕವಿರಾಜಮಾರ್ಗದ ಪರಿಸರದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಧಾರವಾಡ           | - ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ ಕ.ವಿ.ವಿ.,      |
| ೧೦. ಕನ್ನಡ ಭಾಷಾ ಚರಿತ್ರೆ                                | - ಟಿ.ಎಸ್. ವೆಂಕಣ್ಣಯ್ಯ                 |
| ೧೧. ಚಾವುಂಡರಾಯನ ಲೋಕೋಪಕಾರ ಒಂದು ಅಧ್ಯಯನ                   | - ಡಾ. ಎ. ರಂಗಸ್ವಾಮಿ                   |

## PG43T304C: ಕನ್ನಡ ಮಹಾಕಾವ್ಯಗಳ ಅಧ್ಯಯನ

### Course Outcomes:

೧. ಕನ್ನಡ ಮಹಾಕಾವ್ಯಗಳಲ್ಲಿನ ಜನಾಂಗದ ಸಂಸ್ಕೃತಿಯನ್ನು ಗುರುತಿಸುವರು.
೨. ಜನಪದ ಮಹಾಕಾವ್ಯಗಳಲ್ಲಿನ ಸೈದ್ಧಾಂತಿಕವನ್ನು ಅಧ್ಯಯನ ಮಾಡುವರು.
೩. ಮಹಾಕಾವ್ಯದ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರಿಯುವರು.
೪. ಶಿಷ್ಟ ಮತ್ತು ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಂಬಂಧವನ್ನು ಅರ್ಥ ಮಾಡಿಕೊಳ್ಳುವರು.
೫. ಮಹಾಕಾವ್ಯಗಳ ವಸ್ತು ಭಾಷೆ ಶೈಲಿ ಛಂದಸ್ಸುಗಳ ಕುರಿತು ತಿಳಿಯುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೧೫

ಪಠ್ಯಗಳು : ೬೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

### I. ತಾತ್ವಿಕ :

೧. ಮಹಾಕಾವ್ಯಪರಂಪರೆ- ಶಿಷ್ಟ ಮತ್ತು ಜನಪದ, ಭಾರತೀಯ ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆಯಲ್ಲಿ ಮಹಾಕಾವ್ಯದ ಸ್ವರೂಪ, ಲಕ್ಷಣ, ವಸ್ತು, ಭಾಷೆ, ಛಂದಸ್ಸು, ತಂತ್ರ, ಶೈಲಿ,
೨. ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಅಧ್ಯಯನ- ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಪರಂಪರೆ, ರಾಮಾಯಣ, ಮಹಾಭಾರತವನ್ನು ಕುರಿತು ಮಹಾಕಾವ್ಯಗಳು ಸಾಂಸ್ಕೃತಿಕ ನಾಯಕರನ್ನು ಕುರಿತು ಮಹಾಕಾವ್ಯಗಳು.
೩. ಮಹಾಕಾವ್ಯಗಳಲ್ಲಿ ಸಾಂಪ್ರದಾಯಿಕ ಅಂಶಗಳು- ಇತಿಹಾಸ ಮತ್ತು ಪುರಾಣ ನಂಬಿಕೆ, ಸಂಪ್ರದಾಯ, ಆಚರಣೆ, ಮಾಂತ್ರಿಕ ಅಂಶಗಳು.

### II. ಪಠ್ಯಗಳು

೧. ಮಂಟೇಸ್ಸಾಮಿ ಕಾವ್ಯ (ಸಿದ್ಧಪ್ಪಾಜಿ ಸಾಲು) - ಸಂ. ಹಿ.ಜಿ. ಬೋರಲಿಂಗಯ್ಯ, ಕನ್ನಡ ವಿ.ವಿ. ಹಂಪಿ, ೧೯೯೭
೨. ಜುಂಜಪ್ಪನ ಕಾವ್ಯ (ಬಡಮೈಲನ ಸಂದು) - ಸಂ. ಚೆಲುವರಾಜು, ಕನ್ನಡ.ವಿ.ವಿ., ಹಂಪಿ ೧೯೯೭
೩. ಬುದ್ಧ ಕಾವ್ಯದರ್ಶನ - ಬುದ್ಧಣ್ಣ ಹಿಂಗಮಿರೆ

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು-

೧. ಮಹಾಕಾವ್ಯದ ಸ್ವರೂಪ - ಡಾ. ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ
೨. ಮಹಾಕಾವ್ಯದ ಲಕ್ಷಣ - ಡಾ. ಟಿ.ವಿ. ವೆಂಕಟಾಚಲಶಾಸ್ತ್ರಿ
೩. ಪಾಶ್ಚಾತ್ಯ ಮತ್ತು ಭಾರತೀಯ ಮಹಾಕಾವ್ಯ - ಪ್ರೊ. ಎಲ್.ಎಸ್. ಶೇಷಗಿರಿರಾವ್ ಪರಂಪರೆಗಳ ಮನೋಧರ್ಮ
೪. ಜನಪದ ಮಹಾಕಾವ್ಯಗಳು - ಡಾ. ಅಂಬಳಕೆ ಹಿರಿಯಣ್ಣ
೫. ಜನಪದ ಡಾ. ಬುದ್ಧಣ್ಣ ಹಿಂಗಮಿರೆ ಅಭಿನಂದನ ಗ್ರಂಥ - ಸಂ. ಡಾ. ಶಿವಾನಂದಗಾಳಿ ಮತ್ತು ಎಚ್.ಎ. ಪಾರ್ಶ್ವನಾಥ, ಸುಂದರ ಪ್ರಕಾಶನ, ಧಾರವಾಡ ೨೦೧೧
೬. ಕನ್ನಡ ಜನಪದ ಮಹಾಕಾವ್ಯಗಳ ಸಾಂಸ್ಕೃತಿಕ ವೀರರು - ಡಾ. ನಿಂಗಪ್ಪ ಮುದ್ದೇನೂರ, ಸಿ.ವಿ.ಜಿ. ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು

೭. ಆಧುನಿಕ ಮಹಾಕಾವ್ಯಗಳು  
-ಒಂದು ಅಧ್ಯಯನ

- ಡಾ. ಶ್ರೀಧರ ಹೆಗಡೆ ಭದ್ರನ್

## PG43O305: ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ (O.E.C.)

### 1. Course Outcomes:

೧. ಸಂಸ್ಕೃತಿ ಪರಿಕಲ್ಪನೆಯನ್ನು ಅರಿಯುವರು.
೨. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿಗೆ ಅರಸುಮನೆತನಗಳು ನೀಡಿದ ಕೊಡುಗೆಯನ್ನು ಮೌಲ್ಯಮಾಪನ ಮಾಡುವರು.
೩. ಪ್ರಾಚೀನ ಕರ್ನಾಟಕದ ಜೀವನ ಮೌಲ್ಯಗಳನ್ನು ವಿಮರ್ಶಿಸುವರು.
೪. ಕರ್ನಾಟಕದ ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರಗಳ ಪ್ರಾಮುಖ್ಯತೆಯನ್ನು ತಿಳಿದುಕೊಳ್ಳುವರು.
೫. ಕರ್ನಾಟಕದ ಸಂಸ್ಕೃತಿ ಶೋಧಕರ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳುವರು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಸಂಸ್ಕೃತಿ ಎಂದರೇನು? ಸಂಸ್ಕೃತಿಯ ವ್ಯಾಖ್ಯೆ-ಸ್ವರೂಪ-ಸಂಸ್ಕೃತಿಯ ವಿಕಾಸ,ಪ್ರಧಾನ ಸಂಸ್ಕೃತಿ, ಉಪ ಸಂಸ್ಕೃತಿ, ಪ್ರತಿ ಸಂಸ್ಕೃತಿ, ಸಂಸ್ಕೃತಿ-ನಾಗರಿಕತೆ (ಶಿಷ್ಟ ಮತ್ತು ಜನಪದ)
೨. ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಆಕರಗಳು- ಶಾಸನ, ಸಾಹಿತ್ಯ, ಕೈಫಿಯತ್ತು, ನಾಮ, ಬಖೈರು, ದಾಖಲು ಸಾಹಿತ್ಯ, ಪುರಾಣ-ಐತಿಹ್ಯ ವಾಸ್ತುಶಿಲ್ಪ, ಉತ್ಖನನದ ವರದಿಗಳು, ಭೌತಿಕ ದಾಖಲೆಗಳು.
೩. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಮತ್ತು ರಾಜಮನೆತನಗಳು- ಧರ್ಮ, ಸಾಹಿತ್ಯ, ಶಿಲ್ಪಕಲೆ, ರಾಜಕೀಯಕ್ಕೆ ಕದಂಬ, ಗಂಗ, ಚಾಲುಕ್ಯ, ರಾಷ್ಟ್ರಕೂಟ, ಕಲ್ಯಾಣ ಚಾಲುಕ್ಯ, ವಿಜಯನಗರ, ಅರಸರ ಕೊಡುಗೆ.
೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ- ಮೌಲ್ಯಗಳು-ಶೌರ್ಯ ಧರ್ಮ, ದಾನ, ಶರಣಾಗತರಕ್ಷಣೆ, ಶುಚಿತ್ವ, ಸ್ವಾಭಿಮಾನ, ಧರ್ಮಸಮನ್ವಯ, ಲಿಂಗಸಮಾನತೆ, ಪ್ರಭುತ್ವದ ಪರ-ವಿರೋಧ ನಿಲವುಗಳು, ಕಲೆ-ಸಾಹಿತ್ಯ ಪ್ರೀತಿ.
೫. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಶೋಧಕರು- ಶಂಬಾ ಜೋಶಿ ಮತ್ತು ಬೆಟಗೇರಿ ಕೃಷ್ಣಶರ್ಮರ ಸಂಸ್ಕೃತಿ ಚಿಂತನೆಗಳು. ಕರ್ನಾಟಕದ ಪ್ರಮುಖ ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರಗಳು- ಬಾದಾಮಿ, ಪಟ್ಟದಕಲು, ಶ್ರವಣಬೆಳಗೊಳ, ಹಂಪಿ ಇವುಗಳ ಸಾಂಸ್ಕೃತಿಕ ಮಹತ್ವ

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

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| ೧. ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ | - ಎಂ.ಚಿದಾನಂದಮೂರ್ತಿ                                |
| ೨. ಸಂಸ್ಕೃತಿ                       | - ದೇವುಡು  |
| ೩. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ               | - ಶಂಬಾ ಜೋಶಿ ಸಂ.೩                                  |
| ೪. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ ಸಮೀಕ್ಷೆ       | - ಎಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ                          |
| ೫. ಕರ್ನಾಟಕದ ಅರಸುಮನೆತನಗಳು ಭಾಗ-೧&೨  | - ಆರ್.ಎಸ್. ಪಂಚಮುಖಿ ಮತ್ತು<br>ನೆಲಮಂಗಲ ಲಕ್ಷ್ಮೀನಾರಾಯಣ |
| ೬. ಕರ್ನಾಟಕ ಜನಜೀವನ                 | - ಬೆಟಗೇರಿ ಕೃಷ್ಣಶರ್ಮ                               |

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| ೭. ಸಂಸ್ಕೃತಿ- ವಿಕೃತಿ             | - ಎಂ. ಎಂ. ಕಲಬುರ್ಗಿ  |
| ೮. ದಾಖಲು ಸಾಹಿತ್ಯ                | - ಡಾ. ಕೆ. ರವೀಂದ್ರನಾಥ  |
| ೯. ಕರ್ನಾಟಕ ಸಂಸ್ಕೃತಿ             | - ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ   |
| ೧೦. ಅಕ್ಷರಮೇರು                   | - ಚಾಲುಕ್ಯ ಉತ್ಸವ ಸಮಿತಿ-೨೦೧೧<br>ಬಾಗಲಕೋಟೆ                      |
| ೧೧. ಆರನೆಯ ವಿಕ್ರಮಾದಿತ್ಯನ ಶಾಸನಗಳು | - ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ   |
| ೧೨. ಆತ್ಮಬಲಿದಾನ                  | - ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ, ವಿಜಯ ವಿಕ್ರಮ<br>ಪ್ರಕಾಶನ, ಹುಬ್ಬಳ್ಳಿ ೨೦೧೭ |
| ೧೩. ಮುಳುಗುಂದ ನಾಡು ಒಂದು ಅಧ್ಯಯನ   | - ಡಾ. ಧನವಂತ ಹಾಜವಗೋಳ   |

## ೪ನೆಯ ಸೆಮಿಸ್ಟರ್

### PG43T401: ಅಭಿಜಾತ ಸಾಹಿತ್ಯ ಭಾಗ-೨

#### Course Outcomes:

೧. ಕನ್ನಡ ಅಭಿಜಾತ ಸಾಹಿತ್ಯದ ಸಮಗ್ರತೆಯನ್ನು ದೃಷ್ಟಿಯಲ್ಲಿಟ್ಟುಕೊಂಡು ಅಧ್ಯಾಪಕರು ಬೋಧಿಸುವ ಪತ್ರಿಕೆ ಇದು.
೨. ಕನ್ನಡಕ್ಕೆ ಶಾಸ್ತ್ರೀಯ ಭಾಷೆಯ ಸ್ಥಾನಮಾನ ದೊರೆತಿರುವ ಈ ಸಂದರ್ಭದಲ್ಲಿ ಈ ಪತ್ರಿಕೆಗೊಂದು ಪ್ರಾಮುಖ್ಯತೆ ಇದೆ.
೩. ಸಾಹಿತ್ಯದೊಂದಿಗೆ ಅದರ ಮೌಲ್ಯ ಮತ್ತು ಆ ಪರಿಸರದ ಮುಖ್ಯ ಅಭಿವ್ಯಕ್ತಿಯ ಮಾದರಿಗಳ ಕುರಿತು ಚರ್ಚಿಸುವುದು.
೪. ಸಾಹಿತ್ಯ ಮತ್ತು ಸಾಂಸ್ಕೃತಿಕ ವಿವರಗಳನ್ನು ಕವಿ-ಕಾವ್ಯದ ನೆಲೆಯಲ್ಲಿ ಮಾನವಿಕ ಆಕರಗಳ ಶೋಧದಲ್ಲಿ ಕಾಣಿಸುವುದು.
೫. ಹಲ್ಮಿಡಿ ಶಾಸನದಿಂದ ಹಿಡಿದು ಗಂಗಾಧರಂ ಶಾಸನದವರೆಗಿನ ಗದ್ಯ ಪದ್ಯ ಮತ್ತು ಅವುಗಳ ವಸ್ತುಸಂಗತಿಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಬೋಧಿಸುವುದು. ಶಾಸನಗಳು, ಕವಿರಾಜಮಾರ್ಗ, ವಡ್ಡಾರಾಧನೆ ಮತ್ತು ಪಂಪಭಾರತದ ಆದ್ಯ ಪಠ್ಯಗಳಲ್ಲಿರುವ ಮಾನವೀಯ, ವೈಚಾರಿಕ ಮತ್ತು ವಿವೇಕದ ದಾರಿಗಳನ್ನು ಗುರುತಿಸುವುದು ಈ ಪತ್ರಿಕೆಯ ಮೂಲ ಉದ್ದೇಶ.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೨೫

ಪಠ್ಯಗಳು : ೫೦

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

- |                  |  |
|------------------|--|
| ೧. ಶಾಸನಗಳು -     | ಹಲ್ಮಿಡಿ ಶಾಸನ, ಬಾದಾಮಿ ಕಪ್ಪೆ ಅರಭಟನ ಶಾಸನ, ಅರ್ಜುನವಾಡ ಶಾಸನ, ಜಿನವಲ್ಲಭನ ಗಂಗಾಧರಂ ಶಾಸನ. |
| ೨. ಕವಿರಾಜಮಾರ್ಗ - | ಮೊದಲನೆಯ ಪ್ರಕರಣ ಸಂ. ಮುಳಿಯ ತಿಮ್ಮಪ್ಪಯ್ಯ   |
| ೩. ವಡ್ಡಾರಾಧನೆ -  | ಕಾರ್ತಿಕೇಯಕವಿಯ ಕಥೆ, ಭದ್ರ ಬಾಹುಭಟಾರರ ಕಥೆ  |
| ೪. ಪಂಪ ಭಾರತ -    | ಪೀಠಿಕಾ ಭಾಗ ೧-೫೧ ಪದ್ಯಗಳು ಮತ್ತು ೧೩ ಮತ್ತು ೧೪ ನೆಯ ಆಶ್ವಾಸದ ಕಥೆಯ ಭಾಗ                 |

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |               |                     |
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| ೧) ಶಾಸನ, ಗದ್ಯ | - ಡಾ. ಹು.ಕಾ. ಜಯದೇವ, |
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	ಪ್ರಸಾರಾಂಗ, ಬೆಂ.ವಿ.ವಿ.
೨) ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ	- ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ
೩) ಶಾಸನ ಸಂಪದ	- ಸಂ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ
೪) ಶಾಸನಗಳಲ್ಲಿ ಶಿವಶರಣರು	- ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ
೫) ವಡ್ಡಾರಾಧನೆ ಸಾಂಸ್ಕೃತಿಕ ಮುಖಾಮುಖಿ	- ಸಂ. ಬಿ.ಎಂ. ಪುಟ್ಟಯ್ಯ
೬) ವಡ್ಡಾರಾಧನೆ ಜಾನಪದದೀಯ ಅಧ್ಯಯನ	- ಡಾ. ಪಿ.ಎಲ್. ಪಾಟೀಲ
೭) ವಡ್ಡಾರಾಧನೆ ಒಂದು ಅಧ್ಯಯನ	- ಡಾ ಬಿ.ಕೆ. ಖಡಬಡಿ
೮) ಪಂಪ ಒಂದು ಅಧ್ಯಯನ	- ಸಂ. ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ
೯) ಪಂಪಭಾರತ ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ	- ಡಾ. ಶಾಂತಿನಾಥ ದಿಬ್ಬದ

## PG43T402: ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ

### Course Outcomes:

೧. ಭಾಷಾ ವಿಜ್ಞಾನ ಮುಖ್ಯ ತಿಳುವಳಿಕೆ ಇದು. ಇಲ್ಲಿ 'ದ್ರಾವಿಡ ಭಾಷಾ ವಿಜ್ಞಾನ' ಪತ್ರಿಕೆಯ ಮೂಲಕ ಭಾರತದ ಭಾಷಾ ಪರಿವಾರವೊಂದು ವೈಶಿಷ್ಟ್ಯ ಅಂಶಗಳ ಮೂಲಕ ರೂಪುಗೊಂಡ ಬಗೆಯನ್ನು ವಿವರಿಸಲಾಗುವುದು
೨. ದ್ರಾವಿಡ ಭಾಷೆಯ ಜೊತೆ ಇತರ ಸೋದರ, ಪರಿವಾರದ ಭಾಷೆಗಳೊಂದಿಗೆ ಸೌಹಾರ್ದದ ಸಂಬಂಧವನ್ನು ಮತ್ತು ಭಿನ್ನತೆಯನ್ನು ಅನ್ವಯಿಕವಾಗಿ ಗುರುತಿಸುವ ವಿಧಾನ ಇಲ್ಲಿನದು.
೩. ಮುಖ್ಯವಾಗಿ ಕನ್ನಡ ಸಾಹಿತ್ಯದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಧ್ವನಿ ವಿಶಿಷ್ಟತೆ, ವ್ಯಾಕರಣ ವ್ಯವಸ್ಥೆ ಮತ್ತು ದ್ರಾವಿಡ ಪರಿಕಲ್ಪನೆಗಳ ಕುರಿತು ಅನನ್ಯವಾಗಿ ಬೋಧಿಸುವುದು.
೪. ದ್ರಾವಿಡರ ಕುರಿತು ಭಾರತದ ಮೂಲ ನಿವಾಸಿಗಳ ಕುರಿತು ಚರ್ಚಿಸುವುದರ ಮೂಲಕ, ಅದೂ ಜನಾಂಗದ ಚರಿತ್ರೆಯನ್ನು ಸಾಂಸ್ಕೃತಿಕವಾಗಿ ಅಭ್ಯಸಿಸಲು ಕಾರಣವಾಗುವುದು.
೫. ಪರಂಪರೆ ಮತ್ತು ವೈಜ್ಞಾನಿಕ ತಿಳುವಳಿಕೆಯ ಮೂಲಕವೇ ಅಧ್ಯಯನಿಸಬಹುದಾದ, ಬೋಧಿಸಬಹುದಾದ ಪತ್ರಿಕೆ ಇದು.

ಒಟ್ಟು ಅಂಕಗಳು - ೧೦೦

ಪತ್ರಿಕೆ - ೭೫

ಕಿರುಪರೀಕ್ಷೆ- ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ- ೦೩

- ೧) ದ್ರಾವಿಡ ಪದದ ಇತಿಹಾಸ, ನಿಷ್ಪತ್ತಿ- ದ್ರಾವಿಡರು ಯಾರು? ಭಾರತದ ಮೂಲ ನಿವಾಸಿಗಳ ಚರ್ಚೆ, ದ್ರಾವಿಡ ಭಾಷೆಗಳ ವರ್ಗೀಕರಣ, ಉತ್ತರ, ಮಧ್ಯ, ದಕ್ಷಿಣ ದ್ರಾವಿಡ ಉಪವರ್ಗಗಳು ಮತ್ತು ವಿಶಿಷ್ಟ ಲಕ್ಷಣಗಳು
- ೨) ದ್ರಾವಿಡ ಧ್ವನಿಮಾಗಳು, ದ್ರಾವಿಡ ಭಾಷೆಗಳಲ್ಲಿ ವಿಶಿಷ್ಟ ಧ್ವನಿಮಾ ಪ್ರಕ್ರಿಯೆಗಳು -
  ೧. ಇ/ಎ, ಉ/ಓ ಸ್ವರ ಪರಿವರ್ತನೆ
  ೨. ಕ್/ಚ್ ತಾಲವ್ಯೀಕರಣ
  ೩. ಪದಾದಿಯ 'ಚ' ಲೋಪ
  ೪. ಪದಾದಿಯ ಘೋಷ ಧ್ವನಿಮಾಗಳು

- ೨) ದ್ರಾವಿಡ ಆಕೃತಿಮಾ ವಿಚಾರ - ಲಿಂಗ-ವಚನ, ವಿಭಕ್ತಿ ವ್ಯವಸ್ಥೆ, ಸರ್ವನಾಮಗಳು, ಸಂಖ್ಯಾವಾಚಿಗಳು,
- ೪) ಕ್ರಿಯಾ ಪದಗಳು - ಕಾಲ ಪ್ರತ್ಯಯಗಳು, ನಿಷೇಧ ಪ್ರತ್ಯಯಗಳು.
- ೫) ದಕ್ಷಿಣದ್ರಾವಿಡ ವರ್ಗದಲ್ಲಿ ಕನ್ನಡದ ಸ್ಥಾನ ಮತ್ತು ಕನ್ನಡ ಭಾಷೆಯ ವೈಶಿಷ್ಟ್ಯಗಳು, ಪ್>ಹ್ ಬದಲಾವಣೆ, ವ್>ಬ್ ಬದಲಾವಣೆ, ಸ್ವರಾಂತ್ಯ ಪ್ರಕ್ರಿಯೆ, ಗಮಕಸಮಾಸ, ರಳ-ಕುಳ-ಕ್ಷಳ, ಶಿಥಿಲದ್ವಿತ್ವ ಇತ್ಯಾದಿ.

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು:

- |   |                       |
|---|-----------------------|
| ೧. ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ                              | - ಡಾ. ಹಂ.ಪ. ನಾಗರಾಜಯ್ಯ |
| ೨. ತೌಲನಿಕ ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ                       | - ಡಾ. ತಂಗಮಣಿಯನ್       |
| ೩. ದ್ರಾವಿಡ ಅಥವಾ ದಕ್ಷಿಣ ಭಾರತೀಯ ಭಾಷೆಗಳ ತೌಲನಿಕ ವ್ಯಾಕರಣ | - ರಾಬರ್ಟ್ ಕಾಲ್ಡವೆಲ್   |
| ೪. ತೌಲನಿಕ ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ ಪರಿಚಯ                 | - ಕೆ. ಕೆಂಪೇಗೌಡ        |
| ೫. ತೌಲನಿಕ ದ್ರಾವಿಡ ಭಾಷಾವಿಜ್ಞಾನ                       | - ಕೆ. ಕೆಂಪೇಗೌಡ        |
| ೬. Comparative Dravidian Phonology                  | - P.S. Subramanya     |
| ೭. Dravidian Languages                              | - Bh. Krishnamurthy   |
| ೮. Dravidian verb Morphology                        | - P.S. Sugramanua     |
| ೯. Dravidian Noun                                   | - S.V. Shanmugam      |
| (ಮೇಲಿನ ನಾಲ್ಕು ಸಂಪುಟಗಳು ಅಣ್ಣಾಮಲೈ ವಿ.ವಿ. ಪ್ರಕಟಣೆಗಳು)  |                       |
| ೧೦. ದ್ರಾವಿಡ ಭಾಷಾ ವ್ಯಾಸಂಗ                            | - ಸಂಗಮೇಶ ಸವದತ್ತಿಮಠ    |

### PG43T403: ಕನ್ನಡ ಸಂಶೋಧನೆ ಮತ್ತು ಕಿರುಪ್ರಬಂಧ ರಚನೆ

#### Course Outcomes:

೧. ಇದೊಂದು ವೈಶಿಷ್ಟ್ಯ ಪೂರ್ಣವಾದ ಪತ್ರಿಕೆ. ಕಾರಣ ಕನ್ನಡದ ಮುಂದಿನ ಸಂಶೋಧನೆಗೆ ತಾತ್ವಿಕ ಮತ್ತು ಸೈದ್ಧಾಂತಿಕ ನೆಲೆಯನ್ನು ಈ ಪತ್ರಿಕೆ ಒದಗಿಸುತ್ತದೆ.
೨. 'ಸಂಶೋಧನೆ' ಎಂದರೇನು ಎಂಬುವ ಹುಡುಕಾಟದಿಂದ ಹಿಡಿದು ಅದರ ಅರ್ಥ, ವ್ಯಾಪ್ತಿ, ವ್ಯಾಖ್ಯಾನ, ಸ್ವರೂಪ, ಪ್ರಕಾರ, ಸಂಶೋಧನೆಯ ಆಕರ, ಕ್ಷೇತ್ರಕಾರ್ಯ ಇವೆಲ್ಲವುಗಳ ಅಧ್ಯಯನ ಪೂರ್ಣ ಮಾದರಿಯನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಒದಗಿಸುವುದು.
೩. ಸಂಶೋಧನೆ ಬರವಣಿಗೆ, ಅದರ ಸಾಧ್ಯತೆ, ಮಹಾಪ್ರಬಂಧದ ರಚನೆ, ಅಡಿಟಿಪ್ಪಣಿ, ಸಾರಲೇಖ ಈ ಕುರಿತು ಈ ಪತ್ರಿಕೆಯಲ್ಲಿಯೇ ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ಮಾನಸಿಕವಾಗಿ, ಅಕಾಡೆಮಿಕ್ ಆಗಿ ಸಿದ್ಧಗೊಳಿಸುವುದು.
೪. ಕಿರು ಪ್ರಬಂಧದ ರಚನೆ ಈ ಪತ್ರಿಕೆಯ ಒಂದು ಪ್ರಾಯೋಗಿಕ ಮಾದರಿ. ಡೆಸ್ಕ್ ವಿಧಾನ ಮತ್ತು ಕ್ಷೇತ್ರಕಾರ್ಯದ (ಕುಜಟಜ ಘಂಡಿಇ) ವಿಧಾನ. ಇತ್ತೀಚೆಗೆ ಗ್ರಾಮಾಧ್ಯಯನಗಳ ಮಾದರಿಯಿಂದ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಕ್ಷೇತ್ರ ಕಾರ್ಯಾಧಾರಿತ ಸಂಶೋಧನೆಯ ಬಗೆಗೆ ಶೈಕ್ಷಣಿಕವಾಗಿ ತಿಳುವಳಿಕೆ ಮಾಡಿಸುವುದು ಈ ಪತ್ರಿಕೆಯ ಮುಖ್ಯ ಉದ್ದೇಶ.
೫. ಸಂಶೋಧನೆ, ಸೃಜನಕ್ರಿಯೆ, ಆಕರ ಸಾಮಗ್ರಿ ಮತ್ತು ಸಾಹಿತ್ಯ ಸಂಶೋಧನೆಯ ಕಾರ್ಯವಿಧಾನದ ಮೂಲಕ ವಿವಿಧ ಹಂತಗಳಲ್ಲಿ ಪಠ್ಯದ ವಿಷಯ ಬೋಧಿಸುವುದು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೫೦

ಕಿರುಪ್ರಬಂಧಕ್ಕೆ : ೨೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

- I. ೧. ಸಂಶೋಧನೆಯ ಅರ್ಥ - ಡಿಸ್ಕವರಿ, ಇನ್‌ವೆನ್‌ಶನ್, ರಿಸರ್ಚ್ ಇವುಗಳ ಅರ್ಥ ವ್ಯಾಪ್ತಿ ಮತ್ತು ಸಂಬಂಧ. ಸಂಶೋಧಕನ ಅರ್ಹತೆಗಳು, ಲಕ್ಷಣಗಳು ವಿಜ್ಞಾನ, ಸಮಾಜ ವಿಜ್ಞಾನ ಮತ್ತು ಸಾಹಿತ್ಯಗಳ ಸಂಶೋಧನ ವಿಧಾನಗಳ ಸಂಬಂಧ ಮತ್ತು ವ್ಯತ್ಯಾಸ.
೨. ಸೃಜನಕ್ರಿಯೆ - ಸಂಶೋಧನ ಕ್ರಿಯೆ ಮತ್ತು ವಿಮರ್ಶನ ಕ್ರಿಯೆಗಳ ಸ್ವರೂಪ-ಸಂಬಂಧ ವ್ಯತ್ಯಾಸ. ಉಹೆ, ಸಂಭಾವ್ಯತೆ, ಸತ್ಯಗಳ ಸ್ವರೂಪ. ಸಾಹಿತ್ಯ. ಸಂಶೋಧನೆಯ ಪ್ರಕಾರಗಳು- ಆನ್ವಯಿಕ, ಬಹುಶಿಸ್ತೀಯ, ಸಾಂಸ್ಕೃತಿಕ, ಚಾರಿತ್ರಿಕ, ತೌಲನಿಕ ಸಂಶೋಧನಾ
೩. ಆಕರ ಸಾಮಗ್ರಿ - ಸ್ವರೂಪ ಮತ್ತು ಪ್ರಮಾಣ ಪ್ರಕಾರಗಳು. ಪ್ರಧಾನ ಆಕರ, ಪೋಷಕ ಆಕರ, ಅನುಷಂಗಿಕ, ಆಕರದ ನೆಲೆಗಳು.
೪. ಸಾಹಿತ್ಯ ಸಂಶೋಧನೆಯ ಕಾರ್ಯವಿಧಾನ- ವಿಷಯದ ಆಯ್ದ ಪಟ್ಟಿಕೆಗಳ ಸಿದ್ಧತೆ, ಸಂದರ್ಶನ ವಿಧಾನ, ಆಕರ ಸಾಮಗ್ರಿ ಸಂಗ್ರಹ, ವರ್ಗೀಕರಣ, ವಿಷಯ ವಿನ್ಯಾಸ, ಪ್ರಕರಣಗಳ ವಿಭಜನೆ, ವಿಶ್ಲೇಷಣೆ, ವ್ಯಾಖ್ಯಾನ, ಅವತರಣಿಕೆ ಬಳಸುವ ವಿಧಾನ, ಅಡಿಟಿಪ್ಪಣಿ ವಿಧಾನ, ಅನುಬಂಧ ಸಿದ್ಧತೆ, ಪರಿವಿಡಿ ಸಿದ್ಧತೆ, ಸಾರಲೇಖ ಸಿದ್ಧತೆ, ಸಂಶೋಧನೆಯ ಭಾಷೆ.

## II. ಕಿರು ಪ್ರಬಂಧ ರಚನೆ :

ವಿದ್ಯಾರ್ಥಿಗಳು ಕಡ್ಡಾಯವಾಗಿ ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರಗಳ ಶೈಕ್ಷಣಿಕ ಪ್ರವಾಸ ಕೈಗೊಂಡು ಅಧ್ಯಯನಮಾಡಿ ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಕೇಂದ್ರವನ್ನು ಕುರಿತು ೩೦ ರಿಂದ ೪೦ ಪುಟಗಳವರೆಗೆ ಕಿರುಪ್ರಬಂಧವನ್ನು ರಚಿಸುವುದು.

## ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

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| ೧. ಸಂಶೋಧನೆ                   | - ಡಾ.ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ  |
| ೨. ಕನ್ನಡ ಸಂಶೋಧನ ಶಾಸ್ತ್ರ      | - ಡಾ.ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ  |
| ೩. ಸಂಶೋಧನ ವಿಧಾನ              | - ಪಿ.ವಿ. ಕುಲಕರ್ಣಿ ಹರಿಕೃಷ್ಣ ಭರಣ್ಯ ಹಾಗೂ ಜಿ. ಸದಾಶಿವ.                                 |
| ೪. ಸಾಹಿತ್ಯ ಸಂಶೋಧನ ಮಾರ್ಗ      | - ಡಾ. ಸಂಗಮೇಶ ಸವದತ್ತಿಮಠ  |
| ೫. ಸಂಶೋಧನ ಶಾಸ್ತ್ರ            | - ಹೊಸಕೆರೆ ಶಿವಸ್ವಾಮಿ   |
| ೬. ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಶೋಧನ      | - 'ಲೋಚನ' ದಶವಾರ್ಷಿಕ ವಿಶೇಷ ಸಂಚಿಕೆ. ವಿಧಿವಿಧಾನ  |
| ೭. ಸಂಶೋಧನ ಸ್ವರೂಪ             | - ಡಾ. ಬಿ.ವಿ. ಶಿರೂರ  |
| ೮. ಮಹಾಮಾರ್ಗ                  | - (ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ ಅಭಿನಂದನ ಗ್ರಂಥ)<br>ಸಂ. ಸದಾನಂದ ಕನವಳ್ಳಿ ಹಾಗೂ ಡಾ. ವೀರಣ್ಣ ರಾಜೂರ |
| ೯. ಸಂಶೋಧನರಂಗ                 | - ತಾಳ್ವಜೆ ವಸಂತಕುಮಾರ   |
| ೧೦. ಸಂಶೋಧನಾ ಮೀಮಾಂಸೆ          | - ಡಾ. ರಹಮತ್ ತರೀಕೆರೆ, ಕ.ವಿ.ವಿ., ಹಂಪಿ   |
| ೧೧. ಸಂಶೋಧನೆಯ ವೈಧಾನಿಕತೆಗಳು    | - ಸಂ. ಡಾ. ಅಮರೇಶ್ ನುಗಡೋಣಿ, ಕನ್ನಡ.ವಿ.ವಿ., ಹಂಪಿ                                      |
| ೧೨. ಸಂಶೋಧನೆಯ ತಾತ್ವಿಕ ಆಯಾಮಗಳು | - ಡಾ. ಬಿ.ಎಂ. ಪುಟ್ಟಯ್ಯ, ಕನ್ನಡ.ವಿ.ವಿ., ಹಂಪಿ   |

## PG43T404: ಅನುವಾದ : ತತ್ವ-ತಂತ್ರ-ವಿಧಾನ

### Course Outcomes:

೧. ತಾತ್ವಿಕತೆ ಮತ್ತು ಪ್ರಾಯೋಗಿಕತೆಯ ಮೂಲಕ ಸಮಾಜದಲ್ಲಿ ಜ್ಞಾನಾಧಾರಿತ ಭಾಷಾಕೌಶಲ್ಯವನ್ನು ರೂಪಿಸಲು ಪ್ರಯತ್ನಿಸುವ ಪ್ರತಿಕ್ರಿಯೆ.
೨. ಅನುವಾದದ ಭಾಷಿಕ, ಸಾಂಸ್ಕೃತಿಕ, ಸಾಹಿತ್ಯಿಕ ಸಮಸ್ಯೆ ಸಾಧ್ಯತೆಗಳನ್ನು ಬೋಧಿಸುವುದು.

೨. ಅನುವಾದದ ಬಹುಶಿಸ್ತೀಯ ನೆಲೆಗಳನ್ನು ಗುರುತಿಸುವ ಮತ್ತು ಅದರ ಇತಿಹಾಸವನ್ನು ಭಾರತೀಯ ಮತ್ತು ಜಾಗತಿಕ ನೆಲೆಯಲ್ಲಿ ಅಧ್ಯಯನಿಸುವ ವಿಧಾನ ಇಲ್ಲಿದೆ.
೪. ಅನುವಾದದ ತತ್ವಗಳ ಜೊತೆ ಜೊತೆಗೆ ಅನುವಾದದ ಸಮಸ್ಯೆಗಳ ಮೇಲೂ ಬೆಳಕು ಚೆಲ್ಲುವ ವಿಶಿಷ್ಟ ವಿಧಾನ ಇಲ್ಲಿದೆ. ಭಾಷಿಕವಾಗಿ, ವ್ಯಾಕರಣಾತ್ಮಕವಾಗಿ ಮತ್ತು ಸಾಂಸ್ಕೃತಿಕವಾಗಿ ಗ್ರಹಿಸುವ ವಿಧಾನವಿದು.
೫. ಅನುವಾದಕನ ಮುಖ್ಯ ಅರ್ಹತೆಗಳ ಕುರಿತು ಯೋಚಿಸುವುದು ಕೃತಿಯ ಭಾಷಾಂತರದ ದೃಷ್ಟಿಯಿಂದ ಮಹತ್ವದ್ದು, ಇಲ್ಲಿ ಬಹುಶ್ರುತ ಅನುವಾದದ ಸಂಗತಿಯು ತಿಳಿಯುವಲ್ಲಿ ಸಹಕಾರಿಯಾಗುತ್ತದೆ.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ಅನುವಾದ- ಪರಿಕಲ್ಪನೆ, ವಿವಿಧ ವ್ಯಾಖ್ಯೆಗಳು, ಉದ್ದೇಶ, ಪ್ರಯೋಜನಗಳು, ಅನುವಾದದ ಇತಿಹಾಸ (ಭಾರತೀಯ ಮತ್ತು ಜಾಗತಿಕ ನೆಲೆಯಲ್ಲಿ)
೨. ಅನುವಾದದ ತತ್ವಗಳು- ಅನುವಾದದ ಸಮಸ್ಯೆಗಳು (ಭಾಷಿಕ, ವ್ಯಾಕರಣಾತ್ಮಕ, ಸಾಂಸ್ಕೃತಿಕ) ಸಂವಾದಿ ಪದಗಳು (Semantic equivalence) ಅನುವಾದದ ಅಸಾಧ್ಯತೆಗಳು, ಅನುವಾದದಲ್ಲಿ ಸಾಂಸ್ಕೃತಿಕ ರಾಜಕಾರಣ.
೩. ಅನುವಾದಕನ ಅರ್ಹತೆಗಳು ಮತ್ತು ಅನುವಾದದ ಪ್ರಕಾರಗಳು- ಶಬ್ದಾನುವಾದ, ಭಾವಾನುವಾದ, ಸಂಗ್ರಹಾನುವಾದ, ಆಂಶಿಕ ಅನುವಾದ, ಯಂತ್ರಾನುವಾದ, ರೂಪಾಂತರ, ಇತ್ಯಾದಿ.
೪. ಅನುವಾದಿತ ಪಠ್ಯಗಳು - ೧. ಉಚಲ್ಯಾ - ಲಕ್ಷ್ಮಣರಾವ್ ಗಾಯಕವಾಡ, ಅನುವಾದ ಚಂದ್ರಕಾಂತ ಪೋಕಳೆ.  
೨. ಈಡಿಪಸ್ ಮತ್ತು ಅಂತಿಗೊನೆ - ಪಿ. ಲಂಕೇಶ್)

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |                                     |   |
|-------------------------------------|---|
| ೧. ಭಾಷಾಂತರ ಕಲೆ                      | - ಪ್ರಧಾನ ಗುರುದತ್ತ                         |
| ೨. ಭಾಷಾಂತರ                          | - ಓ.ಎಲ್.ನಾಗಭೂಷಣಸ್ವಾಮಿ, ಕನ್ನಡ ವಿ.ವಿ., ಹಂಪಿ |
| ೩. ಭಾಷಾಂತರ ಸಾಂಸ್ಕೃತಿಕ ನೆಲೆಗಳು       | - ಕರೀಗೌಡ ಬೀಚನಹಳ್ಳಿ, ಕನ್ನಡ ವಿ.ವಿ., ಹಂಪಿ    |
| ೪. ಅನುವಾದ ಕಲೆ                       | - ಜಿ.ಎಸ್.ಕುಳ್ಳಿ ಮತ್ತು ಮುರಡಿ               |
| ೫. Linguistic theory of Translation | - J.C.Catford                             |
| ೬. Translation studies              | - Susan Bassnet                           |
| ೭. The Art of Translation           | - T.H.Savory                              |
| ೮. Translation and Globalization    | - Michael cronin Routedge, London.2004.   |
| ೯. ಭಾಷೆ ಮತ್ತು ಸೃಜನಶೀಲತೆ             | - ಹೆಚ್.ಎಂ.ಮಹೇಶ್ವರಯ್ಯ                      |
| ೧೦. ತೌಲನಿಕ ಸಾಹಿತ್ಯ                  | - ದೇ.ಜವರೇಗೌಡ                              |
| ೧೧. ನಾಗವಲ್ಲಿ                        | - ಎಚ್.ಎಲ್.ನಾಗೇಗೌಡರ ಅಭಿನಂದನ ಗ್ರಂಥ          |

## ಐಚ್ಛಿಕ ಪತ್ರಿಕೆ PG43T405A: ಮಹಿಳಾ ಸಾಹಿತ್ಯ

### Course Outcomes:

೧. ಸಾಹಿತ್ಯ, ಸಮಾಜ, ಸಂಸ್ಕೃತಿ ಮತ್ತು ಮಹಿಳೆಯ ಸಂಬಂಧಗಳನ್ನು ಮಧ್ಯಕಾಲೀನ ಸಮಾಜದ ನೆಲೆಯಲ್ಲಿ ನೋಡುವ ಒಂದು ಮಾದರಿ. 'ವಚನ ಸಾಹಿತ್ಯ' ಇದಕ್ಕೊಂದು ಉತ್ತಮ ಭೂಮಿಕೆಯಾಗಿರುವುದು.
೨. ಹರಿದಾಸ ಪರಂಪರೆಯಲ್ಲೂ ಮಹಿಳಾ ಅಭಿವ್ಯಕ್ತಿಯ ನೆಲೆಗಳನ್ನು ಗುರುತಿಸುವ ಪ್ರಯತ್ನ ತಾತ್ವಿಕವಾಗಿ ಇಲ್ಲಿ ನಡೆದಿರುವುದು.
೩. ಮೌಖಿಕ, ಶಿಷ್ಟ ಮತ್ತು ಆಧುನಿಕ ಸಂದರ್ಭಗಳಲ್ಲಿ ಮಹಿಳಾ ಚಿಂತನೆ, ಸ್ತ್ರೀವಾದಿ ವಿಮರ್ಶೆ ಬೆಳೆದ ವಿಧಾನಗಳನ್ನು ಬೋಧಿಸುವುದು.
೪. ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮಹಿಳಾ ಪ್ರಾಧಾನ್ಯತೆಯ ಸಂಗತಿಗಳನ್ನು ಪದ್ಯ-ಗದ್ಯದ ಸಮೇತ ವಿವರಿಸುವ, ವಿಶ್ಲೇಷಿಸುವ ಮಾದರಿ.
೫. ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳಲ್ಲಿ ಮಹಿಳೆಯರೇ ಆದ ದನಿ, ಭಿತ್ತಿ ಮತ್ತು ಬರಹದ ವೈಶಿಷ್ಟ್ಯತೆಗಳನ್ನು ಗುರುತಿಸುವ ಪ್ರಯತ್ನ ವಾಗಿಯೂ ಈ ಪತ್ರಿಕೆ ಇದೆ.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ತಾತ್ವಿಕತೆ : ೨೫

ಪಠ್ಯಗಳು- ೫೦

ಕಿರುಪರೀಕ್ಷೆ- ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ- ೦೩

**ತಾತ್ವಿಕತೆ :** ಸಾಹಿತ್ಯ-ಸಮಾಜ-ಸಂಸ್ಕೃತಿ ಮತ್ತು ಮಹಿಳೆಯ ಸಂಬಂಧಗಳು, ಮಹಿಳೆ ಮತ್ತು ಸೃಜನಶೀಲತೆ

೧. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಮಹಿಳೆ - ಮೌಖಿಕ ಸಾಹಿತ್ಯ ಮತ್ತು ಶಿಷ್ಟ ಸಾಹಿತ್ಯ , ಮಹಿಳೆ ಮತ್ತು ಆಧುನಿಕತೆ ವಸಾಹತೋತ್ತರ ಸಂದರ್ಭದಲ್ಲಿ ಕನ್ನಡ ಮಹಿಳಾ ಸಾಹಿತ್ಯ. ಸ್ತ್ರೀ ವಾದದ ಪರಿಕಲ್ಪನೆ, ಪ್ರಸ್ಥಾನಗಳು, ಮತ್ತು ಪರಿಭಾಷೆ, ಮಹಿಳಾ ಅಧ್ಯಯನದ ಪರಿಕಲ್ಪನೆಗಳು (ಲಿಂಗ, ಲಿಂಗ ವ್ಯವಸ್ಥೆ, ಪಿತೃಪ್ರಧಾನತೆ, ಮಾತೃಪ್ರಧಾನತೆ) ಮತ್ತು ವಿಧಾನಗಳು, ಸಾಹಿತ್ಯ ಮತ್ತು ಸ್ತ್ರೀವಾದ, ಸ್ತ್ರೀವಾದಿ ವಿಮರ್ಶೆ ಭಾರತೀಯ ಸ್ತ್ರೀವಾದ, ಸ್ತ್ರೀ ವಾದದ ಚಿಂತಕಿಯರು.
೨. ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯ ಪರಂಪರೆ ಮತ್ತು ಮಹಿಳೆ- ಜನಪದ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮಹಿಳಾ ಸಂವೇದನೆಗಳು- ಜನಪದ ಪದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮಹಿಳೆ ಮತ್ತು ಗದ್ಯ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮಹಿಳೆ.
೩. ಮಧ್ಯಯುಗದ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಮತ್ತು ಮಹಿಳೆ- ವಚನ ಸಾಹಿತ್ಯ ಮತ್ತು ಕೀರ್ತನ ಸಾಹಿತ್ಯದಲ್ಲಿ ಮಹಿಳೆ (ಲೇಖಕಿಯಾಗಿ-ಅನುಭಾವಿಯಾಗಿ-ಸಮಾಜ ಜೀವಿಯಾಗಿ)
೪. ಆಧುನಿಕ ಕನ್ನಡ ಮಹಿಳಾ ಸಾಹಿತ್ಯ ಕಾದಂಬರಿ, ಕತೆ, ಕವನ(೧೯೦೦ ರಿಂದ ೨೦೧೦) ಪ್ರಮುಖ ಲೇಖಕಿಯರು ಕೊಡಗಿನ ಗೌರಮ್ಮ, ಅನುಪಮಾ ನಿರಂಜನ, ಶಾಂತಾದೇವಿ ಕಣವಿ, ಶೈಲಜಾ ಉಡಚಣ.

### ಪಠ್ಯಗಳು :

- ೧) ಕನ್ನಡ ಜನಪದ ಕಥನಕಾವ್ಯಗಳು - ಎಚ್.ಎಲ್. ನಾಗೇಗೌಡ  
(ಶಿವಗಂಗಿ, ವೀರದಿಮ್ಮವ್ವ, ಮ್ಯಾದರ ಹೆಣ್ಣು, ಹಾರುವಯ್ಯ, ಮಾದಗಿತ್ತಿ ಹಾಡು, ಶೆಟವಿ ಕಥೆ, ಸಿರಿದೇವಿ)
- ೨) ಕ್ರೌಂಚಪಕ್ಷಿಗಳು (ಕಥೆ) - ವೈದೇಹಿ
- ೩) ಶಿವಶರಣೆಯರ ವಚನಗಳು - ಸಮಗ್ರ ವಚನ ಸಂಪುಟ-೫, ಕನ್ನಡ  
(ಅಕ್ಕಮಹಾದೇವಿ ೧ ರಿಂದ ೧೫೦, ಸಂಸ್ಕೃತಿ ಇಲಾಖೆ, ಬೆಂಗಳೂರು  
೧೯೯೩  
ಆಯ್ದಕ್ಕಿಲಕ್ಕಮ್ಮ ೧ ರಿಂದ ೨೫)

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :**

- |  |  |
|--|--|
| ೧. ಸ್ತ್ರೀವಾದಿ ಸಾಹಿತ್ಯ ವಿಮರ್ಶೆ                  | - ಸಂ. ತೇಜಸ್ವಿನಿ ನಿರಂಜನ ಮತ್ತು ಸೀಮಂತಿನಿ ನಿರಂಜನ |
| ೨. ಅಭಿವ್ಯಕ್ತಿ                                  | - ಸಂ. ಡಾ. ಶಾಲಿನಿ ರಘುನಾಥ, ಡಾ. ಮಧು ವೆಂಕಾಠರಾಜ್  |
| ೩. ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ<br>ಸ್ತ್ರೀಸಂವೇದನೆಯ ಸ್ವರೂಪ | - ಸಂ. ಬರಗೂರು ರಾಮಚಂದ್ರಪ್ಪ                     |
| ೪. ಮಹಿಳೆ ಸಾಹಿತ್ಯ ಮತ್ತು ಸಮಾಜ                    | - ವಿಜಯಾ ದಬ್ಬೆ                                |
| ೫. ನಾರಿ ದಾರಿ ದಿಗಂತ                             | - ವಿಜಯಾ ದಬ್ಬೆ                                |
| ೬. ಮಹಿಳೆ ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯ                   | - ಸಂ. ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ                    |
| ೭. ಸಾಹಿತ್ಯ ಸಂವೇದನೆ                             | - ಡಾ. ಶಾಂತಾ ಇಮ್ಮಾಪೂರ                         |
| ೮. ಸ್ತ್ರೀವಾದ ಪ್ರವೇಶಿಕೆ                         | - ಬಿ.ಎನ್. ಸುಮಿತ್ರಾಬಾಯಿ, ಎನ್. ಗಾಯತ್ರಿ         |
| ೯. ಕನ್ನಡ ಮಹಿಳಾ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ                 | - ಡಾ.ಎಚ್.ಎಸ್. ಶ್ರೀಮತಿ ಕನ್ನಡ ವಿ.ವಿ. ಹಂಪಿ      |
| ೧೦. ಕರ್ನಾಟಕದ ಕವಯಿತ್ರಿಯರು                       | - ಡಾ. ಸರೋಜಿನಿ ಮಹಿಷಿ                          |
| ೧೧. ಹದಿಬದೆಯ ಧರ್ಮ                               | - ಡಾ. ಮಧು ವೆಂಕಾಠರಾಜ್                         |
| ೧೨. ಮಧ್ಯಯುಗದ ಮಹಿಳಾ ಸಾಹಿತ್ಯ<br>ಮತ್ತು ಸೃಜನಶೀಲತೆ  | - ಡಾ. ಶಾಂತಾ ಇಮ್ಮಾಪೂರ                         |
| ೧೩. ಅಲೆಗಳಲ್ಲಿ ಅಂತರಂಗ                           | - ವೈದೇಹಿಯವರ ಸಮಗ್ರ ಕತೆಗಳು: ಅಕ್ಷರ ಪ್ರ. ಸಾಗರ    |

**PG43T405B: ನಿಘಂಟು ವಿಜ್ಞಾನ ಮತ್ತು ನಾಮ ವಿಜ್ಞಾನ ಅಧ್ಯಯನ**

**Course Outcomes:**

೧. ಕನ್ನಡ ಭಾಷೆಯಲ್ಲಿರುವ ವ್ಯಾಕರಣ ಪರಂಪರೆ ಮತ್ತು ನಿಘಂಟು ಪರಂಪರೆಯನ್ನು, ಅದರ ರಚನಾ ಕೌಶಲ್ಯಗಳನ್ನು ವಿವರಿಸುವ ಮಾದರಿ ಇಲ್ಲಿರುತ್ತದೆ.
೨. ನಿಘಂಟು ವಿಜ್ಞಾನದಲ್ಲಿ ಭಾಷಿಕ, ಸಾಮಾಜಿಕ, ಸಾಂಸ್ಕೃತಿಕ ಮಹತ್ವಗಳನ್ನು ತಿಳಿಸುವ, ಪ್ರಮುಖ ನಿಘಂಟುಗಾರರ ಶ್ರಮದ ಬಗೆಗೆ ತಿಳಿಯುವ ಒಂದು ಅಧ್ಯಯನ ಪೂರ್ಣ ವಿಧಾನ ಇಲ್ಲಿದೆ.
೩. ನಿಘಂಟು ರಚನೆಯ ವಿವಿಧ ಹಂತಗಳ ಕುರಿತು, ಅದರ ಪರಸ್ಪರ ಸಂಬಂಧಗಳ ಕುರಿತು ತಿಳಿಯುವ ನೆಲೆ. ಹಾಗೇ-ಪ್ರಮುಖ ಕನ್ನಡ ನಿಘಂಟುಗಳ ಚರಿತ್ರೆಯನ್ನು ಅರಿಯುವ ಮೂಲಕ ಕನ್ನಡದ ವೈವಿಧ್ಯಮಯ ದೇಶೀ-ಶಿಷ್ಟ ಬದುಕನ್ನು ಅರ್ಥೈಸಲು ಈ ವಿಷಯ ನಮಗೆ ನೆರವಾಗುತ್ತದೆ.
೪. ನಾಮ ವಿಜ್ಞಾನದಲ್ಲಿ ನಾಮಗಳ ಭಾಷಿಕರೂಪ ಮತ್ತು ಪ್ರಾದೇಶಿಕ ಬದುಕಿನಲ್ಲಿ ಅವು ಪಡೆದುಕೊಳ್ಳುವ ವಿವಿಧ ಸಂಗತಿಗಳ ಅಧ್ಯಯನ ಇಲ್ಲಿರುತ್ತದೆ.
೫. ನಾಮಗಳ ಐತಿಹಾಸಿಕತೆ, ಧಾರ್ಮಿಕತೆ ಮತ್ತು ಪ್ರಾದೇಶಿಕತೆ ಇವೆಲ್ಲವುಗಳ ಜೊತೆಗೆ ಆಧುನಿಕ ದೃಷ್ಟಿಕೋನ. ಈ ನೆಲೆಯ ಓದಿನ ಮಾದರಿ ಇಲ್ಲಿದೆ. ಇದರ ಪರಂಪರೆಯ ಕುರಿತು ಅರಿಯುವ ವಿಧಾನ ಇಲ್ಲಿನದು.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

### ನಿಘಂಟು ವಿಜ್ಞಾನ :

೧. ಭಾಷೆ-ಭಾಷಾವಿಜ್ಞಾನ ಅರ್ಥವಿಜ್ಞಾನಗಳ ಜೊತೆಗಿನ ಸಂಬಂಧ, ನಿಘಂಟುವಿಜ್ಞಾನದ ಸಂಕ್ಷಿಪ್ತ ಇತಿಹಾಸ ನಿಘಂಟು, ಸ್ವರೂಪ, ವಿಧಗಳು, ನಿಘಂಟಿನ ಭಾಷಿಕ-ಸಾಮಾಜಿಕ-ಸಾಂಸ್ಕೃತಿಕ ಮಹತ್ವ-ರೆ.ಎಫ್. ಕಿಟೆಲ್, ಡಾ. ಜಿ. ವೆಂಕಟಸುಬ್ಬಯ್ಯಾ, ಯು.ಪಿ. ಉಪಾಧ್ಯಾಯ ಅವರ ನಿಘಂಟುಗಳು.
೨. ನಿಘಂಟು ರಚನೆಯ ವಿವಿಧ ಹಂತಗಳು: ನಿಘಂಟು, ಶಬ್ದಕೋಶ, ವಿಶ್ವಕೋಶಗಳ ಸಂಬಂಧಾಂತರಗಳು, ನಿಘಂಟುಕಾರನ ಅರ್ಹತೆಗಳು.
೩. ಪ್ರಮುಖ ಕನ್ನಡ ನಿಘಂಟುಗಳ ಇತಿಹಾಸ, ಎನ್. ಬಸವರಾಧ್ಯ-ಹಳಗನ್ನಡ ನಿಘಂಟು, ಕಿಟೆಲ್-ಕನ್ನಡ-ಇಂಗ್ಲಿಷ್ ನಿಘಂಟು, ಕ.ಸಾ.ಪ. ದ ಲ ಸಂಪುಟಗಳ ನಿಘಂಟು, ಪಾ.ವೆಂ. ಆಚಾರ್ಯ ಪದಾರ್ಥ ಚಿಂತಾಮಣಿ, ಇಗೋ ಕನ್ನಡ, ದ್ರಾವಿಡಿಯನ್ ಎಟಿಮಾಲಾಜಿಕಲ್ ಡಿಕ್ಸನರಿಗಳ ಸ್ಥೂಲ ಪರಿಚಯ.

### ನಾಮ ವಿಜ್ಞಾನ :

೪. ನಾಮಪದ ಮತ್ತು ನಾಮ- ವ್ಯಾಕರಣಾತ್ಮಕ ಮತ್ತು ಭಾಷಾವೈಜ್ಞಾನಿಕ ಹಿನ್ನೆಲೆ, ನಾಮಗಳ ಭಾಷಿಕಸ್ವರೂಪ, ಜನಪದನಂಬಿಕೆ, ಪೌರಾಣಿಕ, ಐತಿಹಾಸಿಕ, ಆಕರಗಳು ಮತ್ತು ನಾಮಗಳ ವರ್ಗೀಕರಣ, ವಸ್ತುನಾಮ, ಅಂಕಿತನಾಮ, (ಕಿರುನಾಮ-ಕಾವ್ಯನಾಮ-ಐತಿಹ್ಯ-ಪೌರಾಣಿಕತೆ-ಪ್ರಾದೇಶಿಕತೆ)
೫. ವ್ಯಕ್ತಿನಾಮ, ಸ್ಥಳನಾಮ, ಅಡ್ಡಹೆಸರುಗಳ, ಸ್ಥಳನಾಮಗಳ ಐತಿಹಾಸಿಕ, ಧಾರ್ಮಿಕ, ಸಾಂಸ್ಕೃತಿಕ ಹಿನ್ನೆಲೆ ಮತ್ತು ಮಹತ್ವ. ನಾಮಗಳು- ದೇಸೀ ನಾಮರೂಢಿಗಳು, ಆಧುನಿಕ ದೃಷ್ಟಿ, ಕನ್ನಡದಲ್ಲಿ ನಾಮವಿಜ್ಞಾನ ಅಧ್ಯಯನ ನಡೆದು ಬಂದ ದಾರಿ.

### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |                                 |                          |
|---------------------------------|--------------------------|
| ೧. ವಾಗ್ಧರ್                      | - ಡಾ. ಎಂ. ಚಿದಾನಂದ ಮೂರ್ತಿ |
| ೨. ಕನ್ನಡ ನಾಮವಿಜ್ಞಾನ             | - ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ    |
| ೩. ನಾಮವಿಜ್ಞಾನ                   | - ದೇ. ಜವರೇಗೌಡ            |
| ೪. ನಿಘಂಟು ವಿಜ್ಞಾನ               | - ಜಿ. ವೆಂಕಟಸುಬ್ಬಯ್ಯಾ     |
| ೫. ನಿಘಂಟು ರಚನಾ ವಿಜ್ಞಾನ          | - ಡಾ. ವಿಲಿಯಂ ಮಾಡ್ಡಾ      |
| ೬. Manual of Lexicography       | - Zygusta                |
| ೭. Introduction to Lexicography | - R.A. Singh             |
| ೮. Semantics                    | - Geofery Leech.         |

## PG43T405C: ಕರ್ನಾಟಕ ರಂಗಭೂಮಿ ಅಧ್ಯಯನ

### Course Outcomes:

೧. ಕರ್ನಾಟಕ ರಂಗಭೂಮಿಯ ಪ್ರಚೀನ ಪರಂಪರೆಯ ಅರಿವನ್ನು ಮಕ್ಕಳಿಗೆ ತಿಳಿಸುವ ವಿಧಾನ.
೨. ರಂಗಭೂಮಿ ಜನ ಸಮುದಾಯದ ನೆಲೆಯಲ್ಲಿ ಬೆಳೆದು ಬಂದ ವಿಶಿಷ್ಟ ಜೀವನ ಕಲೆ ಎಂದು ಪ್ರತಿಬಿಂಬಿಸುವುದು.
೩. ವೃತ್ತಿ ರಂಗಭೂಮಿ, ಹವ್ಯಾಸ ರಂಗಭೂಮಿಗಳೆರಡರ ಕುರಿತು ಪ್ರಾದೇಶಿಕ ಕಲಾ ಕೌಶಲ್ಯತೆಯನ್ನು ಓದಿನ ಮೂಲಕ, ಸಾಂದರ್ಭಿಕವಾಗಿ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ಮೂಲಕ ವಿವರಿಸುವುದು.
೪. ರಂಗಭೂಮಿ ಒಂದು ವೃತ್ತಿ ಕೌಶಲ್ಯದ ಭಾಗವಾಗಿ, ತಿಳುವಳಿಕೆಯ ಜ್ಞಾನವಾಗಿ, ಬದುಕಿನ ಮೌಲ್ಯವಾಗಿ ಬೆಳೆದು ಬಂದಿದೆ ಎಂಬುದನ್ನು ಸಾದರ ಪಡಿಸುವುದು.

೫. ಇದರ ಎಲ್ಲ ವಿಕಾಸದ ಹೆಜ್ಜೆಗುರುತುಗಳನ್ನು ಗುರುತಿಸುವುದರ ಮೂಲಕ ಆಧುನಿಕ ರಂಗಭೂಮಿಯ ವರ್ತಮಾನವನ್ನು ವಿವರಿಸಬಹುದು ಮತ್ತು ಅಶ್ವತ್ಥಾಮನ್, ಹರಿಜನ್ವಾರ, ನಾಟಕ ಪಠ್ಯಗಳ ಮೂಲಕ ಮೇಲಿನ ಅಂಶಗಳು ಮೇಳೈಸಿ ಬಂದಿರುವ ವಿಧಾನಗಳನ್ನು ಕಟ್ಟಿಕೊಡುವುದು ಈ ಪತ್ರಿಕೆಯ ಒಂದು ವಿಶೇಷತೆ.

ಒಟ್ಟು ಅಂಕಗಳು : ೧೦೦

ಪತ್ರಿಕೆ : ೭೫

ಕಿರುಪರೀಕ್ಷೆ : ೧೧+೧೧=೨೨

ಹಾಜರಾತಿ : ೦೩

೧. ರಂಗಭೂಮಿ : ಪದ ನಿಷ್ಪತ್ತಿ-ವಿವರಣೆ-ಸಂವಾದಿ ರೂಪಗಳು: ನಾಟಕ-ರೂಪಕ-ಉಪರೂಪಕ ಕನ್ನಡ ರಂಗಭೂಮಿಯ ಪ್ರಾಚೀನತೆ.
೨. ಕರ್ನಾಟಕ ರಂಗಭೂಮಿಯ ವಿಕಾಸ: ಪಗರಣ-ಬಹುರೂಪಿ-ನಾಡಾಡಿಗಳ ನಾಟಕ-ಬಯಲಾಟ-ಯಕ್ಷಗಾನ ಉಗಮ, ಸ್ವರೂಪ, ಲಕ್ಷಣ
೩. ಆಧುನಿಕ ರಂಗಭೂಮಿ - ನಾಟಕ ಸಾಹಿತ್ಯ - ನಾಟಕ ಪ್ರದರ್ಶನ -ನಿರ್ದೇಶಕ-ನಟವರ್ಗ-ಪ್ರೇಕ್ಷಕರು, ಹವ್ಯಾಸಿ ಮತ್ತು ವೃತ್ತಿ ರಂಗಭೂಮಿ-ಕಂಪನಿ ನಾಟಕಗಳು, ಸ್ತ್ರೀ ನಾಟಕ ಮಂಡಳಿಗಳು, ತರಬೇತಿ ಸಂಸ್ಥೆಗಳು-ನೀನಾಸಂ-ನಾಟಕ ಅಕಾಡೆಮಿ.

#### ಪಠ್ಯಗಳು

೧. ಅಶ್ವತ್ಥಾಮನ್ - ಬಿ.ಎಂ.ಶ್ರೀ
೨. ಹರಿಜನ್ವಾರ - ಶ್ರೀರಂಗ

#### ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

- |                               |   |  |
|-------------------------------|---|--|
| ೧. ಕನ್ನಡ ನಾಟಕಗಳು              | - | ತ.ಸು. ಶಾಮರಾಯ, ಗೀತಾಬುಕ್ ಹೌಸ್, ಮೈಸೂರು                    |
| ೨. ಆಧುನಿಕ ಕನ್ನಡ ನಾಟಕಗಳು       | - | ಕೆ. ಮರುಳಸಿದ್ಧಪ್ಪ, ಅಂಕಿತ ಪ್ರಕಾಶನ, ಬೆಂಗಳೂರು              |
| ೩. ಶತಮಾನದ ಸಂಶೋಧನೆ             | - | ಡಾ. ಎನ್.ಎಸ್.ತಾರಾನಾಥ, ಕರ್ನಾಟಕ ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಬೆಂಗಳೂರು |
| ೪. ಸಂಭಾವನೆ (ಗೌರವ)             | - | ಬಿ.ಎಂ. ಶ್ರೀಯವರ ಅಭಿನಂದನಾ ಗ್ರಂಥ                          |
| ೫. ಭಾರತೀಯ ರಂಗಭೂಮಿ             | - | ಆದ್ಯಯರಂಗಾಚಾರ್ಯ   |
| ೬. ಕನ್ನಡ ರಂಗಭೂಮಿ ಅಂದು-ಇಂದು    | - | ಶಂಕರ ಮೊಕಾಶಿ ಪುಣೇಕರ್                                    |
| ೭. ಅಶ್ವತ್ಥಾಮನ್                | - | ವಿ. ಸೀತಾರಾಮಯ್ಯ   |
| ೮. The Karnataka Theater      | - | H.K. Ranganath   |
| ೯. The Indian Theatre         | - | Mulkraj Anand  |
| ೧೦. ಕನ್ನಡ ರಂಗಭೂಮಿ ಮತ್ತು ಮಹಿಳೆ | - | ಡಾ. ವೆಂಕಟಗಿರಿ ದಳವಾಯಿ                                   |

## ಸ್ನಾತಕೋತ್ತರ ಬಸವ ಅಧ್ಯಯನ ಡಿಪ್ಲೋಮಾ

(2020-21 ಹಾಗೂ ನಂತರದ ಅವಧಿಗಾಗಿ)

### Programme Specific Outcome(PSO):

- PSO 1** ವಿವಿಧ ಬರಹಗಾರರು, ಸಾಹಿತ್ಯ ಕೃತಿಗಳು ಮತ್ತು ಸಾಹಿತ್ಯ ಚಳುವಳಿಗಳ ಅರಿವನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು.
- PSO 2** ಭಾಷಾ ಸಾಹಿತ್ಯದ ಶ್ರೀಮಂತಿಕೆಯ ಜೊತೆಗೆ ಮಾನವೀಯ ಮೌಲ್ಯಗಳನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು.
- PSO 3** ಸಾಹಿತ್ಯದ ಮೂಲಕ ಸಾಮಾಜೋದಾರ್ಮಿಕ, ರಾಜಕೀಯ, ಸಾಂಸ್ಕೃತಿಕ ತಿಳುವಳಿಕೆಯ ಸಾಮರ್ಥ್ಯವನ್ನು ಗಳಿಸಿಕೊಳ್ಳುವುದು.
- PSO 4** ವೈಚಾರಿಕ-ವೈಜ್ಞಾನಿಕ ಚಿಂತನೆಗಳನ್ನು ಅಳವಡಿಸಿಕೊಳ್ಳುವುದು. ಸಮಕಾಲೀನ ವಿದ್ಯಮಾನಗಳ ಅರಿವು, ಸಾಮಾಜಿಕ ಹೊಣೆಗಾರಿಕೆಯ ಅರಿವನ್ನು ಗಳಿಸಿಕೊಳ್ಳುವುದರ ಮೂಲಕ ಸದೃಢ, ಬೌದ್ಧಿಕ ವ್ಯಕ್ತಿತ್ವವನ್ನು ರೂಪಿಸಿಕೊಳ್ಳುವುದು.
- PSO 5** ಸಾಹಿತ್ಯದ ಓದು, ತಿಳುವಳಿಕೆ ಹಾಗೂ ಬರವಣಿಗೆಯನ್ನು ರೂಢಿಸಿಕೊಳ್ಳುವುದರ ಮೂಲಕ ನಾಡು-ನುಡಿಯ ಕುರಿತಾದ ಜ್ಞಾನವನ್ನು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳುವುದು.

- ೧) ಕನ್ನಡ ಅಧ್ಯಯನಪೀಠದಲ್ಲಿ ಶ್ರೀ ಬಸವೇಶ್ವರ ಅಧ್ಯಯನ ಡಿಪ್ಲೋಮಾ ಕೋರ್ಸ್‌ನ್ನು ೧೯೮೧ ಜೂನದಿಂದ ಪ್ರಾರಂಭಿಸಲಾಗಿದೆ.
- ೨) ಈ ಕೋರ್ಸ್‌ಗೆ ಪ್ರವೇಶ ಪಡೆಯುವವರು ಯಾವುದೇ ವಿಷಯದಲ್ಲಿ ಸ್ನಾತಕ ಇಲ್ಲವೆ ತತ್‌ಸಮಾನ ಪದವಿಯನ್ನು ಪಡೆದಿರಬೇಕು.
- ೩) ಈ ಕೋರ್ಸ್‌ನ ಅವಧಿ ೧ ವರ್ಷವಾಗಿದ್ದು, ೪ ಪತ್ರಿಕೆಗಳಿದ್ದು ಪ್ರತಿಯೊಂದು ಪತ್ರಿಕೆಗೆ ೧೦೦ ಅಂಕಗಳನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಪತ್ರಿಕೆಯ ಬೋಧನ ಅವಧಿಯು ವಾರಕ್ಕೆ ೩ ಗಂಟೆಗಳಾಗಿದ್ದು ಪ್ರತಿಯೊಂದು ಪತ್ರಿಕೆಯ ಪರೀಕ್ಷಾ ಅವಧಿ ೩ ಗಂಟೆಗಳಾಗಿರುತ್ತದೆ.

ಪತ್ರಿಕೆಗಳ ವಿವರ ಈ ಕೆಳಗಿನಂತಿದೆ :

ಪತ್ರಿಕೆ-೧

ಅಂಕಗಳು \_ ೧೦೦

ವಚನ ಚಳುವಳಿ ಮತ್ತು ಬಸವಣ್ಣ

- ಅ) ವಚನ ಚಳುವಳಿಯ ಹುಟ್ಟು-ಬೆಳವಣಿಗೆ, ಶಿಕ್ಷಣ
- ಆ) ವಚನ ಚಳುವಳಿಗೆ ಬಸವಣ್ಣನವರ ಕೊಡುಗೆ, ಸಾಮಾಜಿಕ, ಧಾರ್ಮಿಕ, ರಾಜಕೀಯ ಹಾಗೂ ಸಾಹಿತ್ಯಿಕ
- ಇ) ಬಸವಣ್ಣನವರ ಸಾಧನೆ-ಸಿದ್ಧಿಗಳು, ಹುಟ್ಟು, ಬೆಳವಣಿಗೆ, ಪರಿಸರ- ಧಾರ್ಮಿಕ, ಸಾಮಾಜಿಕ, ಸಾಹಿತ್ಯಿಕ, ರಾಜಕೀಯ, ಸಾಂಸ್ಕೃತಿಕ

ಈ) ವಚನ ಚಳುವಳಿಯಲ್ಲಿ ಬಸವಣ್ಣ ಮತ್ತು ವಚನಕಾರರು (ಮಾದರ ಚೆನ್ನಯ್ಯ, ಜೇಡರ ದಾಸಿಮಯ್ಯ, ಅಲ್ಲಮಪ್ರಭು, ಅಕ್ಕಮಹಾದೇವಿ, ಚೆನ್ನಬಸವಣ್ಣ, ಸಿದ್ಧರಾಮ, ಡೋಹರ ಕಕ್ಕಯ್ಯ, ಅಂಬಿಗೇರ ಚೌಡಯ್ಯ)

**ಅಧ್ಯಯನಕ್ಕೆ ಸಲಹೆ ಮಾಡಿದ ಗ್ರಂಥಗಳು :**

೧. ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ: ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ಪ್ರ : ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು
೨. ಕಪಟಾಳ ಕೃಷ್ಣರಾವ್: ಕರ್ನಾಟಕ ಲಾಕುಳ ಶೈವರ ಇತಿಹಾಸ, ಪ್ರ : ಕನ್ನಡ ಸಂಶೋಧನ ಸಂಸ್ಥೆ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ
೩. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ: ಶಾಸನಗಳಲ್ಲಿ ಶಿವಶರಣರು, ಪ್ರ : ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ತೋಂಟದಾರ್ಯಮಠ ಗದಗ
೪. ಸಿದ್ಧಯ್ಯ ಪುರಾಣಿ : ಶರಣ ಚರಿತ್ರಾಮೃತ, ಪ್ರ : ವಯಸ್ಕರ ಪುಸ್ತಕ ಸಮಿತಿ ಬೆಂಗಳೂರು.
೫. P.B. Desai : Basaveshwara and his time, Pub : K.R.I.K.U. Dharwad.
೬. S.S. Wodeyar (Ed) : Shri Basaveshwa, Pub : Basava Samiti, Bangalore

**ಪತ್ರಿಕೆ-೨**

**ಅಂಕಗಳು - ೧೦೦**

**ಬಸವಣ್ಣನವರ ಸಿದ್ಧಾಂತಗಳ ಅಧ್ಯಯನ**

- ಅ) ಧಾರ್ಮಿಕ ಸಿದ್ಧಾಂತ : ಶಿವ-ಜೀವ-ಜಗತ್ತು, ಷಟ್ಸ್ಥಿಲ, ಅಷ್ಟಾವರಣ, ಪಂಚಾಚಾರ.
- ಆ) ಸಮಾಜಿಕ ಸಿದ್ಧಾಂತ : ಸಮಾಜ, ವೃತ್ತಿ, ಸಮಾಜ ವ್ಯವಸ್ಥೆ, ಸಾಮಾಜಿಕ ಬದಲಾವಣೆ, ಸಾಮಾಜಿಕ ಕ್ರಾಂತಿ, ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳು.
- ಇ) ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ : ರಾಜ, ಪ್ರಜೆ, ಪ್ರಜಾಸತ್ತೆ, ಸ್ವಾತಂತ್ರ್ಯ, ರಾಜ್ಯ.
- ಈ) ಆರ್ಥಿಕ ಸಿದ್ಧಾಂತ : ಸಂಪತ್ತು ಸಂಪತ್ತಿನ ಒಡೆತನ, ಕಾಯಕ, ಪ್ರಸಾದ, ದಾಸೋಹ.

**ಅಧ್ಯಯನಕ್ಕೆ ಸಲಹೆ ಮಾಡಿದ ಗ್ರಂಥಗಳು :**

- ೧ ಫ.ಗು. ಹಳಕಟ್ಟಿ : ವಚನಶಾಸ್ತ್ರ ಸಾರ- ೧, ೨, ೩. ಪ್ರ : ಶಿವಾನುಭವ ಗ್ರಂಥಮಾಲೆ, ವಿಜಯಪುರ
- ೨ ಎಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ : ವಚನಗಳಲ್ಲಿ ವೀರಶೈವ ಧರ್ಮ, ಪ್ರ : ಡಿ.ವಿ.ಕೆ. ಮೂರ್ತಿ ಮೈಸೂರು
- ೩ ಆರ್.ಆರ್. ದಿವಾಕರ: ವಚನಶಾಸ್ತ್ರ ರಹಸ್ಯ, ಪ್ರ : ಮೂರುಸಾವಿರ ಮಠ, ಹುಬ್ಬಳ್ಳಿ
- ೪ ಫ.ಗು. ಹಳಕಟ್ಟಿ: ಶಿವಾನುಭವ ಶಬ್ದಕೋಶ, ಪ್ರ : ಶಿವಾನುಭವ ಗ್ರಂಥಮಾಲೆ, ವಿಜಯಪುರ
- ೫ ಎಸ್.ಸಿ. ನಂದೀಮಠ: ವೀರಶೈವ ತತ್ವಪ್ರಕಾಶನ, ಪ್ರ : ಲಿಂಗಾಯತ ವಿದ್ಯಾಭಿವೃದ್ಧಿ ಸಂಸ್ಥೆ, ಧಾರವಾಡ
- ೬ ಆರ್.ಸಿ. ಹಿರೇಮಠ: ಷಟ್ಸ್ಥಿಲ ಪ್ರಭೆ, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- ೭ ಎಸ್.ಎಂ. ವೃಷಭೇಂದ್ರಸ್ವಾಮಿ : ಕನ್ನಡ ಸಾಹಿತ್ಯದಲ್ಲಿ ಅಲ್ಲಮಪ್ರಭುದೇವ, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ.
- ೮ ವೈ.ನಾಗೇಶ ಶಾಸ್ತ್ರಿ: ಪಂಚಾಚಾರ ಪ್ರಕಾಶಿಕೆ, ಪ್ರ : ಬಾಲಲೀಲಾ ಮಹಾಂತ ಶಿವಯೋಗೀಶ್ವರ ಗ್ರಂಥಮಾಲೆ, ಮುರುಘಾಮಠ, ಧಾರವಾಡ

- ೯ ವೈ. ನಾಗೇಶ ಶಾಸ್ತ್ರಿ : ಅಷ್ಟಾವರಣ ವಿವೇಕ, ಪ್ರ : ಬಾಲಲೀಲಾ ಮಹಾಂತ ಶಿವಯೋಗೀಶ್ವರ ಗ್ರಂಥ ಮಾಲೆ, ಮುರುಘಾಮಠ, ಧಾರವಾಡ
- ೧೦ ವೈ. ನಾಗೇಶ ಶಾಸ್ತ್ರಿ : ಷಟ್ಸ್ಥಲ ತತ್ವದರ್ಪಣ, ಪ್ರ : ಬಾಲಲೀಲಾ ಮಹಾಂತ ಶಿವಯೋಗೀಶ್ವರ ಗ್ರಂಥಮಾಲೆ, ಮುರುಘಾಮಠ, ಧಾರವಾಡ.
- ೧೧ ಎಚ್. ತಿಪ್ಪೇರುದ್ರಸ್ವಾಮಿ : ವಚನ ಸಾಹಿತ್ಯ ಒಂದು ವೈಚಾರಿಕ ಅಧ್ಯಯನ, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- ೧೨ ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ (ಸಂ): ವಚನ ಸಾಹಿತ್ಯ ಒಂದು ವೈಚಾರಿಕ ಅಧ್ಯಯನ, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ.
- ೧೩ ಸಿ.ವೀರಣ್ಣ : ಕಾಯಕ ಜೀವಗಳ ಚಳುವಳಿ, ಪ್ರ : ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು
- ೧೪ ಪಿ.ವಿ. ನಾರಾಯಣ: ವಚನ ಸಾಹಿತ್ಯ ಒಂದು ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ, ಪ್ರ : ವೀರಶೈವ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ ತೋಂಟದಾರ್ಯ ಮಠ, ಗದಗ.

ಪತ್ರಿಕೆ-೩

ಅಂಕಗಳು \_ ೧೦೦

### ಬಸವ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ

ಅ) ಬಸವಣ್ಣನವರನ್ನು ಕುರಿತು ಸಾಹಿತ್ಯ (ಕನ್ನಡ, ಕನ್ನಡೇತರ, ಪ್ರಾಚೀನ, ಆಧುನಿಕ)

ಆ) ಬಸವಣ್ಣನವರ ಸಾಹಿತ್ಯ : ವಚನ, ಸ್ವರವಚನ (ಇತರ ಸಾಹಿತ್ಯಿಕ ಪರಿಸರ, ವಚನ ಸಾಹಿತ್ಯದ ಉಗಮ, ಸ್ವರೂಪ, ಸಾಧನೆ, ಸಿದ್ಧಿ)

ಅಧ್ಯಯನಕ್ಕೆ ಸಲಹೆ ಮಾಡಿದ ಗ್ರಂಥಗಳು :

- ೧ ಎಂ. ಆರ್. ಶ್ರೀ: ಭಕ್ತಿಭಂಡಾರಿ ಬಸವಣ್ಣನವರು
- ೨ ಎಂ. ಚಿದಾನಂದಮೂರ್ತಿ : ವಚನ ಸಾಹಿತ್ಯ, ಪ್ರ : ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ,ಬೆಂಗಳೂರು
- ೩ ಬಸವಣ್ಣ ವಚನಗಳು: ಸಂ. ಎಲ್. ಬಸವರಾಜು
- ೪ ಸಂಕ್ಷಾಂತಿ : ಪಿ. ಲಂಕೇಶ (ನಾಟಕ)
- ೫ ಗೊಳೂರು ಸಿದ್ಧವೀರಣ್ಣ ವಡೆಯರ ಶೂನ್ಯಸಂಪಾದನೆ- ಶಿವಯೋಗಿಸಿದ್ಧರಾಮ
- ೬ ಬಸವರಾಜ ದೇವರ ರಗಳೆ : ಹರಿಹರ ಸಂ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ
- ೭ ಎಸ್. ಆರ್. ಗುಂಜಾಳ : ಬಸವ ಸಾಹಿತ್ಯ ದರ್ಪಣ, ಪ್ರ : ಬಸವ ಸಮಿತಿ, ಬೆಂಗಳೂರು
- ೮ ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ (ಸಂ) : ಬಸವಸ್ಮೃತದ ವಚನಗಳು, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ ಧಾರವಾಡ
- ೯ ಹಾ. ಮಾ. ನಾಯಕ (ಸಂ) : ಬಸವ ಪುರುಷ, ಪ್ರ : ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾಲಯ,ಮೈಸೂರು.
- ೧೦ಬಿ.ಬಿ. ಹೆಂಡಿ : ಶ್ರೀ ಬಸವೇಶ್ವರ, ಪ್ರ : ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- ೧೧ ಸೀಮಾಪುರು :ಡಾ. ಪಂಡಿತ ಕೆ. ರಾಠೋಡ, ಪ್ರ : ಮುರುಘಾಮಠ ಧಾರವಾಡ
- ೧೨ಭಕ್ತಿದೀಪಕ ಬಸವಣ್ಣ : ಡಾ. ಪಂಡಿತ ಕೆ. ರಾಠೋಡ ಮತ್ತು ಡಾ. ಎಚ್.ಎಸ್. ಮೇಲಿನಮನಿ ಪ್ರ : ಮುರುಘಾಮಠ ಧಾರವಾಡ

ಪತ್ರಿಕೆ-೪

ಅಂಕಗಳು \_ ೧೦೦

ಬಸವ ಸಿದ್ಧಾಂತ ಮತ್ತು ಆಧುನಿಕ ಸಿದ್ಧಾಂತಗಳ ತೌಲನಿಕ ಅಧ್ಯಯನ

- ಅ) ಬಸವ ಸಿದ್ಧಾಂತ - ಮಾರ್ಕ್ಸ್ ಸಿದ್ಧಾಂತ
- ಆ) ಬಸವ ಸಿದ್ಧಾಂತ - ಗಾಂಧೀ ಸಿದ್ಧಾಂತ
- ಇ) ಬಸವ ಸಿದ್ಧಾಂತ - ಅಂಬೇಡ್ಕರ ಸಿದ್ಧಾಂತ
- ಈ) ಬಸವ ಸಿದ್ಧಾಂತ - ಲೋಹಿಯಾ ಸಿದ್ಧಾಂತ

ಅಧ್ಯಯನಕ್ಕೆ ಸಲಹೆ ಮಾಡಿದ ಗ್ರಂಥಗಳು :

೧. ಕೆ.ಎಲ್. ಗೋಪಾಲಕೃಷ್ಣರಾವ್ (ಅನು) : ಮಾರ್ಕ್ಸ್ ಏಂಗಲ್ಸ್ ಕಂಯೂನಿಷ್ಟ್ ಪಾರ್ಟಿಯ ಪ್ರಣಾಳಿಕೆ

೨. ಎಸ್.ಪಿ. ಪಾಟೀಲ : ಕ್ರಾಂತಿದೂತ ಬಸವಣ್ಣ

೩. ಹಳಪೇಟೆ ಚಿಂತಾಮಣಿ : ಯುಗಪ್ರವರ್ತಕ ಬಸವಣ್ಣ

೪. ಹಳಪೇಟೆ ಚಿಂತಾಮಣಿ : ಶರಣ ಸಂಸ್ಕೃತಿ ದರ್ಶನ

## P.G. DIPLOMA IN TRANSLATION

ಅನುವಾದ ಡಿಪ್ಲೊಮಾ

(2020-21 ಹಾಗೂ ನಂತರದ ಅವಧಿಗಾಗಿ)

### Programme Specific Outcome:

1. Translation enables effective communication between the people from different languages.
2. Translation studies helps practitioners develop skills.
3. The course also examines the current trends in translatory fields.
4. It explores the art of translation as a creative act in literary translation and international marketing.
5. Students are able to learn translative skills at the end of the programme.

### Duration :

ಕಾಲಾವಧಿ :

The course shall be of one academic year. After its successful completion a Diploma will be awarded.

ಪ್ರಸ್ತುತ ಕೋರ್ಸ್ ಒಂದು ಶೈಕ್ಷಣಿಕ ಅವಧಿಯಾಗಿರುತ್ತದೆ. ಅದನ್ನು ಯಶಸ್ವಿಯಾಗಿ ಮುಗಿಸಿದ ನಂತರ ಡಿಪ್ಲೊಮಾ ಪದವಿಯನ್ನು ನೀಡಲಾಗುತ್ತದೆ.

### Eligibility :

ಅರ್ಹತೆ :

Candidates seeking admission to the course should have passed the degree (or an equivalent) examination of a recognized university. They must know at least one language in addition to their mother tongue.

ಈ ಕೋರ್ಸ್‌ಗೆ ಪ್ರವೇಶ ಪಡೆಯುವವರು ಕಾನೂನು ರಿತ್ಯಾ ಸ್ಥಾಪಿಸಲ್ಪಟ್ಟ ವಿಶ್ವವಿದ್ಯಾಲಯದಿಂದ ಪದವಿ ಅಥವಾ ತತ್ಸಮಾನ ಅರ್ಹತೆಯನ್ನು ಹೊಂದಿರಬೇಕು. ಅಭ್ಯರ್ಥಿಗಳು ತಮ್ಮ ಮಾತೃಭಾಷೆಯ ಜೊತೆಗೆ ಕನಿಷ್ಠ ಇನ್ನೊಂದು ಭಾಷೆಯನ್ನು ಬಲ್ಲವರಾಗಿರಬೇಕು.

### Programme Specific Outcome:

6. Translation enables effective communication between the people from different languages.
7. Translation studies helps practitioners develop skills.
8. The course also examines the current trends in translatory fields.
9. It explores the art of translation as a creative act in literary translation and international marketing.
10. Students are able to learn translative skills at the end of the programme.

### Curriculum :

ಪಠ್ಯಕ್ರಮ :

The course consists of two parts.

ಪ್ರಸ್ತುತ ಕೋರ್ಸ್ ಎರಡು ಭಾಗಗಳನ್ನು ಹೊಂದಿರುತ್ತದೆ.

a) Theoretical

ತಾತ್ವಿಕ

b) Practical

ಪ್ರಾಯೋಗಿಕ

a) Theoretical part includes 3 papers of Hundred marks each. Duration of examination is 3 hours per paper. Each paper will be taught for 2 periods of 50 minutes each per week.

ತಾತ್ವಿಕ ಭಾಗವು ಪ್ರತಿಯೊಂದಕ್ಕೆ 100 ಅಂಕಗಳಂತೆ ಮೂರು ಪತ್ರಿಕೆಗಳಾಗಿರುತ್ತದೆ. ಪ್ರತಿ ಪತ್ರಿಕೆಯ ಬೋಧನೆಯು ವಾರಕ್ಕೆ ಮೂರು ಗಂಟೆಯಾಗಿರುತ್ತದೆ. ಪ್ರತಿ ಪತ್ರಿಕೆಯ ಪರೀಕ್ಷಾ ಅವಧಿಯು ಮೂರು ಗಂಟೆಗಳು.

b) Practical part includes a paper of 100 marks. Other details are mentioned under Paper-IV.

ಪ್ರಾಯೋಗಿಕ ಪತ್ರಿಕೆಯು 100 ಅಂಕಗಳಾಗಿದ್ದು ಹೆಚ್ಚಿನ ವಿವರಗಳನ್ನು ಪತ್ರಿಕೆ- IVರ ರಡಿಯಲ್ಲಿ ನೀಡಲಾಗಿದೆ.

### **Paper-I : History of Translation**

ಪತ್ರಿಕೆ-1 : ಅನುವಾದ ಇತಿಹಾಸ

#### **A. Foreign Sources**

ವಿದೇಶಿ ಮೂಲಗಳು

1. Greek literature – Homer, Plato, Aristotle.  
ಗ್ರೀಕ್ ಸಾಹಿತ್ಯ- ಹೋಮರ್, ಪ್ಲೇಟೋ, ಅರಿಸ್ಟಾಟಲ್
2. Roman literature – Virgil, Cicero  
ರೋಮನ್ ಸಾಹಿತ್ಯ- ವರ್ಜಿಲ್, ಸಿಸಿರೋ
3. Bible  
ಬೈಬಲ್
4. English literature- Shakeshepeare, Milton, Romantic poets, novelists and literary critics.  
ಇಂಗ್ಲೀಷ್ ಸಾಹಿತ್ಯ- ಶೇಕ್ಸ್ಪಿಯರ್, ಮಿಲ್ಟನ್, ರೋಮ್ಯಾಂಟಿಕ್ ಕವಿಗಳು, ಕಾದಂಬರಿಕಾರರು ಮತ್ತು ಸಾಹಿತ್ಯ ವಿಮರ್ಶಕರು.
5. Communist literature- Marx, Engels, Lenin, Mao  
ಕಮ್ಯೂನಿಸ್ಟ್ ಸಾಹಿತ್ಯ- ಮಾರ್ಕ್ಸ್, ಎಂಗೆಲ್ಸ್, ಲೇನಿನ್, ಮಾವೋ

#### **B. Indian Sources**

ಭಾರತೀಯ ಮೂಲಗಳು

1. Vedas, Upanishads, Bhagavadgita, Dhammapada  
ವೇದಗಳು, ಉಪನಿಷತ್ತುಗಳು, ಭಗವದ್ಗೀತೆ, ದಮ್ಮಪದ
2. Mahabharata, Ramayana, Puranas in different languages.  
ಮಹಾಭಾರತ, ರಾಮಾಯಣ, ಬೇರೆ ಬೇರೆ ಭಾಷೆಗಳ ಪುರಾಣಗಳು.
3. Panchatantra  
ಪಂಚತಂತ್ರ
4. Manusmruti, Arthashastra

- ಮನುಸ್ಮೃತಿ, ಅರ್ಥಶಾಸ್ತ್ರ  
5. Bauddha Sahitya  
ಬೌದ್ಧ ಸಾಹಿತ್ಯ

### C. Modern Indian Languages

ಆಧುನಿಕ ಭಾರತೀಯ ಭಾಷೆಗಳು

1. Bengali works of Tagore, Bankimachandra, Sharatchandra  
ಬಂಗಾಳಿ : ಟಾಗೋರ್, ಬಂಕಿಮಚಂದ್ರ, ಶರತ್‌ಚಂದ್ರ
2. Hindi- Sources of different genres.  
ಹಿಂದಿ- ಭಿನ್ನ ಭಿನ್ನ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳ ಮೂಲಗಳು
3. Marathi- Khandekar, Tilak and other works  
ಮರಾಠಿ- ಖಾಂಡೇಕರ್, ತಿಲಕ್ ಹಾಗೂ ಇನ್ನಿತರ ಸಾಹಿತ್ಯ
4. Tamil- Tirukurul, Cilappatikaram, Periyapuramam  
ತಮಿಳು- ತಿರುಕ್ಕುರಳ್, ಶಿಲಪತ್ತಿಕಾರಂ, ಪೆರಿಯಾಪುರಾಣಂ
5. Malayalam- Takazhi, Pottakad and other works  
ಮಲಯಾಳಂ- ತಕಝಿ, ಪೊತ್ತೆಕಡ ಹಾಗೂ ಇನ್ನಿತರ ಸಾಹಿತ್ಯ
6. Telugu- Basavapurana, Vemanas vachanas  
ತೆಲುಗು- ಬಸವಪುರಾಣ, ವೇಮನರ ವಚನಗಳು
7. Kannada Vachana literature, Kuvempu's novels  
ಕನ್ನಡ- ವಚನ ಸಾಹಿತ್ಯ, ಕುವೆಂಪು ಅವರ ಕಾದಂಬರಿಗಳು

### D. Scientific and Technological works – from Foreign languages to Indian languages with emphasis on Kannada.

ಕನ್ನಡವನ್ನು ವಿಶೇಷವಾಗಿ ಅನುಲಕ್ಷಿಸಿ ವಿದೇಶಿ ಭಾಷೆಗಳಿಂದ ಭಾರತೀಯ ಭಾಷೆಗಳಿಗೆ ಅನುವಾದಗೊಂಡ ವೈಜ್ಞಾನಿಕ ಹಾಗೂ ತಾಂತ್ರಿಕ ಕಾರ್ಯಗಳು.

### E. The role of various institutions like 1) UNESCO, 2) Sahitya Academy, 3) Southern Language Book Trust, 4) National Book Trust, National Translation Mission (NTM), Kuvempu Bhasha Bharathi, Institute of Translation studies Bangalore, etc.

ವಿವಿಧ ಸಂಸ್ಥೆಗಳ ಪಾತ್ರಗಳು : ಯುನೆಸ್ಕೋ, ಸಾಹಿತ್ಯ ಅಕಾಡೆಮಿ, ಸರ್ದರ್ ಲಾಂಗ್ವೆಜ್ ಬುಕ್ ಟ್ರಸ್ಟ್, ನ್ಯಾಷನಲ್ ಬುಕ್ ಟ್ರಸ್ಟ್, ನ್ಯಾಷನಲ್ ಟ್ರಾನ್ಸ್‌ಲೇಶನ್ ಮಿಷನ್(ಎನ್.ಟಿ.ಎಮ್.), ಕುವೆಂಪು ಭಾಷಾಂತರ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ, ಬೆಂಗಳೂರು, ಇತ್ಯಾದಿ.

### Paper-II : Theory of Translation

#### ಪತ್ರಿಕೆ -2 : ಅನುವಾದ ಸಿದ್ಧಾಂತ

1. Language and Translation, language and linguistics, Translation as an applied branch of linguistics, Transliteration, Transcription and Interpretation.  
ಭಾಷೆ ಮತ್ತು ಭಾಷಾಂತರ- ಭಾಷೆ ಮತ್ತು ಭಾಷಾವಿಜ್ಞಾನ- ಅನ್ವಯಿಕ ಭಾಷಾವಿಜ್ಞಾನದ ಶಾಖೆಯಾಗಿ ಭಾಷಾಂತರ, ಲಿಪ್ಯಂತರ, ಲಿಪ್ಯಂತರ ಹಾಗೂ ದುಭಾಷಿತ್ವ.
2. Source Language and Target Language – comparison and Contrast between SL and TL  
ಆಕರಭಾಷೆ ಮತ್ತು ಉದ್ದೇಶಿತ ಭಾಷೆ : ತುಲನೆ ಹಾಗೂ ವೈದೃಶ್ಯತೆ
3. Types of Translation  
ಅನುವಾದದ ವಿಧಗಳು
4. Types of equivalents  
ಅನುವಾದದ ಸಂವಾದಿರೂಪಗಳು

5. Catford's classification / Theory of Translation : Full Vs. Partial, Total Vs. Restricted, Rank bound Vs. Rank Free.  
ಕ್ಯಾಟ್‌ಫರ್ಡ್‌ರ ಅನುವಾದ ವರ್ಗೀಕರಣ/ ಸಿದ್ಧಾಂತ: ಪೂರ್ಣ ಹಾಗೂ ಭಾಗಶಃ ಸಮಗ್ರ ಹಾಗೂ ನಿರ್ಬಂಧಿತ, ಶ್ರೇಣಿ ಬದ್ಧ ಹಾಗೂ ಶ್ರೇಣಿ ಮುಕ್ತ
6. Translation Theories of Newmark, Eugene Nida, Roman Jakobson, Savory etc.  
ನ್ಯೂಮಾರ್ಕ್, ಯುಜಿನ್ ನೈಡಾ, ರೋಮನ್ ಯಾಕೊಬಸನ್, ಸೆವರಿ ಮುಂತಾದ ವಿದ್ವಾಂಸರ ಅನುವಾದ ಸಿದ್ಧಾಂತಗಳು.
7. Problems of Translation : Linguistic and cultural  
ಅನುವಾದ ಸಮಸ್ಯೆಗಳು : ಭಾಷಿಕ ಹಾಗೂ ಸಾಂಸ್ಕೃತಿಕ
8. Language varieties and problems in Translation : Register, Idiolect, Dialect etc.  
ಭಾಷಿಕ ಭಿನ್ನ ಅಂಶಗಳು ಹಾಗೂ ಭಾಷಾಂತರ ಸಮಸ್ಯೆಗಳು : ಪರಿಭಾಷೆ, ವ್ಯಕ್ತಿಭಾಷೆ, ಉಪಭಾಷೆ ಇತ್ಯಾದಿ.
9. Translation and Semantics  
ಅನುವಾದ ಮತ್ತು ಅರ್ಥವಿಜ್ಞಾನ
10. Purpose and Importance of Translation  
ಅನುವಾದದ ಉದ್ದೇಶ ಮತ್ತು ಮಹತ್ವ
11. Qualities of a good Translation/ Translator  
ಉತ್ತಮ ಅನುವಾದ / ಅನುವಾದಕನ ಗುಣಗಳು

**Paper –III : Translation of Aesthetic, Social and Scientific Literature :**

**ಪತ್ರಿಕೆ- 3 : ಸಾಮಾಜಿಕ ಮತ್ತು ವೈಜ್ಞಾನಿಕ ಸಾಹಿತ್ಯಾನುವಾದ :**

**I. Aesthetic Literature**

**ಸೌಂದರ್ಯಾತ್ಮಕ ಸಾಹಿತ್ಯ**

1. Poetry form : meter, Rhythm, Rhyme, figures of speech such as metaphor, simile, pun etc.  
ಪದ್ಯರೂಪ : ಲಯ, ಪ್ರಾಸ, ಅಲಂಕಾರ (ರೂಪಕ, ಉಪಮೆ, ಶ್ಲೇಷೆ ಇತ್ಯಾದಿ)
2. Proseform : Novel, Drama, Short Story, Essays.  
ಗದ್ಯರೂಪ : ಕಾದಂಬರಿ, ನಾಟಕ, ಸಣ್ಣ ಕಥೆ, ನಿಬಂಧಗಳು
3. Sociocultural differences – Religious registers, Traditions and conventions.
4. ಸಮಾಜೋ-ಸಾಂಸ್ಕೃತಿಕ ಭಿನ್ನತೆಗಳು : ಧಾರ್ಮಿಕ ಪರಿಭಾಷೆ ಪರಂಪರೆ ಮತ್ತು ರೂಢಿಗಳು
5. Stylistic problems, mode of expression : linguistic and non linguistic factors.
6. ಶೈಲಿಯಾತ್ಮಕ ಸಮಸ್ಯೆಗಳು, ಅಭಿವ್ಯಕ್ತಿ ಮಾಧ್ಯಮ : ಭಾಷಿಕ ಹಾಗೂ ಭಾಷಿಕೇತರ ಅಂಶಗಳು.

**II. Social Science literature**

**ಸಮಾಜ ವಿಜ್ಞಾನ ಸಾಹಿತ್ಯ**

Translation problems connected with social sciences : History, Sociology, Psychology, Geography, Economics, Education, Law etc., Names of persons and places.

ಸಮಾಜ ವಿಜ್ಞಾನ ವಿಷಯಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಅನುವಾದ ಸಮಸ್ಯೆಗಳು : ಇತಿಹಾಸ, ಸಮಾಜಶಾಸ್ತ್ರ, ಮನಃಶಾಸ್ತ್ರ, ಭೂಗೋಳಶಾಸ್ತ್ರ, ಅರ್ಥಶಾಸ್ತ್ರ, ಶಿಕ್ಷಣ, ಕಾನೂನು ಇತ್ಯಾದಿ. ವ್ಯಕ್ತಿಗಳು ಮತ್ತು ಸ್ಥಳಗಳ ಹೆಸರುಗಳು.

### III. Scientific Literature

ವೈಜ್ಞಾನಿಕ ಸಾಹಿತ್ಯ

Translation problems connected with Mathematics, Physics, Chemistry, Biology, Medicine, Engineering etc. Technical terms, International local adaptations, loan translations. Role of Dictionary- General, Technical, Encyclopaedia Computer, Online Google Translation etc.,

ವಿಜ್ಞಾನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಅನುವಾದ ಸಮಸ್ಯೆಗಳು : ಗಣಿತಶಾಸ್ತ್ರ, ಭೌತಶಾಸ್ತ್ರ, ರಸಾಯನಶಾಸ್ತ್ರ, ಜೀವಶಾಸ್ತ್ರ, ವೈದ್ಯಕೀಯ, ಇಂಜಿನಿಯರಿಂಗ್ ಇತ್ಯಾದಿ, ಪಾರಿಭಾಷಿಕ ಪದಗಳು, ಅಂತರರಾಷ್ಟ್ರೀಯ ಸ್ಥಳೀಯ ರೂಪಾಂತರಗಳು, ಎರವಲು ಭಾಷಾಂತರ/ನಿಘಂಟುವಿನ ಪಾತ್ರ : ಸಾಮಾನ್ಯ, ತಾಂತ್ರಿಕ, ವಿಶ್ವಕೋಶ, ಗಣಕಯಂತ್ರ, ಆನ್‌ಲೈನ್ ಗೂಗಲ್ ಭಾಷಾಂತರ ಇತ್ಯಾದಿ.

### Paper-IV : Practice of Translation :

ಪತ್ರಿಕೆ- 4 : ಅನುವಾದ ಪ್ರಾಯೋಗಿಕ :

This Paper is divided into two parts.

ಈ ಪತ್ರಿಕೆಯು ಎರಡು ಭಾಗಗಳನ್ನು ಹೊಂದಿದೆ.

- |                    |             |
|--------------------|-------------|
| 1) Class exercises | : 40 Marks  |
| ವರ್ಗ ಚಟುವಟಿಕೆಗಳು   | : 40 ಅಂಕಗಳು |
| 2) Dissertation    | : 60 Marks  |
| ಡಿಜರ್ಟೇಶನ್         | : 60 ಅಂಕಗಳು |

#### 1. Class Exercises

ವರ್ಗ ಚಟುವಟಿಕೆಗಳು

A minimum of ten passages from Kannada to English and ten passages from English to Kannada shall be translated. These passages include different varieties like Aesthetic, scientific, technological, social, Business etc.

ಈ ಭಾಗದಲ್ಲಿ ಕನಿಷ್ಠ ಹತ್ತು ಪಠ್ಯಭಾಗಗಳನ್ನು ಕನ್ನಡದಿಂದ ಇಂಗ್ಲಿಷಿಗೆ ಅನುವಾದಿಸಬೇಕು. ಪಠ್ಯಭಾಗಗಳು ಸಾಹಿತ್ಯಿಕ, ವೈಜ್ಞಾನಿಕ, ತಾಂತ್ರಿಕ, ಸಾಮಾಜಿಕ, ವ್ಯವಹಾರಿಕ ಇತ್ಯಾದಿ ಸ್ವರೂಪದ್ದಾಗಿರಬಹುದು.

N.B. : The marks given shall be maintained by the concerned teacher and submitted to the Head at the end of the academic year who shall forward it to the Registrar (Evaluation).

ವಿ.ಸೂ. : ಈ ಚಟುವಟಿಕೆಗೆ ನೀಡಿರುವ ಅಂಕಗಳನ್ನು ಸಂಬಂಧಿಸಿದ ಶಿಕ್ಷಕರು ನಿರ್ವಹಿಸಬೇಕಿದ್ದು ಶೈಕ್ಷಣಿಕ ವರ್ಷದ ಕೊನೆಯಲ್ಲಿ ವಿಭಾಗದ ಅಧ್ಯಕ್ಷರ ಮೂಲಕ ಮೌಲ್ಯಮಾಪನ ಕುಲಸಚಿವರಿಗೆ ರವಾನಿಸಬೇಕು.

## 2. Dissertation

### ಡಿಜರ್ಟೇಶನ್

At the end of the course the students have to submit the original work of translation in the form of dissertation. Each student should take a different text of his/ her choice in consultation with the concerned teacher for translation. This work shall be carried on throughout the year right from the beginning as directed by the teacher. The minimum number of pages for translation shall be 40 pages (roughly 6000 words)

ವಿದ್ಯಾರ್ಥಿಗಳು ಕೋರ್ಸಿನ ಕೊನೆಯಲ್ಲಿ ಕೈಗೊಂಡ ಅನುವಾದ ಕಾರ್ಯವನ್ನು ಡಿಜರ್ಟೇಶನ್ ರೂಪದಲ್ಲಿ ಸಲ್ಲಿಸಬೇಕಾಗುತ್ತದೆ. ಪ್ರತಿ ವಿದ್ಯಾರ್ಥಿಯು ಸಂಬಂಧಿಸಿದ ಶಿಕ್ಷಕರೊಂದಿಗೆ ಸಮಾಲೋಚಿಸಿ ತಮ್ಮ ಆಯ್ಕೆಯ ಭಿನ್ನ ಭಿನ್ನ ಪಠ್ಯಗಳನ್ನು ಆಯ್ಕೆ ಮಾಡಿಕೊಳ್ಳಬೇಕಾಗುತ್ತದೆ. ಈ ಕಾರ್ಯವು ಶೈಕ್ಷಣಿಕ ವರ್ಷದ ಆರಂಭದಿಂದ ವರ್ಷದುದ್ದಕ್ಕೂ ಸಂಬಂಧಿಸಿದ ಶಿಕ್ಷಕರ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ನಡೆಯಬೇಕು. ಕನಿಷ್ಠ 40 ಪುಟಗಳಷ್ಟು ಅನುವಾದ ಮಾಡುವುದು (ಸುಮಾರು 6000 ಪದಗಳು).

### Books Recommended for the Entire Course :

ಎಲ್ಲ ಪತ್ರಿಕೆಗಳಿಗೆ ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು :

1. Amos Elore Rouss : Early Theories of Translation, N.Y. Columbia, University Press, 1920.
2. Booth A.D. & Others : Aspects of Translation, London, 1953.
3. Unesco Report on Scientific and Technical Translation : Paris
4. Nida, Eugene A : Bible Translating : an analysis of Principles and procedures, New Yark, 1947.
5. Herber Grierson : Verse Translation, Oxford University Press, 1948.
6. Catford J.C. : Linguistic Theory of Translation, Oxford University Press, 1996
7. Nida, Eugene A : Towards a Science of Translation, Ledden, 1964.
8. Paul Selver : The art of Translation Poetry, London, 1966.
9. Homes J.S. (Ed): The nature of Translation. The Hauge, 1970.
10. T.H. Savory : Art of Translation, Jonathen cape Ltd, London, 1969.
11. Arnold M : Translating Homer, London, 1953.
12. Sujeet Mukherjee : Translation As Discovery
13. Munde Jeremy : Introducing Translation studies Routledge, New York, 2001
14. ಭಟ್ ಎಂ.ಎಂ. : ಕನ್ನಡದಲ್ಲಿ ಅನುವಾದ ಸಾಹಿತ್ಯ.
15. ಓ.ಎಲ್. ನಾಗಭೂಷಣಸ್ವಾಮಿ : ಭಾಷಾಂತರ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ
16. ಭಾಷಾಂತರದ ಸಾಂಸ್ಕೃತಿಕ ನೆಲೆಗಳು : ಕರಿಗೌಡ ಬೀಚನಹಳ್ಳಿ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ.
17. ಪ್ರಧಾನ ಗುರುದತ್ತ : ಭಾಷಾಂತರ ಕಲೆ, ಬಿ.ಎಂ.ಶ್ರೀ ಸ್ಮಾರಕ ಪ್ರತಿಷ್ಠಾನ, ಬೆಂಗಳೂರು, 1989

- 18.ಕುಳ್ಳಿ ಜೆ.ಎಸ್. : ಅನುವಾದ ಕಲೆ, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಧಾರವಾಡ
- 19.ಮಹೇಶ್ವರಪ್ಪ ಬಿ. : ಅನುವಾದ, ಮೈಸೂರು
- 20.ನಾಗವಲ್ಲಿ : ಎಚ್.ಎಲ್. ನಾಗೇಗೌಡ ಅಭಿನಂದನಾ ಗ್ರಂಥ
- 21.ಸಾಂಬಮೂರ್ತಿ : ಭಾಷಾಂತರ ಜ್ಞಾನ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ.
- 22.ಬಿ.ಆರ್. ಅಂಬೇಡ್ಕರ್ : ಬುದ್ಧ ಮತ್ತು ಆತನ ಧರ್ಮ (ಮೂಲ) : ಎ.ಕೃಷ್ಣಪ್ಪ, ಮೈಸೂರು  
ವಿಶ್ವವಿದ್ಯಾಲಯ, ಮೈಸೂರು (ಅನುವಾದ)
- 23.ಬಿ.ಆರ್. ಅಂಬೇಡ್ಕರ್ : ಪಾಳಿ ಭಾಷೆ ಮತ್ತು ಲಿಪಿ, ಸಂಪುಟ- 1 ಮತ್ತು 2 (ಮೂಲ) :
- 24.ಜಾತಕ ಮತ್ತು ಜಾತಕ ಕಥೆಗಳು (ಸಂಪುಟಗಳು), ಬೋಧಿ ಮಹಾ ಟ್ರಸ್ಟ್ ಬೆಂಗಳೂರು
- 25.ಟಿ.ಎಂ. ಭಾಸ್ಕರ, ಬುದ್ಧ ಚಿಂತನೆ, ಮರಗ ಪ್ರಕಾಶನ, ಗುಲಬರ್ಗಾ

## ಪ್ರಾಚ್ಯ ಲೇಖನ ಅಧ್ಯಯನ ಡಿಪ್ಲೊಮಾ

(೨೦೨೦-೨೧, ೨೨ ಹಾಗೂ ನಂತರದ ಅವಧಿಗಾಗಿ)

### Programme Specific Outcome:

೧. 'ಡಿಪ್ಲೊಮಾ ಇನ್ ಪ್ರಾಚ್ಯಲೇಖ ಅಧ್ಯಯನ' ಎಂಬ ಒಂದು ವರ್ಷದ ನಾನ್ ಸೆಮಿಸ್ಟರ್ ಕೋರ್ಸ್. ಇದರಲ್ಲಿ ಪತ್ರಿಕೆ-೧ ಪ್ರಾಚ್ಯಲೇಖ ಪತ್ರಿಕೆ-೨ ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ ಪತ್ರಿಕೆ-೩ ಶಾಸನ ಸಾಹಿತ್ಯ ಮತ್ತು ಪತ್ರಿಕೆ-೪ ದಾಖಲು ಸಾಹಿತ್ಯ ಎಂಬ ಒಟ್ಟುನಾಲ್ಕು ಪತ್ರಿಕೆಗಳಿರುತ್ತವೆ.
೨. ಪ್ರತಿಯೊಂದು ಪತ್ರಿಕೆಗೆ ೧೦೦ ಅಂಕಗಳಿದ್ದು; ಒಟ್ಟು ೪೦೦ ಅಂಕಗಳಿಗೆ ಈ ಕೋರ್ಸ್‌ನ್ನು ಅಧ್ಯಯನ ಮಾಡಬೇಕಾಗುತ್ತದೆ.
೩. ಪ್ರತಿ ಪತ್ರಿಕೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ತಾತ್ವಿಕತೆಯನ್ನು ಅಧ್ಯಯನ ಮಾಡಬೇಕು.
೪. ಪ್ರಾಯೋಗಿಕವಾಗಿಯೂ ಪ್ರತಿ ವಿಷಯಗಳ ಜ್ಞಾನವನ್ನು ಪಡೆದುಕೊಳ್ಳುವುದು ಆಯಾ ಪತ್ರಿಕೆಗಳ ಉದ್ದೇಶವಾಗಿದೆ.
೫. ಎಲ್ಲ ಪತ್ರಿಕೆಗಳ ವಿಷಯ ಜ್ಞಾನದೊಂದಿಗೆ ದೊರೆತ ಆಕರ ಸಾಮಗ್ರಿಗಳನ್ನು ಸಮರ್ಪಕವಾಗಿ ಬಳಸಿಕೊಂಡು ಕನ್ನಡ ಭಾಷೆ, ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಚರಿತ್ರೆಯನ್ನು ಪುನರ್ ನಿರ್ಮಿಸುವ ಕಲೆಗಾರಿಕೆಯನ್ನು ಕರಗತ ಮಾಡಿಕೊಳ್ಳುವುದು ಈ ಕೋರ್ಸ್‌ನ ಗುರಿಯಾಗಿದೆ.

ಈ ಕೋರ್ಸ್‌ಗೆ ವಾರ್ಷಿಕ ಪರೀಕ್ಷೆಗಳಿದ್ದು, ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯದ ನಿಯಮಗಳಿಗೆ ಅನುಸಾರವಾಗಿ ನಿಗದಿತ ಅವಧಿಯಲ್ಲಿ ನಡೆಯುತ್ತವೆ. ಆಯಾ ಪತ್ರಿಕೆಗಳ ಪತ್ನಿ ಪತ್ರಿಕೆ ಮಾದರಿಗಳನ್ನು ಒದಗಿಸಲಾಗುತ್ತದೆ. ಪ್ರತಿ ಪತ್ರಿಕೆ ಅಂಕಗಳ ವಿವರಗಳನ್ನು ಒಳಗೊಂಡಿರುತ್ತದೆ. ಕ.ವಿ.ವಿ. ನಿಯಮದಂತೆ ಶೇಕಡಾ ೭೫% ರಷ್ಟು ಹಾಜರಾತಿ ಕಡ್ಡಾಯವಾಗಿರುತ್ತದೆ.

## ಪತ್ರಿಕೆ-೧ ಪ್ರಾಚ್ಯಲೇಖ

### Course Outcome:

೧. ಇಂದಿನ ಯಾಂತ್ರಿಕ ಯುಗದಲ್ಲಿ ಚರಿತ್ರೆಯ ಅಧ್ಯಯನ ಕಣ್ಮರೆಯಾಗುತ್ತಿದೆ.
೨. ಸಂಸ್ಕೃತಿಯ ಅಂಶಗಳು ಗೌಣವಾಗುತ್ತಿವೆ.
೩. ಕರ್ನಾಟಕದ ಪ್ರಾಗ್ ಇತಿಹಾಸ (Pri-History) ಬಗೆಗೆ ಅಧ್ಯಯನ ಮಾಡುವುದು, ಈ ಅಧ್ಯಯನಕ್ಕೆ ಸಹಾಯಕವಾಗುವ ಆಕರ ಸಾಮಗ್ರಿ ಬಗ್ಗೆ ತಿಳಿದುಕೊಳ್ಳುವುದು.
೪. ಕಣ್ಮರೆಯಾಗಿರುವ ಇತಿಹಾಸ ಪೂರ್ವಯುಗದ ಪ್ರದೇಶ, ಊರು, ವಿಶೇಷ ಸಂಗತಿಗಳನ್ನು ಬೆಳಕಿಗೆ ತರುವುದು.
೫. ಒಟ್ಟಿನಲ್ಲಿ ಪ್ರಾಚ್ಯಲೇಖನಗಳ ಮೂಲಕ ಪ್ರಾಚ್ಯ ಸಂಗತಿಗಳನ್ನು, ಅವುಗಳ ಮಹತ್ವವನ್ನು ತಿಳಿದುಕೊಳ್ಳುವುದು ಈ ಪತ್ರಿಕೆಯ ಆಶಯವಾಗಿದೆ.

**ಘಟಕ-೧** ಪ್ರಾಚ್ಯ ಲೇಖದ ಅರ್ಥ, ಸ್ವರೂಪ, ಇತಿಹಾಸ, ಪ್ರಾಚ್ಯಲೇಖದ ಉದ್ದೇಶ, ಪ್ರಾಚ್ಯಲೇಖದ ಪ್ರಕಾರಗಳು ಮತ್ತು ಮಹತ್ವ.

**ಘಟಕ-೨** ಪ್ರಾಚ್ಯ ಲೇಖ ಅಧ್ಯಯನದ ಆಕರಗಳು: ಗುಹೆಗಳು, ಗಿಡದ ಪೊಟರೆಗಳು, ವಸ್ತುಗಳ ಅವಶೇಷಗಳು, ಆಯುಧಗಳು, ಆಹಾರ ಸಾಮಗ್ರಿಗಳು, ಉದ್ಯೋಗಗಳು, ಪ್ರಾಣಿಗಳು, ಪಕ್ಷಿಗಳು, ದಿನಬಳಕೆಯ ಸಾಮಗ್ರಿಗಳು.

**ಘಟಕ-೩** ಪ್ರಾಗ್ ಇತಿಹಾಸ ಕಾಲದ ಯುಗಗಳು

ಹಳೆ ಶಿಲಾಯುಗ

ಸೂಕ್ಷ್ಮಶಿಲಾಯುಗ

ತಾಮ್ರಶಿಲಾಯುಗ

ಕಬ್ಬಿಣದ ಯುಗ

**ಘಟಕ-೪** ಪ್ರಾಚ್ಯವಿದ್ಯಾ ಸಂಶೋಧನಾಲಯಗಳು

ಪ್ರಾಚ್ಯವಿದ್ಯಾ ಸಂಶೋಧನಾಲಯ ಮೈಸೂರು

ಕನ್ನಡ ಸಂಶೋಧನ ಸಂಸ್ಥೆ ಧಾರವಾಡ

ರಾಷ್ಟ್ರೀಯ ವಿಜ್ಞಾನ-ಇತಿಹಾಸ ಸಂಶೋಧನ ಕೇಂದ್ರ ದೆಹಲಿ

ಕರ್ನಾಟಕದ ಆಯಾ ಜಿಲ್ಲೆಗಳ ಪ್ರಾಚ್ಯ ಸಂಶೋಧನ ಕೇಂದ್ರಗಳು

**ಘಟಕ-೫** ಕರ್ನಾಟಕದ ಇತಿಹಾಸ ಪೂರ್ವಕಾಲದ ಜನವಸತಿ ಕೇಂದ್ರಗಳು

ಖ್ಯಾಡ, ಮಸ್ಕಿ, ಬ್ರಹ್ಮಗಿರಿ, ಕೊಪ್ಪ, ಹೆಗ್ಗಡೆಹಳ್ಳಿ, ಹೂನೂರು

## ಪತ್ರಿಕೆ-೨ ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ

### Course Outcome:

೧. ನಮ್ಮ ನಾಡಿನ ಸಾಹಿತ್ಯ ಪಾರಂಪರಿಕ ಜ್ಞಾನ ಹಸ್ತಪ್ರತಿಗಳಲ್ಲಿ ಅಡಗಿದೆ.
೨. ಈ ಹಸ್ತಪ್ರತಿಗಳು ನಮ್ಮ ನಾಡಿನ ಅಮೂಲ್ಯ ಸಂಪತ್ತು ಎನಿಸಿವೆ.
೩. ಇವುಗಳ ಆಧಾರದಿಂದ ಕನ್ನಡ ಗ್ರಂಥಗಳು ಪ್ರಕಟವಾಗಿವೆ.
೪. ಗ್ರಂಥೋದ್ಯಮ ಬೆಳವಣಿಗೆ ಹೊಂದಿದೆ.
೫. ಇಂಥ ಅಮೂಲ್ಯ ಆಕರ ಸಾಮಗ್ರಿಗಳ ಅಧ್ಯಯನ ಮಾಡುವುದು ಈ ಪತ್ರಿಕೆಯ ಉದ್ದೇಶವಾಗಿದೆ.

ಘಟಕ-೧ ಹಸ್ತಪ್ರತಿಗಳು : ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಕಾರಗಳು, ಪ್ರಯೋಜನಗಳು.

ಘಟಕ-೨ ಹಸ್ತಪ್ರತಿ ಲಿಪಿಕಾರರು: ವರ್ಗೀಕರಣ, ಹಸ್ತಪ್ರತಿ ಪ್ರಶಸ್ತಿಗಳು,

ಘಟಕ-೩ ಹಸ್ತಪ್ರತಿ ಸಂರಕ್ಷಣ ವಿಧಾನಗಳು,

ಸಾಂಪ್ರದಾಯಿಕ ವಿಧಾನ

ಆಧುನಿಕ ವಿಧಾನ

ಘಟಕ-೪ ಕರ್ನಾಟಕದ ಹಸ್ತಪ್ರತಿ ಸೂಚಿಗಳು :

ಮೈಸೂರು ವಿ.ವಿ. ಹಸ್ತಪ್ರತಿ ಸೂಚಿಗಳು

ಕರ್ನಾಟಕ ವಿ.ವಿ. ಹಸ್ತಪ್ರತಿ ಸೂಚಿಗಳು

ಗು.ವಿ.ಕ. ಹಸ್ತಪ್ರತಿ ಭಂಡಾರಗಳು

ಘಟಕ-೫ ಕರ್ನಾಟಕದ ಹಸ್ತಪ್ರತಿ ಭಂಡಾರಗಳು

ಕ.ವಿ.ವಿ. ಧಾರವಾಡ, ಮೈಸೂರು ವಿ.ವಿ., ಕನ್ನಡ ವಿ.ವಿ. ಹಂಪಿ, ಶ್ರವಣಬೆಳಗೊಳ, ಬೆಗಳೂರು ವಿ.ವಿ. ಮತ್ತು ಗುಲಬರ್ಗಾ ವಿಶ್ವವಿದ್ಯಾಲಯ ಹಸ್ತಪ್ರತಿ ಭಂಡಾರಗಳು.

## ಪತ್ರಿಕೆ-೨ ಶಾಸನಶಾಸ್ತ್ರ

### Course Outcome:

೧. ಕರ್ನಾಟಕದ ಶಾಸನಗಳು ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಅವಿಭಾಜ್ಯ ಅಂಗವೆನಿಸಿವೆ.
೨. ಕರ್ನಾಟಕದ ಚರಿತ್ರೆ, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಪ್ರಮುಖ ಆಕರಗಳೆನಿಸಿವೆ.
೩. ಈ ಶಾಸನಗಳನ್ನು ರಚಿಸಿದ ಕವಿಗಳು, ವಿದ್ವಾಂಸರಾಗಿದ್ದರು. ಅವರನ್ನು ಶಾಸನ ಕವಿಗಳೆಂದು ಕರೆಯುತ್ತಾರೆ.
೪. ಶಾಸನಗಳ ರಚನಾ ಬೆಳವಣಿಗೆಯು ಕುತೂಹಲಕಾರಿಯಾಗಿದೆ. ಒಂದು ನಾಡಿನ ಭಾಷೆ, ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿಯ ಎಲ್ಲ ಆಯಾಮಗಳ ಅಧ್ಯಯನ ಮಾಡಲು ಸಹಾಯ ಮಾಡುತ್ತವೆ.
೫. ಈ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳು ಶಾಸನ ಶಾಸ್ತ್ರ ತಿಳಿದುಕೊಳ್ಳಬೇಕೆಂಬ ಉದ್ದೇಶದಿಂದ ಈ ಪತ್ರಿಕೆ ಇಡಲಾಗಿದೆ.

**ಘಟಕ-೧ ಶಾಸನ :** ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಾಮುಖ್ಯತೆ, ಶಾಸನಗಳ ಬರವಣಿಗೆ ವಿವಿಧ ಹಂತಗಳು, ಬರವಣಿಗೆ ಸಾಮಗ್ರಿಗಳು

**ಘಟಕ-೨ ಶಾಸನಗಳ ಸಂರಕ್ಷಣೆ:** ಶಾಸನಗಳ ಅಧ್ಯಯನ ವಿವಿಧ ನೆಲೆಗಳು

**ಘಟಕ-೩ ಶಾಸನ ಸಾಹಿತ್ಯಕ್ಕೆ ವಿವಿಧ ಅರಸುಮನೆತನಗಳ ಕೊಡುಗೆ**  
ಗಂಗರು, ಕಲ್ಯಾಣ ಚಾಲುಕ್ಯರು, ವಿಜಯನಗರ ಅರಸರು

**ಘಟಕ-೪ ಶಾಸನಗಳ ಪಡಿಯಚ್ಚು ತೆಗೆಯುವ ವಿಧಾನ, ಬಳಸುವ ಸಾಮಗ್ರಿಗಳು**

**ಘಟಕ-೫ ಕನ್ನಡ ಶಾಸನಗಳ ಪ್ರಕಾರಗಳು**

೧. ದಾನ ಶಾಸನಗಳು
೨. ವೀರಗಲ್ಲು ಶಾಸನಗಳು
೩. ಮಹಾಸತಿ ಶಾಸನಗಳು
೪. ನಿಷಧಿ ಶಾಸನಗಳು

## ಪತ್ರಿಕೆ-೪ ದಾಖಲು ಸಾಹಿತ್ಯ

### Course Outcome:

೧. ದಾಖಲೆಗಳು ಕರ್ನಾಟಕದ ಭಾಷೆ, ಚರಿತ್ರೆ, ಸಾಹಿತ್ಯ, ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನದ ಮಹತ್ವದ ದಾಖಲೆಗಳಾಗಿವೆ.

೨. ಕನ್ನಡ ದಾಖಲು ಸಾಹಿತ್ಯವೆಂದು ಕರೆಯುವ ಇವುಗಳ ಅಧ್ಯಯನ ಬಹಳ ಮುಖ್ಯವಾಗಿದೆ.

೩. ದಾಖಲು ಸಾಹಿತ್ಯ, ಪ್ರಕಾರ ಇತ್ಯಾದಿ- ವಿಷಯಗಳನ್ನು ತಿಳಿದುಕೊಳ್ಳುವುದು ಅವಶ್ಯಕವಾಗಿದೆ.

ಘಟಕ-೧ ದಾಖಲೆಗಳು : ಅರ್ಥ, ಸ್ವರೂಪ, ಪ್ರಕಾರಗಳು, ದಾಖಲೆಗಳ ಇತಿಹಾಸ

ಘಟಕ-೨ ದಾಖಲೆ ಬರವಣಿಗೆಯ ಸಾಧನಗಳು, ದಾಖಲೆಗಳ ನಿರ್ಮಾತೃಗಳು

ಘಟಕ-೩ ಕರ್ನಾಟಕದಲ್ಲಿ ದಾಖಲೆಗಳ ಕೇಂದ್ರಗಳು

ಭಾರತದ ಬೇರೆ ಪ್ರಾಂತಗಳಲ್ಲಿ ಕರ್ನಾಟಕದ ದಾಖಲೆಗಳು

ಘಟಕ-೪ ಕರ್ನಾಟಕದಲ್ಲಿ ದಾಖಲುಗಳ ಸಂಗ್ರಹ

ದಾಖಲೆಗಳ ಅಧ್ಯಯನ, ಪ್ರಕಟನೆಗಳ ಇತಿಹಾಸ ಇತ್ಯಾದಿ

ಘಟಕ-೫ ಕರ್ನಾಟಕದ ದಾಖಲೆಗಳು

೧. ರಾಜಕೀಯ

೨. ಸಾಮಾಜಿಕ

೩. ಸಾಂಸ್ಕೃತಿಕ

೪. ಚಾರಿತ್ರಿಕ ಮಹತ್ವ

**ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು:**

೧. ಡಾ. ಅ. ಸುಂದರ- ಪ್ರಾಚ್ಯಶಾಸ್ತ್ರ ಪರಿಚಯ

೨. ಕನ್ನಡ ಇತಿಹಾಸ ವಿಷಯ ಕೋಶ

೩. ಕನ್ನಡ ವಿಷಯ ವಿಶ್ವಕೋಶ ಸಂ-೨, ಮೈ.ವಿ.ವಿ.

೪. ಇತಿಹಾಸದರ್ಶನ ಸಂಪುಟಗಳು

೫. ಡಾ. ಎಂ.ಎಂ. ಕಲಬುರ್ಗಿ- ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ

೬. ಡಾ. ಎಂ.ವಿ. ಸೀತಾರಾಮಯ್ಯ- ಕನ್ನಡ ಹಸ್ತಪ್ರತಿಶಾಸ್ತ್ರ

೭. ಡಾ. ಎಂ.ವಿ. ಸೀತಾರಾಮಯ್ಯ (ಸಂ.) ಮಣೆಹ

೮. ಡಾ. ಬಿ.ಕೆ. ಹಿರೇಮಠ- ಕನ್ನಡ ಹಸ್ತಪ್ರತಿಗಳು ಒಂದು ಅಧ್ಯಯನ

೯. ಹಸ್ತಪ್ರತಿ ವ್ಯಾಸಂಗ ಸಂಪುಟಗಳು ಹಂಪಿ ಕನ್ನಡ ವಿ.ವಿ.

೧೦. ಡಾ. ಎಂ. ಚಿದಾನಂದ ಮೂರ್ತಿ- ಕನ್ನಡ ಶಾಸನಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ

೧೧. ಡಾ. ಜೆ.ಎಂ. ನಾಗಯ್ಯ -ಆರನೆಯ ವಿಕ್ರಮಾದಿತ್ಯನ ಶಾಸನಗಳು

೧೨. ಡಾ. ಧನವಂತ ಹಾಜವಗೋಳ- ಮುಳುಗುಂದ ನಾಡು ಒಂದು ಅಧ್ಯಯನ
೧೩. ಡಾ. ಕೆ. ರವೀಂದ್ರನಾಥ -ದಾಖಲು ಸಾಹಿತ್ಯ
೧೪. ಡಾ. ಪಿ.ಕೆ. ರಾಠೋಡ -ಪ್ರಾಚೀನ ದಾಖಲೆಗಳು
೧೫. ಕರ್ನಾಟಕದ ಗ್ಯಾಜೆಟಿಯರ್‌ಗಳು
೧೬. ಜಿಲ್ಲಾವಾರು ಗ್ಯಾಜೆಟಿಯರ್‌ಗಳು
೧೭. ಡಾ. ಪಿ.ಕೆ. ರಾಠೋಡ - ಕೃಷಿಯತ್ತುಗಳ ಸಾಂಸ್ಕೃತಿಕ ಅಧ್ಯಯನ
೧೮. ಡಾ. ಎಚ್.ಎಸ್. ಮೇಲಿನಮನಿ- ಕನ್ನಡ ಶಾಸನ ಅಧ್ಯಯನ
೧೯. ಡಾ. ವೈ.ಸಿ. ಭಾನುಮತಿ- ಹಸ್ತಪ್ರತಿ ಸಂಕಥನ
೨೦. ಡಾ. ಕೆ. ರವೀಂದ್ರನಾಥ- ಹಸ್ತಪ್ರತಿ

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

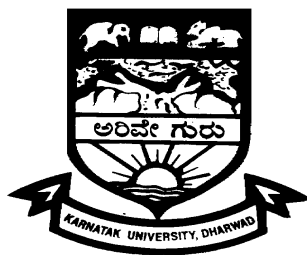
For

### **MASTER OF LIBRARY AND INFORMATION SCIENCE CHOICE BASED CREDIT SYSTEM (M.Lib.I.Sc. – CBCS)**



**2021-2022 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



## **REGULATIONS**

**For**

## **MASTER OF LIBRARY AND INFORMATION SCIENCE**

**CHOICE BASED CREDIT SYSTEM (M.Lib.I.Sc. – CBCS)**

**From**

**2021-2022 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning Master Degree Programme**

### **Faculty of Social Sciences, from 2021-2022**

**Master Degree Programme in Library and Information Science (M.Lib.I.Sc.-CBCS)**  
Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

### **MASTER OF LIBRARY AND INFORMATION SCIENCE CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree programmes.

#### **Commencement:**

These Regulations shall come into force from the academic year 2021-2022.

#### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These grades are awarded

for each subject after conversion of the marks and after completion of the examinations in each semester.

- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

### **Entrance Test**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University, for the 1<sup>st</sup> Semester.

### **Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1<sup>st</sup> Semester.

### **Intake**

The total number of candidates to be admitted to the course would be 30 only for the 1<sup>st</sup> semester. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state. Eight seats are under enhanced fee. Total Seats is 30.

### **Course of Study:**

The courses of study for M.Lib.I.Sc degree shall comprise of Theory and Practicals as noted in the syllabus.

**Note: Specification of Degrees as per UGC notification dated March 2014 published in the Gazette of India, 5<sup>th</sup> July 2014 (Part III Section 4).**

### **Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

## **Medium of Instruction**

The medium of instruction and examination is English.

## **Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

## **Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Specialization Course or Optional Course and
  - iii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department.

- f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- g) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- h) The normal calendar for the semester would be as follows:
  - i. I and III semester - August to November
  - ii. II and IV Semester - January to April

### Attendance

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

### Course Outline for the M.Lib.I.Sc.

#### SEMESTER - I

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
<b>PG44T101</b>	Foundations of Library & Information Science	75	25	100	4	4 Hrs / week
<b>PG44T102</b>	Knowledge Organization, Information Processing and Retrieval (Theory)	75	25	100	4	4 Hrs / week
<b>PG44P103</b>	Knowledge Organization, Information Processing and Retrieval (Practical)	75	25	100	4	8 Hrs / week
<b>PG44T104</b>	Information Sources (Theory)	75	25	100	4	4 Hrs / week

<b>PG44T105</b>	Information Technology: Basics	75	25	100	4	4 Hrs / week
<b>PG44P106</b>	Information Technology (Practical)	75	25	100	4	8 Hrs / week

### SEMESTER - II

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
	<b>Compulsory Papers</b>					
<b>PG44T201</b>	Management of Libraries & Information Centres	75	25	100	4	4 Hrs / week
<b>PG44T202</b>	Information Systems & Services	75	25	100	4	4 Hrs / week
<b>PG44P203</b>	Information Sources & Services (Practical)	75	25	100	4	8 Hrs / week
<b>PG44P204</b>	Information Processing & Retrieval - UDC & Non-Book Materials (Practical)	75	25	100	4	8 Hrs / week
<b>PG44T205</b>	Library and Users	75	25	100	4	4 Hrs / week
	<b>Open Elective Paper</b>					
<b>PG44O206</b>	Electronic Information Sources and Services	75	25	100	4	4 Hrs / week

### SEMESTER - III

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
	<b>Compulsory Papers</b>					
<b>PG44T301</b>	Information and Communication	75	25	100	4	4 Hrs / week
<b>PG44T302</b>	Information, Retrieval, Processing and Repackaging (Theory)	75	25	100	4	4 Hrs / week
<b>PG44T303</b>	Research Methods	75	25	100	4	4 Hrs / week
<b>PG44T304</b>	Applications of Information Technology (Theory)	75	25	100	4	4 Hrs / week
<b>PG44P305</b>	Applications of Information Technology (Practical)	75	25	100	4	8Hrs / week
	<b>Open Elective Paper</b>					
<b>PG44O306</b>	Information Literacy	75	25	100	4	4 Hrs / week

## SEMESTER – IV

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	<b>Compulsory Papers</b>					
<b>PG44T401</b>	Networking and Internet Technology (Theory)	75	25	100	4	4 Hrs / week
<b>PG44T402</b>	Digital Library and Multimedia (Theory)	75	25	100	4	4 Hrs / week
<b>PG44T403A</b> <b>PG44T403B</b> <b>PG44T403C</b>	Public Library System Academic Library System Special Library System	75	25	100	4	4 Hrs / week
<b>PG44P404</b>	Digital Libraries and Multimedia (Practical)	75	25	100	4	4 Hrs / week
<b>PG44D405</b>	Dissertation	100	00	100	4	6Hrs / week
<b>PG44D406A</b> <b>PG44I406B</b> <b>PG44E406C</b>	Dissertation Viva – voce Internship Education Tour Report	40 50 10	00 00 00	40 50 10	4	

### Internship

The students need to undergo Internship (which is compulsory) for one month after the completion of third semester M.Lib.I.Sc.

### Study Tour

There shall be a study tour, which is compulsory and a student has to submit a tour observation report. The Study tour will be conducted at the beginning of the fourth semester.

### Submission of Dissertation

- M.Lib.I.Sc III semester students shall have to choose a topic for dissertation and preliminary preparation be carried out under the guidance of a teacher.
- M.Lib.I.Sc –IV semester students shall have to submit the dissertation on the chosen topic, before the commencement of the theory examination.
- Candidates keeping terms but not appearing for the theory and practical papers and not submitted the dissertation within the prescribed time, may appear for respective examination and submit the dissertation within the prescribed time.
- Candidates appearing for the examination under the provision of (c) will be not eligible for the award of any rank, prize, medal etc.

### Evaluation:

- Each Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous

Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance, if a Compulsory Course has a Credit award of 4, then the total max marks would be 100 for the subject.

- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- d. To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

Attendance	Marks Allotted
91 to 100%	3
81 to 90%	2
75 to 80%	1

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone of shall be considered for the allotment of marks as under.
- f. There shall be one end semester examination of 3 duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluation

### **Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Master Degree course in two years from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.
- c. The CBCS scheme is fully carry-over system. However, the four –semester two years course should be completed by a student within double duration of the normal course period (i.e. 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1,000/- per paper.

### **Declaration of Results:**

- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after

adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.

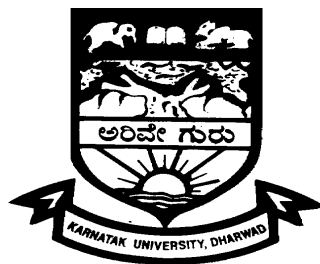
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

### **Marks and Grading**

The grading of successful candidate at the examination shall be as follows:

<b>Percentage</b>	<b>GPA/CGPA</b>	<b>Letter</b>	<b>Class</b>
75.00 to 100.00 %	7.50 to 10.00	A	First Class with Distinction
60.00 to 74.90%	6.00 to 7.49	B	First Class
50.00 to 59.94%	5.00 to 5.99	C	Second Class
40.00 to 49.94%	4.00 to 4.99	D	Pass
Less than 40.00%	Less than 4.00	F	Fail

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF LIBRARY AND  
INFORMATION SCIENCE**

**CHOICE BASED CREDIT SYSTEM  
(M.Lib.I.Sc – CBCS)**

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After completion of this programme, the student will be able to:

1. Understand the logic of knowledge organization and its importance in Library and Information Centres.
2. Learn the practical and managerial skills to handle the housekeeping operations of the Library and Information Centres.
3. Understand the information needs and requirements of different user communities and their by develop new services and facilities.
4. Effectively use Information and Communication Technology (ICT) in automation of Libraries and provision of advanced services and facilities in Library and Information Centres.
5. Contribute to LIS profession by inculcating research aptitude, communication skills and other necessary soft skills.

<b>Paper Code and Name</b>	<b>PG44T101: FOUNDATIONS OF LIBRARY AND INFORMATION SCIENCE</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the basic philosophy of Librarianship / LIS profession.
CO 2	Identify the different types of libraries and differentiate between Academic / Public / Special libraries.
CO 3	Understand the professional ethics and its / their application / implementation in practicing the profession.
CO 4	Understand the importance of the five laws of library science and their implications in Library and Information Centres' activities.
CO 5	Analyse the salient features of public library legislations enacted by Indian States and their importance in the promotion of library movement in India.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Library as a Social Institution</b>	
<ul style="list-style-type: none"> <li>- Social and Historical Foundations of Library and Information Centres.</li> <li>- Different types of Libraries - their distinguishing features and functions.</li> <li>- Academic (School, College and University Libraries)</li> <li>- Public Libraries</li> <li>- Special Libraries</li> <li>- National Library</li> <li>- Role of Public Library in promotion of formal and Informal Education</li> </ul>	12 Hours
<b>Unit 2: Normative Principles of Library and Information Science</b>	
<ul style="list-style-type: none"> <li>- Five Laws of Library Science</li> <li>- Implications of Five Laws of Library and Information Science and their application to Library and Information Centres activities.</li> <li>- Latest Trends in Five Laws of Library and Information Science</li> </ul>	8 Hours
<b>Unit 3: Library Development in India</b>	
<ul style="list-style-type: none"> <li>- Libraries in Ancient, Medieval and Modern Period.</li> </ul>	6 Hours

<ul style="list-style-type: none"> <li>- Role of Central Government in Development of Libraries in India-UGC and INFLIBNET</li> <li>- Role of State Government in Development of Libraries in Karnataka.</li> <li>- Development of Public Libraries in Karnataka after the enactment of Karnataka Public Library (KPL) Act, 1965.</li> </ul>	
<b>Unit 4: Laws Relating to Libraries and Information Centres</b>	
<ul style="list-style-type: none"> <li>- Library Legislation- need, purpose, and essential features.</li> <li>- Library Legislation in India- problems and prospects.</li> <li>- Overview of Public Library Acts in Indian States and Union Territories.</li> <li>- Detailed study of Karnataka Public Library Act, 1965.</li> <li>- Press and Registration Act and Delivery of Books (Public Libraries) and News Papers Act, 1954 and 1956.</li> <li>- Copyright Act and Intellectual Property Rights (IPR).</li> </ul>	12 Hours
<b>Unit 5: Library and Information Science Profession</b>	
<ul style="list-style-type: none"> <li>- Attributes of a Profession.</li> <li>- Librarianship as a Profession.</li> <li>- Professional Ethics and Qualities.</li> <li>- Professional Education and Research.</li> <li>- Role of Professional Associations in promotion of LIS Profession.</li> </ul>	6 Hours
<b>Unit 6: Professional Associations</b>	
<ul style="list-style-type: none"> <li>- Professional Associations- Objectives and Functions</li> <li>- Role of Professional Associations in the Development of Library and Information Centres and Professionals.</li> <li>- Regional Library Associations- Objectives, Functions and Activities, KALA</li> <li>- National Library Associations- Objectives, Functions and Activities, ILA, IASLIC, IATLIS and SIS.</li> <li>- International Library Associations- Objectives, Functions and Activities, IFLA, Commonwealth Librarians Association (CWLA) and ALA.</li> <li>- Promoters of Library and Information Centres - National Level: RRRLF International Level: UNESCO.</li> </ul>	12 Hours
<b>Unit 7: Public Relations and Extension Activities</b>	
<ul style="list-style-type: none"> <li>- Concept, Definition, and Scope</li> <li>- Role of Public Relation Officer (PRO) in promotion of Library Resources and Services.</li> </ul>	8 Hours

<ul style="list-style-type: none"> <li>- Publicity and Extension Activities: Quiz, Debate, Essay, Singing Competitions and Story Telling Hours.</li> <li>- Library Path Finders (Guides)</li> </ul>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Burahohan, Alka. Various aspects of librarianship and Information Science. New Delhi: Ess Ess, 2000</li> <li>2. Greer, R. Grover, R. &amp; Fowler, S. Introduction to the Library and Information Professions, Ed.2. Libraries Unlimited, 2013.</li> <li>3. Khanna, J. K. Library and Society. Kurukshetra: Research Publisher, 1987</li> <li>4. Kumar, P.S.G. Foundations of Library and Information Science. Paper I of UGC Model Curriculum. B.R. Publishing Corporation. 2011</li> <li>5. Ranganathan, S. R. The Five Laws of Library Science. Bangalore: Ess Ess, 2006.</li> <li>6. Rout, R.K. Ed. Library Legislation in India. New Delhi: Relience, 1999.</li> <li>7. Venkatappaiah, Velega. Public Library Legislation in the New Millennium. Bookwell, 2007</li> <li>8. <a href="http://egyankosh.ac.in/">http://egyankosh.ac.in/</a></li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T102: KNOWLEDGE ORGANISATION, INFORMATION PROCESSING AND RETRIEVAL (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand and learn the basics of classification, importance of Library Classification
CO 2	Understand the logic of Knowledge Organisation by learning different schemes of Library Classification
CO 3	Develop an understanding of analysis of subject content and the principles and practices of document description.
CO 4	Understand the Nature, Scope and Importance of Library Catalogue.
CO 5	Learn the importance ISBD in maintaining uniformity in cataloguing the records.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Knowledge Organisation</b>	
- Conceptual analysis of classification, Historical development of Knowledge Classification, definition, meaning, objectives, purpose and functions of Library Classification, General theory of classification, Descriptive and Dynamic theories of Library Classification.	10 Hours
<b>Unit 2: Development of Knowledge Organisation Systems</b>	
- Contributions of Dr. S. R. Ranganathan, Normative Principles, Basic Laws, Fundamental laws, Canons, Principles and Postulates, Species of Classification, Enumerative Classification, Almost Enumerative, Almost Faceted, Faceted Classification, Rigidly Faceted, Freely Faceted Classification. Outline of CC, DDC and UDC, Organisation of Knowledge in the Internet World, Ontology and Folksonomy.	10 Hours
<b>Unit 3: Universe of Knowledge</b>	
- Concept, Meaning, and Definition, Structure and attributes of Subjects, Subject Categories Simple, Compound and Complex Subjects, Modes of Formation of different Subjects.	8 Hours

<b>Unit 4: Library Cataloguing</b>	
<ul style="list-style-type: none"> <li>- Resource Description: Concepts and definition.</li> <li>- Library Catalogue: Meaning, Definition, Need, Purpose, Objectives and functions.</li> <li>- History and development of Catalogue codes and practices:</li> <li>- Resource description standards: ISBD, AACR2R and RDA.</li> <li>- Resource sharing of Bibliographic Data: Meaning and Importance.</li> <li>- Centralized Catalogue, Co-operative Catalogue, Union Catalogues.</li> </ul>	8 Hours
<b>Unit 5: Forms of Catalogues</b>	
<ul style="list-style-type: none"> <li>- Outer forms of Catalogue: <ul style="list-style-type: none"> <li>- Book Form; Sheaf Form; Card Form and Computerised Form (OPAC)</li> </ul> </li> <li>- Inner forms of Catalogues: <ul style="list-style-type: none"> <li>- Author Catalogue, Name Catalogue, Title catalogue, Alphabetical subject Catalogue, Dictionary Catalogue, Classified or systematic catalogue, Alphabetical-classed catalogue</li> </ul> </li> <li>- Kinds of Entries: <ul style="list-style-type: none"> <li>- Main Entry; Added Entries; Reference Entries;</li> </ul> </li> <li>- Filing rules and procedures.</li> <li>- Subject Cataloguing: <ul style="list-style-type: none"> <li>- Sears List of Subject Headings;</li> <li>- Library of Congress Subject Headings (LCHS);</li> <li>- Medical Subject Headings (MeSH);</li> <li>- Subject Headings for Engineering (SHE).</li> </ul> </li> </ul>	10 Hours
<b>Unit 6: Normative principles of Cataloguing</b>	
<ul style="list-style-type: none"> <li>- Background and Development of Normative Principles;</li> <li>- General Normative Principles: Principles</li> <li>- Specific Normative Principles of Library and Information Science: Laws</li> <li>- Specific Normative Principles of Cataloguing: Canons.</li> </ul>	10 Hours
<b>Unit 7: Latest Trends in Cataloguing</b>	
<ul style="list-style-type: none"> <li>- WebOPAC's and Z39.50</li> <li>- Metadata: Meaning, Definition, Purpose, Use and types.</li> <li>- Metadata standards: MARC-21 &amp; Dublin Core.</li> </ul>	8 Hours
<b>REFERENCES</b>	

1. Anglo American Cataloguing Rules (2002). 2nd Rev ed. New Delhi: Oxford.
2. Barbara, M W., (Ed.), (1997). Sears list of subject headings. New York: HW Wilson.
3. Beghtol W. B. (2004). Knowledge Organization and Classification in International Information Retrieval. London: Routledge.
4. Byrne, D. J. (1998). MARC manual: Understanding and records. Chicago: ACA.
5. Krishan Kumar (2004). Theory of Library Classification. New Delhi: Vikas.
6. Kumar, P. S. G. (2003). Knowledge Organization, Information Processing and Retrieval Theory. Delhi: BR Publications.
7. Maxwell, R. & Maxwell, M.F. (1997). Maxwell's handbook of AACR2R: Explaining and illustrating the Anglo-American Cataloguing Rules and the 1993 amendments. Chicago: ACA.
8. Maxwell, R.L. & Connell, T.H. (Eds.), (2000). Future of cataloguing. Chicago: ALA.
9. Ramalingam, M. S. (2000). Library cataloguing and classification systems. Delhi: Kalpaz.
10. Ranganathan, S. R. (1957-58). Prolegomena to Library Classification. Ed2, London: LA.
11. Sumangala Jha. (2013). Knowledge Organization, Information and Retrieval. New Delhi: Anmol.

<b>Paper Code and Name</b>	<b>PG44P103: KNOWLEDGE ORGANISATION, INFORMATION PROCESSING AND RETRIEVAL (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify the Specific Subject of the Document by analysing the contents.
CO 2	Devise call numbers of the documents by constructing class numbers and book numbers
CO 3	Understand the logic of mapping of subjects.
CO 4	Impart Practical training to the students in cataloguing various types of documents according to the AACR-2
CO 5	Catalogue the works with Pseudonymous authors, Works with Uniform Titles and Serials Publications.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Classification</b>	
- Classification of documents by identifying Specific Subject, identification of documents representing simple, compound and complex subjects.	12 Hours
- Structure of DDC, Introduction to 23rd edition of DDC, Use of Standard subdivisions (table 1) and use of table 2 to 6 in DDC	12 Hours
- Assigning Book Numbers and introduction to Web Dewey	8 Hours
<b>Cataloguing</b>	
- Cataloguing of printed monographs- Single personal Authorship shared Responsibility	10 Hours
	8 Hours

- Cataloguing of works under editorial direction Cataloguing of Multi-volume and multi-part documents.	
- Cataloguing of works under Pseudonymous authors – and Works with Uniform Titles and Serials Publications.	8 Hours
- Cataloguing of works authored by various types of corporate bodies: Government publications, Institutional publications, Society publications, Conference/Seminar proceedings, Workshop materials etc.	6 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Anglo American Cataloguing Rules: 2nd Rev. ed. (2002). New Delhi: Oxford.</li> <li>2. Cristán, A. L., &amp; Tillett, B. B. (2009). IFLA cataloguing principles: the statement of international cataloguing principles (ICP) and its glossary: in 20 languages. München: K. G. Saur.</li> <li>3. Hunter, Eric J. and Bakewell, K.G.G.: Cataloguing, 3rd ed., London, Clive Bingley, 1991</li> <li>4. Intner, S. S. (2009). Beginning cataloging. Santa Barbara, CA: Libraries Unlimited, an imprint of ABC-CLIO, LLC.</li> <li>5. Kao, M. L. (2010). Cataloging and classification for library technicians. New York: Routledge.</li> <li>6. Kumar, P. S. G. (1990). Practical Guide to DDC 20. Nagpur: Dattsons.</li> <li>7. Kumar, P. S. G. (2003). Knowledge Organization Information Processing and Retrieval Practice. New Delhi: BR</li> <li>8. Moore, J. A. Ed. (2002). Practical Reading: Processing Information. Boston: Addison Wesley.</li> <li>9. Sahu, R. (2012). DDC in Library Science. New Delhi: Random Publishing.</li> <li>10. Sanjay Kaushik (2012). DDC: A Practical Manual of 23rd Edition. New Delhi: Ess Ess Publication.</li> <li>11. Viswanathan, C. G. (1983). Cataloguing: theory and practice. Lucknow: Print House.</li> <li>12. Welsh, A., &amp; Batley, S. (2012). Practical cataloguing: AACR, RDA and MARC21. London: Facet.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T104: INFORMATION SOURCES (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	understand the characteristics of different sources of information.
CO 2	gain the knowledge of non-print sources of information.
CO 3	know the structure of different sources of information.
CO 4	Understand the nature and characteristics of electronic resources .
CO 5	Know about different Human and Institutional sources of information.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition, Nature;</li> <li>- Evolution, Importance, Characteristics;</li> <li>- Functions, Types of Primary, Secondary and Tertiary sources;</li> <li>- Criteria for Evaluation of Information sources.</li> </ul>	6 Hours
<b>Unit 2: Primary Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, definition and features of Primary sources</li> <li>- Periodicals, Research reports, Technical reports.</li> <li>- Patents, Standards and Specifications,</li> <li>- Theses and Dissertations,</li> <li>- Conference and Seminar publications, Trade literature.</li> </ul>	8 Hours
<b>Unit 3: Secondary Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, definition and features of Secondary sources</li> <li>- Dictionaries, Encyclopaedias,</li> <li>- Yearbooks, Almanacs,</li> <li>- Biographical sources, Bibliographies, Geographical sources,</li> <li>- Current sources, Statistical information sources,</li> </ul>	10 Hours

<ul style="list-style-type: none"> <li>- Handbooks, Manuals,</li> <li>- Indexing and Abstracting periodicals, Annual reviews, treatises etc.</li> </ul>	
<b>Unit 4: Tertiary Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, definition and features of Tertiary sources</li> <li>- Directories, Guides to reference sources,</li> <li>- Guides to subject literature,</li> <li>- Bibliography of bibliographies,</li> <li>- Directory of directories,</li> <li>- Monographs, Union catalogues, Textbooks.</li> </ul>	8 Hours
<b>Unit 5: Non-Documentary Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, definition and features of Non-documentary sources.</li> <li>- a) Human Sources: Information generators, information gatherers, information processors, Information recorders, information disseminators, Technological gatekeepers, Invisible collages, Consultants, Experts/resource persons, Extension workers, Representatives of firms.</li> <li>- b) Institutional / Organizational Sources: Government ministries and departments, R&amp; D organizations, learned societies, Publishing houses, Broadcasting stations, Archives, Data banks, Information analysis centers, Referral centers, Institutional web sites.</li> </ul>	8 Hours  10 Hours
<b>Unit 6: Non – Print Sources</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition, features of Non-print sources</li> <li>- Microforms, Audio visual materials, Optical media-based databases,</li> <li>- Online databases, Social Networking sites: Twitter, Telegram, facebook, YouTube, Whats-app, Instagram, flicker, Mobile apps.</li> </ul>	6 Hours
<b>Unit 7: Electronic information Resources.</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definitions, features of Electronic information resources,</li> <li>- E-books, E-journals, E-theses, E-newspapers,</li> <li>- Internet sources, Blogs and Wikis,</li> <li>- Online dictionaries/encyclopaedias/directories,</li> <li>- Personal and Institutional websites, Subject Gateways and Portals.</li> <li>- Bulletin board services, Open access resources: DOAJ, DOAB. Open DOAR.</li> </ul>	8 Hours

## REFERENCES

1. Alan Poulter, Gwyneth Tseng and Goff Sargent: The Library and Information Professional's Guide to the World Wide Web. London: Facet Publishing, 2007
2. G. G. Chowdhury and Sudatta Chowdhury. Information Sources and Searching on the World Wide Web. London: Facet Publishing, 2012.
3. Gopinath, M.A: Information Sources and Communication Media. DRTC Annual Seminar, Bangalore-1984.
4. Katz, (William A). Introduction to reference work: reference service and reference process. v.2. Ed. 5. 2001. McGraw-Hill, New York
5. Krishna Kumar: Reference service, 5th rev. ed. New Delhi, Vikas Publishing House, 2002.
6. Kumar, P.S.G. (2004). Information Sources and Services. Delhi: B. R. Publishing.
7. Sewasinh: Hand book of International Sources on Reference and Information, Crest publishing, New Delhi 2010.

<b>Paper Code and Name</b>	<b>PG44T105: INFORMATION TECHNOLOGY: BASICS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand and learn the basic skills of Information Technology and computer
CO 2	Outline the components of a computer and differentiate between Input and Output Devices
CO 3	Identify and understand the different useful application software
CO 4	Learn about the different Number Systems (Binary, Octal, Decimal and Hexadecimal)
CO 5	Analyse the different programming languages (Machine, Assembly and High-Level Languages)

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Technology</b>	
- Meaning, Definitions, Evolution, Revolutions: Agricultural, Industrial, Technology, Information revolutions, Scope, Importance, Components, Functions, Benefits and Applications	6 Hours
<b>Unit 2: Introduction to Computer</b>	
- Concept, Definition, Historical Developments, Characteristics, Classification of Computers: Generations, Size, Principle - Benefits of Computer / Disadvantages	8 Hours
<b>Unit 3: Computer Architecture</b>	
- Components of a Computer: Types of Memory, Computer Diagram, Central Processing Unit (CPU), Input and Output Devices, Internal and External Storage Devices	10 Hours
<b>Unit 4: Software</b>	

<ul style="list-style-type: none"> <li>- System Software: Software, Hardware and Firmware, Purpose, Classification of Operating Systems: Multi User, Multi processing and Multi-Tasking, Operating Systems – Microsoft Windows, Open-Source Operating Systems</li> </ul>	8 Hours
<ul style="list-style-type: none"> <li>- Application Software: MS-Office - Ms-Word, Excel, Power point, Internet Browsers, Open Office.Org, Anti-Virus Programs, Web Designing Tools, HTML Editors, Software Suits</li> </ul>	10 Hours
<b>Unit 5: Data Representation</b>	
<ul style="list-style-type: none"> <li>- Data representation in computers</li> <li>- Number Systems: Binary, Decimal, Octal and Hexadecimal (Addition, Subtraction of Number Systems)</li> <li>- Conversion of Binary to Other Number System and Vice-Versa.</li> <li>- Character Encoding Standards: ASCII, EBCDIC, ISCII and UNICODE.</li> </ul>	8 Hours
<b>Unit 6: File Organization</b>	
<ul style="list-style-type: none"> <li>- File Concepts: Meaning and Definitions, Features, Attributes, File Types: Text, Audio, Video, Image, Executable, Methods, Functions,</li> <li>- Types of Organizing A File: Sequential, Inverted, Indexed Sequential and other methods</li> </ul>	6 Hours
<b>Unit 7: Overview of Programming Languages</b>	
<ul style="list-style-type: none"> <li>- Concept, Need, Examples</li> <li>- Machine, Assembly and High-level programming languages</li> <li>- Programming Concepts: System Analysis, Algorithms and Flow-Charts</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Alexander, Tom and Mathew, Joe (2012). Computer and Information Technology. New Delhi: Neha Publishers &amp; Distributors.</li> <li>2. Arvind Kumar Ed. (2006). Information Technology for all (2 Vols.). New Delhi: Anmol.</li> <li>3. Jain, Praveen C.A. (2015). Information Technology. New Delhi: Jain Publishing.</li> <li>4. Gupta, Vikas (2005). Rapidix Computer Course. New Delhi: Pustak Mahal.</li> <li>5. Satyanarayana, R. (2005). Information Technology and its facets. Delhi: Manak.</li> <li>6. Dhamdher, D.M. (2012). Operating Systems: A concept Based Approach. New Delhi: Jain Publishing.</li> </ol>	

7. Vittal, N. and Mahalingam, S. (2001). Information Technology: India's Tomorrow. New Delhi: Manas.

<b>Paper Code and Name</b>	<b>PG44P106: INFORMATION TECHNOLOGY (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
At the end of this paper the students will be able to:	
CO 1	Identify the computer peripheral devices
CO 2	Understand the different operating systems (Windows, Linux)
CO 3	Analyse and outline various skills of MS office packages (MS-Word, Excel and Power point)

<b>Particulars</b>	<b>Teaching Hours (Max. 64)</b>
Introduction to Peripheral Devices: Input Devices	4 Hours
Introduction to Peripheral Devices: Output Devices	4 Hours
Introduction to Operating Systems: Windows	4 Hours
Introduction to Operating Systems: Linux	4 Hours
Introduction to MS Word	14 Hours
Introduction to MS Excel	14 Hours
Introduction to MS Power Point	14 Hours
Creation of E-mail IDs in different domains	6 Hours

<b>Paper Code and Name</b>	<b>PG44T201: MANAGEMENT OF LIBRARIES AND INFORMATION CENTRES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the principles of management and their application in Library and Information Centres.
CO 2	Identify the different divisions / sections of Library and Information Centres.
CO 3	Recognise the different types of resources required to manage the Library and Information Centres.
CO 4	Understand the problems and challenges involved in the management of Library and Information Centres.
CO 5	Understand the importance of Total Quality Management (TQM) and its application in Library and Information Centres.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Management</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning, Definitions and Scope.</li> <li>- Management Schools of Thoughts (Classical to Modern Management Schools).</li> <li>- Functions and Principles of Management.</li> <li>- Scientific Management, Principles of Scientific Management and their application to Library and Information Centres.</li> <li>- Organizational Structures.</li> </ul>	10 Hours
<b>Unit 2: Library House Keeping Operations</b>	
<ul style="list-style-type: none"> <li>- Different Sections of Library and Information Centres.</li> <li>- Book Selection and Acquisition: Purpose, Objectives, Need and Functions.</li> <li>- Book Selection Tools and Principles of Book Selection.</li> <li>- Technical Processing.</li> <li>- Serial Control, Circulation Control, Maintenance, Reference Section/ Readers Advisory Service.</li> <li>- Stock Verification: Policies, Procedures and Methods.</li> </ul>	14 Hours

<ul style="list-style-type: none"> <li>- Online Bookshops: Identification, Advantages, Online Book Shops Vs Traditional Book Shops. URLs. (<a href="https://books.google.co.in">https://books.google.co.in</a> and Amazon Books).</li> <li>- Collection Development and Management Policies and Procedures.</li> <li>- Archiving- Conservation-Preservation: Print and non-print materials.</li> </ul>	
<b>Unit 3: Human Resource Planning, Management and Development</b>	
<ul style="list-style-type: none"> <li>- Human Resource Planning: Meaning, Definitions and Planning Process.</li> <li>- Human Resource Management: Meaning, Definitions and Functions.</li> <li>- Job Description, Analysis and Job Evaluation.</li> <li>- Recruitment procedures.</li> <li>- Developing and Retaining Staff.</li> <li>- Motivation, Delegation, and Decision Making.</li> <li>- Human Resources Development. <ul style="list-style-type: none"> <li>- Training and Development.</li> <li>- Performance Appraisal.</li> <li>- Grievances.</li> </ul> </li> <li>- Leadership Qualities, Functions and Skills.</li> <li>- Emotional Intelligence.</li> </ul>	10 Hours
<b>Unit 4: Financial Management</b>	
<ul style="list-style-type: none"> <li>- Sources of Finance and their Importance.</li> <li>- Income Generation</li> <li>- Budgeting: Meaning and Definitions.</li> <li>- Tips for Preparation of Budget.</li> <li>- Types of Budget: Line Budget, PPBS and Zero-Based Budgeting (ZBB).</li> <li>- Budget as a Control Device.</li> <li>- Cost effectiveness and Cost Benefit Analysis.</li> <li>- Out sourcing.</li> </ul>	8 Hours
<b>Unit 5: System Analysis and Design</b>	
<ul style="list-style-type: none"> <li>- Concepts, Meaning and Definitions.</li> <li>- Study of a System</li> <li>- Performance Evaluation of Library and Information Centres.</li> <li>- Performance Measurement.</li> <li>- Management of Information systems (MIS): Concept, Use.</li> <li>- Project Management, PERT / CPM.</li> </ul>	6 Hours
<b>Unit 6: Physical Facility Management</b>	

<ul style="list-style-type: none"> <li>- Concept of Change.</li> <li>- Changes in Procedures, Methods, Tools and Techniques.</li> <li>- Challenges in Incorporating Change.</li> <li>- Techniques of Managing Change</li> <li>- Total Quality Management (TQM): Concept, Meaning, Definitions and Elements</li> <li>- Use of Technology and Technology Management.</li> <li>- Risk Management, Contingency Management.</li> </ul>	8 Hours
<b>Unit 7: Planning and Reporting</b>	
<ul style="list-style-type: none"> <li>- Planning: Concept, Definitions, Need, Purpose and Types.</li> <li>- Policies and Procedures, Management by Objective (MBO).</li> <li>- Building and Space Management in Library and Information Centres.</li> <li>- Planning for new place, moving to new Location.</li> <li>- Library Statistics.</li> <li>- Library Committees: Importance, Types and Functions.</li> <li>- Library Rules and Regulations.</li> <li>- Annual Report: Compilation, Contents and Style.</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Besterfield, D. H. Total Quality Management. Prearson, New Delhi. 2011.</li> <li>2. Brophy, Peter and Courling Kote. Quality Management for Information and Library Managers. Bombay: Jaico, 1997.</li> <li>3. Iyer, V. K. Library Management of Staff Training and Development. Delhi: Rajat, 1999.</li> <li>4. Kumar P.S.G. Management of Libraries and Information Centres. Paper V of UGC Model Curriculum. Delhi: B.R Publishing Corporation, 2003</li> <li>5. Paliwal, P.K. Compendium of Library Administration. New Delhi: Ess Ess, 2000.</li> <li>6. Pankl, V., &amp; White, D.T. Recruitment, Development, and Retention of Information Professionals: Trends in Human Resources and Knowledge Management. Business Science Reference, 2010.</li> <li>7. Sengar Sunita &amp; Singh, R K. Human Resource Management in Libraries. Shree Publisher &amp; Distributors. New Delhi. 2009.</li> <li>8. Edward Evans G. and Camila A. Alire, Management Basics for Information Professionals, London: Facet Publishing, 2013.</li> <li>9. <a href="http://egyankosh.ac.in/">http://egyankosh.ac.in/</a></li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T202: INFORMATION SYSTEMS AND SERVICES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the importance of information services.
CO 2	Identify different kinds of Information Centres and their role in information dissemination.
CO 3	Familiarize with different types of information centres at the National and International level.
CO 4	Understand the significance of Reference service.
CO 5	Identify and use of Open Access Resources.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Systems</b>	
<ul style="list-style-type: none"> <li>- Basic concepts, components, characteristics of Information Systems</li> <li>- Kinds of Information Systems - their functions and services</li> </ul>	8 Hours
<b>Unit 2: Libraries, Documentation and Information Centres</b>	
<ul style="list-style-type: none"> <li>- Libraries, Documentation Centres, Information Centres, Databanks, Information Analysis Centres, Referral centres.</li> </ul>	8 Hours
<b>Unit 3: Planning, Designing and Evaluation of National and International Information Systems</b>	
<ul style="list-style-type: none"> <li>- Planning of Information Systems: <ul style="list-style-type: none"> <li>- Planning Process, Need for Planning, Advantages of Planning,</li> </ul> </li> <li>- Factors in Planning: <ul style="list-style-type: none"> <li>- Steps in Planning, Standards for Planning,</li> <li>- Objectives of the Planning of Information Centre.</li> </ul> </li> <li>- System Design: <ul style="list-style-type: none"> <li>- Steps in System Design Process.</li> </ul> </li> <li>- Evaluation of Information Systems – <ul style="list-style-type: none"> <li>- Process of Evaluation, Levels of Evaluation, Evaluation Criteria,</li> </ul> </li> </ul>	10 Hours

<ul style="list-style-type: none"> <li>- Present Concepts in Information System Evaluation,</li> <li>- Importance of Evaluation</li> </ul>	
<b>Unit 4: National Information Systems and Services</b>	
<ul style="list-style-type: none"> <li>- National Institute of Science Communication and Policy Research (NIScPR),</li> <li>- Defence Scientific Information &amp; Documentation Centre (DESIDOC),</li> <li>- National Social Science Documentation Centre (NASSDOC),</li> <li>- Information and Library Network (INFLIBNET),</li> <li>- Indian Council of Social Science Research (ICSSR),</li> <li>- Environmental Information System (ENVIS).</li> <li>- Evaluation Criteria of National Information Systems</li> </ul>	12 Hours
<b>Unit 5: International Information systems and Services</b>	
<ul style="list-style-type: none"> <li>- Regional Information Systems – ASTINFO, APINESS, SAARC (SDC)</li> <li>- Global Information Systems – UNESCO – PGI, INIS, AGRIS, MEDLARS.</li> <li>- Evaluation Criteria of International Information Systems</li> </ul>	10 Hours
<b>Unit 6: Information Services</b>	
<ul style="list-style-type: none"> <li>- Meaning Definition, Need and Purpose of Information Service.</li> <li>- Types of Reference Service: <ul style="list-style-type: none"> <li>- Short Rang, Long Rang and Readers Advisory Services.</li> </ul> </li> <li>- Information Alerting Services: <ul style="list-style-type: none"> <li>- News Paper Clipping Service; Current Awareness Services CAS);</li> <li>- Selective Dissemination of Information (SDI); Abstracting and Indexing services.</li> </ul> </li> <li>- Information Services: <ul style="list-style-type: none"> <li>- Reprographic Service, Literature Search Services, Document Delivery Services (DDS), Electronic Document Delivery Services (EDDS), Translation Services</li> </ul> </li> </ul>	8 Hours
<b>Unit 7: Open Access Initiatives</b>	
<ul style="list-style-type: none"> <li>- Open access: Concept, Need, Characteristics and Types.</li> <li>- Open Access Initiatives in India.</li> <li>- Evolution of Institutional repositories</li> <li>- Institutional Repositories - Concepts and Issues</li> <li>- Repositories and Open Archives - Implementing institutional repositories</li> </ul>	8 Hours

- IR and Case Studies.	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Asija, Sunitha. Documentation services in India: A review of some selected documentation centres. New Delhi, Academic Publications, 1998.</li> <li>2. Carmel, Maguire, Weir, Anthony D., Kazlauskas, Edward J. (2013). Information Services for Innovative Organizations. Emerald Group Publishing Limited</li> <li>3. Gupta, B.M. et al. (1991). Handbook of libraries, archives, Information centres in India. New Delhi: Aditya Prakshan.</li> <li>4. Krishan Kumar (1990). Reference service. New Delhi, Vikas.</li> <li>5. Neelameghan A. &amp; Prasad, K.N. (Eds,), (2005). Information systems and services in India. Bangalore: SRELS.</li> <li>6. Sing, Gurudev. Information Sources Services and Systems, Delhi: PHI Learning Private Limited, 2013.</li> <li>7. Smith, Linda C., &amp; Wong, Melissa A. (2010). Reference and Information Services: An Introduction, / 5th ed., Libraries Unlimited.</li> <li>8. Smith, Linda C., &amp; Wong, Melissa A. (2010). Reference and Information Services: An Introduction, / 5th ed., Libraries Unlimited,</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44P203: INFORMATION SOURCES AND SERVICES (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	develop an understanding of organizing information sources.
CO 2	understand the principles and practices of document description including electronic documents.
CO 3	Familiarize with various information services to be provided in the libraries.
CO 4	acquire skills in planning and management of information services and systems.
CO 5	develop skills for creating new information services.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
Exercises on reference questions	14 Hours
Evaluation of reference documents	4 Hours
Database searching and retrieval: MOOCs, Institutional repository, Open course wares,	14 Hours
Searching Subject directories, Subject gateways, web directories, Library portals, Consortia based resources.	4 Hours
Preparation of Current awareness list	6 Hours
Compilation of Press clipping.	4 Hours
Development of computer-based information services, Online Information Services. Information alerting services. Current Awareness Services,	4 Hours
Selective Dissemination of Information (SDI), Translation and Document delivery Services, Virtual reference service.	14 Hours

<b>Paper Code and Name</b>	<b>PG44P204: INFORMATION PROCESSING &amp; RETRIEVAL - UDC &amp; NON-BOOK MATERIALS (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the structure of Universal Decimal Classification (UDC)
CO 2	Devise call numbers of the documents by constructing class numbers and book numbers
CO 3	Understand the logic of mapping of subjects in Universal Decimal Classification (UDC)
CO 4	Catalogue the Non-Book Materials including Electronic resources.
CO 5	Apply the ISBD for Cartographic Materials, Manuscripts and Computer Files.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Universal Decimal Classification (UDC)</b>	
- Introduction to UDC and its structure.	12 Hours
- Use of Common Auxiliaries and special Auxiliaries.	12 Hours
- Construction of Class numbers, Filing order and Citation order, Assignment of Book Numbers.	8 Hours
<b>Cataloguing of Non-Book Materials according to AARC-2</b>	
- Cataloguing of Cartographic Materials	8 Hours
- Cataloguing of Manuscripts.	6 Hours
- Cataloguing of Sound Recordings, Motion Pictures and video Recordings.	10 Hours
- Cataloguing of Electronic Resources and Computer files.	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Asija, Sunitha. Documentation services in India: A review of some selected documentation centres. New Delhi, Academic Publications, 1998.</li> <li>2. British Standards Institution (2003). Universal Decimal Classification. United Kingdom: British Standards Institution.</li> <li>3. Carmel, Maguire, Weir, Anthony D., Kazlauskas, Edward J. (2013). Information Services for Innovative Organizations. Emerald Group Publishing Limited</li> <li>4. Gupta, B.M. et al. (1991). Handbook of libraries, archives, Information centres in India. New Delhi: Aditya Prakshan.</li> <li>5. Kalinina, E. &amp; Smirnova, A. I. (1986). Vocabulary of Terms on UDC Theory &amp; Practice. Russia: All-Union Institute.</li> </ol>	

6. Khanna, J. K. (2009). Universal Decimal Classification. Agra: Y. K. Publishers
7. Krishan Kumar (1990). Reference service. New Delhi, Vikas.
8. Neelameghan A. & Prasad, K.N. (Eds,), (2005). Information systems and services in India. Bangalore: SRELS.
9. Raju, A. A. N. (2007). Universal Decimal Classification (IME – 1993): Theory and Practice: A Self-Instructional Manual. New Delhi: Ess Ess Publisher.
10. Sehgal, R. L. (2002). An Introduction to UDC. New Delhi: Ess Ess.
11. Sing, Gurudev. Information Sources Services and Systems, Delhi: PHI Learning Private Limited, 2013.
12. Singh, K. P. (2013). UDC A Manual for Classification Practical and Information Resources. New Delhi: Today Tomorrows.
13. Smith, Linda C., & Wong, Melissa A. (2010). Reference and Information Services: An Introduction, / 5th ed., Libraries Unlimited,
14. Smith, Linda C., & Wong, Melissa A. (2010). Reference and Information Services: An Introduction, / 5th ed., Libraries Unlimited,

<b>Paper Code and Name</b>	<b>PG44T205: LIBRARY AND USERS</b>
<b>COURSE OUTCOMES (COs)</b>	
Students who complete this paper will be able to:	
CO 1	Understand the different category of library users and their information needs
CO 2	Know the Information Seeking Behavior (ISB) of users and to develop ability to recognize the different patterns adopted by users in retrieving and making use of information
CO 3	Conduct User Studies by adopting different methods and techniques.
CO 4	Understand the importance of information and identification of potential sources and their evaluation
CO 5	Know the significance of Life Long Learning.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Users and their Needs</b>	
<ul style="list-style-type: none"> <li>- User Communities: Students, Teachers, Scientists and Technologists, Research and Development Personnel, Planners, Policy Makers, Ethnic groups and other professionals</li> <li>- Need and Information Needs: Meaning, Definition, Distinction between need, want, demand and requirement,</li> <li>- Types of Information Needs: Physiological, Affective and Cognitive</li> <li>- Information Seeking Behavior: Meaning, Definition, Different Models of ISB.</li> <li>- ISB in the Digital Environment</li> </ul>	12 Hours
<b>Unit 2: User Studies</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning, Definition and its significance</li> <li>- User studies in the Digital Environment</li> <li>- Planning of User studies</li> <li>- Case studies</li> </ul>	10 Hours

<b>Unit 3: Methods and Techniques of conducting User Studies</b>	
<ul style="list-style-type: none"> <li>- Quantitative and Qualitative Techniques: Survey Method, Techniques of data collection, Questionnaire, Interview, Observation, Diary, Record Analysis and Citation Studies,</li> <li>- Sampling: Sampling techniques.</li> </ul>	10 Hours
<b>Unit 4: User Education</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definitions and Importance</li> <li>- User Education in the digital environment</li> <li>- Different methods of conducting User Education</li> <li>- Evaluation of User Education Programs (UEP)</li> <li>- Resource Based Instruction, MOOCS, Online Resources</li> </ul>	8 Hours
<b>Unit 5: Information Literacy</b>	
<ul style="list-style-type: none"> <li>- Conceptual Analysis, Historical Development of the concept, Significance</li> <li>- Types of Literacies</li> <li>- Information Literacy Models</li> </ul>	8 Hours
<b>Unit 6: Life Long Learning</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition, Importance</li> <li>- Life Long Learners,</li> <li>- Major Drivers of lifelong learning</li> </ul>	8 Hours
<b>Unit 7: Global Trends</b>	
<ul style="list-style-type: none"> <li>- IL Standards and Guidelines, Development of National and International Standards</li> <li>- National Information Literacy Missions, Forums and Task forces</li> <li>- Integration of Information Literacy at different levels of education</li> <li>- Global Perspectives, Information Literacy in India</li> </ul>	8 Hours

## REFERENCES

1. P. Balasubramanian, P. (2011). Users and Uses of Library. New Delhi, Deep and Deep Publications Pvt. Ltd.
2. Ruthven, I and Kelly, D. (2011). Interactive Information-seeking Behaviour and Retrieval. London: Facet Publishing.
3. Alvite, L. and Barrionuevo, L. (2011). Libraries for Users: Services in Academic Libraries. Oxford: Chandos Publishing.
4. Ford, N. (2015). Introduction to Information Behaviour. London: Facet Publishing.
5. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc.
6. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.
7. Kawatra, P. S. (1997). Library user studies: Manual for librarians and information scientists. Mumbai, Jaico.
8. Kumar, P. S. G. (2004). Library and Users: Theory and Practice. Delhi: B. R. Publishing Corporation.
9. Henry, M. and Morgan, S. (2002). Practical strategies for modern academic library. London: Aslib-IMI.
10. Biblarz, D., Bosch, S. and Sugnet, C. (2001). Guide to Library User Needs Assessment for Integrated Information Resource Management and Collection Management. Maryland: Scarecrow Press, Inc

<b>Paper Code and Name</b>	<b>PG44O206: ELECTRONIC INFORMATION SOURCES AND SERVICES (OPEN ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
Students who complete this paper will be able to:	
CO 1	Understand the basics of Information Sources (Primary, Secondary and Tertiary)
CO 2	Learn various search engines and search strategies
CO 3	Analyse the types of electronic information resources (e-journals, e-databases, e-books etc.)
CO 4	Develop information literacy skills and competencies
CO 5	Outline various electronic information sources

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Sources</b>	
<ul style="list-style-type: none"> <li>- Concept, Characteristic Features and Use.</li> <li>- Types of Sources (Primary, Secondary, Tertiary and Non-Documentary Sources)</li> </ul>	10 Hours
<b>Unit 2: Internet Sources</b>	
<ul style="list-style-type: none"> <li>- Concept, Kinds of Internet Sources, Services</li> <li>- Search Engines: Meaning and Definitions, Working of SEs, Types: General, Meta Intelligent, Subject Specific, Specialized.</li> <li>- Criteria for Evaluation of Internet Resources</li> </ul>	12 Hours
<b>Unit 3: Electronic Publishing</b>	
<ul style="list-style-type: none"> <li>- Introduction to E-publishing, meaning and definitions.</li> <li>- Electronic Information Sources: Meaning and Definitions, Historical Development of EIRs</li> <li>- Types of EIRs: E-journals, E-databases, E-books, Open Access Journals, Open access databases, Aggregators</li> <li>- Evaluation criteria for EIRs</li> </ul>	14 Hours

<b>Unit 4: Use of Electronic Information Sources</b>	
<ul style="list-style-type: none"> <li>- Information Seeking Behaviour</li> <li>- Information Literacy: Concept, Meaning and Definitions, SCONUL's Seven Pillars of Information Literacy, Bruce's Seven Faces of Information Literacy, PLUS Model</li> <li>- Search and Browse: Basic Search and Advanced Search in E-databases</li> <li>- Search Strategy, Search Syntax, Boolean Operators, Search Techniques: Field Search, Wild Card Search, Phrase, File type, Stop words etc.</li> </ul>	14 Hours
<b>Unit 5: Electronic Information Services</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition and Scope</li> <li>- Types of Information Services: Short range and long range</li> <li>- Information Alerting Services, E-mail, newspaper clipping service, Translation Service, Document Delivery Service, Bulletin Board Service, Use of Social Media Platforms</li> </ul>	14 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Cooper, Michael D. (1996). Design of Library Automation Systems: File structure data structures and tools. New York: John Wiley.</li> <li>2. Lesk, Michael (1997). Practical digital libraries: Books, bytes, and bucks. San Francisco: Morgan Kaufmann.</li> <li>3. Mahapatra, Rabindra (2011). Dynamics of e-resources and usage trends in digital era. New Delhi: JBA Book.</li> <li>4. Ormes, Sorah and Dempsey, Lorcan Eds. (1997). The Internet, networking and the public library. London: Library Association.</li> <li>5. Mahapatra, Rabindra (2013). Electronic Librarianship: Issues and Trends. New Delhi: JBA Book.</li> <li>6. <a href="http://www.infolibrarian.com">www.infolibrarian.com</a></li> <li>7. <a href="http://www.libraryspot.com">www.libraryspot.com</a></li> <li>8. <a href="http://www.refdesk.com">www.refdesk.com</a></li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T301: INFORMATION AND COMMUNICATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the importance of Data, Information, Knowledge and to bring out the intrinsic relation between them.
CO 2	Recognise the role of new Information Manager in the Knowledge Society.
CO 3	Identify and outline the different channels of Communication in the transmission of information and knowledge.
CO 4	Understand the type of education and training required for LIS Professionals to render quality services to the user community.
CO 5	Understand the importance of marketing of Information products and services in a changed environment.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Data, Information and Knowledge</b>	
<ul style="list-style-type: none"> <li>- Data: Types, Nature and Characteristics</li> <li>- Information: Nature, Characteristics, Value and Property of Information.</li> <li>- Knowledge: Nature, Types, Value and Characteristics features.</li> <li>- Inter-Relation between Data, Information and Knowledge.</li> </ul>	8 Hours
<b>Unit 2: Information Management and Knowledge Management</b>	
<ul style="list-style-type: none"> <li>- Information Management: Meaning, Definitions and Value.</li> <li>- Role of new Information Managers in a changing environment.</li> <li>- Knowledge Management: Meaning, Definitions and types of Knowledge.</li> <li>- Need for Knowledge Management.</li> <li>- Difference between Information Management and Knowledge Management.</li> <li>- Knowledge Management Models.</li> </ul>	10 Hours
<b>Unit 3: Communication</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning and Definitions.</li> </ul>	

<ul style="list-style-type: none"> <li>- Information Generation and Communication.</li> <li>- Channels of Communication: <ul style="list-style-type: none"> <li>- Formal and Informal;</li> <li>- Downward, Upward and Horizontal;</li> <li>- Verbal and Written.</li> </ul> </li> <li>- Barriers of Information Communication.</li> <li>- Models of Communication: Lasswell Model, and Shannon &amp; Weaver Mathematical Model.</li> </ul>	10 Hours
<b>Unit 4: Information Science</b>	
<ul style="list-style-type: none"> <li>- Information Science: Concept, Meaning and Definitions.</li> <li>- Origin, Development and Evolution of Information Science.</li> <li>- Theoretical Foundations and Framework of Information Science.</li> <li>- Information Science as a Interdisciplinary Nature of Subject.</li> <li>- Physical and Cognitive Paradigms.</li> <li>- Education for Library and Information Science Professionals.</li> </ul>	12 Hours
<b>Unit 5: Information Society</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning and Definitions.</li> <li>- Development and Evolution of Information Society.</li> <li>- Agrarian, Industrial and Information Societies and their features and Characteristics.</li> <li>- Changing Role of Library and Information Centres in the Information Society.</li> <li>- Issues of Information Society: Social, Political, Cultural and Economical.</li> <li>- Policies relating to Information: Right to Information Act (RTI) and Intellectual Property Rights (IPR).</li> <li>- Concept of Freedom, Censorship, Data Security and Fair Use.</li> <li>- National Information Policy on Library and Information Systems.</li> <li>- International Programmes: <ul style="list-style-type: none"> <li>- Universal Bibliographic Control (UBC)</li> <li>- Universal Available Publications (UAP).</li> </ul> </li> </ul>	12 Hours
<b>Unit 6: Marketing of Information Products and Services</b>	
<ul style="list-style-type: none"> <li>- Marketing: Meaning, Definition and Objectives.</li> <li>- Marketing of Information Products and Services in India.</li> <li>- Marketing Research and Market Segmentation.</li> <li>- Marketing Mix: Supply, Product, Place and Price.</li> <li>- Marketing in Digital Environment.</li> </ul>	8 Hours

<b>Unit 7: Economics of Information and Information Economics</b>	
<ul style="list-style-type: none"> <li>- Economics of Information: Concept, Meaning, Definition and Characteristics.</li> <li>- Information of Economics: Concepts, Meaning and Characteristics.</li> <li>- Information as a Resource in Production, Growth and Development.</li> </ul>	4 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Ackerman, Mark S. [et al.]. Sharing Expertise: Beyond Knowledge Management. Boston: MIT Press. 2003</li> <li>2. Debons, Anthony (et al). Information Science: An Integrated View. Boston, Mass.: G K Hall. 1988</li> <li>3. Dhiman, Anil Kumar and Sharma, Hemant. Knowledge Management for Librarians. New Delhi: Ess Ess, 2009</li> <li>4. Haravu L. J. Lectures on Knowledge Managemant: Paradigms, Challenges and Opportunities. Bangalore: Sarada Ranganathan Endowment for Library Science. 2002</li> <li>5. Kumar P.S.G. Information and Communication (Kumar's Curriculum Series in Library and Information Science) Paper IX of UGC model Curriculum. B. R. Publishing Corporation. 2004.</li> <li>6. Rao, Madan Mohan. Leading with Knowledge: Knowledge Management Practices in Global Infotech Companies. New Delhi: McGraw Hill. 2003</li> <li>7. Sahu, Ashok Kumar. Information Management in New Millennium: Opportunities and Challenges for Library Professionals. New Delhi: Ess Ess, 2008</li> <li>8. Vickery, B.C. and Vickery, A. Information Science theory and practice, 1994</li> <li>9. Webster, F. Theories of the Information Society. 2nd ed. London: Routledge. 2002</li> <li>10. Wolpert, S. A. and Wolpert, J. F. Economics of Information, 1986.</li> <li>11. <a href="http://egyankosh.ac.in/">http://egyankosh.ac.in/</a></li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T302: INFORMATION RETRIEVAL, PROCESSING AND REPACKAGING (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the features and structures of Information Retrieval Systems.
CO 2	Gain the knowledge of information search and other search strategies.
CO 3	Understand the features and importance of Indexing Languages.
CO 4	Understand the different kinds of Indexing Systems.
CO 5	Analyse Information Repackaging and Consolidation process.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Retrieval System</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning, Definition, Objectives,</li> <li>- Characteristics, Components and Functions of IRS.</li> </ul>	6 Hours
<b>Unit 2: Information Retrieval Process</b>	
<ul style="list-style-type: none"> <li>- Objective and feature of Information search,</li> <li>- Search techniques, Search strategies, pre search interview, search logic.</li> <li>- Steps in query formulation, Tools of Internet Search, Search engines,</li> <li>- Multiple database searching, Voice search, Image search, Video search engines.</li> </ul>	8 Hours
<b>Unit 3: Indexing and Abstracting</b>	
<ul style="list-style-type: none"> <li>- Concept, Need and purpose of Indexing Languages.</li> <li>- Types and Characteristics, - Vocabulary Control, Thesauri and subject headings,</li> <li>- Pre-Coordinate and Post –Coordinating Indexing,</li> <li>- Chain Indexing, Citation indexing, Automatic Indexing.</li> <li>- Abstracting: Concept, Meaning and definitions,</li> <li>- Types and Uses. Abstracting agencies and services.</li> </ul>	10 Hours
<b>Unit 4: Information Retrieval Models</b>	

<ul style="list-style-type: none"> <li>- Models Based on Input / Output: Data Retrieval Model, Information Retrieval Model, Knowledge Retrieval Model.</li> <li>- Models Based on Theories and Tools, Boolean Retrieval Model, Fuzzy Logic Model, Set Theoretic Model, Vector Space Model, Probabilistic Retrieval Model, Linguistic Model, Mathematical Model, Psychological Model, Economic Model and Hypertext Linkage Model.</li> </ul>	8 Hours  10 Hours
<b>Unit 5: Evaluation of IR Systems</b>	
<ul style="list-style-type: none"> <li>- Purpose and criteria for evaluation,</li> <li>- Evaluation studies: ASLIB, The Crane fields; MEDLARS, SMART.</li> </ul>	8 Hours
<b>Unit 6: Current Trends in IRS</b>	
<ul style="list-style-type: none"> <li>- Developments, Searching and retrieval,</li> <li>- Full text retrieval, User interfaces,</li> <li>- IR standards and protocols.</li> </ul>	6 Hours
<b>Unit 7: Information Repackaging and Consolidation</b>	
<ul style="list-style-type: none"> <li>- Concept, meaning and utility of repackaging and consolidation of Information products.</li> <li>- Types of Repackaging and Information consolidation of products,</li> <li>- Agencies dealing with repackaging, Document delivery and Reprography techniques. - Translation Centers,</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Chowdhruy, G. G. Introduction to Modern Information Retrieval. 2nd edn. London, Facet Publishing, 2003.</li> <li>2. . Cleaveland, D. B., Cleveland, A. D. Introduction to Indexing and Abstracting. 2001 3rd Ed. Englewood Colo.: Libraries Unlimited.</li> <li>3. Crawford, M. J. (1988). Information broking: a new career in information work. London: Facet publishing.</li> <li>4. Lancaster, F. W. (1968). Information retrieval systems, characteristics, testing and evaluation.1968, London: Facet publishing</li> <li>5. Lancaster, F.W. (2003). Indexing and abstracting in theory and practice. London: Facet publishing.</li> <li>6. Seetharama, S. Information consolidation and repackaging.1997, New Delhi: Ess Ess.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T303: RESEARCH METHODS</b>
<b>COURSE OUTCOMES (COs)</b>	
Students who complete this paper will be able to:	
CO 1	Understand the basics of Research and Research process.
CO 2	Apply the different Research Skills / Methods for solving different Research Problems.
CO 3	Analyse the appropriateness of research techniques to collect valid data and to analyse and interpret the data using statistical measures.
CO 4	Differentiate between Bibliometrics, Scientometrics, Informetrics and apply Bibliometric Laws.
CO 5	Write down the research experiences (Research Report) to others and adding them to the fund of knowledge.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Foundations of Research</b>	
<ul style="list-style-type: none"> <li>- Research: Meaning, Definitions, Need and Purpose, Characteristics of Research.</li> <li>- Research Process / Steps in Research</li> <li>- Types of Research: Fundamental or Pure and Applied</li> <li>- Motivation in Research</li> <li>- Role of Research in the development of scholarship</li> <li>- Barriers of Research / Problems encountered by researchers in India</li> <li>- Areas of Research in LIS</li> </ul>	6 Hours
<b>Unit 2: Research Design</b>	
<ul style="list-style-type: none"> <li>- Planning of Research Process</li> <li>- Selection of a problem for Research: Mode of Selection, Sources of Problem, Identification of Research Problem: Characteristics, Journey from broad to narrow topics</li> <li>- Formulation of Research Problem</li> <li>- Research Design: Meaning, Definitions, Characteristics, Types, Contents of Research Design</li> </ul>	

<ul style="list-style-type: none"> <li>- Ethical Aspects of Research</li> <li>- Variable: Concept, Meaning and Definitions, difference between concept and variable, Types</li> <li>- Hypotheses: Meaning and Definitions, Functions, Types of Hypotheses: Descriptive, Relational, Working, Null, Statistical, Common-sense, Complex, Analytical hypotheses, Sources of Hypotheses.</li> <li>- Literature Review: Concept, Meaning, Purposes, Planning the Review Work and Sources for Review</li> </ul>	10 Hours
<b>Unit 3: Research Methods</b>	
<ul style="list-style-type: none"> <li>- Classification of Research: Scientific Methods – Meaning, Definitions, Characteristics, Steps and Arbitrary Methods</li> <li>- Ranganathan's Spiral of Scientific Method</li> <li>- Types of Research</li> <li>- Based on Application: Pure and Applied</li> <li>- Based on Objectives: Descriptive, Exploratory, Correlational and Explanatory Research</li> <li>- Based on Enquiry Mode: Qualitative and Quantitative Research</li> <li>- Historical Research Method: Meaning, Purpose, Steps and Types</li> <li>- Survey Method: Scope, Purpose, Types, Steps in Survey, Advantages and Disadvantages</li> <li>- Case Study Method: Concept, Characteristics, Objectives, Steps, Advantages and Disadvantages, Case Study vs. Survey Method. Delphi Method</li> <li>- Content Analysis: Characteristics, Steps, Advantages and Disadvantages'</li> </ul>	12 Hours
<b>Unit 4: Research Techniques and Tools</b>	
<ul style="list-style-type: none"> <li>- Questionnaire: Meaning, Schedule vs. Questionnaire,</li> <li>- Preparing a Questionnaire - Designing the Format, Types of questions to be added / avoided, Mechanics of the Schedule and Questionnaire, Characteristics of questionnaire, Advantages and Limitations.</li> <li>- Interview: Meaning, Importance, Characteristics, Requirements, Interview Process, Types of Interview, Interview Problems and Evaluation of Interview Method.</li> <li>- Observation: Importance, Characteristics, Types, Planning Observation, Observation Tools, Advantages and Limitations</li> </ul>	8 Hours
<p><b>Sampling Techniques</b></p> <ul style="list-style-type: none"> <li>- Sample: Basic Concept, Types of Sampling</li> <li>- Probability Sampling or Random Sampling Techniques: Simple, Systematic, Stratified, Cluster, Multistage, Area, Multi phase etc.</li> <li>- Non-Probability: Convenience, Purpose, Quota and Snowball</li> </ul>	6 Hours

<b>Unit 5: Analysis and Interpretation of Data</b>	
<ul style="list-style-type: none"> <li>- Functions of Statistics, Types</li> <li>- Graphical Presentation of Data: Types of Graphs – Bar, Pie, Line Histogram etc.</li> <li>- Measurement Scales: Descriptive Statistics – Measure of Central Tendency: Mean, Mode and Median</li> <li>- Inferential Statistics: Measures of Dispersion – Standard Deviation</li> <li>- Chi-Square Test, ANOVA, Regression Analysis, Co-efficient of Variation</li> <li>- Statistical Packages – PASW</li> </ul>	8 Hours
<b>Unit 6: Bibliometrics, Scientometrics and Informetrics</b>	
<ul style="list-style-type: none"> <li>- Concept, Definition, Historical Development</li> <li>- Citation Databases: Scopus and Web of Science</li> <li>- Bibliometric Laws: Bradford's, Zipf's and Lotka's</li> <li>- Bibliometric / Scientometric / Infometrics Indicators</li> <li>- Growth of Literature, Relative Growth Rate (RGR), Doubling Time (Dt.)</li> <li>- Academic Footprints: H-Index and Impact Factor</li> </ul>	8 Hours
<b>Unit 7: Research Reporting</b>	
<ul style="list-style-type: none"> <li>- Research Reporting: Concept, Characteristics of a Report, Functions of a Research Report, Planning Report Writing, Types of Research Report</li> <li>- Organization of Report: Structure, Style, Language</li> <li>- Guidelines of Research Reports</li> <li>- Reference Style Manuals: APA, MLA, Chicago etc. and Reference vs. Citation</li> <li>- Methods of Research Evaluation</li> </ul>	6 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Busa, Charles, H. and Harter, Stephen S. (1980). Research Methods in Librarianship: Techniques and Interpretation. Orlando: Academic Press.</li> <li>2. Fowler, F.J. (1993). Survey research methods. New Delhi: Sage</li> <li>3. Jackson, Sherri L. (2009). Research Methods and Statistics. New Delhi: Cengage Learning Indian Pvt. Ltd.</li> <li>4. Kothari, C.R. (2009). Research Methodology: Methods and Techniques. New Delhi: New Age International.</li> </ol>	

5. Krishan Kumar (1992). Research Methods in Library and Information Science. New Delhi: Vikas.
6. Krishnaswami, O.R. (1993). Methodology of Research in Social Sciences. Bombay: Himalaya.
7. Kumbhar, Rajendra (2014). Library and Information Science Research: Methods and Techniques. Pune: Universal Prakashan.
8. Kumbhar, Rajendra (2014). Research Methodology: A step-by-step Guide for Beginners. New Delhi: Sage Publications.
9. Raiyani, Jagadish R. (2012). Research Methodology: Theory and Techniques. New Delhi: New Century Publications.
10. Ravichandra, Rao, I.K. (1985). Quantitative Methods for Library and Information Science. New Delhi: Wiley Eastern.

<b>Paper Code and Name</b>	<b>PG44T304: APPLICATIONS OF INFORMATION TECHNOLOGY (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of Library Automation.
CO 2	Learn different Library Software Packages including Open-Source Software.
CO 3	Understand the use of Communication Technology and Network Systems in Providing Library Services.
CO 4	Get acquainted with different kinds of Databases and understand their structure and components.
CO 5	Know about emerging technologies including Barcode, Smart card and Artificial Intelligence.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Library Automation</b>	
<ul style="list-style-type: none"> <li>- Automation: Meaning and Definitions</li> <li>- Historical developments in Library Automation</li> <li>- Planning of Library Automation</li> <li>- Integrated Library System (ILS): Basic requirements, steps and implementation</li> <li>- Components of Automated Library System: Acquisition, Cataloguing, Circulation, Serials Control Systems and OPAC</li> </ul>	10 Hours
<b>Unit 2: Library Automation Software Packages</b>	
<ul style="list-style-type: none"> <li>- Development of Library software</li> <li>- Library Automation Standards</li> <li>- Library Automation Software: Functional Requirements</li> <li>- Types of Library Software, Proprietary Software and Open-Source software: SOUL, Koha, NewGenlib</li> <li>- Trends and Future of Library Automation Software's.</li> </ul>	10 Hours

<b>Unit 3: Communication Technology</b>	
<ul style="list-style-type: none"> <li>- Communication Technology: Meaning, Definition and its Significance</li> <li>- Evolution of Communication Technology.</li> <li>- Chronological developments</li> <li>- Telecommunications: Different Media and Channels.</li> <li>- Communication Networks: Public Switched Telephone Network (PSTN) and Public Data Network (PDN), Wireless Communication, Cell phone.</li> </ul>	10 Hours
<b>Unit 4: Database Management System (DBMS)</b>	
<ul style="list-style-type: none"> <li>- Concept, Functions of Database.</li> <li>- Components and Structure of Databases.</li> <li>- Categories of Databases: <ul style="list-style-type: none"> <li>- Single User Databases, Multiple User Databases, Centralized Databases, Distributed Databases, Hierarchical Databases, and</li> <li>- Relational Database.</li> </ul> </li> <li>- Types of Databases – Bibliographic, Numeric, Full text, Image and Multimedia Databases.</li> <li>- Database Management Tools.</li> <li>- Databases in Library and Information Centres.</li> <li>- Creation of Database.</li> </ul>	12 Hours
<b>Unit 5: Emerging Technologies</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning and Definitions of Barcode</li> <li>- Barcode Symbolologies- <ul style="list-style-type: none"> <li>- Linear (1D) Symbolologies and</li> <li>- Matrix (2D) Symbolologies.</li> </ul> </li> <li>- Barcode technology and its application in Libraries and Information centers.</li> <li>- Radio Frequency Identification (RFID): Concept, and Characteristics.</li> <li>- Components of an RFID Library Management System: <ul style="list-style-type: none"> <li>- RFID tags / transponder, Readers or Sensors, Antenna, Server,</li> <li>- RFID Label Printer, Handheld Reader, Self-Check Unit.</li> </ul> </li> <li>- External Book Return (Book Drops Stations)</li> <li>- Types of RFID Tags: Active Tag and Passive Tag.</li> <li>- Advantages and Disadvantages of RFID and its application in Libraries</li> <li>- Barcode Vs RFID.</li> <li>- RFID and Smartcard Technology</li> </ul>	10 Hours
<b>Unit 6: E-Publishing</b>	

<ul style="list-style-type: none"> <li>- Meaning, Definition, Significance</li> <li>- DTP vs E-Publishing</li> <li>- Types of E-publishing</li> <li>- Digital copyright issues</li> <li>- Open Access movement and its impact on Scholarly Communication</li> </ul>	6 Hours
<b>Unit 7: Artificial Intelligence</b>	
<ul style="list-style-type: none"> <li>- Concept, Growth and Development.</li> <li>- Purpose and Use of Artificial Intelligences.</li> <li>- Expert System, Natural Language Processing, and Pattern Recognition.</li> <li>- Advantages of Artificial Intelligence.</li> <li>- Robots in Artificial Intelligence.</li> <li>- Top Used Applications in Artificial Intelligence.</li> <li>- Artificial Intelligence in Library and Information Services.</li> </ul>	6 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library Science. New Delhi: Pacific Publications.</li> <li>2. Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library science. New Delhi: Pacific Publications.</li> <li>3. Curtin, Dennis and others (1999). Information Technology: The breaking Wave. New Delhi: McGraw Hill Education.</li> <li>4. ITL Education Solutions Limited (2012). Introduction to Information Technology. New Delhi: Pearson.</li> <li>5. ITL Education Solutions Limited (2012). Introduction to Information Technology. NewDelhi: Pearson.</li> <li>6. Kulkarni Parag and Joshi Prachi. (2015). Artificial Intelligence: Building an Intelligent System. NewDelhi: PHI</li> <li>7. Kumar, P. S. G. (2004). Information Technology: Applications (Theory and Practice). New Delhi: B. R. Publishing</li> <li>8. Ravichandra Rao (1996). Library Automation. New Delhi: New Age International.</li> <li>9. Turban, Rainer and Potter (2006). Introduction to Information Technology. New Delhi: Wiley.</li> <li>10. Vishwanathan, Thaigarajan. (2005). Telecommunications switching system and networks. New Delhi: Prentice Hall of India.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44P305: APPLICATIONS OF INFORMATION TECHNOLOGY (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of different Library Management Software and their application.
CO 2	Install and operate different library automation software.
CO 3	Manage the Acquisition, Catalogue, Circulation Control and Serial Control modules.
CO 4	Create document records using MARC-21 format.
CO 5	Search and Import the Bibliographic data from Standard Bibliographic Databases.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
- Library Manager (Free Software: Installation of Library Manager and Working with different Modules	6 Hours
- Software for University Libraries (SOUL): Acquisition, Catalogue, Circulation, Serials Control, OPAC and their features	12 Hours
- KOHA: Installation of Koha using live DVD.	4 Hours
- Creating a Library, create a Super Librarian, Add an Item type, Patron Category, adding Patrons, Assigning Rights.	6 Hours
- Modifying Bibliographic Framework.	4 Hours
- Creating Document records with MARC21 format	8 Hours
- Cataloging, Circulation, OPAC	6 Hours
NEWGENLIB: Installation of NewGenLib Software and its components	12 Hours
- Working with Different Modules.	
- Searching and Importing Bibliographic data from WorldCat and IndCat to Koha and NewGenLib.	6 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Amant, Kirk St. and Still, Brian. Handbook on research on open-source software: Technological, economic, and social perspective. Hershey: Information Science Reference, 2007.</li> <li>2. Banerjee, Kyle, &amp; Parks, Bonnie. (2017). Migrating Library Data: A Practical Manual. Neal-Schuman Publishers. ISBN: 978-0838915035.</li> <li>3. Cohn, John M., Kelsey, Ann L., &amp; Keith Michael Fiels. (1998). Planning for library automation: A Practical Handbook. London: Library Association</li> <li>4. Dania Bilal. (2015). Library Automation: Core Concepts and Practical Systems Analysis, / 3rd ed., Libraries Unlimited;</li> </ol>	

5. Hilal Ahmed. (2016). Integrated Library Management Systems: An Indian Scenario of Modern Library Automation / 1st ed., EssEss Publications
6. Jost, Richard M. (2016). Selecting and Implementing an Integrated Library System: The Most Important Decision You Will Ever Make / 1st ed., Chandos Publishing
7. Judy Brooks. (2014). Practical Systems Analysis in Library Automation and Management. Koros Press Limited.

<b>Paper Code and Name</b>	<b>PG44O306: INFORMATION LITERACY (OPEN ELECTIVE)</b>
<b>COURSE OUTCOMES (COs)</b>	
Students who complete this paper will be able to:	
CO 1	Understand the importance of Information.
CO 2	Recognize the information need and retrieve relevant information by accessing potential sources of information.
CO 3	Develop Internet search strategies by making use of different tools and techniques.
CO 4	Appropriately use the web for research, including critical evaluation of information.
CO 5	Understand the importance of Life Long Learning.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Information Literacy (IL)</b>	
<ul style="list-style-type: none"> <li>- Fundamentals of IL: Meaning, Definitions and Concepts, Historical perspective,</li> <li>- Developments in Agrarian Society, Industrial Society, Information Society</li> </ul> Essence of Information Literacy in the Knowledge Society	14 Hours
<b>Unit 2: Types of Information Literacies</b>	
<ul style="list-style-type: none"> <li>- Technology Literacy, Media Literacy, Computer Literacy, Digital Literacy</li> <li>- Research Literacy</li> </ul>	12 Hours
<b>Unit 3: Information Literacy Standards, Guidelines and Models</b>	
<ul style="list-style-type: none"> <li>- ALA, ACRL and IFLA Guidelines</li> <li>- Information Literacy Standards</li> <li>- Ellis model, Kuhlthau model, SCONUL and Empowering 8TM models</li> <li>- Partners of Information Literacy</li> </ul>	12 Hours

<b>Unit 4: Information Literacy and Libraries</b>	
<ul style="list-style-type: none"> <li>- Role of Libraries in Information literacy</li> <li>- Developing Digital literacy skills among Librarians</li> <li>- Information literacy instructions in different types of Libraries, Academic, Public and Research</li> <li>- Integration of information literacy in different levels of education</li> <li>- Bridging the Digital Divide through IL</li> </ul>	12 Hours
<b>Unit 5: Life Long Learning and Information Literacy</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition, Importance</li> <li>- Life Long Learners</li> <li>- Major Drivers of lifelong learning</li> <li>- Role of Information Literacy in higher education</li> <li>- Global Perspectives of Information Literacy</li> <li>- National Information Literacy Missions, Forums and Task forces</li> <li>- Information Literacy Initiatives and Programmes in India</li> </ul>	14 Hours
<p style="text-align: center;"><b>REFERENCES</b></p> <ol style="list-style-type: none"> <li>1. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.</li> <li>2. Gilster, P. (2007). Digital Literacy. NewYork: Wiley.</li> <li>3. Godwin, P. And Parker, J. Ed. (2008). Information Literacy Meets Library 2.0. London: Facet Publishing.</li> <li>4. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc</li> <li>5. Kuhltahu, C. C. (1987). Information Skills for an Information Society: A review of Research. Syracuse, NewYork: ERIC Clearinghouse on Information Resources.</li> <li>6. Martin, A. and Madigan, D. Ed. (2006). Digital Literacies for learning. London: Facet Publishing.</li> <li>7. UNESCO (n.d.), "Information Literacy". <a href="http://portal.unesco.org/ci/en/ev.php">http://portal.unesco.org/ci/en/ev.php</a>.</li> <li>8. American Library Association (2006). Information Literacy Competency Standards for Higher Education. Available at: <a href="http://www.acrl.org">www.acrl.org</a></li> <li>9. American Library Association Final Report of Presidential Committee on Information Literacy. (1989). Final Report. Chicago:Author. <a href="http://www.ala.org/at/nill/littsthtml">www.ala.org/at/nill/littsthtml</a></li> <li>10. Association of college and Research Libraries (2000). Information Literacy Competency standards for higher education. Available at: <a href="http://www.ala.org">www.ala.org</a></li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T401: NETWORKING AND INTERNET TECHNOLOGY (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the different computer networks like LAN, MAN and WAN.
CO 2	Learn different topologies of networks.
CO 3	Acquaint themselves with popular library networks- INFLIBNET, DELNET and DESINET.
CO 4	Understand the different Web Browsers and Search Engines.
CO 5	Provide services such as Bulletin Board Service and Document Delivery Service using Internet.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction to Networks</b>	
<ul style="list-style-type: none"> <li>- Computer Networks: Meaning, Definitions and Characteristics.</li> <li>- Network media: <ul style="list-style-type: none"> <li>- Twisted-Pair Cable, Unshielded Twisted-Pair (UTP) Cable, Shielded Twisted-Pair (STP) Cable, Coaxial Cable, Optical fibre,</li> </ul> </li> <li>- Network Components- Ethernet Cable, Network Interface Cards, Hubs, Routers, Gateway, Modem.</li> <li>- Network types: LAN, WAN, MAN, CAN, PAN, Wireless Networks: WiFi.</li> </ul>	10 Hours
<b>Unit 2: Topologies of Network</b>	
<ul style="list-style-type: none"> <li>- Concept of Topology</li> <li>- Types: Bus, Ring, Mesh, Star, Tree etc.</li> <li>- Data Networks: <ul style="list-style-type: none"> <li>- Integrated Services Digital Network (ISDN),</li> <li>- Digital Subscribers Line (DSL),</li> <li>- Asynchronous Transfer Mode (ATM), etc.</li> </ul> </li> </ul>	8 Hours
<b>Unit 3: Library and Information Centre Networks</b>	

<ul style="list-style-type: none"> <li>- Evolution, Need, Characteristics and Types of Library and Information Networks.</li> <li>- Functions of Library Networks</li> <li>- Classification of Networks. <ul style="list-style-type: none"> <li>- Resource sharing network.</li> <li>- Data sharing network.</li> <li>- Communication and data exchange networks.</li> </ul> </li> <li>- Library application Networks: INFLIBNET, DELNET, ADINET, CSIRNET, DESINET etc.</li> </ul>	10 Hours
<b>Unit 4: Library and Information Networks at the International Level</b>	
<ul style="list-style-type: none"> <li>- Online Computer Library Center (OCLC)</li> <li>- Research Libraries Group (RLG) — RLIN</li> <li>- Joint Academic Network (JANET)</li> <li>- Consortium of University Research Libraries (CURL)</li> </ul>	8 Hours
<b>Unit 5: Internet Technology</b>	
<ul style="list-style-type: none"> <li>- Meaning and Definitions</li> <li>- History and Development of Internet</li> <li>- Internet Technology: Tools and Protocols- TCP/IP and others.</li> <li>- Internet, Extranet and Intranet.</li> <li>- Web Browsers: Types, Software, Book Marking, Caching, etc.</li> <li>- Internet security: Firewall and Proxy servers</li> <li>- Web 2.0 and Web 3.0 Technologies</li> <li>- Semantic Web and Invisible Web.</li> </ul>	10 Hours
<b>Unit 6: Search Engines</b>	
<ul style="list-style-type: none"> <li>- Meaning and Definitions, Concept of Search Engines</li> <li>- Types of Search Engines: <ul style="list-style-type: none"> <li>- General Search Engines</li> <li>- Meta Search Engines</li> <li>- Intelligent Search Engines,</li> <li>- Subject Specific Search Engines.</li> </ul> </li> <li>- Comparison of Different Search Engines.</li> <li>- Search Technologies and Strategies.</li> </ul>	10 Hours

- Benefits and Limitations of Search Engines.	
<b>Unit 7: Internet Services</b>	
<ul style="list-style-type: none"> <li>- E-mail, File Transfer Protocol (FTP), Remote Login, WWW,</li> <li>- Teleconferences, Video conferencing.</li> <li>- Bulletin Board Services and e-Document Delivery Service.</li> <li>- Data Mining and Data Warehousing.</li> <li>- Trends in Networking</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Andrew, Judith. Digital Libraries: Policy Planning and Practice. Hampshire: Ashgate, 2004.</li> <li>2. Brophy, Peter. Libraries without walls: The distributed delivery of Library and Information Services. London: Facet Publishing, 2004.</li> <li>3. Chwan-Hwa (John) Wu. Introduction to Computer Networks and Cybersecurity. New Delhi, CRC Press, 2013.</li> <li>4. Janczewski, Lech. Internet and intranet security management: risks and solutions. Hershey: Idea, 2000.</li> <li>5. Kurose, James F. and Ross, Keith W. Computer Networking: A Top-Down Approach. 6<sup>th</sup> Ed. New York: Pearson, 2012.</li> <li>6. Pandian, Paul M. and Jabhekar, Ashok: Internet for Libraries and Information Centres, New Delhi: McGraw Hill, 2001.</li> <li>7. Schwartz, D. T. et. al. Internet based organizational memory and Knowledge Management. London: Ida Group publisher, 2000.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T402: DIGITAL LIBRARY AND MULTIMEDIA (THEORY)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Get Familiarize with internet and digital library.
CO 2	Understand the design and organisation of digital library for accessing information online.
CO 3	Know the scripts and standards required for web design.
CO 4	Understand the cyber laws and its implications on digital libraries.
CO 5	Identify computer hardware, software and other infrastructure required to develop digital library and Multimedia products.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Introduction to Digital Library</b>	
<ul style="list-style-type: none"> <li>- Digital Library - Nature, Meaning and Definitions, Objectives, Characteristics,</li> <li>- Digital Library Components: Identifiers – Handles – Digital Object Identifier (DOI) Persistent Uniform Resource Locator (PURL) Interoperability.</li> <li>- Digital Resources: Nature, Characteristics and types, Digital Library Services.</li> </ul>	6 Hours
<b>Unit 2: Design and Organisation of Digital Library</b>	
<ul style="list-style-type: none"> <li>- Architecture: Distributed, Federated, Service Oriented and Component based - Architectures.</li> <li>- Protocols and Standards. User Interfaces: Multilingual, Personalization and Visualization.</li> <li>- Social, Economic and Legal Issues. Challenges and Concerns for Digital Library. Skilled manpower. Advantages and dis- advantages of Digital library.</li> </ul>	8 Hours
<b>Unit 3: Digital Library Initiatives</b>	



<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Xavier, C. World Wide Web Design with HTML. New Delhi: TMH, 2000.</li> <li>2. Cooper. Michael D. Design of Library Automation System: File Structure, Data Structures and Tools. New York: John Wiley, 1996.</li> <li>3. David Baker Wendy Evans, Digital Library Economics (Chandos Information Professional Series) 9781843344032, Chandos Publishing.</li> <li>4. Diane Kresh , The Whole Digital Library Handbook :9780838909263 , ALA Editions 2015</li> <li>5. Diane Kresh, WHOLE DIGITAL LIBRARY HANDBOOK: 9788184082326, Indiana Publishing House 2015.</li> <li>6. G. G. Chowdhury. Introduction to Digital Libraries. London: Facet Publishing, 2013.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T403A: PUBLIC LIBRARY SYSTEM</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify and understand the role of public libraries in the modern society.
CO 2	Understand the organization and management of various types of resources and services.
CO 3	Identify the type of human resources required to serve in the public libraries.
CO 4	Understand the importance of Library Legislation in the promotion of public libraries in India.
CO 5	Recognise the importance of application of ICT for the modernization of public Libraries in India.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Public Libraries</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definitions, Origin, Objectives, Functions and Services.</li> <li>- UNESCO Public Library Manifesto: 1972, 1994 and 2004.</li> <li>- Growth and Development of Public Libraries in USA, UK and India.</li> <li>- Role of Public Libraries in Modern Society: Socio-Economic Development of a Nation.</li> </ul>	12 Hours
<b>Unit 2: Collection Development and Management</b>	
<ul style="list-style-type: none"> <li>- Collection Development: Policies and Procedures.</li> <li>- Selection and Acquisition of different types of documents including non-book materials.</li> <li>- Book Selection Tools and Principles of Book Selection.</li> </ul>	8 Hours
<b>Unit 3: Organisation and Management of Information Resources and Services</b>	
<ul style="list-style-type: none"> <li>- Organization of Library, Staff Manual, Statistics, Work Measurement and Standards.</li> <li>- Organisation of Information Resources.</li> <li>- Planning and Organisation of various types of Information services to the different categories of users including the Physically Challenged.</li> </ul>	10 Hours

- Extension and Publicity Activities.	
<b>Unit 4: Human Resource Planning, Management and Development</b>	
<ul style="list-style-type: none"> <li>- Nature, Size, Selection &amp; Recruitment and Qualifications.</li> <li>- Duties and Responsibilities.</li> <li>- Service conditions,</li> <li>- Training and Education.</li> <li>- Motivation and control.</li> </ul>	8 Hours
<b>Unit 5: Library Legislation</b>	
<ul style="list-style-type: none"> <li>- Library Legislation: UK, USA and India.</li> <li>- Karnataka Public Libraries Act, 1965 and its features.</li> <li>- Comparative and Critical Study of Public Library Acts in India.</li> </ul>	12 Hours
<b>Unit 6: Financial Management</b>	
<ul style="list-style-type: none"> <li>- Concept, Meaning and Definitions.</li> <li>- Financial resources of Public Libraries.</li> <li>- Mobilization and Estimation of Public Library Finance.</li> <li>- Budget: Meaning, Definitions and Functions.</li> <li>- Different types of Budget and application of PPBS in Public Libraries.</li> </ul>	6 Hours
<b>Unit 7: Library Automation and Library Users</b>	
<ul style="list-style-type: none"> <li>- Computerization of different divisions of Public Libraries.</li> <li>- Networking: National and Regional Levels of Public Libraries.</li> <li>- Resource sharing: Problems and Prospects in India.</li> <li>- Study of Users and their needs.</li> <li>- User Education/ Orientation Programme.</li> <li>- IFLA Public Library Standards.</li> </ul>	8 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Beardwell, Ian and Holden, Len. Ed. Human Resource Management: Contemporary Perspective. New Delhi: McMillan, 1996.</li> <li>2. Bilal, D. Library Automation: Core Concepts and Practical Systems Analysis. Ed. 3. Libraries Unlimited, 2014.</li> <li>3. Iyer, V. K. Library Management of Staff Training and Development. Delhi: Rajat, 1999.</li> <li>4. Kesavan, B.S. National Library of India, Calcutta. National Library, 1961.</li> </ol>	

5. Kumar, M. G., & Sethunath, V S. Public Libraries. Crescent Publishing Corporation. 2012.
6. Mittal, R.L. Public Library Law, Delhi: Metropolitan, 1971.
7. Ranganathan, S.R. Library Development Plan: A 30 year Programme for India with Draft Library Bill, Delhi: Delhi University, 1950.
8. Venkatappaiah, Velega. Public Library Legislation in the New Millennium. Bookwell, 2007
9. Goulding, Anne. Public Libraries in 21<sup>st</sup> Century: Defining Services and debating the future. Ashgare. United Kingdom. 2012.
10. <http://egyankosh.ac.in/>

<b>Paper Code and Name</b>	<b>PG44T403B: ACADEMIC LIBRARY SYSTEM</b>
<b>COURSE OUTCOMES (COs)</b>	
At the end of this Paper students will be able to:	
CO 1	Understand the importance of Academic Libraries and their role in imparting education at different levels.
CO 2	Know about the role of UGC in the development of University and College libraries in India.
CO 3	Understand the concepts of Collection Development, Resource sharing, and Human Resource Planning & Management.
CO 4	Understand the different sources of finance and budgeting techniques to be adopted in Academic Libraries
CO 5	Plan and develop new services and facilities for the Academic library Users by Conducting User Survey.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Academic Libraries</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definition, Importance, Functions.</li> <li>- Types of Academic Libraries: School, College, University Libraries</li> <li>- Role of Libraries in Higher Education.</li> </ul>	10 Hours
<b>Unit 2: Development of Higher Education and Libraries in India</b>	

<ul style="list-style-type: none"> <li>- Higher Education and Libraries in India during pre- independence and post-independence periods</li> <li>- Role of Academic Libraries in the present electronic environment.</li> <li>- Challenges of Academic Libraries in the Digital Environment</li> </ul>	10 Hours
<b>Unit 3: Regulatory Bodies and their Role in Promotion of Libraries in India</b>	
<ul style="list-style-type: none"> <li>- Establishment of UGC.</li> <li>- Role of UGC in the Development of Academic Libraries.</li> <li>- Powers and Functions of UGC.</li> <li>- Committees Constituted by UGC for the development of College and University libraries.</li> <li>- Role of other regulatory bodies in the promotion of libraries in India.</li> </ul>	10 Hours
<b>Unit 4: Collection Development and Management in Academic Libraries</b>	
<ul style="list-style-type: none"> <li>- Ideal Characteristics of Academic Library collection</li> <li>- Meaning and Definitions of collection development</li> <li>- Book selection procedure</li> <li>- Collection development policy in the digital environment</li> <li>- Problems of collection development</li> <li>- Copyright uses in the digital environment</li> <li>-</li> </ul>	10 Hours
<b>Unit 5: Academic Library Services</b>	
<ul style="list-style-type: none"> <li>- Digital Reference Services (DRS).</li> <li>- Current Awareness and SDI Service (CAS &amp; SDI)</li> <li>- E-mail Altering Services.</li> <li>- Electronic Document Delivery Services (EDDS)</li> <li>- Database Services.</li> <li>- User Education and Information Literacy.</li> </ul>	8 Hours
<b>Unit 6: Academic Library Management</b>	
<ul style="list-style-type: none"> <li>- Human Resource Development (HRD) and Financial Management in Libraries</li> <li>- HRD: Meaning, definitions and importance.</li> <li>- Manpower planning and training: Continuing Education Programmes (CEPs) for Librarians.</li> <li>- Financial Management: Types of Budgeting, Lump sum Budget, Zero Based</li> </ul>	8 Hours

Budget (ZBB) and Program Planning Budgeting System (PPBS).	
<b>Unit 7: Library Networking and Consortia</b>	
<ul style="list-style-type: none"> <li>- Library/ Information Networking: Definition, need and importance.</li> <li>- Information Network Development in India: DELNET, INFLIBNET, ERNET</li> <li>- Library Consortia: Emerging Trends, E-Shodha Sindhu, Shodha Ganga, FORSA, INDEST</li> </ul>	8 Hours
<p style="text-align: center;"><b>REFERENCES</b></p> <ol style="list-style-type: none"> <li>1. Mathews, B. (2009). Marketing Today's Academic Library: A Bold New Approach to Communicating with Students. Chicago: American Library Association.</li> <li>2. Petruzzelli, B. W. (2006). Real-Life Marketing and Promotion Strategies in College Libraries: Connecting with Campus and Community. London: Routledge.</li> <li>3. Budd, J. M. (1998). The Academic Library: Its Context, Its purpose and Its operation. Englewood, Colorado: Libraries Unlimited.</li> <li>4. Dayal, B. (2011). Managing Academic Libraries Principles and Practice. New Delhi: Isha Books.</li> <li>5. Kumar, P. S. G. (2004). Information Sources and Services: Theory and Practice. Delhi: B. R. Publishing Corporation.</li> <li>6. Mitchell, E. and Seiden, P. (2015). Reviewing the Academic Library: A Guide to Self-Study and External Review. Chicago: American Library Association.</li> <li>7. Petruzzelli, B. W. (2006). Real-Life Marketing and Promotion Strategies in College Libraries: Connecting with Campus and Community. London: Routledge.</li> <li>8. Deshpande, K. S. (1985). University Library System in India. New Delhi: Sterling Publishers Pvt. Ltd.</li> <li>9. Dhiman, A. K. (2002). Academic Libraries. New Delhi: Ess Ess Publications.</li> <li>10. Flemming, H. (1990). User Education in Academic Libraries. London.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T403C: SPECIAL LIBRARY SYSTEM</b>
<b>COURSE OUTCOMES (COs)</b>	
At the end of this Paper students will be able to:	
CO 1	Learn the basic information about the Special Libraries and types of Special Libraries.
CO 2	Plan, design and implement various information services to be implemented in Special Libraries.
CO 3	Understand the concepts of Resource sharing and Human Resource Planning & Management.
CO 4	Analyse the different Budgeting Techniques to be adopted in Special Libraries.
CO 5	Apply different use studies / techniques to solve user problems.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
<b>Unit 1: Special Libraries</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definitions, Characteristics, Aims, Objectives, Functions</li> <li>- Types of Special Libraries: Government, R &amp; D Libraries, Industrial, Hospital, Prison, Newspaper, etc.</li> <li>- History and Development of Special Libraries in USA, UK and India</li> </ul>	8 Hours
<b>Unit 2: Collection Development and Resource Management</b>	
<ul style="list-style-type: none"> <li>- Meaning and Definitions, Purposes, Functions</li> <li>- Collection Development Process: Community Analysis and User studies, Collection Development Policy, Selection, Acquisition.</li> <li>- Resources Management: Meaning, Definitions, Storage, Evaluation and Weeding</li> <li>- Impediments and Guidelines for Collection Development</li> </ul>	10 Hours
<b>Unit 3: Planning of Various Information Services</b>	
<ul style="list-style-type: none"> <li>- Reference: Active, Passive and Short-range and Long range and Referral Services</li> <li>- Abstracting and Indexing Services</li> </ul>	

<ul style="list-style-type: none"> <li>- Current Awareness Services: Current Contents, Bulletin Board and etc.</li> <li>- Selective Dissemination of Information</li> <li>- News Paper Clipping Service</li> <li>- Digest Service, Reprographic and Translation Service</li> <li>- Literature Search and Bibliographic Service and others</li> <li>- Web based Information Services: E-mail, Use of Social Networking Sites</li> </ul>	10 Hours
<b>Unit 4: Resource Sharing, Networking and Consortia</b>	
<ul style="list-style-type: none"> <li>- Meaning, Definitions, Need, Objectives, Functions and Components</li> <li>- From Library Cooperation to Consortia</li> <li>- Areas of Resource sharing</li> <li>- Networking: Meaning, Definitions, Need, INFLIBNET, DELNET etc.</li> <li>- Consortia: Meaning and Definitions, Concept, Need, Purpose</li> </ul>	10 Hours
<b>Unit 5: Human Resource Planning and Management (HRP &amp; HRM)</b>	
<ul style="list-style-type: none"> <li>- Human Resource Planning: Meaning, Definitions, Need, Purpose, Elements, Personal Policy, Training and Development, Advantages.</li> <li>- Human Resources Management: Concept, Meaning and Definitions, Need, Scope, Aims, Objectives, Functions: Job Analysis, Job Evaluation, Job Description, Selection and Recruitment, Qualifications, Duties and Responsibilities, Service Conditions, Motivation and Control</li> </ul>	10 Hours
<b>Unit 6: Financial and Space Management</b>	
<ul style="list-style-type: none"> <li>- Meaning and Definitions, Sources of Finance</li> <li>- Budgeting Techniques: Meaning and Definitions, Need, Purpose, Characteristics; Types of Budget: Line-item, Lump-sum, Programme Budget, PPBS, ZBB.</li> <li>- Methods of Financial Estimation and Allocation of Budget.</li> <li>- Planning and Principles of Library Building; Library Furniture and Equipment</li> </ul>	8 Hours
<b>Unit 7: Library Users and Use Studies</b>	
<ul style="list-style-type: none"> <li>- Types of Users: Distinction between need, want, demand and requirement.</li> </ul>	8 Hours

<ul style="list-style-type: none"> <li>- Types of Information Needs</li> <li>- Information Seeking Behaviour: Meaning and Definitions</li> <li>- User Studies: Meaning, Definitions and Importance</li> <li>- Use Studies: Concept, Need and Types</li> </ul>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Ashworth Wilfred. (1985). Handbook of Special Librarianship and Information Work. Ed. 4. London: ASLIB.</li> <li>2. Ashwrorth, Wilfred (1979). Special Librarianship. London: Clibe Bingley.</li> <li>3. Burket, J. (1968). Trends in Special Librarianship. London: Clive Bingley.</li> <li>4. Eva Semertzaki (2011). Special Libraries as Knowledge Management Centres. New Delhi: Chandos.</li> <li>5. Jackson, E.B. (1985). Special Librarianship: A New Reader. Metuchen: Screcrow press.</li> <li>6. James, M. Matarazzo and Toby, Pearlstein (2013). Special Libraries: A Survival Guide. Libraries Unlimited Inc.</li> <li>7. Singh, S.P. and Krishan, Kumar (2005). Special Libraries in the Electronic Environment. New Delhi: Bookwell.</li> <li>8. Krishan Kumar (1973). Research Libraries in the Developing Countries. New Delhi. Vikas.</li> <li>9. Panda, B.D. (1992). Towards a Special Library System. New Delhi: Anmol.</li> <li>10. Mishra, R.K. (2013). Special Library System and Information Services. Centrum Press.</li> </ol>	

<b>Paper Code and Name</b>	<b>PG44T404: DIGITAL LIBRARIES AND MULTIMEDIA (PRACTICAL)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of Non-conventional Library services and activities.
CO 2	Understand different tools for developing Digital Library.
CO 3	Learn different Digital Library software.
CO 4	Create User community using D-Space.
CO 5	Learn to design website using content management software.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 64)</b>
– Digitization process: Input / capture devices: Scanners and Digital Cameras.	4 Hours
– Scanning and Digitization process.	6 Hours
– Text and Image capturing and editing.	6 Hours
– Optical Character Recognition for Text Editing.	6 Hours
– Installation of Greenstone	4 Hours
– Installation of D-Space.	4 Hours
– Building collection: Word and PDF files, Multimedia collection.	6 Hours
– Creating Metadata for the Word and PDF and Multimedia collection.	6 Hours
– Building communities and collections in D-Space.	6 Hours
– Creating collection	
– Content Management Software: Installation Content Management Software (Joomla/ Drupal/ WordPress).	6 Hours
– Creating Website with any one Content Management Software.	10 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Carter, Roger: The Information Technology Handbook, Heinemann, London, 1987.</li> <li>2. Andrews, Judith and Law, Derek G. Digital Libraries: Policy, Planning and Practice. Ashgate Publishing, Ltd., 2004, pp 263.</li> <li>3. Arms Williams. Digital Libraries. Cambridge: MIT Press, 2000</li> <li>4. Christine I. Borgman from Gtenberg to the Global Information Infrastructure: Access to the Information in the Networked world. Cambridge: MIT Press, 2000</li> <li>5. Chowdhury G G and Chowdhury Sudatta. Introduction to Digital Libraries, London, Facet Publishing, 2003, PP359.</li> <li>6. Deegan Marilyn and Tanner Simon. Digital Futures: Strategies for the Information Age. Chennai, Allied, 2002</li> </ol>	

7. Tedd, Lucy A and Large, J. A. Digital Libraries: Principles and Practices in Global Environment. Walter de Gruyter, 2005.
8. Lesk M. Practical Digital Libraries: Books, Bytes, and Bucks. San Francisco: Morgan Coffman, 1997

<b>Paper Code and Name</b>	<b>PG44D405: DISSERTATION (100 marks)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the basics of research and its application.
CO 2	Know the different research methods of conducting research.
CO 3	Understand the different data collection tools and techniques.
CO4	Understand different sampling techniques
CO 5	Understand and analyse the different aspects of Report writing.

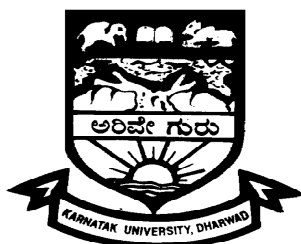
<b>Paper Code and Name</b>	<b>PG44D406A: DISSERTATION VIVA-VOCE (40 marks)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Spell out the important objectives of the research.
CO 2	Analyse and present the important outcomes of research
CO 3	Communicate the specific research results effectively.

<b>Paper Code and Name</b>	<b>PG44I406B: INTERNSHIP (50 marks)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Gain the practical knowledge of library house keeping activities.
CO 2	Understand the practical problems of library management.

CO 3	Develop leadership qualities.
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<b>Paper Code and Name</b>	<b>PG44E406C: EDUCATION TOUR REPORT (10 marks)</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Gain exposure to different kinds of libraries and their services.

**KARNATAK UNIVERSITY, DHARWAD**



**REGULATIONS GOVERNING THE LL.M. [TWO YEARS]  
PROGRAMME UNDER CHOICE BASED CREDIT SYSTEM (CBCS) IN  
THE DEPARTMENT STUDIES IN OF LAW**



**2021-2022 & ONWARDS**

**KARNATAK UNIVERSITY, DHARWAD  
POST-GRADUATE DEPARTMENT OF STUDIES IN LAW**

In exercise of the powers conferred under section 44(1) (c) of the Karnataka State Universities Act, 2000, the Academic Council of Karnatak University frames the following Regulations.

### **1.0 Title**

The Regulations shall be called Karnatak University's Regulations, 2020 governing the LL.M Programme under the Choice Based Credit System (CBCS).

### **2.0 Commencement**

These Regulations shall come into force from the academic year 2020-21

### **3.0 Definitions**

In these Regulations, unless otherwise provided;

- a. "Academic Council" means Academic Council of Karnatak University established under the Karnataka State Universities Act, 2000
- b. "Board of Studies" means P.G. Board of Studies in Law of the University;
- c. "Compulsory Courses" means fundamental paper, a student admitted to the LL.M Programme should successfully complete to receive the Post Graduate Degree in the law (LL.M).
- d. "Course Weightage" means number of credits assigned to a particular course
- e. "Credit" means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f. "Cumulative Grade Point Average (CGPA)" refers to the cumulative Grade Point Averages weighted across both the semesters.
- g. "Degree" means Post-Graduate Degree.
- h. "Grade" is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i. "Grade Point Average (GPA)" refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. "Specialization course/ Optional paper/" means advanced paper offered by the Department that a student of that Department can opt as a special paper.
- k. "Open Electives" means a course offered by the Department for students of other Departments.

- l. "Post Graduate Programs" means Master's Degree Programme in Law (LL.M)
- m. "Student" means the student admitted to Post-Graduate Programme, under (l)
- n. 'University' means Karnatak University, Dharwad

#### **4.0. Minimum Eligibility for Admission**

The Students who have successfully completed the five –year/three-year Law Degree course of this University or of any other University recognized as equivalent thereto by this University shall be eligible for admission to the Post Graduate Programme of Law (LL.M) provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility requirements as prescribed by the University from time to time.

Admissions shall be as per the Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Admission Test**

All the eligible applicants shall appear for the Admission Test to be conducted by the Department of Law. Maximum marks for admission test shall be 100 and questions shall be in the nature of multiple choice questions. Merit list of candidates shall be prepared on the basis of 50% weightage given to percentage of marks obtained in qualifying degree and the score in the Admission Test.

#### **6.0. Duration of the Programme**

The duration of the study for the LL.M. Programme shall extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semester due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the Programme.

#### **7.0. Medium of Instruction**

The medium of instruction and evaluation shall be English.

#### **8.0. Programme Structure**

8.1. Master of Laws (LL.M.) (2 years/4 semesters); Areas of Specialization

(1) Constitution Law

(2) Corporate Law

8.2. The students of Post-Graduate Programme shall study the courses as may be approved by the Board of Studies in Law, Faculty of Law and the Academic Council of the University

from time to time subject to minimum and maximum credits as outlined in these regulations.

8.3. There shall be three categories of courses viz., **Compulsory Course**, **Specialization Course** and **Open Elective Course**. Compulsory and Specialization course should be from the department only. The Open Electives are the courses offered by other Departments of the University.

8.4. Every student admitted shall study all compulsory course prescribed in the regulations from time to time.

8.5. A student admitted shall opt for at least one specialization course of **4** credits and a maximum of **8** credit courses in each semester in the area of specialization.

8.6. The students have to choose **Open Elective** courses among those prescribed by the University and selected by the Department from time to time. Such Open Elective courses shall be taught by qualified teachers approved by the University.

8.7. The Credit for each of the compulsory and specialization courses shall be **4**; Open Elective courses shall be **4**.

8.8. Students shall register for a minimum of **24** credits and a maximum of **26** credits per semester; a student to qualify for LL.M. Degree shall register and clear a minimum of **96** credits from all the four semesters.

8.9. Every student shall undertake a Project work /Field work during the Fourth Semester leading to Dissertation for which the credits shall be **12**.

8.10. The LL.M. Programme structure shall be as shown in Annexure-I

#### **Attendance**

9.0 Each paper/course shall be taken as a unit for the purpose of calculating the attendance.

9.2 Each student shall sign the attendance register maintained by the Department for each paper for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

9.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

9.4 A student shall be considered to have satisfied the required attendance for each paper/course if he/she has attended not less than 75% of the total number of instructional hours during the semester.

9.5 There is no provision for condoning shortage of attendance.

- 9.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible to appear for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 9.7 The students, who have participated in the State/National/International Level sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations, shall be considered for giving attendance for the actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

#### **10.0 Examination:**

- 10.1 There shall be an examination at the end of each semester. The odd semester examination shall be conducted by the Department of Law. The even semester examinations shall be conducted by the University.
- 10.1.2 There shall be semester-end examination of 3 hours duration for **75** marks.
- 10.1.3 Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 10.1.4 The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1<sup>st</sup> semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 10.1.5 The Answer scripts shall be in the safe custody of the University for a minimum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 10.1.6 The programme under CBCS is a fully carry-over system.
- 10.1.7 A candidate may reappear for examinations if he/she has failed in any paper or papers or if he/she intend to improve his/her results in any paper/papers at the examinations as and when they are conducted (even semester in subsequent even semester and odd semester in subsequent odd semester only).
- 10.1.8 Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

#### **10.2 Odd Semester Examination**

- 10.2.1. There shall be a Board of Examiners to set, scrutinise and approve question papers.

- 10.2.2. The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 10.2.3. The office of the Registrar (Evaluation) shall dispatch the question papers to the Department who shall conduct the Examinations according to the Schedule announced by the University.
- 10.2.4. The Chairperson of the Department shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator in the order of Seniority who shall conduct the examinations and arrange for evaluation of answer scripts.
- 10.2.5. Answer scripts shall be valued by the examiners appointed by the University.
- 10.2.6. There shall be single valuation. The examiners shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 10.2.7. The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office after the conclusion of the valuation.
- 10.2.8. The Office of the Registrar (Evaluation) shall process and announce the results.
- 10.2.9. The University shall release to the concerned PGP Coordinator the approved funds towards the Conduct of the Examination.
- 10.2.10. The Teaching and non-teaching staff shall receive the approved remuneration under the permissible examination heads.

### **10.3 Even Semester:**

- 10.3.1. There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 10.3.2. As far as practicable, it will be ensured that 50% of the paper setters and valuers are from other Universities/ Research Institutes.
- 10.3.3. Each answer script of the semester-end examination (theory and project report/dissertation) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds 20% of the total number of scripts at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on

the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

10.3.4. The dissertation shall be evaluated by both internal and external examiner.

10.3.5. The dissertation work shall carry marks as under

- (1) Dissertation - 150 Marks
- (2) Viva-voce - 50 Marks

10.3.6 The Viva-voce Examination shall be conducted by the Chairperson/Chairman of the Board of Examination, with one external examiner and the respective guides. However, the viva-voce may be conducted, even in the absence of a guide, if such guide is unable to attend despite having intimation of Viva-voce examination, due to unavoidable circumstances or in case of any exigencies.

#### **10.4.Rules For Submission Of The Dissertation**

10.4.1. The Dissertation shall be prepared under the guidance of a teacher approved by the Department Council.

10.5.2. The subject proposed for the Dissertation shall be related to the specialisation

10.5.3. The Dissertation shall be submitted to the Department, before the completion of end semester of the course, i.e., IV Semester.

10.5.4. The Dissertation shall be of minimum 100 type written pages of the usual thesis size. The dissertation shall be in Times New Roman, 12 font size with 1.5 line spacing. Two copies of dissertation shall be submitted for evaluation. A candidate who secures pass marks in the written papers but fails in the Dissertation shall be declared to have failed in the examination.

10.5.5. The candidate shall submit the Dissertation complying with the Plagiarism rules as notified by the Karnatak University.

10.5.6. The marks obtained for the Dissertation shall be added to the aggregate marks obtained for other papers under the Semester Scheme.

10.5.7. The percentage of minimum marks for a pass in the Dissertation and Viva-voce will be 50 percent of the maximum marks.

10.5.8. A candidate who fails in any one or more of the written theory papers but passes in the Dissertation need not re-submit the Dissertation.

10.5.9. A candidate who has failed to secure the minimum marks in the Dissertation may submit a new or revised dissertation before fifteen days of the commencement of LL.M IV Semester Examination of the next year or the year in which he / she proposes to sit for the

LL.M. IV Semester Examination and he / she should submit it within the maximum period prescribed for completion of the course under these regulations.

10.5.10. The Dissertation submitted by a candidate shall become the property of the University and no part there of shall be published without the prior permission of the University.

### **10.5.Evaluation**

10.5.1. Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

10.5.2. The IA component in a course shall carry 25% and the Semester End Examination shall carry 75% respectively. These courses shall have 3 marks allotted to attendance.

10.5.3. Marks for attendance shall be awarded to the students according to the following table.

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1
75	No marks

10.4.4. Division of marks of internal assessment marks shall be as follows:

- |                       |            |
|-----------------------|------------|
| (1) Mid Semester Test | - 12 Marks |
| (2) Assignment        | - 10 Marks |
| (3) Attendance        | - 03 marks |

**Total- 25 marks**

10.5.4. The IA marks list shall be notified on the Department notice board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar (Evaluation) before the semester-end examination.

10.5.5. The tests shall be written in a separately designated book/papers supplied by the University/department which shall be open for inspection by the students after evaluation.

10.5.6. There is no provision for seeking improvement of IA marks.

10.5.7. The IA records, pertaining to a Semester Examination, shall be preserved by the Department for a period of one year from the date of the Semester Examination.

These records may be called by the University or a body constituted by the University as and when deemed necessary.

**11.0. Maximum duration for completion of the Programme:**

- 11.1. A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.
- 11.2. Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

**12.0. Declaration of Results**

- 12.1. The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.
- 12.2. Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.
- 12.3. The candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.
- 12.4. For the purpose of declaring results, the aggregate of the marks secured by a candidate in all the semesters shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters or has not completed the programme in the stipulate time (vide regulation 6) or had applied for improvement of results.

**13.0. Marks, Credit Points, Grade Points, Grades and Grade Point Average.**

- 13.1. The grade points and the grade letters to candidates in each course shall be awarded as follows:
- 13.2. Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.
- 13.3. The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by

the student in all the courses by the total number of credits of those courses of the semester.

- 13.4 The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in both the semesters by the total number of credits in both the semesters.

CGPA for the I Semester =  $\frac{\text{Sum of the CP of the I Semester}}{\text{Sum of the credits of the I Semester}}$

Sum of the credits of the I Semester

CGPA for the II Semester =  $\frac{\text{Sum of the CP of the I Sem} + \text{Sum of the CP of II Sem.}}{\text{Sum of the credits of the I Semester} + \text{II Semester}}$

Sum of the credits of the I Semester + II Semester

- 13.5 The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of both the semesters based on Cumulative Grade Point Average.

- 13.6 Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

**Table I: Final Result / Grades Description**

<b>Semester/Program % Marks Result / Class Description Semester GPA / Program CGPA Alpha</b>	<b>Sign / Letter Grade</b>	<b>Semester/Program % Marks Result / Class Description Semester GPA / Program CGPA Alpha</b>	<b>Sign / Letter Grade</b>
90.0 and above	Outstanding	9.00-10.00	<b>O</b> (Outstanding)
80.0-<90.0	First Class Exemplary	8.00-<9.00	<b>A++</b> (Excellent)
70.0-<80.0	First Class Distinction	7.00-<8.00	<b>A+</b> (Very Good)
60.0-<70.0	First Class	6.00-<7.00	<b>A</b> (Good)
55.0-<60.0	High Second Class	5.50-<6.00	<b>B+</b> (Above average)

50.0-<55.0	Second Class	5.00-<5.50	<b>B</b> (Average)
Below 50	Fail / Reappear	Below 5.00	<b>F</b> (Fail/Reappear)
Absent	<b>Ab</b> (Absent)	0	<b>Ab</b> (Absent)

**Table II: Conversion of Percentage of Marks into Grade Points in a Paper**

Percentage of marks	Grade Points (GP)	Percentage of marks	Grade Points (GP)
98-100	<b>10</b>	68-72	<b>7.0</b>
93-97	<b>9.5</b>	63-67	<b>6.5</b>
88-92	<b>9.0</b>	58-62	<b>6.0</b>
83-87	<b>8.5</b>	53-57	<b>5.5</b>
78-82	<b>8.0</b>	50-52	<b>5.0</b>
73-77	<b>7.5</b>	Below 50	<b>0</b>

#### **14.0 Miscellaneous:**

- a) Notwithstanding anything contained in these regulations, the One Year LL.M semester system at the Post-Graduate level is hereby repealed.
- b) The provisions of any order, Rules or Regulations of the University in force at the commencement of these regulations shall be inapplicable to the programme to extent of its inconsistency with these Regulations.
- c) The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of Regulations.
- d) The procedural details may be given by the University from time to time
- e) Any unforeseen issues/problems/difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

## ANNEXURE-I (COURSE OUTLINES FOR LL.M)

### SEMESTER - I

In I Semester the student is to undergo instructions in two compulsory papers and also two specialization papers relating to the specialized branch.

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
<b>Compulsory Papers</b>						
PG69T101	Legal Education and Research Methodology	75	25	100	06	6 Hrs/Week
PG69T102	Comparative Public Law	75	25	100	06	6 Hrs/Week
<b>Specialization Branch</b>						
<b>Constitutional Law</b>						
PG69T103A	Fundamental Rights and Directive Principles of State Policy	75	25	100	06	6 Hrs/Week
PG69T103B	Law and Administration	75	25	100	06	6 Hrs/Week
<b>Specialization Branch</b>						
<b>Corporate Law</b>						
PG69T103C	Law Relating to Companies Organisation of Companies and Corporate Governance	75	25	100	06	6 Hrs/Week
PG69T103D	Competition Law	75	25	100	06	6 Hrs/Week
<b>Total Credits</b>		<b>300</b>	<b>100</b>	<b>400</b>	<b>24</b>	<b>24</b>

**Note:** Total Credits **24**

### II SEMESTER:

In II Semester the student is to undergo instructions in two compulsory papers, two specialization papers relating to the specialized branch and one Open elective paper (OEC) offered by other Departments of Studies at Karnatak University

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
<b>Compulsory Papers</b>						
PG69T201	Alternative Dispute Resolution System And Enforcement Of Foreign Awards	75	25	100	06	6 Hrs/Week
PG69T202	Judicial Process	75	25	100	06	6 Hrs/Week
<b>Specialization Paper Constitution Law</b>						
PG69T203A	Indian Constitutional Law	75	25	100	06	6 Hrs/Week
PG69T203B	Comparative Administrative Law	75	25	100	06	6 Hrs/Week
<b>Specialization Paper Corporate Law</b>						
PG69T203C	Law Relating to Multinational Corporations	75	25	100	06	6 Hrs/Week
PG69T203D	Labour And Management Relations Law	75	25	100	06	6 Hrs/Week
<b>Open Elective (OEC)</b>						
PG69T203E	Fundamental Rights and Directive Principles of State Policy	75	25	100	06	6 Hrs/Week
<b>Total</b>		<b>375</b>	<b>125</b>	<b>500</b>	<b>30</b>	<b>30</b>

**Note:** Total Credits **30**

### III SEMESTER:

In III Semester the student is to undergo instructions in two compulsory paper, two specialization papers relating to the specialized branch and one Open elective paper (OEC) offered by other Departments of Studies at Karnatak University

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>Max. Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Credits</b>	<b>Teaching Hrs.</b>
<b>Compulsory Papers</b>						
PG69T301	Law And Social Transformation In India	75	25	100	06	6 Hrs/Week
PG69T302	Law Relating To Protection Of Natural Resources And Pollution Control In India	75	25	100	06	6 Hrs/Week
<b>Specialization Paper Constitution Law</b>						
PG69T303A	Service Law In India	75	25	100	06	6 Hrs/Week
PG69T303B	Law Relating To Citizenship, Election And Formation Of Government	75	25	100	06	6 Hrs/Week
<b>Specialization Paper Corporate Law</b>						
PG69T303C	Intellectual Property Rights	75	25	100	06	6 Hrs/Week
PG69T303D	Development And Regulation Of International Trade Law	75	25	100	06	6 Hrs/Week
<b>Open Elective (OEC)</b>						
PG69T303E	Information Technology and Cyber Law	75	25	100	06	6 Hrs/Week
<b>Total</b>		<b>375</b>	<b>125</b>	<b>500</b>	<b>30</b>	<b>30</b>

**Note:** Total Credits **30**

#### IV SEMESTER:

In IV Semester the student is to undergo instructions in one specialization paper pertaining to the specialized branch and prepare a dissertation and submit the same to the University.

**DISSERTATION-** Equivalent to 2 courses/2 subjects

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
<b>Compulsory Papers</b>						
PG69T401	Dissertation and VIVA-VOCE	150	50	200	06	12 Hrs/Week
<b>Specialization Paper</b> <b>Constitutional Law</b>						
PG69T402A	Directive Principles Of State Of Policy And The Concepts Of Social Welfare And Social Justice	75	25	100	06	6 Hrs/Week
<b>Specialization Paper</b> <b>Corporate Law</b>						
PG69T402B	Information Technology and Cyber Law	75	25	100	06	6 Hrs/Week
<b>Total</b>		<b>300</b>	<b>100</b>	<b>400</b>	<b>18</b>	<b>18</b>

**Note:** Total Credits **18**

**Total Credits- 24+30+30+18= 102**

The Department Offers Open Elective to other students of the P.G. Departments of Karnatak University the following Papers in Semester II and Semester III

1. Fundamental Rights and Directive Principles of State Policy
2. Information Technology and Cyber Law

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF LAWS (LL.M)**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

### **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

- (1) Solving and an Understanding of Major Concepts in all subjects / areas of Law;
- (2) Provide students with broad and balanced knowledge and understanding of key concepts of Law;
- (3) To apply standard methodology to the solutions of problems in the field of Law;
- (4) Provide students with knowledge and skill towards employment or higher education in the field of Law or multi disciplinary area involving legal background;
- (5) To prepare students effectively for professional employment or research degree in the field of Law;
- (6) To build confidence in the candidate to be able to work on his own in law practice and
- (7) institution of higher education;
- (8) To develop an independent and responsible work ethics;
- (9) Provide students with the ability to plan and carry out independent practice; AND
- (10) Employ critical thinking and analyze the results of critical problems.

<b>Paper Code and Name</b>	<b>PG69T101: Legal Education and Research Methodology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the method of Research in Legal Education
CO02	To Analysis the National Education Policy
CO-03	To study the different types of curriculum
CO-04	To learn the types of Teaching Methods
CO-05	To understand the good quality research
CO-06	To know the integrated methods of legal research
CO-07	To inculcate Legal writing based on research

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>PG69T101: Legal Education and Research Methodology</b> <b>Unit I: Introduction to Legal Education</b>	
<ul style="list-style-type: none"> <li>- Legal education:</li> <li>- History of legal education;</li> <li>- National education policy;</li> <li>- Objectives of legal education;</li> <li>- Bar council of india rules of legal education;</li> <li>- Present problems of legal education and future perspectives;</li> <li>- Curriculum making and reform;</li> <li>- Designing teaching methods to suit the curricular requirements;</li> <li>- Diversity in teaching methods and their merits and demerits; and</li> <li>- Legal aid, legal literacy and law reform</li> </ul>	12 Hours
<b>Unit II:</b> <b>Idea of Legal Research, Methodology and ensuring good quality research</b>	
<ul style="list-style-type: none"> <li>- Legal research methodology,</li> <li>- Purposes and footsteps;</li> <li>- Thinking process in legal research:</li> </ul>	

<ul style="list-style-type: none"> <li>- Diverse models; objectivity, value neutrality,</li> <li>- Originality, and ethics in legal research; choosing,</li> <li>- Designing, and building the legal research theme;</li> <li>- Formulation and testing of hypothesis; rules against plagiarism;</li> <li>- Introduction to kinds of research.</li> </ul>	12 Hours
<p style="text-align: center;"><b>Unit-III</b></p> <p style="text-align: center;"><b>Doctrinal Legal Research Methods</b></p>	
<ul style="list-style-type: none"> <li>- Doctrinal legal research as a means of synthesizing facts,</li> <li>- Thoughts and legal principles;</li> <li>- Analytical legal for expanding the legal world;</li> <li>- Historical legal research:</li> <li>- Implications and applications; philosophical research in law: the possibilities; comparative method of legal research:</li> <li>- Nature, process and potentiality.</li> </ul>	12 Hours
<p style="text-align: center;"><b>Unit-IV</b></p> <p style="text-align: center;"><b>Non-doctrinal Methods of Legal Research</b></p>	
<ul style="list-style-type: none"> <li>- Empirical legal research: nature,</li> <li>- Features and expanding horizons;</li> <li>- Tools of data collection in empirical legal research:</li> <li>- Observation, interview, case study, ethnography, questionnaire, survey; qualitative legal research; sampling method: varieties and uses; quantitative legal research</li> </ul>	12 Hours
<p style="text-align: center;"><b>Unit-V</b></p> <p style="text-align: center;"><b>Integrated methods of legal research and Research Reporting</b></p>	
<ul style="list-style-type: none"> <li>- Multi-method legal research: nature, need, procedure and potentiality;</li> <li>- Policy research in law; action research in law;</li> <li>- Methodology of feminist legal research;</li> <li>- Legal writing based on research: report writing, writing articles. Case comments and notes.</li> </ul>	12 Hours

References/Recommended Books	
1. Bhat Ishwara P., Idea and Methods of Legal Research, (Oxford: Oxford University Press. 2019)	
2. Whitney F.L., The Elements of Research, (rev.edn. Prentice Hall, 1948)	
3. Goode, William J. and Hatt Paul K., Methods in Social Research, I" Ind. Re.pt. (Delhi: Surjeet Publications, 2006)	
4. Mike McConville and Wing Hong Chi, Research Methods for Law (Edinburg University Press, 2007)	
5. SK Verna and Afzal Wani, Legal Research Methodology (Indian Law Institution, Second Edition, 2007)	
6. I.L.I. <i>Legal Research and Methodology</i> (Relevant Chapters).	
7. Young P.V. <i>Scientific Social surveys and Research</i> (Relevant Chapters).	
8. Festinger L & Katz d ;(ed.) <i>Research Methods in the Behavioural Science</i> .	
9. Wilkinson and Bhandarkar, Methodology and Techniques of Social Research.	
10. Justice A.R.Lakshmanan, "Legal Education — Role of the Bar," in Lokendra Malik and Manish Arora cd., Legal Education in India: Essays in honour of Professor Ranbir Singh, (New Delhi: Universal Law Publishing Co., 2014) Pp.35-48.	
11. Justice A.S.Anand, "Legal Education in India- Past, Present and Future," in Lokendra Malik and Manish Arom ed., Legal Education in India: Essays in honour of Professor Ranbir Singh, (New Delhi: Universal Law Publishing Co., 2014) Pp.11-20.	

Paper Code and Name	PG69T102: COMPARATIVE PUBLIC LAW
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO-1	To understand Public Law and its Relevance: and Nature of public law
CO-2	To study methods of comparison. Limits of comparative Public Law
CO-3	To study the Constitutions and Constitutionalism
CO-4	To know the Governance: Legislature and the Government system

CO-5	To understand Administrative Process; Basic Principles of administrative law
CO-6	To understand the Judiciary and Judicial Review
CO-7	To know the Judicial Activism and Judicial restraint

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Public Law and its Relevance:</b>	
<ul style="list-style-type: none"> <li>- Nature of public law,</li> <li>- Distinction between public and private law,</li> <li>- Scope and content of public law – constitutional law,</li> <li>- Administrative law and criminal law.</li> <li>- Comparative public law – need of the study methods of comparison.</li> <li>- Limits of comparative public law.</li> </ul>	12 Hours
<b>Unit: II- Constitutions and Constitutionalism:</b>	
<ul style="list-style-type: none"> <li>- Need for constitution,</li> <li>- Evolution of constitution and constitutional law,</li> <li>- Parts of a perfect constitution.</li> <li>- Constitutionalism and its incorporation into a written constitution.</li> <li>- Limited government, separation of powers, federal principles,</li> <li>- Fundamental rights or liberty of the subjects, and judicial review</li> </ul>	12 Hours
<b>Unit-III: Governance</b>	
<ul style="list-style-type: none"> <li>- Legislature and the Government:</li> <li>- Organization of Legislatures – Legislative or Parliamentary sovereignty and its limits.</li> <li>- Presidential and Parliamentary Government.</li> <li>- Cabinet System and its weakness.</li> <li>- Legislative supervision over executive government.</li> </ul>	12 Hours
<b>Unit-IV- Administrative Process</b>	
<ul style="list-style-type: none"> <li>- Basic principles of administrative law – rule of law,</li> <li>- Separation of powers, and delegation of powers,</li> <li>- Principles of natural justice and judicial review of administrative action.</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>- Accountability and transparency in administration – right to information,</li> <li>- Citizens charters and ombudsman ( lakopal and lok ayuktas)</li> </ul>	
<b>Unit-V: Independent Judiciary and Judicial Review:</b>	
<ul style="list-style-type: none"> <li>- Independent judiciary and Constitutional adjudication.</li> <li>- Independence of Judiciary under Indian Constitution.</li> <li>- Judicial Review: Growth and Development, Judicial Activism and Judicial restraint.</li> <li>- Public interest Litigation. Theory of basic structure.</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. D.D.Basu, <i>Comparative Constitutional Law</i>, 2<sup>nd</sup> edn, (Wadhwa, Nagpur,2010 )</li> <li>2. David Starnes, <i>The Living Constitution</i>, ( Oxford University Press, 2010).</li> <li>3. M.V.Pyle, <i>Constitutional of the World</i>, (Universal Publishers, 2006).</li> <li>4. Sudhir Krishna Swamy, <i>Democracy and Constitutionalism in India – A study of the Basic Structure Doctrine</i> (Oxford University Press, 2013).</li> <li>5. Vikram David Amar, Mark Tushnet, <i>Global Perspectives on Constitutional Law</i> (Oxford University Press Inc United States 2009)</li> <li>6. M.P.Singh, <i>Comparative Constitutional Law</i>, (Eastern Book Company, 1989.</li> <li>7. J.P. Pennock and J.W. Chapman, <i>Constitutionalism, NOMOSXX</i>, (New York University Press,1979).</li> <li>8. M.P.Jain, <i>Constitutional Law</i>, 6<sup>th</sup> edn, ( Mumbai : Lexis Nexis, 2013)</li> <li>9. M.P.Singh, V.N Shukla's. <i>Constitution of India</i>, 12<sup>th</sup> edn, (Lucknow: Eastern Book Company, 2013)</li> <li>10. Vicki c. Jackson, <i>Comparative Constitutional Law</i>, Foundation Press, 2006</li> <li>11. David Strauss, <i>The Living Constitution</i> (Oxford University Press, 2010)</li> <li>12. Neal Devins and Louis Fisher, <i>The Democratic Constitution</i> (Oxford University Press, 2010)</li> <li>13. Zachery Elkins, Tom Ginsburg, James Melton, <i>The Endurance of National Constitutions</i> (Cambridge University Press, 2009).</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T103A)-FUNDAMENTAL RIGHTS AND DIRECTIVE PRINCIPLES OF STATE POLICY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand Evolution of fundamental rights in U.K., U.S.A. and in India.
CO-2	To study Right to Equality and protective discrimination
CO-3	To analysis Privatization and its impact on affirmative action.
CO-4	To know the New dimensions of Right to life and expansion of fundamental rights-
CO-5	To understand Religious fanaticism and secularism
CO-6	To learn Uniform Civil Code;
CO-7	To study the Directive Principles and Fundamental Duties

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Nature and functions of fundamental rights</b>	
<ul style="list-style-type: none"> <li>- Evolution of fundamental rights in U.K., U.S.A. and in India.</li> <li>- Methods of guaranteeing fundamentals rights through written and unwritten Constitutions.</li> <li>- Scope of fundamental rights – state action and judicial review</li> </ul>	12 Hours
<b>Unit II: Right to Equality and protective discrimination.</b>	
<ul style="list-style-type: none"> <li>- Privatization and its impact on affirmative action.</li> <li>- Reservations in promotions and cost benefit analysis.</li> <li>- Right to freedom under Article 19 and new challenges to freedom of press due to new scientific developments</li> </ul>	12 Hours
<b>Unit-III, Right to life and personal liberty</b>	
<ul style="list-style-type: none"> <li>- New dimensions of right to life and expansion of fundamental rights</li> <li>- Unremunerated fundamental rights.</li> <li>- Compensation jurisprudence.</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>- Right to education and its commercialization, right against exploitation,</li> <li>- Empowerment of women and rights of the child.</li> </ul>	
<b>Unit-IV, Right to Religion</b>	
<ul style="list-style-type: none"> <li>- Religious fanaticism and secularism,</li> <li>- Uniform Civil Code; Problems and perspectives.</li> <li>- Minority rights, Tribal rights,</li> <li>- Right to Judicial remedies and Limits to Judicial enforcement of fundamental rights.</li> </ul>	12 Hours
<b>Unit-V, Directive Principles and Fundamental Duties</b>	
<ul style="list-style-type: none"> <li>- Nature of Directive Principles, Relation between Directive Principles and fundamental rights,</li> <li>- Judicial enforcement of Directive Principles,</li> <li>- Right based on Directive Principles and justifiability of Directive Principles. Legislative incorporation of Directive Principles –</li> <li>- Importance of Fundamental Duties.</li> </ul>	12 Hours
<b>References</b>	
<ol style="list-style-type: none"> <li>1. B.Shiva Rao, <i>Framing of the Indian Constitution</i>, New Delhi: Universal Law Publishers, 2004.</li> <li>2. M.P.Jain, <i>Constitutional Law</i>, Nagpur: wadhwa, 2012.</li> <li>3. H.M.Seervai, <i>Constitutional Law of India</i>, New Delhi: Universal Law Publishers, 2012.</li> <li>4. M.P.Singh, V.N.Shukla's <i>Constitution of India</i>, Lucknow: Eastern Book Company, 2012.</li> <li>5. M.V.Pylee, <i>Constitution of the World</i>, New Delhi: Universal Law Publishers, 2006.</li> <li>6. Vikas David Amar, Mark Tushnet, <i>Global Perspectives on Constitutional Law</i>, Oxford University Press, 2009.</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69103B) -LAW AND ADMINISTRATION</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To study Administrative process
CO-2	To assess the Judicial Control of Administrative action
CO-3	To analysis Liability of public authorities
CO-4	To know Emerging trends – personal accountability
CO-5	To understand Right to Information
CO-6	To develop the Executive privileges
CO-7	To know the State and control on information

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Administrative process, nature and scope</b>	
<ul style="list-style-type: none"> <li>- Rule of separation of powers;</li> <li>- Control of delegated legislation,</li> <li>- Administrative discretion.</li> </ul>	12 Hours
<b>Unit: Judicial Control of Administrative action</b>	
<ul style="list-style-type: none"> <li>- Doctrine of ultravires,</li> <li>- Discretion and justifiability,</li> <li>- Procedural fairness –principles of natural justice</li> </ul>	12 Hours
<b>Unit-III: Liability of public authorities</b>	
<ul style="list-style-type: none"> <li>- Tortious liability; contractual liability;</li> <li>- Emerging trends – personal accountability,</li> <li>- compensatory jurisprudence.</li> </ul>	12 Hours
<b>Unit-IV, Right to information</b>	
<ul style="list-style-type: none"> <li>- Official secrecy,</li> <li>- Executive privilege,</li> <li>- Security of state and control on information;</li> </ul>	<b>12 Hours</b>

- Promissory estoppel.	
<b>Unit-V, Controls on maladministration</b>	
<ul style="list-style-type: none"> <li>- Ombudsman,</li> <li>- evolving Indian models Lokpal and Lokaukta;</li> <li>- Commission of Inquiry;</li> <li>- Vigilance Commission,</li> <li>- The CBI, Inquiries by Legislative Committees, Judicial inquiries.</li> </ul>	<b>12 Hours</b>
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Jain and Jain, Principles of Administrative Law</li> <li>2. S.P.Sathe, Administrative Law</li> <li>3. De Smith, Judicial Review of Administrative Action.</li> <li>4. M.P.Jain, The Evolving Indian Administrative Law</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T103C) -LAW RELATING TO ORGANISATION OF COMPANIES AND CORPORATE GOVERNANCE</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand History of Company Legislation
CO-2	To know Incorporation of Companies under the Indian Companies Act, 2013
CO-3	To study Various types of Share Holders
CO-4	To assess Kinds of Share Capital. Debentures Charges and Dividends
CO-5	To learn The Running of the Affairs of the Company
CO-6	To develop the methods Mergers and Acquisitions and its Regulation
CO-7	To understand Litigation and ADR in Corporate Disputes.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Introduction</b>	
<ul style="list-style-type: none"> <li>- History: History of Company Legislation.</li> <li>- Legal formalities for Incorporation of Companies under the Indian</li> </ul>	

<p>Companies Act, 2013.</p> <ul style="list-style-type: none"> <li>- Various kinds of Companies. Corporate personality.</li> <li>- The binding force of Articles of Association and Memorandum of Association of the Company.</li> <li>- Share Holders and Outsiders</li> </ul>	12 Hours
<b>Unit-II: Issue of Shares Types of Shares</b>	
<ul style="list-style-type: none"> <li>- Various types of Share Holders and their Privileges Forfeiture of Shares.</li> <li>- Kinds of Share Capital. Debentures Charges and Dividends.</li> <li>- Majority Powers and Minority Rights</li> </ul>	12 Hours
<b>Unit-III, The Running of the Affairs of the Company</b>	
<ul style="list-style-type: none"> <li>- The Prevailing norms.</li> <li>- The manner in which the Agents of the Company are appointed – their Duties, Powers and Accountability.</li> <li>- Prevention of Oppression and Mismanagement.</li> <li>- Winding up of the Companies under the Indian Legal Regime</li> </ul>	12 Hours
<b>Unit-IV, Share Capital</b>	
<ul style="list-style-type: none"> <li>- Reduction of Share Capital. Buyback of Shares.</li> <li>- Re-Organization through Arrangement.</li> <li>- Mergers and Acquisitions and its Regulation (Domestic and International)</li> <li>- Competition Law in Regulating Mergers and Acquisitions</li> </ul>	12 Hours
<b>Unit-V, Alternative Disputes Resolution System</b>	
<ul style="list-style-type: none"> <li>- Litigation and ADR in Corporate Disputes.</li> <li>- Company Law Board &amp; National Company Law Tribunal</li> </ul>	12 Hours
<b>Reference /Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Majumdar A.K. ‘Company Law and Practice (2010) 15<sup>th</sup> Edition, Taxmann’s Publication (P) Ltd. New Delhi</li> <li>2. Avtar Singh ‘Company Law’ (2017) 17<sup>th</sup> Edition; Eastern Book Company, Lucknow</li> <li>3. Ramaiah A ‘Guide to the Companies Act (1992) 12<sup>th</sup> Edition</li> <li>4. Bhandari M.C. ‘Guide to the Company Law (1994) 12<sup>th</sup> Edition</li> <li>5. Gower L.G.B. “Principles of Modern Company Law”, (London), Sweet and Maxwell, 2002</li> <li>6. Palmer “Company Law” (London), Stevens.</li> <li>7. Shah S.M. “Lectures on Company Law”, 19th Edition (Bombay) N.M. Tripathi, 1990.</li> </ol>	

8. Larry Cata Backer, “Comparative Corporate Law in United States, European Union, China and Japan – Cases and Materials” (North Carolina) Carolina Academic Press(2006)
9. Ramaiya A., Guide to Companies Act, 17th edition, Lexis Nexis Butterworths Wadhwa, Nagpur (2010).
10. Agarwal & Baby, SEBI Act: A Legal Commentary on Securities & Exchange Board of India, Taxmann (2011).
11. Bhandari, M.C., Guide to Company Law Procedures, 20th Edition, Wadhwa (2007)
12. Dutta C. R., The Company Law, Lexis Nexis Butterworth’s, 6th Edition, (2008)

<b>Paper Code and Name</b>	<b>(PG69T103D)-COMPETITION LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the History and Development of Competition Law
CO-2	To learn Constitutional vision of Social Justice/ Socialism
CO-3	To study Anti- Competitive Agreements under the Competition Act, 2002
CO-4	To know the Cartel- Predatory pricing
CO-5	To assess Combinations and mergers
CO-6	To study Enforcement Mechanisms under the Competition Act. 2002
CO-7	To develop the Competition Advocacy in India

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- History and Development of Competition Law</b>	
<ul style="list-style-type: none"> <li>- History and Development of Competition Law,</li> <li>- Constitutional vision of Social Justice/ Socialism – Liberalization and Globalization;</li> <li>- Raghavan Committee Report, Competition Act 2002; an Overview of Competition Law in India,</li> <li>- Important Definitions under the Competition Act, 2002.</li> </ul>	12 Hours

<b>Unit II- Anti Competitive Agreements</b>	
<ul style="list-style-type: none"> <li>- Anti- Competitive Agreements under the Competition Act, 2002.</li> <li>- Appreciable Adverse Effect on competition in the Market. Determination of Relevant Market – Rule of Reason and Perse.</li> <li>- Illegal rule – Horizontal and Vertical restraints, Exemption, Penalties, Prohibition of Anti- Competitive Agreements.</li> <li>- Cartel- Predatory Pricing, bid rigging.</li> </ul>	12 Hours
<b>Unit III- Regulation of Abuse of Dominant Position and Regulation of Combinations</b>	
<ul style="list-style-type: none"> <li>- Introduction – Dominance in the Market</li> <li>- Relevant Market – Abusive Conducts under the Competition Act. 2002</li> <li>- Penalties – Prevention of Abuse of Dominance.</li> <li>- Combinations: Merger, Acquisition, Amalgamation and Takeover-</li> <li>- Horizontal, Vertical and Conglomerate Mergers- Combinations covered under the Competition Act. 2002 – Regulations, Penalties.</li> </ul>	12 Hours
<b>Unit-IV, Enforcement Mechanisms</b>	
<ul style="list-style-type: none"> <li>- Enforcement Mechanisms under the Competition Act. 2002</li> <li>- Competition Commission of India – Constitution of the CCI – Powers and Functions Jurisdiction of the CCI adjudication and appeals</li> <li>- Director General of Investigation (DGI)</li> <li>- Competition Appellate Tribunal (CAT)</li> <li>- Enforcement Mechanisms.</li> </ul>	12 Hours
<b>Unit V- Competition Advocacy and Emerging Trends in Competition</b>	
<ul style="list-style-type: none"> <li>- Competition Advocacy in India and other foreign jurisdictions,</li> <li>- Intellectual Property Rights and Competition Law,</li> <li>- International Trade Law and Competition Law</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Mittal D.P., Taxmann's Competition Law (2007) Universal Guide to Competition Law in India-2003, Universal Law Publishing Company, New Delhi.</li> <li>2. Ramappa. T., Competition Law in India- Policy, Issues and Development 3<sup>rd</sup> ed.- 2013, Oxford University Press, New Delhi</li> <li>3. Ad iP.Talati and Nahar S. Mhala, Competition Act, 2002- Law, Practice And Procedure, Commercial Law Publishers (India) Pvt.Ltd. (2006)</li> </ol>	

4. Dr. V.K. Agarwal Competition Act, 2002 – Principles and Practices
5. Barry J Rodger and Angus MacCulloch, Competition Law And Policy In The EU And UK , 293-295, Cavendish Publishing Limited, 3rd ed. (2004)
6. Cedric Ryngert, Ec Competition Law Giorgio Monti, Cambridge University Press(2007)
7. M. Dugar, Commentary on MRTP Law, *Competition Law & consumer Protection Law*, 4<sup>th</sup> ed. – 2006, Wadhwa Nagpur
8. Richard Whish, *Competition Law*, Oxford University press, 2008

<b>Paper Code and Name</b>	<b>(PG69201) -ALTERNATIVE DISPUTE RESOLUTION SYSTEM AND ENFORCEMENT OF FOREIGN AWARDS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the Concept of Alternative Dispute Resolution
CO-2	To learn International Conventions – Multilateral Conventions – Bilateral Conventions
CO-3	To study the International Arbitration Proceedings
CO-4	To know the kinds of Alternative Dispute Resolution Systems in India
CO-5	To develop Characteristic Features of Arbitration
CO-6	To recognize the Online Dispute Resolution System
CO-7	To understand Mode of Communication and Evidence

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- The Concept of Alternative Dispute Resolution</b>	
<ul style="list-style-type: none"> <li>- The Advantages. The Changing perceptions of Political Economy of the State.</li> <li>- Various types of Alternative Dispute Resolution Systems.</li> </ul>	12 Hours
<b>Unit-II, International Conventions</b>	
<ul style="list-style-type: none"> <li>- Multilateral Conventions –</li> <li>- Bilateral Conventions.</li> <li>- Law Applicable to International Arbitration Proceedings –</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>- Applicability of Indian Law to the Arbitration Agreement.</li> <li>- Position in India and in other leading Countries.</li> </ul>	
<b>Unit-III, Kinds of Alternative Dispute Resolution Systems in India</b>	
<ul style="list-style-type: none"> <li>- The Normative Standards. Alternatives to the Litigation –</li> <li>- Conciliation,</li> <li>- Mediation,</li> <li>- Negotiation,</li> <li>- Arbitration and other Alternative Dispute Resolution Systems.</li> <li>- Consumer Forums under the Consumer Protection Act.</li> <li>- Constitution, Jurisdiction, Power and Procedure Remedy Provided</li> </ul>	12 Hours
<b>Unit-IV, History and Development of Law of Arbitration in India</b>	
<ul style="list-style-type: none"> <li>- Characteristic Features of Arbitration –</li> <li>- Scope and Ambit of ‘Agreement’ or ‘Contract’ within the frame work of Arbitration.</li> <li>- Different kinds of Arbitration –</li> <li>- The Mechanism provided under the Arbitration and Conciliation Act, 1996.</li> </ul>	12 Hours
<b>Unit-V, Online Dispute Resolution System</b>	
<ul style="list-style-type: none"> <li>- Development of Online Dispute Resolution System.</li> <li>- Online Technology in Court Proceedings</li> <li>- Coverage of Disputes in Online Dispute Resolution System</li> <li>- Extent of Technology Applied</li> <li>- Mode of Communication and Evidence.’</li> </ul>	12 Hours
<b>Reference/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. R.D. Rajan, “A Primer on Alternative Dispute Resolution” (Tirunelveli), Barathi Law Publications (2005)</li> <li>2. P.C. Rao and William Sheffield, “Alternative Dispute Resolution”, (New Delhi) Universal Law Publishing Co (P) Ltd. (2001)</li> <li>3. Kwatra G.K. “The New Arbitration &amp; Conciliation Law in India”, (New Delhi), The Indian Council of Arbitration (1998).</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T202) -JUDICIAL PROCESS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To study Doctrine of Precedent in England
CO-2	To learn Methods of determining <i>ratio decidendi</i> - <i>stare decisis</i> and its exceptions
CO-3	To recognize Doctrine of Precedent in India, Precedents and problems
CO-4	To study Precedential value of advisory opinion.
CO-5	To learn the Judicial Reasoning
CO-6	To develop New rhetoric- Role of judicial concepts and judicial discretion
CO-7	To know the Nature of legislative process under Indian Constitution

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- Doctrine of Precedent in England</b>	
<ul style="list-style-type: none"> <li>- Doctrine of precedent in england</li> <li>- <i>Ratio decidendi and obiter dictum</i></li> <li>- Methods of determining <i>ratio decidendi</i></li> <li>- <i>Stare decisis</i> and its exceptions.</li> </ul>	12 Hours
<b>Unit-II, Doctrine of Precedent in India</b>	
<ul style="list-style-type: none"> <li>- Precedents and problems –</li> <li>- Certainty, retro-activity and prospective overruling</li> <li>- Judicial restraint and judicial activism</li> <li>- Plurality of opinions, anonymous opinion,</li> <li>- Precedential value of advisory opinion</li> </ul>	12 Hours
<b>Unit-III, Judicial Reasoning</b>	
<ul style="list-style-type: none"> <li>- Logic and growth in law- categories of illusory references.</li> <li>- Legal reasoning- new rhetoric- role of judicial concepts and</li> <li>- Judicial discretion</li> </ul>	12 Hours

<b>Unit-IV, Legislative Process</b>	
<ul style="list-style-type: none"> <li>- Constitutional background Nature of legislative process under Indian Constitution as distinguished from the U.K. U.S.A.</li> <li>- Forms of legislations.</li> <li>- Parliamentary practice relating to legislation.</li> <li>- Legislative Committees</li> </ul>	12 Hours
<b>Unit-V, Interpretation of Statutes</b>	
<ul style="list-style-type: none"> <li>- General principles:</li> <li>- Literal construction,</li> <li>- Mischief rule,</li> <li>- External and internal aid to construction,</li> <li>- Reading down and reading up.</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Rajeev Dhavan, <i>Supreme Court of India</i>- Chapter 2 &amp; 8</li> <li>2. Cross and Harris, <i>Precedent in English Law</i>, 4<sup>th</sup> edn., (London: clarendon Press).</li> <li>3. Laxminath, <i>Precedent in Indian Law</i>, (Lucknow: Eastern Book Co.)</li> <li>4. Julius stone, <i>Legal System and Lawyer Reasoning</i>.</li> <li>5. R.Dickerson, <i>Interpretation and application of statutes</i>.</li> <li>6. A.R.Mukerjee, <i>Parliamentary Procedure in India</i> (Chapter on “legislation” and “Committees”)</li> <li>7. M.Zander, <i>Law Making Process</i>.</li> <li>8. H.M.Seervai, <i>Constitutional Law of India</i>- IV Edition (Chapter on Uman Judiciary.</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T203A)-INDIAN CONSTITUTIONAL LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to	
CO-1	To understand Indian federalism
CO-2	To know the Distribution of Legislative Powers
CO-3	To learn Recommendation of Sarkaria Commission & Venkatachaliah Commission.

CO-4	To know the The Judiciary: The Supreme Court of India
CO-5	To study Right to Equality: Scope of the right to Equality
CO-6	To learn Freedom of Speech and Expression
CO-7	To develop the Freedom of Press and challenges of new scientific development

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- Indian Federalism</b>	
<ul style="list-style-type: none"> <li>- Conceptual position of Federalism.</li> <li>- Nature of the Indian Constitution.</li> <li>- Cooperative Federalism,</li> <li>- Relationship of trust and faith between centre and states.</li> <li>- Challenges before the Indian Federalism.</li> </ul>	12 Hours
<b>Unit-II, Distribution of Legislative Powers</b>	
<ul style="list-style-type: none"> <li>- The Scheme of the distribution of legislative powers in India,</li> <li>- The judicial approach and the present position.</li> <li>- Recommendation of Sarkaria Commission &amp; Venkatachaliah Commission.</li> </ul>	12 Hours
<b>Unit-III, The Judiciary:</b>	
<ul style="list-style-type: none"> <li>- The Supreme Court of India.</li> <li>- Jurisdiction and Powers.</li> <li>- Its role as guardian of the Constitution. Right to Equality:</li> <li>- Scope of the right to Equality.</li> <li>- New approach of Article 14. Equality of opportunity in matters of public employment and in admission to educational institutions.</li> </ul>	12 Hours
<b>Unit-IV, Freedom of Speech and Expression</b>	
<ul style="list-style-type: none"> <li>- The area of freedom and its limitation.</li> <li>- Freedom of Press and challenges of new scientific development.</li> <li>Working of the Constitution:</li> <li>- Achievements and failures.</li> <li>- Areas of concern and challenges before the Constitution</li> </ul>	12 Hours

<b>Unit-V, Emerging regime of new Fundamental Rights</b>	
<ul style="list-style-type: none"> <li>- The changing dimension of Right to Life and Personal Liberty.</li> <li>- Reading Directive Principles and Fundamental Duties into Fundamental Rights.</li> <li>- Right to Freedom of Religion:</li> <li>- The scope of the freedom and the State Control.</li> <li>- Secularism and religious fanaticism.</li> </ul>	12 Hours
<b>References /Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. B.Shiva Rao, <i>Framing of the Indian Constitution</i>, New Delhi: Universal Law Publishers, 2004.</li> <li>2. M.P.Jain, <i>Constitutional Law</i>, Nagpur: Wadhwa, 2012.</li> <li>3. H.M.Seervai, <i>Constitutional Law of India</i>, New Delhi: Universal Law Publishers, 2012.</li> <li>4. M.P.Singh, V.N.Shukla's <i>Constitution of India</i>, Lucknow: Eastern Book Company, 2012.</li> <li>5. M.V.Pylee, <i>Constitution of the World</i>, New Delhi: Universal Law Publishers, 2006.</li> <li>6. Vikas David Amar, Mark Tushnet, <i>Global Perspectives on Constitutional Law</i>, Oxford University Press, 2009.</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T203B) COMPARATIVE ADMINISTRATIVE LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To Study the Merits of French Administrative Law
CO-2	To know The Government liability for torts committed by its employees in Great Britain
CO-3	To learn State privilege to refuse Production of documents in Courts in Great Britain and India
CO-4	To understand Judicial Review in United States
CO-5	To develop Doctrine of Exhaustion of Administrative Remedies;
CO-6	To study The Official Secrets Act, 1923
CO-7	To learn Doctrine of Legitimate Expectation in India and Great Britain

<b>PARTICULARS</b>		<b>Teaching Hours (Max. 60)</b>
<b>Unit I- Merits of French Administrative Law</b>		
<ul style="list-style-type: none"> <li>- Remedies available under French Administrative Law;</li> <li>- Availability of Judicial Review in the United States,</li> <li>- Doctrine of Primary Jurisdiction;</li> <li>- Doctrine of Exhaustion of Administrative Remedies;</li> <li>- Doctrine of Standing; Doctrine of Ripeness;</li> </ul>		12 Hours
<b>Unit-II, The Government liability</b>		
<ul style="list-style-type: none"> <li>- The Government liability for torts committed by its employees in Great Britain, France and India;</li> <li>- Promissory Estoppels in Great Britain and India.</li> <li>- Right to Information Act, 2005.</li> <li>- State privilege to refuse Production of documents in Courts in Great Britain and India;</li> </ul>		12 Hours
<b>Unit-III, Judicial Review</b>		
<ul style="list-style-type: none"> <li>- Judicial Review in United States;</li> <li>- Doctrine of Primary Jurisdiction;</li> <li>- Doctrine of Exhaustion of Administrative Remedies;</li> <li>- Doctrine of Standing;</li> <li>- Doctrine of Ripeness</li> </ul>		12 Hours
<b>Unit-III, The Official Secrets Act,</b>		
<ul style="list-style-type: none"> <li>- The Official Secrets Act, 1923 (India, The Freedom of Information Act, 2002,</li> <li>- Doctrine of Legitimate Expectation in India and Great Britain.</li> </ul>		12 Hours
<b>Unit-V, Doctrine of Legitimate</b>		
<ul style="list-style-type: none"> <li>- Doctrine of Legitimate Expectation in India and Great Britain</li> </ul>		12 Hours
<b>References/ Recommended Books</b>		
<ol style="list-style-type: none"> <li>1. Jain and Jain, Principles of Administrative Law</li> <li>2. S.P.Sathe, Administrative Law</li> <li>3. De Smith, Judicial Review of Administrative Action.</li> <li>4. M.P.Jain, The Evolving Indian Administrative Law</li> <li>5. English Authored Referred Text Books</li> </ol>		

<b>Paper Code and Name</b>	<b>(PG69T203C) LAW RELATING TO MULTI-NATIONAL CORPORATIONS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To study the Problems of Definition and various Legal Forms a MNC,
CO-2	To assess the Taxation Problems Associated with MNEs
CO-3	To know The Indian Tax Law and the Incomes of Non-Resident Indians
CO-4	To learn Domestic Laws on Foreign Shareholdings in National Companies
CO-5	To create Corporate Governance and MNCs
CO-6	To understand The Environmental Issues and MNE
CO-7	To investigate International Standards and the Foreign Investors

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- Definitions of MNC's</b>	
<ul style="list-style-type: none"> <li>- The Problems of Definition and various Legal Forms a MNC,</li> <li>- The Regulation of MNEs through Company Law</li> </ul>	12 Hours
<b>Unit II, Taxation Problems</b>	
<ul style="list-style-type: none"> <li>- Taxation Problems Associated with MNEs,</li> <li>- International double Taxation,</li> <li>- The Transfer Pricing Problem,</li> <li>- The Indian Tax Law and the Incomes of Non-Resident Indians.</li> </ul>	12 Hours
<b>Unit-III, Domestic Laws on Foreign Shareholdings</b>	
<ul style="list-style-type: none"> <li>- Domestic Laws on Foreign Shareholdings in National Companies:</li> <li>- The Relevant Provisions of the FEMA,</li> <li>- Corporate Governance and MNCs</li> </ul>	12 Hours
<b>Unit-IV, The Environmental Issues and MNEs</b>	
<ul style="list-style-type: none"> <li>- The Environmental Issues and MNEs,</li> </ul>	

<ul style="list-style-type: none"> <li>- Exporting Environmental Hazards through MNEs,</li> <li>- Industrial Accidents and</li> <li>- the Problem of Corporate Veil</li> </ul>	12 Hours
<b>Unit-V, International Standards and the Foreign Investors</b>	
<ul style="list-style-type: none"> <li>- The Draft UN Code of Conduct on Transnational Corporation and</li> <li>- The OECD Guidelines</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Peter T Muchlinski <i>Multinational Enterprise and the Law</i> –Oxford University Press(2007)</li> <li>2. Olufemi Amao <i>Corporate Social Responsibility and Human Rights and Law-</i> Routledge publisher(2011)</li> <li>3. Taxman's <i>Foreign Exchange Management</i> (July)2019)</li> <li>4. SK Sarvaria <i>Commentary on the Foreign Exchange Management Act</i> Universal Law Publisher (2018)</li> <li>5. Jessie Russell, Ronald Cohin <i>Organisation for Economic Co-Operation and Development</i> Bookvika publishing</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T203D) LABOUR AND MANAGEMENT RELATIONS LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To learn the Formation of a Trade Union
CO-2	To understand The Norms relating to the Registration of a Trade Union
CO-3	To investigate The Collective Bargaining Process Dynamics
CO-4	To learn The legal norms relating to Strikes and Lock-outs,
CO-5	To know Resolution of Industrial Conflicts
CO-6	To study The Immunities of a Registered Trade Union
CO-7	To understand The Feature of Trade Union Movement

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I- Formation of a Trade Union</b>	
<ul style="list-style-type: none"> <li>- The Norms relating to the Registration of a Trade Union – Objects of a Trade Union Executive Committee Composition – The Conflicts.</li> <li>- The Trade Union Federations –</li> <li>- The Role assumed by the Non-Governmental Organizations</li> </ul>	12 Hours
<b>Unit-II, The Collective Bargaining Process Dynamics</b>	
<ul style="list-style-type: none"> <li>- The Collective Bargaining Process Dynamics –</li> <li>- Types of Settlements –</li> <li>- Norms relating to the enforceability of Settlements.</li> <li>- The basis for Industrial Conflicts –</li> <li>- The legal norms relating to Strikes and Lock-outs,</li> <li>- its impact on Contract of Employment.</li> </ul>	12 Hours
<b>Unit-III, Resolution of Industrial Conflicts</b>	
<ul style="list-style-type: none"> <li>- Resolution of Industrial Conflicts –</li> <li>- The Role of the State –</li> <li>- The Machinery for Resolution of Industrial Conflicts.</li> <li>- Pendency of Proceedings and its implications on Contract of Employment.</li> <li>- The Scope of Award and its Enforceability.</li> </ul>	12 Hours
<b>Unit-IV, The Immunities of a Registered Trade Union</b>	
<ul style="list-style-type: none"> <li>- The Immunities of a Registered Trade Union</li> <li>- The position under Criminal and Civil Law in respect of Conspiracy.</li> <li>- The Position under Common Law.</li> <li>- The Judicial Reflections there under.</li> </ul>	12 Hours
<b>Unit-V, The Feature of Trade Union Movement</b>	
<ul style="list-style-type: none"> <li>- The Feature of Trade Union Movement –</li> <li>- The Changing Perspectives. A Comparative Analysis.</li> </ul>	12 Hours

References/ Recommended Books
1. J.N. Mallik, <i>Trade Union Law</i> (Calcutta: S.C. Sarkar & Sons Private Ltd. 1970)
2. S.N. Dhyani, <i>Trade Unions and The Right to Strike</i> (Bombay: S. Chand & Co (P) Ltd. 1996)
3. Dr. Sharath Babu & Rashmi Shetty, <i>Social Justice and Labour Jurisprudence – Justice V.R. Krishna Iyer’s Contributions</i> : (New Delhi: Sage India Publications, 2007)
4. Lord Wederburn, <i>The Worker and the Law</i> : (London: Butterworths & Co, 1986)
5. Richard Kidner, <i>Trade Union Law</i> , (London: Stevens & Sons, 1979)
6. <i>Report of the National Commission on Labour</i> , (New Delhi: Ministry of Labour, Govt. of India, 1969)
7. <i>Report of the National Commission on Labour</i> , (New Delhi: Ministry of Labour, Govt. of India, 2002)
8. Srivastava S.C., <i>Industrial Relations and Labour Law</i> (1984)
9. Malhotra O.P., <i>The Law of industrial Disputes</i> , (New Delhi: Universal Law Publishing Co. (P) Ltd. 2004)

Paper Code and Name	(PG69T203E)-FUNDAMENTAL RIGHTS AND DIRECTIVE PRINCIPLES OF STATE POLICY Open Elective Course – (Other Department Students)
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO-1	To understand Evolution of fundamental rights in U.K., U.S.A. and in India.
CO-2	To study Right to Equality and protective discrimination
CO-3	To analysis Privatization and its impact on affirmative action.
CO-4	To know the New dimensions of Right to life and expansion of fundamental rights-
CO-5	To understand Religious fanaticism and secularism
CO-6	To learn Uniform Civil Code;
CO-7	To study the Directive Principles and Fundamental Duties

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Nature and functions of fundamental rights</b>	
<ul style="list-style-type: none"> <li>- Evolution of fundamental rights in U.K., U.S.A. and in India.</li> <li>- Methods of guaranteeing fundamentals rights through written and unwritten Constitutions.</li> <li>- Scope of fundamental rights – state action and judicial review</li> </ul>	12 Hours
<b>Unit II: Right to Equality and protective discrimination.</b>	
<ul style="list-style-type: none"> <li>- Privatization and its impact on affirmative action.</li> <li>- Reservations in promotions and cost benefit analysis.</li> <li>- Right to freedom under Article 19 and new challenges to freedom of press due to new scientific developments</li> </ul>	12 Hours
<b>Unit-III, Right to life and personal liberty</b>	
<ul style="list-style-type: none"> <li>- New dimensions of right to life and expansion of fundamental rights</li> <li>- Unremunerated fundamental rights.</li> <li>- Compensation jurisprudence.</li> <li>- Right to education and its commercialization, right against exploitation,</li> <li>- Empowerment of women and rights of the child.</li> </ul>	12 Hours
<b>Unit-IV, Right to Religion</b>	
<ul style="list-style-type: none"> <li>- Religious fanaticism and secularism,</li> <li>- Uniform Civil Code; Problems and perspectives.</li> <li>- Minority rights, Tribal rights,</li> <li>- Right to Judicial remedies and Limits to Judicial enforcement of fundamental rights.</li> </ul>	12 Hours
<b>Unit-V, Directive Principles and Fundamental Duties</b>	
<ul style="list-style-type: none"> <li>- Nature of Directive Principles, Relation between Directive Principles and fundamental rights,</li> <li>- Judicial enforcement of Directive Principles,</li> <li>- Right based on Directive Principles and justifiability of Directive Principles. Legislative incorporation of Directive Principles –</li> <li>- Importance of Fundamental Duties</li> </ul>	12 Hours

References	
(1) B.Shiva Rao, <i>Framing of the Indian Constitution</i> , New Delhi: Universal Law Publishers, 2004.	
(2) M.P.Jain, <i>Constitutional Law</i> , Nagpur: wadhwa, 2012.	
(3) H.M.Seervai, <i>Constitutional Law of India</i> , New Delhi: Universal Law Publishers, 2012.	
(4) M.P.Singh, V.N.Shukla's <i>Constitution of India</i> , Lucknow: Eastern Book Company, 2012.	
(5) M.V.Pylee, <i>Constitution of the World</i> , New Delhi: Universal Law Publishers, 2006.	
(6) Vikas David Amar, Mark Tushnet, <i>Global Perspectives on Constitutional Law</i> , Oxford University Press, 2009.	

Paper Code and Name	(PG69T301) LAW AND SOCIAL TRANSFORMATION IN INDIA
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO-1	To understand the concept of Law as an instrument of social change
CO-2	To introduction of common law system and institutions in India
CO-3	To learn Religion as a divisive factor or, secularism
CO-4	To know linguistic minorities
CO-5	To investigate the Women and Law
CO-6	To get the safeguards the Empowerment and protection of women
CO-7	To study the Reform of family law

PARTICULARS	Teaching Hours (Max. 60)
<b>Unit I : Law as an instrument of social change</b>	
<ul style="list-style-type: none"> <li>- Law as an instrument of social change,</li> <li>- Law as the product of traditions and culture,</li> <li>- Criticism and evaluation in the light of colonisation</li> <li>- The introduction of common law system and institutions in India</li> <li>- Its impact on further development of law and</li> <li>- Legal institutions in India.</li> </ul>	12 Hours

<b>Unit-II, Religion as a divisive factor</b>	
<ul style="list-style-type: none"> <li>- Religion as a divisive factor,</li> <li>- Secularism as a solution to the problem,</li> <li>- Reform of the law on secular lines,</li> <li>- Freedom of religion and non-discrimination on the basis of religion religious minorities and the law;</li> <li>- Constitutional guarantee to linguistic minorities,</li> <li>- Caste as a divisive factor,</li> <li>- Non-discrimination on the ground of caste,</li> <li>- Protective discrimination;</li> <li>- Right of movement, residence and business,</li> <li>- Equality in matters of employment,</li> <li>- Admission to educational institutions.</li> </ul>	12 Hours
<b>Unit-III, Women and Law</b>	
<ul style="list-style-type: none"> <li>- Women and law - crimes against women,</li> <li>- gender injustice, and its various forms,</li> <li>- women's commission,</li> <li>- Empowerment and protection of women children and law-protection of child rights,</li> <li>- child labour, sexual abuse of children and women</li> </ul>	12 Hours
<b>Unit-IV, Reform of Family Law</b>	
<ul style="list-style-type: none"> <li>- Reform of family law,</li> <li>- Agrarian reform, industrial reform,</li> <li>- Reform of Court processes; criminal law- plea bargaining, Compounding and payment of compensation to victims;</li> <li>- Prison reforms.</li> </ul>	12 Hours
<b>Unit-V, The Jurisprudence</b>	
<ul style="list-style-type: none"> <li>- The Jurisprudence of Sarvodaya – Gandhiji, Vinoba Bhave, Jayaprakasha Narayan;</li> <li>- Concept of Gram Nayalayayas Socialist thought on law and justice;</li> <li>- An enquiry through constitutional debates on the right to property,</li> <li>- Indian Marxist critique of law and justice;</li> <li>- Naxalite movement- causes and cure.</li> </ul>	12 Hours

<b>Referenced/ Recommended Books</b>	
1.	Marc Galanter (ed.) Law and Society in Modern India (1997) Oxford.
2.	Robert Lingat, The Classical Law of India (1998) Oxford.
3.	U.Baxi, The Crisis of the Indian System (1982) Vikas, New Delhi.
4.	U. Baxi (ed.) Law and Poverty Critical Essay (1988) Tripathi, Bombay.
5.	H.M.Seervai, Constituoinal Law of India (1996), Tripathi.
6.	M.P.Jain, Outlines of Indian Legal History, (1993), Tripathi, Bombay.

<b>Paper Code and Name</b>	<b>(PG69T303B)-LAW RELATING TO PROTECTION OF NATURAL RESOURCES AND POLLUTION CONTROL IN INDIA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To Study the Protection of Wild Life
CO-2	To know the Forest Conservation Act.1980
CO-3	To investigate the causes for environmental pollution
CO-4	To learn the safeguards the Constitutional Mandate and Environment
CO-5	To understand PIL as a tool to provide environmental justice
CO-6	To know the Efficacy of Remedies
CO-7	To understand Eco-Tourism, Environment Impact Assessment

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Protection of Wild Life</b>	
<ul style="list-style-type: none"> <li>- Protection of Wild Life- with special reference to authorities,</li> <li>- sanction and remedies under Wild Life (Protection) Act, 1972,</li> <li>- Protection and conservation of Forest-with special reference to Authorities, and</li> <li>- Forest Conservation Act.1980.</li> </ul>	12 Hours
<b>Unit-II, Conservation of Fresh water and Ground water</b>	
<ul style="list-style-type: none"> <li>- Conservation of Fresh water and Ground water.</li> <li>- Coastal Zone Management, Protection and Conservation of</li> </ul>	

<p>Biodiversity with special reference to Biodiversity Act 2002.</p> <ul style="list-style-type: none"> <li>- The role of PIL to protect the natural resources.</li> </ul>	12 Hours
<b>Unit III, Constitutional Mandate and Environment</b>	
<ul style="list-style-type: none"> <li>- Constitutional Mandate and Environment with special reference to Article 32 and 226 (emphasis shall be given on use of PIL as a tool to provide environmental justice),</li> <li>- Comparative Study of Water Act, 1974,</li> <li>- The Air Act, 1981 and</li> <li>- The Environment (Protection) Act, 1986 with special reference to authorities, and mechanism.</li> </ul>	12 ours
<b>Unit-IV, Efficacy of Remedies</b>	
<ul style="list-style-type: none"> <li>- Efficacy of Remedies- Section 133 Criminal Procedure Code,</li> <li>- Public Liability Insurance Act, 1991,</li> <li>- National Environmental Tribunal Act, 1995,</li> <li>- National Environment Appellate Authority Act, 1997,</li> <li>- National Green Tribunal.</li> </ul>	12 Hours
<b>Unit-V, Eco-Tourism,</b>	
<ul style="list-style-type: none"> <li>- Eco-Tourism,</li> <li>- Environment Impact Assessment and Public Participation,</li> <li>- Public Hearing under the Environment Protection Act, 1986,</li> <li>- Environmental Audit.</li> </ul>	12 Hours
<b>References / Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Armin Rosencranz, <i>et.al</i>, (ed.), <i>Environmental Law and Policy in India</i>, Bombay: N.M.Tripahi, 1991.</li> <li>2. P.Leelakrishnan, <i>Environmental Law in India</i>, New Delhi, Butterworths, 1999.</li> <li>3. Gurdip Singh, <i>Environmental Law</i>, New Delhi: Lawman 1995.</li> <li>4. Alexander Kiss, <i>Introduction to Intentional Environmental Law</i>, Geneva: Unitar, 1997.</li> <li>5. Anil Agarwal <i>et.al</i>. (eds.), <i>State of India's Environment</i>, New Delhi, CSE, 1995.</li> <li>6. Simon Ball and Stuart Bell- <i>Environmental Law</i>.</li> <li>7. Garner's <i>Environmental Law</i>, New Delhi: Butter worth.</li> <li>8. Dr.H.N.Tripathi and Dr.S.N.Pandey, <i>Commentaries on the Pollution Control Laws</i>, Allahabad: Hari Law Agency, 1992.</li> </ol>	

9. Walter Fernandsz and Vijay Paranjpe eds, *Rehabilitation Policy and Law in India; A Right to Livelihood*, New Delhi, ISI 1997.
10. CEERA, *Cases and Materials Concerning the Coastal Environment*. Bangalore CEERA, 1999.

<b>Paper Code and Name</b>	<b>(PG69T303A) SERVICE LAW IN INDIA</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand Concept of service,
CO-2	To learn Accountability and transparency
CO-3	To know Citizens charters and public service delivery
CO-4	To investigate Civil servants and their Recruitment
CO-5	To assess the problems relating to Contract of Employment.
CO-6	To study the Neutrality of Public service
CO-7	To understand Central and State Administrative Tribunals

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Concept of service,</b>	
<ul style="list-style-type: none"> <li>- Concept of service,</li> <li>- Civil service, public service and employment.</li> <li>- Importance of civil service and the role of civil servants in modern governance.</li> <li>- Factors of affecting effective public service delivery in india. Accountability and transparency.</li> <li>- Citizens charters and public service delivery.</li> </ul>	12 Hours
<b>Unit-II, Civil servants and their Recruitment</b>	
<ul style="list-style-type: none"> <li>- Civil servants and their Recruitment.</li> <li>- Doctrine of Phasure and conditions of service.</li> <li>- Central and State civil Service Rules.</li> <li>- Contract of Employment.</li> </ul>	12 Hours

<b>Unit-III, Neutrality of Public service</b>	
<ul style="list-style-type: none"> <li>- Neutrality of Public service.</li> <li>- Privileges of civil servants –</li> <li>- Constitutional protection to civil servants, and security of tenure.</li> <li>- Promotions and reservations in promotions and</li> <li>- Its consequences and related constitutional amendments.</li> </ul>	12 Hours
<b>Unit-IV, Misconduct and Discipline</b>	
<ul style="list-style-type: none"> <li>- Misconduct and discipline.</li> <li>- Confidential Report, Suspension and inquiry.</li> <li>- Types of punishments. Procedure for award of punishment.</li> <li>- Prosecution of Civil Servants</li> </ul>	12 Hours
<b>Unit-V, Central and State Administrative Tribunals</b>	
<ul style="list-style-type: none"> <li>- Central and State Administrative Tribunals and their power and functions.</li> <li>- Role of High Courts and Supreme Court in respect of matters relating to disciplinary proceedings against Civil Servants and private Services.</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Justice M.Rama Jois, <i>Services under the state</i>, Indian Law Institute 1987</li> <li>2. Samaraditya Pal, <i>Law Relating to Public Service</i>, 3<sup>rd</sup> edn, Eastern Law House, 2011.</li> <li>3. Chabra, <i>Administrative Tribunals</i>, Eastern Book Company, 2010.</li> <li>4. G.B.Singh, <i>Commentaries on CSS and CCA Rules</i>.</li> <li>5. G.M.Kothari, <i>How to conduct and Defend Disciplinary Enquiries</i>, Eastern Book Company, 2008.</li> <li>6. Surendera Mallik, <i>Mallik's Service Law</i>, Eastern Book Company, 2011.</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T303B) LAW RELATING TO CITIZENSHIP, ELECTION AND FORMATION OF GOVERNMENT</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the Citizenship
CO-2	To investigate the Conduct of Elections
CO-3	To learn the Declaration of Election Results
CO-4	To know the role of the Governor in State Administration
CO-5	To study the Judiciary on the formation of the Government

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Citizenship meaning;</b>	
- Citizenship meaning; Citizenship under Indian Constitution	12 Hours
<b>Unit-II: Conduct of Elections</b>	
- Conduct of Elections- Provisions of the Representation of Peoples Act, 1951-Powers of the Election Commission of India - Recognition of Political Parties; Allotment of Symbols	12 Hours
<b>Unit-III: Declaration of Election Results</b>	
- Declaration of Election Results; the role of the President in the formation of the Government; Scope of Anti-Defection Law	12 Hours
<b>Unit-IV, Declaration of Election Results to the State Assemblies</b>	
- Declaration of Election Results to the State Assemblies; the role of the Governor in the formation of the Government; - Scope of Anti-Defection Law	12 Hours
<b>Unit-V, Formation of Government</b>	
- Judiciary on the formation of the Government in Centre and State; - The established Practice and Law	12 Hours
<b>References/ Recommended Books</b>	
1. Masodkar B.A, 'Law Relating to Electoral Disqualification' (1986) 1 <sup>st</sup> Edition; Bombay; N.M. Tripathi Publications	

2. Dev Indar, 'Manual of Election Law in India' (2004) New Delhi; Universal Law Publishing Co. Ltd.
3. Mendiratta S.K. 'How India Votes, Election Laws, Practice and Procedure (2014) 3<sup>rd</sup> Edition; Gurgaon, Lexis Nexis

<b>Paper Code and Name</b>	<b>(PG69T303C) INTELLECTUAL PROPERTY RIGHTS</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To Study the Importance of Intellectual Property Rights
CO-2	To learn the Economic importance of IPR
CO-3	To know the Patents – Validity of Patents
CO-4	To investigate the IPR rights violation
CO-5	To understand the TRIPs and its importance
CO-6	To understand the Copyrights law- Copyrightable subject matter,
CO-7	To study the Trademarks and Domain names

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Importance of Intellectual Property Rights</b>	
<ul style="list-style-type: none"> <li>- Importance of Intellectual Property Rights.</li> <li>- Need for legal protection of IPR .</li> <li>- Economic importance of IPR,</li> <li>- Constitutional and human Rights Dimensions of IPR.</li> <li>- International Protection of IPR, TRIPs and WTO.</li> </ul>	12 Hours
<b>Unit-II, Patents</b>	
<ul style="list-style-type: none"> <li>- Patents – Validity of Patents-</li> <li>- Patentable subject matters –</li> <li>- Patenting of life forms and plant varieties and product patenting</li> <li>- Traditional knowledge – Infringement of patents.</li> </ul>	12 Hours
<b>Unit-III, International conventions relating to patents</b>	
<ul style="list-style-type: none"> <li>- International conventions relating to patents. TRIPs and its importance.</li> <li>- TRIPs and Human Rights, TRIPs and Agriculture,</li> </ul>	

<ul style="list-style-type: none"> <li>- TRIPs and its impact on Indian Economy.</li> <li>- TRIPs and Monopoly.</li> </ul>	12 Hours
<b>Unit-IV, Copyrights Law</b>	
<ul style="list-style-type: none"> <li>- Copyrights law- Copyrightable subject matter,</li> <li>- Authorship and moral rights,</li> <li>- Performers rights and neighbouring rights.</li> <li>- Copyrights and Video films,</li> <li>- Sound recordings, etc. Infringement of Copyrights.</li> <li>- Industrial designs and Geographical Indications</li> </ul>	12 Hours
<b>Unit-V, Trade Marks</b>	
<ul style="list-style-type: none"> <li>- Trademarks and Domain names –</li> <li>- Registration of Domain Names, Domain name dispute resolution.</li> <li>- Confidential Information and</li> <li>- Trade Secrets, Integrated circuits.</li> </ul>	12 Hours
<b>References / Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. W.R.Cornish, Intellectual Property, (London: Sweet and Maxwell) latest edition.</li> <li>2. Paul Torremans and Ian Holyoak - Intellectual Property Law ,7<sup>th</sup> edn, (Oxford University Press)</li> <li>3. P.Narayanan, Law of Trade Marks and Passing of , Calcutta; Eastern Law House, 2000</li> <li>4. P.Narayanan, Intellectual Property Law, Calcutta : Eastern Law House</li> <li>5. P.Narayanan, Patent Law (Easter Law Hosuse,</li> <li>6. N.R.Subraaman, Patent Law (Madras, MLJ, 2000)</li> <li>7. S.R.Iyengar, Copyright Act (Butter worths, 2005)</li> <li>8. Shavksha, Trade Marks, 1999(, Butter worth's)</li> <li>9. Bibek Debroy (ed), Intellectual Property Rights.</li> </ol>	

<b>Paper Code and Name</b>	<b>(PG69T303D) DEVELOPMENT AND REGULATION OF INTERNATIONAL TRADE LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To learn the International Economic order
CO-2	To investigate the Characteristics of Developed and developing countries and conflicts
CO-3	To assess the Balance of Payment
CO-4	To learn about the International Sale of Goods
CO-5	To understand the International Transport of Goods
CO-6	To know the International Commercial Dispute Resolution
CO-7	To understand Enforcement of Foreign judgments

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : International Economic order</b>	
<ul style="list-style-type: none"> <li>- International Economic order –</li> <li>- Characteristics of Developed and developing countries and conflicts;</li> <li>- Balance of Payment; General agreement on Tariffs and Trade (GATT)</li> <li>- Evolution of GATT;</li> <li>- World Trade Organization – Structure, Power and objectives; Most Favoured Nation Treatment and</li> <li>- National Treatment.</li> </ul>	12 Hours
<b>Unit-II: Tariffs</b>	
<ul style="list-style-type: none"> <li>- Tariffs;</li> <li>- safeguards,</li> <li>- technical Barriers to Trade; Sanitary and Phyto Sanitary Measures,</li> <li>- Trade Related Investment Measures;</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>- Subsidies and counter vailing measures;</li> <li>- Anti-dumping measures;</li> <li>- Agreement on Agriculture.</li> </ul>	
<b>Unit-III, International Sale of Goods</b>	
<ul style="list-style-type: none"> <li>- International Sale of Goods –</li> <li>- Special Trade Terms in Export sales;</li> <li>- Responsibilities of the parties,</li> <li>- Formation of Contract</li> <li>- performance of contract,</li> <li>- Frustration of Contract;</li> <li>- UN Convention on Contracts for the International Sale of Goods.</li> </ul>	12 Hours
<b>Unit-IV, International Commercial Dispute Resolution</b>	
<ul style="list-style-type: none"> <li>- International Commercial Dispute Resolution</li> <li>- International Commercial Arbitration</li> <li>- UNCITRAL Model law on Arbitration,</li> <li>- Conciliation Rules,</li> <li>- The ICC International Court of Arbitration, The London Court of International Arbitration,</li> <li>- The International Centre for Settlement of Investment Disputes; Enforcement of Foreign judgments and Arbitral Awards</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. John H.Jackson, <i>The World Trading System</i>, Cambridge: The MIT Press, 1998</li> <li>2. Bhagiratha Lal das, <i>The World Trade Organization</i>, Earthworm Books, 1999.</li> <li>3. Arun Goyal, <i>WTO in New Millennium</i>, 2000.</li> <li>4. Schmithoff's Export Trade, <i>The Law and Practice of International Trade</i>, Sweet and Maxwell.</li> <li>5. R. Swaroop, <i>Law Relating to Carriers</i>, Chennai: Deccan Publications, 1998.</li> <li>6. Eugen Langen, <i>Transnational Commercial Law</i>, Netherlands, A.W. Sijthoff International Publishing co., 1973.</li> </ol>	

<b>Paper Code and Name</b>	<b>Open Elective Course (Other Department Students) (PG69T303E) INFORMATION TECHNOLOGY AND CYBER LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the Evolution of Computers and Internet
CO-2	To know the data protection in U.K. and India
CO-3	To investigate the Cyber crimes
CO-4	To study the IPR in Cyber space; Technology of software
CO-5	To assess the Database in information Technology
CO-6	To learn about Encryption,
CO-7	To study E-commerce

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Evolution of Computers and Internet</b>	
<ul style="list-style-type: none"> <li>- Evolution of Computers and Internet;</li> <li>- Understanding Cyber Space, Internet Jurisdiction and governance,</li> <li>- data protection in U.K. and India;</li> <li>- Privacy issues in Cyber Space</li> </ul>	12 Hours
<b>Unit-II: Cyber crimes</b>	
<ul style="list-style-type: none"> <li>- Computer fraud,</li> <li>- Theft of Information or data,</li> <li>- Pornography,</li> <li>- Defamation,</li> <li>- Cyber Terrorism,</li> <li>- Hacking,</li> <li>- Virus /Worm attack,</li> <li>- Trojan attack,</li> <li>- Cyber stalking spoofing, Spam,</li> <li>- Detecting and prosecution of computer crimes</li> </ul>	12 Hours

<b>Unit-III, IPR in Cyber space</b>	
<ul style="list-style-type: none"> <li>- IPR in Cyber space;</li> <li>- Technology of software, Software –</li> <li>- Copyright v. Patents protection,</li> <li>- Software Piracy,</li> <li>- Copyright in Internet,</li> <li>- Computer related Patents, Domain name, registration, protection, Regulation, Disputes Resolution;</li> <li>- Liability for defective Software</li> </ul>	12 Hours
<b>Unit-IV, Database in information Technology</b>	
<ul style="list-style-type: none"> <li>- Database in information Technology,</li> <li>- Protection of database in U.S.A., U.K. and India;</li> <li>- Internet Service Providers and their Liability;</li> <li>- Electronic Contracts – Formation, requirements,</li> <li>- Encryption,</li> <li>- Digital Signature.</li> </ul>	12 Hours
<b>Unit-V, E-commerce</b>	
<ul style="list-style-type: none"> <li>- E-commerce – Salient features, jurisdictional issues in E-commerce,</li> <li>- Security and evidence in E-commerce,</li> <li>- UNCITRAL Model Law of E-commerce;</li> <li>- E-Banking and Legal issues – Electronic Money,</li> <li>- Credit card and Internet,</li> <li>- Taxation issues in Cyber Space.</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<ol style="list-style-type: none"> <li>1. Ion Lloyd- <i>Information Technology Law</i> (Butterworths, 1997)</li> <li>2. Ion Lloyd- <i>Legal Aspects of the Information society</i> ( Butterwoths, 2000).</li> <li>3. Chris Reed and John Angel, <i>Computer Law</i> (Blakstone Press Ltd., 2000).</li> <li>4. Diana Rowland and Elizabeth Macdonald , <i>Information Technology Law</i>, (Cavendish Publications Limited, 19976),</li> <li>5. Nandan Kamath, <i>Law Relating to Computers, Internet and E-Commerce</i>, (ed) (Universal Law Pub Co. 2000).</li> </ol>	

6. Krishnakumar- *Cyber Laws* (Dominant Pub. And Distributors 2001).
7. The Information Technology Act, 2000.

<b>Paper Code and Name</b>	<b>(PG69T401) Dissertation and VIVA-VOCE</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the different types of Research in Law
CO-2	To learn the collection of data
CO-3	To study about tools of Research
CO-4	To know the general principles of legal research
CO-5	To investigate the problems in the legal research
CO-6	To assess the role of research in Judiciary

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
The Dissertation shall be written under the guidance of a course teacher and shall be submitted to the Department one week prior to the last working day of the IV Semester	60 Hours

<b>Paper Code and Name</b>	<b>(PG69T402A) DIRECTIVE PRINCIPLES OF STATE OF POLICY AND THE CONCEPTS OF SOCIAL WELFARE AND SOCIAL JUSTICE</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To study Concept of Socio-Economic Justice under the Constitution
CO-2	To understand The Commonwealth of India Bill,
CO-3	To know the The Constituent Assembly and Directive Principles of State Policy
CO-4	To understand Directive Principles and the implementation of Socio-

	Economic Justice
CO-5	To know the Role of Legislature and Executive in its implementation
CO-6	To assess the Directive Principles and the Role of the Judiciary
CO-7	To understand Swaraj Constitution; The Nehru Committee Report 1928;

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Concept of Socio-Economic Justice</b>	
<ul style="list-style-type: none"> <li>- Concept of Socio-Economic Justice under the Constitution;</li> <li>- Dimensions of Socio-Economic Justice vis-s-vis the role of the Directive Principles of State Policy</li> </ul>	12 Hours
<b>Unit-II, The Commonwealth of India</b>	
<ul style="list-style-type: none"> <li>- The Commonwealth of India Bill, 1925 and</li> <li>- Swaraj Constitution; The Nehru Committee Report 1928;</li> <li>- The Sapru Committee Report 1944-45</li> </ul>	12 Hours
<b>Unit-III, The Constituent Assembly and Directive Principles of State Policy</b>	
<ul style="list-style-type: none"> <li>- The Constituent Assembly and Directive Principles of State Policy;</li> <li>- Scheme of Directives under the Constitution;</li> <li>- Dichotomy between the concept of Fundamental Rights and</li> <li>- Directive Principles</li> </ul>	12 Hours
<b>Unit-IV, Directive Principles and the implementation of Socio-Economic Justice</b>	
<ul style="list-style-type: none"> <li>- Directive Principles and the implementation of Socio-Economic Justice;</li> <li>- Impact of Planned Economic Development;</li> <li>- Role of Legislature and Executive in its implementation</li> </ul>	12 Hours
<b>Unit-V, Directive Principles and the Role of the Judiciary: An Assessment</b>	
-Directive Principles and the Role of the Judiciary: An Assessment	12 Hours
<b>References/ Recommended Books</b>	
1. Sharma B.R. 'Socio-Economic Justice under Indian Constitution (1984) New Delhi, Deep and Deep Publications. 2. Shiva Rao B 'The Framing of India's Constitution- A Study' (1968) New Delhi, Asian	

Publishers.

3. Aggarawala R.N. 'National Movement and Constitutional Development of India', (1980), New Delhi, Tripathi Publishers.
4. H.M.Seervai, *Constitutional Law of India*, New Delhi: Universal Law Publishers, 2012.
5. M.P.Singh, V.N.Shukla's *Constitution of India*, Lucknow: Eastern Book Company, 2012.

<b>Paper Code and Name</b>	<b>(PG69T402B) INFORMATION TECHNOLOGY AND CYBER LAW</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO-1	To understand the Evolution of Computers and Internet
CO-2	To know the data protection in U.K. and India
CO-3	To investigate the Cyber crimes
CO-4	To study the IPR in Cyber space; Technology of software
CO-5	To assess the Database in information Technology
CO-6	To learn about Encryption,
CO-7	To study E-commerce

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit I : Evolution of Computers and Internet</b>	
<ul style="list-style-type: none"> <li>- Evolution of Computers and Internet;</li> <li>- Understanding Cyber Space, Internet Jurisdiction and governance,</li> <li>- data protection in U.K. and India;</li> <li>- Privacy issues in Cyber Space</li> </ul>	12 Hours
<b>Unit-II: Cyber crimes</b>	
<ul style="list-style-type: none"> <li>- Computer fraud,</li> <li>- Theft of Information or data,</li> <li>- Pornography,</li> <li>- Defamation,</li> <li>- Cyber Terrorism,</li> </ul>	12 Hours

<ul style="list-style-type: none"> <li>- Hacking,</li> <li>- Virus /Worm attack,</li> <li>- Trojan attack,</li> <li>- Cyber stalking spoofing, Spam,</li> <li>- Detecting and prosecution of computer crimes</li> </ul>	
<b>Unit-III, IPR in Cyber space</b>	
<ul style="list-style-type: none"> <li>- IPR in Cyber space;</li> <li>- Technology of software, Software –</li> <li>- Copyright v. Patents protection,</li> <li>- Software Piracy,</li> <li>- Copyright in Internet,</li> <li>- Computer related Patents, Domain name, registration, protection, Regulation, Disputes Resolution;</li> <li>- Liability for defective Software</li> </ul>	12 Hours
<b>Unit-IV, Database in information Technology</b>	
<ul style="list-style-type: none"> <li>- Database in information Technology,</li> <li>- Protection of database in U.S.A., U.K. and India;</li> <li>- Internet Service Providers and their Liability;</li> <li>- Electronic Contracts – Formation, requirements,</li> <li>- Encryption,</li> <li>- Digital Signature.</li> </ul>	12 Hours
<b>Unit-V, E-commerce</b>	
<ul style="list-style-type: none"> <li>- E-commerce – Salient features, jurisdictional issues in E-commerce,</li> <li>- Security and evidence in E-commerce,</li> <li>- UNCITRAL Model Law of E-commerce;</li> <li>- E-Banking and Legal issues – Electronic Money,</li> <li>- Credit card and Internet,</li> <li>- Taxation issues in Cyber Space.</li> </ul>	12 Hours
<b>References/ Recommended Books</b>	
<p>(1) Ion Lloyd- <i>Information Technology Law</i> (Butterworths, 1997)</p> <p>(2) Ion Lloyd- <i>Legal Aspects of the Information society</i> ( Butterwoths, 2000).</p> <p>(3) Chris Reed and John Angel, <i>Computer Law</i> (Blakstone Press Ltd., 2000).</p> <p>(4) Diana Rowland and Elizabeth Macdonald , <i>Information Technology Law</i>, (Cavendish</p>	

Publications Limited, 19976),

(5) Nandan Kamath, *Law Relating to Computers, Internet and E-Commerce*, (ed) (Universal Law Pub Co. 2000).

(6) Krishnakumar- *Cyber Laws* (Dominant Pub. And Distributors 2001).

(7) The Information Technology Act, 2000.

**KARNATAK UNIVERSITY, DHARWAD**  
**P. G. DEPARTMENT OF STUDIES IN MARATHI**



**M.A. IN MARATHI**

**Regulations and Syllabus  
for  
P.G. Dept. of Studies in  
MARATHI  
(I to IV Semester)  
Under Choice Based Credit System  
2020-21 & onwards**

## **Program Outcomes**

1. As Marathi is the regional language, Marathi has become the national integration, national communication, higher education, library, , and national relationship. The student will learn these things by the end of the programme.
2. The student will be aware of the fact that Marathi is the sweet language of India.
3. He will realize that Marathi (Ancient, Medieval and Modern) education, more so, imparting of Marathi language skills and literature is essential for defining pan-Indians' lives today.
4. He will learn that MA Marathi as a language and literature has been transforming the education in India. He will have an understanding of such thrust areas like Ancient Marathi literature, Modern Marathi literature, Criticism, linguistics, and culture studies.
5. He will learn that Marathi language is to be taught using Marathi literature. All that will be oriented towards empowering the students for employability

## **Programme Specific Outcomes**

### **The Programme helps students in:**

1. Getting familiarity With the History of Marathi Literature.
2. Developing insights regarding the evolution of Marathi Literature during the Ancient, Medieval and Modern period.
3. To examine the place of Marathi language in the galaxy of Indian languages.
4. Imbibing the various employable skills that helps them in entering the different branches of administration and bureaucratic machinery.

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# **KARNATAKA UNIVERSITY DHARWAD**

## **DEPARTMENT OF P.G STUDIES IN MARATHI**

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester
PG46T101	PG46T201	PG46T301	PG46T401
PG46T102	PG46T202	PG46T302	PG46T402
PG46T103	PG46T203	PG46T303	PG46T403
PG46T104	PG46T202	PG46T403	PG46T404
PG46T105	PG46T205	PG46T305	PG46T405

### **REVISED SYLLABUS FOR M.A MARATHI UNDER (CBCS) (2020-2021 & ONWORDS)**

#### **M.A 1<sup>ST</sup> SEMISTER PAPER :-**

- PG46T101:- The study of Old Marathi Prose and Poetry  
 PG46T102:- The study of Literary Form (Pre Independence Period)  
 PG46T103:- History of Marathi Literature (Form 1818 to 1920)  
 PG46T104:- The Study of Folk Literature (Loksahitya)  
 PG46T105:- Comic Literature

#### **M.A 2<sup>ND</sup> SEMISTER PAPER :-**

- PG46T201:- The study of Environmental Literature  
 PG46T202:- The study of Literary From (Post Independence Period)  
 PG46T203:- History of Marathi Literature (form 1921 to 1990).  
 PG46T204:- (Optional) The study of comparative Literature (A) Theory  
 PG46T205:-OEC- Marathi Wangamaya Prakarancha Abhyas (Drama)

#### **M.A 3<sup>RD</sup> SEMISTER PAPER :-**

- PG46T301:- The study of Modern Marathi Prose and Poetry  
 PG46T302:- The study of Literary Criticism.  
 PG46T303:- (Optional) The study of comparative Literature  
 PG46T304:- The study of Special Author  
 PG46T305:- OEC- Marathi Wangamaya Prakarancha Abhyas – (Goodha Katha)

#### **M.A 4<sup>TH</sup> SEMISTER PAPER :-**

- PG46T401:- (Optional) The study of Dalit Sahitya.  
 PG46T402:- The Study of Literary Isms  
 PG46T403:- The Study of philology  
 PG46T404:- Upayojit Marathi  
 PG46T405:- The study of Special Author(L)

# KARNATAK UNIVERSITY, DHARWAD

## Arts Faculty of CBCS Regulations

With effect from the academic year 2020-21

### 1.0 Title

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Arts under the Choice Based Credit System” in Karnatak University, Dharwad.

### 2.0. Commencement

These Regulations shall come into force with effect from the academic year 2008-09.

### 3.0. Definitions

**a** In these Regulations, unless otherwise provided:

“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.

**b** “Board of Studies” means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.

**c** “Compulsory Course” means fundamental course, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.

**d** “Course Weightage” means number of credits assigned to a particular course.

**e** “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.

**f** “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.

**g** “Degree” means Post-Graduate Degree.

**h** “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.

**i** “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.

**j** “Open Elective Course” means a course offered by a Department to the students of other Departments.

**k** “Post Graduate Programme” means semesterised Master’s Degree Programmes in the Faculty of Arts under CBCS excluding P.G. Diploma, Post Graduate International

Diploma.

- l** “Specialization course” means advanced course offered by a Department that a student of that Department can opt as a special course.
- m** “Student” means the student admitted to programmes under (k).
- n** “University” means Karnatak University, Dharwad.

#### **4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of study for all the Post-Graduate Degree programmes shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with 90 working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation.**

The medium of instruction for all programmes except languages shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

- 7.1** The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.
- 7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

- 7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University from time to time. P.G. Centers and affiliated colleges can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6** The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course 4; and for Open Elective Course, from 1 to 4. Wherever practical component/ project work/ field work/ dissertation/ orals is involved in the course, the total credits may extend to 6 or as otherwise provided.
- 7.7** A student shall register for a minimum of 72 credits during the whole duration of PG Programme.
- 7.8** The students shall undertake project/extension/field work/dissertation/ during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.
- 7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10** The detailed programme structure for Faculty of Arts shall be as prescribed and shown below:

Semester	No.of Compulsory courses (credit per course)	Total no. of credits of compulsory courses	Specialisation Courses (credit per course)	Total no. of credits for Specialisation courses	Open Elective Course (credit per course)	Total no. of credits of Open Elective Course (OEC)	Total no. of credits for the semester
Sem. I	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+ OEC
Sem.II	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
Sem.III	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
Sem.IV	03 (04)	12	1-3 (4)	4	1-3 (2-4)	2-4	16+OEC
For the entire Programme	12	48	4-12(4)	16	4-12 (2-4)	8-16	64 + 8 ( = 72

- 7.11** The Open Elective Courses shall have oral component if so prescribed by the concerned Board of Studies. The number of students admitted to the course shall be commensurate with the availability of infrastructure.
- 8.0 Attendance**
- 8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

- 8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours in that course.
- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

- 9.1.** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G.Centres/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1** There shall be semester-end examination of 3 hours duration for 75 marks; 2 hours for 50 marks, 1.5 hours for 35 marks and 1 hour for 25 marks course.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 9.1.4** The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed

fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2** The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiner (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar's (Evaluation) Office at the conclusion of the valuation at the respective centres.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report/dissertation/practical) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at

the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

- 9.3.4** Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.
- 9.3.5** In case of programmes with oral examination, details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

- 9.4.1** Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.
- 9.4.2** The IA component in a course shall carry 25/25/15 marks and the Semester End Examination shall carry 75/50/35 marks respectively, as the case may be. Courses having 25 marks and 15 marks as IA component shall have a maximum of 3 marks allotted for attendance. However, in case of project work, the distribution marks for internal assessment and examination shall be left to discretion of the concerned BOS.
- 9.4.3** Marks for attendance shall be awarded to the students according to the following table. For courses carrying 25 / 15 of marks for IA, the attendance marks shall be:

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1
75	No marks

- 9.4.4** Internal Assessment (IA) shall be based on written tests/ assignments/ seminars/orals and /or any other instructional activity as specified in the Faculty Regulations from time to time. However, the number of IA components per course per semester shall not be less than two.
- 9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.
- 9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.
- 9.4.7** There is no provision for seeking the improvement of Internal Assessment marks.
- 9.4.8** The IA records, pertaining to a Semester Examination, shall be preserved by the Departments/ Centres/ Colleges for a period of one year from the date of the semester Examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The Viva-voce shall be conducted by an internal and external examiner.

**9.4.10** The marks distribution per course shall be as follows:

Max. marks per course	IA marks			Semester-end examination	No. of teaching hours	No. of credits
	Test/Orals/Assignments	Maximum marks for Attendance	Total			
100	22	3	25	75	4	4
75	22	3	25	50	3	3
50	12	3	15	35	2	2

#### **10.0. Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

#### **11.0. Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

#### **12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

- 12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 07.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 05.00	D
less than 40.00 %	Less than 4.00	F

- 12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

- 12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

- 12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Sem + Sum of the CP of II Sem. ÷  
Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly

- 12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

- 12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class to be awarded
7.5 to 10.0	First class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

### **13.0 Miscellaneous:**

- a** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- C** The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- D** The procedural details may be given by the University from time to time.
- E** Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

**Illustrative Model:****Grade Card****Programme:****Name of the candidate:****Semester: I****Seat No:****Month & Year:**

Course	Course code no	Credits	Max Marks	Mark Obtained	Semester Grade Point	Credit Points
<b>Compulsory Courses</b>						
• Course-I		04	100	60	6.00	24.00
• Course-II		04	100	74	7.40	29.60
• Course-III		04	100	43	4.30	17.20
○ ----						
○ -----						
<b>Specialisation Course</b>						
Course-I		04	100	52	5.20	20.80
Course –II		04	100	65	6.50	26.00
*						
*						
<b>Open Elective Course</b>						
Course-I		02	50	40	8.00	16.00
Course-II		02	50	35	7.00	14.00
Total		24.00	600	369		147.60

**GPA for I Semester = Total no. of CP ÷ Total no. of Credits=147.60/ 24.00 = 6.15**

**CGPA for I Semester = GPA = 6.15**

**Calculation of CGPA for II, III and the Final Semester**

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$$\text{CGPA for II Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)} + \text{CP (IV Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)} + \text{Credits(IV Sem)}}$$

(\*CP: Credit Points)

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**Text Books for M. A. I to IV Semester from the year 2020-21  
Semester –I**

**PG46T101 – The study of Old Marathi Prose and Poetry**

**Course Outcomes**

At the end of the course, the students will be able to-

1. Understand the socio-cultural history of Marathi mainly of ancient Age.
2. Get acquainted with major forms of literature of the period.

**Texts:**

1. Shishupalvadh: V.K. Noolakr: Prasad Prakashan, Pune - 411030
2. Panipatachi Bakhar: Sampadan: R. V. Herwadkar, Venus Prakashan, Pune.

**PG46T102 - The study of Literary Form (Pre Independence Period)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Develop attitude of literary forms Marathi Poetry.
2. Understand to learn the origin of drama and dramatics art.

**Texts :**

1. Rhidayasharada : Govindagraj
2. KeechakVadha – K.P. Khadilkar

**PG46T103 - History of Marathi Literature (Form 1818 to 1920)  
Books Recommended :**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of Marathi literature.
2. Get acquainted with major writers and forms of literature of the period with their uniqueness.

**Books Recommended :**

1. Marathi Gadyacha Ingrajee Avatar- D. V. Potadar.
2. Marathi Niyatakalikanancha Wangmain Abhyas-Usha Deshamukh.
3. Marathi Wangmayacha Abhinava Itihas. – P. N. Joshi
4. Aravachin Marathi Wangmayacha Itihasa. (1900 to 1920) – Ed.- G. N. Jogalekar
5. Marathi Wangmayacha Itihas Khand 4,5& 6 – R. S. Jog.
6. Pradakshina(Khand 1 to 3) Continental Prakashan, Pune.
7. Kadambari Aani Marathi Kadambari – Usha Hastak.
8. Marathi Kadambaricha Itihas. – Chandrakant Bandivadekar.

**PG46T104 – The Study of Folk Literature (Loksahitya)  
Course Outcomes**

At the end of the course, Students will be able to-

1. It helps Folk literature i.e. Lokasahitya the students to discover the roots of distinctive communities which was expressed through folk literature.
2. The Folk literature assists the students to know there cultural history.

### **Topics-**

#### **No Text Prescribed**

- |                             |            |
|-----------------------------|------------|
| 1.Loksahitya: SwaroopVichar | 2.Lokkatha |
| 3. Prayojakala              | 4.Lokvidhi |
| 5. Lokgeete                 |            |

#### **Books Recommended**

1. Loksahitya: Shodhaani Sameeksha- R. C. Dhere, Parmagandha Publication, Pune.
2. Loksanskritiche Upasak - R. C. Dhere, Parmagandha Publication,, Pune.
3. Loksahitya :Swaroopani Vivechan –Dr. Purushottam Kalbhut, Vijay Publication, Nagpur.
4. Loksanskriti: Bandha -Anubandha- Dr. D. T. Bhosle, Parmagandha Publication, Pune.
5. Loksanskriti : Swaroop ani Vishesh - Dr. D. T. Bhosle, Parmagandha Publication, Pune.
6. Lokwangamayashastra : Aswad Ani Samiksha - Dr. Ganagadhar Marje, Parmagandha Publication, Pune.
7. Lokganga – Editor Dr. Dhondiram Wadkar, Parmagandha Publication, Pune.
8. Gondhal: Paramapara, Swarupani Avishkar – Dr. Ramchandra Dekhane, Parmagandha Publication, Pune.
9. Bharud Wangamayatil Tatvadyan –Dr. Dr. Ramchandra Dekhane, Parmagandha Publication, Pune.

#### **PG46T105 (A) – Comic Literature**

##### **Course Outcomes**

At the end of the course, Students will be able to-

1. Developing reading skills needed to comprehend texts with higher levels of difficulty.
2. Read between lines draw interpretations and synthesize the information.

##### **Texts:**

1. Erandache Gurhal – Chi. Vi. Joshi, Continental Prakashan, Pune – 411030
2. Mazya Bapachi Pend: D. M. Mirasdar, Mehta Publication House, Pune - 411030

### **OR**

#### **PG46105(B) – (Optional) The study of Dalit Sahitya. (G)**

##### **Texts:**

1. Daridryachi Shodhayatra – Heramba Kulkarni, Samakalin Prakashan, Sadashivapeth, Pune - 411030
2. Thechalalelya Paulakhuna – Bhagvan Erande, Kirthi Prakashan, Aurangabad - 431001

**Books Recommended :**

1. Vidrohi Kavita: Ed.-Keshav Meshram.
2. Dalit Aatmakatha: Ed.-Chandrakumar Nalage Gangadhar Panatawane.
3. Dalit Rangabhume : Ed.- Bhalachandra Phadake.
4. Nili Pahat – R.G.Jadhav.
5. Dalit Sahitya: Pravah ani Pratikriya : Ed.- G.M. Kulakarni.
6. Dalit Sahitya: Vedana ani Vidroh – Bhalachandra Phadake.
7. Dalit Sahitya: Prerana ani Pravrutti – Shankararao Kharat.
8. Dalit Sahitya: Ek Abhyas : Ed.-. Arjun Dangale.
9. Dalit Katha Sahitya: Prakash Kumbhar.
10. Dalit Swakathane: Arati Kulakarni.
11. Dalit Sahitya Samiksha: Jyoti Lanjewar.
12. Dalit Sahitya: Aajache Kranti Vidnyan – Baburao Bagul.
13. Dalit Kavita: M. S. Patil.
14. Dalit Sahitya: Aaswad ani Shodh – Yashavant Manohar
15. Vedanancha Pradesh - Pralhad G. Lulekar.
16. Dalit Chalval ani Dalit Sahitya – Dr. Krishna Kirwale
17. Bhanjanche Bhajan- Dr.Prahad Lulekar.

**OR**

**PG46T105 (C)- (Optional) The study of Comparative Literature (A) Theory  
(Shidhant)  
No Texts Prescribed**

## Semester –II

### **PG46T201 – The study of Environmental Literature (Paryavarneeya Sahitya)**

#### **Course Outcomes**

At the end of the course, Students will be able to-

1. To create awareness regarding environmental issues and crises
2. To Generate Love affection among the younger generation about eco system and environment.

#### **Texts**

1. Devarai – UmeshMundalye, Hindustan Prakashan Samshte, Prabhadevi, Mumbai - 400025
2. Suvarna Garuda, Maruti Chitampalli, Sahitya Prasar Kendra, Sitabaradi, Nagapur - 440012

### **PG46T202 – The study of Literary Form (Post Independence Period)**

#### **Course Outcomes**

At the end of the course, Students will be able to-

1. Know the concept of Drama.
2. acquainted with the language, style, dialogue structure of the age to which it belongs.

#### **Texts:**

1. Barrister – Jayavant Dalvi, Majestic Prakashan, Shaniwarpet, Pune - 411030
2. Phakta Ekach Karan – Vasant Kanetkar, Parchure Prakashan, Goregoan, Mumbai - 400004

### **PG46T203 – History of Marathi Literature (from 1921 to 1990).**

#### **Books Recommended**

#### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of Marathi literature.
2. Get acquainted with major writers and forms of literature of the period with their uniqueness.

#### **Books Recommended**

1. Aadhunik Marathi Wangmayacha Itihas (Khand 1 Va 2) A.N. Deshpande
2. Marathi Sahitya :Prerana Va Swaroop (1950 to 1975) – Ed.- G.M. Pawar, M.D. Hatakanglekar.
3. Gramin Sahitya :Swaroop ani Samasya – Anand Yadav
4. Gramin Sahitya :Swaroop ani Shodh – Naganath Kottapalle.
5. Gramin Sahitya : R.R. Borade.
6. Marathi Pradeshik Kadambari – Madan Kulakarni.
7. Marxwad ani Marathi Sahitya – V.S. Jog.
8. Marathi Wangmayacha Abhinav Itihas (1922 to 1960) G.N.Jogalekar
9. Strivadi Sahitya Samiksha – Ashwini Dhongade.
10. Marathi Wangmayatil Navin Pravah – Sharankumar Limbale

11. Gandhiwad ani Aadhunik Marathi Sahitya- Ed.- D.D. Punde
12. Marathi Katha : Pravrutti ani Pravah – R.G. Chavare
13. Sahityache Vartan ani Vartman - Pralhad G. Lulekar

**PG46T204 (A) - Theory of Translation (Bhashantara Meemansa)**

**Topic:**

1. Nature and Scope of Translation
2. Kinds of Translation
3. Importance of Translation
4. Characteristics of Good Translation
5. Translation and adaptation
6. Hurdles in translation
7. Practical of translation

**OR**

**PG46T204 (B)- (Optional) The study of Women's Literature (Streevadi Sahitya)**

**Texts:**

1. Jyacha Tyacha Prashna – Priya Tendulkar
2. Stree- Purusha tulana – Tarabai Shinde, Pratima Prakashan, Pune - 411030

**OR**

**PG46T204 (C)– (Optional) The study of comparative Literature**

A Dissertation paper

**PG46T205 - OEC – Marathi Wangamaya Prakarancha Abhyas (Goodha Katha)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Develop literary tendencies.
2. Understand the types of Marathi Short Story Writing,

**Text Book:**

1. Sashtanga Namaskar – P.K. Atre, Parchure Prakashan Mandir, Goregoan, Mumbai - 400004

## Semester –III

### PG46T301 – The study of Modern Marathi Prose and Poetry

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Develop attitude of literary forms Marathi Poetry.
2. Understand the basic forms of fiction and Poetry.

#### Texts:

1. Bhoomi – Asha Bage, Mouj Prakashan Gruha, Mumbai – 400004
2. Phinix – Hira Banasode, Dimple Publication, Goregoan, Mumbai - 400004

### PG46T302 – The study of Literary Criticism.

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Enrich the students understanding of the literary works
2. Develop the spirit of enquiry regarding literary works in Marathi literature.

#### Topics:

1. Ashaya ani Abhivyakti
2. Tikeche Prakara
3. Sahitya ani Itar Lalitakala
4. Kalavanta Charitra ani Charitrya
5. Samiksha: Sankalpana ani Swaroop
6. Samiksha ani itar Shastra sambhandha
7. Samikshecha vividha Paddhati
8. Marathitili pramookha Samikshakancha Parichaya

#### Books Recommended:

1. WangmayinTika – R.S.Valimbe.
2. TikaVivek – Shri. K. Kshirasagar.
3. Marathi Tikakar – G.N.Jogalekar.
4. Tika ani Tikakar – V.B.Pathak.
5. Samikshechi Navi Rupe – Gangadhar Patil.
6. Navi Samiksha : Kahi Vichar ani Pravah – Ed.- G.M. Kulakarni.
7. Sahitya ani Samiksha :V.L. Kulakarni.
8. Wangmayin Abhiruchi – R. S. Jog.
9. Samikshetil Navya Sankalpana – Ed.-Manohar Jadhav.

### PG46T303 - Upayojit Marathi Part –I

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Its Helps Students to compare Marathi With Other Language.
2. Its assist students to understand the historical background of compare to Literature and Examine the relationship of Marathi with other Languages.

#### Topics:-

1. Writing for Radio and Television
2. Radio news writing and Presentation/Reading

3. Creation of Entertaining Programmes
4. Radio-drama writing and presentation
5. Prasangik Lekhan
6. Radio Jocky

**Books Recommended**

1. Vyavaharik Marathi – L.R. Nasirabadkar, Phadke Prakashan, Kolhapur.
2. Vyavaharik Marathi – Editor- Dr. Snehal Taware, Snehvardh Prakashan, Pune.
3. Vruttapatravidhya – Prasannakumar Akujkar, Shri. Vidhya Prakashan, Pune.
4. Patrakarita Vidhya –Editor- Kiran Gokhale, Majestic Prakashan, Mumbai.
5. Advartising – Mahesh Ghatpande & Yogesh Thakur, Amodh Prakashan, Mumbai.
6. Media / Mass communication – D. V. Ambulkar.

**PG46T304 – The study of Special Author (M) P. L. Deshapande**

**Course Outcomes**

At the end of the course, Students will be able to-

1. Get the knowledge of the theatre of the times.
2. Get information about the P L Deshapandes Drama.

**Texts:**

1. Tujhe ahe tujapashi
2. Purachundi - Mouj Prakashan Gruha, Goregoan, Mumbai - 400004

**PG46T305 - OEC- Marathi Wangamaya Prakarancha Abhyas – (Drama)**

**Course Outcomes**

At the end of the course, Students will be able to-

1. Know the concept of Drama.
2. The students learn the origin of drama as dramatics art.

**Text Book:**

1. Khekada – Ratnakar Matkari, Mehta Publishing House, Pune – 411030

## Semester –IV

### PG46T401 – The study of literary translation

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Know the deferent dimensions of dalit sahitya.
2. Eexamine the texts with sub-altern perspective .

#### Texts:

1. Taledanada – Uma Kulkarni, Popular Prakashan, Chembur Hill, Mumbai - 400026
2. Teen Hajar Taake – Leena Sohani, Mehta Publishing House, Pune, 411030

### PG46T402 - The Study of Literary Isms.

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Know the concept and process of Marathi Literature.
2. Develop attitude of literary forms.

#### Topics:

1. Soundryawad
2. Wastavawad
3. Astitwawad
4. Markswad
5. Nisagawad

#### Books Recommended:

1. Sahityache Tatvajnyan – V.N.Dhawale.
2. Soundaryashodha ani Anandabodha – R. S. Jog.
3. Sahityatil Sampradaya – R.S.Valimbe.
4. Wangmayin Vad: Sankalpana Va Swaroop – Ed-.Rayakar, Yadav, Joshi, Tapare, Punde.
5. Jivanmulye ani Wangmayinmulye - G.B.Gramopadhye.
6. Soundarya Va Sahitya – B.S.Mardhekar.

### PG46T403 – The Study of philology

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Know the importance of language in human life.
2. Know the various methods to the study of language.

#### Topics:

1. Bhashashastrache Swaroop Ani Vyapti
2. Bhasha nirmiti vishayak Utapatti
3. Ucchar Prakriya Ani Aratha Prakriya
4. Marathicha Utapattikaal Ani Marathichi Ghatana

#### Books Recommended:

1. Bhasha Aani Bhashashastra – S. N. Gajendragadakar.

2. Dhvani vichar – N.G. Kalelkar.
3. Bhasha ani Sanskrati - N.G. Kalelkar.
4. Bhasha Vichar ani Marathi Vichar – G.B.Gramopadhye.
5. Marathi Bhasha :Udagam ani Vikas – K.P.Kulkarni.
6. Marathicha Arthavichar – Anuradha Potadar.
7. MarathicheBhashashastra –Vaidhya Gosavi, Sahastrabudhe Dev
8. Marathi Vyakaran – Rajashekhar Hiremath.
9. Bhashashastra – Anand Bhandare.

#### **PG46T404**

#### **- Upayojit Marathi Part-II**

##### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Make there carriers in publication and advertisement industry.
2. Equip the younger generation with the employable skill in accordance with job market.

##### **Topics:-**

##### **No Text Prescribed**

1. Essay Writing
2. Skills of Interview
3. Advertisement
4. Creative writing
5. Proof reading
6. Chalking of Programme
7. Art of Anchoring

##### **Books Recommended**

1. Vyavaharik Marathi – L.R. Nasirabadkar, Phadke Prakashan, Kolhapur.
2. Vyavaharik Marathi – Editor- Dr. Snehal Taware, Snehvardh Prakashan, Pune.
3. Vruttapatravidhya – Prasannakumar Aklujkar, Shri. Vidhya Prakashan, Pune.
4. Patrakarita Vidhya –Editor- Kiran Gokhale, Majestic Prakashan, Mumbai.
5. Advartising – Mahesh Ghatpande & Yogesh Thakur, Amodh Prakashan, Mumbai.
6. Media / Mass communication – D. V. Ambulkar.

#### **PG46T405**

#### **- The study of Special Author (L) P.L. Deshpande**

##### **Course Outcomes**

At the end of the course, Students will be able to-

1. Know the concept of travelogue and profile of P L Deshpande.
2. Get information about the P L Deshpande..

##### **Texts:**

1. Poorva Rang – Shree Vidya Prakashan, Pune – 411030
2. Vyakti Ani Valli – Mouj Prakashan Gruha, Mumbai - 400004

# **KARNATAK UNIVERSITY DHARWAD**



## **syllabus For Post Graduate Studies in Marine Biology**

**(I to IV Semesters)**

**Under Choice Based Credit System**

**From  
2017-18 onwards**

# ***Regulations Governing M.Sc. Course in Marine Biology***

(I to IV Semesters)

***Under Choice Based Credit System (CBCS)***

***(framed under Section 44(1)(c) of K.S.U. Act, 2000)***

## **1.0 Title**

These Regulations shall be called “Regulations” governing the M.Sc. Course in Marine Biology “Choice Based Credit System” in Karnatak University, Dharwad.

## **2.0 Commencement**

All these Regulations shall come into force on the date of approval by the Chancellor or such other date as the Chancellor may direct.

## **3.0 Definitions**

a. In these Regulations, unless otherwise provided:

“**Academic Council**” means Academic Council of the University constituted according to the *Karnatak State Universities Act, 2000*.

b. “**Board of Studies**” means P.G. Board of Studies of the University, Adhoc/Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.

c. “**Compulsory Course**” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.

d. “**Course Weightage**” means number of credits assigned to a particular course.

e. “**Credit**” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.

f. “**Cumulative Grade point Average (CGPA)**” refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.

g. “**Degree**” means Post-Graduate Degree.

h “**Grade**” is an index to indicate the performance of a student in the selected course. These grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.

- i. **“Grade Point Average (GPA)”** refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. **“Open Elective Course”** means a paper offered by a Department to the students of other Departments.
- k. **“Post-Graduate Programme”** means semesterised Master’s Degree Programmes excluding P.G.Diploma.
- l. **“Specialization course”** means advanced paper offered by a Department that a student of that Department can opt as a special course.
- m. **“Student”** means the student admitted to programmes under (k).
- n. **“University”** means Karnatak University, Dharwad.

#### **4.0 Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time. Admissions shall be as per Government of Karnatak reservation policy and the directions issued in this regard from time to time.

#### **5.0 Durations of the Programme**

The Durations of the study for the Post-Graduate programme shall extended over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days. However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed and complete the programme with due approval from the Registrar. Candidate shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the durations of P.G. Programme.

#### **6.0 Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

**7.1** The students of Post-Graduate programme shall study the courses as may be approved by the concerned Board of Studies. Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

**7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization courses and Open Elective Courses.

**7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned degree.

**7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

**7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centres and affiliated colleges can offer those Open Electives Courses which are approved of prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.

**7.6** The credits for each of the Compulsory Courses may vary from 2 to 4: for Specialization Course, from 2 to 4 and for Open Elective Course, from 2 to 4, wherever project work/field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.

**7.7** The minimum credits for P.G. Programme shall be 92. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.

**7.8** The students shall undertake project/field work during the programme as compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by concerned Board of Studies.

**7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department

**7.10** The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure-Ia & Annexure-Ib

**7.11** The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

## **8.0 Attendance**

**8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.

**8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching /practical. The course teachers shall submit the monthly

attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

**8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

**8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75% of the total number of instructional hours during the semester.

**8.5** There is no provision for condoning shortage of attendance.

**8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission a fresh to the given semester.

**8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

## **9.0 Examination**

**9.1** There shall be an examination at the end of the each semester. The odd semester examinations shall be conducted by the respective Departments/P.G. Centres/Colleges. The even semester examinations shall be conducted by the University.

**9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks for practical examination.

**9.1.2** Every student shall register for each semester-end examinations as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.

**9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances at semester-end examinations.

**9.1.4** The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.

**9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).

**9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

**9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

**9.2.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**9.2.2** The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation)

**9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/P.G. Centers/Colleges who shall conduct the Examinations according to the Schedule announced by the University.

**9.2.4** The Chairperson of the Department/Administrator of the P.G. Centre/Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.

**9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.

**9.2.6** There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.

**9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by PGP Coordinator to the Registrar (Evaluation)’s Office at the conclusion of the valuation at the respective centers.

**9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester Examination**

**9.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.

**9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/Research Institutes.

**9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averages with nearer award of the two evaluations.

Provided that in case of the number of answer scripts to referred to the third examiner in a course exceeds of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In Case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

## **9.4 Evaluation**

**9.4.1** Each Course shall have two evaluation components- Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA Component in a course shall carry 25% / 30% /50% and the Semester End Examination shall carry 75% /70% /50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table.

For courses carrying 25% of marks for IA, the attendance marks shall be

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

**9.4.4** Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the

Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the Department/Centers/Colleges for a period of one year from the date of semester examination. These records may be called by the University or body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation /project work viva-voce shall be conducted by an internal and external examiner.

## **10.0 Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

## **11.0 Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case of the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in stipulated time (vide Regulation 5) or had applied for improvement of results.

## **12.0 Marks, Credit Points, Grade points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75%	6.00 and above but less than 07.5	B
50 and above but less than 60%	5.00 and above but less than 6.0	C
40 and above but less than 50%	4.00 and above but less than 5.00	D
Less than 40%	Less than 4.00	F

**12.2 Credit Point (CP):** The Credit Point for each course shall be calculated by multiplying the grade obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester= Sum of the CP of the I Semester+Sum of the credits of the I Semester

CGPA for the II Semester= Sum of the CP of the Sem +Sum of the CP of II Sem +Sum of the Credits of the I Semester+II Semester

CGPA for the III and IV Semester shall be computed accordingly.

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No. class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below.

Cumulative Grade Point Average (CGPA)	Class to be awarded
7.5 to 10.0	First Class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

### **13. Miscellaneous:**

**a)** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repeated.

- b)** The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c)** The University shall issue such order, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d)** The procedural details may be given by the University from time to time.
- e)** Any unforeseen problems/difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

### Annexure-I

The Programme structure of the Master of Science Degree shall be as follows:

Semester	No. of compulsory & Specialization courses (credits/course)	Total credits for compulsory & Specialization courses	No. of open elective course (credits/course)	Total credits of open elective course	Total credits for the semester
Sem. I	Th:04(04)=16 Pra/Th*:02(04)=08	24	----	--	24
Sem.II	Th:03(04)=12 Pra/Th*:03(02)=06	18	Th:01(04)=04	04	22
Sem.III	Th:03(04)=12 Pra/Th*:03(02)=06	18	Th:01(04)=04	04	22
Sem.IV	Th:03/04** (04) =12/16 Pra/Th*:3/4**(02) =06/08 D# 01(06)=06	24		--	24
Total	Th 13(04)= 52 Pra /Th 12/13(02)=24/26 D1(06) =06	84	Th: (04)=08	08	92

Note: Except for I & IV Semester, the concerned Department shall offer one each of open elective theory and practical course or two \*open elective Theory courses for students of other science departments.

\*Only for Mathematics; \*\* for Mathematics and Statistics; # except Mathematics & Statistics Abbreviations: Th=Theory; Pra=Practical; D=Dissertation;

**GRADE CARD**

Programme: M.Sc. ( )

Name of the Candidate:..... Semester: IV

Seat No: Month &amp; Year:

Course	Course Code	Credit	IA Marks	Theory/ Practical	Max	Marks obtained	Semester Grade point	Credit Points		
Max			Obt		Max			Obt		
Compulsory Courses										
Course-I	XXCT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course-II	XXCT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course-III	XXCT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course-IV	XXCT 4.4	02	15	06	35	34	50	40	8.00	16.00
Course-V	XXCT 4.5	02	15	06	35	34	50	40	8.00	16.00
Course-VI	XXCT 4.6	02	15	06	35	34	50	40	8.00	16.00
Course-VII	XXCD# 4.7 Or	06	25	20	125	100	150	120	8.00	48.00 <i>Or</i>
Course-VI	XXCT* 4.7	04	25	15	75	28	100	43	4.30	17.20
Course-VIII	XXCP+/CTψ 4.8	02	15	05	35	35	50	40	8.00	16.00
Total		24				600			200.00/185.00	

XX refers to course abbreviations, 4.1 refers to IV semester course 1; e.g. CHI CT

1.1=chemistry

Inorganic compulsory theory 1.1

# Except for Mathematics and Statistics; \* For Statistics and mathematics; + Only for Statistics;

Ψ Only for Mathematics

$$\text{GPA for IV Semester} = \frac{\text{CP (IV Sem)}}{\text{Credits (IV Sem)}} = \frac{200}{24.00} = 8.33$$

$$\text{GPA for I semester} = \frac{\text{CP (I sem)}}{\text{Credits (I sem)}}$$

$$\text{CGPA for I semester} = \text{GPA for I semester}$$

$$\text{CGPA for II Sem} = \frac{\text{CP (I sem)} + \text{CP (II sem)}}{\text{Credits (I sem)} + \text{Credits (II sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP (I sem)} + \text{CP (II sem)} + \text{CP (III sem)}}{\text{Credits (I sem)} + \text{Credits (II sem)} + \text{Credits (III sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I sem)} + \text{CP (II sem)} + \text{CP (III sem)} + \text{CP (IV)}}{\text{Credits (I sem)} + \text{Credits (II sem)} + \text{Credits (IIIsem)} + \text{Credits (IV sem)}}$$

(\*CP: Credit point)

The Post Graduate Department of Studies and Research in Marine Biology was established in Karwar Post Graduate Centre of the Karnatak University in the year 1975. The department is known for its academic excellence and extension activities (through FGB- Fishermen Guidance Bureau) in coastal regions. The Department is supported by coordinated grants from UGC, DBT, DST, BRNS, MoEF, MoES and INCOIS.

The Department offers three courses in Marine Biology viz. M.Sc., M.Phil. and Ph.D.

The Department also offers skill development course under National Skill Qualification Framework (NSQF) supported by Agriculture Skill Council of India (ASCI).

### **M.Sc. Programme in Marine Biology under Choice Based Credit System (CBCS) w.e.f. 2017-2018.**

**1.1 Duration:** Two years with four semesters, each of 16 week duration.

**1.2 Eligibility for admission:** B.Sc. graduates in life science subjects from Karnatak University or any other recognized Universities with 45% aggregate marks are eligible for admission to M.Sc. Marine Biology course. Relaxation is for SC/ST/Cat-I students as per University norms.

**1.3 Intake:** 30 students for the first semester that includes seats under enhanced fee. Other rules for admission for intake of students may change from time to time as per university notification.

**2. Attendance:** Every student must have at least 75% attendance in each semester for eligibility to appear for semester and examination.

**3. Medium of instruction:** the medium of instruction shall be English.

**4. Course Structure:** The student desirous for a M.Sc. degree in Marine Biology shall complete 92 credits, 84 credits in Marine biology and 8 credits in other subjects. Department also offers 4 credits each for elective papers in II and III semester for students from other subjects. Given below are the details about credits for each paper/practical/dissertation work and number of teaching hours for the four semesters along with marks allocation for students offering M.Sc. Marine Biology or Elective paper in Marine Biology.

**SEMESTER I:**  
***Compulsory Papers***

	<b>Theory</b>	<b>Hrs/Wk</b>	<b>Credits</b>	<b>Practical</b>	<b>Hrs/Wk</b>	<b>Credits</b>
MBCT 1.1	Biosystematics & Biology of Non-Chordates	4	4	MBCP 1.5	4	2
MBCT 1.2	Genetics and Molecular Cell Biology	4	4	MBCP 1.6	4	2
MBCT 1.3	Oceanography	4	4	MBCP 1.7	4	2
MBCT 1.4	Marine Ecology and Pollution	4	4	MBCP 1.8	4	2
			16	+	8=24	

**SEMESTER II:**  
***Compulsory Papers***

	<b>Theory</b>	<b>Hrs/Wk</b>	<b>Credits</b>	<b>Practical</b>	<b>Hrs/Wk</b>	<b>Credits</b>
MBCT 2.1	Biology of Chordata, Reproductive & Developmental Biology	4	4	ZCP 2.4	4	2
MBCT 2.2	Environmental Biology and Planktonology	4	4	ZCP 2.5	4	2
MBCT 2.3	Aquaculture	4	4	ZCP 2.6	4	2
OEC	-	4	4			
			16	+	6=22	

**SEMESTER III:**  
***Compulsory Papers***

	<b>Theory</b>	<b>Hrs/Wk</b>	<b>Credits</b>	<b>Practical</b>	<b>Hrs/Wk</b>	<b>Credits</b>
MBCT 3.1	Fishery harvest and post harvest technology	4	4	ZCP 3.4	4	2

MBCT 3.2	Animal Physiology, Endocrinology & Biochemistry	4	4	ZCP 3.5	4	2
MBCT 3.3	Mariculture	4	4	ZCP 3.6	4	2
OEC	-	4	4		-	
	Project Work (Commences)	4	-			
			16	+		6=22

**SEMESTER IV:**  
***Compulsory Papers***

	Theory	Hrs/Wk	Credits	Practical	Hrs/Wk	Credits
MBCT 4.1	Fishery Resources and Management	4	4	ZCP 4.4	4	2
MBCT 4.2	Marine Biotechnology	4	4	ZCP 4.5	4	2
MBCT 4.3	Fishery Economics and Management	4	4	ZCP 4.6	4	2
MBD 4.7	Dissertation	4	6			
			18	+		6=24

**Total Credits: 58 (Theory +Dissertation)+26 (Practical)+8(OEC)=92**

**Note:** 1. There Shall be 25 Marks as internal assessment (IA) for each theory paper and 10 marks as IA for each Practical.  
2. There shall be 75 marks for each theory paper and 40 marks for each practical final examination at the end of each semester.  
3. The Dissertation work carries 150 marks (IA-25 marks; Dissertation -75 marks; Viva-Voce-50marks)

**Scheme of Examinations:**

- i) The examination will be conducted at the end of the each semester
- ii) Each theory course will be have a question paper of 3 hours of duration and maximum marks of 75. Each practical course will have examination of 4 hours duration and maximum marks of 40

## **QUESTION PAPER PATTERN:**

### **A) THEORY**

There shall be a total of 15 questions. In section I, out of 4 questions any 2 questions to be answered, each question carrying 15 marks. In section II, out of 5 questions any 3 questions to be answered, each question carrying 10 marks. In section III, out of 5 questions answer any 3 questions each carrying 15 marks.

### **B) PRACTICALS**

The marks allotted for practical is 50, out of which 10 is for internal and 40 is for semester final.

### **C) PROJECT EVALUATION:**

1. Internal assessment	: 25 marks
2. Evaluation of dissertation	: 75 marks
3. Viva-voce	: 50 marks
Total	:150 marks

### **Award of Gold medals:**

The following gold medals will be awarded to the students for standing highest at the M.Sc. Marine Biology Examination.

- Late. Shri Gurulingappa HakkaPakki Gold Medal.

### **Co-curricular Activities:**

Seminars, assignments and group discussions will be conducted periodically. Field visits, cruise, study tours and Institutional/industrial visits are conducted. However, these activities do not carry any marks.

### **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

By completing Post graduation course in Marine Biology, students are expected to have achieved the following knowledge, skills and capabilities.

- This programme offers a global platform to involve in academic, research and entrepreneurship capacities through knowledge intensive, innovative thinking, problem solving skills.
- The programme provides understanding of basic and advanced concept of theoretical and practical skills in building the sustainability.
- The course provides independent project/dissertation research, develops computational, analysis and interpretation skills by evaluating qualitative and quantitative data and one can be independent researcher.
- This course provides greater platform for competitive and qualification exams such as UGC-NET, CSIR NET in Life science and Earth science, ICAR, SET, GATE, GRE, as well administrative and academic peers.

<b>Paper Code and Name</b>	<b>Paper: MBCT 1.1. Biosystematics &amp; Biology of Non-Chordates</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will learn the Animal kingdom classification and basics of taxonomy of non-chordates.
CO 2	Students will understand how morphological change due to change in environment helps drive evolution over a long period of time.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I: Principles of taxonomy</b> Scope of taxonomy. Species concept, Theories of biological classification, Taxonomic hierarchy. Central theme of International Code of Zoological Nomenclature. Modern trends in taxonomy.	<b>8hrs.</b>
<b>Unit II: General classification of non-chordata.</b> Classification upto order and systematic position of - Protozoa, Porifera, Cnideria, Platyhelminthes, Annelida, Arthropoda, Mollusca and Echinodermata.	<b>10hrs.</b>
<b>Unit III: Minor phyla.</b> General organization and systematic position of minor phyla - Ctenophora, Nemertinea, Chaetognatha, Entoprocta, Rotifera, Kinorhyncha, Phoronida, Brachiopoda.	<b>10hrs.</b>
<b>Unit IV: Morphology, locomotion, feeding and digestion among invertebrates</b> Structural modifications and adaptations for locomotion, food and feeding. Structural variations in digestive system.	<b>6hrs.</b>
<b>Unit V: Respirations, circulation and excretions among invertebrates</b> Structure involved in respiration, respiratory pigments. Evolution of respiratory strategies. Role of body fluid. Types of circulations. Circulatory mechanism. Excretory organs and excretion.	<b>8hrs.</b>
<b>Unit VI: Nervous system, sense organs and reproduction among invertebrates</b> Cephalization. Development and evolution of nervous system. Sense organs. Reproductive patterns. Reproduction and metamorphosis. Larvae and their evolutionary significance.	<b>6 hrs.</b>
<b>REFERENCES</b>	
1. Barnes R.D. (1968). Invertebrate Zoology. W.B. Saunders Co., Philadelphia, London and Toronto,	

2. Brown, Jr., F.A (1950). Selected Invertebrates Types, Jhon Wiley & Sons, New York.
3. Clark, R. B. (1964). Dynamics in Metazoan Evolution. Oxford: Clarendon Press.
4. Hyman, L.H. (1967). The Invertebrates, Vol. I – VI, Mc Graw-Hill, N. Y.
5. Mayr, E. (1963): Animal Species and Evolution. Harward Universtity Press Cambridge
6. Kotpal R.L. (2015-16) 10 edition *Minor Phyla* – Rastogi Publication ISBN . 978-93-5078-025-1
7. Verma P.S. (2008) *A manual of practical zoology, Invertebrates*, Ramnagar, New Delhi. ISBN 81-219-0829-9
8. Kotpal R.L (2016-17) 11<sup>th</sup> edition, *Modern text book of Zoology Invertebrates* (Animal Diversity -1), Rastogi Publicatiion ,Meerut; ISBN 978-93-5078-040-4
9. Kotpal R.L (2001-06) , *Zoology Phylum 1-8, Protozoa to Echinodermata*, Rastogi Publication Meerut, ISBN 81-7133-534-9
10. Taylor, J.W (1894-1907): Monograph of the land and freshwater Mollusca of the British Isles.4 Vols. Leeds.

<b>Paper Code and Name</b>	<b>MBCT 1.2: Genetics and Molecular Cell Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the basic concept of cell and its components with their functions in details and acquire the detailed knowledge of different pathways related to cell signaling and apoptosis thus enabling them to understand the anomalies in cancer.
CO 2	Students will have adequate understanding and knowledge in Genetics & Cell biology and related aspects making them to take up advanced research in the field of Aquatic and terrestrial organisms studies such as cancer biology, Neurobiology, Physiology etc.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I: Mendelian genetics</b> An overview of Mendelian Genetics. Phenomenon of dominance and its applications in animals. Mechanisms of dominance. Law of segregations. Law of independent assortment.	<b>4hrs.</b>
<b>Unit II: Linkage and crossing over</b> Sutton view on Linkage, Morgan's view on linkage. Chromosome theory of linkage, complete & incomplete linkage, significance of linkage. Types of crossing over. Somatic and germinal crossing over. Mechanism of crossing over. Synapsis, Kinds of crossing over. Significance of crossing over. Sex linked inheritance. Multiple alleles. Structure of Genes.	<b>6hrs.</b>
<b>Unit III: Chemical nature of genetic material</b> DNA structure and its replication. One gene one polypeptide concept. Genetic control of protein synthesis. Regulation of gene expression in prokaryotes and eukaryotes. Genetic engineering. Gene mutations. Chromosomal mutations. Practical application of mutation. Polyploidy in animals and their application.	<b>8hrs.</b>
<b>Unit IV: Introduction and history of cell biology</b> Techniques in cell biology- Microscopy, Focal length, Angular aperture of lens and Resolving power of the microscope. Light microscopy, Phase-contrast microscope, Dark field microscope, Fluorescence microscopy, Scanning Electron Microscope (SEM) and Scanning Transmission Electron Microscopy (STEM). Staining- Chemical basis of staining, simple staining and differential staining.	<b>10hrs.</b>

<b>Unit V: Separation techniques</b> Chromatography- Different phases of chromatography, Adsorption chromatography, Thin layer chromatography and partition chromatography. Centrifugation- Differential, Gradient, Zonal centrifugation and Equilibrium density centrifugation. Electrophoresis-mechanism of Electrophoresis.	<b>8hrs.</b>
<b>Unit VI: Membrane biology</b> Fluid mosaic model of plasma membrane. Transport across biomembrane- Passive transport, Active transport, Endocytosis and Exocytosis. Structure and functions of cell organelle. Bioenergetics, Protein import to mitochondria.	<b>6 hrs</b>
<b>Unit VII : Cell division and cell cycle</b> Cell division- Amitosis, Mitosis and Meiosis. Cell cycle- phases of cell cycle and molecular events of cell cycle. Cytoskeleton- structure and role in cell architecture, Structure of cilium and flagellum. Cellular aging, Cell death mechanisms- necrosis and apoptosis.	<b>4 hrs</b>
<b>Unit VIII: Cancer biology</b> Cancer: Benign and Malignant tumours. Types of cancer- carcinomas, sarcomas, lymphomas, leukemias and mixed type. Properties of cancer cells, treatment for cancer.	<b>2 hrs</b>
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Agarwal V.K. and Verma P.S (1997) 1<sup>st</sup> edition, <i>concept of Genetics, Human Genetics and Eugenics</i> 03 255 , pp240</li> <li>2. Agarwal V.K. and Verma P.S (1997) 1<sup>st</sup> edition ,<i>concept of Molecular Biology</i> 03 255 pp160</li> <li>3. Berg.P (1991), <i>Reverse Genetics: Its origin and prospects Biotechnology</i> 9: 342-344</li> <li>4. De Robertis (1965): <i>Cell Biology</i>, W.B. Saunders Company, London.</li> <li>5. Gupta P.K (2016-17) 1<sup>st</sup> edition, <i>Molecular Biology and Technology</i> and text books for University students, Rastogi Publication Meerut, ISBN 978-93-5078-050-3</li> <li>6. Gupta P.K (2004),<i>Biotechnology and Genomics</i>, Rastogi Publication Meerut, India, pp1-796</li> <li>7. Gupta P.K,<i>Genetics</i> , Rastogi Publication, Meerut,India</li> <li>8. Gupta P.K (2016-17)8<sup>th</sup> edition, <i>Cytology, Genetics and Evolution</i>, A textbook for undergraduate students, Rastogi Publication, Meerut, ISBN 978-93-5078-136-4</li> <li>9. Joshi. P (2007) <i>Genetics Engineering and its Application</i>, Published by Agrobios, Jodhpur, ISBN 81-7754-197-8</li> <li>10. Mari muttu. R (2008) <i>Microscopy and Microtechnicals</i> - MJP, Chennai</li> <li>11. Sharma N.S (2005)1<sup>st</sup> edition, <i>Molecular Structure of Genes and Chromosomes</i>, Published by International Scientific Publishing Academy, New Delhi, ISBN 81-8293-020-0</li> <li>12. Satpathy G.C (2001) <i>Developmental and Modern Biology</i> , Kalpaz, Delhi; ISBN 81-7835-053-X</li> <li>13. V.K. and Verma P.S (1997) 1<sup>st</sup> edition, <i>concept of cell Biology</i> 03 250, pp336</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCT 1.3: Oceanography</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper,	
CO 1	student will have better understanding of marine and its related biological process and cycles
CO 2	Students will be able to demonstrate how the oceans are connected to and drive major Earth processes, such as atmospheric and oceanic circulation, climate and weather, plate tectonics, and sustainability of human and marine populations

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I</b> Origin of oceans, Continental drift and plate tectonics. History and various disciplines of oceanography- Definitions, dimensions and limits. Institutions related to oceanography. Oceanographic expeditions.	<b>8hrs.</b>
<b>Unit II</b> Waves, tides and tsunamis. Upwelling and sinking. General circulation and currents pattern in the world oceans of Atlantic, Pacific and Indian Ocean. Monsoon currents.	<b>6hrs.</b>
<b>Unit III</b> General submarine topography & oceanographic features - classification of sea floor. Origin and evolution of continental shelf, slope, ridges, trenches, canyons. Topography of Antarctic, Arctic, Atlantic, Indian and Pacific oceans. Features of Arabian sea and Bay of Bengal.	<b>8hrs.</b>
<b>Unit IV</b> Marine Sediment – classification, constituents, distribution and significance of marine sediments. Mudflats, their formation and importance. Principles of bio-geochemistry. Particulate suspended matter.	<b>2hrs.</b>
<b>Unit V</b> Physical properties of sea water and sea ice. Freezing point and factors affecting freezing point of sea water. Distribution and significance of salinity, temperature and density. Heat budget of the ocean. T.S diagram and water masses.	<b>4hrs.</b>

<b>Unit VI</b> Chemical composition of sea water, Constancy of composition and factors influencing composition. Major and minor constituents. pH. Distribution of pH in marine environment, redox potential, selected radioactive isotopes and stable isotopes organic compounds, dissolved gases, process regulating the composition. Trace metals and their biological role	<b>10 hrs</b>
<b>Unit VII</b> Oxygen cycle-Sources, concentration, distribution and factors affecting the distribution of oxygen. Carbon dioxide cycle- sources, concentration, distribution and factors affecting the distribution of carbon dioxide. Nitrogen cycle, phosphorus cycle and silicon cycle. Factors affecting the distribution of nutrient elements. Vertical distribution of nutrient elements in the world ocean.	<b>10 hrs</b>
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Albert Defant (1961) Volume II; <i>Physical Oceanography</i></li> <li>2. Allen E. Herbert, James R. Kramer; <i>Nutrients in Natural waters</i>; A Wiley- Interscience Publication</li> <li>3. Diwan A.P and Arora D.K; <i>Oceanography Environment</i>, Anmol Publications, New Delhi</li> <li>4. Dean F. Martin; (1970) Volume 2, <i>Marine Chemistry</i>, Marcel Dekker, INC., New York</li> <li>5. Gerhard Neumann and Willard J. Pierson (1994). <i>Principal of Physical Oceanography</i>; United states of America</li> <li>6. Harold Barnes (1968). <i>Oceanography and Marine Biology</i>, Vol-1, The Marine Station, Millport, Scotland</li> <li>7. Keen M.J (1968). <i>An Introduction to Marine Geology</i>, Hazell Watson and Vincy Ltd, Great Britain</li> <li>8. R. Davis, J.R. (1977). <i>The principles of Oceanography</i>. Addison-Wesley Publishing Company.</li> <li>9. H. V.SVERDRUP (1961). <i>The Oceans Their Physics, Chemistry, and Biology</i>.</li> <li>10. William S; <i>An Introduction to Physical Oceanography</i>, London</li> <li>11. Werner Stumm and James J. Morgan;(1970). <i>Aquatic Chemistry</i>, Wiley- Interscience ; A Division of John Wiley and sons, Inc-United States of America</li> <li>12. Wallace S. Broecker (1974). <i>Chemical Oceanography</i> by Harcourt Brace Jovanovich, Inc; United States of America.</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCT 1.4: Marine Ecology and Pollution</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will understand the evolutionary and functional basis of Marine ecology.
CO 2	Students will understand the Marine environmental pollution with the insights Govt. Acts on environmental conservation.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> Ecology and its concepts. Importance of study, major subdivisions of the world oceans. Salient features of Karwar coastal waters. Ecological media, substratum and habitat. Role of abiotic factors- light, temperature, water movements, etc.	<b>8 hrs</b>
<b>Unit II:</b> Biotic factors- Nutrition, competition, predator, prey-predator relationship, Leibigs law of the minimum. Animal associations-intraspecific and interspecific relationships, Ecological succession.	<b>5 hrs</b>
<b>Unit III:</b> Lunar periodicity, biological clock, foodweb and trophic relationships, elementary and functional concepts of an ecosystem.	<b>5 hrs</b>
<b>Unit IV:</b> Energy in ecosystem, Energy flow. Marine Borers-Crustacean and molluscan borers, Marine fouling, methods of prevention of fouling and wood borers.	<b>7 hrs</b>
<b>Unit V:</b> Pollution- Surface, ground water and marine pollution. Agricultural pollution- Insecticides, pesticides, and their effects on aquatic environment. Heavy metal pollution- Sources, causes and impact on terrestrial and aquatic habitats. Solid wastes- type, sources effects and management.	<b>8 hrs</b>
<b>Unit VI:</b>	<b>5 hrs</b>

Bioaccumulation, biotransformation and biomagnification. Bioindicator organisms; Greenhouse effect and global warming. Ozone depletion. Acid rain and its impact. Ecotoxicology-types of toxicity, principles, dose-response.	
<b>Unit VII:</b> Environmental impact assessment- Basic concepts and principles of EIA; Pollution control programs and management of hazardous substances. Application of remote sensing in pollution management.	<b>5 hrs</b>
<b>Unit VIII:</b> Pollution Acts, Constitutional rights and administrative acts for pollution control and management.	<b>5 hrs</b>
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Agarwal V.K and Verma P.S (1997) <i>Concept of Ecology, Environment Biology</i>, 03 257 1/e, pp272</li> <li>2. Datta Munshi . J and Datta Munshi .J.S (1995) 1<sup>st</sup> edition, <i>Fundamentals of Fresh water Biology</i>, Narendra Publication, Delhi.</li> <li>3. G. Karleskint &amp; R Turner (2012). Introduction to Marine Biology. Unleash –Inc. ISBN: 978-1133364467.</li> <li>4. Michael H &amp; Peter C (2009). Marine Biology. Apex media. ISBN – 978-0073524160.</li> <li>5. Nasar . S. A. K and Datta Munshi J (1975) Studies on Primary Production of Fresh water Pond. Japanese J. Ecol, 25(1;21-23)</li> <li>6. Rana S.V.S (2012) 1<sup>st</sup> edition( 4<sup>th</sup> reprint) <i>Environment Studies</i>, Rastogi Publication, Meerut ISBN 81-7133-728-7</li> <li>7. Rana S.V.S (2010)<i>Environment Studies</i>, Rastogi Publication, Meerut ISBN 81-7133-728-7</li> <li>8. Trivedy R.K (1995)Vol 1, <i>Encyclopedia of Environmental Pollution and control</i> ,ISBN 81-86421-00-9.</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCP 1.5: PRACTICAL- Biosystematics &amp; Biology of Non-Chordates</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will be trained in animal identification, classification, dissections, mountings and animal biology as a tool for applied and advanced R&D.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Identification and systematic positions of Invertebrates.</li> <li>2. Mounting -Mouth parts and appendages of prawn and crab.</li> <li>3. Nephridium and parapodium of Neries.</li> <li>4. Spicules of sponges and Sea Cucumber.</li> <li>5. Radula of molluscs. Pedicellaria and Aristotle's lantern of sea urchin</li> <li>6. Dissections- Digestive, Nervous and Reproductive systems of Neries, Prawn, Crab, Perna, Sepia.</li> <li>7. Water vascular system of Starfish,</li> <li>8. Study of larval stages of invertebrates and preparation of stained mountings.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCP 1.6 Practical - Genetics and Molecular Cell Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will be trained in genetics and cytological techniques and its related instrumentation which will aspire them to upgrade their analytical and modular research techniques.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Study of Prokaryotic and Eukaryotic cells</li> <li>2. Preparation of fixatives, stains and other reagents</li> <li>3. Microtomy- Preparation and mounting of histological slides using fish tissues.</li> <li>4. Chromosome preparations and Cell cycle study</li> <li>5. Onion root tips (Mitosis).</li> <li>6. Testis / Rheo bud (Meiosis)</li> <li>7. Study of Polytene chromosomes in Chironomus/ Drosophila larva.</li> <li>8. Study of tissues- Temporary mounting of epithelial, nervous, muscular, connective and cartilage tissues.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCP 1.7: PRACTICAL - Oceanography</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will be trained to use the modern instruments insitu and applied research and its applications in sea water sampling and preservation.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Study of general oceanographic instruments-Physical, chemical &amp; biological study of water samples.</li> <li>2. Estimation of Salinity of sea water using Mohr Knudsen method.</li> <li>3. Estimation of CO<sub>2</sub> in sea water.</li> <li>4. Estimation of Dissolved oxygen in sea water using Winkler's method.</li> <li>5. Estimation of Calcium. Estimation of nutrients- Nitrates, Phosphates and Silicates.</li> <li>6. Measurement of pH and temperature.</li> <li>7. Measurement of light intensity and suspended load.</li> <li>8. Sediment analysis- Sand, silt, clay and organic matter.</li> <li>9. Measurements of wave parameters.</li> <li>10. Beach profiling. Study of erosion and accretion.</li> <li>11. Identification and classification of cloud types.</li> <li>12. Operation of meteorological equipments.</li> <li>13. Remote sensing and its application in oceanography</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCP 1.8: PRACTICAL - Marine Ecology and Pollution</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will be exposed to different realms of marine ecosystem to study in-situ followed by laboratory analysis.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Collection and study of boring and fouling communities.</li> <li>2. Ecological adaptations – Estuary, Rocky shore and Sandy shore. Pelagic and benthic adaptations.</li> <li>3. Collection and preservation of samples Sampling methods: Manual, automatic and sorbent sampling, Collection of water, sediment and biological samples.</li> <li>4. Sample storage and preservation techniques</li> <li>5. Estimation of metals from water and sediment samples.</li> <li>6. Preparation of stock solution for Ecotoxicological studies.</li> <li>7. Basic requirement of aquatic toxicological studies.</li> <li>8. Crustacean and fin fish bioassays.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCT 2.1: Biology of Chordata, Reproductive &amp; Developmental Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	The study of Chordates classifications upgrades student's basic and advanced knowledge.
CO 2	Develop critical understanding how a single-celled fertilized egg becomes an embryo and then a fully formed adult by going through three important processes of cell division, cell differentiation and morphogenesis.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I: Protochordata and Cyclostomes:</b> Origin of Chordata. Classification and general organization. Development, life cycle and affinities of Urochordata, Cephalochordata and Cyclostomata.	<b>8 hrs</b>
<b>Unit II: Pisces</b> Classification, External morphology, Evolution and adaptive radiation in fishes. Scales, Air-bladder and Sense organs in fishes. Age and growth in fishes, Food and feeding in fishes Reproduction in fishes, migration in fishes. Poisonous fishes.	<b>10 hrs</b>
<b>Unit III: Amphibia, reptilia, aves and mammals</b> Classification, origin and evolution, Biology and Adaptive radiation, Turtle taxonomy and conservation in India. Migrations in Birds and Echolocation in Mammals.	<b>10 hrs</b>
<b>Unit IV: Comparative anatomy:</b> Integuments and its derivatives in vertebrates. Evolution and Differentiations of aortic arches, heart, brain, respiratory, limbs, Kidney and urinogenital systems.	<b>6 hrs</b>
<b>Unit V: Reproductive modes &amp; structure of gametes:</b> Sexual, asexual, parthenogenesis. Oviparity, viviparity and ovo-viviparity. Types of Regeneration. Structure and types of sperms and eggs. Sequence and events of fertilization, prevention of polyspermy.	<b>4 hrs</b>

<b>Unit VI: Developmental biology:</b> Introduction, Cleavage patterns, regulation and morphogenic movements. Fate of Germ layers, placenta in mammals.	<b>2 hrs</b>
<b>Unit VII: Cell differentiations and organogenesis</b> Differentiation of neural tube, antero posterior and dorso ventral axis, differentiations of erythrocytes, myogenesis.	<b>8 hrs</b>
References	
<ol style="list-style-type: none"> <li>1. Agarwal V. K and Verma P.S, (1997). Chordate Embryology, 10/e Rep pp683</li> <li>2. Kotpal R. L (2016-17) 4<sup>th</sup> edition, <i>Modern textbook of Zoology, Vertebrates</i>( Animal Diversity2) Rastogi Publication, ISBN978-93-5078-095-4</li> <li>3. Jordan E.L and Verma P.S, <i>Chordate Zoology and Animal Physiology</i>, pp1163</li> <li>4. Lal S. S; (2016-17) 2<sup>nd</sup> edition, Vol 3, <i>Practical Zoology</i>, Rastogi Publication, Meerut, India</li> <li>5. Verma P. S and V.K (2000) <i>Chordata Embryology, Developmental Biology of Non-Chordates and Chordates</i>, S. Chand and Company Publication, ISBN 81-219-0261-4.</li> <li>6. Venkataram K, Raghunathan . C, Sreeraj C R and Raghuraman R (2012). Guide to Dangerous and Venomous Marine Animals of India; 1-98. Director, Zool. Surv.India, Kolkata</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCT 2.2: Environmental Biology and Planktonology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	understand a detailed account of environmental aspects and planktonology as specialization to improve basics and fundamental knowledge.
CO 2	Insights in to the environment and its disciplines stimulate the interest among the students.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> Plankton- Historical background, classification of planktonic organisms, systematic studies. Major groups of plankton in the sea. Phyto- zooplankton interrelationship.	<b>5 hrs</b>
<b>Unit II:</b> Distribution - geographical, vertical and seasonal. Plankton indicators. Vertical migration of plankton. Geographical variations in planktonic community with respect to environmental variables.	<b>5 hrs</b>
<b>Unit III:</b> Biology of diatoms and copepods. Primary production. Factors affecting primary production. Methods of estimation of primary production. Relationship between hydrography and primary production.	<b>5 hrs</b>
<b>Unit IV:</b> Plankton and Fisheries. Collection methods, preservation and Analysis of plankton. Red tide. Luminescent plankton. Plankton of Karwar waters.	<b>5 hrs</b>

<b>Unit V:</b> Nekton- taxonomic groups, horizontal and vertical distribution, factors affecting distribution. Benthos- benthic communities, the epifauna, infauna, general characteristics and adaptations. Littoral zones: rocky, sandy, muddy shores characteristics, adaptations, composition. Zonation in the intertidal zones and factors affecting zonation. Estuarine ecology- classification, physico- chemical characteristics, fauna and flora, economic importance. Kali estuary.	<b>8 hrs</b>
<b>Unit VI:</b> Mangroves- Distribution, conditions, adaptations, fauna and flora, significance. Salt marshes- characteristics, composition, distribution. Coral reefs- characteristics, distribution, types, composition and economical importance.	<b>5 hrs</b>
<b>Unit VII:</b> Pelagic zone- classification, life composition, distribution, variation, significance. Deep sea- life conditions in deep sea, abyssal and hadal zones, faunal composition.	<b>5 hrs</b>
<b>Unit VIII:</b> Conservation of ecosystems, resources. Renewable and non- renewable resources. Wildlife conservation- Definition, importance of wild life, Coastal Regulation Zone rules, Biological diversity act. Loss of biological diversity, source and conservation strategies. Bio reserves and biospheres, wildlife sanctuaries, national parks, marine parks, projects, hotspots, protected areas, endangered species. Application of remote sensing in biodiversity conservation. Environmental education and awareness.	<b>10 hrs</b>
References	
1. Abijit Mitra, Kakoli Banerjee, Bhattacharyya. D.P, 2006 Inroduction to Marine Phytoplanktons , Narendra Publication, New Delhi. ISBN 81-85375-13-5 2. Ananda Rao T and Suresh P. V, Costal Ecosystem of Karnataka State, India, Mangrooves, Karnataka Association for Advancement of Sciences Bangalore 3. Gopal . B; 2001, Marine Ecosystem, Kalpaz Publication , Delhi, ISBN 81-7835-059-9 4. Kathiresan K, Bingham B.L; 2001, Biology of Mangrooves and Mangroove ecosystems, Advances in Marine Biology, 40;81-251 5. Sharma P.D (2013) <i>Environmental Biology and Toxicology</i> , 3 <sup>rd</sup> revised edition, Rastogi Publication, Meerut, ISBN 13:978-81-7133-964-8 6. Sharma P.D (2015-16) <i>Ecology and Environment</i> ,A textbook for University Students 12 <sup>rd</sup> edition, Rastogi Publication, Meerut, ISBN 978-91-5078-068-8 7. Selvam V. L, Gnanappazham, Naramuniyammal. M, Ravichandran K.K and Karunagaran V.M, 2002 Atlas of Mangrove Wetlands of India: Part 1 M.S Swaminathan Research Foundation 8. Venkataraman .K , Rajkumar . R, Satyanarayana C. H, Raghunathan C and Venkatraman C; 2012 Marine Ecosystem and Marine Protected areas of India, Zoological Survey of India, Chennia, Kolkata ISBN 978-81-8171-312-4	

<b>Paper Code and Name</b>	<b>MBCT 2.3: Aquaculture</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper,	
CO 1	Students will understand the aquaculture systems
CO 2	Students will understand the various aspects of biology and culture technique of fishes and allied products.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> History of aquaculture. General principles underlying the practice of aquaculture. Scope and importance of aquaculture in India.	<b>5 hrs</b>
<b>Unit II :</b> Food and feeding in culturable species. Nutritional requirements, principles of feed formulation, proximal composition of different feed. Feed conversion efficiencies of culturing organisms.	<b>5 hrs</b>
<b>Unit III:</b> Culture systems: Culture in irrigation systems. Paddy fields, sewage disposals, race ways. Monoculture, polyculture. Integrated farming. Bottom and off bottom culture. Rope culture, raft culture, pen culture. Sea ranching.	<b>8 hrs</b>
<b>Unit IV:</b> Construction of fish farm- selection of fish farm site. Topography survey. Ecological survey, water quality, tidal range, layout design. Design of farm physical structures and construction. Equipments and facilities for fish farm operation and management.	<b>5 hrs</b>

<b>Unit V:</b> Farm management- Physical and chemical properties of soil and their impact on construction and maintenance of ponds. Development cost of fish farms. Water characteristics- salinity, pH, dissolved oxygen, temperature, nutrients etc. Eradication of predators. Pond preparation. Transport of seeds. Pond management and feeding. Harvesting and marketing. Criteria for selection of species. Problems in rearing.	<b>12 hrs</b>
<b>Unit VI:</b> Carp culture- Breeding and seed production in fin fishes. Natural seed resources, collection, transportation. Brood stock management. Induced breeding. Fin fish hatchery management.	<b>8 hrs</b>
<b>Unit VII:</b> Macrobrachium (scampi) culture. Salmon and catfish culture. Crop manipulation. Fin fish diseases; Health, hygiene and quarantine measures in fishes.	<b>5 hrs</b>
References	
1. Coche A. G, Muir . I F and Laughlin . T, (2000). <i>Simple Methods of Aquaculture, Management of Fresh water Fish Culture, Ponds and water Practices</i> , FAO, Bangkok 2. Chakrabarti N M, (1998) <i>Biology , Culture and Production of Indian Major Carps -A review</i> , ISBN 81-85375-51-8 3. Dr. Yadav B. N; (2006) <i>Fish and Fisheries</i> , Daya Publishing House, Delhi ISBN 81-705-1715-1 4. Dr. Arumugam . N, Murugan T, Johnson J.R and Ram R.P, 2010, <i>Applied Zoology</i> , Saras Publication, Kanyakumari Dist. 5. FAO Training Series, <i>Simple Methods for Aquaculture Series</i> , Vol 4, 1981, Water for fresh water Fish Culture, ISBN 92-5-101112, pp111 6. Pal R N and Ghosh, 1915, <i>Aquaculture extension Manual</i> , New series no.9, Central Inland Fisheries Research Institute, Barrackpora, West Bengal ,India 7. Upadhyay A.S (1987) <i>Few Improved designs of water inlet/ out let structures of semi-intensive Aquaculture</i> forums unpublishes paper presented in 1 <sup>st</sup> Indian Fisheries forum Mangalore India 17pp	

<b>Paper Code and Name</b>	<b>ZCP 2.4: PRACTICAL - Biology of Chordata, Reproductive &amp; Developmental Biology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will be trained in animal identification, classification, dissections, mountings and animal biology.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Identification and classification of Chordates. Dissection of eye muscles, Digestive, Circulatory, reproductive system, Brain, cranial nerves of Sharks.</li> <li>2. Mounting of Ampullae of Lorenzini in Shark</li> <li>3. Assessment of age and growth using Placoid scales, Cycloid scales, Ctenoid scales.</li> <li>4. Study of development stages of fish and amphioxus.</li> <li>5. Preparation of whole mount of embryo and larvae of fish.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 2.5: Practicals - Environmental Biology and Planktonology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will be exposed to different realms of marine ecosystem to study in-situ followed by laboratory analysis

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Methods of collection of plankton, preservation techniques in plankton study and Analysis. Identification of phyto and zooplankton.</li> <li>2. Evaluation of standing stock. Diel variation in plankton in estuary/bay</li> <li>3. Estimation of primary production by light and dark bottle method.</li> <li>4. Chlorophyll estimation.</li> <li>5. Preparation of whole mounts of planktons.</li> <li>6. Identification and adaptations of Nekton and benthos.</li> <li>7. Collection and identification of economically important Sea weeds and their adaptation.</li> <li>8. Visit to intertidal regions- Rocky shores, Sandy shores, mud flats, mangrove and estuaries.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 2.6: PRACTICALS - Aquaculture</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will acquire lab and field based hands on skills and enable them to upgrade the current trends of Aquaculture and its management aspects.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Collection and identification of culturable organisms.</li> <li>2. Study of Design, layout of aquaculture farm.</li> <li>3. Culture pond preparation and its management.</li> <li>4. Water and soil quality analysis of aquaculture pond.</li> <li>5. Study biology of Culturable fishes.</li> <li>6. Study of food and feeding in culturable fishes.</li> <li>7. Determination of maturity stages in fishes.</li> <li>8. Fish seeds collection and analysis.</li> <li>9. Identification egg, larva, fry and fingerlings of fishes.</li> <li>10. Induce Breeding experiments in fish.</li> <li>11. Dissection and display of pituitary gland and preparation of extract.</li> <li>12. Artificial fish feed preparation.</li> <li>13. Common fish diseases and its management.</li> <li>14. Visit to freshwater fish hatchery to study hatchery management.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCT 3.1: Fishery Harvest and Post Harvest Technology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify and witness the operational process of various fish catching methods.
CO 2	Students will learn the post-harvest technology and subsequent value addition national and international standards

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> Introduction, History & Evolution of fishing gears and crafts. Fishing methods- Surrounding nets, Seine nets, Trawls, Lift nets, Falling nets, Gill nets & Entangling nets, Traps, Hook & lines and Traditional Fishing gears of India. Fish finder- working principles, fishing without gear. Fishing gears and crafts of Uttara Kannada. Care and maintenance of gears- sterilization, tannin & coal tar and heat treatments. Maintenance of fishing vessels- docking the vessel in a dry dock. Hull preparation and painting. Life saving appliances- life boat, life buoy, life jacket, life raft.	<b>10 hrs</b>
<b>Unit II:</b> Gear accessories: Floats- properties, low-density floats- wood, cork, thermocol, sponge plastic and rubber floats. High-density floats- glass, aluminum, steel, fiberglass floats. Buoy- light buoy, radio buoy and dahn buoy. Sinkers and kites. Properties of natural and synthetic fibers. Types of craft building materials. International Standard Statistical Classification of fishing Gears (ISSCG).	<b>6 hrs</b>

<b>Unit III:</b> Handling of fish and shrimps onboard the fishing vessel- cleaning, sorting & evisceration, water supply, fish holds & containers and personal hygiene; Quality of water, ice and refrigerated seawater for seafood processing; Water- physical, chemical and bacteriological examination of water.  Freezing of fish- Principles and mechanism of freezing and canning of fish; Principles and steps involved in canning; Curing- sun drying, salt curing, smoking of fish and radiation.	<b>13 hrs</b>
<b>Unit IV:</b> Biochemical Composition of fish- protein, fat, fish oils, minerals, vitamins, etc. Post- mortem changes in fish. Spoilage of fish- Bacterial, Enzymatic and Biochemical spoilage. Quality Control- Intrinsic and Extrinsic qualities.	<b>7 hrs</b>
<b>Unit V:</b> The structure of Bacteria- flagella, pili, glycocalyx, cell wall, cell membrane, cytoplasm & spore. Bacterial growth- requisite for bacterial growth. Bacteriology of fish and shellfish.	<b>6 hrs</b>
<b>Unit VI:</b> HACCP Concept in Seafood processing. National and International Quality standards for fish and fishery products. Packing and transportation of fresh and processed sea foods.	<b>6 hrs</b>
References	
1. Balachandran K.K (2001) <i>Post Harvest Technology of fish and fish products</i> , ISBN 81-7035-237-1. 2. Bonnell A.D (1994) <i>Quality Assurance in seafood processing</i> , Publishing in Great Britain ISBN 0-442-00879-1. 3. Golikatte Mahesh. (2009). Hall G.M (2009) <i>Fish Processing Technology</i> , BAP Publication, New Delhi. 4. Jyoti M.K and Sharma.A (2006). <i>Fish aid to collection ,preservation and Identification</i> , Daya publishing house, Delhi. 5. Ninawe A. & Sand Rathnakumar .K (2008) <i>Fish Processing Technology and Product development</i> Narendra publishing house, Delhi. ISBN 81-85-375-895. 6. Ronald A, Corlett.Jr (1998). <i>HACCP Users Manual</i> , Aspen Publishers, ISBN 0-8342-1200-5 7. Winton A.L and Winton K.B (1997) <i>Fish and Fish Products</i> . 8. Winton A.L and Winton K.B (2000) <i>Fish and Fish Products</i> , Jodhpur, India. ISBN 81-7754-029-7.	

<b>Paper Code and Name</b>	<b>MBCT 3.2: Animal Physiology, Endocrinology &amp; Biochemistry</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Realize that very similar physiological mechanisms are used in very diverse organisms.
CO 2	Students will understand the structure and biological significance of carbohydrates, amino acids, proteins, lipids and nucleic acids.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I: Nutrition</b> Nutritive requirements, Food value, Digestion and absorption in animals.	<b>2 hrs</b>
<b>Unit II: Circulation &amp; Respiration</b> Blood. Composition and functions of blood. Fluid transport. The closed and open circulatory systems. Vertebrates' circulatory mechanism. Integumentary, branchial, and pulmonary respiration. Respiratory pigments. Oxygen/ Carbon dioxide transport. Anaerobic respiration in animals.	<b>9 hrs</b>
<b>Unit III: Excretion and Osmoregulation</b> Basic aspects of the disposition of ammonia and nitrogen. Major nitrogenous end products. Inter relations between habitat and excretion. Ionic and osmotic regulation in animals.	<b>5 hrs</b>
<b>Unit IV: Sense organs and thermoregulation</b> Chemoreceptions, Mechanoreceptions. Thermoreceptions and Photoreception. Propagation of nerve impulses. Cardiac, skeletal and smooth muscles. Mechanism of muscle contraction. Effect of temperature changes and acclimatization. Regulation of body temperature in birds and mammals. Aestivation and hibernation.	<b>7 hrs</b>
<b>Unit V: Endocrinology &amp; Immunology:</b> Comparative anatomy of endocrine glands. Structure, biosynthesis and biological actions of hormones. Structure and functions of hormone systems of crustaceans and fishes. Overview of immune system. Cells and organs of immune system. Antigen & Antibody and its interactions. T- Cell, B-Cell and Cytokines. Vaccines.	<b>7 hrs</b>

<b>Unit VI: Biochemistry</b> Principles of Biochemistry. Chemistry of Carbohydrates, Lipids, Protein, Nucleic acids and Vitamins. Classifications of Enzymes. Mechanism of action of enzymes. Kinetics of enzyme catalyzed reaction activation, Enzyme inhibition, Co-enzymes, Metalloenzymes, Iso-enzymes. Metabolism of Protein and Lipids.	<b>18 hrs</b>
References	
<ol style="list-style-type: none"> <li>1. Gupta S.N (2015-16) <i>Concepts of Biochemistry</i>, Rastogi Publication, Meerut, ISBN 978-93-5078-092-3.</li> <li>2. Goyal, Sastry (2015-16) 6<sup>th</sup> Edition, <i>Animal Physiology</i>, Rastogi publication, Meerut. ISBN 978-81-7133-864-1.</li> <li>3. Sastry K.V (2016-17) 2<sup>nd</sup> Edition, <i>Animal Physiology and Biochemistry</i>, Rastogi publication, Meerut.</li> <li>4. Sastry K.V (2008). 1<sup>st</sup> Edition, <i>Animal Physiology And Biochemistry</i>, Rastogi publication, Meerut.</li> </ol> <p>David Nelson &amp; M. Cox (2004). <i>Lehninger the Principles of Biochemistry</i> 4<sup>th</sup> Ed.</p>	

<b>Paper Code and Name</b>	<b>MBCT 3.3: Mariculture</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students learn various culture techniques and field exposure
CO 2	Hands on training on mariculture management and accountability

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> Brackish water aquaculture- Shrimp culture. Biology of cultivable Shrimps. Culture practices- Extensive, semi intensive and intensive culture. Aquaculture impact on environment. Paddy cum shrimp culture. Tidal range and pond construction.	<b>8 hrs</b>
<b>Unit II:</b> Culture of milk fish, mullets, tilapia, seabass, cobia and mud crabs. Cage culture practices & prospectus.	<b>8 hrs</b>
<b>Unit III:</b> Recent advances in coastal aquaculture and open sea mariculture. Mussel culture. Pearl oyster culture. Sea cucumber, sea weed, oyster, clam and eel culture.	<b>8 hrs</b>
<b>Unit IV:</b> Hatchery management for shrimp and molluscan seed production. Technique, collection, transportation and breeding of spawners. Induced maturation by eye stalk ablation. Larval rearing technique. Live feed culture: Algal culture and artemia culture, cladoceran and rotifer culture for hatchery production of seeds. Packing and marketing. Induced breeding in molluscs, spat settlement and collection.	<b>10 hrs</b>
<b>Unit V:</b> Nutrition, food and feeding- Nutritional requirements of different species of shell fish and their life history stages. Principle of feed formulation, proximate composition of different shrimp feeds.	<b>5 hrs</b>

<b>Unit VI:</b> Pathology- Problems of diseases and parasites in brackish water culture. Common diseases of cultivable shell fishes. Bacterial, fungal and viral diseases.;. Ecto and endoparasites of shell fishes. Protozoan and helminthic diseases. Prophylaxis, diagnosis and therapeutic measures, Molecular disease diagnostics.	<b>5 hrs</b>
<b>Unit VII:</b> Aquaculture management: Aquaculture authority Act, aquaculture authority guidelines. Effluent treatment system in aquaculture, MPEDA – NACA guidelines for shrimp health management; HACCP in aquaculture; Aqua club concept.	<b>4 hrs</b>
References	
<ol style="list-style-type: none"> <li>1. Agarwal .S.C,(1994),A handbook of fish farming,Narendra publishing house ,Delhi.ISBN81-85375-32-1H.</li> <li>2. Biswas.K.P,(1992),Prevention and Control of fish and Prawn Disease,Narendra Publishing House,Delhi</li> <li>3. Coche,A.G,(1985),Simple methods for Aquaculture-Soil and Fresh water,Fish culture – FAOPublication(6),FAO,Rome.</li> <li>4. Gilda,Lio-PO,(1991),Diseases ofPond Cultured Shrimps with Emphasis on Prevention Strategies.Aquaculture Dept.South East Asian Fisheries Dev.Centre,Phillippines.</li> <li>5. Simple Methods for Aquaculture Series-Vol-6,Soil and fresh water fish Culture,(1986),pp174,ISBN92-5-101355-1.</li> <li>6. Simple Methods for Aquaculture Series-Vol-21/2,Management of fresh water fish Culture .ponds and water practices,(1996),pp233,ISBN92-5-102873-7.</li> <li>7. Silas.E.G,(1912),Breeding and Rearing of Marine Prawns,Central Marine Fisheries Resaearch Institute,Cochin.</li> <li>8. Upadhyay.A.S,(1994),Investement opportunities in shrimp farming,pp 12.</li> </ol> <p>Philipose K.K.(2012). Open Sea Cage Culture. CMFRI Publications.</p>	

<b>Paper Code and Name</b>	<b>ZCP 3.4: PRACTICALS- Fishery harvest and post harvest technology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify and witness the operational process of various fish catching methods and quality analysis of seafoods

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Identification of netting materials. Identification of gear accessories.</li> <li>2. Construction of Cabled netting yarn. Parts of fishing vessels. Preparation of knots, hitches and bends. Net making.</li> <li>3. Study of hull shapes and positions. Study of operation of beach seine (Yendi). Study of typical backbone assembly.</li> <li>4. Operation and demonstration of fishing methods-Trawling, Purse seining, Gill netting and other traditional fishing methods. Study of Navigational charts.</li> <li>5. Study of sign of flags. Engine parts, GPS, Echo-Sounder etc.</li> <li>6. Study of Navigational equipments- Sextant, Azimuth mirror, Pyrotechniques, Navigational chart, Magnetic compass and Pelorus.</li> <li>7. Visit to fishing places, Ship yard and Marine Research Institutes.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 3.5: Practicals - Animal Physiology, Endocrinology &amp; Biochemistry</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students learn vertebrate blood collection and analysis technique and other macro molecules analysis as a technical tool

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Study of Blood groups. Haemoglobin content, haemolysis, blood coagulation, RBC, WBC and differential counts in any vertebrate representative. Fish blood collection and analysis.</li> <li>2. Preparation of Solutions: Percentage solutions, Molar solutions, Normal solutions, Dilution of Stock solutions. Buffer solution preparation and pH adjustments.</li> <li>3. Qualitative and quantitative Estimations - Carbohydrates, Protein, and Lipid from animal source.</li> <li>4. Constituents of normal and abnormal urine.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 3.6: Practicals - Mariculture</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Hands on training on mariculture management and accountability

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Study of Brackish water pond design, layout and Tidal range.</li> <li>2. Equipment and facility used in mariculture.</li> <li>3. Open sea cage culture tools.</li> <li>4. Identification of marine culturable finfish's and shellfish.</li> <li>5. Study biology of Shrimps and marine culturable fish</li> <li>6. Food and feeding studies in finfish &amp; shell fishes.</li> <li>7. Induced breeding of molluscans.</li> <li>8. Identification of larval stages of culturable species and rearing.</li> <li>9. Spat collection technique.</li> <li>10. Live feed culture.</li> <li>11. Artificial shrimp feed preparation.</li> <li>12. Disease diagnosis and therapy. Molecular disease diagnostics in aquaculture.</li> <li>13. Visit to a shrimp hatchery.</li> <li>14. Visit to a aquaculture farm.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>MBCT 4.1: Fishery Resources and Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	understand fisheries biodiversity and its management.
CO 2	have insights of the present status of fisheries as upgraded knowledge.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> History of fishery resources. Survey of fishery resources of the world. Present status and future prospectus of fishing industry. Application of Remote sensing in fishery survey.	<b>5 hrs</b>
<b>Unit II:</b> Pelagic fishery resources of India. Oil sardine, lesser sardine and Indian mackerel. Estuarine fishery, milk fish, pearl spot, mullets. Chilka & pulicate lake fisheries. Cochin back waters. Aganashini & Kali estuarine fisheries Demersal Fishery resources of India- Bombay duck, tunas, bill fish, sword fish and seer fish.	<b>15 hrs</b>
<b>Unit III:</b> Flying fish, ribbon fish, white baits, pearch, elasmobranchs, cat fish, pamfrets, sciaenids. Silver bellies, thread fins, flat fishes, carangids, seaweeds, corals, sponges, echinoderms Shell fishery of India: Molluscan-bivalves, gastropods and cephalopods (cuttle fish, squids & octopus)	<b>10 hrs</b>
<b>Unit IV:</b> Fishery byproducts- fish meal, fish body oil, Fish Protein Concentration (FPC), Pearl essence, fish glue, fish guano, fish ensilage.	<b>4 hrs</b>
<b>Unit V:</b> Value added fish products-fish sausages, fish wafers, soup powder, fish pickles, clam pickle and squid rings. Ornamental and industrial fishes.	<b>4 hrs</b>

<b>Unit VI:</b> Fishery products and byproducts: Shark liver oil, shark fins, Fish maws and Isinglass, chitosan, ambergris, beche-de-mers. Seaweed products- agar, algin, iodine, edible sea weeds and sea weed products, fertilizers. Chemical products from sea waters - Extraction and uses of salt, magnesium, magnesium sulphate, bromine, heavy waters. Drugs from the marine organisms.	<b>10 hrs</b>
<b>References</b>	
<ol style="list-style-type: none"> <li>1. Jhingran V.G, <i>Fish and Fisheries of India</i>, Central inland Fisheries Institute, Barrackpore</li> <li>2. John E B, John HR , Willium O M, Aquaculture , <i>The Farming and Husbandry of Fresh Water and Marine Organisms</i></li> <li>3. Mohan Joseph and Jaya Prakash A. A(eds 2003), <i>Status of exploited Marine Fisheries Resources of India</i>, CMFRI, Kochin, India</li> <li>4. Sundaraj V, Srikrishnadhas B, 2000, <i>Cultivable Aquatic Organisms</i>, Narandra Publication House, ISBN 81-85375-61-5-PB</li> <li>5. Venkataramana K (2007) <i>Marine Ecosystem of India</i>, Indian journal of Environmental and Education, 7(2) 7-26</li> <li>6. Venkataraman K and Wafar M (2005)<i>Coastal and Marine Biodiversity of India</i>, Indian Journal of Marine sciences , 24(1):57-75</li> <li>7. Venkataram K, Raghunathan . C, Sreeraj C. R and Raghuraman R, 2012 <i>Marine Biodiversity in India</i> ;Zool. Surv.India Division, ISBN 978-81—8171-307-0.</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCT 4.2: Marine Biotechnology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Learn the theoretical basis of Biotechnological technique, its principle of working and its correct application
CO 2	Analyze the contribution of marine microbes in water treatment, solid waste management, bioremediation and phytoremediation.

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I: An Overview of Biotechnology</b> Origin. History of Biotechnology. Definition. Biotechnology is an interdisciplinary activity, Scope and importance of Biotechnology, Biotechnology in India.	<b>5 hrs</b>
<b>Unit II: Cell and Tissue Culture Technology</b> Requirement for animal cell and tissue culture. Substrates for cell growth. Culture media. Sources of cell. Techniques of obtaining cells by disaggregation's of tissue. Culture procedures - storage, preservation and retrieval of culture. Large scale culture of cell lines. Applications of cell culture products.	<b>12 hrs</b>
<b>Unit III: Environmental Biotechnology</b> Introduction of Biotechnology for pollution abatement. Use of Genetically Engineered organisms for removal of specific pollutants. GEM for oil spill, GEM for degrading pesticides and GEM for sequestering heavy metals.	<b>7 hrs</b>
<b>Unit IV: Biotechnological Bioremediation</b> In situ bioremediation. Ex situ bioremediation. Bioremediation of specific pollutants. Phytoremediations. Methods of Phytoremediation, Biosorption and Bioleaching.	<b>6 hrs</b>
<b>Unit V: Aquaculture Biotechnology</b> Introduction. Transgenic fish, Production of transgenic fish. Technique of transfer of transgene. Microinjection, electroporation, sperm-mediated transfer, Retriviral vectors, biolistics and lipofection. Cryopreservation in Marine organisms. Prospects of aquaculture biotechnology in India.	<b>10 hrs</b>

<b>Unit VI: Biotechnological Tools for Disease Diagnostics</b> Diagnostics in aquaculture, Enzyme Linked Immuno assay, Dot Immunobinding Assay, Western blotting, Gene cloning, DNA based Diagnostics, Polymerase Chain Reaction, Nucleic acid probes, Recombinant DNA technology. Disease management technologies.	<b>8 hrs</b>
References	
<ol style="list-style-type: none"> <li>1. Gupta P.K (2015-2016) 1<sup>st</sup>Edition,Molecular Biology and Genetic Engineering, Rastogi Publication, Meerut.ISBN 81-7133-719-8.</li> <li>2. Rajan .S and Selvi R.C (2010) 1<sup>st</sup>Edition, <i>Experimental procedures in Life Sciences</i>, Anjanaa Book House,Chennai.ISBN-978-81-910165-05.</li> <li>3. Ramdas. P (2008) <i>Animal Biotechnology</i>-MJP, Chennai</li> <li>4. White T.J, Arnhein.N and Erlich (1989) <i>The polymerase chain-Trends gene5</i>(185-189)</li> </ol>	

<b>Paper Code and Name</b>	<b>MBCT 4.3: Fishery Economics and Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Students will understand the Fishery resources adding valuable foreign exchange to the Indian economy.
CO 2	insight into the trends of fishery economics and national and international status

<b>Particulars</b>	<b>Teaching Hours (Max. 50)</b>
<b>Unit I:</b> Introduction of fishery economics, catch per unit effort, maximum sustainable yield, Economics of different types of marine Fishing Units. Economic evaluation of Mariculture practices. Trends in landings and potential yield from Indian EEZ.	<b>10 hrs</b>
<b>Unit II:</b> Structure of fishing industry & man power requirements. Financial requirements in the fishing industry.	<b>5 hrs</b>
<b>Unit III:</b> Role of banking institutions in the fishing industry. Fishermen co-operatives in Karnataka State & Uttara Kannada District.	<b>5 hrs</b>
<b>Unit IV:</b> Five year plans & fishing industry, Blue revolution. fisheries extension	<b>5 hrs</b>
<b>Unit V:</b> Global fisheries export scenario. Export growth of marine products in India. Socio-economic aspects of fishing industries.	<b>5 hrs</b>
<b>Unit VI:</b> Fisheries management theories and objectives – classical theory of Adam Smith. Biological theory of fisheries Management. The Neo-Classical theory of Economists. Modern theory of fisheries management. Global theory of fisheries management. A holistic theory of fisheries management.	<b>10 hrs</b>

<b>Unit VII:</b> Fisheries Education, Training & National and international organizations. International Law of Marine fisheries	<b>8 hrs</b>
References	
<b>Reference Books:</b> <ol style="list-style-type: none"> <li>1. DattaMunshi and Srivastava (2006) Reprint, <i>Natural history of Fishes and Systematicc of fresh water fishes of India</i>, Narendra publishing house, Delhi ISBN 81-85375-12-7.</li> <li>2. Ninawe A.S and Rathnakumar .K (2008) <i>Fish processing Technology and Product development</i>, Narendra publishing house, Delhi.ISBN 81-85-375-89-5.</li> <li>3. Simon .J, Michel J.K and John D.R (2001) <i>Marine Fisheries Ecology</i></li> <li>4. Shukla J.P (2016-17) <i>Fish and Fisheries</i>, Rastogi publications, Meerut, ISBN978-81-7133-967-9.</li> <li>5. Fish and fisheries of Tropical estuaries - Balbu Stiphen J.M.</li> <li>6. Commercial fishing methods - John C. Sainsbury.</li> <li>7. Fishery management – Rekha R. Goankar Fishing Chymes – Quarterly Journal</li> </ol>	

<b>Paper Code and Name</b>	<b>ZCP 4.4: Practicals - Fishery Resources and Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Hands on training on fish taxonomy and its allied research and development branches, field visits to fish landing center, fish meal plant and processing plant strengthens the applied aspects.

<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Identification and classification of commercially important fin fishes of Karwar.</li> <li>2. Morphometric and meristic studies. Length weight relationship.</li> <li>3. Mounting of scales and otoliths.</li> <li>4. Fish market survey and report.</li> <li>5. Visit to fish landing center and report. Visit to ice plants, fish meal plants.</li> <li>6. Visit to fish processing plants.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 4.5: Practicals - Marine Biotechnology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Hands on training of various Microbiological and biotechnological techniques

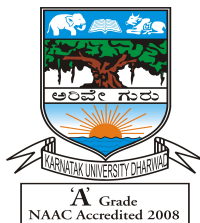
<b>Particulars</b>	<b>4 Hrs/week</b>
<ol style="list-style-type: none"> <li>1. Common Laboratory instruments and tools. Colony characteristics of Bacteria. Preparation of culture media. Preparation of smears and saline.</li> <li>2. Streak plate technique. Staining methods. Effect of pH on the growth of bacteria. Bacterial motility study-hanging drop method.</li> <li>3. Sampling of fish for Total Plate count (TPC). Most probable number (MPN) for coliforms.</li> <li>4. Sterilization techniques -Physical and chemical methods.</li> <li>5. Study of tissue culture technique and equipments. Preparation of Cell culture medium</li> <li>6. Collection and , isolation, and culture of Micro algae</li> <li>7. Enzyme linked immunosorbant Assay (demonstration)</li> <li>8. SDS-PAGE Electrophoresis (demo)</li> <li>9. DNA extraction technique (demo), PCR technique, Agarose Gel Electrophoresis (demo)</li> <li>10. Cryopreservation of Gametes.</li> </ol> <p><i>(New practical component may be added every year)</i></p>	

<b>Paper Code and Name</b>	<b>ZCP 4.6: Practicals - Fishery Economics and Management</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper :	
CO 1	Students will understand commercially important fish commodity, taxonomy of shrimps, crabs and bivalves and its biological aspects.

<b>Particulars</b>	<b>4 Hrs/week</b>
1. Identification and classification of commercially important Shell fishes of Karwar. I. Shrimps II. Crabs III. Bivalves 2. Morphometric and meristic studies. 3. Length weight relationship in shrimps. 4. Mounting of scales and otoliths. 5. Fish market survey and report. 6. Visit to fish landing centre and report. 7. Visit to ice plants, fish meal plants. 8. Visit to fish processing plants.  <i>(New practical component may be added every year)</i>	

<b>Paper Code and Name</b>	<b>MBD 4.7: Dissertation work</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	During their project tenure, students are assigned to independent research and development activity, field based survey, institutional internship to make them competent qualifying researchers.
CO 2	Literature survey on the topic.
CO 3	Basics of research methodology and design of experiments.
CO 4	Preparation of manuscript for publication.
CO 5	Execution of research work by various techniques

# KARNATAK UNIVERSITY, DHARWAD



*Regulations and Syllabus*  
*for*  
*P.G. Department of Studies in*

## MATHEMATICS

(I to IV Semesters)

**Under Choice Based Credit System**

From  
2013-14 & onwards

**KARNATAK UNIVERSITY, DHARWAD**  
**Post Graduate Department of Studies in Mathematics**  
**SYLLABUS & REGULATIONS**  
For  
**M.A. / M.Sc. (MATHEMATICS)**  
(Choice Based Credit System)  
w.e.f. 2008-2009  
**Regulations and Scheme of Examination**  
for  
**M.A. / M.Sc. (Mathematics) Degree Course under**  
**Choice Based Credit System (CBCS)**

**1.0. Duration of the Course:**

The M.A. / M.Sc. Degree Course is of two years duration, spread over four semesters each of four months duration.

**1.2 (A) Eligibility for Admission:**

B.A. / B.Sc. Graduates of Karnatak University or of any other University recognized as equivalent there to with Mathematics as optional subject. The candidate should have obtained at least 45% of marks in optional subjects as well as in aggregate. Relaxation in respect of SC / ST / Cat-I etc. will be followed as per prevailing rules of the University.

**(B) Admission:**

- (i) **Intake:** 70 students (but may vary from time to time with the permission from the University) for the first semester. This includes admission under enhanced fee structure. Other rules for admission are as per University notification from time to time.
- (ii) **Admission to other Semesters:** Students are allowed to take admissions to successive semesters under carry over benefit (COB) facility.

**2. Attendance:**

Every student must have at least 75% attendance in each of the courses (Theory & Practical) in each semester. Shortage of attendance will be dealt with as per the University rules from time to time.

**3. Medium of Instruction:**

The medium of instruction shall be English.

**4. Scheme of Instructions:**

In the First three Semesters (I, II, III) there will be 3 Core Theory Papers of 4 credits each. In addition, in the I Semester there will be 3 Core Theory Papers of 2 credits each. In each of the II and III Semesters there will be 2 Core Theory Papers of 2 credits each.

In IV Semester there will be 4 Core Theory Papers of 4 credits each, 3 Core Theory Papers of 2 credits each.

In each of II, III, IV Semesters there will be 1 Core Practical Paper of 2 Credits.

In each of I, II, III Semesters there will be two Elective Theory Papers of 4 and 2 Credits. These elective papers have to be chosen by the students of other departments.

Our M.A. / M.Sc. students have to take electives of 6 Credits in each of I, II, III Semesters offered by other departments.

**5. Scheme of Evaluation:**

Examination will be conducted at the end of each semester.

Each Core theory paper of credits 4 and 2 will have an examination of 3 and 2 hours duration respectively and carrying maximum of 75 marks and 35 marks respectively. Each Core practical will have examination of 2 hours duration.

For each theory / practical of 4 and 2 credits, there will be an internal assessment test carrying 25 and 15 marks respectively.

Each elective paper of 4 credits will have examination of 3 hours duration carrying 75 marks and will have internal assessment test for 25 marks.

Each elective paper of 2 credits will have examination of 2 hours carrying 35 marks and will have Internal Assessment Test for 15 marks.

**6. Maximum period for the completion of the Degree Programme:**

There shall be fully carry over system from first through fourth semesters. Maximum number of years for a student to complete the degree is as specified by the University from time to time.

**8.** The General Regulations Governing Post-Graduate Programmes under CBCS and Regulations Governing Post-Graduate Programmes in the Faculty of Science and Technology under CBCS of Karnatak University, Dharwad are applicable to this course for all the matters not covered under this.

Regulations Governing Post-Graduate Programmes in the  
Faculty of Science & Technology under Choice Based Credit System  
(Framed under Section 44(1)(c) of the K.S.U. Act 2000)

**1.1. Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Science & Technology under the Choice Based Credit System” in Karnatak University, Dharwad.

**2.0. Commencement**

These Regulations shall come into force with effect from the academic year 2011-12.

**3.0. Definitions**

- a. In these Regulations, unless otherwise provided: “Academic Council” means Academic Council of the University constituted according to the Karnataka State Universities Act, 2000.
- b. “Board of Studies” means P.G. Board of Studies of the University, Adhoc / Combined and Steering Committees of International Diploma Programmes in the discipline / subjects concerned.
- c. “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d. “Course Weightage” means number of credits assigned to a particular course.
- e. “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f. “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g. “Degree” means Post-Graduate Degree.
- h. “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester – end Examinations.
- i. “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- k. “Post Graduate Programme” means semesterised Master’s Degree Programmes excluding P.G. Diploma.
- l. “Specialization course” means advanced paper offered by a Department that a student of that Department can opt as a special course.
- m. “Student” means the student admitted to programmes under (k).
- n. “University” means Karnatak University, Dharwad.

**4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of the study for the Post-Graduate Degree programme shall extend over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0. Programme Structure**

- 7.1. The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 7.2. There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.
- 7.3. Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 7.4. In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.
- 7.5. Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centers and affiliated colleges, can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6. The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course, from 2 to 4; and for Open Elective Course, from 2 to 4. Wherever project work / field work / practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.
- 7.7. The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.
- 7.8. The students shall undertake project / field work during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.
- 7.9. The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10. The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure-Ia & Annexure-Ib.

- 7.11. The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

#### **8.0. Attendance**

- 8.1. Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2. Each student shall sign the attendance register maintained by the Department for each course for every hour / unit of teaching / practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3. Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4. A student shall be considered to have satisfied the required attendance for each course if he / she has attended not less than 75% of the total number of instructional hours during the semester.
- 8.5. There is no provision for condoning shortage of attendance.
- 8.6. The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7. Such of the candidates who have participated in State / National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

#### **9.0. Examination**

- 9.1. There shall be an examination at the end of the each semester. The odd semester examinations shall be conducted by the respective Departments / P.G. Centres / Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1. Unless otherwise provided, there shall be semester – end examination of 3 hours duration for 75 / 100 marks; 1.5 hours for 50 marks and 2 / 4 hours for 35 / 75 marks practical examination.
- 9.1.2. Every student shall register for each semester – end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3. The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1<sup>st</sup> semester – end examination. That will be the Register Number of the candidate for all subsequent appearances at semester – end examinations.
- 9.1.4. The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5. The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6. Candidates who have failed, remained absent or opted for improvement in any course / courses shall appear for such course / courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

- 9.1.7. Candidates who desire to challenge the marks awarded to them, in the even semester – end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from announcement of results.

**9.2. Odd Semester Examination**

- 9.2.1. There shall be a Board of examiners to set, scrutinize and approve question papers.
- 9.2.2. The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3. The office of the Registrar Evaluation shall dispatch the question papers to the Departments / P.G. Centres / Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4. The Chairperson of the Department / Administrator of the P.G. Centre / Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5. Answer scripts shall be valued by the examiners appointed by the University. However, in those centres where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6. There shall be single valuation. The examiners (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7. The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centers.
- 9.2.8. The Office of the Registrar Evaluation shall process and announce the results.

**9.3. Even Semester**

- 9.3.1. There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 9.3.2. As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities / Research Institutes.
- 9.3.3. Each answer script of the semester – end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.
- 9.3.4. Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester – end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.
- 9.3.5. Wherever dissertation / project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.
- 9.3.6. In case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

**9.4. Evaluation**

- 9.4.1. Each Course shall have two evaluation components – Internal Assessment (IA) and the Semester End Exams.

9.4.2. The IA component in a course shall carry 25% / 30% / 50% and the Semester End Examination shall carry 75% / 70% / 50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

9.4.3. Marks for attendance shall be awarded to the students according to the following table. For courses carrying 25% of marks for IA, the attendance marks shall be

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

9.4.4. Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

9.4.5. The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester – end examination, or as directed by the University.

9.4.6. The tests shall be written in a separately designated book supplied the University which shall be open for inspection by the students after evaluation.

9.4.7. There is no provision for seeking improvement of Internal Assessment marks.

9.4.8. The IA records, pertaining to Semester Examination, shall be preserved by the department / centres / colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

9.4.9. The dissertation / project work viva-voce shall be conducted by an internal and external examiner.

#### **10.0. Maximum duration for completion of the Programme**

10.1. A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration the programme from the date of admission.

10.2. Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

#### **11.0. Declaration of Results**

11.1. The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester – end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester – end examination. There is no minimum for the IA marks.

11.2. Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

11.3. Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

11.4. For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

#### **12.0. Marks, Credit Points, Grade Points, Grades and Grade Point Average**

The Grade points and the grade letters to candidates in each course shall be awarded as follows:

Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student.

**KARNATAK UNIVERSITY, DHARWAD**  
**Department of Mathematics**  
**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**(w.e.f. 2013-14)**

**Programme Specific Outcomes (PSOs)**

After completion of this programme, the student will be able to

- PSO1. Understand the fundamentals in mathematics
- PSO2. Capable to develop ideas based on mathematical axioms.
- PSO3. Apply different methods for the solution of problems.
- PSO4. Able to develop the research studies in mathematics and related areas.
- PSO5. Understand the applications of mathematics with problem solving skills, thinking, creativity and demonstration.

## Course Structure and Scheme of Examination

Paper Code	Paper & Title	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
<b>I Semester</b>							
PG83T101	Algebra-I	4	4	3	25	75	100
PG83T102	Real Analysis	4	4	3	25	75	100
PG83T103	Topology-I	4	4	3	25	75	100
PG83T104	Differential Equations-I	2	2	2	15	35	50
PG83T105	Discrete Mathematics	2	2	2	15	35	50
PG83T106	Computer Programming	2	2	2	15	35	50
PG83T107	<b>Operations Research</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>25</b>	<b>75</b>	<b>100</b>
	<b>Total of I Semester</b>	<b>22</b>					<b>550</b>
<b>II Semester</b>							
PG83T201	Algebra-II	4	4	3	25	75	100
PG83T202	Complex Analysis-I	4	4	3	25	75	100
PG83T203	Linear Algebra	4	4	3	25	75	100
PG83T204	Functions of Several Variables	2	2	2	15	35	50
PG83T205	Differential Equations-II	2	2	2	15	35	50
PG83P206	Programming Lab-I	2	4	3	15	35	50
PG83T207A	Fuzzy Sets & Fuzzy Logic	4	4	3	25	75	100
	<b>Total of II Semester</b>	<b>22</b>					<b>550</b>

Paper Code	Paper & Title	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the Exams	Total Marks
	<b>III Semester</b>						
PG83T301	Measure Theory	4	4	3	25	75	100
PG83T302	Complex Analysis-II	4	4	3	25	75	100
PG83T303	Topology-II	4	4	3	25	75	100
PG83T304	Differential Geometry-I	2	2	2	15	35	50
PG83T305	Numerical Methods	2	2	2	15	35	50
PG83P306	Programming Lab-II	2	4	3	15	35	50
PG83T307A	Discrete Mathematical Structures	4	4	3	25	75	100
	<b>Total of III Semester</b>	<b>22</b>					<b>550</b>
	<b>IV Semester</b>						
PG83T401	Functional Analysis	4	4	3	25	75	100
PG83T402A PG83T402B PG83T402C PG83T402D PG83T402E PG83T402F	(a) Fuzzy Topology OR (b) Dimension Theory OR (c) Relativity OR (d) Ring Theory OR (e) Galois Theory OR (f) Number Theory	4	4	3	25	75	100
PG83T403A PG83T403B PG83T403C PG83T403D PG83T403E PG83T403F	(a) Graph Theory OR (b) Differentiable Manifolds OR (c) Nevanlinna Theory OR (d) Geometric Function Theory OR (e) Group Theory OR (f) Commutative Algebra	4	4	3	25	75	100
PG83T404	Differential Equations-III	2	2	2	15	35	50
PG83T405	Differential Geometry-II	2	2	2	15	35	50
PG83T406	Integral Transforms and Integral Equations	2	2	2	15	35	50
PG83P407	Programming Lab - III	2	4	3	15	35	50
PG83T408	Project Work	4	4		25	75	100
	<b>Total of IV Semester</b>	<b>24</b>					<b>600</b>
	<b>Grand total of all semesters (I to IV)</b>	<b>90</b>					<b>2250</b>

**Note:** CT – Compulsory Theory  
 CP – Compulsory Practical  
 CPW – Compulsory Project Work  
 OEC – Open Elective Course (for other Department Students)

## Syllabus of M.A. / M.Sc. (Mathematics) under Choice Based Credit System

### M.A. / M.Sc. I SEMESTER

#### CORE PAPERS:

<b>Paper Code and Name: PG83T101: Algebra-I</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. To simplify algebraic expression, using commutative, associative and distributive properties. CO2. Identify the types of group. CO3. Understand the concepts of Sylow's theorem. CO4. Explain and demonstrate accurate and efficient use of advanced techniques. CO5. Prove and explain the concepts from advance algebra	

**Unit I:** Peano axioms. Natural numbers. Properties of natural numbers. Natural numbers as a well-ordered set. Finite sets and their properties. Infinite sets, countable and uncountable sets. Examples. Cardinal numbers and its arithmetic. Schroeder-Bernstein theorem. Cantor's theorem and continuum hypothesis. Zorn's lemma, Axiom of choice and well-ordering principle and their equivalence.

**Unit II:** Group, subgroup-definition, examples and elementary properties. Normal subgroup and quotient group. Group homomorphisms. Isomorphism theorems and the correspondence theorem. Center of a group and commutator subgroup of a group. Cyclic group. Lagrange's theorem. Euler's and Fermat's theorems as consequences of Lagrange's theorem. Symmetric group  $S_n$ . Structure theorem for symmetric groups. Action of a group on a set. Examples. Orbit and stabilizer of an element.

**Unit III:** Class equation of a finite group. Cauchy's theorem for finite groups. Sylow theorems. Applications. Wilson's theorem.

**Unit IV:** Subnormal series of a group. Solvable group. Solvability of  $S_n$ . Composition series of a group. Jordan-Holder theorem.

## REFERENCES

- 1) C. C. Pinter, Set Theory, Addison-Wesley Publishing Co. Reading, Massachusetts (1971)
- 2) I. N. Herstein, Topics in Algebra, 2<sup>nd</sup> Edition, John-Wiley & Sons, New York (1975)
- 3) Y. F. Lin & S. Y. T. Lin, Set Theory-An Intuitive Approach, Houghton Mifflin Company, Boston (1974)
- 4) Surjit Singh and Qazi Zameeruddin, Modern Algebra, Vikas Publishing House (1990)
- 5) S. K. Jain, P. B. Bhattacharya & S. R. Nagpaul, Basic Abstract Algebra, Cambridge University Press (1997)
- 6) J. J. Rotman, The Theory of Groups, an Introduction, Allyn & Bacon (1965)
- 7) S. MacLane & G. Birkhoff, Algebra, Mc Millan Co., New York (1967)
- 8) S. M. Srivastava, A Course on Borel Sets (Chapter – I), Springer-Verlag, New York (1998)
- 9) M. Artin, Algebra, Prentice Hall of India (2004)

<b>Paper Code and Name: PG83T102: Real Analysis</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Describe the real line as a complete ordered field and prove the properties of real numbers. CO2. Understand interior point, limit point, closed set, open set, compact set and prove their properties. CO3. Explain the basic theory of metric space and its related concepts such as continuity, completeness, compactness and connectedness and prove their results in the metric space. CO4. Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis. CO5. Determine the Riemann integrability of a bounded function and prove theorems concerning integration.	

**Unit I:** The Completeness Property of  $\mathbb{R}$ : The Least Upper Bound Property (LUB Property) and the Greatest Lower Bound Property (GLB Property). Archimedean Property. The existence of  $\sqrt{2}$ . Density of Rational Numbers. Nested Interval Property. Bolzano Weierstrass Theorem. Heine-Borel theorem.

**Unit II:** Metric spaces. Basic definition. Compactness, connectedness, sequences, subsequences and Cauchy sequences in a metric space.  $\mathbb{R}$  as a complete metric space. Limit, continuity and connectedness. Kinds of discontinuities. Algebraic completeness of the complex field.

**Unit III:** Differentiation. Mean value theorems. The continuity of derivatives. Derivatives of higher orders. Taylor's theorem. Analytic functions. Functions of class  $C^\infty$  (which are not analytic).

**Unit IV:** Riemann-Stieltjes integral, its existence and linearity, the integral as a limit of sum, change of variables. Mean value theorems. Functions of bounded variation. The fundamental theorem of calculus.

**Unit V:** Absolute and conditional convergence of series. Riemann's derangement theorem. Sequences and series of functions. Uniform convergence. Uniform convergence and continuity, Uniform convergence and integration. Uniform convergence and differentiation. The Stone-Weierstrass theorem.

## REFERENCES

- 1) W. Rudin, Principles of Mathematical analysis. Second Edition. Mc Graw Hill Book Co. (1984) chapters 2, 4, 5, 6, 7 and 8.
- 2) C. Goffman, Real functions, Holt, Rinehart and Winston Inc. New York (1953)
- 3) I. H. Cohen and Ehrlich, Structure of Real Number System. D-Van Nostrand Co. Princeton, N. J. (1963)
- 4) Claude. W. Burrill, Foundations of Real Numbers Mc Graw Hill Book Co. (1967)
- 5) L. W. Cohen and G. Ehrlich, Real Number System, 'Van Nostrand' (1963)
- 6) W.R. Wade: An Introduction to Analysis, Second Edition, Prentice Hall of India (International edition) (2000)
- 7) Robert G. Bartle and Donald R. Sherbert: Introduction to Real Analysis, John Wiley & Sons, INC, USA (1982)
- 8) S. L. Gupta and N. R. Gupta: Principles of Real Analysis, Second Edition, Pearson Education (2003)

<b>Paper Code and Name: PG83T103: Topology-I</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	

CO1. Understand to construct topological spaces using general properties of open sets, closed sets, neighborhoods, basis and sub-basis and from metric spaces.

CO2. Apply the properties of open sets, closed sets, interior points, accumulation points and derived sets in deriving the proofs of various characterizations of topological spaces.

CO3. Use continuous functions and homeomorphisms to understand structure of topological spaces

CO4. Understand the concepts and properties of the compact, locally compact and connected topological spaces.

**Unit I: Topological Spaces:** Topological Spaces, open sets, closed sets, closure, accumulation points, derived sets, interior, boundary. Bases and subbasis, dense sets, closure operator, neighborhood system, subspaces, convergence of sequences.

**Unit II: Continuity and other Maps:** Continuous maps, continuity at a point, continuous maps into  $\mathbb{R}$ , open and closed maps, homeomorphisms, finite product spaces, projection maps.

**Unit III: Connectedness:** Connected and disconnected spaces, separated sets, intermediate value theorem, components, local connectedness, path connectedness.

**Separation Axioms:**  $T_0$ ,  $T_1$  and  $T_2$  spaces.

**Unit IV: Compactness:** Cover, subcover, compactness, characterizations, invariance of compactness under maps, properties.

**Metric Spaces:** Metrics on sets, distances between sets, diameters, open spheres. Topology induced by a metric, equivalent metrics, continuity of the distance, convergence in metric spaces.

**Nets and Filters:** Topology and convergence of nets, Hausdorffness and nets, compactness and nets. Filters, convergence of filters, ultrafilters, Cauchy filters.

## REFERENCES

- 1) James. Dugundji, Topology Allyn and Bacon (Reprinted by PHI and UBS)
- 2) J. R. Munkres, Topology – A first course PHI (2000)
- 3) S. Lipschutz, General Topology, Schaum's series, McGraw Hill Int (1981)
- 4) W. J. Pervin, Foundations of general topology, Academic Press (1964)
- 5) S. Willard, General Topology, Elsevier Pub. Co. (1970)
- 6) J. V. Deshpande, Introduction to topology, Tata McGraw Hill Co. (1988)
- 7) S. Nanda and S. Nanda, General Topology, MacMillan India (1990)
- 8) G. F. Simmons, Introduction to Topology and Modern Analysis, McGraw Hill Book Co. (1963)

- 9) J. L. Kelley, General Topology, Van Nostrand Reinhold Co. (1995)
- 10) C. W. Baker, Introduction to topology, W. C. Brown Publisher (1991)

<b>Paper Code and Name: PG83T104: Differential Equations-I</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Solve ODE with constant coefficients. CO2. Apply Method of variation of parameters. CO3. Apply Sturm comparison theorem. CO4. Apply Picard's method for solution of IVP. CO5. Apply Laplace Transforms to solve ODE.	

**Unit I:** Second order ordinary differential equations (o.d.e) with constant co-efficients, non homogeneous equations, method of variation of parameters. Wronskian and linearly independent solutions.

Qualitative properties of solutions. Sturm comparison theorem. Picard's method of solution of i.v.p.

**Unit II:** Laplace transforms – linearity, existence theorem, LT of derivatives and integrals. Shifting theorem. Differentiation and integration of transforms. Convolution theorem. Inverse LT. Solution of o.d.e. and integral equations.

## REFERENCES

- 1) G. F. Simmons, Differential Equations with applications. T.M.H. New Delhi (2002)
- 2) G. Birkoff and G. C. Rota, Ordinary differential equations Ginn and Co. (1995)
- 3) E. Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons (2002)
- 4) J. Cronin, Differential equations, Marcel and Dekkar (1994)
- 5) F. Ayers, Theory and problems of differential equations, McGraw Hill (1972)
- 6) E. A. Coddington, Introduction to Ordinary Differential Equations, EEE (1996)

<b>Paper Code and Name: PG83T105: Discrete Mathematics</b>	Teaching Hours: 25
Course Outcomes (COs)	

After completing this paper, the students will be able to:

CO1. Understand Boolean algebra

CO2. Apply Coding theory

CO3. Understand the Basic Graph theory

CO4. Check traversability of a network.

### **Unit I: BOOLEAN ALGEBRA AND LATTICES:**

Partially ordered sets. Lattices, Complete, Distributive, Complemented lattices. Boolean functions and expressions. Propositional calculus, logical connectives, truth values and tables. Boolean algebra to digital networks and switching circuits.

**Coding Theory:** Coding of binary information and error detection, Group codes, decoding and error correction.

**Unit II: Graph Theory:** Basic Concepts: Different types of graphs, subgraphs, walks and connectedness. Degree sequences, directed graphs, distances and self-complementary graphs.

**Blocks:** Cut-points, bridges and blocks, block graphs and cut-point graphs.

**Trees and Connectivity:** Characterization of Trees, Spanning Trees, centers and centroids, connectivity, edge connectivity, arboricity and vertex arboricity.

**Partitions and Traversability:** Eulerian and Hamiltonian graphs.

### **REFERENCES**

1. C. L. Liu: Elements of discrete Mathematics, McGraw Hill, International (1986)
2. B. Kolman, R. C. Busby and S. Ross: Discrete Mathematical structures, Prentice Hall of India, New Delhi (1998)
3. J. P. Tremblay and R. Manohar: Discrete Mathematical structure with Applications to Computer Science, Tata McGraw Hill Edition (1997)
4. K. D. Joshi: Foundations of Discrete Mathematics, Wiley Eastern (1989)
5. J. A. Bondy and U.S.R. Murthy: Graph Theory with Applications, MacMillan, London.
6. N. Deo: Graph Theory with Applications to Engineering and Computer Sciences, Prentice Hall of India.
7. F. Harary, Graph Theory, Narosa Publishing House, New Delhi.
8. L. Lovasz, J. Pelikan, K. Vesztergombi, Discrete Mathematics, Springer, Second Edition (2004)

9. V. Krishnamurthy, Combinatorics, Theory and Applications, Affiliated East-West Press Pvt. Ltd.

<b>Paper Code and Name: PG83T106: Computer Programming</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Develop the algorithm. CO2. Understand the computer programming language. CO3. Develop the skill for C-Programming. CO4. Understand the data structure in the programme.	

### **Unit I: C – Programming:**

C – essentials, basic structure of a C – program. Character set, constants and variables, data types, declaration of variables, assignment statement, symbolic constants, arithmetic operators, relational operators, logical operators, assignment operators, increment and decrement operators, conditional operator, arithmetic expressions – evaluation. Input / output operations: reading / writing a character, formatted input / output.

**Unit II:** Decision making and branching: IF statement, IF ELSE, Nested if ..... else statements, else if ladder, switch statement, the ? : operator, GO TO statement. Decision making and Looping : The while loops, do statement, for statement, jumps in loops. Arrays : one and two dimensional arrays and initialization. Multidimensional arrays, structures, pointers and file handling.

### **REFERENCES**

- 1) V. Rajaraman, Fundamentals of Computers PHI (1991) (Chapters I, III, IV, IX)
- 2) E. Balagurusamy, Programming in ANSI – C, Tata McGraw Hill Pub. Co. (1992) (Chapters 1 to 7)
- 3) B. S. Gottfried, Programming with C, Tata McGraw Hill (Schaum’s Outlines) (1998)
- 4) B. W. Kernighan and D. M. Ritchie, The C programming Language, PHI (1998)
- 5) G. B. Sanders, Computer Today (1982)
- 6) M. Cooper, The Spirit of ‘C’ – An introduction to modern programming Jaico Pub. House (1987)

<b>Paper Code and Name: PG83T107: Operations Research</b>	Teaching Hours:
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	50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Formulate Linear Programming problems. CO2. Apply methods to solve LPP CO3. Understand Transportation Problems and Assignment Problems. CO4. Compute Game Theory Problems. CO5. Use Queuing Theory for Stochastic Process and Markov Chain.	

**UNIT-I:** Linear Programming: Introduction, Formulation of LPP, General Mathematical model of LPP. Slack and Surplus variables, Canonical and Standard form of LPP, Graphical method, Standard LPP and Basic solution, Fundamental Theorem of LPP, Simplex Algorithm, Big-M method and Revised Simplex Algorithm.

**UNIT-II:** Concept of duality: Formulation of dual LPP, Duality theorem, Advantages of duality, Dual Simplex Algorithm and Sensitivity Analysis.

**UNIT-III:** Transportation Problem: Introduction, Transportation Problem, Loops in Transportation Table, Methods for finding initial basic Feasible Solution, Tests for Optimality, Unbounded Transportation Problem.

Assignment problem: Mathematical form of the Assignment Problem, Methods of solving Assignment Problem, Variations of the Assignment Problem.

**UNIT-IV:** Game Theory: Introduction, 2 x 2 Game, Solution of Game, Network Analysis by Linear Programming, Brow's Algorithm. Shortest route and Maximal flow Problems, CPM and PERT.

Queuing Theory: Introduction to Stochastic Process, Markov chain, t.p.m., c-k equations, Poisson process, Birth and Death process, Concept of queues, Kendall's notation, m/m/1, m/m/s queues and their variants.

#### **REFERENCES:**

1. H. Taha – Operations Research, ed. III, Mc Millan (1982)
2. B.E. Gillett, Introduction to Operations Research, a Computer Oriented Algorithmic Approach, Tata McGraw Hill (2008)
3. F.S. Hiller & G.J. Lieberman: Introduction to Operations Research, International Editions (1995)
4. C. K. Mustafi: Operations Research, Wiley – Eastern (1998)

5. J. K. Sharma: Operations Research: Theory and Applications, Macmillan India Ltd. (2006)
6. S. D. Sharma: Operations Research, Kedar Nath Ram and Company, Meerut (1996)

## M.A. / M.Sc. MATHEMATICS

### II – SEMESTER

#### CORE PAPERS:

<b>Paper Code and Name: PG83T201: Algebra-II</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand rings, ideals, field and Euclidean domain. CO2. Find the roots of polynomials. CO3. Understand the characteristic of rings and fields. CO4. Understand the fundamental concepts of homomorphism and their role in mathematics. CO5. Apply uniqueness theorem.	

#### Ring Theory:

**Unit I:** Ring, subring, ideal, factor ring-definition and examples. Homomorphism of rings. Isomorphism theorems. Correspondence theorem. Integral domain, field and embedding of an integral domain in a field. Prime ideal, maximal ideal of a ring. Polynomial ring  $R[X]$  over a ring  $R$  in an indeterminate  $X$ .

**Unit II:** Principal ideal domain. Euclidean domain. The ring of Gaussian integers as an Euclidean domain. Fermat's theorem. Unique Factorization domain. Primitive polynomial. Gauss lemma.  $F[X]$  is a unique factorization domain for a field  $F$ . Eisenstein's criterion of irreducibility for polynomials over a UFD.

#### Field Theory:

**Unit III:** Field, subfield, prime subfield – definition and examples. Characteristic of a field. Characteristic of a finite field.

Field extensions. Finite extensions. Algebraic extensions. Transitivity theorems. Simple extension.

**Unit IV:** Roots of polynomials. Splitting field of a polynomial. Existence and uniqueness theorems. Existence of a field with  $p^n$  element for a prime  $p$  and a positive integer  $n$ .

## REFERENCES

- 1) I. N. Herstein, Topics in Algebra, 2<sup>nd</sup> Edition, John – Wiley & Sons. New York (1975)
- 2) Surjit Singh & Qazi Zameeruddin, Modern Algebra, Vikas publishing House (1990)
- 3) S. K. Jain, P. B. Bhattacharya & S. R. Nagpaul, Basic Abstract Algebra, Cambridge University Press (1997)
- 4) J. J. Rotman, Galois theory, 2<sup>nd</sup> Edition, Universitext, Springer – Verlag (1998)
- 5) I. N. Herstein, Abstract Algebra, Maxwell – McMillan Publication (1990)

<b>Paper Code and Name: PG83T202: Complex Analysis-I</b>	Teaching Hours: 50
Course Outcomes (COs)	
<p>After completing this paper, the students will be able to:</p> <p>CO1. Discuss the convergence of power series expansions.</p> <p>CO2. Use Cauchy's Theorem, and Cauchy's Integral Formulae to solve contour integration.</p> <p>CO3. Express an analytic function in terms of power series in the domain of analyticity.</p> <p>CO4. Understand the characteristic of a complex function in the neighbourhood.</p> <p>CO5. Acquire the skill of contour integration to evaluate complicated real integrals via residue calculus.</p> <p>CO6. Apply Rouches theorem to determine the number of zeros and poles of a meromorphic function in the given domain.</p>	

**Unit I:** Analytic functions. Cauchy – Riemann equations. Harmonic functions. Harmonic conjugate functions; their relation to analytic functions.

**Unit II:** Power series. Radius of convergence. Integration and differentiation of power series. Uniqueness of series representation. Relation between power series and analytic functions. Trigonometric exponential and logarithmic functions.

**Unit III:** Complex line integral. Basic properties. Cauchy's theorem for a triangle. Cauchy's integral formula. Liouville's theorem. Fundamental theorem of algebra. Morera's theorem.

**Unit IV:** Taylor and Laurent's expansions. Singularities. Poles. Removable and Isolated essential singularities. Classification of singularities using Laurent's expansion. Behaviour of an analytic function in the neighborhood of a singularity. Principles of analytic continuation.

Residue theorem and contour integrals. Argument principle. Rouch's theorem. Its applications.

## REFERENCES

- 1) L. V. Ahlfors, Complex Analysis, Second Edition, McGraw Hill Book Co., New York (1966)
- 2) John B. Conway, Functions of one Complex variable (second edition) Springer Verlag, New York (1973)
- 3) E. C. Titchmarsh, Theory of Functions, (second edition) Oxford university Press, N. J. Fairlawn (1939)
- 4) T. O. Moore and E. H. Hadlock, Complex Analysis, Allied Publishers Ltd. (1993)
- 5) Serge Lang, Complex Analysis, Addison – Wesley, Publishing Company (1997)

<b>Paper Code and Name: PG83T203: Linear Algebra</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand Vector spaces	
CO2. Apply Linear Transformations	
CO3. Compute eigenvalues and eigenvectors	
CO4. Formulate the diagonalization of matrices.	

**Unit I:** Definition and examples of vector spaces. Subspaces. Sum and direct sum of subspaces. Linear span. Linear dependence, independence and their basic properties. Basis. Finite dimensional vector spaces. Existence theorem for bases. Invariance of number of elements of a basis set. Dimension. Existence of complementary subspace of a subspace of a finite dimensional vector space. Dimension of sums of subspaces. Quotient space and its dimension.

**Unit II:** Linear transformations and their representation as matrices. The algebra of linear transformations. The rank nullity theorem. Change of basis. Dual space. Bidual space and natural isomorphism. Adjoint of a linear transformation.

**Unit III:** Eigenvalues and eigenvectors of a linear transformation. Diagonalization. Annihilator of a subspace. Bilinear, Quadratic and Hermitian forms. Solutions of homogeneous systems of linear equations.

**Unit IV:** Canonical forms – Similarity of linear transformations. Invariant subspaces. Reduction to triangular forms. Nilpotent transformations. Index of nilpotency. Invariants of a linear transformation. Primary decomposition theorem. Jordan blocks and Jordan forms.

## REFERENCES

- 1) I. N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New York (1975)
- 2) S. Lang, Introduction to Linear Algebra, 2<sup>nd</sup> Edition, Springer – Verlag (1986)
- 3) K. Hoffman and R. Kunze, Linear Algebra, 2<sup>nd</sup> Edition, Addison Wesley Publishing Co. (1972)
- 4) Surjit Singh, Linear Algebra, Vikas Publishing House Pvt. Ltd. (1997)
- 5) L. Smith, Linear Algebra, Springer – Verlag, New York (1984)
- 6) A. R. Rao and P. Bhimashankaram, Linear Algebra, 2<sup>nd</sup> Edition, Hindustan Book Agency (2000)

<b>Paper Code and Name: PG83T204: Functions of Several Variables</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand inner product space	
CO2. Apply metric space	
CO3. Discuss convergence of sequences in $\mathbb{R}^n$	
CO4. Apply Inverse and Implicit Function Theorem in $\mathbb{R}^n$	

**Unit I:** Euclidean space  $\mathbb{R}^n$  as a real vector space and a real inner product space. Topology of  $\mathbb{R}^n$ . Bolzano – Weierstrass property for  $\mathbb{R}^n$  Heine-Borel Theorem for  $\mathbb{R}^n$  Functions  $f : E \rightarrow \mathbb{R}^m$  from a subset E of  $\mathbb{R}^n$  into  $\mathbb{R}^m$ .

**Unit II:** Component functions of  $f$ . Limits, continuity and differentiation and their partial derivatives. Contraction principle, inverse function theorem, implicit function theorem, rank theorem. Determinants, Jacobian.

## REFERENCES

1. W. Rudin: Principles of Mathematical Analysis, 3<sup>rd</sup> Edition, McGraw Hill Book Co. (1964)
2. W.R. Wade: An Introduction to Analysis, Second Edition, Prentice Hall of India (International edition) (2000)
3. C. Goffman; Calculus of Several Variables, Harper series (1965)
4. M. Spivak; Calculus on Manifolds, W. A. Benjamin (1965)
5. W. H. Fleming: Functions of Several Variables, Addison Wesley (1968)

<b>Paper Code and Name: PG83T205: Differential Equations-II</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand series solution about ordinary and regular singular points. CO2. Apply Power and Frobenius methods. CO3. Understand variable coefficient ODE. CO4. Understand orthogonality of special functions.	

**Unit I:** Linear second order equations with variable coefficients, solution about ordinary and regular singular points. Frobenius method, Hermite, Legendre, Bessel and Chebyshev equations and their solutions.

**Unit II:** Sturm-Liouville problem. Orthogonality of eigenfunctions, Bessel, Hermite, Legendre, Chebyshev functions, problems.

## REFERENCES

1. G. F. Simmons: Differential Equations with applications and historical notes, THM, New Delhi (2000)
2. I. N. Sneddon: Elements of p.d.e. McGraw Hill (1999)
3. D. W. Jordan and P. Smith: Nonlinear o.d.e. Oxford, Indian Edition (1999)

4. P. Prasad and R. Ravindran: Partial Differential Equations, Wiley Eastern (1998)
5. S. J. Farlow: P. D. E. for Scientists and Engineers, John Wiley (1998)
6. E. C. Zachmanoglou and Dale W. Thoe: Introduction to p.d.e. with applications  
Dover (1996)
7. P. L. Sachdev: Nonlinear o.d.e. Marcel and Dekkar (1998)
8. L. C. Evans: Partial Differential Equations, American Mathematical Society (1998)

<b>Paper Code and Name: PG83P206: Programming Lab-I</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Develop C-language codes. CO2. Develop Programme to solve mathematical problems. CO3. Compute scientific problems with C-Programming. CO4. Analyze obtained data.	

Implimentation of programs using C  
(based on M.A. / M.Sc. 1.6 and 2.3)

### **ELECTIVE PAPER:**

<b>Paper Code and Name: PG83T207A: OEC-Fuzzy Sets and Fuzzy Logic</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand Fuzzy sets and fuzzy logic. CO2. Apply operations on fuzzy sets. CO3. Understand fundamentals of computers. CO4. Apply ability logically and arithmetically for quantitative aptitude	

**Unit I:** Brief History of Mathematics, Set theory, Logic, Fuzzy set theory, Life history of world famous Mathematicians and their works and contributions.

**Unit II:** Set Theory Union, intersection, Complementation, functions, characteristics functions, Mathematical Logic, Logical connectives, two valued & three valued logics, Applications.

**Unit III:** Boolean Algebra, Fuzzy set theory & Fuzzy logic, Operations on fuzzy sets, Functions on fuzzy sets, Image and inverse image properties,  $\alpha$  - cuts.

**Unit IV:** Introduction to Computers and Fundamentals.

**Unit V:** Quantitative Aptitude & Mental / logic ability and data interpretation – Arithmetic ability, Percentage, Profit and Loss, Ratio and Proportion, Partnership, Numbers GCD & LCM, Time and Work, Simple and Compound Interest, Volume surface and area, Races & Games of skills, Stocks and Shares, Bankers Discount, Heights and distance, odd man out series, Tabulation, Bar graph, Pie graph, Line graphs.

## REFERENCES

1. A Text book of Mathematics I & II – B.G. and P.G. Umarani
2. A Text book of Mathematics I & II – B. M. Sreenivas Rao, Excellent Publication
3. Discrete Mathematics – Rajendra Akerkar & Rupali Akerkar, Pearson Publication
4. Fuzzy Sets & Fuzzy Logic – Klir and Yuan, PHI
5. Computer Fundamentals – Rajaraman
6. Quantitative Aptitude – R. S. Agarawala, S. Chand & Co.

## M.A. / M.Sc. III SEMESTER

### CORE PAPERS:

<b>Paper Code and Name: PG83T301: Measure Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand measure of a set and measurable sets	
CO2. Understand measurable functions.	
CO3. Approximating measurable functions by specific functions.	
CO4. Compute Lebesgue integrals.	

**Unit I:** Lebesgue outer measure on the real line. Lebesgue measurable sets and measurable functions.

**Unit II:** Algebra of measurable functions. Egoroff's theorem. Lebesgue integral of bounded function over a set of finite measure.

**Unit III:** Bounded convergence theorem. Fatou's lemma. General Lebesgue integral. Lebesgue's monotone convergence theorem.

**Unit IV:** Lebesgue General (Dominated) Convergence theorem. Differential of an integral.  $L_p$  – space. Completeness of  $L_p$  – space.

## REFERENCES

- 1) H. L. Royden: Real Analysis (Chapter 1, 3, 4, 5 and 6). 3<sup>rd</sup> Edition, MacMillan, New York (1963)
- 2) C. Goffman: Real Functions, Holt, Rinehart and Winston Inc. New York (1953)
- 3) P. K. Jain and V. P. gupta: Lebesgue Measure and Integration, Wiley Eastern Ltd. (1986)
- 4) I. K. Rana: An introduction to Measure and Integration, Narosa Publishing House (1997)
- 5) G. DeBarra: Measure and Integration, Wiley Eastern Ltd. (1981)

<b>Paper Code and Name: PG83T302: Complex Analysis-II</b>	Teaching Hours: 50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Understand the characteristic of analytic functions. CO2. Understand conformal mapping to compute geometric mappings. CO3. Extend analyticity continuation to analytic function and its natural boundary. CO4. Discuss convergence of a sequence of complex functions. CO5. Understand the effect of uniform convergence.	

**Unit I:** Maximum Modulus Principle, Minimum Modulus Principle. Schwarz's Lemma. Some Applications of Schwarz's Lemma. Basic Properties of Univalent Functions.

**Unit II:** Open Mapping Theorem. Deduction of Maximum Modulus Principle using Open Mapping Theorem. Hadamard's Three Circles Theorem.

**Unit III:** Conformal Mapping. Linear Transformations. Unit Disc Transformations. Sequences and Series of Functions. Normal Families'.

**Unit IV:** Weierstrass Theorem, Hurwitz's Theorem. Montel's Theorem. Riemann Mapping Theorem. Analytic Continuation of Functions with Natural Boundaries. Schwarz's Reflection Principle.

## REFERENCES

- 1) L. V. Ahlfors: Complex Analysis, 2<sup>nd</sup> Edition, McGraw Hill Book Company, New York (1966)
- 2) J. B. Conway: Functions of One Complex Variable, 2<sup>nd</sup> Edition, Springer Verlag, New York, Inc. (1973)
- 3) T. O. Moore and E. H. Hadlock: Complex Analysis, Allied Publisher, Ltd. (1995)
- 4) C. L. Siegel: Nine Introductions in Complex Analysis, North Holland (1981)
- 5) I. Stewart and D. Tall: Complex Analysis, Cambridge University Press (1983)

<b>Paper Code and Name: PG83T303: Topology-II</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand to construct the separation axioms using open and closed sets. CO2. Know the concepts of convergence and compactification. CO3. Demonstrate knowledge and understanding of metric spaces. CO4. Apply theoretical concepts in topology to understand the real world applications.	

**Unit I: Separation Axioms:** regular and  $T_3$  spaces, normal and  $T_4$  spaces, Urysohn's Lemma, Tietze's, Extension Theorem, completely regular and Tychonoff spaces, completely normal and  $T_5$  spaces.

**Unit II: Countability Axioms:** First and Second Axioms of countability. Lindelof spaces, separable spaces, countably compact spaces, Limit point compact spaces.

**Unit III: Convergence in Topology:** Sequences and subsequences, convergence in topology. Sequential compactness, local compactness, one point compactification, Stone – Cech compactification.

**Unit IV: Metric Spaces and Metrizability:** Separation and countability axioms in metric spaces, convergence in metric spaces, complete metric spaces.

**Product Spaces:** Arbitrary product spaces, product invariance of certain separation and countability axioms. Tychonoff's Theorem, product invariance of connectedness.

## REFERENCES

- 1) James Dugundji: Topology, PHI (2000)
- 2) J. R. Munkres: Topology – A first course, PHI (2000)
- 3) S. Willard: General topology, Addison – Wesley (1970)
- 4) S. Lipschutz: General topology, McGraw hill, Int., Schaum's series (1981)
- 5) J. V. Deshpande: Introduction to Topology, Tata McGraw Hill (1988)
- 6) R. Engelking: General Topology, Polish Scientific Publishers, Warszawa (1977)
- 7) J. L. Kelley: General Topology, Van Nostrand (1995)
- 8) K. D. Joshi: Introduction to General Topology, Wiley Eastern Ltd. (1983)
- 9) G. F. Simmons: Introduction to Topology and Modern Analysis, McGraw Hill (1963)
- 10) S. Nanda and S. Nanda: General Topology, MacMillan India Ltd. (1990)
- 11) C. W. Baker: Introduction to Topology, W. C. Brown (1991)
- 12) N. Bourbaki: General Topology Part – I (Trausl), Addison Wesley (1966)
- 13) M. G. Murdeshwar: General Topology, Wiley Eastern (1990)

<b>Paper Code and Name: PG83T304: Differential Geometry-I</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to:	

CO1. Understand Euclidean space, Tangent vectors, Vector fields.  
 CO2. Find directional derivatives.  
 CO3. Obtain dot product in  $E^3$  and dot product of tangent vectors.  
 CO4. Understand curvature and torsion of a unit speed curve.

**Unit I:** Introduction, Euclidean space, Tangent vectors, Vector fields, Directional derivatives, curves in  $E^3$ .

1 – Forms, differential forms, Mappings on Euclidean spaces, derivative map, dot product in  $E^3$ , dot product of tangent vectors, Frame at a point.

**Unit II:** Cross product of tangent vectors, curves in  $E^3$ , arc length, reparametrization, The Frenet formulas, frenet frame field, Curvature and torsion of a unit speed curve.

## REFERENCES

- 1) Barrett. O. Neill, Elementary Differential Geometry, Academic Press, New York (1998)
- 2) T.J.Willmore, An introduction to Differential Geometry, Oxford University Press (1999)
- 3) N.J.Hicks, Notes on Differential Geometry, Van Nostrand, Princeton (2000)
- 4) Nirmala Prakash, Differential Geometry - An integrated approach, Tata McGraw Hill Pub. Co. New Delhi (2001)

<b>Paper Code and Name: PG83T305: Numerical Methods</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand error analysis.	
CO2. Apply Numerical methods for solving nonlinear equations.	
CO3. Use interpolation and extrapolation for Numerical differentiation and Integration.	
CO4. Apply multistep methods for solving Initial Value Problems (IVP)	

**Unit I: Solution of equations:** Bisection, secant, regula falsi, Newton's method. Bairstow and Birgaviete methods, system of equations. Gauss, Gauss-Jordon methods. Jacobi and Gauss-Seidel iteration methods. LU decomposition and SOR methods.

**Eigenvalue problems:** Gerschgorian theorems. Power method, Jacobi method, Given's method.

**Interpolation:** Newton, Lagrange and Hermite interpolations. Numerical differentiation and Integration. Simpson, trapezoidal and Romberg integration. Gaussian quadrature formula.

**Unit II: Approximations:** Least squares polynomial approximation. Approximations with trigonometric, exponential and Chebychev polynomials and Rational functions / Pade' approximants.

#### **Numerical Solution of I.V.P. and B.V.P.**

Single step methods: Taylor series, Euler and R. K. methods, multistep methods, solutions using finite differences.

#### **REFERENCES**

- 1) R. K. Jain, S. R. K. Iyengar and M. K. Jain, Numerical methods for scientific and Engineering computation, Wiley Eastern (2001)
- 2) S. D. Conte and Carl De Boor, Elementary Numerical Analysis, McGraw Hil (2000)
- 3) C. E. Froberg, Introduction to Numerical Analysis Addison Wesley (1995)
- 4) M. K. Jain, Numerical Solution of Differential Equations, Wiley Eastern (1990)
- 5) G. D. Smith, Numerical Solution of p.d.e. Oxford University Press (1998)
- 6) J. W. Thomas, Numerical Solution of p.d.e. Finite Difference Methods, Springer (2000)

<b>Paper Code and Name: PG83P306: Programming Lab-II</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand for loop to solve matrix related problems.	
CO2. Solve the diversified solutions such as arithmetic operations on matrices and finding the norm of a matrix.	
CO3. Solve system of equations by implementing C-Programming.	
CO4. Handle runtime error during execution.	

Implementation of programs

(based on M.A. / M.Sc. 2.3 and 3.5)

#### **ELECTIVE PAPER:**

<b>Paper Code and Name: PG83T307A: OEC-Discrete Mathematical Structures</b>	Teaching
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	Hours: 50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Understand concept of Mathematical induction CO2. Perform operations on sets and Relations CO3. Apply counting principle. CO4. Understand tree network. CO5. Solve data interpretation problems.	

**Unit I:** Brief History of Mathematics & Discrete maths, Life history of world known Mathematicians and their works and contributions.

**Unit II:** Mathematical Induction, Permutations and Combinations, Binomial Theorem, Set Theory – Relations – Functions, Mathematical logic, Fuzzy Set Theory and Fuzzy Logic.

**Unit III:** Graph Theory – Trees – Networks, Algorithms, Euclid's Algorithms, Recursive Algorithm, Counting principles, Fibonacci Numbers, Pigenhole principle.

**Unit IV:** Computers and Fundamentals – Applications.

**Unit V:** Quantitative Aptitude and Data interpretation, Arithmetic ability, Percentage, Profit and Loss, Ratio and Proportion, Partnership, Time and Work, Simple and Compound Interest, Volume and area, Stocks and Shares, Bankers Discount, Tabulation, Bar graph, Pie graph, Line graphs.

## REFERENCES

- 1.A Text book of Mathematics I & II – B.G. and P.G. Umarani
- 2.A Text book of Mathematics I & II – B. M. Sreenivas Rao, Excellent Publication
- 3.Discrete Mathematics – Kolman and Busby, PHI
- 4.Discrete Mathematics – Rajendra Akerkar & Rupali Akerkar, Pearson Publication
- 5.Computer Fundamentals – Rajaraman
- 6.Quantitative Aptitude – R. S. Agarawala, S. Chand & Co.

## M.A. / M.Sc. IV SEMESTER

### CORE PAPERS:

<b>Paper Code and Name: PG83T401: Functional Analysis</b>	Teaching Hours: 50
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Course Outcomes (COs)
<p>After completing this paper, the students will be able to:</p> <p>CO1. Understand concept of Normed linear spaces, Banach spaces and Hilbert spaces.</p> <p>CO2. Compute the dual spaces of certain Banach space and Hilbert space</p> <p>CO3. Find the orthonormal vectors</p> <p>CO4. Obtain self-adjoint and normal operators.</p>

**Unit I:** Norm on a linear space over  $F$  (either  $\mathbb{R}$  or  $\mathbb{C}$ ), Banach space. Examples. Norm on quotient space. Continuous linear transformation of normed linear space. The Banach space  $B(N, N')$  for Banach spaces,  $N, N'$ .

**Unit II:** Dual space of a normed linear space. Equivalence of norms. Dual space of  $C[a, b]$ . Isometric isomorphisms.

**Unit III:** Hahn – Banach theorem and its applications. Separable normed linear spaces.

**Unit IV:** Canonical embedding of  $N$  into  $N^{**}$ . Reflexive spaces, Open mapping theorem, closed graph theorem, principle of uniform boundedness (Banach – Steinhaus Theorem) Projection on Banach spaces.

Hilbert spaces: definition and examples. Orthogonal complements. Orthonormal basis, Gram – Schmidt process of orthonormalization. Bessel's inequality, Riesz – Fisher theorem.

**Unit V:** Adjoint of an operator. Self – adjoint, normal, unitary and projection operators.

## REFERENCES

1. G. F. Simmons: Introduction to Topology and Modern Analysis, McGraw Hill Book Com. Inc. (1963)
2. C. Goffman and G. Pedrick: First Course in Functional Analysis, Prentice Hall of India Pvt. Ltd. New Delhi (1974)
3. B. V. Limaye: Functional Analysis, 2<sup>nd</sup> Edition, New Age International (P) Ltd. Publications (1997)
4. D. Somasundaram: Functional Analysis, S. Vishwanathan (printers & Publishers) Pvt. Ltd. (1994)

**ELECTIVES: FUZZY TOPOLOGY / DIMENSION THEORY / RELATIVITY / RING THEORY / GALOIS THEORY / NUMBER THEORY**

<b>Paper Code and Name: PG83T402A: Fuzzy Topology</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Construct the appropriate fuzzy sets using membership function of uncertain problems. Co2. Understand the differences in crisp sets and fuzzy sets. CO3. Construct the fuzzy numbers corresponding to uncertain and imprecise collected data. CO4. Create new fuzzy topological spaces by using fuzzy sets.	

**Unit I: Introduction:** From classical Sets (crisp sets) to fuzzy sets, Basic definitions, basic operations on fuzzy sets, fuzzy sets induced by mappings, Types of fuzzy sets.

**Fuzzy Sets Versus Crisp Sets:** The  $\alpha$  - cuts, strong  $\alpha$  - cuts, properties of cuts, representation of fuzzy sets, decomposition theorems, Zadeh's extension principle.

**Unit II: Operations on Fuzzy Sets:** Types of operations, fuzzy complements, fuzzy intersections, t – norms, fuzzy unions, t – conorms, combinations of operations, aggregation operations.

**Fuzzy Arithmetic:** Fuzzy numbers, Linguistic variables, arithmetic operations on intervals and fuzzy numbers, fuzzy equations.

**Unit III: Fuzzy Relations:** Crisp and fuzzy relations, Projections and cylindric extensions, binary fuzzy relations, membership matrices and sagittal diagram, inverse and composition of fuzzy relations, binary fuzzy relation on a single set, fuzzy equivalence relation, fuzzy ordering relation, fuzzy morphisms, sup and inf compositions.

**Fuzzy Logic:** An overview of classical logic. Multivalued logics, fuzzy propositions, fuzzy quantifiers, Linguistic hedges, inferences from conditional fuzzy propositions, qualified fuzzy propositions and quantified fuzzy propositions.

Fuzzy rule based systems and fuzzy nonlinear simulation.

**Unit IV: Fuzzy Topology:** Change's and Lowen's definition of fuzzy topology. Continuity, open and closed maps.  $\alpha$  - shading families,  $\alpha$  - connectedness and  $\alpha$  - compactness.

**Applications:** Applications of fuzzy sets and fuzzy logic to various disciplines including Computer Science.

## REFERENCES

1. G. J. Klir and B. Yuan: Fuzzy Sets and Fuzzy Logic; Theory and Applications, PHI (1997)
2. A. Kaufmann: Introduction to the theory of Fuzzy Subsets, Vol. – I, Academic Press (1975)

3. L. Y. Ming & L. M. Kung: Fuzzy Topology, World Scientific Pub. Co. (1997)
4. T. J. Ross: Fuzzy Logic with Engineering Applications, Tata McGraw Hill (1997)
5. S. V. Kartalopoulos: Understanding Neural Networks and Fuzzy Logic, PHI (2000)
6. H. J. Zimmermann: Fuzzy Set Theory and its Applications, Allied Pub. (1991)
7. N. Palaniappan: Fuzzy Topology, Narosa (2002)

<b>Paper Code and Name: PG83T402B: Dimension Theory</b>	Teaching Hours: 50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Understand local finiteness and point-finiteness of a family of subsets of a topological space. CO2. Identify paracompact spaces and its related spaces. CO3. Discuss perfect function. CO4. Understand Local dimension Theory.	

**Unit I:** Local finiteness and point-finiteness of a family of subsets of a topological space, Paracompact spaces, Completely normal spaces, totally normal spaces and perfectly normal spaces, Hereditarily paracompact spaces, Weakly paracompact spaces, (Meta-compact spaces), Strongly paracompact spaces.

**Unit II:** Pseudometrizable spaces, Nagata-Smirnov Theorem on pseudometrizability. Perfect mappings.

**Unit III:** Lebesgue's covering dimension, function  $\dim$ , Characterizations, dimension of Euclidean space  $\mathbb{R}$ , The countable sum Theorem, Subset Theorems. The small inductive dimension function –  $\text{ind}$ .

**Unit IV:** The subset theorem, properties, the large inductive dimension function –  $\text{Ind}$ , the subset theorem, interrelations, other properties. Local dimension Theory.

## REFERENCES

1. A.R. Pears, Dimension Theory of General Spaces, Cambridge University Press.
2. J. Nagata, Modern Dimension Theory, Elsevier.
3. K. Nagami, Dimension Theory, Academic Press.
4. Hurewicz and Wallman, H. Dimension Theory, Princeton University Press.
5. R. Engel King, General Topology, Polish Scientific Publishers, Warszawa.

6. S. Willard, General Topology, Addison Wesley Pub. Co.
7. J. Dugundji, Topology, PHI.
8. J.R. Munkres, Topology – A First Course, PHI.

<b>Paper Code and Name: PG83T402C: Relativity</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Represent Lorentz group, Time dilation, Space contraction.	
CO2. Understand contraction symmetric and skew symmetric tensors.	
CO4. Understand tensor algebra and calculus in curved space-time.	
CO4. Derive Einstein field equation.	

**Unit I:** Special Theory of relativity, Lorentz transformations. Representation of Lorentz group. Time dilation. Space contraction. Relativistic mechanics and particle dynamics.

**Unit II:** Covariant, contravariant vectors and tensors. Tensor algebra. Transformation laws. Contraction Symmetric and Skew symmetric tensors.

**Unit III:** Space-time as a differentiable manifold Tensor algebra and calculus in curved space-time. Parallel transport, covariant derivative, Connection coefficient. Geodesics, geodesic deviation. Riemann curvature tensor. The Bianchi identities.

**Unit IV:** The general Theory of Relativity. Principle of equivalence. The Newtonian limit. Derivation of Einstein field equation.

## REFERENCES

1. S. Weinberg: Gravitation on Cosmology, Principles and applications of the general theory of Relativity. John Wiley and Sons, Inc. (1972)
2. J. V. Narlikar: Introduction to cosmology Cambridge University Press (1993)
3. L. D. Landau & E. M. Lifshitz: The classical theory of fields, Pergamon Press (1980)
4. R. K. Sachs & H. Wu: General Relativity for Mathematicians (1977)

<b>Paper Code and Name: PG83T402D: Ring Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	

CO1. Understand the characteristics of ring and ideal. CO2. Discuss Modules. CO3. Apply Schur's lemma and Jordan-Holder theorem. CO4. Determine ideals in matrix ring. CO5. Understand Noetherian and Artinian rings.
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**Unit I:** Ring, subring, left ideal, right ideal, ideal, factor ring-definition and examples. Ring homomorphism, isomorphism theorems, correspondence theorem.

**Unit II:** Module, submodule, factor module-definition and examples. Homomorphisms of modules, isomorphism theorems, correspondence theorem. Simple module, Schur's lemma. Noetherian, Artinian modules, composition series of modules, Jordan-Holder theorem, modules of finite length.

**Unit III:** The ring  $M_n(R)$  of  $n \times n$  matrices over a ring  $R$ . Ideals in matrix ring, ring with matrix units. Simple rings.

Jacobson radical  $J(R)$  of a ring. Basic properties. Prime ring semiprime ring, right primitive ring, Jacobson's density theorem. Prime ideal, semiprime ideal.

**Unit IV:** Noetherian and Artinian rings, Levitzki's theorem. Wedderburn theorem for division rings.

Lower nilradical, upper nilradical. Levitzki's radical of a ring.

Subdirect product of rings, subdirectly irreducible ring, Birkhoff's theorem.

## REFERENCES

1. C. Musili: Introduction to rings and Modules, 2<sup>nd</sup> Revised Edition, Narosa Publishing House (1994)
2. N. H. McCoy: Theory of rings, MacMillan Co. (1964)
3. T. Y. Lam: A First Course in Noncommutative Ring Theory, Graduate Text in Mathematics, No. 131, Springer – Verlag (1991)
4. L. H. Rowen: Ring Theory, Vol. – I, Academic Press (1988)

<b>Paper Code and Name: PG83T402E: Galois Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand characteristic of a field and splitting field of a polynomial.	

CO2. Understand algebraic extension, algebraic closure and algebraically closed field. CO3. Apply Artin's theorem, Hilbert's theorem and Artin – Schreier's theorem. CO4. Discuss Galois groups of quadratic, cubic and quartic polynomials.
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**Unit I:** Introduction : Field extensions, characteristic of a field, finite field , splitting field of a polynomial .

**Unit II:** Algebraic extension , algebraic closure , algebraically closed field . Separable extension , simple extension , primitive element theorem . Inseparable extension, purely inseparable extension . Perfect field , imperfect field . Normal extension, group of automorphisms of field extensions .

**Unit III:** Linear independence of characters , Artin's theorem . Norm and trace . Cyclic extension , Hilbert's theorem 90 , Artin – Schreier's theorem .

**Unit IV:** Solvable extension , solvability by radicals, insolubility of the quintic, theorem of Abel – Ruffini . Galois groups of quadratic, cubic and quartic polynomials over the rational field .

## REFERENCES

1. J.J. Rotman , Galois Theory , Universitext , Springer- Verlag , 1990.
2. D.J.H. Garling , A Course in Galois Theory , Cambridge University Press , 1986 .
3. Ian Stewart , Galois Theory , Chapman and Hall , London , New York , 1973 .
4. S. Lang , Algebra , Addison – Wesley Publishing Co., 1970 .
5. I.N.Herstein , Topics in Algebra , Blaisdell , New York , 1964 .
6. Surjit Singh and Qazi Zameeruddin , Modern Algebra , Vikas Publishing House , 1990 .

<b>Paper Code and Name: PG83T402F: Number Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand residue systems and linear congruences. CO2. Discuss Diophantine equations. CO3. Discuss primitive roots with modulo p. CO4. Understand quadratic congruences. CO5. Apply Euler's partition theorem.	

## Congruences:

**Unit I:** Basic properties, residue systems, linear congruences, the Theorems of Fermat and Wilson (Rearranged). The Chinese Remainder Theorem, polynomial congruences, Diophantine equations. Arithmetic functions -  $\varphi(n)$ ,  $d(n)$  and  $\sigma(n)$ , their multiplicative properties, mobius Inversion formulas.

**Unit II:** Primitive roots – properties of reduced residue systems, primitive roots modulo  $P$ .

Prime numbers – Elementary properties of  $T(x)$ , Tchebychev's Theorem, some unsolved problems.

**Unit III:** Quadratic congruences – Eulers criterion, the Legendre symbol, the quadratic reciprocity law and its applications.

**Unit IV:** Partition theory – Euler's partition theorem, generating functions, Identities between infinite series and products.

Geometric Number Theory – Lattice points, Gauss's circle problem, Dirichlet's Division problem.

## REFERENCES

1. George E. Andrews: Number Theory, Hindustan publishing Corporation (India) (1989)
2. G. H. Hardy and Littlewood: Number Theory, CUP

**ELECTIVES: GRAPH THEORY / DIFFERENTIABLE MANIFOLDS / NONLINEAR THEORY / GEOMETRIC FUNCTION THEORY / GROUP THEORY / COMMUTATIVE ALGEBRA**

<b>Paper Code and Name: PG83T403A: Graph Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Discuss factorization and coverings of graphs.	
CO2. Understand the planarity of graphs.	
CO3. Apply coloring of graphs.	
CO4. Discuss spectra of graphs	
CO5. Discuss domination parameters of graphs.	

**Unit I: Factorization** – 1-factorization, 2-factorization, Decomposition and labelings of Graphs.

**Coverings:** Vertex covering, edge covering, independence number and matchings and matching polynomials.

**Unit II: Planarity:** Planar graphs, outerplanar graphs, Kuratowski criterion for planarity and Euler's polyhedron formula.

**Graph Valued functions:** Line graphs, subdivision graph and total graphs.

**Unit III: Colorings:** Chromatic numbers and chromatic polynomials.

**Spectra of Graphs:** Adjacency matrix, incidence matrix, characteristic polynomials, eigen values, graph parameters, strongly regular graphs and Friendship Theorem.

**Unit IV: Groups and Graphs:** Automorphism group of a graph, operations on permutation graphs, the group of a composite graph.

**Domination:** Dominating sets, domination number, domatic number and its bounds, independent domination of a number of a graph, other domination parameters.

Theory of External graphs and Ramsey Theory.

## REFERENCES

1. M. Behzad, G. Chartrand and L. Lesniak-Foster: Graphs and Digraphs, Wadsworth, Belmont, Calif (1981)
2. Narasing Deo: Graph Theory with Applications to Engineering and Computer Science, Prentice Hall, India (1995)
3. J. A. Bondy and V. S. R. Murthy: Graph Theory with Applications, MacMillan, London.
4. F. Buckley and F. Harary: Distance in Graphs, Addison-Wesley (1990)
5. Diestel: Graph Theory, Springer-Verlag, Berlin.
6. R. Gould: Graph Theory, The Benjamin / Cummings Publ. Co. Inc. Calif (1988)
7. F. Harary: Graph Theory, Addison Wesley, Reading mass (1969)
8. O. Ore: Theory of Graphs, Amer-Maths. Soc. Collg. Publ. – 38, providence (1962)
9. D. Cvetkovic, M. Doob and H. Sachs, Spectra in Graphs, Academic Press, New York (1980)
10. Tulasiraman and M. N. S. Swamy: Graphs, Networks and Algorithms, John Wiley (1989)
11. Bela Bollobas, Modern Graph Theory, Springer (1998)

12. Reinhard Diestel, Graph Theory, 2<sup>nd</sup> Edition, Springer (2000)

<b>Paper Code and Name: PG83T403B: Differentiable Manifolds</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand the charts and atlases. CO2. Discuss pull back functions, tangent vectors and tangent spaces. CO3. Understand the dual of the differential map. CO4. Discuss Tensor product of finite dimensional vector spaces. CO5. Understand torsion and curvature tensors.	

**Unit I:** Charts and atlases. Differentiable manifold. Induced Topology on a manifold.

Functions and maps. Pull back functions. Tangent vectors and tangent spaces. The differential of a map. Tangent bundle.

**Unit II:** Pull-back vector-fields. Lie bracket contangent space and contangent bundle. The dual of the differential map.

One parameter group and vector-field. Lie derivatives of vector fields and differential 1 – forms.

**Unit III:** Tensor product of finite dimensional vector spaces. Tensors. Contraction, symmetric and alternating tensors. The exterior algebra. Lie derivative of tensor fields. Exterior differentiation. Lie derivatives of differential forms.

**Unit IV:** Connections, parallel translation, covariant differentiation of tensor fields. Torsion and curvature tensors, Bianchi identities.

## REFERENCES

1. W. M. Boothby: An introduction to Differentiable manifolds and Riemann Geometry. Academic Press (1975)
2. S. Helgason: Differential Geometry and Symmetric Spaces, 2<sup>nd</sup> Edition, Academic Press.
3. N. J. Hicks: Notes on Differential Geometry, Van – Nostrand (1963)
4. Loomis and Sternberg: Advanced Calculus, Addison Wesley publishing Co. (1968)
5. Kobayashi, Namizu: Foundations of Differential Geometry Vol. – I, Wiley Interscience, New York (1963)

6. Singer and Thrope: Lecture Notes on Elementary Topology and Geometry, Springer Verlag (1967)
7. M. Spivak: Calculus on Manifolds, Benjamin, New York (1965)
8. Comprehensive Introduction to Differential Geometry, Vol. – I, II, III (2<sup>nd</sup> Edition) Publish or Perish Inc., Boston, Massachusetts.

<b>Paper Code and Name: PG83T403C: Nevanlinna Theory</b>	Teaching Hours: 50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Understand entire and meromorphic functions. CO2. Apply Poisson – Jensen’s formula for meromorphic functions. CO3. Discuss Proximity function, Counting function and Characteristic function. CO4. Apply Picard’s theorem and Borel’s theorem to prove second fundamental theorem of Nevanlinna theory and uniqueness theorem.	

**Unit I:** Basic Properties of Entire Functions. Order and Type of an Entire Function. Relationship between the Order of an entire Function and its Derivative. Poisson Integral Formula. Poisson – Jensen Theorem. Jensen’s Formula. Exponent of Convergence of Zeros of an Entire Function. Picard and Borel’s Theorems for Entire Functions.

**Unit II:** Asymptotic values and Asymptotic Curves. Connection between Asymptotic and various Exceptional Values.

**Unit III:** Meromorphic Functions. Nevanlinna’s Characteristic Function. Cartan’s Identity and Convexity Theorems. Nevanlinna’s First and Second Fundamental Theorems. Order and Type of Meromorphic Function. Order of a Meromorphic Function and its Derivative. Relationship between  $T(r, f)$  and  $\log M(r, f)$  for an Entire Function. Basic Properties of  $T(r, f)$ .

**Unit IV:** Deficient Values and Relation between the Various Exceptional Values. Fundamental Inequality of Deficient Values. Some Applications of Nevanlinna’s Second Fundamental theorem. Functions taking the same values at the same points. Fix – points of Integral Functions.

## REFERENCES

1. A. I. Markushevich: Theory of Functions of Complex Variable, Vol. – II, Prentice – Hall (1965)
2. A. S. B. Holland: Introduction to the theory of Entire Functions, Academic Press, New York (1973)
3. C. L. Siegel; Nine Introductions in Complex Analysis, North Holland (1981)
4. W. K. Hayman: Meromorphic Functions, Oxford University, Press (1964)
5. Yang La: Value Distribution Theory, Springer Verlag, Scientific Press (1964)
6. I. Laine: Nevanlinna theory and Complex Differential Equations, Walter De Gruyter, Berlin (1993)

<b>Paper Code and Name: PG83T403D: Geometric Function Theory</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Discuss conformal mapping, Unit disc transformation and normal families. CO2. Discuss Dirichlet's problem. CO3. Discuss power series with finite radius of convergence. CO4. Apply Area theorem, Distortion theorem, Bieberbach theorem.	

**Unit I:** Conformal mapping Schwarz's lemma, Unit disc transformation and normal families. Riemann mapping theorem, Elementary properties of harmonic functions. Green's function. Subharmonic functions. Solution of the dirichlet's problem. Analytic continuation and singular points. General analytic function. Monodromy theorem, branch points.

**Unit II:** Power series with finite radius of convergence, singularities on the circle of convergence of analytic function defined by power series. Hadamard's gap theorem, Functions with natural boundaries, Examples of functions which cannot be continued outside a bounded domain. Schwarz reflexion principle.

**Unit III:** Univalent functions. Area theorem. Distortion theorems. Bieberbach theorem. Koebe's one quarter theorem. Starlike and convex functions. Close-to-convex functions and spirallike functions. Some coefficient theorems.

**Unit IV:** Subordination. Basic principles. Coefficient inequalities. Sharp form of Schwarz lemma. Majorisation.

## REFERENCES

1. L. V. Ahlfors : Complex Analysis, 2<sup>nd</sup> Edition, McGraw Hill Book Co., New York (1996)
2. S. Saks and Zygmund: Analytic functions, Warsaw and Wrocklaw, Monographic Matematyczne Vol-28 (1952)
3. Z. Nehari: Conformal Mapping, McGraw Hill Book Co. Inc., New York (1952)
4. E. Hille : Analytic function theory, Vol's I and II, Ginn and Company Boston Vol-I (1959), Vol-II (1962)
5. S. L. Siegel : Nine Introductions in Complex Analysis, North-Holland Publishing Co. (North Holland Mathematics Studies) (1953)
6. P. L. Duren : Univalent Functions (A series of comprehensive studies in Mathematics) Springer – Verlag (1980)
7. G. S. Goodman: Univalent Functions, Vol-I and II, Mariner Publishing Co., Tanga, Florida (1983)

<b>Paper Code and Name: PG83T403E: Group Theory</b>	Teaching Hours: 50
<b>Course Outcomes (COs)</b>	
After completing this paper, the students will be able to: CO1. Understand groups, subgroups, normal subgroup, factor group. CO2. Apply Cauchy's theorem and Sylow theorem. CO3. Discuss solvable groups. CO4. Discuss Automorphism groups, semidirect products and factor sets. CO5. Discuss infinite abelian groups, torsion, reduced groups and finitely generated abelian	

groups.

**Unit I:** Groups, subgroups, normal subgroup, factor group. Isomorphism theorems, correspondence theorem. Permutation groups, structure theorem. Alternating group  $A_n$ , simplicity of  $A_n$ . Direct product of groups. The basis theorem. The fundamental theorem of finite abelian groups. The class equation of a finite group, Cauchy's theorem, Sylow theorems. Applications.

**Unit II:** Normal and subnormal series of a group, solvable groups. Jordan – Holder theorem. A theorem of P. Hall. Central series and nilpotent groups.

**Unit III:** Automorphism groups, semidirect products, factor sets, Schur- Zassenhaus lemma.

**Unit IV:** Infinite abelian groups, torsion, torsion-free, divisible, reduced groups. Free abelian groups, finitely generated abelian groups.

## REFERENCES

1. J.J. Rotman : The Theory of Groups, an Introduction, Allyn and Bacon Inc. Boston (1965).
2. W. Scott : Group Theory.
3. A. Kurosh : The Theory of Groups, Vol-I and II, Chelsea, New York (1956).
4. H. Zassenhaus : The Theory of Groups, Chelsea, New York (1956).
5. L. Fuchs : Infinite Abelian Groups, Vol. I, Academic Press (1970).

<b>Paper Code and Name: PG83T403F: Commutative Algebra</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand rings, subrings, ideals, quotient rings. CO2. Apply operations on ideals. CO3. Understand modules, submodules and quotient modules. CO4. Discuss properties of rings.	

CO5. Understand Noetherian module. Artinian module. Modules of finite length.
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**Unit I:** Rings, subrings, ideals, quotient rings. Definitions and examples . Ring homomorphism . Isomorphism theorems . Correspondence theorem . Zero- divisors, nilpotent elements and units in a ring . Prime ideal . Maximal ideal. Nilradical and the Jacobson radical of a ring . Operations on ideals . Extensions and contractions of ideals . Polynomial rings . Power series ring.

**Unit II:** Modules, submodules , quotient modules . Definitions and examples . Homomorphisms of modules . Isomorphism theorems . Correspondence theorem . Operations on submodules . Direct product and direct sum of modules . Finitely generated modules . Nakayama lemma .

**Unit III:** Rings and modules of fractions . Local properties . Extended and contracted ideals in rings of fractions .

**Unit IV:** Noetherian module . Artinian module . Composition series of a module . Modules of finite length . Jordan- Holder theorem . Noetherian ring . Artinian ring . Hilbert basis theorem .

## REFERENCES

1. M.F.Atiyah and I.G.Macdonald , Introduction to Commutative Algebra , Addison-Wesley Publishing Company, 1969 .
2. C.Musili , Introduction to Rings and Modules , Narosa Publishing House , Second Revised Edition, 1994 .
3. N. S. Gopalakrishnan, Commutative Algebra, Oxonian Press Private Limited, New Delhi (1984)
4. O. Zariski and P. Samuel, Commutative Algebra, Vol. I, Van Nostrand Company (1958)

## CORE PAPERS:

<b>Paper Code and Name: PG83T404: Differential Equations-III</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand critical and simple critical points of linear and nonlinear system.	

CO2. Discuss periodic solutions. CO3. Understand classification of second order PDEs. CO4. Understand the solution of fundamental PDE's.
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**Unit I:** Introduction to nonlinear o.d.e. and their elementary properties. Homogeneous linear systems with constant co-efficients. Types of critical points and stability of linear systems. Simple critical points of nonlinear systems. Bendixson theorem and its applications.

**Unit II:** General first order p.d.e. Linear and quasi linear equations. Cauchy problem. Lagrange equation. Charpit's method, method of characteristics. General second order equations and their classifications. Canonical forms. Wave equation, Diffusion equation. Duhamel's principle, Elliptic equation, Poisson integral. Solutions using separation of variables and integral transforms.

## REFERENCES

1. G. F. Simmons: Differential Equations with applications and historical notes, THM, New Delhi (2000)
2. N. Sneddon: Elements of p.d.e. McGraw Hill (1999)
3. D. W. Jordan and P. Smith: Nonlinear o.d.e. Oxford, Indian Edition (1999)
4. P. Prasad and R. Ravindran: Partial Differential Equations, Wiley Eastern (1998)
5. S. J. Farlow: P. D. E. for Scientists and Engineers, John Wiley (1998)
6. E. C. Zachmanoglou and Dale W. Thoe: Introduction to p.d.e. with applications Dover (1996)
7. P. L. Sachdev: Nonlinear Ordinary Differential Equations, Marcel and Dekkar (1998)
8. L. C. Evans: Partial Differential Equations, American Mathematical Society (1998)

<b>Paper Code and Name: PG83T405: Differential Geometry-II</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Understand arbitrary speed curves and Frenet formulas. CO2. Discuss connection forms of a frame field. CO3. Understand patches.	

CO4. Understand topological properties of surfaces and Manifolds. CO5. Discuss normal Curvature, Gaussian curvature, and Special curves in surfaces.
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**Unit I:** Arbitrary speed curves, Frenet formulas for arbitrary speed curve, Covariant derivatives, Frame field on  $E^3$ , connection forms of a frame field, Cartan's structural equations.

**Unit II:** Calculus on a surface, Co-ordinate patch, proper patch, surface in  $E^3$ , Monge patch, Patch computations, parametrization of a cylinder, Differentiable functions and tangent vectors, tangent to a surface, tangent plane, Vector-field, tangent and normal vector-fields on a surface. Mapping of surfaces, Topological properties of surfaces, Manifolds.

Shape Operators, Normal curvature, Gaussian curvature, Computational techniques, Special curves in surfaces.

## REFERENCES

1. Barrett O. Neill, Elementary Differential Geometry, Academic Press, New York (1998)
2. T. J. Willmore, An introduction to Differential Geometry, Oxford University Press (1999)
3. N. J. Hicks, Notes on Differential Geometry, Van Nostrand, Princeton (2000)
4. Nirmala Prakash, Differential Geometry – An integrated approach, Tata McGraw Hill Pub. Co. New Delhi (2001)

<b>Paper Code and Name: PG83T406: Integral Transforms and Integral Equations</b>	Teaching Hours: 25
Course Outcomes (COs)	
After completing this paper, the students will be able to:	
CO1. Understand linear integral equations of the first and second kind.	
CO2. Discuss solution by successive substitutions and successive approximations.	

CO3. Apply Laplace Transform techniques to understand real world problems. CO4. Discuss Fourier series. CO5. Apply Fourier transform techniques to solve the partial differential equations.
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### Unit I: Linear Integral Equations:

Linear Integral Equations of the first and second kind. Fredholm and Volterra types. Solution by successive substitutions and successive approximations. Equations with separable kernels. Theory of symmetric kernels.

### Unit II: Integral Transforms:

Revision of Laplace Transforms and their applications. Fourier series even, odd, periodic and complex functions. Orthogonality and general Fourier series, completeness and Gibbs phenomena, passage from Fourier series to Fourier Integrals. Application to the solution of heat, wave and Laplace equations. Introduction to Distribution, discrete and FFT.

### REFERENCES

1. R. P. Kanwal: Linear Integral Equations, Academic press, New York (1998)
2. S. G. Mikhlin: Linear Integral Equations (translated from Russian) Hudson Book Agency (1980)
3. D. Porter and D. S. G. Stirling: Integral equations, Cambridge University Press (1998)
4. F. B. Hildebrand: Methods of Applied Mathematics, Prentice Hall (1990)
5. S. J. Farlow: Partial Differential Equations for Scientists and Engineers, John Wiley and Sons (1998)
6. W. A. Strauss: Partial Differential Equations, John Wiley and Sons (2000)
7. R. V. Churchill: Fourier series and b.v.p. McGraw Hill int. (1990)
8. R. S. Pathak: A course in Distribution Theory and Applications, Narosa, Publishing House (2001)

<b>Paper Code and Name: PG83P407: Programming Lab-III</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Write and execute C-programming for numerical methods. CO2. Discuss sub routing of C-programming.	

CO3. Discuss arrays, functions and strings in mathematical problems. CO4. Handle possible errors during program execution.
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Implementation of programs

(Based on M.A. / M.Sc. 3.5 CT, 4.4 CT and 4.6 CT)

<b>Paper Code and Name: PG83T408: Project Work</b>	Teaching Hours: 50
Course Outcomes (COs)	
After completing this paper, the students will be able to: CO1. Survey literature. CO2. Understand real world problems through mathematical modeling. CO3. Formulate the problem and apply the suitable techniques for solution. CO4. Write the dissertation.	

Project Work

# **KARNATAK UNIVERSITY, DHARWAD**



**Kousali institute of Management  
Studies**

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**MBA Revised Syllabus  
w.e.f. 2018-19 onwards**

# Choice Based Credit System

## MBA: Semester –Wise Credit Distribution

Category	Minimum credits to be covered in				Total Credits
	Sem –I	Sem-II	Sem-III	Sem-IV	
Compulsory Subjects	24	14	8	3	49
Specialisation Subjects	0	8	18	8	34
General Open Electives*	0	4	4	0	8
Computer Lab**	1	0	0	0	2
Summer In plant project	0	4	0	0	4
Major Concurrent project	0	0	0	4	4
Total	25	30	30	15	100

Notes:

\*Open Elective Subjects will be offered in -house by the Management department. \*\*The Computer Lab Practical's for 30 hours shall have 01 credit weightage with internal assessment.

# MBA FIRST SEMSTER

## CHOICE BASED CREDIT SYSTEM (NEW SYLLABUS)

### COURSE OUTLINE FOR MBA FIRST SEM

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
A1	<b>Principles of Management</b>	<b>3</b>	<b>25</b>	<b>50</b>	<b>75</b>
A2	<b>Business Environment For Managerial Decision Making.</b>	<b>4</b>	<b>50</b>	<b>50</b>	<b>100</b>
A3	<b>Business Statistics</b>	<b>3</b>	<b>25</b>	<b>50</b>	<b>75</b>
A4	<b>Corporate Communication-I</b>	<b>2</b>	<b>25</b>	<b>25</b>	<b>50</b>
A5	<b>Information Technology for Managers *</b>	<b>3</b>	<b>25</b>	<b>50</b>	<b>75</b>
A6	<b>Marketing Management</b>	<b>4</b>	<b>50</b>	<b>50</b>	<b>100</b>
A7	<b>Human Resource Management</b>	<b>3</b>	<b>25</b>	<b>50</b>	<b>75</b>
A8	<b>Financial Accounting for Managers</b>	<b>3</b>	<b>25</b>	<b>50</b>	<b>75</b>
<b>TOTAL</b>		<b>25</b>	<b>250</b>	<b>375</b>	<b>625</b>

\*The Computer Lab Practical's for 30 hours shall have 01 credit weightage with internal assessment.

**Title: Principles of Management**

**Subject Code: A1**

**Contact Hours: 45**

**Work load: 3 hours per week**

**Credit Points: 03**

**Evaluation:** Continuous Internal Assessment - - 25  
Semester End Examination - - 50

**Objective:** This course introduces modern concept of management to the students. This is a fundamental course where in students are exposed to principles and functions of management which help business firms to perform better and show improved results. **Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars

**Module 1: Introduction to Management and Organization:**

Definition of Management, functions of Management, Managerial skills and organizational hierarchy, productivity, efficiency, and effectiveness. The evolution of management thought: F W Taylor, Henry Fayol, Elton Mayo and others. Approaches to management, The managerial functions: Planning, Organizing, Staffing, Leading and Controlling. Types of business organizations, organization culture, current trends & issues in management

**Module 2: Planning**

Managerial planning and its importance, types of plans, steps in planning, nature and objectives of planning, hierarchy of objectives, setting objectives, MBO. Nature and purpose of strategies – the strategic planning process, nature of decision making process, evaluation of alternatives, creativity and innovation, Brainstorming, Planning process

**Module 3: Organizing**

Meaning and purpose of organizing, organization structure, formal and informal organization, organizational levels and the span of management, factors determining effective span, organization structure and departmentation, line and staff authority relationships and decentralization, staffing concepts, approaches to manager development, performance management and performance appraisal, team evaluation approach.

**Module 4: Directing**

Human factors in managing, Motivation, theories of motivation & motivational techniques – McGregor's Theory x and Theory y, Maslow's hierarchy of needs theory, Alderfer's ERG theory, Herzberg's motivation-hygiene theory, etc., job enrichment, leadership, ingredients of leadership, leadership theories (approaches), leadership behavior and styles, types of leadership, communication, purpose of communication, communication process, types and norms of communication, communication barriers, guidelines for improving communication, listening and its importance in effective communication, electronic media in communication

**Module 5: Controlling**

Meaning, the basic control process, critical control points, real-time information and control, control of overall performance, types of control, The Balance Scorecard, Requirements for effective controls, The concept of Budgeting, dangers in budgeting, zero-base budgeting, Gantt Charts, PERT (Program Evaluation Review Technique), Information Technology, Productivity problems and measurement, and tools and techniques for improving productivity

**Text Book:**

Principles of Management by Harold Koontz, Heinz Weihrich and A Ramachandra Aryasri, Tata McGraw Hill'

**Reference Book:**

Principles and Practice of Management by L M Prasad, Sultan Chand and  
Sons The practice of management by P.F.Drucker  
Principles of management- Text & cases- Deepak B, Pearsons Publication

## **Title: Business Environment for Managerial Decision Making**

**Subject Code: A2**

**Contact Hours:60**

**Work load: 4 hours per week**

**Credit Points:04**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

### **Objective:**

The course is to familiarize the students with basic concepts and techniques of micro economic analysis and its applications to managerial decision making. It is also to acquaint the students with the basic concepts of economic theory of consumer behavior, the nature of economic costs and their relationship to choice of output and technology; etc This course is designed keeping the in mind as a comprehensive course in Managerial Economics covering both the micro and macro economics parts.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars

### **MODULE 1**

Overview, definition, nature and scope of Managerial Economics. Demand Analysis and Forecasting Factors affecting demand, demand distinctions, Price and income elasticity of demand, Methods of demand forecasting, Demand forecasting over Product Life Cycle. **Project on Demand Forecasting**

### **MODULE 2**

Production Functions, Cobb-Douglas Production Function, cost-input relationship Returns to scale, factors of productivity Cost concepts – cost output relationships in the short run and the long run, economies of scale

### **MODULE 3**

Market Structure and Pricing Theory Market Structure – perfect competition, monopoly, monopolistic competition oligopoly, Kinky demand curve, Price output decisions under different market structures

### **MODULE 4**

Behaviour of the Firm and Profit Theories, Nature and Objectives of the Firm, Theories of the Firm, Overview of the alternate theories of the objectives and behaviour of the firm, Profit theories, Profit maximization as an objective

### **MODULE 5.**

Overview, definition, nature and scope of Macro economics

### **MODULE 6**

Macroeconomic policies in India: Fiscal policy, Budget (union budget) Direct and indirect taxes, revenue and expenditure of union government, exim. policy, LPG policy

### **MODULE 7**

National Income; Concepts, Basic Terminology, Income and Product Concepts, Fundamental National Accounting Identities and measurement. Income, Price Level and Employment: consumer income, consumer price index, employment, types of employment, government of India policy, unemployment

## **Module 8**

Consumption Function: Aggregate Investment, Multiplier Concepts,

## **MODULE 9**

Monetary system: Concepts of Money Supply, Central Bank, Banking System; Money Markets , commercial banks in India, banking sector reform in India and RBI, Balance of Payment: concept, component, trend in balance of payment. Monetary and credit policy, Money and Interest Rate, IS – LM Analysis, Aggregate Supply and Price Level. Trade Blocks. Digital / Cashless Economy.

### **Reference :**

Misra and Puri – Economic Environment of Business.

Principles of Micro economics – N. Gregory Mankiw. 6<sup>th</sup> Edition Cengage Learning

Managerial Economics By Geetika, Piyali Gosh and Purba Choudhary- McGraw Hill Publication for both Micro and part of Macro economics. RBI Bulletin for Monetary Policy and other macro economic information like BOP, rates etc.

Business Line News paper for daily updates on Macro Economics

**Title: Business Statistics**

**Subject Code: A3**

**Work load: 3 hours per week**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Contact Hours:45**

**Credit Points:03**

**Objective:** The Decision making is a simple function of Management. Data needs to be analyzed, classified and interpreted to facilitate decision making. Statistical Analysis is a fundamental method of quantitative reasoning for managerial decision making. The objective of the course is to equip the students with techniques for data analysis

**Pedagogy** : Lectures, Assignments, Practical Exercises and workshops

**Module 1: Descriptive statistics:** Application of statistics to managerial decision making. Data Processing: Classification & tabulation, Summarization of Data, Frequency Distribution.

**Module 2: Graphical Representation of data and their use in statistics:** Line graphs, Pie charts, Bar graph, Scatter plot, Stem and plot, Histogram, Frequency polygon, Frequency curve, Candle stick. Drawing graphs using MS Excel

**Module 3: Measures of Central Tendency:** computation of Mean, Median, Mode, limitations of averages, Measures of Dispersion, objectives and significance- Range, Quartile Deviation, mean deviations, Standard Deviation, variance, Coefficient of variation, Skewness & kurtosis

**Module 4: Regression and Correlation:** Correlation, Simple & Multiple Regression

**Module 5: Index Numbers:** Index Numbers: construction of an Index Number – and applications. Layspers', Paasches, MarshallEdworth and Fisher Index No. Time reversal and factor reversal tests, Time series analysis, methods, graphical, semi average, moving average, least square methods

**Module 6: Probability and Distribution:** Probability Concepts, Bayes' formula applications, commonly used probability distributions, Binomial, Poisson, Normal and Exponential and their characteristics. [ No Theorems derivations ]

### **Books / References**

Statistics for management - Levin & Rubin

Fundamentals of statistics – SC Gupta Himalaya Publishing House

Quantitative techniques for decision making – Anandsharma, Himalaya Publishing House

Mathematics for managers – Zamiruddin & Kazi

Business statistics – Shelly & Keller

**Title: Corporate Communication-I**

**Contact Hours:30**

**Subject Code: A4**

**Work load: 2 hours per week**

**Credit Points:02**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Objective of course:** The objective of the course is to help the students to acquire the basics of interpersonal communication, corporate communication and soft skills, so as to improve their communication skills and ability to understand others along with the personality development as per the requirement of the corporate world. Practical activities in this subject will help the students to use communication skill as a strategic asset to build their managerial career.

**Pedagogical Tools:** Lecture, Seminar, Case Studies, Simulation based Games, Team exercises

### **Module -1**

Nature and scope of managerial communication, Process of communication –Feedback, Principles of effective communication, distinguishing between Business Communication and General Communication., Introduction to corporate communication, Modes and Medias of communication, Barriers of communication, Listening skill

### **Module -2**

Verbal communication: using words, addition and obsolescence of words from the dictionary, Language as a tool for Communication., Non verbal communication : importance of nonverbal communication in corporate , body language, Kinesics communication, Proxemics, Haptic, Chromatic , Chronomatic communication, paralanguage, Cultural difference in non verbal communication, Cross cultural communication

### **Module -3**

Presentation skills – guidelines for effective presentation, planning and delivering business presentation, Conversation skills-skills required. Business meeting – types, making preparation, conducting a meeting

### **Module -4**

Employment communication, Interview, Group discussion

### **Reference books:**

Business communication by Lehman &Sinha, Cengage Learning Business communication by P.D.Chaturvedi, Pearson Publication.

Basic Business Communication' 10<sup>th</sup> Edition by Lesikar & Flatley TMH Publication. 'Business Communication' 3<sup>rd</sup> Edition by Mary Ellen Guffey Thomson Publication.

'Foundation of the Business Communication' by Dona. J. young-Tata McGraw Hill TMH Publication.

'Business Communication' by Meenakshi, Raman Prakash Singh. Business communication by Shalini Verma, Vikas Publishing House

**Title: Information Technology for Managers****Subject Code: A5****Work load: 3 hours per week (2 hours theory & 1 lab Session\*)****Evaluation:** Continuous Internal Assessment – 25  
Semester End Examination - 50**Contact Hours:45**  
**Credit Points:03**

Sl.No Hrs	Contents	Practical – Hrs
1.	Introduction of Information Technology to managers, Computers. Contemporary I/O devices, Data Storage devices, CPU management.	
2.	Computer Software: System software and application software and their applications in Management. Operating systems, Types, Knowledge of Languages, compilers, System utilities, Virus, worms & Trojan horse.	WEB Lab -02 Emails signature, email groups
3.	Internet: Evolution of Internet, WWW, Development of WEB, Concept & Context of Cyber Law, Domain names, Introduction to E-commerce, social networking. Strategies of Search engine (Google)	Google Lab -02 Searching in Google
4	Word Processing: Data Management, Tables, Graphics, cover page, printing, hyperlink, references, citation and bibliography, table of contents, Tables, Mailmerge, references: citation and bibliography, table of contents, and Cloud applications	Word Lab -04 Resume, Mail merge, tables, hyperlinks, Bibliography and table of content
5	Spreadsheets: Building a spreadsheet, Editing, File management, formatting and printing, Computation: simple Functions and Formulae, conditional formatting and tables <b>Spreadsheet Analytics:</b> Pivot table, pivot chart, slicer, Macros, tables, data validation, charts, lookup functions, online spread sheets, Cloud applications	Excel lab -08 Statements, Pivot, micros, cloud, Descriptive statistics
6	Databases: Concepts with specific reference to relational databases. Databases, fields, type of fields, DBMS, creation of tables, and database	Access Lab -02
7	Introduction to HTML, Designing web pages, using tools like – webpage maker etc.	Web page – 04
8	Presentation: Hyperlinks, transition effects, ethics of slides, themes, Cloud applications, dos' and don't	PowerPoint -02
9	Logic building using C – Programming: Variables, simple C programs with conditional statements (if, for, while ) [only numerical examples – NO ARRAYS]	C –Lab -06

**Books / References**

Office 2010 Made Simple Guy Hart-Davis, Apress publisher 2011 Edition

A First course in computers 2003 edition by- Sanjay. SaxenaVikas

Publications Let us C – YeshwanthKanitkar

(\*Note: 1 lab = 2 Hours duration)

\*The Computer Lab Practical's for 30 hours shall have 01 credit weightage with internal assessment.

**Title: Marketing Management****Subject Code:A6****Contact Hours: 60 Hrs****Work load: 4 hours per week****Credit Points: 4****Evaluation:** Continuous Internal Assessment – 50 marks

Semester end Examination – 50 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Marketing Management.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case discussions, Research article discussions.

**Module I: Understanding Marketing Management:**

Defining marketing for new realities; value, scope, concepts of marketing, understanding 4 Ps, marketing management tasks, Developing marketing strategies and plans; Marketing and customer value, corporate and division strategic planning, Business Unit strategic planning, nature and contents of marketing plan, Creating long term loyalty relationships, Creating and Capturing Customer Value, satisfaction and loyalty, maximizing customer lifetime value, cultivating customer relationships.

**Module II: Capturing Marketing Insights:**

Analyzing the Marketing Environment Collecting information and Forecasting and demand measurement, conducting marketing research, Modern marketing information system, Marketing intelligence, analyzing the macro environment, the scope of marketing research, marketing research process, measuring marketing productivity,

**Module III: Connecting with Customers:**

Analyzing consumer markets and Consumer Buyer Behavior, influencing factors, key psychological processes, buying decision process, Analyzing Business markets and Business Buyer Behavior, participants in buying process, Purchasing/procurement process, stages in the buying process, developing, managing, B-to-B marketing programs tapping into global markets; deciding which markets to enter, deciding how to enter the global market, deciding on marketing program, country of Origin effects.

**Module IV: Building Strong Brands:**

Identifying market segments and targets; basis for segmenting markets, market targeting, effective segmentation criteria, Crafting the brand positioning; developing brand positioning, choosing competitive frame of reference, establishing brand positions, alternative approaches to positioning, Creating Brand Equity; how does branding work? Defining brand equity, building brand equity, measuring brand equity, managing brand equity, devising brand strategy, customer equity, Addressing Competition and Driving growth; growth strategies, competitive strategies for marketing leaders, other competitive strategies, Product life cycle marketing strategies.

**Module V: Creating value:**

Creating Value for Target Customers, Setting Product Strategy; product characteristics and classifications, differentiation, design, product and brand relationships, packaging, labeling, warranties, and guarantees, Designing and managing Services; nature of services, new services realities, achieving excellence in services marketing, managing product-support services, Introducing New market offerings; new-product options, challenges in new product development, organizational arrangements, managing development process, consumer adoption process,

Developing pricing strategies; understanding pricing, setting the price, adapting the price, initiating and responding to price changes.

#### **Module VI: Communicating Value:**

Designing and managing Integrated marketing communications; role of marketing communications, communications mix, developing effective communications, selecting the marketing communications mix, managing the IMC process, Managing Mass communications; developing and managing advertising program, sales promotion, events and experiences, public relations, Managing digital communications; online marketing, social media, word of mouth, mobile marketing, Managing personal communications; direct marketing, customer database and database marketing, designing the sales force, managing the sales force, personal selling, relationship marketing.

#### **Module VII: Delivering Value:**

Designing and managing Integrated marketing channels; Marketing channels and value marketing, the role of marketing channels, channel – design decisions, channel management decisions, channel integration and systems, E-commerce marketing practices, M-commerce marketing practices, conflict, cooperation, and competition, Managing retailing, Wholesaling, and logistics; private labels. Conducting Marketing Responsibility for Long term success: Managing a holistic marketing organization for the long run; trends in marketing practices. Socially Responsible marketing and Ethics marketing implementation and control, the future of marketing.

#### **References:**

Philip Kotler and Kevin Keller “Marketing Management” latest edition, Pearson publications.

Philip Kotler and Gary Armstrong, “Principles of Marketing” latest edition, Pearson publications.

Ramsamy and Namakumari “Marketing Management” latest edition, MacMillan Publications.

**Title: Human Resource Management****Subject Code: A7****Contact Hours: 45 Hrs****Work load: 3 hours per week****Credit Points: 3**

<b>Evaluation:</b> Continuous Internal Assessment	–	25 marks
Semester end Examination	–	50 marks

**Objective:** The objective of this course is to give the students the complete exposure to all the aspects of HRM

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case discussions,

**Module 1:** Human Resource Management: Introduction, meaning, nature, scope of HRM. Importance and Evolution of the concept of HRM. Major functions of HRM, Role of HR Manager. HRM's evolving role in the 21st century.

**Module 2:** Human Resource Planning: Objectives, Importance and process of Human Resource Planning, Effective HRP. Job Analysis: Meaning, process of Job Analysis, methods of collecting job analysis data, Job Description and Job Specification, Role Analysis, Staff Duties for HR

**Module 3:** Recruitment & Training: Definition, Sources and Methods of Recruitment, New Approaches to recruitment. Selection: Definition and Process of Selection. Placement: Meaning, Induction/Orientation, Internal Mobility, Transfer, Promotion, Demotion and Employee Separation

Training and development: Training v/s development, Training v/s Education, Systematic Approach to Training, Training Methods, Executive Development, Methods and Development of Management Development, Career and Succession Planning

**Module 4:** Performance Appraisal: Concept of Performance Appraisal, the Performance Appraisal Process, Methods of Performance Appraisal, Essential Characteristic of an Effective Appraisal System. Compensation: Objectives of Compensation Planning, Job Evaluation, Compensation Pay Structure in India, Wage and Salary Administration, Factors Influencing Compensation Levels, Executive Compensation.

**Module 5:**

Employee Welfare: Introduction, Types of Welfare Facilities and Statutory Provisions. Employee Grievances: Employee Grievance procedure, Grievances Management in Indian Industry. Discipline: Meaning, approaches to discipline, essential of a good disciplinary system, managing difficult employees. Contemporary issues in Human resource Management

**Recommended books:**

Human Resource Management – Rao V. S. P, Excel Books

Human Resource Management - Cynthia D. Fisher, 3/e, AIPD, Chennai.

Human Resources Management: A South Asian Perspective, Snell, Bohlander, & Vohra, 16th Rep., Cengage Learning, 2012.

Human Resource Management - Lawrence S. Kleeman, Biztantra, 2012. Human Resource Management – Aswathappa K HPH

Human Resource Management - John M. Ivancevich, 10/e, McGraw Hill. Human Resource Management in practice - Srinivas R. Kandula, PHI, 2009

Managing Human Resources - Luis R Gomez-Mejia, David B. Balkin, Robert L. Cardy, 6/e, PHI, 2010.

**Title of the paper: Financial Accounting for Managers****Subject Code : A8****Contact Hours: 45 Hours****Work load: 3 hours per week****Credit Points : 3**

**Evaluation** : Continuous Internal Assessment – 25 marks  
Semester End Examination -- 50 marks

**Objective:**

The main objective of this course is to acquaint the students with fundamental concepts and processes of accounting so that they are able to understand the nature of item presented in the annual accounts of an organisation. Further, it aims at familiarizing the student with those significant tools and techniques of financial analysis, which are useful in the interpretation of financial statements.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises and Case Analysis

**Module 1:**

Introduction to Financial Accounting - Accounting information, Objectives of Financial Accounting – Accounting Concepts & Conventions - Introduction to Accounting Standards and Accounting Policy (AS – 1,2,3,6,10 & 20)

**Module 2:**

Accounting Process - Double Entry System of Accounting – Journal – Ledger - Trial Balance Preparation of cash book, preparation of Bank Reconciliation Statement and Rectification of errors)

**Module 3:**

Revenue recognition - Inventory Valuation – Principles, Methods ( FIFO, LIFO, Weighted Average Cost) - Accounting for Fixed Assets & Depreciation (SLM & WDV).

**Module 4:**

Preparation of Final Accounts of Trading & Manufacturing firms with adjustments (Closing Stock, Accrued Incomes and Expenses, Depreciation, Appreciation, Bad Debts & PDD etc.) – Practical application of software packages for Accounting.

**Module 5:**

Preparation of Company Financial Statements - Contingent Liabilities and Post Balance Sheet Events – Introduction to IFRS - Ratio Analysis – Comparative Statements, Common-size Statements & Trend Analysis.

**Text Books:**

Financial Accounting – Managerial Perspective by R. Narayanaswamy, PHI Learning  
Accounting Principles, Text and cases - Robert Antony and David F Hawkins Kenneth A Merchant, Tata McGraw Hill Publishing, New Delhi.  
Financial Accounting - A Managerial Emphasis by Ashok Banerjee, Excel Publisher.  
Accounting for Managers By Jessey Joseph Kuppapally, PHI learning

**Reference Books:**

Accounting for Management - Text and Cases by S K Bhattacharya and Dearden, Vikas Publication  
Institute of Chartered Accountants of India, Compendium of Statements and Standards on Accounting, ICAI, New Delhi.  
Financial Accounting for Management N Ramachandran, Ramakeshwar Kakani, TMH Publishing, New Delhi.  
Essential of Financial Accounting, Ashish Bhattacharya, PHI Learning.  
Accounting for Management by S.N. Maheshwari & S.K.Maheshwari,Vikas Publication.

## COURSE OUTLINE FOR MBA SECOND SEM

Paper Code	Title of the Paper	No of credits	IA Marks	Sem End Exam	Total Marks
B1	Production and Operations Management	2	25	25	50
B2	Operations Research	3	25	50	75
B3	Corporate communication-II	2	25	25	50
B4	Financial Management	3	25	50	75
B5	Organisational Behaviour	4	50	50	100
B6	SIP (PROJECT)	4	50	50	100
B7	Business Research & Analytics (OEC)(offered in-house by the department)	4	50	50	100
<b>TOTAL</b>		<b>22</b>	<b>250</b>	<b>300</b>	<b>550</b>
<b>Specialisation Courses</b> (Students to choose as many subjects as desired subjects to minimum credits per semester as per Table above)					
<b>GENERAL MANAGEMNT :</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
<b>B8</b>	Management Information System	2	25	25	50
<b>B9</b>	Micro Small and Medium Enterprise Management	4	50	50	100
<b>B10</b>	Total Quality Management	3	25	50	75
	<b>Total</b>	<b>9</b>	<b>100</b>	<b>125</b>	<b>225</b>
<b>MAR KETING STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
<b>B11</b>	Integrated Marketing Communication	3	25	50	75
<b>B12</b>	Consumer Behaviour	3	25	50	75
<b>B13</b>	Business Marketing	3	25	50	75
<b>B14</b>	Service Marketing	3	25	50	75
	<b>Total</b>	<b>12</b>	<b>100</b>	<b>200</b>	<b>300</b>
<b>FINANCE STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
<b>B15</b>	Financial Markets & Services	4	50	50	100
<b>B16</b>	Cost and Management Accounting	3	25	50	75
<b>B17</b>	Behavioural Finance	2	25	25	50
<b>B18</b>	Insurance and Risk Management	3	25	50	75
	<b>Total</b>	<b>12</b>	<b>125</b>	<b>175</b>	<b>300</b>
<b>HUMAN RESOURCE:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	
<b>B19</b>	Applications of Labour Laws	03	25	50	75
<b>B20</b>	Managerial Effectiveness and leadership	03	25	50	75
<b>B21</b>	Career Planning and Development	03	25	50	75
<b>B22</b>	Performance Management and competency mapping	03	25	50	75
	<b>Total</b>	<b>12</b>	<b>100</b>	<b>200</b>	<b>300</b>

**Title: Production & Operation Management**

**Subject code: B1**

**Work load: 2 Hours per week**

**Contact Hours: 30**

**Credit Points:2**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Objectives of the course:**

To understand a basic concepts and systems view of production and operations management.

To understand the conversion of inputs into outputs process.

To understand functions of production, planning and control and methods to improve productivity

**Pedagogy:** Lectures, Assignments and Practical Exercise

**Module 1: Introduction to Production and Operations Management**

Meaning, Role of Production manager, Types of manufacturing process: Meaning, merit and demerits of job, batch and continuous production. Role of Technology in Production and Operations Management: Meaning, merits and demerits of automation, N/C machines, CNC machines, CAD, CAM, FMS and Group Technology.

**Module 2: Production, Planning and Control.**

Meaning, objectives and functions of PPC, scheduling, Capacity planning: Meaning, types and measurement of capacity, factors affecting capacity planning, steps involved in capacity planning and strategy for changing capacity.

**Module 3: Facility Location.**

Meaning, importance and factors affecting plant location, steps in plant location selection, location models: factor rating method, point rating method, and Break even analysis.

**Module 4: Facility Layouts.**

Meaning, objectives and factors influencing facility layout, Classifying of layout: Process layout, Product layout, fixed layout and combination layout, service facility layout. Layout planning and design: Layout tools and techniques, templates, models, travel chart, load distance analysis.

**Module 5: Productivity**

Meaning, factors influencing productivity, productivity improvement techniques: Meaning, advantages, disadvantages of work study. Steps involved in Method study and Time study.

**Text Books:**

Production and Operations Management by K. Aswathappa and K. Shridhar Bhat.

Production and Operations Management by Evrette E Adam, Jr. Ronald J. Ebert

Modern Production and Operations Management by Elswood S. Buffa

**Reference Books:**

Elements of Production Planning and Control by Samuel

Eilion. Work study by ILO

**Title: Operations Research**

**Subject code: B2**

**Work load: 3 hours per week**

**Contact Hours:45**

**Credit Points: 3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination 50

**Objectives:** The objective of the course is to equip the students with the techniques of data analysis.

**Pedagogy:** Lectures, Assignments and Practical Exercises

### **MODULE 1 : Introduction of OR**

Operation Research: Meaning: scope: aid to decision making, Importance of OR techniques in business and industry

### **MODULE 2 : Linear Programming**

Introduction, Linear Programming Problem, Requirements of LPP, Mathematical Formulation of LPP, Graphical Methods to Solve Linear Programming Problems, Applications, Advantages, Limitations, Slack, surplus, Simplex method (Simple examples on change in price)

### **MODULE 3 : Transportation problems:**

Introduction, Formulation of Transportation Problem (TP), initial basic feasible solution by North West corner rule, matrix maxima method, Vogel approximation method, degeneracy, MODI method, Moving Towards Optimality

**Assignment problems:** Initial solution, optimal solution, Hungarian method, Maximization problem as assignment problem, Routing Problem, Travelling Salesman Problem.

### **MODULE 4 :Project Scheduling and PERT , CPM**

Introduction, Basic Difference between PERT and CPM, Network Components and Precedence Relationship, Rules for drawing the network diagram construction, Application of CPM and PERT techniques in project planning and control. Crashing of Project Duration.

### **MODULE 5 : Game Theory**

Introduction, Competitive Situations, Characteristics of Competitive Games, Maximin – Minimax Principle, Two-person zero-sum game; pure and mixed strategy games, saddle point.

### **Reference Books**

Gupta Prem Kumar and Hira Das (1999). Op. Cit, Chap. 3 & 4, pp. 148-241.

Shenoy G.V. et al(1999). op. Cit, Chap. 2, pp. 70-109.

Taha, H.A.(1999). O.P. Chap 5, pp 165-213.

Gupta P and Hira. D.S (2003). Op. Cit, pp 709-753.

Srivastava, U.K.etal (1997). Op. Cit, Chap-20, pp. 695-720.

Gupta Premkumar and Hira, D.S. (2003). Operations Research, New Delhi: S.Chand& Co. Ltd., Chap 1, pp 1-40

Marketing Research- Naresh K Malhotrs- 5th Edition, Pearson Education /PHI 2007

Business Research Methodology – J K Sachdeva – 2nd Edition - HPH, 2011

**Title: Corporate Communication-II****Subject code: B3****Contact Hours:30****Work load: 2 hours per week****Credit Points:2****Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Objective of course:** The objective of the course is to help the students to acquire the basics of interpersonal communication, corporate communication and soft skills, so as to improve their communication skills and ability to understand others along with the personality development as per the requirement of the corporate world. Practical activities in this subject will help the students to use communication skill as a strategic asset to build their managerial career.

**Pedagogical Tools:** Lecture, Seminar, Case Studies, Simulation based Games, Team exercise

**Module 1:**

**Written communication** – importance, types of written communication in organization (memos, circular, office order, notice etc), principles effective of business letter writing, types of business letters, e-mail writing, writing reports, business proposals and business plans

**Module 2:**

**Technology enabled communication** – different forms of technology used in corporate communication Business etiquettes (give the exposure to students) Netiquettes

**Module 3: Communication Lab**

(Students are required to submit journals and practical exam will be conducted for the students. )  
Writing of different types of business letters (cover all types of business letters) E-mail writing and analysis, Writing of business plans / business proposals, Writing business reports, Conducting mock press conference, Preparation of CV and Video Resume, Mock interview – Telephonic, Skype Interview, Video Conference, Netiquettes, English language exercises- grammar, sentence framing, Exercise on understanding Non verbal cues & cross cultural communication barriers(analysis or preparation of video)  
Preparation of PowerPoint presentation (guidelines for PPT Preparation, insertion of table, graphs, pictures, hyperlink etc...) Presentations (using technology and without technology) Conducting mock business meeting

**Reference books:**

Business communication by P.D.Chaturvedi, Pearson Publication  
Basic Business Communication' 10th Edition by Lesikar & Flatley TMH Publication. 'Business Communication' 3rd Edition by Mary Ellen Guffey Thomson Publication.  
'Foundation of the Business Communication' by Dona. J. young-Tata McGraw Hill TMH Publication.  
'Business Communication' by Meenakshi, Raman Prakash Singh.  
Business communication by Urmila Rai, Himalaya Publishing house Business communication by Shalini Verma, Vikas Publishing House

**Title: Financial Management**

**Subject code: B4**

**Work load:3 hours per week**

**Contact Hours: 45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** The course is designed to provide an understanding of the essential elements of financial management and the financial environment in which the business firm operates. The paper will examine the objective of shareholder wealth maximization which encompasses much of modern corporate finance and its implication for decision making in the present context. This paper aims at familiarizing the participants with the skills related to basic principles, tools and techniques of financial management.

**Pedagogy** : Lectures, Assignments/Project, Practical Exercises, Case Analysis and Seminars

**Module 1: Financial Management:**

Introduction to Financial Management – Goals and Objectives of Financial Management - Finance Functions - Interface between Finance and Other Business Functions. Introduction to Time Value of Money.

**Module 2: Financial Planning:**

Introduction to Financial Planning – Objectives – Benefits – Guidelines - Steps in Financial Planning - Factors Affecting Financial Planning - Estimation of Financial Requirements of a Firm – Capitalisation.

**Module 3: Cost of Capital:**

Introduction of Cost of Capital – Significance - Cost of Different Sources of Finance – Estimation of Weighted Average Cost of Capital.

**Module 4: Capital Structure Decisions:**

Introduction to Capital Structure - Leverage - Operating Leverage - Financial Leverage - Combined Leverage – Operating and Financial Risks - Features of an Ideal Capital Structure - Factors Affecting Capital Structure - Theories of Capital Structure ( NI, NOI, MM & Traditional Approaches).

**Module 5: Capital Budgeting Decisions:**

Introduction to Investment Decisions - Importance and Complexities involved in Capital Budgeting Decisions - Phases of Capital Expenditure Decisions - Identification of Investment Opportunities - Capital Budgeting Process - Investment Evaluation Criteria (Both Discounted & Non-discounted Techniques). Introduction to Risk Analysis in Capital Budgeting.

**Module 6: Working Capital Management:**

Introduction - Objectives – Need – Types of WC - Operating Cycle & its estimation - Determinants of Working Capital - Approaches for Working Capital Management - Estimation of Working Capital - Introduction to Cash, Receivables and Inventory Management.

**Module 7: Profit Appropriation Decisions:**

Introduction – Significance – Factors affecting Dividend Decisions - Stability of Dividends - Forms of Dividends – Theories of Dividend - Buy Back of Shares.

**Text Book:**

‘Financial Management’ by M Y Khan & P K Jain, Tata McGraw Hill Publication, New Delhi.

**Reference Books:**

Financial Management by I.M.Pandey, Vikas Publishing House, New Delhi..

Financial Management: Theory and Practice by Prasanna Chandra, Tata McGraw Hill Publication, New Delhi.

Financial Management: Problems & Solutions by Ravi M Kishore, Taxmann Allied Services Publication, New Delhi.

Cases in Financial Management by I M Pandey and Ramesh Bhat, Tata McGraw Hill Publication, New Delhi.

**Title: Organizational Behaviour**

**Subject code: B5**

**Work load: 4 Hours per week**

**Contact Hours: 60**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objectives:** The course aims at enhancing the understanding of dynamics of interaction between individual and organisation.

**Pedagogy:** Lectures, Assignments and Practical Exercises

**Module 1: Introduction,**

Definition, Historical Development, Challenges and Opportunities for OB and outcomes.

**Module 2:**

Diversity, Abilities, Attitudes and Job Satisfaction, Emotion and Moods, Personality and Value, Perception and Individual Decision- Making.

**Module 3:**

Motivation Concepts: Definition, Early Theories of Motivation Contemporary Theories of Motivation. Motivation: From Concepts and Applications.

**Module 4:**

Group Behavior: Definition and Classifying Groups, Stages of Group Development, Group Properties and Group Decision Making. Teams: Difference between Group and Teams Types of Teams, Creating Effective Teams, Successful Teams, Team Composition, Team Processes, Turning Individuals into team Players etc. Power and Politics; Definition of Power, Politics, Power in action, the reality of politics causes and consequences of Political Behaviour, etc. Conflict and Negotiation: Definition, Transitions in Conflict Thought, the conflict process. Negotiation: Definition, Bargaining strategies, the Negotiation Process, etc.

**Module 5:**

Organization Culture; Organizational Change and Stress Management.

**Reference Books:**

Organizational Behaviour – Stephen P Robbins, Timothy A Judge, Neharika Vohra – Fifteenth Ed – Pearson, New delhi 2014.

Organizational Behaviour – Fred Luthans – Twelfth Ed- Mc Graw Hill, Singapore – 2011. Organizational Behaviour-K.Ashwatappa, Himalaya Publication

**Title: Summer Implant Project [SIP]****Subject Code: B06 [4 credits]****Workload: 60 days on site of organization & institute for guidance****Evaluation:** Project Report – 50 marks

Project Viva -- 50 marks

**Preamble:** The Summer Implant Project (SIP) is a fully practical oriented course which has been designed to give students indepth knowledge about industry/ business. Summer Implant Training (SIT) is designed at the end of first year, where in student would have studied the foundation courses in management and will have more scope to apply knowledge. In this subject, wherein he will be encouraged to explore concepts already dealt in the class and understand its application in the field. The student while carrying summer implant training Project is more focused and would be getting continuous guidance from the external as well as internal experts. The following note presents the broad guidelines of the Project.

**PROCESS / GUIDELINES:**

- 1) Each student will select an organization of his/ her choice and a project in his/her area of interest. Or institute will depute the students to various organizations looking at their area of interest.
- 2) In case the student makes the choice of the organization, it has to be made in consultation with the Institute. The Institute for this purpose should assign an internal faculty member who will act as the mentor throughout the Project. The assignment of mentor and choice of organization should be made on or before the II semester exams.
- 3) The study conducted by the student will be a full time effort where he/she is required to attend the Industry or business everyday for all seven days in a week or as per industry/ organization's rule. The industry expert will act as the External guide and the student is required to submit attendance details every week to the institute.
- 4) The proposal for the Summer Project or title of the project should be submitted to the Institute, which will ensure the registration of students for Project. Students should prepare these proposals in consultation with the Internal and External Guide.
- 5) Students should send Joining Report on the first day of the joining which should be duly signed by the external guide.
- 6) Student should also send weekly report/s every week keeping posted about the work – in – progress with regard to project to the institute. Each student should send 8 weekly reports without fail.
- 7) The format for the proposal or deciding about project title is as given below:
  - Title of the study
  - Need for the study (Stress on Need for study-current trends in the area)
  - A review of earlier research studies conducted
  - Objectives of the study
  - Methodology
  - Proposed outcomes and benefits of the study
- 8) There will be eight weeks for the completion of the concerned proposal. Late submissions should not be entertained by the Institute in any case. A soft copy on a CD of all reports is to be sent to Chairman BOE, KIMS, KUD immediately after the submission date.

- 9) There shall be 2 copies of project reports along with a CD to be submitted by each student to the institute.
- 10) Separate presentations for the organizations and the Institute have to be arranged before completion of the project or as per convenience.
- 11) There will be a project viva-voce conducted by Karnatak University, soon after the theory examinations. The panel of examiners will be similar to SIP.

**Deliverables:**

The students are required to deliver the following Deliverables without any concessions as per the dates mentioned in the above process.

- 1) Joining Report and deciding project title/ proposal
- 2) Submission of project report (Soft copy (CD)+ Hard copy- 2no.s /Project)
- 3) Presentation (for organization and the Institute)
- 4) Presentation for Viva-voce examination to be conducted by KUD.
- 5) Student to present 1 copy to the organization and get the Certificate.

**Format for Project Reports**

The format for the Major Concurrent Project reports should be in the following manner.

Executive Summary  
Introduction of the study  
About the organization – Brief  
Objectives  
Analysis and Findings  
Discussion  
Conclusion  
References

In certain cases, students may change the format in consultation with his mentor and the External Guide. Enough care should be taken that the Project report focuses the study undertaken by the student and its findings. The report should contain minimum 75 pages with the following styles:

- i) A-4 size paper (Executive Bond)
- ii) MS Word style with Times New Roman Font
- iii) Font size -12 for Text and 14 for headings
- iv) Paper settings with 1 inch margins on all the four sides.

**Title: Business research and analytics (OEC)**

**Subject code: B7**

**Contact Hours:60**

**Work load: 4 hours per week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objective:** Research is the powerful tool in the modern world. Managers need to have essence of systematic answers for their hypothesis. The objective of the course is to experience the skills of Business Research in all functional area which gives creativity, thinking and knowledge with working knowledge of software.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars

### **MODULE 1 Introduction to Research Design:**

Meaning, scope and importance of Business research; Types of research, Basic, applied, Exploratory, conclusive, descriptive, the research process, problem definition, formulation and preparation of research proposal. Review of literature, use of Software (Ex. Zotero / MS Word). Research application – various functional areas, Features of research study.

### **MODULE 2 Sample Design and Sampling:**

Determining universe, sampling frame and sampling unit; determining sampling method; non probability and probability methods; sample size determination (statistical); sampling errors vs. non-sampling errors

**Sampling:** simple random sampling, systematic sampling, stratified random sampling, cluster sampling -Non Probability Sampling – convenience sampling- judgmental sampling, snowball sampling- quota sampling.

### **MODULE 3 Qualitative methods of data collection**

Qualitative & quantitative data, **Secondary:** Internal, external, published, electronic, uses & benefits of secondary data, drawbacks. **Primary data:** mail survey, telephone survey and interviews and their evaluation; observations; questionnaire preparation and administering, organizing fieldwork for a collecting data. **Questionnaire design (QD):**-Steps in Q.D. with examples for each step. Rating Scales, Juster, Likert, Semantic Differential, Thurston, Attitude Scales, Scales for illiterate respondents.

### **MODULE 4 Data Processing and testing:**

Measurement scales, Tabulation (Coding Sheet) and analysis of data, Correlation & regression, Parametric & Non-Parametric Tests. **Hypothesis:** basic concepts, Type-I & Type II errors, hypothesis testing for means and proportions for small and large samples.

**Statistical calculations using SPSS:** Creating a Data File, Defining Variables & data, Frequencies, Crosstabs, Hypothesis Testing Reliability test (and above tests), factor analysis, Chi-square test for goodness of fits and independence. T-Test, Z-Test, F-Test, U-Test, Kruskal-Wallis Test, Mann-Whitney U Test, Wilcoxon, Multivariate analysis ANOVA one way and two way classification,

### **MODULE 5: Report writing and presentation of results:**

Importance of report writing, types of research report, report structure, guidelines for effective documentation, bibliography using MS Word /Zotero. Concepts of plagiarism

## **MODULE 6: Mini Project:**

Research application to respective functional areas with features of research.

### **Student Work flow:**

*Identify the problem and collect relevant literatures using search technique*

*Students are expected to write the research design on Exploratory and Descriptive Research*

*Set Title and objectives of the problem*

*Students are asked to prepare the structured interview/ questionnaire( Ex:brand awareness, effectiveness of training in public sector organization, Investors attitude towards Mutual funds in any financial institutions, consumer perception towards any FMCG., employee satisfaction level )*  
*Students are asked to conduct Market survey/ Interview ( offline / online)*

*Data Analysis using SPSS*

*Data Interpretation and report writing ( DOC, DOCX , PDF )*

*Report presentation methods, ex: Power Point Presentation*

### **Books / References**

*Textbook:• Gupta Prem Kumar and Hira Das (1999). Chap. 3&4, pp. 148-241.*

*SPSS in simple steps – Kiran Pandey, Dreamtech Press (2011)*

*Shenoy G.V. etal(1999). op. Cit, Chap. 2, pp. 70-109.*

*Taha, H.A.(1999). O.P. Chap 5, pp 165-213.*

*Research Methodology- C R Kothari, Vishwa Prakashan,2002*

*Business Research Methods. Donald R. Cooper & Pamela s Schindler, 9/e, TMH /2007*

*Research Methodology – concepts and cases – Deepak Chawla and NeenaSondhi -Vikas Publication – 2014*

*Research Methods for Business, Uma Sekaran& Roger Bougie, 6th Edition, Wiley, 2013*

*Business Research Methods-SL Gupta and HeteshGuptha, McGraw hill – 2012*

*Marketing Research- Naresh K Malhotra- 5th Edition, Pearson Education /PHI 2007*

*Business Research Methodology – J K Sachdeva – 2nd Edition - HPH, 2011*

*Marketing Research By Tull& Hawkins*

### **Reference Books :-**

- *Gupta P and Hira. D.S (2003). Op. Cit, pp 709-753.*
- *Kothari C.R.(2003). Quantitative Techniques, New Delhi: UBS Publishers Distributions Ltd.,*
- *Sharma, Anand(2000). Quantitative Techniques for Decision Making, Mumbai: Himalaya*
- *Boyd H W & Westfall: Marketing Research text and cases Richard Irwin Inc*
- *Lucki D J Wales H G Etal: Marketing Research Prentice Hall*

## GENERAL MANAGEMENT SPECIALISATION

**Title: Management Information Systems**

**Subject code: B8**

**Work load: 2 hours per week**

**Contact Hours: 30**

**Credit Points: 2**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Objective:** This is aimed at developing an understanding of Use of Information Technology as a Strategic Tool for business management. Information systems are one of the major tools available to business managers for achieving operational excellence, developing new products and services, improving decision making and achieving competitive advantage. Hence it is necessary for the MBA Students to do a course on MIS to expose themselves to the advancement in the information technology, information systems, their applications to real- life world, challenging tasks in managing the information systems etc.

**Pedagogy** : Lectures, Assignments, Projects, Practical Exercises and Seminars

### **MODULE 1: MIS Introduction**

MIS concepts, role of MIS, role and importance of management, **Information:** Classification of Information, Methods of Data and Information collection; Value of Information; Organization and Information Systems, Changing Environment and its impact on Business - The IT/IS and its influence - The level of people and their information needs - Types of Decisions and information - Information System, categorization of information on the basis of nature and characteristics.

### **Module 2: Telecommunication and Networks**

Introduction - Communication, Media, Modems & Channels - LAN, MAN & WAN – Network Topologies, Internet, Intranet and Extranet. Wireless technologies like Wi-Fi, Bluetooth and Wi-Max.

### **MODULE 3: Kinds of Information Systems**

Transaction Processing System (TPS) - Office Automation System (OAS) – Management Information System (MIS) - Decision Support System (DSS) and Group Decision Support System (GDSS) - Expert System (ES) - Executive Support System (EIS or ESS).

### **MODULE 4: Systems Analysis and Design**

Analysis of existing system and of new requirements. System Analysis and Development and Models -Need for System Analysis - Stages in System Analysis - Structured SAD and tools like DFD, Context Diagram Decision Table and Structured Diagram. System Development Models: Water Flow, Prototype, Spiral, RAD.

### **MODULE 5: Types of Information Systems**

Transaction Processing System (TPS) - Office Automation System (OAS) – Management Information System (MIS) - Decision Support System (DSS) - Expert System (ES) - Executive Support System (EIS or ESS). Information systems for Accounting, Finance, Production and Manufacturing, Marketing and HRM functions - IS in hospital, hotel, bank industry.

## **Module 6 :Cyber Law**

Boon & bane of Internet, Illegalities in cyber world, Internet Service Providers, Legal aspects & Net: Responsibilities of Business Professionals, Cyber crimes & Hacking, Internet and issue of Jurisdiction, Internet Marketing ethics and IT act 2000/2008 , cyber terrorism

### **Recommended Text Books**

“Management Information Systems “, W. S. Jawadekar, Tata McGraw Hill Edition, 3/e, 2004  
“Management Information Systems”, Kenneth J Laudon, Jane P. Laudon, Pearson/PHI, 10/e, 2007  
“Introduction to Information System”, James A. O’ Brien, Tata McGraw Hill, 12<sup>th</sup> Edition. Cyber Laws – Krishnakumar, Dominant Publication  
Computer Law- Chris Reed , John A, Blackstone Press Ltd.

### **Reference Books**

“Corporate Information Strategy and Management”, Lynda M AppleGate, Robert D Austin et al, Tata McGraw Hill, 7th Edition.  
“Management Information Systems”, Effy Oz, Thomson Course Technology, 3/e, 2003 .  
“Information Technology for Management”, Turban, McLean, Wetherbe, Wiley  
“Management Information Systems”, C.S.V. Murthy Himalaya Publishing House, 3/e  
“Management Information Systems”, S.Sadagopan, PHI, 1/e, 2005  
“Principals of Information Systems”, Ralph M. Stair, George W. Reynolds, Thomson Course Technology, 6/e, 2004

**Title: Micro Small and Medium Enterprise Management**

**Subject code: B9**

**Contact Hours:60**

**Work load: 4 hours per week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objective:** The objective of course is to provide the insights about MSME, its working and the management process.

**Pedagogy Tools:** Lecture, Seminar, Project, case study

**Module 1 Micro, Small and Medium enterprises:** Introduction: Definition, characteristics and their role in economic development, Problems of small-scale industries, Growth of small scale sector in India.

Setting up a Small Business: Determination of the nature of the business unit; Micro, Small and Medium enterprise, Comparative evaluation of feasibility of buying an existing enterprise,

**Module 2 Setting up a new venture:** Starting the business through franchising, Location strategy, and Preliminary registration with State Directorate of Industries. Financing of Small Enterprises And Agencies that Promote Entrepreneurship Development: Need for financial planning –Types of loan – Financial institutions - SFC, IDBI, NSIC and SIDCO.

**Module 3 Finance for MSME:** Role of the State and central government, role of :DIC – District Industrial Center, SISI – Small Industries Services Institute, EDII – Entrepreneurship Development Institute of India, NIESBUD – National Institute of Entrepreneurship and Small Business Development, NEDB – National Entrepreneurship Development Board. Policy Environment for Small scale sector, Pre and Post 1991 Industrial policy, New policy measures, Reports of various working groups on SSIs: Kothari committee 2000 and Ganguly committee 2004. Financing by commercial banks and non traditional sources, risk and challenges.

**Module 4 Sickness of MSME:** Reasons, measures, assessment of viability of sick industries and their rehabilitation, govt policy for strengthen small business, taxation benefits for SME.

**Module 5 Globalization & SME:** Changing scenario of SMEs in the era of liberalisation and globalization, Competitiveness, Quality control and branding, Need for professionalism in management of small business in India, social responsibilities of small business owners, Micro, Small and Medium Enterprises Development Act (MSMEDA) 2006: Objectives and Definition, Provisions pertaining to promotion and development of MSMEs.

**Module 6 Strategies for SME:** Product, Price, Promotion and Distribution strategy for MSME growth

**Module 7 Social entrepreneurship:** What is social business, why social entrepreneurship, emrgence, influence on marketing, policies effect and impact on rule and regulation

**Module 8 Rural MSME management:**Need, importance, emerging trend in the area, rural msme and government policies, marketing and financing strategy of rural msme, problems, challenges and opportunities

**Module 9 Small business accounting:** Need, why accounting matters?, accounting for business decision making

**Reference Books:**

**Management of a small scale industry- Vasant Desai, Himalaya Publication**

**Small Business Management Fundamentals-Dan Steinhoff, TMH**

**Title: Total Quality Management**  
**Subject code: B10**  
**Work load: 3 hours per week**

**Contact Hours: 45**  
**Credit Points: 3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objectives:** This course is designed to help students to develop basic appreciation of quality concepts and learn the tools and techniques to achieve quality. It also gives the totally integrated effort for gaining competitive advantage by continuously improving every facet of an organization's activities.

**Pedagogy** : Lectures, Assignments, case studies, seminar,

#### **MODULE 1 Introduction to TQM:**

Various definitions of quality and TQM, Core concepts of quality, The masters of quality(W Edwards Deming, Joseph M Juran, Philip B Crosby, Kaoru Ishikawa, Ginichi Taguchi, Shigeo shingo) Evolution of quality, The Total Quality Management Excellence Model, Strategic Quality Management,

#### **MODULE 2 Continuous process improvement:**

Concepts of Kaizen, Kaizen vs. Innovation, Kaizen Strategy, House of Quality, Quality Function deployment, Quality Circles. Brain storming, Value analysis, Poka Yoke, Bench marking.

#### **MODULE 3 Quality Improvement Tools:**

The Seven Statistical tools, The New Seven tools, Other Quality Improvement Tools – Vision and Mission Statements, Statistical quality control, Acceptance sampling, Process capability studies (six-sigma), Acceptance sampling, TPM.

#### **MODULE 4 Total Quality Management Models:**

Deming award, Malcolm Baldrige National Quality award, The European Quality award, CII-EXIM bank award, Rajiv Gandhi National peacock award.

#### **MODULE 5 Quality Management System:**

Quality Systems, Quality Management Principles, ISO 9001:2000, ISO 14000, Introduction to sector specific quality Management System, Quality certification and Quality audit.

#### **References:**

- Imai Masaki, Kaizen, The key to Japan's Competitive Success, McGraw-Hill, Inc., International Edition, 1991.
- Heizer and Nathan, Cases in Total Quality Management Manufacturing and services, Thomson South-western, 2004.
- Encyclopedia on TQM 6 volumes, Mc Graw Hill Publication*
- Basterfield H Dale and others, Total Quality Management, Pearson Education/PHI, Inc. 2006.
- K.Shridhar Bhat Total Quality Management (Himalaya publishing house 2005).
- Poornima M Charantimath, Total Quality Management, Pearson Education, 2003.

## MARKETING SPECIALISATION

**Title: Integrated Marketing Communication**

**Subject code: B11**

**Work load:3 hours per week**

**Contact Hours:45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Integrated Marketing Communication.

**Pedagogy** : Lectures, Assignments, case studies, seminar,

### **MODULE I: Introduction:**

Integrated Marketing Communications: The Role of IMC in the Marketing Process. Integrated Marketing Program, Situation Analysis: Organizing for Advertising and Promotion.

### **MODULE II:**

The Role of Ad Agencies and Other Marketing Communication Organizations, Perspectives on Consumer Behavior.

### **MODULE III:**

Analyzing the Communication Process: The Communication Process, Source, Message, and Channel Factors.

**MODULE IV:** Objectives and Budgeting for Integrated Marketing Communications Programs, Establishing Objectives and Budgeting for the Promotional Program.

### **MODULE V:**

Developing the Integrated Marketing Communications Program: Creative Strategy: Planning and Development, Implementation and Evaluation, Media Planning and Strategy, Evaluation of Media: Television and Radio, Evaluation of Print Media, Support Media.

### **MODULE VI:**

Direct Marketing, The Internet and Interactive Media, Sales Promotion, Public Relations, Publicity, and Corporate Advertising.

### **MODULE VII:**

Monitoring, Evaluation, and Control, Measuring the Effectiveness of the Promotional Program, International Advertising and Promotion, Regulation of Advertising and Promotion, Evaluating the Social, Ethical, and Economic Aspects of Advertising and Promotion Web, Personal Selling (online). 4 hours

### **Text Book**

George E Belch, Michael A Belch and Keyoor Purani “Advertising and Promotion: An Integrated Marketing Communications Perspective (SIE)” McGrawHill education.  
Shimp and Andrews, “Advertising, promotion and other aspects of IMC”, Cengage.

**Title: Consumer Behaviour**  
**Subject code: B12**  
**Work load: 3 hours per week**

**Contact Hours: 45**  
**Credit Points: 3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Consumer Behavior.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: Consumer Behavior and Marketing strategy:**

An Introduction: Applications of Consumer behavior, market analysis components, market segmentation, marketing strategy, consumer decisions, nature of consumer behavior, Models Of Consumer Behavior and Decision Making.

**Module II: External Influences:**

Cross-Cultural variations in Consumer Behavior: concept of culture, variations in cultural values, cultural variations in non-verbal communications, global cultures, global demographics, cross-cultural marketing strategy. The changing society; changes in cultural values, marketing strategy and values, Demographics and social stratification; understanding demographics, generations, social stratification, social structure, measurement of social class, social stratification and marketing strategy, Subcultures; nature of subcultures, religious subcultures, regional subcultures, Ethnic subcultures etc., Families and households; Nature of households, the household life cycle, marketing strategy and household life cycle, family decision making, marketing strategy and family decision making, consumer socialization, marketing to children. Group influences on consumer behavior; types of groups, reference groups influences and marketing strategy, communication within groups, and opinion leadership, diffusion of innovations.

**Module III: Internal Influences:**

Consumer Perceptions; nature, of perception, Exposure, Attention, Interpretation, perception and marketing strategy, Consumer Personality; use of personality in marketing practices, emotions and marketing strategy, Consumer Attitude: attitude components, attitude change strategies, individual and situational characteristics that influence attitude change, communication characteristics that influence attitude formation and change. Market segmentation and product development strategies, based on attitudes, Self concept and lifestyle; nature of lifestyle, the VALS system, Geo-lifestyle analysis, international lifestyles, Consumer Motivation: nature of motivation, motivation theory and marketing strategy, Consumer Learning And Memory and product positioning; nature of learning and memory, memory's role in learning, learning under high and low involvement, learning, memory, and retrieval, brand image and positioning, brand equity, and brand leverage.

**Module IV: Decision Making Process:**

Situational Influences; the nature of situational influence, situational characteristics and consumption behavior, ritual situations, situational influences and marketing strategies, Consumer decision process and problem recognition; types of consumer decisions, the process of problem recognition, uncontrollable determinants of problem recognition, marketing strategy and problem recognition. Information search; nature of information search, types of information search, sources of information, amount of external information search, costs Vs. benefits of external search

marketing strategies based on information search pattern. Alternative evaluation and selection; How consumers make choices? Evaluative criteria, individual judgment and evaluative criteria, decision rules for attribute-based choices, outlet selection and purchase; outlet choice Vs. Product choice, the retail scene, attributes affecting retail outlet selection, consumer characteristics and outlet choice, In-store and online influences on brand choices, purchase, Post-purchase processes, customer satisfaction, and customer commitment; post purchase dissonance, product use and nonuse, disposition, purchase evaluation and customer satisfaction, dissatisfaction response, customer satisfaction and repeat purchases, and customer commitment.

#### **Module V: Organization as consumer:**

Organizational buyer behavior; organizational purchase process, organizational culture, factors influencing organizational culture. Market Segmentation and Consumer Behavior. Relationship Marketing and Consumer Behavior. Consumerism And Consumer Movements- A historical Perspective: Marketing regulation and consumer behavior, regulation and marketing to children, marketing to adults.

#### **Text Books:**

Del I Hawkins, David L Motherbaugh and Amit Mookerjee, “Consumer Behaviour – Building Marketing Strategy”, McGrawHill Publications.  
Leon G Schiffman, Joseph Wisenblit and S Ramesh Kumar “Consumer Behaviour”, Pearson Publications.

#### **References:**

**Soloman and Soloman, “Consumer Behaviour” Pearson publications, latest edition**  
Ramneek Kapoor and Nnamdi O. Madichie, Consumer Behaviour, McGrawHill Publications  
Satish K Batra and S H H Kazmi, “Consumer Behaviour – Text and Cases”, Excel Publications.

**Title: Business Marketing****Subject code: B13****Contact Hours: 45****Work load: 3 hours per week****Credit Points: 3****Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Industrial Marketing. To gain insights in to the various steps of Organizational Buying Process. To understand global practices of Organizational Buying and analyze the web presence of Companies. To understand the mechanism of third party outsourcing including both Products and Services.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**MODULE 1: Introduction to the Subject.**

Definition of Industrial & Consumer Product. Basis of Classification. Difference between Industrial & Consumer Marketing. Classification of Industrial and Consumers Products.

**MODULE 2: Key Characteristics of Organizational Buying Process.**

Industrial Buying .Buying Motivations of Organizational Buyers ,Purchaser's Evaluation of Potential .Environmental Influences on Organizational Buying Process.

**MODULE 3 : Industrial Marketing Planning.**

Problems in Planning. Planning Process. Organizational Demand Analysis. Segmenting the Industrial Market, Targeting & Positioning. Industrial Product Strategies. New Industrial Product Development. Managing Service for Business Markets. Emerging business services.

**MODULE 4: Managing Business Marketing Channels.**

Pricing Strategy for Business Markett. Industrial Advertising and Promotions. Industrial Advertising. Power of Internet Marketing Communication.

**MODULE 5: Managing Industrial selling.**

Personal Selling Function .Organizing Personal Selling Effort. Key Account Management. Sales Administration. Transforming the selling process through Internet.

**Reference Books:**

*Industrial Marketing By Krishana K Hawaldar 2edition, TMH*

*Sharad Sarin, "Business Marketing" latest edition, TMH*

*Sharma Dheeraj, Hutt and Speh "B2B Marketing, Cengage learning.*

*Industrial Marketing Text and Cases By Francis Cherunilam HPH*

**Title: Services Marketing**

**Subject code: B14**

**Work load: 3 hours per week**

**Contact Hours : 45**

**Credit Points :3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Services Marketing.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussions, Research Articles Discussions.

**Module I: Foundations for Services Marketing:**

Introduction to Services; What are services? Why services marketing? Services and technology, comparison of goods and services, services marketing mix, staying focused on the customer. Conceptual Framework: The Gaps Model of Service Quality; customer gap, provider gap, closing the gap.

**Module II: Focus on the Customer;**

Consumer behavior in services, search, experience and credence properties, consumer choice, experience, post experience evaluation, global differences. Customer Expectations of Service; meaning and types of service expectations, factors that influence customer expectations, issues involving customer' services expectations. Customer Perceptions of Service; customer perceptions, satisfaction, service quality, service encounters.

**Module III: Understanding Customer Requirements:**

Listening to Customers through Research, using marketing research to understand customer expectations, elements in an effective services marketing research program, analyzing and interpreting marketing research findings, using marketing research information, upward communication. Building Customer Relationships; relationship marketing, relationship value of customers, customer profitability segments, relationship development strategies, relationship challenges, Service Recovery; the impact of service failure and recovery, how customers respond to service failures, customers' recovery strategies, services guarantees.

**Module IV: Aligning Service Design and Standards:**

Service Innovation and Design; challenges of service innovation and design, new services development process, types of service innovations, stages in services innovation and development, services blueprinting, high performance services innovations Customer-Defined Service Standards; factors necessary for appropriate service standards, types of customer defined services standards, development of customer defined service standards. Physical Evidence and the Servicescape; types of service scapes, framework for understanding servicescape effects on behavior, guidelines for physical evidence strategy.

**Module V: Delivering and Performing Service:**

Employees' Roles in Service Delivery; service culture, critical role of service employees, boundary spanning roles, strategies for developing service quality through people, customer

oriented service delivery. Customers' Roles in Service Delivery; importance of customers in service co creation and delivery, customer's roles, self-service technologies – the ultimate customer participation, strategies for enhancing customer participation, Delivering service through intermediaries and electronic channel; service distribution, direct/company owned channels, franchising, agents and brokers, E-channels, issues involving intermediaries, strategies for effective service delivery through intermediaries. Managing Demand and Capacity; underlying issue: lack of inventory capacity, capacity constraints, and demand patterns, strategies for matching capacity and demand, yield management: balancing capacity utilization, pricing, etc, waiting line strategies.

#### **Module VI: Managing Service Promises:**

Integrated Service Marketing Communications; need for coordination in marketing communication, key service communication challenges, five categories of strategies to match service promises with delivery, Pricing of Services; three key ways that service prices are different for consumers, approaches to pricing services, pricing strategies that link to the four value definitions.

#### **Module VII: Service and the Bottom Line:**

The Financial and Economic Impact of Service; service and profitability: the direct relationship, offensive and defensive marketing effects of service, customer perceptions service quality and purchase intentions, the key drivers of service quality, customer retention, and profits, company performance measurement. Cases.

#### **References:**

Zethaml, Bitner, Gremler and Pandit "Services Marketing" 6<sup>th</sup> edition, McGrawHill publications.

Christopher Lovelock, "Services Marketing", latest edition, Pearson Publications.

## FINANCE SPECIALISATION

**Title: Financial Markets & Services**

**Subject code: B15**

**Work load: 4 hours per week**

**Contact Hours: 60**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objective:** The main objective of this course is to provide students an exposure to financial markets and services.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises, Student Presentation and Case Analysis.

### **Module 1: Introduction to Financial Markets:**

Overview of Indian Financial System - Financial markets - Capital, Money & Forex markets and their linkages - Role of financial system in economic development, financial services and products, financial innovation, financial engineering.

### **Module 2: Primary Markets:**

Its operations, methods of raising fund, IPO'S, FPO's, OFS, Book Building, participants in PM, price fixing and allotment of share.

**Merchant banking:** Functions/services of merchant banker - Raising Equity and Debt capital - Management of Capital issues, underwriting and brokerage - SEBI guidelines for Merchant Banking.

### **Module 3: Secondary Market:**

Its Organization & functioning, trading strategies, trading mechanism –trading and Settlement Procedures in BSE & NSE, Internet based trading, margin trading, Stock brokers. Listing and Depository System.

### **Module 4: Govt. Securities Market:**

Money market instruments, trading system, participants, Primary Dealers, Auction System, and NSEWDM.

### **Module 5: Regulatory Institutions:**

SEBI, Role of SEBI in Indian Financial Markets, Rules & regulations of SEBI related to Financial Markets, RBI & its guidelines, IRDAI, AMFI, and PFRDA.

### **Module 6: Lease Financing:**

Leasing Process - Types of leasing - Historical perspective of leasing - Present legislative framework of leasing - Lease and taxes - Lease evaluation from the lessor point of view - Lease evaluation from the lessee point of view

### **Module 7: Hire purchase:**

Concepts and characteristics - Hire Purchase vs Lease - Conditions and warranties in Hire purchase & their implications - Tax implications of hire purchase – Evaluation of hire purchase from hirer and hiree point of view.

**Module 8: Factoring & Forfaiting:**

Meaning of factoring - Process or steps involved in factoring - Types of factoring - Benefits of factoring - Financial Evaluation of factoring - Process & Features of forfaiting.

**Module 9: Credit Rating:**

The concept of credit rating - Approaches and process - Classification of credit rating - Benefits and drawbacks of credit rating - Credit rating agencies and their ratings for financial instruments - SEBI Guidelines for Credit Rating Agencies

**Module 10: Consumer Finance:**

Introduction to Consumer Finance - Credit cards, vehicle financing, financing of other consumer durables.

**Housing Finance:** Nature, Norms, Refinance support - Housing finance system and schemes - National Housing Bank.

**Text books:**

Financial Markets and Institutions By Dr S Gurusamy, Tata McGraw Hill Publication, New Delhi.

Financial Services' by M Y Khan, Tata McGraw Hill Publication, New Delhi.

**Reference Books:**

Indian Financial System By Dr S C Bihari

Financial Services & Markets By Punithavati Pandian, Vikas Publishing House, New Delhi.

Merchant Banking & Financial Services by S Guruswamy, Tata McGraw Hill Publication, New Delhi.

Merchant Banking & Financial Services by Madhu Vij & Swati Dhawan, Tata McGraw Hill Publication, New Delhi

**Title: Cost and Management Accounting**

**Subject code: B16**

**Work load: 3 hours per week**

**Contact Hours: 45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objectives:** To acquaint the students with cost and management accounting mechanics, process & system and their managerial implications; To familiarise them with cost records / statements and To develop an appreciation about the utility of cost information as a vital input for management information and decision making process.

**Pedagogy :** Lectures, Assignments/Project, Practical Exercises and Case Analysis

### **Module 1: Introduction to Cost and Management Accounting**

Cost Accounting - meaning, objectives , scope and importance, concepts of costs, classification and elements of cost, cost centre and cost unit, methods and techniques of costing, role of accountant in decision making. Meaning, objectives and Scope of Management Accounting, Tools and Techniques of Management Accounting, Relationship with different branches of accounting, role of management accountant in decision making.

### **Module 2: Material Cost, Control and Techniques of Inventory Management**

Meaning of Material cost, types of materials, purpose for holding material, material control. Procurement procedure and documentation. Inventory Management techniques of fixing stock levels, EOQ, ABC analysis. Treatment of waste, scrap, discarded inventories.

### **Module 4: Activity Based Costing (ABC)**

Meaning, Importance, Characteristics, Elements and Steps involved in ABC, ABC vs. Traditional Costing , Uses and Limitations.

### **Module 5: Costing System & Methods**

Costing Systems I Unit and Output Costing I Job Costing: Job Cost Cards, Collecting Direct & Indirect Costs, Allocation of Overheads and its Applications. Contract Costing: Features (Theory), Distinction between Job and Contract Costing. Process Costing: Features, Applications. Service Costing: Features and Applications (Transport).

### **Module 6: Budgeting and Budgetary Control**

Meaning, objectives and scope of budgeting - Forecast and budget – Types of budgets – Cash budget, flexible budget (examples), Zero base budget - Budgetary control.

### **Module 7: Standard Costing & Variance Analysis**

Definition, Significance and Applications - Various Types of Standards. Variance Analysis for Materials, Labour and Overheads - Benchmarking for Setting of Standards - Variance Reporting to Management

**Module 8: Marginal costing and cost volume profit Analysis:** Meaning, objectives & scope of marginal costing - Techniques of marginal costing (including profit-volume ratio, contribution, Break Even Point, Margin of safety) – Application of Marginal Costing

**Module 9: Analysis and Interpretation of Financial Statements**

Corporate Accounting – Features - Form and Contents of Financial Statements and Interfaces with Companies Act - Analysing and Interpreting Financial Statements – Statement of Changes in financial Position (Funds Flow and Cash Flow Analysis – AS 3 ) Difference between Cash Flow and Fund Flow Statement. Recent Trends in Management Accounting

**Module 10: Management Reporting and Information Systems**

Meaning, objectives and scope of Management reporting - Nature and types of Management reporting - Management Information system – Meaning, Objectives and scope - Role of MIS.

**Reference Books:**

Cost Accounting – Theory and Practice by K S Thakur – Excel Books Publication  
Costing Accounting – Principles and Practice – Nigam and Jain – PHI  
Cost Accounting – Jawahar Lal & Srivastava – Tata McGraw Hill Publication  
Cost & Management Accounting – M N Arora – Himalaya Publication  
Executive Program Cost and Management Accounting – ICSI Study Material  
Cost and Management Accounting - S.N.Maheshwari, Sultan Chand & Sons, New Delhi

**Title: Behavioural Finance**

**Subject code: B17**

**Work load: 2 hours per week**

**Contact Hours: 30**

**Credit Points: 2**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Pedagogy** : Lectures, Assignments/Project, Seminars and Case Analysis

**Module 1: Conventional Finance / Standard Finance**

Foundations of Conventional Finance - Modern Portfolio Theory - Capital Asset Pricing Model - The Random Walk Hypothesis - Expected Utility Theory (EUT) - Efficient Market Hypothesis (EMH) - Criticisms of EMH - Revolutions that led to the Behavioural Finance.

**Module 2: Behaviour and Decision Making**

Introduction - Foundations of Behaviour – Cognition - Cognitive Bias - Behavioural Models - Theory of Planned Behaviour - Hierarchical Model  
Introduction to Behavioural Finance - Assumptions of Behavioural Finance - Building Blocks of Behavioural Finance.

**Module 3: Theories of Behavioural Finance**

Introduction – Heuristics - Representativeness Heuristic - Availability Heuristic Biases - Emotional Bias – Over Confidence- Anchoring - Outcomes of Biases - Dealing with Biases - Overcoming the Biases  
Prospect Theory - Framing - Loss Aversion - Regret Aversion - Mental Accounting - Uses of Behavioural Finance

**Module 4: Market Bubbles**

Introduction – CASE: The Mississippi Bubble - CASE: The South Sea Bubble- CASE: Stock Market Bubbles in the Recent History - CASE: Stock Market Crash of 1929 - CASE: The Crash of 1987 –  
CASE: The Dotcom/ Internet Bubble- CASE: The Housing Bubble  
Identification of a Stock Market Bubble- Behavioural Finance Explanation of Bubbles- Investor Behaviour During Bubbles - Causes of Bubbles – CASE: Tulip Mania - CASE: HFCL— The Indian ICT Bubble.

NOTE: Module 4 is consisting of all the relevant cases from the text book (Behavioural Finance - SULPHIY)

**Text Books:**

Behavioural Finance – Sulphey, MM, Prentice Hall of India, 2014

Behavioural Finance – Shuchita Singh & Shilpa Bahl, Vikas Publishing House (P) Ltd

**Reference Books:**

*Behavioural Finance & Wealth Management* – Michael Pompian, John Wiley Publishing

*Understanding Behavioural Finance* - Lucy Ackert and Davies, Cengage India, 2011

*Security Analysis and Portfolio Management* – Prasanna Chandra, Tata McGraw Hill, 3<sup>rd</sup> Edition, New Delhi, Third Reprint 2012

*Value Investing and Behavioral Finance* – Parag Parikh, Tata McGraw Hill, New Delhi, Third Reprint 2012

**Title: Insurance and Risk Management**

**Subject code: B18**

**Work load: 3 hours per week**

**Contact Hours: 45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objective:** The main objective of this course is to impart knowledge in life and non-life insurance including reinsurance management and to deepen insights into practical applications of insurance and risk management techniques in a dynamic business environment.

**Pedagogy :** Lectures, Assignments/Project, and Case Analysis.

### **Module 1: Risk**

Introduction to 'risk', types of business and personal risks, significance of risk management function within business organizations. *Insurance and Risk* - significance of insurance and risk, general structure of the insurance market, significant aspects of this industry. Reforms in Indian Insurance Industry.

### **Module 2: Life Insurance**

factors influencing the key functioning of insurance organizations insurable interest, role of riders in insurance policies.

### **Module 3: Non-life Insurance**

elements of fire insurance Contact and its ancillary features. Significance of marine insurance and its various policies, the role of rural insurance in making people's lives better in rural India. Types of motor insurance policies, critical aspects of aviation industry in the country, significance of liability insurance in India.

### **Module 4: Functions and Organization of Insurers**

components of the distribution system of life insurance companies in the country, role of agents in the life insurance sector in India, important activities carried out in a life insurance organization.

### **Module 5: Product Design and Development:**

Product development in the life and non-life insurance sectors in India, role of risk evaluation in the process of insurance product formation, future trends in the domain of insurance product design and development.

### **Module 6: Insurance Underwriting**

Need for insurance underwriting, factors that affect the activities performed by the underwriter, steps involved in the process of insurance underwriting.

### **Module 7: Claims Management:**

Factors affecting the insurance claim management system, types of documents needed in various types of claims, meaning of 'Causa Proxima' in insurance claim settlement.

### **Module 8: Insurance Pricing and Marketing**

principles of insurance pricing and marketing, tools and techniques used in pricing individual life and health insurance.

**Module 9: *Financial* Management in Insurance Companies and Insurance Ombudsman:**

importance of financial management in insurance companies, tools of managing expenses in the insurance companies, modes used by the insurance companies in channelizing their funds.

**Module 10: Reinsurance:**

Reinsurance in the insurance sector. Areas of the application of reinsurance.

**Module 11: Regulations Relating to Insurance Accounting and Management**

framework for IRDA rules and regulations regarding general insurance investment in the country, role of financial reporting in managing insurance operations, significance of determining solvency margins.

**Text Books :**

Risk & Insurance Management by P Periaswamy & M Veeraselvam Risk  
Management & Insurance by Harrington & Niehaus  
IC-33 Material for IRDA Exams

## HUMAN RESOURCE MANAGEMENT SPECIALISATION

**Title:** Applications of labour laws

**Subject code:** B19

**Work load:** 3 Hours per week

**Contact Hours:**45

**Credit Points:**3

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objectives :** To expose the students to a variety of IR situations with special reference to disciplinary action, discharge, dismissal and other related matters and to equip them with the necessary tools to apply the law to a given set of facts.

**Module 1. Origin of Law – Sources of Law – Legal Concepts:**

Rights – wrongs – Liability – Obligations Duties – Powers – Immunity – Disability – Justice (distributive v. Corrective)

**Module 2.** Overview of the IDA Act . Analysis of the terms “industry” and “industrial dispute” – Distinction between S. 33(1) and 33(2) – How does S. 33-A operate? – Distinction between S. 33C (1) & 33C (2) – Scope of enquiry under S. 33-C(2) as compared to S. 10 (1).

**Module 3.** Discipline – Introduction – common law right of employers – the nature of restrictions imposed on the common law right to terminate – rights of workmen u/s. 2-A of the ID Act – Nature of powers conferred on the adjudicators u/s. 11-A – misconduct – misdemeanour – carelessness – standing orders – misconduct: classification

**Module 4. Disciplinary proceedings:**

implications of preliminary enquiry – Charge-sheet – nature, scope and criticality of CS – contents of CS – precautions, issues and concerns in framing charges – Show-cause notice vs. Charge-sheet – Domestic Enquiry – Principles of Natural Justice reasonable opportunity – representation of parties – examination-in chief – cross-examination – re-examination and re-cross – manner of adducing evidence – leading questions – role of EO – summing-up arguments – enquiry proceedings vs. Enquiry findings – closing of enquiry proceedings – findings or report of the EO;

**Module 5.:** Overview of Factories Act , 1948, Minimum Wages Act, Payment of Wages Act, Payment of Bonus Act, Workman Compensation Act, PF Act, ESIC Act etc. and contemporary issues in labor laws

**Recommended Books:**

N D Kapoor : Industrial Laws

Dr. B T Lawani : Social Justice and empowerment

K.R.Balachandani-Business Law for management

**Title: Managerial Effectiveness and Leadership**

**Subject code: B20**

**Work load: 3 Hours per week**

**Contact Hours:45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

### **Objectives**

To identify the course participant's strengths and weaknesses as a person and a member of a group or organisation using personality typing. To enhance one's own self awareness and to understand others utilising methods from Neuro-Linguistic Programming (NLP). To sensitize students to the emerging perspectives on spiritual foundations of personal effectiveness and leadership.

### **Module 1**

Understanding your Thinking Process ,Identifying the Filters on your World Enriched Communication Through Sensory Specific Language ,Managing your Internal Dialogue Perceptual Positions for Assertiveness

### **Module 2**

Anchoring a Resourceful State for yourself to Manage Conflicts Creating Rapport ,Powerful Persuasion Strategies ,Personality Typing using Enneagram. Introduction to Briggs-Myers Personality Types

### **Module 3**

NLP Test ,Selling with NLP ,Managing with the Power of NLP

### **Module 4**

Life Planning: Personal Mission and Vision Principle Centered Leadership ,Emotional Intelligence ,The Road Less Travelled

### **Module 5**

The Seven Habits of Highly Effective People ,Effective Life and Time Management Spiritual Foundations of Personal Effectiveness , Contemporary issues

### **Books:**

The 7 Habits of Highly Effective People Paperback (English) 2004: Stephen Coovey  
Leadership: Personal Effectiveness and Team Building Paperback – 2012 by Ranjana Mittal (Author)  
Unstoppable Confidence: How to Use the Power of NLP to Be More Dynamic and Successful Paperback – Import, 1 Aug 2008 by Kent Sayre (Author)

### **Reference Books:**

The monk who sold his Ferrari: Robin Sharma Who moved my Cheese:  
The Secret:Positive thinking: Napoleon  
Timeless Leadership : Debashish Chatterjee Wiley Publication  
Think and Grow Rich : Napoleon Hill

**Title: Career Planning and Development**

**Subject code: B21**

**Work load: 3 Hours per week**

**Contact Hours:45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objectives:**

Provide you with many opportunities to explore your own interests, values and skills and to begin developing those skills and qualities that will enable you to be highly successful in the workplace. Encourage students to engage in thoughtful academic, extracurricular, career and lifelong planning.

**Module 1 Career Planning :**What is career, Import terms in career planning, career stages, importance of career planning, process of career planning, merits and demerits of career planning.

**Module 2 Career Development :** Why career development, reason for career development, Scheins model – stages of career development, issues in career development process, career anchors, individual career development, career mistakes to avoid , organizational career development, career development programs in organization, Benefits of career planning and development for individual and organizations, Tips for individual career plan.

**Module 3 Factors affecting career planning and development:** Hollands occupational orientation ( VPT) Career Advising , Career plateau, Strategies dealing with career plateau, Responsibilities of organization and employee in career development, career appraisal, job enrichment, MyersBriggs-Type Indicator, Novations Model.

**Module 4 Methods and resources for career development :**On the job experience , Off the job learning Managing career development and change- Issues for the 21st century , Career management system, components of career management system, Using performance review and recognition to enhance career development.

**Module 5 Career Counselig,:** Counselor, counselor counselee relationship, Role of career counselor, Type of career counselor, career movement , career diversity, career unrest , career unrest levels- Job unrest, organizational unrest, career content unrest, career self unrest, personal self-unrest, reasons for career change, types of career change, career change process. Related contemporary issues

**Reference Books :**

Career Development Basics by Michael Kroth , Mckay Christensen, Cengage Learning. Career Planning Strategies by Powell C.Randall, Kendall Hunt Publishing.

Career Counseling and Planning by Sushil Kumar Srivastava Atlantic Publishers & Distributors.

Career Development & Planning: A Comprehensive Approach, by Robert C . Reardon, Janet G. Lenz, James P. Sampson, and Gary W. Peterson. Published by Kendall Hunt

**Title: Performance Management and Competency Mapping**

**Subject code: B22**

**Contact Hours:45**

**Work load: 3 Hours per week**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50

**Objectives :** The objective of this course is to equip students with comprehensive knowledge and practical skills to improve their ability for performance appraisal in their organisations. It is particularly intended for future managers and supervisors who will conduct the performance appraisal of their subordinates.

**Module 1 :** Objectives of Performance Appraisal, Historical Review of P A, Research Findings in P A in India and abroad Issues and Problems in P A

**Module 2:.** Job Description and Performance Appraisal, Job Analysis in **Performance** Appraisal Systems, Measurements in Performance management

**Module-3:**Methods of P A. Appraisal Forms and Formats , Design , Process and Documentation of P A Appraisal Communication, Self Appraisal and MBO

**Module -4:** Appraisal Interview, Performance Feedback and Counselling , Implications of A Management Styles on P A , P and its Organisational Implications, Legal and Ethical Perspectives in P A .

**Module 5 :Competancy Mapping**

Meaning, Characteristics, types of competencies, Purpose and approaches of competency mapping, tools for mapping. Behavioural event interview, repertory grid, critical incident technique, Subject expert discussions, survey method and participant observation.

Issues related to developing competency based applications, formation of competency framework, Competency mapping and assessment centres. Resistance and recommendations, Contemporary issues

**Recommended Books**

Prem Chadha: Performance Management, Macmillan India, New Delhi, 2003.

Michael Armstrong & Angela Baron, Performance Management: The New Realities, Jaico Publishing House, New Delhi, 2002.

Tripathi P C- Human Resource Development

### COURSE OUTLINE FOR MBA THIRD SEM

<b>Paper Code</b>	<b>Title of the Paper</b>	<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
C1	Strategic Management	4	50	50	100
C2	Business Ethics	2	25	25	50
C3	Legal Aspects of Business	2	25	25	50
C4	Introduction to Entrepreneurship (OEC) (offered in-house by the department)	4	50	50	100
	<b>Total</b>	<b>12</b>	<b>150</b>	<b>150</b>	<b>300</b>
<b>Specialisation Courses</b> (Students to choose as many subjects as desired subjects to minimum credits per semester as per Table above)					
<b>GENERAL MANAGEMNT :</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
C5	Knowledge management	4	50	50	100
C6	Business Process Reengineering & Bench Marking	4	50	50	100
C7	Project Management	4	50	50	100
C8	Business Process Outsourcing	3	25	50	75
C9	Enterprise Resource Planning(ERP)	4	50	50	100
	<b>Total</b>	<b>19</b>	<b>225</b>	<b>250</b>	<b>475</b>
<b>MARKETING STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
C10	Supply Chain Management	3	25	50	75
C11	Sales Management	3	25	50	75
C12	E-Commerce and Digital marketing	3	25	50	75
C13	Retail Management	3	25	50	75
C14	Strategic Brand Management	3	25	50	75
C15	Rural Marketing	3	25	50	75
C16	Applied Marketing Research	3	25	50	75
	<b>TOTAL</b>	<b>21</b>	<b>175</b>	<b>350</b>	<b>525</b>
<b>FINANCE STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
C17	Mergers , Acquisitions and Corporate Restructuring	3	25	50	75
C18	Personal Finance and Tax Planning	3	25	50	75
C19	Derivatives Market & Risk Management	3	25	50	75
C20	Principles & Practices in Modern Banking	3	25	50	75
C21	Project Planning, Appraisal & Control	3	25	50	75
C22	International Financial Management	3	25	50	75
C23	Security Analysis & Portfolio Management	4	50	50	100
	<b>TOTAL</b>	<b>22</b>	<b>200</b>	<b>350</b>	<b>550</b>
<b>HUMAN RESOURCE:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
C24	Organisation Development and Institution Building	04	50	50	100
C25	Compensation Management	02	25	25	50
C26	International Human Resource Management	03	25	50	75
C27	Emotional Intelligence and Managerial Effectiveness	03	25	50	75
C28	Talent Management	03	25	50	75
C29	Learning and Development	04	50	50	100
C30	Human Resource Information System	02	25	25	50
	<b>TOTAL</b>	<b>21</b>	<b>225</b>	<b>300</b>	<b>525</b>

**Title: Strategic Management**

**Subject code: C1**

**Work load: 4 hours in a week**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Contact Hours:60**

**Credit Points:04**

**Objectives of the course:**

This course exposes the students to the strategic issues in decision making through use of practical case studies, current events, etc.

This is a project-based course and the student is expected to go through a simulated experiential learning. The course integrates all the concepts and cases learnt in functional areas.

**Pedagogy** : Lectures, Assignments, case studies, seminar,

**Module 1: Basic concepts in Strategic Management:**

Meaning and definition, phases, benefits, impact of globalization and environmental sustainability on strategic management, theories of organizational adaptation, creating a learning organization, basic model of strategic management, initiation of strategy-triggering events, strategic decision making, Mintzberg's modes of strategic decision making and the strategic audit

**Module 2: Corporate Governance and Corporate Social Responsibility:**

Role of the Board of Directors, responsibilities, concept of Board of Directors continuum, members, codetermination, organization of Board, trends in corporate governance, the role of top management and responsibilities, Mintzberg and Carroll's propositions, corporate stakeholders, ethical decision-making, Kohlberg's Levels of moral relativism, encouraging ethical behavior.

**Module 3: Environmental scanning and Industry Analysis:**

Meaning and definition of environmental scanning, identifying external environment variables, natural, task, and societal environments, Identifying external strategic factors, Industry analysis, Michael Porter's approach to industry analysis – 5 Forces Model, industry evolution, categorizing international industries, strategic groups, strategic types, hyper competition, construction of industry matrix, competitive intelligence, forecasting and forecasting techniques, and construction of External Factor Analysis Summary (EFAS) table.

**Module 4: Internal Scanning – Organizational Analysis:**

Identifying core and distinctive competencies, using resources to gain competitive advantage, determining sustainability of an advantage, business models, value-chain analysis – industry value chain analysis and corporate value-chain analysis, basic organizational structures, strategic business unit and conglomerate structure, corporate culture, strategic issues in functional areas of marketing, finance, R&D, operations, HR, information systems/technology, and construction of Internal Factor Analysis Summary (IFAS) table

**Module 5: Strategy Formulation – Situation analysis & Business Strategy:**

SWOT analysis – meaning, benefits, and criticisms, generating a Strategic Factor Analysis Summary (SFAS) matrix, finding a propitious niche, review of mission and objectives, generating alternative strategies by using a TOWS matrix, Business strategies, Porter's competitive strategies, risks and issues in competitive strategies, competitive tactics – timing tactics and market location tactics, cooperative strategies, collusion and strategic alliances.

**Module 6: Strategy Formulation – Corporate strategy**

Meaning and types of Corporate strategy – directional strategies, portfolio analysis, and parenting strategy. Types of directional strategies – growth, stability, and retrenchment strategies,

concentration and diversification, vertical growth and horizontal growth, international entry options, types of diversification strategies, stability strategies –types, retrenchment strategies – types, Portfolio analysis: BCG Growth-Share matrix and GE Business Screen, advantages and limitations of portfolio analysis.

### **Module 7: Strategy Formulation – Functional strategy & strategic choice**

Meaning and definition of functional strategy, marketing strategy, financial strategy, R&D strategy, operations strategy, purchasing strategy, logistics strategy, HRM strategy and IT strategy. The sourcing decision, location of functions, strategies to avoid, strategic choice, constructing corporate scenarios, process of strategic choice, techniques of devil's advocate & dialectical inquiry.

#### **Text Books:**

Strategic Management: A south –Asian Perspective: Hitt & Manikuttu, Cengage Learning  
Concepts in Strategic Management and Business Policy – towards global sustainability by  
Thomas L. Wheelen and J. David Hunger, 13<sup>ed</sup> Pearson  
Business Ethics – Ethical Decision Making and Cases by – O. C. Ferrell, John Paul  
Fraedrich and Linda Ferrell,  
Ethical Choices in Business by R. C. Sekhar, 2<sup>nd</sup> Edition, Response Books

**Title: Business Ethics**

**Subject code: C2**

**Work load: 2 hours in a week**

**Contact Hours:30**

**Credit Points:02**

**Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 25

**Objective :** To provide inputs relating to ethical issues faced by industry

**Pedagogy :** Lectures, Assignments, case studies, seminar

### **Module 1: Introduction to Business Ethics**

Ethical Problems in Business; Ethical Choices in Business; Importance of Ethics in Business

Scope for business ethics: Personal policy, Societal level, Internal policy level, Stake holder level

### **Module 2 : Ethical Theories**

Cognitivism, Non-cognitivism , Teleological theory, Deontological theory, Hybrid theory, Enlightened egoism

### **Module 3: Code of ethics & Moral Standards**

Code of ethics, Code of conduct, Code of practice

Ethics and Decision Making; Making Moral Decisions

### **Module 4: Theories of Social Responsibility**

Ethics in Practice, Classical Theory, Stakeholder Theory, Corporate Social Responsibility Theory (CSR)

References:

Ethical Choices in Business – R.C. Sekhar..

A Study in Business Ethics – Rituparna Raj.

Business Ethics-Concepts & Cases-Manuel G Velasquez –Pearson

**Title: Legal aspects of Business**

**Subject code: C3**

**Work load: 2 hours in a week**

**Contact Hours:30**

**Credit Points:02**

**Evaluation:** Continuous Internal Assessment - 25

Semester End Examination - 25

**Objective of course:** The objective of this course is to acquire the students various laws, which are to be observed in performing the day-to-day business. Here the emphasis will be on the different latest provisions of the law and on how these can be used in the best interest of the organization.

**Pedagogical Tool:** Lecture, Seminar, Cases, Mock Court sessions.

### **Module 1:The Indian Contract Act, 1871**

Introduction about constitution of India , Indian judicial system, fundamental duties and rights, law and business, Nature and classification of Contracts - Essential elements of a valid Contract ,Offer and Acceptance - Consideration - Capacities of Parties , Provisions relating to free consent, void agreements ,Provisions relating to performance and discharge of Contract ,Breach of Contract - Meaning and remedies,Quasi Contract , **Special Contracts** Contract of Indemnity and Guarantee, Contract of Bailment and Pledge,Contract of Agency

### **Module 2: Sale of goods act**

Definition of a Contract of Sale, Conditions and Warranties, Passing of Property,Right of Unpaid Seller against the Goods, Remedies for Breach

### **Module 3: Negotiable Instrument Act**

Definition and characteristics, Kinds of negotiable instruments, Promissory Note, Bill of Exchange and Cheques, Holder and Holder in due course, Negotiation, Presentment, Discharge from Liability,Noting and Protest, Presumption, Crossing of Cheques, Bouncing of Cheques

### **Module 4:The Indian Partnership Act, 1932**

Definition of Partnership and its essentials, Rights and Duties of Partners: Types of Partners, Minor as a partner, Doctrine of Implied Authority, Registration of Firms, Dissolution of firm

### **Module 5:The Companies Act, 1956**

Concept and Classification of Company, Features of different types of Company, Procedure of incorporation, Memorandum of Association, Articles of Association, Prospectus, Shares, Share Capital, Membership, Management of Companies – qualifications and appointment of directors, removal of directors, appointment of managerial personnel, winding up of company

### **Module 6:**

Cyber laws , Information Technology Act, 2000 – Introduction, Internet, Privacy, Pornography, e-Commerce, Digital Signature (working idea), Right to Information Act, - Right to know, Salient features of the Act, obligation of public Authority, Designation of Public Information officer, Request for obtaining information, Duties of a PIO, Exemption from disclosure of information, Partial disclosure of information, Information commissions, powers of Information Commissions, Appellate, Authorities, Penalties, Jurisdiction of courts. Intellectual Property Rights – Trade Marks, Patents, Copy Rights, Industrial Designs (only concepts), Competition Act, Consumer Protection Act, 1986 (Working idea)

### **Reference Books:**

Company And Business Law By N.D. Kapoor – Sultan Chand & Sons  
Company Law - Avtar Singh, Eastern Books Company  
Business Law By M.C. Kuchal- Vikas Publishing House,

**Title: Introduction To Entrepreneurship (OEC)**

**Subject code: C4**

**Work load: 4 hours in a week**

**Contact Hours:60**

**Credit Points:04**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Course Objectives:**

The course aims at enabling the aspiring entrepreneurs in converting their business ideas into successful business ventures and providing basic knowledge for effectively managing their start-ups. This course attempts to facilitate better understanding of concepts related to entrepreneurship like entrepreneurial personality traits, business opportunity identification, small business management, incubation, government efforts towards supporting entrepreneurial ecosystem, institutions and support systems to facilitate entrepreneurship etc.

**Pedagogy :** Lectures, Assignments, case studies, seminar and Projects

**Module1: Introduction to Entrepreneurship**

Meaning, concept, who is an entrepreneur? The Entrepreneurial process, Entrepreneurial personality and characteristics, what motives drive an entrepreneur? Challenges and rewards of being an entrepreneur, Historical development of entrepreneurship concept, Patterns and scope of entrepreneurship in Indian context. Entrepreneurial motivation, types of entrepreneurs, Born vs. created entrepreneurs, entrepreneurial competencies, Entrepreneurship development process, Factors preventing emergence of entrepreneurship, Entrepreneurship and environment, critical factors for launching of a new enterprise, idea generation, environmental function, Identifying and evaluating of opportunities, business opportunity identification, Mobilization of essential resources for creating business plan.

**Module2: Entrepreneurial Ventures – Types and features**

Start-ups, features of start-up firms, different types of start-ups, proprietorship, partnerships, Pvt. Ltd. companies, Family-owned organizations, corporate venturing. Innovation, creativity and entrepreneurship, innovation and invention, innovation and entrepreneurship, innovation and risk, successful innovation, The Creativity Process, Blocks to individual creativity, Techniques for generating new ideas, blocks to organizational creativity.

**Module3: Entrepreneurial Leadership**

Management and Leadership, Entrepreneurial leadership, transformational leadership, vision and values, leadership styles, Barriers to entrepreneurship, environmental barriers, personal barriers, societal and cultural barriers, economic, political barriers, etc. How to remove the barriers

**Module 4: Trends in Entrepreneurship**

Entrepreneurship in globalized environment, Liberalization and privatization, technology and entrepreneurs, Business ethics for entrepreneurs, women entrepreneurs, corporate entrepreneurship and intrapreneurship, intrapreneurs and their roles in organizations.

**Module 5: Role of Incubation centres in helping the start-up firms**

How the supportive ecosystem in the incubators facilitate the entrepreneurship process in its most turbulent stages, information about some incubation centres and ways to join them. Supportive institutions and systems for facilitating the process in India, government policies, government agencies for support to new firms, funding agencies.

**Text Book:**

Entrepreneurship by Madhurima Lall and Shikha Sahai, Excel Books

**Reference Books:**

Handbook for New Entrepreneurs by P C Jain, Oxford University Press  
Patterns of Entrepreneurship Management by J. M. Kaplan and A. C. Warren, Wiley Publications.  
Entrepreneurship Development Programme in India and its relevance to developing countries by V. G. Patel, EDI  
Corporate Entrepreneurship & Innovation by Michael H. Morris, Donald F. Kuratko & Jeffery G. Covin, Thomson – South – Western.  
Connect the dots by Rashmi Bansal, Eklavya Foundation.  
Stay Hungry, Stay Foolish by Rashmi Bansal, Think Ink Media Inc.  
Entrepreneurship by Robert D. Hisrich, M.P. Peters and Dean A. Shepard, The McGraw Hill Companies.

## **General Management Specialisation**

**Title: Knowledge Management**

**Subject code: C5**

**Work load: 4 hours in a week**

**Contact Hours:60**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

### **Objectives :**

To develop skills of identifying ,documenting ,retrieving and disseminating knowledge in the organizations

**Pedagogy** : Lectures, Assignments, case studies, seminar and Projects

### **Module 1**

Knowledge Management concept , definition ,the need , utility and universal applications ,role of knowledge management in the network world Process of knowledge management .A systems approach to Knowledge Management Cycle

### **Module 2**

knowledge management models, strategic implications of KM models, practical implications of KM models

### **Module 3**

Knowledge capture and codification. Tacit Knowledge capture at individual and group levels – interviewing experts, structured interviewing, learning by observation, learning by being told- strategic and practical implications.

### **Module 4**

Knowledge sharing and communities of practice, Strategic and practical implications of knowledge application , role of organizational culture.

### **Module 5.**

Knowledge management tools and techniques , knowledge leadership , ethics of knowledge management and future challenges for Knowledge Management

### **Reference books:**

Knowledge Management In theory and practice, Kimiz Dalkir,Elsevier,2008

knowledge management- Sudhir warier-vikas 2003

knowledge management-Elias M Award,Hussain M ghazini-Pearson Education 2004

knowledge management-Enabling Business Growth-ganesh Natarajan and Sandhya Shekhar-TMH 2000

**Title: Business Process Reengineering and Benchmarking**

**Subject code: C6**

**Contact Hours:60**

**Work load: 4 hours in a week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objectives of the course:**

1. To introduce to the students the concepts of Benchmarking and Business Process Reengineering.
2. To make students prepared for quality-orientation in an organization and contribute for improved quality standards.

**Pedagogy** : Lectures, Assignments, case studies, seminar and Projects

**Module 1:**

Introduction to Business Process Reengineering::What is Reengineering? Why Reengineering, History and Development of Business Process Reengineering (BPR), Principles of Reengineering, Application of Reengineering, The essence of Reengineering, The three 'R's of Reengineering

**Module 2:**

Application side of Reengineering: Requirements of Reengineering process, Reengineering in the service industry, Reengineering and TQM, Integrating Reengineering and process improvement, Benefits and Limitations of Reengineering, The Holonic Concept, How the 'Holonic network' works? Advantages of Holonic business system, and Types of holonic networks.

**Module 3:**

Introduction to Benchmarking.What is Benchmarking? What is a benchmark? Evolution of benchmarking, Reasons to benchmark, Advantages and limitations of benchmarking, Types of benchmarking, Areas to benchmark, Four phases of benchmarking.

**Module 4:**

Application side of Benchmarking:Benchmarking process, Issues related to benchmarking process, Benchmarking quality in a nut shell.

**Text Books:**

Total Quality Management – Text and cases by K. Shridhara Bhat, Himalaya Publishing House, 2002

**Reference Books:**

Total Quality Management by Poornima Charantimath, 2<sup>nd</sup> Edition, Pearson, 2011  
Business Process Reengineering and Change Management by Dey B R, Biztantra 2005

**Title: Project Management**

**Subject code: C7**

**Contact Hours:60**

**Work load: 4 hours in a week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Objective:** The objective of this course is to understand the framework for evaluating capital expenditure proposals, their planning and management in the view of the projects undertaken.

**Pedagogy** :Lectures, Assignments, Projects, Practical Exercises and Seminars

**Module 1.**

Project Management - Definitions, Overview, Project Plan, Management Principles applied to Project Management, Project Management Life Cycle, Project Life Cycles and Uncertainty.

**Module 2.**

Project planning - Scope, Problem statement, Project Goals, Objectives, Success criteria, Assumptions, Risks, Obstacles, Approval process, Projects and Strategic Planning.

**Module 3.**

Project Activities - Project Resource Requirements, Types of Resources.

**Module 4.**

Project Monitoring, Evaluation and Control - Project Network Technique, Planning for Monitoring and Evaluation, Project Audits, Project Management Information System, Project Scheduling, PERT and CPM, Project Communication, Post-Project Reviews.

**Module 5**

Project Team Management - Recruitment, Organizing, Human Resources, Team operating rules, Project Organization, Various forms of Project Organization, Project Organization Charting.

**Module 6.**

Closing the Project - Types of Project Termination, Strategic Implications, Project in Trouble, Termination Strategies, Evaluation of Termination Possibilities, Termination procedures. Project Contacts, principles, Compilation of Contacts, Practical Aspects, Legal Aspects, Global Tender, Negotiations, Insurance.

**Reference Books :**

Bennet P. Lientz and Kathryn P. Rea, "Project Management for the 21<sup>st</sup> Century", Academic Press, California, 1995.

Choudhary. S., "Project Management", Tata McGraw Hill Book Publishing Co., New Delhi.

Gopalakrishnan, P., "Project Management", Macmillan India Ltd. New Delhi, 1993.

Jack R. Meredith and Samuel J Mantel, "Project Management", John Wiley & Sons, New York, 1995.

Joseph J. Moder, Cecil R. Phillips, and Edward W. Davis, "Project Management with CPM. 6.PERT and Precedence Diagramming", CBS Publishers and Distributors, New Delhi.

Prasanna Chandra, "Project: Planning, Analysis, Selection, Implementation and Review", Tata Mc Graw Hill Publishing Co. Ltd., New Delhi, 1998.

Robert K. Wysocki, Robert Beck, and David B. Crane, "Effective Project Management", John Wiley & Sons, New York, 1995.

**Title: Business Process Outsourcing****Subject code: C8****Work load: 3 hours in a week****Evaluation:** Continuous Internal Assessment - 25  
Semester End Examination - 50**Contact Hours:45****Credit Points:3**

**Objective:** This course is designed to provide the understanding of outsourcing in the global economy. The parameters that determine the when and how to outsource in this competitive age to achieve the efficiency and effectiveness.

**Pedagogy :** Lectures, Assignments, Projects and Seminars

**Module 1**

Introduction and meaning of BPO, history of the industry, human issues in Call Centers and BPO industry, stress, quality/quantity conflict, intensity, targets, sleeping disorders, consequences of unmanaged stress, managing stress

**Module 2**

Attrition rates in BPO industry and retention strategies in ITES/BPO industry, employee benefits provided by majority of BPO companies,

**Module 3**

PCMM model and its application, introduction, the strategic objectives pursued in PCMM, need for PCMM (People Capability Maturity Model), structure, level, behavioural characteristics of maturity level, key process areas- maturity levels vs. process categories

**Module 4**

Managing IT outsourcing: offshore, onshore, and nearshore, how to think strategically about outsourcing, BPO meets BPM, Business Process Offshoring,

**Module 5**

Moving up the value chain from BPO to KPO, opportunities & challenges in the field, areas in the KPO, challenges for Indian companies in the financial services KPO business, classification of outsourcing phenomenon in financial services, BPO potential in the Financial Services Sector

**Reference:**

[www.nasscom.in](http://www.nasscom.in)

Reports of BPO companies,

Delloite Research reports/Forrester Reports

**Title: Enterprise Resource Planning (ERP)**

**Subject code: C9**

**Contact Hours:60**

**Work load: 4 hours in a week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment - 50  
Semester End Examination - 50

**Pedagogy Tools:** Lecture, Assignments, Projects, Simulation Base Exercise

**Module 1: Enterprise Resource Planning –Introduction**

What is ERP? ,Need of ERP ,Advantages of ERP ,Growth of ERP

**Module 2:ERP and Related Technologies**

Business process Reengineering (BPR),Management Information System (MIS),Decision Support Systems (DSS),Executive Support Systems (ESS),Data Warehousing, Data Mining,Online Analytical Processing (OLTP),Supply Chain Management (SCM)Customer Relationship Management (CRM)

**Module 3: ERP modules & Vendors**

Finance , Production planning, control & maintenance, Sales & Distribution, Human Resource Management (HRM), Inventory Control System, Quality Management,ERP Market

**Module 4: ERP Implementation Life Cycles**

Evaluation and selection of ERP package, Project planning, Implementation team training & testing, End user training & Going Live, Post Evaluation & Maintenance

**Module 5: ERP Case Studies**

Post implementation review of ERP Packages in Manufacturing, Services, and other Organizations

**Books Recommended:-**

Enterprise Resource Planning - Alexis Leon

ERP Ware: ERP Implementation Framework –

V.K. Garg & N.K. Venkitakrishnan

ERP: By Leon, ERP Concepts and Planning - Garg & Venkitakrishnan

## MARKETING SPECIALISATION SUBJECTS

**Title: Supply Chain Management**

**Subject Code: C10**

**Contact Hours: 45 Hrs**

**Work load: 3 hours per week**

**Credit Points: 3**

**Evaluation:** Continuous Internal Assessment- 25  
marks Sem End Exam-50 Marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Distribution & Logistics Management. The purpose of this course is to develop understanding of logistics, its basic framework and its practical utility.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

### **Module 1 :- Supply Chain Management – An Overview.**

Introduction; what forces are driving the rate of change, Globalization, Technology, Organizational consolidation, The empowered Consumer, Government policy & Regulation, The supply chain concept, Development of the concept, major supply chain issues, Supply chain Networks, Complexity, Inventory deployment, Information, Supply chain Variation Impact, Supply chain Technology, supply chain Security.

### **Module 2:- Role of Logistics in Supply Chain.**

Introduction, What is Logistics, Value added roles of logistics, Logistics Activities, Scope of activities, logistics in the economy, logistics in the firm, logistics interfaces with Marketing, logistics interfaces with other areas, Techniques of logistics system analysis, approaches to analyzing logistics systems, Materials Management versus physical distribution, cost Centers, Nodes Versus links, Logistic Channels. **Transportation- Managing the flow of supply chain:** Role of Transportation in the supply chain Management, Challenges to carrying out this role, modes of transportation, Transportation planning & strategy, Transportation Execution & Control.

### **Module 3:- Order Management & Customer Service.**

Introduction, Influencing the order customer relationship Management, Activity based costing & customer profitability, e-commerce order fulfillment strategies, Customer service, elements of customer service performance measures for customer service, Expected cost of stock-outs, order management influences on customer service.

### **Module 4:- Sourcing Materials & Services**

Strategic sourcing methodology, Managing Sourcing and procurement processes, Supplier selection, Supplier/vendor evaluation and Relationships, e-sourcing & e-procurement

### **Module 5:- Supply chain Technology – Managing Information flows:**

The Role of Information in the supply chain, A framework for managing supply chain information, SCM Software, Supply chain Technology implementation, Supply chain Technology Innovations. Strategic role of Logistics Information systems,

**Module 6:- Distribution – Managing Fulfillment Operations:**

The Role of Distribution operations in SCM, Distribution Planning and strategy, Distribution Execution, Distribution Metrics, Distribution Technology. **Global Dimensions of Supply chains:** Supply chains in a global economy, The scope and Magnitude of Global Business, Global Markets and strategy, Supply chain security: A balancing act, Storage Facilities and Packaging.

**Module 7:- Supply chain Relationships and Supply Chain Sustainability:**

Logistics Relationships, Model for Developing and Implementing successful supply chain relationships, Need for collaborative Relationships, Types of 3PL Providers, 3PL Market Size and Scope, Reverse logistics Systems, Management and Relationship Issues. **Supply Chain Performance Measurement:** Dimensions of supply Chain Performance Metrics, Developing Supply Performance Metrics, Performance Categories,

**Textbook:**

John J Coyle, C John Lagley, Robert A. Novack “Managing supply Chain – Logistic Approach”, Cengage Learning.

Sales and Distribution Management by Tapan Panda and Sunil Sahadev Oxford publication.

**Reference books:**

Logistics Management by Vinod V Sople Pearson Education

Logistical Management by Donald Bowersox, David Closs- TMH, 2004

Business Logistics/Supply Chain Management –Ronald Ballou- Pearson Education.

Sunil Chopra and Peter Meindl, ‘Supply Chain Management Strategy – Planning and Operation, Latest edition,

**Title: Sales Management****Subject Code: C11****Contact Hours: 45 Hrs****Work load: 3 hrs per week****Credit Points: 3****Evaluation:** Continuous Internal Assessment – 25 marks  
Semester End Examination – 50 marks

**Objective:** The purpose of this course is to develop an understanding and skill about concepts, method and strategies of sales management. It also aims at developing various competencies to tackle different sales related problems and train the student to become effective sales force to bring only into the organization and become a bread earner for self and organization.

**Pedagogy :** Lectures, Assignments, Projects, Practical Exercises and Seminars Case Discussion, Research article discussion.

**Module 1: Introduction to Sales Management :** Evolution of Sales Department, Evolution of Personal Selling, Meaning and objective of Sales Management Nature and Role of Sales Management Personal Selling Strategies Types of Personal Selling (Industrial, Retail and services) Types of Selling (Order takers, Order creators, Order getters) Theories of Selling – AIDA Difference between Selling & Marketing Management Process Sales Management Process Emerging Trends in Sales Management

**Module 2: Selling Skills and Selling Process :** Selling and Buying Styles Selling Situations (Selling Task functions, Maintenance. Selling, Developmental Selling) Selling Skills Negotiation Skills Problem Solving Skills Problem Solving Process Problem Definition Techniques. Stages, Prospecting (process & Methods), Handling customer objections, Methods of Closing Sale.

**Module 3: Managing Sales Information or Setting Personal Selling Objectives:** Types of Personal Selling Objectives Qualitative & Quantitative Important terms: Market Potential, Sales Potential, Sales Forecast Forecasting Market Demand Market Demand Function Market Demand Forecasting Marketing Decision Support System Forecasting Process Methods of Forecasting.

**Module 4: Sales Organization :** Purpose of sales Organization Setting Up a Sales organization Types of sales organization structure (Line, Line & Staff, Functional sales, Committee sales) Factors influencing the structure Typical Structure-Line Organization Design by Territory, Management, Function, Product, Customer Combined sales Organization Design, Emerging Organizational Designs Number of Sales People.

**Module 5: Organizing Sales Efforts Management of Sales Territory:** Functions & Qualities of Sales Executives Sales Territory-Concept Designing: Reasons & Procedures Shapes

**Module 6: Management of Sales Quota**

Meaning of Sales Quota Objectives and Principles of setting Sales Quota Quota Setting – Procedure / Methods Types Problems in Setting Sales Quota

**Module 7: Recruitment & Selection of Sales Force, Training Motivation & Compensation of sales Force**

**Text Book:** Sales Management- Decisions, Strategies and cases by Richard R. Still, Edward.W. Cundiff; and Norman A.P. Govani- 5/e. Prentice Hall Publications, New Delhi.

**Reference Books:**

Professional Sales Management by R- E. Anderson, Joseph F. Har, Alan J. Bash - McGraw Hill Inc. International Student Edition  
Tapan Panda and Sachdeva “Sales and Distribution Management”, Pearson publications

**Title: E-Commerce and Digital Marketing****Subject Code: C12****Work load: 3 hours per week****Evaluation:** Continuous Internal Assessment

Semester End Examination

**Contact Hours: 45 Hrs****Credit Points: 3**

– 25 marks

– 50

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Digital Marketing. Understand how and why to use digital marketing for multiple goals within a larger marketing and/or media strategy. Understand the major digital marketing channels - online advertising: Digital display, video, mobile, search engine, and social media. Learn to develop, evaluate, and execute a comprehensive digital marketing strategy and plan. Learn how to measure digital marketing efforts and calculate ROI. Explore the latest digital ad technologies.

**Pedagogical Tools:** Lecture, Seminar, Case Studies, Discussions, Project, Team exercise

**Module 1: Overview of digital marketing**

Introduction to digital world, Brief history, Framework of E-commerce, need and scope of digital marketing, definition, digital economy and digital society, benefits and limitations, why digital marketing. Characteristics of Ecommerce & its Importance. Framework, Architecture, Impact of e-Commerce, The framework of e-Commerce applications; e-Commerce Consumer applications, e-Commerce Organization Applications, e-commerce in India, Prospects of e-commerce, Advent of Ecommerce in India, Major Players, Current Scenario of Ecommerce in India, Challenges faced, Future Aspects for Ecommerce in India.

**Module 2: Digital marketing mechanism, tools and impact:**

Mechanism of online marketing, seller, buyers and transactions, E-marketplace, customer interaction mechanism, virtual world as a mechanism, competition in digital world. Application of E Commerce in Direct Marketing and Selling, Value Chain Integration, Supply Chain Management, Corporate Purchasing, Financial and Information Services, Obstacles in adopting E-Commerce Applications, Future of E Commerce.

**Module 3: Internet value chain, business models for digital marketing:**

Value chain concept, online marketing value chain, supply chain, identifying business models (different models), Online Research. business models for digital marketing, Innovation and the Net, Emerging trends in Digital Marketing.

**Module 4: Internet marketing mix and Consumer behavior in digital marketing:**

Product strategies, Pricing Strategies, place and promotion strategies in digital world, people, process and physical evidence strategies. E-Commerce Marketing Concepts: Basic marketing concepts for internet marketing, Ecommerce marketing and branding strategies, strengthening the customer relationship, E Supply Chain Management, E CRM, E Payment Systems, History's Lessons about Payments, Electronic payment systems Definition, Scope, Characteristics, Importance. Applications of Electronic Payment Systems. Digital Payment requirements, Problems with Traditional Payment Methods

**Module 5: Marketing communication strategies:**

Online/E- retailing, Traffic Building, Usability, Credibility, Persuasion, Search engine Optimization, social media communication. Introduction to Online Marketing, Advantages of Online Marketing, Various businesses that can flourish online, Introduction to E advertising,

Various means of E advertising, Conducting Online Market Research, Building Customer Relationship Based on One to One Marketing, Market Segmentation, Data Mining and Marketing Research, Intelligent Agents in Marketing, Measuring the Effectiveness of E advertising.

#### **Module 6: E-branding and Marketing Strategies**

Elements of Branding, Spiral Branding, Introduction to Marketing Strategies, Permission marketing strategies, Brand Leveraging Strategies, Affiliate marketing strategies, Viral marketing strategies, Website Naming Issues, Advertising supported Model, Marketing Strategy on the Web. Four P's in E-Marketing, E Market Segmentation and Targeting, E Market Differentiation and Positioning, Online Consumer Behavior and Online Consumer Research, E Marketing Knowledge an important paradigm

**Module 7: E-mail marketing and M-commerce**, Introduction to E marketing, [Internet Retailing](#), [Consumer Channels](#). B2B E-Commerce., Traditional Marketing Vs E marketing, Identifying Web Presence Goals, The Uniqueness of the Web, Meeting the needs of Website visitors, E-marketing Value Chain, Site Adhesion, Maintaining a Website, Metrics for Internet units of measurement

**Module 8: E-payment and security, Fraud, security and privacy concerns, cyber crime, E-commerce laws in India**, Introduction to the Concepts ,Security Concerns, Security Solutions, Digital Signatures, Protocol for Secure messaging, Paper Document Vs Electronic Document, Technology for Authentication, Laws for Ecommerce

#### **Text Book:**

Hanson "Internet marketing and E-Commerce", Latest edition, Cengage learning.

#### **Reference Books:**

Internet marketing, Robert & Zahay, Cengage Learning

Frontiers of E-commerce by Ravi Kalakota & Andrew-pearsons Education E-

Commerce Concepts, models by C.S.V.Murthy, Himalaya Publication

**Title: Retail Management****Subject Code: C13****Work load: 3 hours per week****Evaluation:** Continuous Internal Assessment

Semester end Examination

**Contact Hours: 45 Hrs****Credit Points: 3**

– 25 marks

– 50 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Retailing Management. To introduce the basic concepts of retail management, the latest developments in retailing in the Indian context, and framework of Retail mix and each of its elements. To provide a strategic perspective of the retailing industry.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: Introduction to the World of Retailing:** Retailing in India, Significance of retail industry, Marketing retail equations, new role of retailers, Indian retail scenario and its future prospects, Global retailers, retail opportunities. Types of Retailers, Multichannel Retailing: Retail Formats and Theories, Theories of retail development, Concept of retail life cycle, Classification of retail stores, The role of franchising in retail, Customer Buying Behavior: Understanding the Retail Consumers, The factors influencing retail shopper, Consumer decision making process, changes in the Indian consumer, the use of market research as a tool for understanding markets and consumers.

**Module II: Retail Market Strategy:** Retail Market strategy; Financial Strategy: Measures of Financial Performance, The strategic profit model, Measures of retail performance, Retail Locations; Retail Site Location: The importance of store locations, types of locations, steps involving in choosing a location, trade areas and their evaluation, how to evaluate a retail location. Human Resource Management, Information Systems and Supply Chain Management, Customer Relationship Management.

**Module III: Merchandise Management:** Managing the Merchandise Planning Process, The concept of merchandising, the evolution of merchandising function in retail, Buying Merchandise: The process of merchandising buying, the procedure for selecting vendors and building partnerships, the concept of own brand and manufacturers' brand the concept of category management, Role of Pvt. Labels, Retail Pricing: The concept of retail pricing and the factors affecting price, elements of retail price, developing a pricing strategy, adjustment to retail price, GMROI. Retail communication mix, The concept of retail marketing mix, STP, the role of POP in retail. E-retailing.

**Module IV: Store Management :**Managing the Store, Store Layout, Design, and Visual Merchandising, Retail Store Operations, The relationship between store image and store design components of exterior and interior consideration for selecting layout visual merchandising in retail, Customer Service: The concept of customer service, the gaps in customer service, methods and tools available for encouraging loyalty, role of retail sales person, selling process.

**Module V:** Starting your own Retail Business, Starting a Franchise Business, Cases

**Text Book :** Levy, Weitz, and Pandit "Retailing Management" McGrawHill Publications

**References:**

Chetan Bajaj Rajanish Tuli and Nidhi Varma Srivastava, "Retail Management", Oxford Publications.

Barry Barman, Mini Mathur, "Retail Management – Strategic Approach", Pearson Publications.

**Title: Strategic Brand Management**

**Subject Code: C14**

**Work load: 3 hours per week**

**Evaluation:** Continuous Internal Assessment

Semester end Examination

**Contact Hours: 45 Hrs**

**Credit Points: 3**

– 25 marks

– 50 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Brand Management.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: Brands and Brand Management:** Brand? Importance of brands, Characteristics of strong brand, branding challenges and opportunities, brand equity, strategic brand management process. Customer-based Brand Equity and Brand Positioning: brand knowledge, sources of brand equity, identifying and establishing brand positioning, positioning guidelines, defining brand mantra, Brand Resonance and the Brand Value Chain: steps of building strong brand, value stages and implications of brand value chain.

**Module II: Designing and Implementing Brand Marketing programs:** Choosing brand elements to build brand equity, criteria for choosing brand elements, options and tactics for brand elements, designing marketing programmes to build brand equity: integrating marketing, product, pricing, channel strategies, Integrating Marketing Communications to Build Brand Equity: the new media environment, four major marketing communication options, brand amplifiers, developing IMC programs, Leveraging Secondary Brand Associations to Build Brand Equity; conceptualizing the leveraging process, company association, country of origin and other geographic areas, channels of distribution, co-branding, licensing, celebrity endorsement, sporting, cultural and other events third party sources. **Module III: Measuring and Interpreting Brand Performance:** Developing a Brand Equity Measurement and Management System; conducting brand audits, designing brand tracking studies, establishing a brand equity management system. Measuring Sources of Brand Equity: Capturing Customer Mind-Set; qualitative research techniques, quantitative research techniques, comprehensive models of consumer-based brand equity, Measuring Outcomes of Brand Equity: Capturing Market Performance; comparative methods, holistic methods.

**Module IV: Growing and Sustaining Brand Equity:** Designing and Implementing Branding Architecture Strategies; developing brand architecture strategy; defining brand potential, identifying brand extension opportunities, branding new products and services, brand portfolios, brand hierarchies, corporate branding, brand architecture guidelines, Introducing and Naming New Products and Brand Extensions; new products and brand extensions, merits and demerits of brand extensions, understanding how consumer evaluate brand extensions, evaluating brand extension opportunities, extension guidelines based on academic research, Managing Brands over Time; reinforcing brands, revitalizing brands, adjustments to the brand portfolio,

**Module V: Managing Brands, Over Geographic, Boundaries and Market Segments:** Regional market segments, other demographic and cultural segments, rationale for going international, merits and demerits of global marketing programs, global brand strategy, standardization Vs. Customisation, developing Vs. developed markets building global customer based brand equity. Closing perspectives; strategic brand management guidelines, what makes strong brands, future brand priorities.

#### **References:**

Kevin Lane Keller, “*Strategic Brand Management: Building, Measuring, and Managing Brand Equity*”, 4<sup>th</sup> edition, Pearson publications.

Brand management-Y.L.R.Moorthi-Vikas Publication

Product management-Donad lehman,TMH

**Title: Rural Marketing****Subject Code: C15****Contact Hours: 45 Hrs****Work load: 3 hours per week****Credit Points: 3****Evaluation:** Continuous Internal Assessment –  
Semester End Exam-25 marks  
50 Marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Rural Management.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars Case Discussion, Rural visits.

**Module I: The Call of Rural India:**

Defining rural markets, rural myths, the rural marketing mix and challenges, the evolving rural consumer rural India the exploding middle class, The Rural Marketing Environment; the evolution of rural marketing, the rural environment, the rural economic environment, the rural economic structure, the rural infrastructure, rural economy, rural employment generation programmes, Government initiatives.

**Module II: Rural Consumer Behaviour:**

consumer buying behavior model, what influences consumer behavior? The buyer decision process, the product adoption process, diffusion of innovation, Rural Marketing Research, the rural marketing research process, special tools used in rural marketing research field procedures and rural realities, the rural research business. Segmenting and Targeting Rural Markets: rural market segmentation, targeting rural markets, positioning in rural market.

**Module III: Product Strategy:**

the product concept and the classification of rural products, product decisions and strategies, product branding in rural markets, packaging for rural markets, product warranty and after-sales service, new product development in rural markets, Pricing Strategies; pricing in rural India, setting the price for rural products and services, price setting strategies.

**Module IV:** Distribution in Rural Markets; Availability: the challenge and the dilemma, distribution channels, the rural retail environment, channel behavior in rural areas, distribution models in rural markets, rural-centric distribution models. Rural logistics, rural dominance, Communication Strategies for Rural Markets; Challenges in rural communication, the communication process: an overview, developing effective rural communication, creating advertisements for rural audiences, sales promotion and events and experiences.

**Module V:** Rural Services Marketing; telecommunications in rural India, information communication technology in rural areas, Marketing in Small Towns; definition of small town, small town in consumer behavior, the strategic importance of small towns for rural marketers,

**Module VI:** Role of Government in Rural India; rural infrastructure, education, health, skill development, employment, financial inclusion, sanitation, agriculture, Future of Rural Marketing; rural boom, the way forward, rural dividend.

**References:**

Pradeep Kashyap, Rural Marketing, Latest edition, Pearson publications.

Krishnamacharyulu, "Rural Marketing", Latest edition, Pearson publications

**Title: Applied Marketing Research**

**Subject Code: C16**

**Contact Hours: 45 Hrs**

**Work load: 3 hours per week**

**Credit Points: 3**

**Evaluation:** Continuous Internal Assessment – 25 marks

Sem End Exam -50 Marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Marketing Research.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: Marketing Research –**

Definition, Scope, Significance, Limitations, Obstacles in acceptance. Ethics in marketing research, Marketing Intelligence system, own vs. agency marketing research; marketing information system; meaning, need and components, marketing information system and marketing research.

**Module II: Research process –**

Defining the problem - Management problem – decision problem – research problem – hypothesis statement – characteristics of a good hypothesis – research proposal process - drafting the research proposal.

**Module III: Various sources of market Information –**

Methods of collecting Market Information – Primary data, Secondary data – sources – problems of fit and accuracy. Syndicated services. Primary data collection methods; experimental methods, questionnaire preparation and administering, organizing fieldwork for a collecting data.

**Module IV: Marketing research techniques:**

Market development research: Cool hunting – socio cultural trends, Demand Estimation research, Test marketing, Segmentation Research - Cluster analysis, Discriminant analysis. Sales forecasting – objective and subjective methods, Rating Scales, Juster, Likert, Semantic Differential, Thurston, Attitude Scales, Scales for illiterate respondents

**Module V: Marketing Mix Research:**

Concept testing, Brand Equity Research, Brand name testing, Commercial eye tracking – package designs, Conjoint analysis, Multidimensional scaling - positioning research, Pricing Research, Shop and retail audits, Advertising Research – Copy Testing, Readership surveys and viewer ship surveys, Ad tracking, viral marketing research. Marketing effectiveness and analytics research: Customer Satisfaction Measurement, mystery shopping, Market and Sales Analysis

**Module VI: Exploratory designs –**

Descriptive designs - Longitudinal and cross-sectional analysis. Meaning and scope of research design; types of research designs, exploratory, descriptive and conclusive;

**Module VII: Qualitative research techniques –**

a) Based on questioning: Focus groups, Depth interviews, Projective techniques. b) Based on observations: ethnography, grounded theory, participant observation.

**Module VIII: Report writing –** forms of report – fundamentals of a good report.

**Text Books:**

Marketing Research – Measurement & Methods – Donald S.Tull, Del I.

Hawkins. Marketing Research –Naresh Malhotra, Latest Pearson Publications

Brown, Adhikari, “Marketing Research” Cengage Learning.

**Reference Books:-**

Marketing Research, Concept & Cases – Cooper Schindler.

Research for Marketing Decisions – Paul Green, Donald Tull, Gerald Albaurn.

Chisnali P K Marketing-A behavior- Boyd H W & Westfall: Marketing Research text and cases Richard Irwin Inc.- Lucki D J Wales H G Etal: Marketing Research Prentice Hall

## FINANCE SPECIALISATION

### **Title: Mergers, Acquisitions and Corporate Restructuring**

**Subject Code : C17**

**Contact Hours: 45 Hours**

**Work load : 3 hours per week**

**Credit Points : 3**

**Evaluation : Continuous Internal Assessment – 25 marks**

Semester End Examination -- 50 marks

**Objective:** To provide student's exposure to merger, acquisition and corporate restructuring.

**Pedagogy :** Lectures, Assignments/Project, and Case Analysis.

#### **Module 1:**

Merger and Acquisition – meaning, objectives and emergence of the M&A wave in India. Motives for corporate mergers. Theories of merger- hypothesis concerning M&A. Synergy of merger – Operating synergy & financial synergy. Types and process of mergers. Five stage model – due diligence methods of financing mergers – cash offer – share exchange ratio merger as a capital budgeting decision. Negotiating the Merger and closing the deal.

#### **Module 2:**

Corporate Restructuring – Meaning, objectives & methods of restructuring – joint ventures – corporate sell off & spin off – Equity carve out – leveraged buy outs (LBOs) – Management buy outs (MBOs) – difference between LBO and acquisition – Employee Stock Option Plans (ESOPs) – Master Limited Partnership (MLP) (Practical).

#### **Module 3:**

Merger and Acquisition valuation – valuation approach – discounted cash flow valuation. Equity valuation – Relative valuation - Synergy & Value creations – valuating operating & financial synergy – valuing corporate control – valuing of LBO (**Practical**).

#### **Module 4:**

Accounting for Amalgamation – Pooling of Interest Method, Purchase Method, Net Assets Method, Net Payment Method & Intrinsic Method- Procedure laid down under Indian Companies Act – Accounting for M&A (**Practical**).

#### **Module 5:**

Corporate control mechanism and takeover defenses – coercive offers and defense – anti take over amendments – Crown jewel – Shark Repellents – Poison Pill – Pacman – Green mail – White Knight – Golden Parachute

#### **Module 6:**

Legal and Regulatory framework of M&A: Companies Act 1956 /2013, Income Tax Act 1961, SEBI Act, SEBI takeover Code etc.

**Module 7:** Post merger issues & Integration (Accounting/Systems/HR).

**Text Books:**

- “Mergers and Acquisitions”- A P Dash, I K International Publishing, New Delhi
- “Mergers and Acquisitions and Corporate Restructuring” – Prasad R Godbole, 2<sup>nd</sup> Edition, New Delhi
- “Mergers and Acquisitions” by Rajinder Aurora, Kavita Shetty, Sharad Kale, Oxford University Press.

**Reference Books:**

- Merger and Acquisitions (Text and Cases) by B Rajesh Kumar, Tata Mc Graw Hills Publication.
- Merger and Acquisitions by Machiraju, New Age Publications.
- Merger, Acquisitions and Corporate Restructuring (Strategies & Practices) by Rabi Narayan Kav, International Book House Pvt. Ltd.
- “Mergers and Acquisitions and Corporate Restructuring” – Patrick Gaughan, Wiley India., New Delhi.

**Title of the paper: Personal Finance and Tax Planning**

**Subject Code : C18**

**Contact Hours : 45 Hours**

**Work load : 3 hours per week**

**Credit Points : 3**

<b>Evaluation</b>	: Continuous Internal Assessment	–	25 marks
	Semester End Examination	--	50 marks

**Objective:** To facilitate the student to become financially responsible member of society leading to developing skills in the area of money management, budgeting, financial goal attainment, wise use of credit, investment and tax management.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises, Case Analysis and Seminars

**Module 1:**

**Financial Planning Process:** Utilities of Personal Financial Planning Techniques – The Personal Financial Planning Process – Planning for a Life Time – The Financial Planning Environment – Various Determinants of Personal Income.

**Module 2:**

**Financial Statements and Plans:** The Role of Financial Statements in Financial Planning – Preparing Personal Balance Sheet and Income and Expense Statement based on Life Cycle Approach– Using Personal Financial Statements.

**Module 3:**

**Investment Avenues & Tax Planning:** Meaning and Purpose of Investment –Factors Considered in the Choice of Investments , Short & Long-term investments - FDs – Post Office Schemes – Insurance – Mutual Funds – Real Estate – Bullion markets – Equity – Debt – Commodities – IDRs, PPF, NPS, – Developing Investment Strategy.

**Module 4:**

Basic of Income Tax, Basic Concepts, Residential Status & Tax Incidence, Income Exempted from Tax

**Module 5:**

An overview of computation of Gross Total Income, Deductions from the Gross Total Income u/s 80C to 80U, Tax rates & Calculation of Tax liability

**Module 6:**

Income Tax Authorities & Filing Returns – Traces (26 AS) – Form No. 16 A – ITR I & II – Permanent Account Number & Aadhar linkage, Tax Audit, Qualities & Qualifications required in auditors, forms, reporting & disclosure in financial statement, Settlement of Cases

**Reference Books:**

Taxation Law and Practice – Volume 1 – Balachandran, Thothadri – PHI  
Direct Taxes – Law & Practice by Vinod K Singhania & Kapil Singhania, Taxmann Publication.  
Income Tax Law and Practice – N Hariharan - Tata McGraw Hill Publication.  
Focus on Personal Finance - Jack Kapoor; Les Dlabay; Robert J. Hughes, McGraw-Hill/Irwin (2009)  
George Rejda: Principles of Risk Management and Insurance: Pearson, New Delhi

<b>Title of the paper</b>	<b>: Derivatives Market and Risk Management</b>		
<b>Subject Code</b>	<b>: C19</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>		<b>– 25 marks</b>
	<b>Semester End Examination</b>		<b>-- 50 marks</b>

**Objective:** The main objective of this course is to acquaint the students with basics of derivative market and its workings.

**Pedagogy :** Lectures, Assignments/Project, Practical Exercises and Case Analysis

#### **Module 1:**

**Introduction:** Risk Management, Types of Business Risks, Meaning of Derivatives, Products, Factors driving growth of derivatives. Derivative Markets in India (Derivatives Trading at NSE, BSE, NCDEX & MCX), Participants, Functions, Regulatory framework

**Stock & Index Derivatives:** Introduction to Stock & Index Futures, Stock & Index Options, Trading Mechanism, Terminology.

**Commodities Derivatives:** Agriculture, Metal & Energy derivatives in India, Genesis, Trading Mechanism, Terminology, Margin System.

**Currency Derivatives:** Currency Market in India, Genesis, Fixed & Floating exchange rate regime, Terminology, Traders.

**Interest Rate Derivatives:** Interest Rate Caps & Floors, FRA, SWAPS.

#### **Module 2:**

**Forward Contracts:** An overview of Forward Contracts, Features, Carry Price Model, Pricing (No Income, Known Income & Known Yield), Hedging strategies & application, Practical exercises.

**Module 3: Futures Contracts:** Meaning, Parties, Terminologies, Basis, Relationship between Futures price & Expected spot price, Trading procedure, Margin System, Open interest, Pay offs, Valuation, Speculation, Hedging & Arbitration strategies, Practical exercises.

#### **Module 4:**

**Option Contracts:** Meaning, Types, Parties, Pay Offs, Settlement procedures for stock, indices, Application of Options (Speculation & Hedging strategies), Combination Strategies (Strips, Straps, Straddle, Strangle), Spreads (Bullish & Bearish Butterfly Spreads, Option Valuation using Black Scholes Model & Binomial Model, Zero Cash Flow Portfolio, Diagrammatic presentation of One & Two step Binomial Process, Practical exercises.

#### **Module 5:**

**SWAP Contracts:** Types, Interest rate swaps, Currency swaps. Basic practical exercises.

#### **Text book:**

Futures and Options by N. D. Vohra and B. R. Bagri, Tata McGraw Hill Publication.

#### **Reference Books:**

Derivatives & Risk Management by Rajiv Srivastava, Oxford Publication.

Derivatives & Risk Management by Dhanesh Kumar Kharti, Mcmillan Publication.

Commodity Derivatives by Indian Institute of Banking & Finance.

NCFM Derivatives Market, Options Strategies, Currency, Interest Rate & Commodities Market Module downloaded material.

Options and Futures & Options Markets by John C Hull, PHI Publication.

Introduction to Derivatives by SSS Kumar

<b>Title of the paper</b>	<b>: Principles and Practices in Modern Banking</b>		
<b>Subject Code</b>	<b>: C20</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	: Continuous Internal Assessment –		25 marks
	Semester End Examination --		50 marks

**Objectives:** Providing an in-depth insights into principles and practices of banking in the liberalised Indian economy and obtain skills and knowledge in practical Banking.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises and Case Analysis

#### **Module 1:**

Banking system and structure in India- Evolution of Indian Banks-Types of banks - Public Sector, Regional Banks, Performance of Public Sector banks, Private Sector Banks, Payment Banks, Small Finance Banks. Commercial banking: Structure, Functions - Primary & secondary function, Role of commercial banks in socio-economic development, Services rendered. Credit creation and Deployment of Funds.- Role of Reserve Bank and GOI as regulator of banking system – Provisions of Banking Regulation Act & Reserve Bank of India Act.

#### **Module 2:**

Banker and customer – Types of relationship between banker and customer – Bankers obligations to customers – Right of lien, setoff, appropriation–Bankers legal duty of disclosure and related matters Customers` accounts with banks – Opening- operation – KYC norms and operation – Types of accounts and customers – Nomination – Settlement of death claims.

#### **Module 3:**

The Negotiable Instruments Act 1881 - Features of Negotiable instruments - Important concepts and explanations under the Negotiable Instruments Act. The Paying Banker-Dishonour of cheque Negotiation – Endorsement - The Collecting Banker – Negligence - Bills of exchange and promissory note - Discharge of Negotiable instruments - Hundis.

#### **Module 4:**

Banking Technology- Concept of Universal Banking-Home banking – ATMs - Internet banking– Mobile banking - Core banking solutions – Debit, Credit, and Smart cards – Electronic Payment systems - MICR- Cheque Truncation- ECS - EFT – NEFT - RTGS, UPI and Aadhar base payment systems.

#### **Module 5:**

International banking – Exchange rates and Forex Business, Correspondent banking and NRI Accounts, Vostro, Nostro Accounts, Letters of Credit, Foreign currency Loans, Facilities for Exporters and Importers, Role of ECGC, RBI and EXIM Bank.

#### **Module 6:**

Banker as lender – Types of loans – Overdraft facilities – Discounting of bills – Financing book debts and supply bills - Charging of Security bills - pledge – mortgage – assignment.

#### **Module 7:**

Asset Liability Management (ALM) in banks: Components of Liabilities and Components Assets, Significance of Asset Liability management, Purpose and objectives. Prerequisites for ALM, Assets and Liabilities Committee (ALCO) - Activities of ALCO.

#### **Module 8:** Contemporary Issues in Modern Banking System

**Text Book:** Principles and Practices of Banking – Indian Institute of Banking & Finance, McMillan Publication.

<b>Title of the paper</b>	<b>: Project Planning, Appraisal and Control</b>		
<b>Subject Code</b>	<b>: C21</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	: Continuous Internal Assessment –		25 marks
	Semester End Examination --		50 marks

### **Objectives:**

The objective of the course is to make the students familiar with financial planning, analysis, selection, and implementation and review the capital expenditure investments. This also aims to acquaint the students with the application of mathematical and statistical tools for analyzing managerial problems in order to arrive at a decision with respect to the capital expenditures.

**Pre-requisites:** Students should have the basic knowledge of Accounting and Financial Management.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises and Case Analysis

### **Module 1 –**

**Overview of Project Management:** Capital Expenditures, Phases of Capital Budgeting, Levels of Decision Making, Facets of Project Analysis, Strategic Position and Action Evaluation (SPACE), Generation and Screening of Project Ideas.

### **Module 2 –**

**Project Appraisal:** Appraisal of Projects – Marketing – Technical – Financial Feasibility. Estimation of Cash Flows: Cost of Project, Means of Finance, Estimates of Sales and Production, Cost of Production, Working Capital Requirements and its Financing, Profitability Projections, Projected Balance Sheets, Multi-Year Projections, Basic Principles for Measuring Project Cash Flows, Components of the Cash Flow Stream, Biases in Cash Flow Estimation, Feasibility Report.

### **Module 3 –**

**Investment Criteria:** Advanced Investment Criteria - Investment Evaluation in Practice – Capital Rationing – Inflation & Investment Decisions – Multiple IRR – Modified IRR method – Special investment decisions. Issues in evaluating mutually exclusive projects.

### **Module 4 –**

**Project Risk Management:** Types and Measures of Project Risk, Sensitivity Analysis, Scenario Analysis, Break Even Analysis, Simulation Analysis, Decision Tree Analysis, Certainty Equivalent, Risk Adjusted Discount Rate, Project Risk Management.

### **Module 5:**

**Project Control and Organization:** Development of Project Network, Time Estimation, PERT Model, CPM Model Forms of Project Organization, Project Planning, Project Control, Work Breakdown Structure, Reasons for Ineffective Control, Human Aspects of Project Management, Pre-requisites for Successful Project Implementation, Performance Audit, Abandonment Analysis.

### **Module 6:**

**Purchasing and Contacting for Projects:** Introduction, Purchase Cycle, Contact Management, Procurement Process – Tender – Legal Aspects.

### **Module 7:**

**Project Close-out, Termination and Follow-up:** Introduction, Project Close-out, Steps for Closing the Project, Project Termination, and Follow-up.

**Text and Reference Books:**

Project: Planning, Analysis, Selection, Implementation & Review - Prasanna Chandra, 8<sup>th</sup> Edition, Tata McGraw Hill Publishing, New Delhi.

Financial Management – Khan and Jain, 6<sup>th</sup> Edition, Tata McGraw Hill Publishing, New Delhi.

Project Management and Appraisal – Sitanju Khatua, Oxford University Press, 2011.

Project Management by Samuel J. Mantel, Jack R. Meredith, Scott M. Shafer, & others, Willey India Edition.

“Effective Project Management” - Robert K Wysocki, Robert Beck, and Devaid B Crane, John Wiley & Sons.

<b>Title of the paper</b>	<b>: International Financial Management</b>		
<b>Subject Code</b>	<b>: C22</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>		<b>– 25 marks</b>
	<b>Semester End Examination</b>		<b>-- 50 marks</b>

**Objective:** The main objective of this course is to give exposure to all aspects of International financial management.

**Pedagogy** : Lectures, Assignments/Project, Practical Exercises and Case Analysis

**Module 1: International financial Environment** - The Importance, rewards & risk international finance-Goals of MNC - International Business methods – Exposure to international risk - International Monetary system - Multilateral financial institution.

**Module 2: International flow of funds:** International Flow of Funds: Balance of Payment (BOP), Fundamentals of BOP, Accounting components of BOP, Factors affecting International Trade and capital flows, Agencies that facilitate International flows. BOP, Equilibrium & Disequilibrium. Trade deficits. Capital account convertibility (Problems on BOP)

**Module 3: International Monetary System:** Evolution, Gold Standard, Bretton Woods system, the flexible exchange rate regime, the current exchange rate arrangements, the European Monetary Union (EMU).

**Foreign Exchange Market:** Function and Structure of the Forex markets, Foreign exchange market participants, Types of transactions and Settlements Dates, Exchange rate quotations, Nominal, Real and Effective exchange rates, and Determination of Exchange rates in Spot markets. Exchange rates determinations in Forward markets. Exchange rate behavior-Cross Rates-Arbitrage profit in foreign exchange markets, Swift Mechanism. Triangular and locational arbitrage.

**Module 4: International Financial Markets and Instruments:** Foreign Portfolio Investment. International Bond & Equity market. GDR, ADR, Cross listing of shares Global registered shares. International Financial Instruments: Foreign Bonds & Eurobonds, Global Bonds. Floating rate Notes, International Money Markets International banking services –Correspondent Bank, Representative offices, Foreign Branches.

**Module 5: International Parity Relationships & Forecasting Foreign Exchange rate:** Measuring exchange rate movements-Exchange rate equilibrium – Factors effecting foreign exchange rate-Forecasting foreign exchange rates. Interest Rate Parity, Purchasing Power Parity & International Fisher effect. Covered Interest Arbitrage.

**Module 6: Foreign Exchange Exposure:** Management of Transaction exposure- Management of Translation exposure- Management of Economic exposure- Management of political Exposure- Management of Interest rate exposure (Practical Problems / Exposure to Exposure Management) Cases: Xian Janssen Pharma (China) and the Euro, Toyota's European Operating Exposure, LaJolla Engineering Services Limited.

**Module 7: Foreign Exchange Risk Management:** Hedging against foreign exchange exposure – Forward Market- Futures Market- Options Market- Currency Swaps- Hedging through currency of invoicing- Hedging through mixed currency invoicing.

**Reference Books:**

International Financial Management - Eun & Resnick, Tata Mcgraw Hill Publication.  
Multinational Business Finance - Eiteman, Stonehill & Mofett, Pearson Publishing. 11<sup>th</sup> Ed.  
International Financial Management - Jeff Madura, Thomson Publication.  
Foreign Exchange Markets – Jain, Yadav, and Peyrard, Macmillan Publication.  
International Financial Management – P. G. Apte, Tata Mcgraw Hill Publication.  
International Financial Management - V. Sharan, Prentice Hall of India Publication.  
International Finance - Maurice Levi, McGraw Hill Publication.  
International Financial Management – Madhu Vij

<b>Title of the paper</b>	<b>: Security Analysis and Portfolio Management</b>		
<b>Subject Code</b>	<b>: C23</b>	<b>Contact Hours</b>	<b>: 60 Hours</b>
<b>Work load</b>	<b>: 4 hours per week</b>	<b>Credit Points</b>	<b>: 4</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>		<b>– 50 marks</b>
	<b>Semester End Examination</b>		<b>-- 50 marks</b>

**Objective:** To provide the students with an understanding of process of investments, fundamental analysis, technical analysis and efficient market theories and various inter linkages that influence the securities market and also to provide the students with the in depth knowledge of the theory and practice of portfolio management.

**Pedagogy** : Lectures, Assignments/Project, Practical Exercises and Case Analysis

**Module 1: Investment:** Significance & Dimensions of Investment, Speculation, Gambling, Investment Process. Introduction to stock market indices, types, Construction of Stock Market Index (Price weighted, Capitalization and Free float)

**Module 2: Security Risk, Return & Valuation:** Unsystematic & Systematic Risk, Analysing Risk, Estimation of Beta, Alpha, Correlation and  $r^2$  using SLRM. Stock Return, Anticipate Return, Single period & Multi period Dividend Discount Model, Constant Growth Model, Valuation through P/E Ratio, Preferred Stock Valuation. Practical exercises.

**Module 3: Valuation of Bonds** – Current Yield - YTM - Bond Risk - Bond Theories. Convexity & Duration of the Bond. Practical exercises.

**Module 4: Fundamental Analysis:** Economic, Industry and Company Analysis. Practical exercises.

**Module 5: Technical analysis:** Meaning, Dow Theory, Support & Resistance Levels, Charts & Patterns, Indicators: Volume of Trade, Simple Moving Average, MACD, Oscillators: RSI, ROC, Stochastic Oscillator. Practical exercises.

**Module 6: Efficient Market Hypotheses (EMH)** – Forms of EMH – Random Walk Theory - Evidences for EMH – market anomalies.

**Module 7: Portfolio Models/Theories:** Markowitz Model, Efficient Frontier, Capital allocation between risky and risk free assets, Sharpe Index Model, Corner Portfolio, Capital Asst Pricing Theory, SML, CML, Arbitrage Pricing Theory. Practical exercises.

**Module 8: Portfolio Evaluation & Revision:** Sharpe, Treynor & Jensen performance Indices, Strategies, Portfolio Revision, Techniques, Benefits of International Portfolio Investment & Risk. Asset Management Companies. Practical exercises.

#### Reference Books:

Investment Analysis and Portfolio management – Prasanna Chandra, TMH Publication.  
 Security Analysis & Portfolio Management – Punithavathy Pandian, Vikas Publication.  
 Security Analysis & Portfolio Management – Fisher and Jordan, Pearson Publishing.  
 Security Analysis & Portfolio Management - Kevin S, PHI Publication.  
 Analysis of Investments and Portfolio management – Reilly & Brown, Cengage Publication.

## HUMAN RESOURCE SPECIALISATION

**Title: Organization Development & Institution Building**

**Subject code: C24**

**Contact Hours:60**

**Work load: 4 Hours per Week**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment -50  
Semester End Examination - 50

**Objective:** The purpose of this course is to develop an understanding of the underlying concepts, strategies and issues involved in Organizational Development and Institutional Building.

**Pedagogy** : Lectures, Assignments, case studies, seminar, project

**Module 1 Introduction to Organizational development:** Definitions and Historical overview of OD, Foundation of OD

**Module 2 Nature of Planned Change:** Theories of Planned change, Lewin's Change Model, Action Research Model, The Positive Model Comparisons of Change Models; General Models of Planned change Entering and Contacting, Diagnosing, Planning and Implementing Change, Evaluating and Institutionalizing Change; Different types of planned change, and OD Practitioner.

**Module 3 Diagnosing Organizations:** Need for diagnostic models, Organizations group, Group-Level Diagnosis, individual level diagnosis, collecting and analyzing the diagnostic information, Feeding back of diagnostic information.

**Module 4 Interpersonal and Group Process Approach:** Process consultation, Individual, group and organisation level interventions- T Group, sensitivity training, team building interventions, formal group diagnostic and team building meeting, process consultation intervention etc, Third party interventions-Intergroup team building interventions, third party peace making interventions partnering. Structural interventions- Self managed teams, MBO, Work redesign, parallel learning structures etc. Team Building.

**Module 5 Institution Building:** Meaning of Institution, how institution differs from organizations, Factors contributing to development of an institution, Process of institution building, Role of CEO in Institution building, Important role of institutions, Great institution builders of India(Vikram Sarabhai, Ravi J Matthai, Vijay Shankar Vyas, Contemporary issues

**Text Book :**Thomas G Cummings and Christopher G Worley: Organization Development & Change, South-Western Cengage Learning

### Reference Books :

Beyond Management by Udai Pareek

John M. Thomas and Warren O. Beuris: The Management of Change and Conflict, Penguin Book New York.W.W. Cooper, H.J Leavitt and M.W. Shelly D:

New Perspectives in Organization Research, John Willey & Sons, New York

.Arthur G. Bedeian: Management, The Dryden Press, Illinois.Roy Wagner:

The Invention of Culture, University of Chicago Press, and Chicago.Peter F. Drucker:

The Executive in Action, Harper Collins Publications Inc., New York.Tim Hannagan:

Management – Concepts and Practices, McMillan India Ltd., New Delhi

**Title: Compensation Management**

**Subject code: C25**

**Work load: 2 Hours per Week**

**Contact Hours:30**

**Credit Points:2**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 25

**Objectives of the course:** The course is designed to promote understanding of issues related to the compensation or rewarding human resources in the corporate sector, public services and other forms of organizations and to impart skills in designing analyzing and restructuring reward management Systems, policies and strategies.

**Pedagogy**

Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars.

**Module 1 Introduction to Compensation**

Introduction to Compensation and Rewards; meaning, Definition, Objective of Compensation and Reward, Importance of Compensation management, Advantages & Disadvantages of Compensation management, Important Issues in Compensation Management. Introduction to Framework of Compensation Policy; Labor market characteristics and pay relatives

**Module 2 Wage Determinations**

Introduction to Compensation, Rewards, Wage Levels and Wage Structures; Introduction to Wage Determination Process and Wage Administration rules; Introduction to Factors Influencing Wage and Salary Structure and Principles of Wage and Salaries Administration; Introduction to the Theory of Wages:Introduction to Minimum, Fair and Living Wage

**Module 3: Wage Differential**

Introduction to Minimum Wages; Introduction to Basic Kinds of Wage Plans; Introduction to Wage Differentials & Elements of a Good Wage Plans; Introduction to Institutional Mechanisms for Wage Determination

**Module 4: Wage Incentives**

Introduction to Wage Incentives in India; Introduction to Types of Wage Incentive Plans; Introduction to Prevalent Systems & Guidelines for Effectives Incentive Plans; Introduction to Non- Monetary Incentives

**Module 5:**

Understanding different components of compensation packages like fringe benefits, incentives and Retirement Plans; Compensation Practices of Multinational Corporations and Strategic Compensation Systems,Statutory Provisions governing Different Components of Reward systems.

**Reference Text:**

Textbook of HRM – P. Subha Rao.  
Managing Human Resources – Bohlander, Snell, Sherman  
Compensation Management – Dipak Kumar Bhattacharya – Oxford Publications  
Compensation Management in a Knowledge Based World – Richard I Henderson – Pearson Publications  
Compensation, Milkovich & Newman, Tata McGraw Hill  
Understanding Wage System by A.M.Sarma; Publisher - Himalaya Publishing House.  
.Compensation Management by V. Vijayalakshmi; Publisher - Virinda Publications (P)Ltd., Delhi -

Labour Cost and Compensation Management by Prof. A.P.Rao; Publisher - Everest Publishing House

**Suggested Readings:**

Human Resource Management, by L.M Prasad, Sultan Chand & Sons.

Personal & Human Resource Management, by P. Subba Rao, Himalaya Publishing House.

Human Resource Management, by K. Aswathappa, Tata McGraw Hill Publishing Company Ltd.

Bhawdeep singh & Prem Kumar- Current Trends in HRD: Challenges & Strategies in a changing scenario.

Reward Management: A Handbook of salary administration by Armstrong, Michael and Marlis

Wage and Salary Administration by Leonard R, Berger.s Wage and Salary administration by Rock Micton

**Title: International Human Resource Management****Subject code: C26****Contact Hours:45****Work load: 3 Hours per Week****Credit Points3**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Objectives :** Globalization, growing presence of multinationals with expatriate managers, cross border mergers and acquisitions and increasing diversity of workforce demands human resource to be more sensitive to cross-cultural issues and understanding of international approaches to dealing with people in organisations. The course seeks to look at HRM in a broader, comparative and international perspective to deal with complex issues and manifold risks.

**Pedagogy:**Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars.

**Module 1:** Human Resources in a Comparative Perspective , International Recruitment and Selection

**Module 2:** Developing International Staff and Multinational Teams , Cultural Factors/Issues in Performance Management

**Module3:** Approaches to International Compensation,

**Module 4.** Managing Global, Diverse Work force , Industrial Relations in a Comparative Perspective , Global Unions, Regional Integration and Framework Agreements, International T&D

**Module 5:** Emerging Trends in Employee Relations and Employee Involvement , International Labour Standards, HR/IR issues in MNCs and Corporate Social Responsibility Contemporary issues

**Reference Books:**

The global college framework for international human resource management-  
Evans,Barsour, TMH  
Human Resource management- K.Ashwathappa, Das,TMH

**Title: Emotional Intelligence and Managerial Effectiveness****Subject code: C27****Contact Hours:45****Work load: 3 Hours per Week****Credit Points3****Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Objectives:** There is a mounting body of evidence that emotion is the most powerful resource we have. Emotions are lifelines to self-awareness and self-preservation that deeply connect us to ourselves and others, to nature and the cosmos. Emotional intelligence is the ability to sense, understand, and effectively apply the power and acumen of emotions as a source of human energy, information, connection, and influence.

**Pedagogy:** Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars.

**Module 1**

Introduction, Emotions and the Tripartite Brain, Emotional Competencies Emotional Intelligence What is Emotional Intelligence, Benefits of EI, Understand the difference between Trait EI and, Ability EI. Five Dimensions of Trait EI Model, Self Awareness (SA), Managing Emotions (ME), Motivation, (M), Empathy (E) Social Skills (SS), Determination of EQ.

**Module 2**

Self awareness (SA), Self Awareness, Seeing the other side, Giving in without giving up Life Positions – you and only you can choose your mindset, Self Regulation / Managing Emotions (ME), Self-Regulation/Managing Emotions (ME), The ‘EQ brain’ and how it works, The science of emotions, Understanding Emotions, Find your self-control... take back your Amygdala, Using Coping Thoughts, Using Relaxation Technique,

**Module 3**

Self-Motivation (M), Self Motivation, Optimism, Pessimism, The balance between optimism and pessimism, The power of re-framing

**Module 4**

Empathy (E), Empathy, Barriers to empathy, Developing your empathy

**Module 5**

Social Skills (SS), Social skills, Making an impact, Creating a powerful first impression, Assessing a situation, Being zealous without being offensive, Traits of a person with high social skills, Manage emotions, Social Management and Responsibility. Understand Emotions and How to Manage Them in the Workplace, Role of Emotional Intelligence at Work, Articulate your Emotions Using Language, Disagreeing Constructively, Contemporary issues

**BOOKS:**

Emotional Intelligence: Why It Can Matter More Than IQ By: Daniel Goleman  
Working with Emotional Intelligence By: Daniel Goleman

**Additional Educational Resources**

Emotional Intelligence at Work By: Dalip Singh (Author)

**Title: Talent Management**

**Subject code: C28**

**Work load: 3 Hours per Week**

**Contact Hours:45**

**Credit Points3**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Objective:** The objective of this course is to understand the importance of talent management in today's competitive world and also can build the retention strategy.

### **Pedagogy**

Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars.

### **Module 1**

**Introduction to Talent Management:** Introduction, Talent Management – Overview, Talent Management – History, the Scope of Talent Management, Need of Talent Management, Key Processes of Talent Management, Talent vs knowledge people, Source of Talent Management, Consequences of Failure in Managing Talent, Tools for Managing Talent

### **Module 2**

**Building Blocks for Talent Management:** Introduction, Effective Talent Management System, Building Blocks of Effective Talent Management System, Talent Management System, Critical Success Factors to Create Talent Management System, Some other critical success factors of best practice Talent Management System, Factors of unique talent management approach, Key Elements of Talent Management

### **.Module 3**

**Life Cycle of Talent Management:** Introduction, Linkage between Talent Management Process and Workforce, Importance of Talent Management Process, Important Steps to Assess Talent Management Process, Stages of Talent Management, Essentials of Talent Management Process

### **Module 4**

**Talent Planning and Acquisition:** Talent Planning, Objectives of Talent Planning, Steps in Strategic Talent Planning, Succession Planning Program, Innovative talent planning, Current Industry Practices for Strategic Talent Planning, Ensuring Leadership. Talent Acquisition, Recruiting Process, Strategic Trends in Talent Acquisition, Talent acquisition

### **Module 5**

**Talent Engagement and Retention:** Introduction, Concept of Talent Engagement, Retention, Employee Engagement and Retention, the Race for Talent: Retaining and Engaging Workers, Best Practices for Talent Engagement, Improving Employee Retention,

**Role of HR in Talent Management:** Introduction, Overview of Human Resource Management, and Role of HR in Talent Management, Role of the HR Manager, Contemporary issues

### **Reference Books:**

Talent Management- L.A.Berger

**Title: Learning and Development**

**Subject code: C29**

**Work load: 4 Hours per Week**

**Contact Hours:60**

**Credit Points:4**

**Evaluation:** Continuous Internal Assessment -50

Semester End Examination - 50

**Objective:** The objective of this course is to understand the importance of learning and development as an important tool for need analysis .

**Pedagogy:** Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars

### **Module 1**

Learning and Learning Theories: Learning process, Principles of learning, Theories of learning, process of resistance to learning, Effect of group dynamics on learning, Transfer of learning, Distinct characteristics of Training design that motivate learning, Learning strategies.

### **Module 2**

Learning and Development: Definition and comparison of learning and management technique, benefits of learning and development, Awareness of learning and development setup, various steps in learning and development process, Theoretical prospective of learning and development process.

Adult Learning: Principles of adult learning, Difference between learning of children and adults, Factors which motivate adults to learn Jane Vella's Principles, Kolb's Learning Cycle.

### **Module 3**

Training Objectives, Policies and Strategies: Training policy, Training strategy, Training plans, Training process follow up, Overview of training methodology, Preventing employees obsolescence to training – Steps in training program design, Program sequence and theme, Converting training objective into training program, Criteria for training method selection, Relationship between learning and training methods.

### **Module 4**

Training Methodologies: Overview various training methods, On the job training methods, Off the job training methods, Understanding the method to be applied for applying improvement in knowledge, skills, and attitudes, Advantages of using one training over other, The latest training methods and their applications in different situations – The concept of distance learning, Characteristics of distance learning, Key factors influencing distance learning.

### **Module 5**

Training Evaluation: Meaning, Reasons for evaluating training, Significance of training evaluation, Donald Kirkpatrick's, Return on investing in training, Types of evaluation design, Considerations in choosing an evaluation design, Data collection for training evaluation, Threats to Validity, Determining costs, Evaluation practices in different organizations. Contemporary Issues in Learning and development

### **Reference Books:**

Training and Development – By Dr. B Janakirama

Personnel/Human Resource Management – By David A. Decenzo & Stephen P. Robbins

The Training Manager's Handbook – By Eddie Davies

The Trainer's Tool Kit – By Cy Charney & Kathy Conway

Learning Content Management Systems – By C. Jones, Knowledge Xtensions

Agent Training: How to motivate and Keep the Best Reps, CommWeb, March 2001

Effective Training by Blanchard

**Title: Human Resource Information Systems**

**Subject code: C30**

**Work load: 2 Hours per Week**

**Contact Hours30**

**Credit Points2**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 25

**Objectives of the course:**

- To learn basic concepts, technology, application, and management of HRIS
- To increase student understanding of IT and their application for human resource
- To focus on what the technology brings to HR's most critical functions & to familiarize the applications of HRIS in Organizations

**Pedagogy:**

Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars.

**Module 1:**

Human Resource Information System: Historical Evolution of HRM and HRIS ,Introduction, Concept ,Meaning, Definition of Human Resource Information System (HRIS), Need for HRIS,Components of HRIS,Benefits of HRIS , Information Provided by HRIS,Objectives and Purpose of HRIS, Designing of HRIS,Advantages of HRIS, Different Types of HRIS,Limitations of HRIS, Significance of HRIS in Today's Corporate World. Contemporary issues

**Module 2:**

Human Resource Information Systems: In Organization: Development of HRIS, Essentials of Good HRIS,Users of HRIS applications ,How HRIS is used in orgaqnisation,HRIS functions: A)Integrating the Technologies of HRB)Increased Efficiency C)Increased Effectiveness D)IT-Enabled Processes E)Cost and benefit of HRIS, Steps to Be Followed in Implementing HRIS, The role and impact of HRIS. HRIS Life Cycle/HR responsibility in each phase of HRIS development, Contemporary issues.

**Module 3:**

HR Management Process &HRIS: Modules on HR Planning, Recruitment,Selection,Placement - Module on Performance Appraisal System - Training & Development Module -Module on Pay & other Related Dimensions - Information System's support for Planning &Control.

**Module 4:**

Data Management For HRIS - Data Formats - Entry Procedure & Process – Data Storage & Retrieval - Transaction Processing - Office Automation - Information Processing & Control Functions - Design of HRIS - Relevance of Decision Making Concepts for Information System Design - HRM Needs Analysis – Concept & Mechanisms – Standard Software and Customized Software - HRIS : An Investment.

**Module 5:**

Data &Information Needs For HR Manager :Data - Sources of Data - Role of IT in HRM – IT for HR Managers - Concept, Structure, & Mechanisms of HRIS - Programming Dimensions & HR Manager - Survey of Software Packages for Human Resource Information System including ERP Software such as SAP, Oracles Financials and Ramco's Marshal [only data input, output & screens] - EHRM - Objectives - Advantages & Disadvantage

**Reference Books :**

Human Resource Information Systems- Basics, Application, Future and Direction by Dr. Michael Kavanagh and Dr. Mohan Thite  
Human Resource Information System by P.K.Gupta and Sushil Chaabra  
Human Resource Management by Gary Dessler, Pearson Publication  
Michael Armstrong, A Handbook of Human Resource Management Practice, Kogan

**Suggested Readings:**

Jawadkar, W.S., Management Information Systems, Tata McGraw Hill, New Delhi.  
Kumar, Muneesh, Business Informa House Pvt. Ltd., New Delhi.  
Davis, Gordon, B., Management Information Systems: Conceptual Foundations, Structure and Development, McGraw Hill Book Company, New Delhi.  
O'Brein, James, A., Management Information Systems – A Managerial end User Perspectives, Galgotia, New Delhi.  
Laudon, Kenneth, C., and Laudon, Jane Price, Management Information Systems – A Contemporary Perspective, Macmillan, New York.  
Davis, B. Gordon and Olson H. Margrethe, Management Information Systems, McGraw Hill Pub., New York.  
Jerome, Kanter, Management Information Systems, Prentice Hall of India, New Delhi

## COURSE OUTLINE FOR MBA FOURTH SEM

Paper Code	Title of the Paper	No of credits	IA Marks	Sem End Exam	Total Marks
D1	Management Control System	3	25	50	75
D2	MCP(PROJECT)	4	50	50	100
	<b>Total</b>	<b>7</b>	<b>75</b>	<b>100</b>	<b>175</b>
<b>Specialisation Courses</b> <i>(Students to choose as many subjects as desired subjects to minimum credits per semester as per Table above)</i>					
<b>GENERAL MANAGEMNT :</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
D3	E-Business Management	3	25	50	75
D4	Management in Government	2	25	25	50
D5	Environmental management	3	25	50	75
	<b>Total</b>	<b>8</b>	<b>75</b>	<b>125</b>	<b>200</b>
<b>MARKETING STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
D6	International Marketing	3	25	50	75
D7	Applications of Services Marketing	3	25	50	75
D8	Product Management	2	25	25	50
D9	Customer Relationship Management	2	25	25	50
	<b>Total</b>	<b>10</b>	<b>100</b>	<b>150</b>	<b>250</b>
<b>FINANCE STREAM:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	<b>Total Marks</b>
D10	Business Taxation	3	25	50	75
D11	Microfinance and Financial Inclusion	3	25	50	75
D12	International Accounting	2	25	25	50
D13	Spread Sheet Skills for Finance Professionals	2	25	25	50
D14	Goods and Service Tax	3	25	50	75
	<b>TOTAL</b>	<b>13</b>	<b>125</b>	<b>200</b>	<b>325</b>
<b>HUMAN RESOURCE:</b>		<b>No of credits</b>	<b>IA Marks</b>	<b>Sem End Exam</b>	
D15	Corporate Restructuring-Human Dimensions	03	25	50	75
D16	Strategic Human Resource Management	03	25	50	75
D17	Social Legislation for Indian managers	03	25	50	75
	<b>Total</b>	<b>09</b>	<b>75</b>	<b>150</b>	<b>225</b>

**Title : Management Control Systems.**

**Subject code: D1**

**Contact Hours:45**

**Work load: 3 Hours per Week**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Objectives:** To develop the apperception for the systems that are necessary for a CEO to control the Organization to drive the performance.

**Pedagogy:** Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars

**Module 1:**

Management Control System; Nature, basic concepts, boundaries of management control

**Module 2 :** Management Control Environment ; understanding strategies-goals, concept of strategy, corporate level strategy, business unit strategies. Goal congruence-concept, influence of informal factors on goal congruence, the formal control system, types of organization, functions of the controller

**Module 3:** Responsibility Center. Revenue centers, expense centers, administrative and support centers, research and development centers, profit center-general considerations, business unit as profit centers, other profit centers, measuring profitability. Transfer pricing-meaning, objectives, methods, pricing the corporate services, administration of transfer pricing. Measuring of assets employed, EVA vs ROI, evaluating the performance of managers and the evaluating the economic performance of the entity.

**Module 4:** Budget preparation process, nature of budget, other budgets, behavioral aspects in budgets, calculating the variances, variance in practice, limitations of variance analysis. Performance measurement systems, management compensation-incentives, characteristics of incentive, compensation plans, incentives for corporate officers and business unit managers. Control for differentiated strategies

**Module 5 :** Controls in service organization- general ideas on services organization, professional services organization, financial services organization, health care services organization, non-profit organizations.

**Module 6:** Multinational Organizations- cultural differences, transfer pricing issues, exchange rate issues.

**Module 7:** Projects; Nature of projects, the control environment-project planning, execution and evaluation.

**Reference Books:**

Management Control System- Robert Anthony,Vijay Govindrajan

Management control system-Kennet Merchant, Pearson publication

**Title: Major Concurrent Project [MCP]****Subject Code: D02****[4 credits]****Workload: Phase – I: 2 days / week for 16 weeks****Phase – II: 30 days on site of organization and institute for guidance.****Evaluation:** Project Report – 50 marks

Project Viva -- 50 marks

**Preamble**

The Major Concurrent Project (MCP) is a fully practical oriented course which has been designed to give students indepth knowledge in their field of specialization. Major Concurrent Project (MCP) is an improved version of Summer Inplant Training (SIT), which we use to have at the end of II semester. In MCP, the student will have more scope to apply knowledge. In this MCP students are encouraged to explore concepts already dealt in the class and understand its application in the field. Unlike SIT (at the end of II semester) the student, while carrying Major Concurrent Project, is more focused and would be getting continuous guidance from the external as well as internal experts. The following note presents the broad guidelines of the Major Concurrent Project.

**Title of the Course**

Major Concurrent Project (MCP)

Duration

60 days in 2 phases. (Phase – I and Phase – II)

**PROCESS / GUIDELINES:**

- 1) Each student will select a project in the area of his/her specialization in an organization. (Organization could be any company (Public/Private/NGO/ Government organization/Department etc.)
- 2) The choice of the organization has to be made in consultation with the Institute. The Institute for this purpose should assign an internal faculty member who will act as the mentor throughout the Major Concurrent Project. The assignment of mentor and choice of organization should be made by the end of first week of semester.
- 3) The study conducted by the student will be a full time effort where he/she is required to attend the Industry/business/organization/NGO for over two full days in a week. The industry expert will act as the External guide and the student is required to submit attendance details every week to his mentor.
- 4) The Institute will provide three full days- (Every week Tuesday & Wednesday or Monday & Tuesday or any 2 consecutive week days for the students, to be with the Industry/ External Guides.
- 5) The proposal for the Major Concurrent Project (MCP) should be submitted by 1<sup>st</sup> week of start of IV semester to the institute. The institute should send a CD of all proposals to Chairman BOE, KUD by 2<sup>nd</sup> week of start of IV semester, which will ensure the registration of students for Major Concurrent Project. The Institute should also make

arrangement to upload these proposals on their website. Students should prepare these proposals in consultation with the Internal and External Guide.

6) The format for the proposal is as given below:

- Topic of the study (Major Concurrent Project)
- Need for the study (Stress on Need for study-current trends in the area)
- A review of earlier research studies conducted
- Objectives of the study
- Methodology
- Proposed outcomes and benefits of the study

- 7) Major Concurrent Project will be conducted in 2 phases as above. The completed MCP report is to be submitted by the end of one week after the last day of the III semester end examinations. Late submissions should not be entertained by the Institute in any case. A soft copy on a CD of all MCP reports is to be sent to Chairman BOE, KIMS, KUD immediately after the submission date.
- 8) There shall be a mid review of MCP, to be conducted immediately after the mid semester examinations.
- 9) Separate presentations for the organizations and the Institute have to be arranged in last week of the MCP duration as per mutual convenience.
- 10) There will be a project viva-voce conducted by Karnatak University, soon after the theory examinations. The panel of examiners will be similar to SIT and as approved by the Board of Studies.

### **Deliverables**

The students are required to deliver the following without any concessions as per the dates mentioned in the above process.

- 1) MCP proposal ... (by the end of 2<sup>nd</sup> week of start of IV semester)
- 2) Mid review presentation ...(Immediately after mid-semester examination)
- 3) Submission of MCP report ... (by the end of 1<sup>st</sup> week)  
(Soft copy + Hard copy- 3 no.s)
- 4) Presentation (for organization and the Institute) (Last week of the MCP duration)
- 5) Presentation for Viva-voce examination to be conducted by KUD.  
(as per K.U. Notification)

### **Format for Major Concurrent Project Reports**

The format for the Major Concurrent Project reports should be in the following manner.

Executive Summary	....	4 pages
Introduction of the study	....	5 pages
About the organization – Brief	....	5 pages
Objectives	....	1 page
Analysis and Findings	....	15 pages
Discussion	....	10 pages
Conclusion	....	8 pages
References	....	2 pages

In certain cases, students may change the format in consultation with his mentor and the External Guide. Enough care should be taken that the Major Concurrent Project report focuses the study undertaken by the student and its findings. The report should contain minimum 50 pages written using the following format:

- i) A-4 size paper (Executive Bond)
- ii) MS Word style with Times New Roman Font
- iii) Font size -12 for Text and 14 for headings
- iv) Portrait Paper settings with 1 inch margins on all the four sides.

## GENERAL MANAGEMNT SPECIALISATION SUBJECTS

**Title: e-Business Management**

**Subject code: D3**

**Work load: 3 Hours per Week**

**Contact Hours:45**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment -25

Semester End Examination - 50

**Objective:** To understand the practices and technology to start an online business and too know how to build and manage an e-business

**Pedagogy:** Lectures, Discussions, Case studies, activities, Assignments, Projects and Seminars

### **Module I: Introduction To E-Business**

e-business, e-business vs e-commerce, Economic forces – advantages – myths – e-business models, design, develop and manage e-business, Web 2.0 and Social Networking, Mobile Commerce

### **Module II: Technology Infrastructure**

Internet and World Wide Web, internet protocols - FTP, intranet and extranet, information publishing technology- basics of web server hardware and software.

### **Module III: Business Applications**

Consumer oriented e-business – e-tailing and models - Marketing on web – advertising, e-mail marketing, affiliated programs - e-CRM; online services, Business oriented e-business, e-governance, EDI on the internet, Delivery management system, Web Auctions, Virtual communities and Web portals

### **Module IV: e-Business Payments And Security**

E-payments - Characteristics of payment of systems, protocols, e-cash, e-cheque and Micro payment systems- internet security – cryptography – security protocols – network security.

### **Module V: Legal And Privacy Issues**

Legal, Ethics and privacy issues – Protection needs and methodology – consumer protection, cyber laws, Contacts and warranties, Taxation and encryption policies.

### **Text Books:**

Harvey M.Deitel, Paul J.Deitel, Kate Steinbuhler, e-Business and e-Commerce for Managers, Pearson, 2011.

Efraim Turban, Jae K. Lee, David King, Ting Peng Liang, Deborrah Turban, Electronic Commerce –A Managerial Perspective, Pearson Education Asia, 2010.

### **Reference Books:**

Parag Kulkarni, SunitaJahirabadkao, Pradeep Chande, e-Business, Oxford University Press, 2012.

Hentry Chan & El, E-Commerce – Fundamentals and Applications, Wiley India Pvt. Ltd., 2007.

Gary P. Schneider, Electronic Commerce, Thomson Course Technology, Fourth Annual Edition, . Bharat Bhasker, Electronic Commerce – Frame Work Technologies and Applications, Tata McGraw Hill Publications, 3rd Edition, 2009.

**Title : Management in Government**

**Subject code: D4**

**Contact Hours:30**

**Work load: 2 Hours per Week**

**Credit Points:2**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Objectives :** Government is a major player in the overall society. It is one of the biggest spender of money. The principles of management are yet to reach Government as a system as it has done already in case of business and industry. This course should help a student understand.

- (i) Central Government and its functioning
- (ii) State Government and its functioning
- (iii) Problems faced at both the levels in the implementation
- (iv) Evolve effective strategies to deal with the same.

**Pedagogy :** Lectures, Assignment, Case studies, Interactions with Government officials both state and Central Govt.

### **MODULE 1**

Indian constitutions- Role and functions of Government

### **MODULE 2**

Central Government and its organization, The bureaucratic as well as political systems, Budgeting as a process., Execution or implementation and problems there in

### **MODULE 3**

State Government and its organization, The bureaucratic as well as political system, Budgeting as a process, Execution or implementation

### **MODULE 4**

Management of human resources in the Governmental context. How to motivate? Motivational strategies some leadership styles (effective)

### **Reference Books:**

Governance in India: M laxmikant  
Indian Public Administration-R.K.Arora

**Title: Environmental Management and Economic Environment of Business**

**Subject code: D5**

**Contact Hours:45**

**Work load: 3 Hours per Week**

**Credit Points:3**

**Evaluation:** Continuous Internal Assessment -25  
Semester End Examination - 50

**Module 1:Environmental Education** - Objectives, Principles, Scope and functions of environmental education. Role of NGOs.

**Module 2. Managing Natural Resources** – Importance – Water, Land.

**Module 3: Global Warming** – Problem, Implications, Concept of Carbon Credit, Role of Government and Non-Government Agencies & Businesses.

**Module 4. Disaster management** – Concept, causes and consequences, disaster mitigation.

**Module 5: Agricultural Sector** – Implications of WTO – Concept & Importance of Commodity market

**Module 6:. Industrial Policy Regulations of 1991 leading to Liberalization, Privatization and Globalization** – Emergence of BRIC economies

**Module 7 Banking Sector** – Concept & Importance of Core Banking, Retail Banking. Basel II Concept and implications , **Insurance Sector** – IRDA, Life and Non Life Insurance, Taxation concepts, Capital Market structure

**Books Recommended:-**

Environmental Policy – By. James Lester, Duke University Press  
Environmental Management System ISO 14001 – By Dr. Ashok Joshi,  
L.Ramkrishnan,Nivedita Sarnaik

## MARKETING SPECIALISATION SUBJECTS

**Title: International Marketing**

**Subject Code: D6**

**Work load: 3 hours per week**

**Evaluation:** Continuous Internal Assessment  
Semester end Examination

**Contact Hours: 45 Hrs**

**Credit Points: 3**

– 25 mar  
– 50 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of International Marketing Management. They should feel equally confident to be able to distinguish international marketing mechanics from the domestic marketing models and approaches.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Group Discussions.

**Module I: An Overview of International Marketing:** The Scope and Challenge of International Marketing, International Marketing Environment, Preparing for International Marketing Strategies

**Module II: The Dynamic Environment of International Trade:** The Cultural Environment of Global Markets, History and Geography: The Foundations of Culture, Cultural Dynamics in Assessing Global Markets, Management Style, and Business Systems.

**Module III: The Political Environment:** A Critical Concern, The International Legal Environment: Playing by the Rules: Assessing Global Market Opportunities.

**Module IV:** Developing a Global Vision through Marketing Research and Segmentation, Economic Development and the Americas, Europe, Africa, and the Middle East.

**Module V: Asia Pacific Region:** Developing Global Marketing Strategies, Orientation towards BRICS nations.

**Module VI: Global Marketing Management:** Planning and Organization, Products and Services for Consumers, Products and Services for Businesses.

**Module VII: International Marketing Channels, :** Integrated Marketing Communications and International Advertising, Promotion, Personal Selling and Sales Management, International Distribution Systems.

**Module VIII: Pricing for International Markets:** Implementing Global Marketing Strategies.

**Module IX:** Negotiating with International Customers, Partners, and Regulators: The Indian Export Scenario, the Export Import Scene in India, Import-Export Policy, Export Documentation, Export Procedure, International Technology Transfer and Counter Trade, the Trade Mark Regime.

### Text Book:

Philip R. Cateora, Mary C Gilly and John Graham, International marketing, 15<sup>th</sup> edition, McGrawHill publications.

Paul, Ramneek Kapoor, “International Marketing – Text and Cases”, Tata MCGrawHill Publications, New Gelhi.

### References:

Sak Onkvsit and John Shaw “International Marketing – Analysis and Strategy” Latest edition, Pearson Publications.

P. Subba Rao, “International Marketing”, Himalaya Publications.

**Title: Applications of Service Marketing****Subject Code: D7****Work load: 3 hours per week****Evaluation:** Continuous Internal Assessment

Semester end Examination

**Contact Hours: 45 Hrs****Credit Points: 3**

– 25 marks

– 50 marks

**Objective:** To make students to learn concepts, theories, principles, functions and applications of services Marketing.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussions, Research Article discussions.

**Module I: Bank Marketing:**

Introduction – Bank Marketing : The concept – Justifications for practicing Marketing Principles –The Users of Banking Services –The Behavioral Profile of Users –Factors Influencing The Behavioral Profile of Users- Marketing Information System –Significance of MIS to the Banking Organizations- Instrumentality of Marketing Research in Banking Organizations –Marketing Intelligence System for the Banking Organizations-Market Segmentation – Importance of Segmentation to the Banking Organizations-Criteria for Segmentation –Marketing Mix for the Banking Organizations-The Product Mix – Product Portfolio- Designing an attractive Package – Product Development –Promotion Mix-Publicity /Public Relations-Personal Selling –Sales Promotion –Word of mouth Promotion – Telemarketing –Cause related and Sponsorship Marketing –The Price Mix – The Place Mix –Expanded Marketing Mix –Process –Physical Evidence and Attractions –The People –Bank Marketing in Indian Perspective.

**Module II: Insurance Marketing:**

The concept –Users of Insurance Services –The Behavioural Profile of users-Market Segmentation in the Insurance organisations – Significance of Segmentation in the Insurance Business-Impact of Technology on the Insurance sector –E-Insurance-Marketing Information System for Insurance Organisations- Insurance Product –Product Planning and Development – The Formulation of Marketing Mix for Insurance Organizations-The product Mix – The Promotion – Telemarketing – Cause related and Sponsorship Marketing –Price Mix-Place Mix-Extended Marketing Mix in Insurance –Recommendations of Malhotra Committee – Insurance Marketing in the Indian Environment.

**Module III: Tourism Marketing:**

Introduction –Tourism : The concept –Tourist :The concept –Typology of Tourism –Tourism marketing : The concept –Users of Tourism Services –Behavioral Profile of users –Product Planning and Development –Market segmentation for Tourism –Marketing Information system for Tourism –Formulation of Marketing Mix for Tourist Organization- The Product Mix-Salient features of Tourism Product –Designing a package tour –Marketing the Brand decisions –The Promotion Mix –Advertising –Publicity –Sales Promotion –Word of Mouth Promotion –The Price Mix-The Place Mix – The Process – Physical Evidence and attractions –The people : Travel Agents , Travel Guides-Tourism Marketing in Indian Perspective.

**Module IV: Hospitality Marketing:**

Introduction –Hotel : The concept –Motel : The concept –Hotel and its Typology –Hotel Marketing : The Concept –Marketing vs. Selling the Hotel Services –Users of Hotel Services – Behavioral Profile of users –Market Segmentation for Hotel –Marketing Information system for Hotel –Product planning and development –Formulating Marketing Mix for Hotel –The Product

Mix –The Promotion Mix –The Price Mix –The Place Mix-The Process –Physical Evidence and attractions-The people –Hotel Marketing in Indian Perspective.

**Module V: Wellness And Personal Care Marketing:**

Introduction –Personal Care Marketing : The concept –Users of Personal Care services – Behavioral Profile of Users –Market Segmentation for Personal care services – Marketing Information system for personal care services –Formulation of Marketing Mix for the Personal Care services –The Product Mix-The Promotion Mix –The Price Mix-The Place Mix-The Process-The Physical Evidence and attractions-The people –Personal Care Marketing in the Indian Perspective.

**Module VI: Health Care Marketing:**

Introduction – Hospital Marketing : The Perception –Rationale behind Practising Marketing in Hospitals – Segment wise Users of Healthcare services –Behavioural Profile of users – Market Segmentation –Marketing Information System –Marketing Mix –Product Mix –Promotion Mix – Price Mix –Place Mix –Process – Physical Evidence and Attractions-People-Strategic Marketing – Consumer Protection Regulation –Hospital Marketing in Indian Perspective.

**Module VII: Event And Entertainment Marketing:**

Introduction – Entertainment Marketing : A conceptual frame work –Rationale behind practising Entertainment services –Managing Information for Entertainment Services –Behavioural Profile of Users of Entertainment services –The formulation of Marketing Mix –Product Mix- Promotion Mix- Price Mix- Place Mix – Process Mix –Physical Evidence and Attractions –People – Entertainment Marketing in Indian Perspective.

**References:.** S. M. Jha, “Services Marketing” 6<sup>th</sup> edition, Himalaya publications.

**Title: Product Management**

**Subject Code:D8**

**Contact Hours: 30 Hrs**

**Work load: 2 hours per week**

**Credit Points: 2**

**Evaluation:** Continuous Internal Assessment

– 25 marks

Semester end Examination

– 25 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Product Management.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: The theoretical foundations:** Product? Product characteristics, classification, FMCG? Product differentiation, Positioning, design, product mix and line decisions, line extensions, Competition and product strategy, The product in theory and practice, Buyer behavior, The product life cycle in theory and practice, PLC and marketing strategies, Product portfolios, product and brand relationships, product hierarchy, product mix pricing, co-branding and ingredient branding.

**Module II: New product development:** Routes of new product development, The importance, nature and management of the new product development process, New product strategy, Idea management for new product development, Screening new product ideas, Concept development, product innovation and testing, Business analysis, Product testing. Latent factors behind marketing success of new product, challenges in NPD.

**Module III: Product management:** Commercialization: test marketing and launching the new product, managing growth, managing the mature product, Successful of new product launches, new product failure experiences. Packaging, labeling, warranties, and guarantees.

**Module IV: Product elimination:** Controlling the product line: an overview of the deletion decision, reaching the decision to delete a product, implementing the deletion decision, Reprise, Product pruning.

**Module V:** Recent trends in new product development

**Text Book:**

Michael Baker and Susan Hart, Product Strategy and Management, 2/e, Pearson publications.

Rajendra Mujumdar, “Product Management” Latest edition

Philip Kotler, ‘Marketing Management’, Latest edition

**Title :Customer Relationship Management****Subject Code:D9****Contact Hours: 30 Hrs****Work load: 2 hours per week****Credit Points: 2**

**Evaluation:** Continuous Internal Assessment – 25 marks  
Semester end Examination – 25 marks

**Objective:** To make students to learn concepts, theories, principles, functions and objectives of Customer Relationship Management.

**Pedagogy:** Lectures, Assignments, Projects, Practical Exercises and Seminars, Case Discussion.

**Module I: Customer Relationship Management: Concepts and Processes:**

An Introduction to CRM; Evolution of Relationship marketing, concepts, types, evolution of CRM, CRM models, Principles of CRM, technology and software applications in CRM, CRM Integration in an Organization; customer centric approach, factors responsible for integration in CRM, Customer Loyalty and Retention; Customer life cycle, customer value, customer lifetime value, acquisition and retention of customers, CRM Process; objectives, cost and benefit analysis of CRM, 4Cs of CRM process, CRM cycle, CRM in B to C, B to B markets, CRM adoption, CRM in Marketing and Service.

**Module II: Analytical CRM:**

Database Management; levels of data abstraction, categorization of database, database applications, database warehousing, integrating data with data warehousing technology, data based management software, customer profiling and database management, market implications of database management, , Data Analysis and Data Mining; 360<sup>0</sup> view of customers, real time automated decisions, marketing messages, data analysis, data mining.

**Module III: CRM Operations:**

Customer Loyalty and Retention Management; segmentation of customers, loyalty programs, recovery management, customer complaint management, customer retention management and strategies, RFM analysis, customer recall management, CRM in Marketing Channels.

**Module IV: CRM: Technology, Implementation, and Applications:**

Technological Developments in CRM; E-CRM, CRM software, CRM solutions and its components, Sales force automation and mobile CRM, CRM Implementation; customer interface, and components, need for implementing CRM, framework for implementing CRM, implementing CRM projects, upcoming technology in CRM implementation, CRM and software vendors, choosing an appropriate CRM solution, ERP, issues in CRM implementation, ROI of CRM, Applications of CRM, Assessment of CRM; Benefits of CRM, Justifications of spending on CRM, ROI in CRM, Hurdles faced during CRM adoption.

**Text Book:**

N. H. Mallick, “Customer Relationship Management: Concepts and Processes”,  
Oxford University, Press, New Delhi.

Jagadesh Shet “Customer Relationship Management” Biztantra publication

## FINANCE SPECIALISATION

<b>Title of the paper</b>	<b>: Business Taxation</b>		
<b>Subject Code</b>	<b>: D10</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>	–	25 marks
	<b>Semester End Examination</b>	--	50 marks

**Objective:** Exposure to tax management concepts in the corporate setting and a practical overview of Goods and Services Tax.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises, Case Analysis and Seminars

### **Module 1: Corporate Tax Planning & Management**

Concept of Tax planning, Tax planning with reference to setting up a New Business; Location; Nature of Business; Tax Holiday, etc. Tax Planning with regard to Specific Management Decisions such as Mergers and Takeovers; Employees' Remuneration; Voluntary Retirement Tax Planning with reference to Financial Management Decisions such as Borrowing or Investment Decisions; Reorganization or Restructuring of Capital. (Practical Problems)

**Module 2: Treatment of Depreciation & Setoff & Carry forward of Business Losses .**  
(Practical Problems)

### **Module 3: Basic Concepts of International Taxation**

Residency Issues; Source of Income; Tax Havens; Withholding Tax, Unilateral Relief and Double Taxation Avoidance Agreements, Controlled Foreign Corporation, Advance Rulings and Tax Planning, Authority for Advance Rulings.

### **Module 4 : Tax aspects of Transfer Pricing**

Concepts, Meaning of International Transactions; Computation of Arm's Length Price & Methods; General Anti Avoidance Rules (GAAR). Discussion on recent cases.

### **Module 5: An Overview of Goods and Service Tax**

Background, Negative List Approach, Rate Structure under GST, SGST, IGST and CGST. Rate and Computation of Tax, Levy, Collection and Payment of GST. Filing of GST returns. Assessments and refunds.  
(Simple Problems)

### **Reference Books :**

Practical Approach to Direct and Indirect Taxes – Dr. Girish Ahuja & Dr. Ravi Gupta.-  
CCH Publication

Principles of International Tax Planning – Rohit Gupta – Taxmann's Publication

Direct Taxes Laws and Practice – Vinod K Singhania, Kapil Singhania- Taxmann's Pub

Corporate Tax Planning & Business Tax Procedures with Case Studies – Monica

Singhania & Vinod K Singhania – Taxmanns's Publication.

Basics of GST – Nitya Tax Associates – Taxmann's Pub

A handbook for GST in India (E-book) – CA Pritam Mahure recent edition

<b>Title of the paper</b>	<b>: Microfinance and Financial Inclusion</b>		
<b>Subject Code</b>	<b>: D11</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>	<b>–</b>	<b>25 marks</b>
	<b>Semester End Examination</b>	<b>--</b>	<b>50 marks</b>

**Objective:** The main objective of this course is to sensitize the students to the key issues linked to the whole discourse on social banking including the challenges inherent therein, in the particular context of India, and to familiarize them (the students) with the initiatives taken in the country for addressing the said issues. The course also seeks to underline how the tenets of social banking and inclusive financial system may not always be in conflict with the goal of maximizing the operating surplus of a ‘commercial’ entity like a banking institution. In this context reference is sought to be made to the evolution of the so called ‘micro finance’ initiative as a socially responsive and yet commercially viable proposition.

**Pedagogy** : Lectures, Assignments/Project, Practical Exercises and Case Analysis

**Module 1: Introduction to Microfinance** - Meaning and Evolution of Microfinance – Difference between Microfinance and Microcredit - Micro Finance as a poverty alleviation programme – Government sponsored programs and Microfinance.

**Module 2: Government Initiatives-** Major policy initiatives - Nationalisation of major commercial banks - Lead Bank Scheme (LBS) - priority sector in lending – RRBs - subsidy-linked credit programmes like PMRY, SGSY, SJSRY & SLRS, etc

**Module 3: Self Help Groups (SHGs)** - Definition membership criteria - How SHGs are formed?  
- Steps and initiatives taken to form SHGs - Role of facilitators like Anganwadi Workers, other voluntary organisations/members - Role of SHGs in micro finance - Federation of SHGs – Joint Liability Groups - Study of the Self Help Group-Bank Linkage Programme (SBLP) as an innovative strategy of microfinance evolved in India.

**Module 4: Functioning of MFIs** - Outreach and reliability - Cost to MFIs-borrowing cost, operating cost, risk cost (provision for loan losses) - Interest rate - Interest rate calculation Reducing Balance v/s Flat Rate.

**Module 5: Role and Responsibilities of Banks and Financial Institutions in micro credit** - Financial cost to banks and SHGs - Role of NABARD - Direct and indirect support – Re-finance and other Schemes - Incentives and initiatives of NABARD towards SHGs and micro credit. **Government guidelines and RBI directives on Micro Credit** - Legal aspects of deposits from and lending to SHGs.

**Module 6: Financial Inclusion** - Definition – Technology and financial inclusion - Business Correspondent Model – Business Facilitator Model - Jan Dhan Yojana – Financial Inclusion and Direct Benefit Transfer (DBT).

**Module 7: Contemporary I issues**

**Text Book:**

Microfinance Perspectives and Operations – IIBF - McMillan Publisher

**Reference Books:**

Understanding Microfinance – D.K.Panda, Wiley  
Publications. Microfinance – V.S.Somanath, Excel Books  
The Economics of Microfinance by Beatriz Armendáriz de Aghion & Jonathan Morduch  
Microfinance Handbook: An Institutional and Financial Perspective by Joanna Ledgerwood  
*The New Microfinance Handbook A Financial Market System Perspective* Edited by Joanna Ledgerwood with Julie Earne and Candace Nelson  
Microfinance In India by K. G. Karmakar  
Microfinance by V. Neelamegam, Vrinda Publications (Pvt.) Ltd  
Microfinance by O.C.Rana & Hem Raj, Himalaya Publishing House

**Web Sources:**

[www.nabard.org](http://www.nabard.org) (National Bank for Agriculture and Rural Development)  
[www.mfindia.org](http://www.mfindia.org) (Microfinance Institutions Network)  
[www.akmi.in](http://www.akmi.in) (Association of Karnataka Microfinance Institutions)  
[www.rbi.org](http://www.rbi.org) (Reserve Bank of India)  
[www.microfinancegateway.org](http://www.microfinancegateway.org)

<b>Title of the paper</b>	<b>: International Accounting</b>		
<b>Subject Code</b>	<b>: D12</b>	<b>Contact Hours</b>	<b>: 30 Hours</b>
<b>Work load</b>	<b>: 2 hours per week</b>	<b>Credit Points</b>	<b>: 2</b>
<b>Evaluation</b>	<b>: Continuous Internal Assessment</b>		<b>– 25 marks</b>
	<b>Semester End Examination</b>		<b>-- 25 marks</b>

**Objective:** The objective of this course is to examine the managerial and financial accounting function from an international perspective, focusing on the flow of information in multiple currencies, complying with reporting requirements.

**Pedagogy:** Lectures, Assignments/Project, Practical Exercises and Case Analysis

**Learning Outcomes:** Upon successful completion of this course, students will be able to:  
Understand the international dimensions of accounting; Determine the impact of international accounting practices on the business decision making process; Compare and contrast the financial reporting and disclosure under International Financial Reporting Standards, Indian generally accepted accounting practices and accounting standards in several other countries.

**Module 1: Introduction to International Accounting:** Globalization of the concept of accounting - Factors responsible for growth of international accounting - Dimensions of International accounting - Major international differences in financial reporting and their classifications

**Module 2:** IFRS an Overview: Structure of IFRS foundation and IASB – Standard setting process – IFR Standards issued till date differences between US GAAP and IFRS and their adoption.

**Module 3:** Financial reporting in United States, United Kingdom, Australia, and Japan. (The above module is supposed to focus on legal issues, International Accounting Standards (IAS), consolidation of accounts, tax systems etc). Practical exercises

**Module 4:** Special issues in international accounting - consolidation accounting - foreign currency translation – segmental reporting - overview of foreign exchange risk management and transfer pricing.

**Module 5:** International Financial Statement Analysis: Introduction – need for analysis – techniques of analysis – prospective analysis – factors affecting financial analysis – access, reliability, language and terminology barriers, timeliness of information, foreign currency issues, formats. Practical exercises.

#### **Text Book:**

International Accounting by Choi and Meek (CM), Prentice Hall, Inc.

#### **Reference Books:**

Arpon Jeffery G & Rade Baugh, Lee H., International Accounting and Multinational enterprises, John Wiley, New York.

Evans, Thomas.G. “International Accounting and Reporting”, Mc Millan, London

Gray S. J. “International Accounting and Transnational Decisions” Butterworth, London

Holzer. H . Peter, International Accounting, Croom-Helm, London

Pradhan, Bimal, Multinational Accounting, Croom-Helen, London

Rathore, Shiriu, International Accounting, Englewood Cliffs, Printice Hall, New Jersey.

Shahrokh M Saudagaran, International Accounting, Taxman Publications, New Delhi.

<b>Title of the paper</b>	<b>: Spreadsheet Skills for Finance Professionals</b>		
<b>Subject Code</b>	<b>: D13</b>	<b>Contact Hours</b>	<b>: 30 Hours</b>
<b>Work load</b>	<b>: 2 hours per week</b>	<b>Credit Points</b>	<b>: 2</b>
<b>Evaluation</b>	: Continuous Internal Assessment –		25 marks
	Semester End Examination --		25 marks

**Objective:** By the end of this course, students will be able to: Develop a “toolkit” of Excel tips and techniques, Sensitise and stress test Excel outputs from models, Problem solve within an Excel environment, Analyse large volumes of data, Rank data and analyse large data volumes, Data mine large data volumes and analyse, Confidently use Excel’s keyboard shortcuts to improve their speed and efficiency, Confidently develop Excel formulae in order to build robust solutions, Quickly and consistently format presentation-quality spreadsheets

**Pedagogy:** Lectures, Assignments/Project and Practical Exercises

**Module 1:** Introduction: Customizing Your Desktop - Switch off Iteration (Disable Iterative Calculation) - Putting Developer Tab in the Ribbon - Customize Quick Access Toolbar - Change the User Name - Pinning the File - Saving the File - Creating Templates - Customizing a New File - Design the Workbook using the CRAP Principle of Robin Williams - Leave the first column (row) blank - Leave one column blank between the headings and your workings - Leave one empty column at the end of the last working column, if you apply borders around it - Arranging the Sheets in a Logical Fashion.

**Module 2:** Functions used in Financial Models IF, NPV, IRR, PV, FV, PMT, Rate, NPER, XNPV, XIRR, MIRR, Price, ACCRINT, INDEX, MATCH, SUMIF, MOD, DATE, EOMONTH, EDATE, SUM, AVERAGE, SUBTOTAL, SUMPRODUCT, SUMIFS, ISERROR, IFERROR, TEXT, OFFSET, TRANSPOSE, SLOPE.

**Module 3:** Keyboard Shortcuts in Excel - Basic Keyboard Shortcuts - Advanced Keyboard Shortcuts - Writing Correct Formulas in Excel - Write simple (and short) formulas - Understand Relative and Absolute Reference Very Well - Remember BODMAS while writing the formulas - Understand the nature of different Errors in Excel - Using Names in Formulas - Managing Circularity in formulas.

Using Controls in Excel - Check Box - Scrollbar (Spinner) - Combo Box - Option Button - List Box - Importance of Linked Cell.

**Module 4:** Creating Useful Charts in Finance - Chart or a simple Data table? - Types of Charts in Excel - Column Chart - Line Chart - Pie Chart - Bar Chart - Area Chart - X-Y (Scatter Chart) - Stock Charts - Other Charts - Formatting a Chart - Managing the Chart Title - Managing the Legend - Managing the Vertical Axis - Managing the Horizontal Axis - Managing the Gridlines - Managing the Plot Area, Chart Area and the Data Series - Creating Creative Charts - Creating Chart without Using Excel’s Chart Feature - Creating Lots of Small Charts - Creating Dynamic Charts - Creating In-cell Charts.

**Module 5:** Understanding Macros: Recording New Macros - Executing a Macro - Understanding the Visual Basic Environment - Writing Simple Codes - Conditional Statements in VBA - Managing Loops in VBA - Managing Circularity Using Macros - Some Other Useful Macros for Finance.

Formatting Numbers - Theory of Number Formatting - Some Advanced Number Formatting Options - Keyboard shortcuts for Number Formats - Conditional Formatting - Some Confusing Number Formats.

**Module 6:** Sensitivity Analysis in Excel - Data Table - Scenario Manager - Building your own sensitivity model  
Miscellaneous Topics - Data Validation - Protecting Important Cells/File - Making Multiple Sheets Visible at the same time - Auditing a Model .

**Text Book:**

Spreadsheet Skills for Finance Professionals, Pitabas Mohanty, Taxmann Publication.

<b>Title of the paper</b>	<b>: Goods and Service Tax</b>		
<b>Subject Code</b>	<b>: D14</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	: Continuous Internal Assessment –		25 marks
	Semester End Examination --		50 marks

**Objectives: To provide the inputs to students about the insight of GST and its practice**

**Pedagogy tools: Lecture, Seminar, Assignments**

**Module-1: GST In India-An Introduction:**

Background, direct and indirect taxes, Genesis of GST in India, concept of GST, Benefits, Framework of GST, Constitutional Provisions

**Module -2: Supply Under GST**

Introduction, concept of supply (Sec.7 of CGST Act), relevant definitions, composite and mixed supplies

**Module3: Charge Of GST:**

Introduction, relevant definitions, extent, commencement , levy and collection, composition of levy

**Module -4 Exemptions From GST**

Introduction, Power of Grant Exemption from Tax [Section of the CGST Act/Section 6 of IGST Act], Goods exempt from tax, list of services exempt from tax

**Module -5 Input Tax Credit**

Introduction, definitions, eligibility conditions for taking input tax credit, appointment of credits and blocked credits, credit in special circumstances, how ITC is availed and utilised

**References:**

Websites and articles

## HUMAN RESOURCE SPECIALISATION SUBJECTS

<b>Title of the paper</b>	<b>: Corporate Restructuring – Human Dimensions</b>		
<b>Subject Code</b>	<b>: D15</b>	<b>Contact Hours</b>	<b>: 45 Hours</b>
<b>Work load</b>	<b>: 3 hours per week</b>	<b>Credit Points</b>	<b>: 3</b>
<b>Evaluation</b>	: Continuous Internal Assessment	–	25 marks
	Semester End Examination	--	50 marks

Objective: To prepare students as organizational Change facilitator.

Pedagogy: Class Session, Group Discussions, Simulations exercises, Case studies and Problem Solving Exercises, Individual assignments

### **Module 1:**

Structural Design, The functional Structure. The Divisional Structure, The Matrix Structure, The Process Structure, The Customer – Centric Structure and The Network Structure.

### **Module 2:**

Downsizing and Restructuring.

### **Module 3:**

Corporate Turnarounds, Meaning, Definition, Methods of Turnaround, The Context of Turnarounds, Turnaround Creativity, Turnaround Dynamics

### **Module 4:**

Mergers and Acquisitions, Seller's Perspective, Buyers Perspective, Letter of Intent, Due Diligence, Structuring the Deal, Valuation and Pricing of the Sellers Company, Financing the Acquisition, The Acquisition Agreement, Keeping M & A on Track, Post closing Challenge, Alternatives to M & A

### **Module 5:**

Organization Change, Sources of Change, Rethinking Organization Change, History of Change, Nature of Change Level of Change, Models of Change, Leading Organization Change, Integration and Future Needs.

### **References:**

- Organization Development and Change, Cengage Learning, 10<sup>th</sup> Edition, Thomas G Cummings and Christopher G Worley, 2015.
- Innovative Corporate Turnarounds, Sage Publication, Pradip N Khandwall 1992.
- Mergers and Acquisitions from A to Z, ----- Andrew J Sherman, Milledge A Hart
- The Complete Guide to Mergers and Acquisitions: Process Tools to Support M & A Integration at Every Level by Timothy J Galpin and Mark Herndon John Wiley and Sons.
- Organization Change : Theory and Practice, 3<sup>rd</sup> Sage South Asia Edition, W Warner Burke

### **Corporate Restructuring Cases:**

- Downsizing In Menlo Park, California Page No : 362-363.
- Honeywell IAc's Total Plant <sup>TM</sup> Reengineering Process.

Title of the paper	: <b>Strategic of Human Resources Management</b>		
Subject Code	: <b>D16</b>	Contact Hours	: <b>45 Hours</b>
Work load	: <b>3 hours per week</b>	Credit Points	: <b>3</b>
Evaluation	: Continuous Internal Assessment –		25 marks
	Semester End Examination --		50 marks

**Pedagogy** : Lectures, Assignments, case studies, seminar, project

### **MODULE 1The Concept of HRM**

HRM defined – The development of HRM concepts – Reservations about HRM – HRM and Personnel management – Reactions to HRM from Employees, Origins and development of the concept of Strategy – Strategy defined – The Fundamentals of Strategy – The Formulation of Strategy – Strategic Management.

### **MODULE 2. Concept and Overview of Strategic HRM**

Strategic HRM - Strategic Fit- Resources Based Strategic HRM. The Nature, Origins, and Implications of Strategic HRM. Linking Organizational and Human Resource Strategies. Strategic HRM in a Global Context

### **MODULE 3. Models of Strategic HRM**

General Models – The high performance working models – The high commitment management model – The high involvement management model.

### **MODULE 4. The Development and Delivery of HR Strategies**

Strategy formulation propositions – process issues – key concepts and issues – the strategic agenda – the development process – implementing HR strategies: a systematic approach.

### **MODULE 5 Making the Impact: The Role of HR**

The role of HR – New Mandate for HR – Strategic partner role – HR as the business partner – strategic role of the HR director – HR professionals as change agent – getting the fundamentals rights – views about the role of HR

### **Organizational HR Strategies and Functional HR Strategic & contemporary issues**

Organizational development – Strategies for Culture change – Strategic for Knowledge management – commitment strategic – strategies for climate of trust – organizational HR strategic in action , Resourcing Strategy – Strategy Human Resources development – Strategies for managing performances – reward strategic – employee relations strategic

**Reference Books** : Strategic Human Resources Development by Srinivas R Kandula ; Prentice – Hall India

Title of the paper	: <b>Social Legislation For Indian Managers</b>		
<b>Subject Code</b>	: <b>D17</b>	<b>Contact Hours</b>	: <b>45 Hours</b>
<b>Work load</b>	: <b>3 hours per week</b>	<b>Credit Points</b>	: <b>3</b>
<b>Evaluation</b>	: Continuous Internal Assessment – 25 marks		
	Semester End Examination	--	50 marks

### **Objectives:**

The course is designed to give inputs to the students on the relevant aspects of social legislation from different perspectives, which will go a long way in guiding them when they takeover as managers. the Constitution of India is the source of all the legislation, whether it is Corporate and Business law, Marketing Law, Industrial Law or Industrial Relations Laws. The Constitution of India is a mirror through which all aspects of the present and future norms have to be necessarily viewed.

### **Module -1: Constitution of India**

Preamble , Fundamental Rights , Directive Principle of State policy , Fundamental Duties , Union and State Judiciary , State Liability , Service under the Union and State , Freedom of Trade, Commerce and Intercourse , Tribunals

### **Module 2. Child Labour**

Meaning , Socio-Legal analysis , Judicial Approach , International Norms , National Norms

### **Module 3. Sexual Harassment at Workplace ,**

Meaning and definition , Legal Analysis , Judicial View , International Norms , National Norms

**Module 4.** Equal Remuneration Act, 1976 , Objectives , Judicial approach , International Norms , National Norms, Gender Justice , Constitutional Aspects , Legal Aspects (Appointment, Conditions of Employment etc.) , Social Norms of 21st Century Pollution Control Laws

### **Module 5. Environment and the Pollution**

Water Pollution, Noise Pollution, Public Interest Litigation. Liabilities under Tort & Contemporary issues

### **Recommended Books**

Gangadhar K D : Social legislation in India Vol I & II  
Khandekar D G : Labour Legislations  
Shrivastava P C : Social Security in India  
Malhotra O P: The law of Industrial Disputes

**KARNATAK UNIVERSITY, DHARWAD**



*Accredited by NAAC with "A" Grade  
University with Potential for Excellence*

*Regulations and Syllabus*

*for*

*P.G. Studies in*

**MICROBIOLOGY**

**(I to IV Semesters)**

*Under*

*Choice Based Credit System*

From  
2019-20 & onwards

**Regulations Governing Post-Graduate Programmes in  
Faculty of Science & Technology under Choice Based Credit System  
(Framed under Section 44(1) (c) of the K. S.U. Act, 2000)**

**1.0 Title**

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Science & Technology under the Choice Based Credit System” in Karnatak University, Dharwad

**2.0. Commencement**

These Regulations shall come into force with effect from the academic year 2008-09.

**3.0. Definitions**

- a In these Regulations, unless otherwise provided:  
“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- b “Board of Studies” means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.
- c “Compulsory Course” means fundamental paper, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d “Course Weightage” means number of credits assigned to a particular course.
- e “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g “Degree” means Post-Graduate Degree.
- h “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- k “Post Graduate Programme” means semesterised Master’s Degree Programmes excluding P.G. Diploma.
- l “Specialization course” means advanced paper offered by a Department that a student of that Department can opt as a special course.
- m “Student” means the student admitted to programmes under (k).
- n “University” means Karnatak University, Dharwad.

**4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor’s Degree programme in Science or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes in science provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as

prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of the study for the Post-Graduate Degree programme shall extend over a period of two (three in case of MCA) consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation**

The medium of instruction shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

**7.1** The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

**7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses

**7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned degree.

**7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

**7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time. P.G. Centers and affiliated colleges can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.

**7.6** The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course, from 2 to 4; and for Open Elective Course, from 2 to 4. Wherever project work/ field work/practical are involved in the course, the credits may extend to 6 or as otherwise provided by concerned programme.

**7.7** The minimum credits for P.G. Programme shall be 96. In the case of MCA, the minimum number of credits shall be 158 and in case of M.Sc. Computer Science the minimum credits are 116.

**7.8** The students shall undertake project/field work during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.

**7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department.

**7.10** The detailed programme structure for Faculty of Science & Technology shall be as prescribed and shown in Annexure-I, Annexure –Ia & Annexure-Ib.

- 7.11** The Open Elective Courses generally will have practical component, unless otherwise specified by the respective Board of Studies. The number of students admitted to the course shall commensurate with the availability of infrastructure.

**8.0. Attendance**

- 8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2** Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.
- 8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours during the semester.
- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

**9.0 Examination**

- 9.1** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G. Centers/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1** Unless otherwise provided, there shall be semester-end examination of 3 hours duration for 75/100 marks; 1.5 hours for 50 marks and 2/4 hours for 35/75 marks practical examination.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances at semester-end examinations.
- 9.1.4** The Answer scripts shall be in the safe custody of the University for a maximum period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be

retained, if the same is higher.

- 9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2. Odd Semester Examination**

- 9.2.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 9.2.2** The BOE shall scrutinize the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G. Centers/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4** The Chairperson of the Department/ Administrator of the P.G. Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6** There shall be single valuation. The examiners (Internal or External) **shall** value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar (Evaluation)'s Office at the conclusion of the valuation at the respective centers.
- 9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3. Even Semester**

- 9.3.1** There shall be a Board of Examiners to set, scrutinize and approve question papers.
- 9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.
- 9.3.3** Each answer script of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.  
Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.
- 9.3.4** Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.
- 9.3.5** In case of programmes with practical examination details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

**9.4.1** Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25% / 30% / 50% and the Semester End Examination shall carry 75% / 70% / 50% respectively, as the case may be. Courses having 25% & 30% / 50% marks as internal assessment shall have 3 / 5 marks allotted to attendance. However, in case of project work, the distribution of marks for Internal Assessment and Examination shall be left to the discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table.

For courses carrying 25 % of marks for IA, the attendance marks shall be

<b>Attendance (in percentage)</b>	<b>Marks</b>
Above 90	3
Above 80 and up to 90	2
Above 75 and up to 80	1

**9.4.4** Internal Assessment (IA) shall be based on written tests, practical and seminars. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to Semester Examination, shall be preserved by the department/Centers/Colleges for a period of one year from the date of semester examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The dissertation/project work viva-voce shall be conducted by an internal and external examiner.

#### **10.0. Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

#### **11.0 Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However,

Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

**12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

Percentage of marks	Grade Points	Grade Letter
75 and above, up to 100.00 %	7.50 to 10.00	A
60 and above but less than 75 %	6.00 and above but less than 7.5	B
50 and above but less than 60 %	5.00 and above but less than 6.0	C
40 and above but less than 50 %	4.00 and above but less than 5.00	D
less than 40.00 %	Less than 4.00	F

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester =

Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester =

Sum of the CP of the I Sem + Sum of the CP of II Sem. ÷ Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly.

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

Cumulative Grade Point Average (CGPA)	Class to be awarded
7.5 to 10.0	First class with Distinction
6.0 and above but below 7.5	First Class
5.0 and above but below 6.0	Second Class

**13. Miscellaneous:**

**a** Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.

[illegible]

Course-I	MB CT 4.1	04	25	15	75	45	100	60	6.00	24.00
Course-II	MB CT 4.2	04	25	15	75	59	100	74	7.40	29.60
Course-III	MB CT 4.3	04	25	15	75	28	100	43	4.30	17.20
Course-IV	MB CP 4.4	02	15	06	35	34	50	40	8.00	16.00
Course-V	MB CP 4.5	02	15	06	35	34	50	40	8.00	16.00
Course-VI	MB CP 4.6	02	15	06	35	34	50	40	8.00	16.00
Course-VII	MB CPJ 4.7	06	25	20	125	100	150	120	8.00	48.00
		24					600			185

MB refers to course abbreviations, 4.1 refers to IV semester course 1

$$\text{GPA for IV Semester} = \text{CP (IV Sem)} / \text{Credits (IV Sem)} = 185/24.00 = 7.71$$

$$\text{GPA for I Semester} = \text{CP (I Sem)} / \text{Credits (I Sem)}$$

$$\text{CGPA for I Semester} = \text{GPA for I Semester}$$

$$\text{CGPA for II Sem} = \frac{\text{CP (ISem)} + \text{CP (II Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits (III Sem)}}$$

$$\text{CGPA for the Programme} = \frac{\text{CP (I Sem)} + \text{CP (II Sem)} + \text{CP (III Sem)} + \text{CP (IV Sem)}}{\text{Credits (I Sem)} + \text{Credits (II Sem)} + \text{Credits(IIISem)} + \text{Credits(IVSem)}}$$

(\*CP: Credit Points)

**KARNATAK UNIVERSITY, DHARWAD**  
**P.G. DEPARTMENT OF STUDIES IN MICROBIOLOGY**  
**M.Sc. DEGREE IN MICROBIOLOGY**  
**CHOICE BASED CREDIT SYSTEM (CBCS) SYLLABUS**

**Preamble:**

Microorganisms are the most versatile and adaptable forms of life on earth, and have existed here for some 3.5 billion years. Indeed, for the first 2 billion years of their existence, prokaryote alone ruled the biosphere, colonizing every accessible ecological niche, from glacial ice to the hydrothermal vents of the deep-sea bottoms. Over their long period of global dominance, prokaryotes also changed the earth, transforming its anaerobic atmosphere to one rich in oxygen and generating massive amounts of organic compounds. Eventually, they created an environment suited to the maintenance of more complex forms of life. Today, the biochemistry and physiology of bacteria and other microorganisms provide a living record of several billion years worth of genetic responses to an ever-changing world. Thus, it is likely that representative of most of the microbial species that existed before humans are still here to be explored

The scope of microbial processes has enlarged tremendously during last 20 years or so. The efforts are made to explicit the potentiality of microbial systems in the development of industry, medicine, agriculture and forestry. Microorganisms possess an array of unique characteristics that render them as most ideal organisms for use in these sectors. Microorganisms are thus vital to economy of any country. The microbiology includes virology, bacteriology, mycology, phycology and protozoology. The careers in microbiology are challenging rewarding and varied. The critical mass of Biotechnological/ Microbiological companies in areas of Pharmaceutical, Agriculture, Sericulture, Health care system, food processing and Bioinformatics etc., to help us to sustain the growth of Biotechnological/Microbiological industry there by providing the manpower to biotechnology/microbiology industry to fulfill this objective. With the advent of recombinant DNA technology, researches in microbiology enabled scientists to produce transgenic fungi and bacteria with new genetic traits. Conceptually the way, one studies living organisms has changed the fundamental way as these seems to be very little difference between microbes and higher organisms at the center stage of revolution called Biotechnology. This is perhaps the reason for all students of biology to grasp the fundamentals of microbiology.

Microbiology impinges on almost every aspect of human life. This syllabus forms a solid foundation and provides a broad insight into the discipline for the students who intend to pursue microbiology at Post-Graduate level. Candidates of M.Sc. Microbiology, in addition to finding job opportunities in pharmaceutical, food and beverage industries can find opportunities in biotechnology, R & D programmes, teaching assignments and self-employment.

## **M.Sc. DEGREE IN MICROBIOLOGY**

The department offers two years M.Sc. course in Microbiology of four semesters with Choice Based Credit System (CBCS). Following are the Regulations governing the M.Sc. course in Microbiology offered by Karnatak University under Choice Based Credit System (KU-CBCS) from the academic year 2008-09.

### **Regulations Governing Post-Graduate Programme in the Faculty of Science and Technology Under Choice-Based Credit Scheme (CBCS)** *(Framed under Section 14(1) (c) of K.S.U. Act, 2000)*

#### **1.0 Title**

The regulations shall be called Karnatak University, Regulations Governing Postgraduate programmes under the “Choice Based Credit System” in Master of Science in Microbiology

#### **2.0 Commencement**

These Regulations shall come into forces from the academic year 2008-2009.

#### **3.0 Definitions**

- a. In these Regulations, unless otherwise provided: “Academic Council” means Academic Council of the University constituted according to the *Karnatak State Universities Act, 2000*.
- b. “Board of Studies” means P.G. Board of Studies of the University, Adhoc/Combined and Steering Committees of International Diploma Programme in the Discipline/subjects concerned.
- c. “Compulsory Course” means fundamental paper, which the student admitted to a Particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d. “Course Weightage” means number of credits assigned to a particular course.
- e. “Credit means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f. “Cumulative Grade point Average (CCPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g. “Degree” means Post-Graduated Degree.
- h. “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations
- i. “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j. “Open Elective Course” means a paper offered by a Department to the students of other Departments.
- k. “Post-Graduate Programme” means semesterised Master’s Degree Programmes excluding P.G. Diploma.

- l. “Specialization course means advanced paper offered by a Department that a student of that Department can opt as a special course
- m. “Student” means the student admitted to programmes under (k).
- n. “University” means Karnatak University, Dharwad

#### **4.0 Minimum Eligibility for Admission**

B.Sc. with any two biological science subjects of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per ordinance of the course.

The reservations, award of classes, attendance and evaluation are as per University regulations and statutes issued in this regard from time to time

**Intake capacity: Total intake of students for M.Sc. degree in Microbiology is 40 for the First semester and may vary as prescribed by the University**

#### **5.0 Duration of the programme**

The Durations of the study for the Post-Graduate programme shall extended over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to complete the programme with due approval from the Registrar. Candidate shall not register for any other regular course other than Diploma or Certificate courses being offered on the campus during the durations of P.G. Programme

#### **I. Medium of Instruction:**

The medium of instruction shall be English.

### **Programme Structure**

**As per the University regulations for CBCS (Refer Annexure-I)**

**Course Structure and Scheme of Examination for**

**M.Sc. MICROBIOLOGY**

**FIRST SEMESTER**

Sl. No	Paper code No and Title Compulsory Courses and Open Elective Course	Credits	No of Hrs/ week Theory / Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
	<b>A. Core Subjects</b>						
1.	MB CT 1.1- General Microbiology	4	4	3	25	75	100
2.	MB CT 1.2- Microbial Diversity and Taxonomy	4	4	3	25	75	100
3.	MB CT 1.3- Microbial Techniques	4	4	3	25	75	100
4	MB CT 1.4- Microbial	4	4	3	25	75	100

	Physiology and Metabolism						
	<b>B. Practical</b>						
5.	MB CP 1.5 Based on MB CT 1.1	2	4	4	15	35	50
6.	MB CP 1.6 Based on MB CT 1.2	2	4	4	15	35	50
7.	MB CP 1.7 Based on MB CT 1.3	2	4	4	15	35	50
8.	MB EP 1.8 Based on MB ET 1.4	2	4	4	15	35	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>160</b>	<b>440</b>	<b>600</b>

### M.Sc. MICROBIOLOGY SECOND SEMESTER

Sl. No	Paper code No and Title Compulsory Courses and Open Elective Course	Credits	No of Hrs / week Theory / Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
	<b>A. Core Subjects</b>						
1.	MB CT 2.1- Microbial Genetics and Molecular Biology	4	4	3	25	75	100
2.	MB CT 2.2- Computer Applications, Bioinformatics and Biostatistics	4	4	3	25	75	100
3.	MB CT 2.3- Genetic Engineering	4	4	3	25	75	100
	<b>B. Elective</b>						
4.	MB ET 2.4- Fundamentals and applications of Microbiology	4	4	3	25	75	100
	<b>C. Practical</b>						
5.	MB CP 2.5 Based on MB CT 2.1	2	4	4	15	35	50
6.	MB CP 2.6 Based on MB CT 2.2	2	4	4	15	35	50
7.	MB CP 2.7 Based on MB CT 2.3	2	4	4	15	35	50
8.	MB EP 2.8 Based on MB ET 2.4	2	4	4	15	35	50

	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>160</b>	<b>440</b>	<b>600</b>
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### M.Sc. MICROBIOLOGY THIRD SEMESTER

Sl. No	Paper code No and Title Compulsory Courses and Open Elective Course	Credits	No of Hrs/ week Theory / Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
	<b>A. Core Subjects</b>						
1.	MB CT 3.1-Environmental Microbiology	4	4	3	25	75	100
2.	MB CT 3.2- Agricultural Microbiology and Plant pathology	4	4	3	25	75	100
3.	MB CT 3.3- Food and Dairy Microbiology	4	4	3	25	75	100
	<b>B. Elective</b>						
4.	MB ET 3.4- Food and Fermentation Technology	4	4	3	25	75	100
	<b>C. Practical</b>						
5.	MB CP 3.5 Based on MB CT 3.1	2	4	4	15	35	50
6.	MB CP 3.6 Based on MB CT 3.2	2	4	4	15	35	50
7.	MB CP 3.7 Based on MB CT 3.3	2	4	4	15	35	50
8.	MB EP 3.8 Based on MB ET 3.4	2	4	4	15	35	50
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>28</b>	<b>160</b>	<b>440</b>	<b>600</b>

### M.Sc. MICROBIOLOGY FOURTH SEMESTER

Sl. No	Paper code No and Title Compulsory Courses and Open Elective Course	Credits	No of Hrs/ week Theory / Practical	Duration of exam in Hrs Theory/ Practical	Internal Assessment Marks Theory / Practical	Marks at the Exams	Total Marks
	<b>A. Core Subjects</b>						
1.	MB CT 4.1- Immunology and Immunotechnology	4	4	3	25	75	100
2.	MB CT 4.2- Medical Microbiology	4	4	3	25	75	100

3.	MB CT 4.3- Bioprocess and Fermentation Technology	4	4	3	25	75	100
	<b>B. Practical</b>						
4.	MB CP 4.4 Based on MB CT 4.1	2	4	4	15	35	50
5.	MB CP 4.5 Based on MB CT 4.2	2	4	4	15	35	50
6.	MB CP 4.6 Based on MB CT 4.3)	2	4	4	15	35	50
7.	MB CPJ 4.7 Project Work/ Dissertation	6	8		15	125	150
	<b>Total</b>	<b>24</b>	<b>32</b>	<b>21</b>		<b>455</b>	<b>600</b>

**MB-CT: Microbiology Core Theory**

**MB-ET: Microbiology Elective Theory**

**MB-CP: Microbiology Core Practical**

**MB-EP: Microbiology Elective Practical**

**MB-CPJ: Microbiology Core Project**

### **SELECTION OF ELECTIVES**

In all the 'Science departments' number of seats available for the Electives depends on the facilities within the departments. **The selection shall be done on merit-cum choice basis, based on the aggregate marks at the degree level.** Candidate is required to give their Electives choice in preferential order at the time of admission

**At, present, CBCS in Science Faculty is applicable on the Main campus, K.U. Dharwad only**

Sl. No	Department	Sem ester	Electives	Intake
1	Botany	I	Biodiversity	44
		II	Medicinal Plants	
		III	Plant Biotechnology	
2	Biochemistry	I	Introduction to Biochemistry	15
		II	Biochemical Techniques	
		III	Clinical Biochemistry	
3	Biotechnology	II	Molecular Cell Biology	20
		III	Plant and Animal Tissue culture	
4	Chemistry	I	Applied Inorganic Chemistry	50
		II	Applied- Organic Chemistry	
		III	Applied- Physical Chemistry	
5	Computer Science	I	Computer Concepts and Office automation	60
		II	Programming in C-Language and Mat lab	
		III	Internet information and Web Designing	
6	Electronics	I	Basic Electronics	25
		II	Linear Integrated Circuits	
		III	Communication and digital circuits	

7	Geography	I	Geography of natural hazards and disaster management	30
		II	Regional Geography of India and Karnataka	
		III	Biogeography	
8	Applied Genetics	I	Human Genetics	20
		II	Molecular Biology Techniques	
		III	Genetic Disorders and Counseling	
9	Geology	I	Paleontology	20
		II	History of Earth	
		III	Remote sensing	
10	Mathematics	I	Computational methods I and II	70
		II	Fuzzy sets and fuzzy logic I and II	
		III	Discrete Mathematical Structures I and II	
11	Microbiology	II	Fundamentals and applications of Microbiology	20
		III	Molecular Microbiology	
12	Physics	I	Modern physics	60
		II	Instrumental Methods	
		III	Introductory Photonics	
13	Statistics	I	Statistical Methods	30
		II	Bio-Statistics	
		III	Applied Statistics	
14	Zoology	I	Environmental Biology	30
		II	Animal Behavior	
		III	Economic Zoology	
15	MCA	I	Computer Concepts and Office automation	60
		II	Programming in C-Language and Mat lab	
		III	Internet information and Web Designing	

### **Scheme of Examinations:**

- i. The examination will be conducted at the end of the each semester
- ii. Each theory course will be have a question paper of 3 hours of duration and maximum marks of 75
- iii. Each practical course will have examination of 4 hours duration and maximum marks of 35

### **QUESTION PAPER PATTERN:**

#### **A) THEORY**

There shall be a total of three sections, Section-A and Section-B of 15 marks each and Section-C of 45 marks

- 1) Section-A shall have total 8 questions of 3 marks each and candidates should answer any five of them
- 2) Section-B shall have a total 5 questions of 5 marks of each and candidates should answer any three of them
- 3) Section-C shall have a total 5 questions of 15 marks of each and candidates should answer any three of them

**The same scheme is applicable to both core and elective theory papers**

## **B) PRACTICALS**

The mark allotted for practicals is 50, out of which 15 is for internal and 35 is for Semester final.

<b>The 35 marks is to be divided as follows</b>	<b>Marks</b>
1. Principle and Procedure writing	5
2. Experiments	20
3. Viva	5
4. Records	5

<b>Total</b>	<b>35 marks</b>
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**The same scheme is applicable to both core and elective practical papers**

## **C) PROJECT /DISSERTATION EVALUATION:**

1. Internal assessment	:	25 marks
2. Evaluation of dissertation	:	75 marks
3. Viva-voce	:	50 marks

**Total : 150 marks**

## **Award of Gold medals:**

The following gold medals will be awarded to the students for standing highest at the M.Sc. Microbiology Examination

- 1) Smt. Gangabai R Patil - Arishinagodi Gold Medal
- 2) Shri Vasudev Raghunath Kasbekar- Ankola Gold medal
- 3) Late Shri Murigeppa Chigateri – Gold Medal

## **Co-curricular Activities:**

Seminars, tutorials and group discussions will be conducted periodically. Study tours may also be arranged. However, these activities do not carry any marks.

## **Microbiology Society:**

The Department has an active “Microbiology Society” under the auspicious of which several invited lectures by distinguished scientists and professor are organized every year. All the faculty members, research students and M.Sc. students are the members of the Microbiology Society. Special lectures sponsored by University are also arranged in the department. The Microbiology society also organizes educational tours, sports and cultural activities for the staff and students of the department.

# M.Sc Microbiology

## PROGRAMME SPECIFIC OUTCOMES (PSOS)

After completion of this programme, the student will be able to:

1. Identify and classify the various microorganisms. Understand the logic of Microbiology, knowledge organization and its significance
2. Understand the information needs and requirements of different instruments. Learn various microbial techniques like Microscopy, Staining, Chromatography, Electrophoresis and Radio isotope techniques user communities and develop new services and facilities.
3. Learn the practical and managerial skills to handle the microorganisms. understand the physiology and metabolism of the organisms.
4. Gain the knowledge on computer applications using different softwares, Bioinformatics tools, and Biostatistical analysis and its applications in Molecular Biology and Genetic Engineering.
5. Effectively use Information concerning Application of Microbiology in the field of Environment, Agriculture, Plant Pathology, Food and Dairy Technology Microbial diversity as a source of innovations in biotechnology, Biotechnological approaches to improve microbial diversity and bio-productivity. will be dealt with in M. Sc. III Sem.
6. Contribute to microbiology as profession by identify diseases and their causative agents, Bioprocess Engineering and Fermentation Technology. Inculcating research aptitude, skills and other necessary soft skills.

### MICROBIOLOGY FIRST SEMESTER

#### MBCT 1.1 - GENERAL MICROBIOLOGY

##### **Course Outcomes**

<b>Paper Code and Name</b>		<b><u>MBCT 1.1 - GENERAL MICROBIOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Identify and classify the various microorganisms	
CO 2	Use various microbial techniques like Microscopy, Staining, Chromatography, Electrophoresis and Radio isotope techniques	
CO 3	understand the physiology and metabolism of the organisms.	
CO 4	Learn about the different groups of Microorganisms	

<b>Particulars</b>
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<b>Unit- 1 History and Scope of Microbiology:</b>	
Introduction to Microbiology, Spontaneous generation theory, Contributions of Antony van Leeuwenhoek, Louis Pasteur, Robert Koch, Joseph Lister, Edward Jenner and Alexander Flemming. Beneficial and harmful microorganisms, Introduction to branches of Microbiology : a) Air, b) Water, c) Sewage, d) Soil, e) Dairy, f) Food, g) Medical, h) Industrial, i) Biotechnology j) Geo-microbiology	<b>09 Hrs</b>
<b>Unit – 2 Prokaryotic and Eukaryotic cells:</b>	
Introduction and evolution of Prokaryotic and Eukaryotic cells, Structural organization of Prokaryotic and Eukaryotic cells, Major groups of Microorganisms – Viruses, Bacteria, Algae, Fungi and Protozoa.	<b>08 Hrs</b>
<b>Unit -3 Viruses:</b>	
History and development of virology; Types and classification of viruses; Structural organization of viruses with examples: Capsids, Nucleic acids, Envelope; Structure of T4 bacteriophage, TMV, HIV. Brief introduction about Viroids, Virions and Prions.	<b>07 Hrs</b>
<b>Unit 4 Bacteria:</b>	
Morphology of Bacteria size, shape, arrangements, Structure and functions of Cell wall, Cell membrane, Capsule and slime layer, Flagella, Pili, Nuclear material, Mesosome, Ribosome; General Characteristics of bacteria Spirochetes, <i>Rickettsia</i> , <i>Chlamydia</i> , <i>Mycoplasma</i> , <i>Cyanobacteria</i> , <i>Actinomyces</i> , <i>Archeobacteria</i> ; Growth and reproduction of bacteria- effect of nutritional and environmental factors on bacterial growth	<b>09 Hrs</b>
<b>Unit 5 Fungi:</b>	
History and scope of Mycology; General Characteristics of Fungi ; Classification and Identification of fungi- Basidiomycetes, Ascomycetes, Deuteromycetes, Oomycetes, Hypochytriomycetes and Symbiotic fungi (Lichens); Growth and reproduction of fungi- effect of nutritional and environmental factors on fungal growth.	<b>07 Hrs</b>
<b>Unit 6 Algae:</b>	
History and development of Algae; General Characteristics of Algae: Classification, Growth and reproduction of Algae; Cultivation of algae, media, photo-bioreactors, Economic importance of Algae: <i>Spirulina</i> , <i>Chlorella</i> , <i>Nostoc</i> and <i>Anabaena</i> .	<b>05 Hrs</b>
<b>Unit 7 Protozoa:</b>	
History of Protozoa; Classification, Growth and reproduction of Protozoa. General Characteristics of Protozoa: <i>Paramecium</i> , <i>Amoeba</i> , <i>Euglena</i> , <i>Trypanosoma</i> and <i>Plasmodium</i> .	<b>05 Hrs</b>
<b>PRACTICALS</b>	
<b>MB CP 1.5 Based on MB CT 1.1 - General Microbiology</b>	
<ol style="list-style-type: none"> <li>1. Safety Measures in Microbiology laboratory.</li> <li>2. Preparation of media and stains for microbial work.</li> <li>3. Study of Instruments – Autoclave, Hot air Oven, Incubator, Laminar airflow, Centrifuge, pH meter, Colorimeter, Spectrophotometer.</li> <li>4. Isolation of different groups of microorganisms (Algae, Fungi, Bacteria and Protozoa) by various methods.</li> <li>5. Calibration of Microscope and Micrometry.</li> <li>6. Study of motility of cells by hanging drop technique.</li> <li>7. Study and Staining of different groups of microorganisms- Algae, Fungi, Bacteria and Protozoa.</li> </ol>	

8. Camera Lucida.	
9. Effect Temperature and pH on growth curve of bacteria ( <i>E.coli</i> ).	
10. Effect of antibiotics on bacterial growth – paper disc and cup plate method.	
<b>REFERENCES</b>	
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2. Microbiology Pelczar, Chan and Krieg. (Indian edition)	
3. Microbiology Vol II Power and Daginawala.	
4. Outlines of Biochemistry Cohn and Stumpf.	
5. Microbiology by Dubey & Maheswari	
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7. Tobin and Morel (1997). Asking about CELLS. Saunders college publishing. N.Y	
8. Cooper, G. M (1997): THE CELL: A molecular approach ASM Press, USA.	
9. De Robertis and De Robertis (1998) – Cell and Molecular Biology, 8 <sup>th</sup> edn Saunders, New York.	
10. Prescott. D.M (1998) Cells, Principles of molecular structure and functions. Jones Bartlett Publishers, Boston.	
11. Garret R.H and Gresham, C.M. (1995) Molecular aspects of cell Biology, International Edition Saunders College Publishing, New York	

### **MB CT 1.2 – MICROBIAL DIVERSITY AND TAXONOMY**

#### **Course Outcome**

<b>Paper Code and Name</b>	<b>MB CT 1.2 – MICROBIAL DIVERSITY AND TAXONOMY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify and classify the various microorganisms
CO 2	understand the concepts and scope of microbial taxonomy and diversity
CO 3	understand the physiology and metabolism of the organisms.
CO 4	skills and have a Biotechnological approach towards Ecology, diversity and Bioproductivity

<b>Particulars</b>	<b>No of Hours Total (50 Hours)</b>
<b>Unit 1 Microbial Taxonomy:</b>	
Taxonomic ranks, nomenclature rules, identification, Classification systems, microbial diversity and evolution	<b>06 Hrs</b>
<b>Unit 2 Classical taxonomy:</b>	
Haeckle's three kingdom concepts, Whittaker's five-kingdom concept, three domain concept of Carl Woese criteria used for classification of microorganisms, Classification according to Bergey's manual of systematic bacteriology.	<b>10 Hrs</b>
<b>Unit 3 Recent trends in microbial taxonomy:</b>	
a. Chemo-taxonomy – Cell wall components, lipid composition, isoprenoid sequences, b. Cytochrome composition, amino acids, sequences of proteins, protein	<b>08 Hrs</b>

profile, DNA c. DNA homology, RNA homology, G+C ratio, RNA sequencing. d. Numerical taxonomy. e. Serological Methods. Molecular methods in taxonomy.	
<b>Unit 4 Microbial Diversity:</b>	
Concepts and scope, methods used in the study of microbial taxonomy and diversity	<b>04 Hrs</b>
<b>Unit 5 Diversity of microorganisms</b>	
Diversity of microorganisms at different levels of Assessment and measure of microbial diversity, Factors influencing microbial diversity	<b>04 Hrs</b>
<b>Unit 6 Microbial interaction</b>	
<b>Microbial interaction-</b> Basic principles and types, intra and inter-specific illustrations	<b>04 Hrs</b>
<b>Unit 7 Ecology of microbial cells</b>	
Ecology of microbial cells and population ecology, Distribution and significance of Viruses, Bacteria, Fungi, Algae and Protozoa	<b>10 Hrs</b>
<b>Unit 8 Microbial diversity</b>	
Microbial diversity as a source of innovations in biotechnology, Biotechnological approaches to improve microbial diversity and bio-productivity.	<b>04 Hrs</b>
<b>PRACTICALS</b>	
<b>MBCP 1.6 Based on MBCT-1.2 Microbial Diversity and Taxonomy</b>	
1. Isolation and Enumeration of Bacteria, Actinomycetes, Fungi and Yeasts from soil, Water and air Samples using selective media. 2. Isolation and Enumeration of Microorganisms in polluted environments. 3. Isolation and Enumeration of Microorganisms in Extreme environments. 4. Study of Biochemical tests-(IMVIC test, Urease test, Citrate utilization test, Gelatin Hydrolysis test, Starch hydrolysis test, Cellulose degradation test, Catalase test, Oxidase test, Coagulase test, H <sub>2</sub> S Production test, Nitrate Reduction, Optochin Sensitivity test, Esculin Hydrolysis test) 5. Microbial taxonomy- DNA Homology test and Serological Methods 6. Observation of permanent slides a) Algae: <i>Cyanobacteria Spirulina, Anabaena Chlorella, Scenedesmus, Spirogyra, Diatoms and Gracilaria.</i> b) Fungi: <i>Pythium, Rhizopus, Saccharomyces, Penicillium, Aspergillus, Fusarium, Agaricus.</i> c) Virus infected Plant materials TMV/Bean mosaic. d) Protozoa: <i>Euglena, Paramaecium, Entamoeba histolytica</i>	
<b>REFERENCE</b>	
1. Magurran A.E, (1998) – Ecological diversity and its measure. Princeton University Press, Princeton, N.J. 2. Cowld, D (1999) – microbial Diversity, Academic Press. 3. Wilkinson, J.F, (1997) Basic Microbiology. Panima Book Distributors. New Delhi. 4. Sneath P.H.A, Mair. N.S, Elizabeth, M. Bergey's Manual of Systemic Bacteriology. 5. Flesentein J. (1983) – Numerical Taxonomy. Nato ASI Series, Springer-Verlag N.Y. 6. Biswas, S.B and Anitha Biswas (1997) – An Introduction to viruses. 4 <sup>th</sup> Revised Edition, Vikas Publishing house Pvt. Ltd. New Delhi. 7. Breiman, L, Friedman, J.H, Olsen, R.A. and Stone, C.J (1984) – Classification and regression Trees. Wadsworth and Brooks/ Cole, Pacific Grav, CA. 8. Alexopoulos C .J and Mims (1979) Introductory Mycology, Wiley Eastern Limited. New Delhi. 9. Atlas R. M (1998) Microbiology, Fundamentals and Applications 2 <sup>nd</sup> Edn. Mac Millan	

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11. Ram R C (2007) Microbial Diversity-Modern Trends, Mittal publications. New Delhi.
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13. Singh, H.B., Vijai, G.K and Jogaiah, S. 2018. New and Future Developments in Microbial Biotechnology. Elsevier Publications, UK.

### **MB CT 1.3- MICROBIAL TECHNIQUES**

#### **Course Outcomes**

<b>Paper Code and Name</b>	<b>MB CT 1.3- MICROBIAL TECHNIQUES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Identify different types of microscope and specimen preparation accordingly
CO 2	Acquainted with physical and chemical methods of sterilization
CO 3	Understand the methods of isolation and culture of microorganisms
CO 4	Aware of types of stains and various staining techniques
CO 5	Taught the principles types, and applications of chromatography, electrophoresis radioisotopic techniques

<b>Particulars</b>	<b>No of Hours Total (50 Hours)</b>
<b>Unit 1 Microscopy &amp; specimen preparation</b>	
Microscopy –Basic principles and applications of light, phase, fluorescent, Bright field, Dark field and electron microscopes (TEM & SEM), Confocal microscopy, Scanning probe microscopy, Micrometry. <b>Sample preparations:</b> fixing of specimens, preparation of blocks, microtome, cytometer and flow-cytometer.	<b>08 Hrs</b>
<b>Unit – 2 Basic principles and methods of sterilization:</b>	
Physical methods: Dry and moist heat, Filtration, Radiation, Chemical methods: Phenols, Alcohols, Halogens, Heavy metals, Aldehydes, Quaternary ammonium compounds, disinfectants and gases	<b>03 Hrs</b>
<b>Unit -3 Microbiological media:</b>	
Definition, components, types and preparation, enrichment and preservation of media, pH and buffers	<b>02 Hrs</b>
<b>Unit 4 Isolation of microbial cultures:</b>	
Serial dilution, Inoculation techniques: Spread plate, Streak plate, Pour plate, Micromanipulator method, Colony morphology and characteristics of cultures. Maintenance and preservation of pure cultures, Culture collection centers- National and International	<b>05 Hrs</b>
<b>Unit 5 Stains and Staining Techniques:</b>	
Nature of stains, Principle, Mechanism, Types and Method of Staining: Simple, negative, differential and structural staining	<b>03 Hrs</b>

<b>Unit 6 Measurement of Microbial growth:</b>	
Direct method, direct microscopic plate, Standard plate count, Filtration, MPN, Indirect method, Turbidity, Metabolic activity & Dry weight	<b>03 Hrs</b>
<b>Unit 7 Analysis of metagenomics:</b>	
They will know skills and have a Metagenomics, Culture independent analysis of microbes, Phospholipids, Fatty acids analysis, Fluorescent in situ hybridization (FISH), Genomic <i>in situ</i> Hybridization (GISH).	<b>03 Hrs</b>
<b>Unit 8 Chromatographic techniques:</b>	
<b>Chromatographic techniques:</b> <ol style="list-style-type: none"> <li>Principles, types and applications of Chromatography</li> <li>Gas Chromatography, GC-MS, LC – MS / MS, MALDI TOF mass spectrometer</li> <li>Ion Exchange Chromatography, gel permeation, Affinity and reverse phase chromatography</li> <li>HPLC, FPLC&amp; UPLC</li> </ol>	<b>08 Hrs</b>
<b>Unit 9 Electrophoresis:</b>	
Types of electrophoresis, Paper and Gel electrophoresis (Starch, Acrylamide and Agarose), Capillary, Disc and Slab, Vertical gel electrophoresis (SDS-PAGE, native PAGE, Isoelectrofocussing and 2-D gel, Immunoelectrophoresis, Pulse-field Gel electrophoresis (PFGE), Blotting of nucleic acids and proteins	<b>06 Hrs</b>
<b>Unit 10 Spectroscopy:</b>	
Spectroscopy: Principle and applications of spectrophotometer- UV/visible, fluorescence, circular dichroism, Raman spectra, NMR and ESR spectroscopy, Mass Spectrometry, X-ray diffraction and crystallography	<b>07 Hrs</b>
<b>Unit 11 Radio isotopic Techniques:</b>	
<ol style="list-style-type: none"> <li>Nature of radioactivity and general principles of radio-isotopic techniques</li> <li>Methods of detection of radioactivity – gas ionization (GM counter), excitation (scintillation) and exposure of photographic emulsions (autoradiography).</li> <li>Methods of using radioisotopes – radioisotope tracer technique, isotope dilution assay and other methods</li> </ol>	<b>02 Hrs</b>
<b>PRACTICALS</b>	
<b>MB CP 1.7 based on MB CT 1.3 - Microbial Techniques</b>	
<ol style="list-style-type: none"> <li>Microscopy – Compound, Dark field, Phase contrast, Fluorescent, Electron, (SEM and TEM).</li> <li>Sterilization technique – physical methods and chemical methods.</li> <li>Preparation of culture media – broth, semisolid, and solid media.</li> <li>Isolation of pure culture microorganism and cultivation</li> <li>Isolation and enumeration of microorganisms by serial; dilution methods.</li> <li>Staining techniques <ol style="list-style-type: none"> <li>Simple and Negative Staining</li> <li>Differential staining – Gram staining. Acid fast staining,</li> <li>Structural Staining - flagellar staining, Endospore staining, capsule staining and cell wall staining</li> <li>Reserved food materials – starch granules, glycogen granules, and volutin granules.</li> </ol> </li> <li>Study of spectrophotometer and colorimetric techniques. <ol style="list-style-type: none"> <li>Extraction of microbial pigments and profiling using UV-Vis spectrophotometer</li> <li>Colorimetric determination of any one amino acid.</li> </ol> </li> <li>Study of chromatographic techniques. <ol style="list-style-type: none"> <li>Paper Chromatography of amino acids and sugars.</li> </ol> </li> </ol>	

b. Separation of pigments by adsorption chromatography. c. Quantitative estimation of hydrocarbons/pesticides/organic solvents/methane by gas chromatography 9. Isolation and estimation of proteins and nucleic acids from cells. 10. Qualitative estimation of DNA by DPA method 11. Qualitative estimation of RNA by Orcinol method Study of Electrophoretic techniques and Gel documentation methods	
<b>REFERENCES</b>	
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2.	B. D. Singh. (2017). Biotechnology, Kalyani Publishers.
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### **MB CT 1.4 –MICROBIAL PHYSIOLOGY AND METABOLISM**

#### **Course Outcome**

<b>Paper Code and Name</b>	<b>MB CT 1.3- MICROBIAL TECHNIQUES</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Define the Structure, principles, types and uses of Enzymes.
CO 2	Understand the Concept of photosynthesis and associated pigments in microbes.
CO 3	Understand the nutrition in microorganisms, know the methods and mechanism of respiration in bacteria
CO 4	Understand carbohydrate, lipid, neucleotide, protein and amino acid metabolism

<b>Particulars</b>	<b>No of Hours</b>
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	<b>Total (50 Hours)</b>
<b>Unit 1 Enzymes:</b>	
Definition, Structure, enzymes as biocatalysts properties and classification, specificity, active sites, coenzymes: Activators and inhibitors, activity unit, isozymes, enzyme kinetics (negative and positive comparatively); Michaelis–Menton equation for simple enzymes. Determination of kinetic parameters ( $K_M$ , $V_{max}$ , $K_I$ ), multi-step reactions and rare limiting steps, enzyme inhibition, allosterism, Kinetic analysis of allosteric enzymes principles of allosteric regulation, Ribozyme and abzyme	<b>06 Hrs</b>
<b>Unit – 2 Microbial Nutrition and Factors::</b>	
Modes of nutritional uptake (Entry of nutrition in the cell, passive diffusion, facilitated diffusion and active transport, Utilization of nutrients, Microbial growth – Growth Curves, Phages of growth, factors influencing growth, chemostat, turbidostat, and measurement of growth, continuous and synchronous growth and growth kinetics. Classification of bacteria on the basis of growth supporting environmental factors such as oxygen, temperature, pH, osmotic pressure, salt and hydrostatic pressure.	<b>06 Hrs</b>
<b>Unit -3 Microbial Photosynthesis:</b>	
Concept of photosynthesis and associated pigments in microbes; photosynthetic apparatus in prokaryotes and eukaryotes, anoxygenic and oxygenic photosynthesis, light and dark reaction; photorespiration and its significance, Effect of light, temperature, pH and CO <sub>2</sub> concentration on photosynthesis, measurement of net photosynthetic yield.	
<b>Unit 4 Bacterial Respiration:</b>	
Bacterial aerobic respiration, components of electron transport chain, free energy changes and electron transport, oxidative phosphorylation and theories of ATP formation, inhibition of electron transport chain and Photophosphorylation, Electron transport chain in heterotrophic and chemo-lithotrophic bacteria. Bacterial anaerobic respiration: Nitrate, carbonate and sulfate as electron acceptors, electron transport chains in anaerobic bacteria, catalase, super oxide dismutase, mechanism of oxygen toxicity.	<b>08 Hrs</b>
<b>Unit 5 Nitrogen metabolism:</b>	
Nitrogen cycle, Ammonification, nitrification, denitrification and nitrogen fixation, Nitrogenase enzyme, physiology of nitrogen fixation in symbiotic and free living bacteria, Genetics of nitrogen fixation, acetylene reduction assay.	<b>03 Hrs</b>
<b>Unit 6 Microbial stress responses:</b>	
Osmotic stress and osmoregulation, aerobic and anaerobic transitions, Oxidative stress, pH stress and acid tolerance, thermal stress and heat shock response, nutrient stress and starvation stress. Fermentative pathways in specific group of microbes: alcoholic, lactic acid, formic, mixed, propionic, butyric, butanol, butanediol fermentation.	<b>04 Hrs</b>
<b>Unit 7 Carbohydrate Metabolism:</b>	
Characteristics and Classification of carbohydrates. Glycolysis, TCA cycle, Glyoxylate pathway, Pentose phosphate pathway, Special microbial roots for metabolism of monosaccharaides, Gluconeogenesis, Glycogenolysis and Glycogenesis, Substrate level Phosphorylation, Pasteur effect.	<b>05 Hrs</b>
<b>Unit 8 Lipid metabolism:</b>	

Characteristics and classification of lipids, $\beta$ -oxidation, extra-mitochondrial fatty acid synthesis, microsomal chain elongation, metabolism of acyl glycerols and sphingolipids, biosynthesis of phospholipids, Ketosis, Ketoacidosis, Ketogenesis, Ketolysis, metabolism of cholesterol.	<b>04 Hrs</b>
<b>Unit 9 Protein and Amino acid metabolism:</b>	
Characteristics and classification of proteins and amino acids, Essential and non-essential amino acids, Transamination, Deamination decarboxylation, $\text{NH}_3$ transport, Urea formation, Significance and regulation of Urea synthesis, Metabolism of aromatic amino acids – tyrosine, tryptophan, phenyl alanine, metabolism of Sulphur containing amino acids, L-Methionine, L-cysteine, C-L cystine and their metabolic role. Metabolism of other amino acids like glycine, serine and Histidine	<b>04 Hrs</b>
<b>Unit 10 Nucleotide metabolism:</b>	
Characteristics and structure of Nucleic acids Biosynthesis of Purines & Pyrimidines, Regulation of nucleotide synthesis, catabolism of nucleotides.	<b>07 Hrs</b>
<b>PRACTICALS</b>	
<b>MB CP 1.8 based on MB CT.1.4 - Microbial Physiology and Metabolism</b>	
<ol style="list-style-type: none"> <li>1. Determination of growth curve and generation time.</li> <li>2. Determination of optimum pH, temperature for growth of bacteria and fungi.</li> <li>3. Effect of different substrate (Primary, secondary &amp; tertiary) on microbial growth</li> <li>4. Estimation of microbial enzymes – amylase, protease, invertase, cellulase, lipase, catalase and phosphatase.</li> <li>5. Determination of <math>K_m</math> and <math>V_{max}</math> and <math>K_i</math></li> <li>6. Extraction and separation of aflatoxin by paper chromatography.</li> <li>7. Effect of pH, temperature, enzyme concentration, substrate concentration and inhibitors on enzyme activity.</li> <li>8. Lipid saponification value of fats, Iodine number of fatty acids</li> <li>9. Qualitative analysis of lipids.</li> <li>10. Qualitative and quantitative estimation of carbohydrates/proteins/amino acids</li> <li>11. De-amination of Amino acids.</li> <li>12. De-carboxylation of Amino acids.</li> </ol>	
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Arora D.K. and Seema Gupta (1996), Bacterial Physiology. Anmol Publications, New Delhi.</li> <li>2. Palmer T. (2001), Biochemistry, Biotechnology and Clinical Chemistry. Harwood Publications, Chichester.</li> <li>3. Boyer R. (2002), Concepts in Biochemistry 2<sup>nd</sup> Edition, Brooks/Cole, Australia.</li> <li>4. Moat A.G., Foster J.W. Spector.(2004), Microbial Physiology 4th Edition Panama Book Distributors.</li> <li>5. Caldwell, D.R. (1995) - Microbial Physiology and Metabolism. Brown Publishers.</li> <li>6. Nelson and Cox (2000), Lehninger's Principles of Biochemistry. Elsevier Publications. London.</li> <li>7. Lodish H, T. Baltimore, A. Berck B.L. Zipursky, P. Mastysdaire and J.Darnell.(2004) - Molecular Cell Biology, Scientific American Books, Inc. Newyork.</li> <li>8. J.Robin Harris, John Graham, David Rickwood – Cell Biology Protocols. Panima Book Distributors. New Delhi.</li> <li>9. N.S. Sharma (2005), Molecular Cell Biology.</li> <li>10. KalapanaTrivedi(2007), Molecular and Developmental Biology.</li> <li>11. Bacterial signalling, Kramar and Jung Microbial Physiology, Moat, Foster and Spector.</li> <li>12. The Physiology and Biochemistry of prokaryotes, David White Bacterial physiology: A molecular</li> </ol>	

approach, W. E. Sharoud Topic related review articles.

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17. Deb, A.C. (2006). Fundamentals of Biochemistry, New Central Book Agency Pvt. Ltd., Kolkata.
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## **MICROBIOLOGY SECOND SEMESTER SYLLABUS**

### **MBCT 2.1 – MICROBIAL GENETICS AND MOLECULAR BIOLOGY**

#### **Course Outcomes**

Paper Code and Name	MBCT 2.1 – MICROBIAL GENETICS AND MOLECULAR BIOLOGY
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the structure and genome organization in microorganisms
CO 2	Understand the Structure and types of DNA and its replication.
CO 3	Know the process, mechanism and significance of transcription, Translation, mutation and recombination.
CO 4	Learn fungal, algal and viral genetics

Particulars	No of Hours Total (50 Hours)
<b>Unit 1 Concepts in Microbial Genetics:</b>	
History and developments of Microbial genetics, Microbes as Genetic Tools for Basic and Applied Genetic studies. Generalized reproductive cycles of microbes (Bacteria, Viruses, <i>Neurospora</i> , <i>Chlamydomonas</i> , <i>Saccharomyces</i> , <i>Acetabularia</i> , <i>Mycoplasma</i> )	<b>05 Hrs</b>
<b>Unit – 2 Organization of genetic material:</b>	

Genome organization in viruses, bacteria and eukaryotes. Interrupted genes, gene clusters, structure of nucleosome, chromatin and chromosome.	<b>06 Hrs</b>
<b>Unit -3 Structural Polymorphism of DNA</b>	
: DNA Structure A, B, and Z DNA, Super coiled DNA and DNA Binding Proteins, <b>DNA viruses:</b> Double stranded (Pox virus and SV40 virus) and single stranded DNA viruses. <b>Replication:</b> Rolling circle replication, semi-conservative replication, replication fork-leading and lagging strands, enzymes involved at different steps of replication. Folded fiber model of <i>E. coli</i> chromosome, split genes, overlapping genes, DNA amplification, the law of DNA constancy and C- value paradox. Structure, types and replication of RNA virus	<b>04 Hrs</b>
<b>Unit 4 Transcription:</b>	
DNA Binding Proteins, Classes of RNA Molecules and RNA Polymerases. Prokaryotic and Eukaryotic transcription, Post transcription modification – mRNA processing, 5'capping, 3'polyadenylation, Splicing mechanisms, rRNA and tRNA processing.	<b>04 Hrs</b>
<b>Unit 5 Translation:</b>	
Genetic code and wobble hypothesis, tRNA and the Aminoacyl-tRNA-synthetase, Clover leaf structure of tRNA prokaryotic and Eukaryotic translation machinery, Ribosomes, Mechanism of prokaryotic and eukaryotic transcription, Post translational modification of proteins, inhibitors of protein translation	<b>04 Hrs</b>
<b>Unit 6 Gene as a Unit of Mutation:</b>	
Mutation, mutagens and types of Mutations, Molecular basis of spontaneous and induced mutations and their role in evolution. Transposon and site directed mutagenesis, environmental mutagenesis and toxicity testing, Hot spots, AME's Test, Comet Assay.	<b>05 Hrs</b>
<b>Unit 7 Molecular Genetic Recombination:</b>	
In Bacteriophages and <i>E. coli</i> , Synapsis of homologous duplex, breakages and reunion, role of RecA in recombination. Transduction- generalized and specialized. Transformation and conjugation, legitimate and illegitimate recombination, gene conversion, overview of bacterial genetic map	<b>09 Hrs</b>
<b>Fungal Algal and Viral Genetics:</b>	
<b>Fungal Genetics:</b> <i>Neurospora</i> - Tetrad analysis and linkage detection - 2 point and 3 point crosses, chromatid and chiasma interference, Mitotic recombination in <i>Neurospora</i> and <i>Aspergillus</i> , Alternation of generation in <i>Neurospora crassa</i> and yeast. <b>Algal Genetics:</b> <i>Chlamydomonas</i> - unordered tetrad analysis, Nucleocytoplasmic interactions and gene expression in <i>Acetabularia</i> . Extranuclear (Cytoplasmic) inheritance. <b>Viral Genetics:</b> Lytic and Lysogenic cycles, Phage Phenotypes, Phenotypic Mixing, and Recombination in viruses: Mapping of rII loci	<b>09 Hrs</b>
<b>PRACTICALS</b>	
<b>Mb CP 2.5 based on MB CT .2.1 - Microbial Genetics and Molecular Biology</b>	

1. Isolation and estimation of DNA, RNA and plasmids.
2. Inheritance and pedigree analysis of simple Mendelian traits.
3. Induction and study of physical and chemical mutagens in bacteria/fungi
4. Study of mitosis direct method
5. Study of meiosis
6. RFLP and RAPD analysis.
7. Isolation of drug resistant mutants
8. Study of mutagenic effect and Induction of mutation in yeast/ bacteria by chemical/radiation method
9. Plasmid Curing in bacteria
10. Transformation and selection of transformants
11. Conjugation and Gene Mapping in *E.coli*
12. Isolation of bacteriophages and Phage titration
13. Restriction digestion of DNA
14. Study of replica plating technique

#### REFERENCES

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### **MBCT 2.2: COMPUTER APPLICATIONS, BIOINFORMATICS AND BIOSTATISTICS**

#### **Course Outside**

<b>Paper Code and Name</b>		<b><u>MBCT 2.2: COMPUTER APPLICATIONS, BIOINFORMATICS AND BIOSTATISTICS</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Understand the parts, concepts and types of computers, Operating system, Computer Viruses and Computer network	
CO 2	Have hands on training on various programmes and its applications in computers.	
CO 3	Know the types of alignments, Phylogenetic analysis and Primer designing	
CO 4	Analyze Commercial application of bioinformatics, Disease monitoring, profiles for therapeutic molecular targeting. Diagnostics, Comparative proteomics and its applications, IPR and Bioinformatics patents	
CO 5	Apply Biostatistics in basic problems, measures of – Central tendency Survival analysis and Statistical softwares	

<b>Particulars</b>	<b>No</b>	<b>of</b>
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	<b>Hours (50 Hrs)</b>
<b>Unit 1 Computer Science:</b>	
<p>Parts and types of computers-Basic components and essential details of digital computers and peripherals devices and their maintenance functions. Mainframes, mini and micro (PC, PC-XT, PC-AT) Computer Architecture, Internal and External devices, servers, computer software and super, hyper computers.</p> <p><b>Operating system:</b> Windows, UNIX (Ubuntu), CRAN/ LINUX, Macintosh, application software's like word processor, formatting the document, tables, mail merge and spell check. Spreadsheets basics with MS Excel, labels, MS Power point, MS access.</p> <p><b>Computer Viruses:</b> Overview and prevention</p> <p><b>Computer network:</b> Advantages of Networks, Types of Network (LAN &amp; WAN) WIFI. Internet protocol (TCP/IP) File transfer protocols (FTP) WWW, HTTP. Etc.), Cloud computing</p>	<b>12 Hrs</b>
<b>Unit – 2 Programming</b>	
: Algorithm and flow chart, C and C <sup>++</sup> and R-programming, structure of C programme, Header file, Global declaration, Main function, variable declaration, control statement, conditional looping and unconditional control statement hub functions.	<b>05 Hrs</b>
<b>Unit -3 Introduction to Bioinformatics:</b>	
<p>Introduction to Biological Databases - Types of databases (Primary, secondary and complex databases), Bioinformatics platforms: NCBI, DDBJ EMBL, PUBMED, Nucleic Acid Sequence databases, Protein sequence database; Genomics, Transcriptomics, Proteomics and Metabolomics, PDB retrieval, Database visualization, Accessing bibliographic database, Integrated Information Retrieval, Extra 2 system. Bioinformatics software: Schrodinger, Perl and BioPerl, Rosetta/Remoneblod</p>	<b>08 Hrs</b>
<b>Unit 4 Sequence alignment and phylogenetics</b>	
<p>Pair wise sequence alignment: Eg. BLAST, FASTA, CONTIG sequence</p> <p>Multiple Sequence Alignment: Eg. Clustal W, Clustal X,</p> <p>Phylogenetic analysis with reference to nucleic acids – PHYLIP, MEGA, NTYSIS (3D and 2D)</p> <p>Primer designing: Primer 3, applied biosystems,</p>	<b>06 Hrs</b>
<b>Unit 5 Structural biology:</b>	
<p>Modeling: Protein secondary structure prediction – Chou Fasman rules– neural networks discriminant analysis, prediction of transmembrane segments in membrane proteins. Protein 3D structure prediction homology - identification of active sites/pockets, threading potential energy functions – energy minimization molecular dynamics simulated annealing.</p> <p><b>Drug Design and discovery:</b> steps in drug discovery, ADME, Lead identification, QSAR.</p>	<b>06 Hrs</b>
<b>Unit 6 Commercial application of bioinformatics:</b>	
<p>Definition, genome technology, High throughput sequencing and assembly. Genomics in medicine, Disease monitoring, profiles for therapeutic molecular targeting. Diagnostics, drug discovery and genomics, Gene evolution, Comparative proteomics and its applications, IPR and Bioinformatics patents</p>	<b>05 Hrs</b>
<b>Unit 7 Biostatistics:</b>	
<p><b>Biostatistics:</b></p> <ol style="list-style-type: none"> <li>1. Organization, description and graphical representation of data.</li> <li>2. Summary measures of – Central tendency (mean, mode, median), dispersion (Standard Deviation, Standard error) correlation (2-D, 3-D, Pearson, R value,</li> </ol>	<b>08 Hrs</b>

Heatmap) and regression Chi square tests, McNemar test, tests of significance (t test, P-value, F-test, ANOVA, HSD).	
3. Survival analysis: Kaplan-Meier curve, log-rank test, proportional hazard, Cox regression.	
4. Statistical softwares: MS Excel, MS access, Statistica, SPSS, Graph pad.	
<b>PRACTICALS</b>	
<b>Mb CP 2.6 based on MBCT 2.2 Computer Applications, Bioinformatics and Biostatistics</b>	
<ol style="list-style-type: none"> <li>1. Hardware and parts of a computer and laptop, types -Supercomputer, Mainframe Computer, Minicomputer, Microcomputer and mobile computers. Console I/O operations, Files and Streams.</li> <li>2. Molecular graphics, analysis of phylogenetic tree and exploring PDB file.</li> <li>3. a) Retrieval of sequences from NCBI, DDBJ, EBI, EMBL, NBRF-PIR, SWISSPROT and Protein database b) Retrieval of homologous sequences and exploring BLAST and FASTA</li> <li>4. Study of Molecular Dynamics and Simulation of given protein (Hyperchem, Rosetta MOE, Speptide, RMSD, RMSF and Energies) and protein with drug interaction using Rosetta.</li> <li>5. C, C<sup>++</sup> and R-Language example programs based on topic wise.</li> <li>6. a) Study of inheritance and polymorphism using different tools b) Generation of dot matrix and analyzing the homology</li> <li>7. a) Exploring databases for motifs and domains. b) Exploring and analyzing multiple Gene and exon-intron from the given sequence, Sequence alignment by online and offline softwares.</li> <li>8. <i>In silico</i> study of enzyme kinetics in metabolic pathway</li> <li>9. Statistical concepts: Types of variables, probability distribution (binomial, Poisson, normal), population and sampling methods, characteristics of location and variability, standard error, histogram, point and interval estimation, confidence interval.</li> <li>10. a) Statistical inference: testing statistical hypotheses and central tendency. b) Statistical tests for continuous variables: t-test and Wilcoxon test (one-sample, two-sample, paired), analysis of variance (ANOVA), F-test, pearson correlation analysis.</li> <li>11. a) Statistical tests for categorical variables: contingency table, chi-square test, McNemar test b) Statistical methods in epidemiology: epidemiological measures of risk and corresponding confidence intervals, interpretation.</li> <li>12. a) Statistical association: correlation, linear regression, multiple regression, logistic regression, test for trend b) Survival analysis: Kaplan-Meier curve, log-rank test, proportional hazard, Cox regression.</li> <li>13. Planning surveys: power of statistical test, sample size determination for categorical and continuous endpoints, randomization in clinical trials.</li> <li>14. Practical use of statistics: statistics in published papers, discussion on statistical methods with suitable example.</li> </ol>	
<b>REFERENCES</b>	
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19. S.C.Rastogi, Namitha Mendinatta. (2009). Bioinformatics Concepts, Skills and Applications, 2nd edition, CBC Publication.
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22. Upadhyay, Upadhyay & Nath. (2016). Biophysical chemistry: principles and techniques, 4<sup>th</sup> edition, Himalaya Publishing House Pvt. Ltd.
23. Woolverton, J.C., Sherwood, L. (2017). Prescott's Microbiology, 10<sup>th</sup> edition, McGraw Hill.

### **MB CT 2.3 GENETIC ENGINEERING**

#### **Course Outcome**

<b>Paper Code and Name</b>	<b><u>MB CT 2.3 GENETIC ENGINEERING</u></b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the Scope and importance of Genetic engineering and application
CO 2	Have hands on training on enzymes used as tools in genetic engineering
CO 3	Know the significance of cDNA, screening techniques and Genomic DNA Librar
CO 4	Understand Labelling, Transformation and Transfection, techniques, Antisense and Ribozyme technology
CO 5	<b>Apply Genetic engineering and rDNA technology tools and techniques required</b>

<b>Particulars</b>	<b>No of Hours Total (50 Hours)</b>
<b>Unit 1 Introduction to Genetic Engineering</b>	
: Scope and importance of Genetic engineering.	<b>02 Hrs</b>
<b>Unit – 2 Cloning Vectors</b>	

: Brief account of naturally occurring plasmids (Conjugative and Non conjugative plasmids, degradative plasmids, Resistance plasmids, Fertility plasmids, Col-Plasmids), artificial plasmids (pBR322, pUC vectors, Ti and Ri plasmids), Bacteriophages, Phagemids, Cosmids, Fosmids, Artificial chromosomes ( BAC's, YAC's), Shuttle vectors, expression vectors, M13 derived vectors and Viral vectors ( SV40 and Bovine Papilloma Virus).	<b>08 Hrs</b>
<b>Unit -3 Tools of Genetic Engineering:</b>	
Restriction endonucleases- nomenclature and types, recognition sequences and mechanism of action. DNA Modification enzymes (nucleases, kinases, Alkaline-phosphatase, Klenow polymerase, Lambda-Exonuclease and Exonuclease-III) and ligases- types and mechanism of action.	<b>05 Hrs</b>
<b>Unit 4 Cloning and Construction of gene Libraries:</b>	
cDNA library- isolation and purification of mRNA, Synthesis of cDNA, cloning of cDNA in to plasmids and phage vectors, <b>Genomic DNA Library:</b> Isolation and purification of Genomic and Plasmid DNA, preparation of DNA fragments for cloning, Construction of genomic DNA library with different vectors and screening techniques	<b>05 Hrs</b>
<b>Unit 5 Selection, Screening and Analysis of Recombinants:</b>	
Blotting Techniques- Southern Blotting, Northern Blotting, Western Blotting and DOT Blot. Nucleic acid hybridization (Colony Hybridization and Plaque Hybridization), Immunological methods and <i>In vitro</i> Translation. Chromosome walking, <b>Gel Electrophoresis:</b> Agarose gel Electrophoresis, PAGE and PFGE	<b>06 Hrs</b>
<b>Unit 6 Labeling and Detection Techniques</b>	
Labeling of DNA, RNA and Proteins (Radioactive and non-radioactive isotopes). DNA Sequencing (Chemical and Enzymatic method).	<b>04 Hrs</b>
<b>Unit 7 Transformation Techniques:</b>	
Transformation and Transfection techniques, Preparation of competent cells of bacteria, chemical methods- calcium phosphate precipitation method and liposome mediated method, Physical methods-Electroporation and Gene gun method. Biological methods-Agrobacterium mediated transformation, Co-cultivation methods, Chloroplast transformation, method of DNA transfer to yeast, mammalian and plant cells.	<b>06 Hrs</b>
<b>Unit 8 Polymerase chain Reaction</b>	
Methodology, types and applications.	<b>03 Hrs</b>
<b>Unit 9 Chemical Synthesis of genes:</b>	
Methods (Phosphodiester, and Phosphotriester methods principle and strategies), Oligonucleotide synthesis and application, synthesis of complete gene.	<b>04 Hrs</b>
<b>Unit 10 Antisense and Ribozyme technology:</b>	
Molecular mechanism of antisense molecules, inhibition of splicing poly-adenylation and translation, disruption of RNA structure and capping Biochemistry of Ribozyme, hammer head, hairpin and other Ribozymes, strategies for designing Ribozymes, application of antisense and Ribozymes technologies.	<b>03 Hrs</b>
<b>Unit 11 Applications of Genetic engineering and rDNA technology</b>	
: Transgenic plants (disease resistant, weedicide resistant, frost resistant, halotolerant and pest resistant) production of growth hormones, interferon, insulin, recombinant vaccines, gene therapy, anti-sense RNA technology RNA; requirement of recombinant molecules in health, pharmaceuticals, agriculture and industrial sectors, research labs.	<b>04 Hrs</b>
<b>PRACTICALS</b>	

<b>MB CP 2.7 based on MB CT.2.3- Genetic Engineering</b>	
<ol style="list-style-type: none"> <li>1. Isolation and electrophoretic separation of genomic DNA from Bacteria, Plant and Animal tissues.</li> <li>2. Gel elution and purification of DNA fragment.</li> <li>3. Isolation and electrophoretic separation of RNA from Bacteria, Plant and Animal tissues.</li> <li>4. Quantification and purity check of Isolated DNA using UV spectrophotometer.</li> <li>5. Isolation, purification and electrophoretic separation of plasmid DNA from Bacteria.</li> <li>6. Restriction Digestion of Genomic DNA and Plasmid DNA with Restriction Endonucleases and separation of digested products in Agarose gel.</li> <li>7. Effect of Agarose concentration on migration of DNA fragments.</li> <li>8. DNA Ligation using T4 DNA Ligase and <i>E.coli</i> DNA ligase</li> <li>9. Preparation of Competent cells using Calcium Chloride Method.</li> <li>10. Transformation of Bacterial cells (blue white Selection).</li> <li>11. Blotting techniques: Southern, Northern and Western Blotting</li> </ol> <p>Amplification of DNA using Polymerase chain Reaction.</p>	
<b>REFERENCE</b>	
<ol style="list-style-type: none"> <li>1. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 1. Third edition. (2001). Cold spring harbour laboratory press, New York.</li> <li>2. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 2. Third edition. (2001). Cold spring harbour laboratory press, New York.</li> <li>3. Sambrook and Russell. Molecular Cloning, A laboratory manual. Volume 3. Third edition. (2001). Cold spring harbour laboratory press, New York.</li> <li>4. Primrose. S.B. and Twyman R.M. Principles of gene manipulation and genomics. Seventh edition. (2006). Blackwell Publishing, Australia.</li> <li>5. SandhyaMitra. Genetic Engineering. Principles and Practice. (1996). Macmillan India Ltd, New Delhi.</li> <li>6. Das. H.K. Textbook of Biotechnology. Third edition. (2007). Wiley India Pvt Ltd, New Delhi.</li> <li>7. David A Micklos and Greg A Freyer. (2005) DNA Science, a first course. Second edition.. I.K. International Pvt Ltd, New Delhi.</li> <li>8. Gupta. P.K. Biotechnology and Genomics. (2008). Rastogi Publications, New Delhi.</li> <li>9. Winnacker E.L. From Genes to clones, Introduction to gene technology. (1987). VCH, Verlagsgesellschaftmbh, Weinheim, Germany.</li> <li>10. Channarayappa. Molecular Biotechnology, Principles and Practices. (2006). University press (India) Pvt. Ltd, Hyderabad, India.</li> <li>11. Becker. J.M, Caldwell.GA, Zacgho.E.A. Biotechnology, A laboratory Course. Second edition. (1996). Academic Press. INC, California.</li> <li>12. Principles of Gene Manipulations (1994) by Old and Primrose Blackwell Scientific Publications.</li> <li>13. DNA Cloning: A Practical Approach by D.M. Glover and B.D. Hames, IRL Press, Oxford. (1995).</li> <li>14. Molecular Biotechnology 2nd Edition by S.B. Primrose. Blackwell Scientific Publishers, Oxford. (1994).</li> <li>15. S.M. Kingsman and A.J. Kingsman, (1998).Genetic Engineering and Introduction to Gene Analysis and Exploitation in Eukaryotes by Blackwell Scientific Publications, Oxford</li> <li>16. PCR Technology - Principles and Applications for DNA Amplification by Henry A. Erlich (Ed.) Stockton Press. 1989.</li> <li>17. Biotechnology: A Guide to Genetic Engineering by Peters.</li> <li>18. Genetic Engineering – (2000) by Nicholl.</li> </ol>	

19. Recombinant DNA and Biotechnology: Guide for Teachers. 2nd Edition by Helen Kreuz.(2001).ASM Publications.
  20. Molecular Biotechnology: Principles and Applications of Recombinant DNA. 2 nd Edition.(1998) by Bernard R. Glick and Jack J. Pastemak, ASM Publications.
  21. From genes to clones by Winnaker.
  22. Manipulations and expression of recombinant DNA by Robertson.
  23. Gene targeting – A practical approach by Joyner.
- Vedamurthy, A.B., and Mahesh, S. 2002. Biotechnology – IV including recombinant DNA technology, Environmental Biotechnology and Animal Cell Culture. New Age Publishers, New Delhi.

### **MBET 2.4 Fundamentals and applications of Microbiology**

#### **Course Outcome**

<b>Paper Code and Name</b>		<b>MBET 2.4 Fundamentals and applications of Microbiology</b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Know the history and contributions of various pioneers and scientists in the field of Microbiology.	
CO 2	Understand the differences and comparison between the prokaryotes and the eukaryotic microorganisms	
CO 3	Industrial production of Alcohol, Organic acids, Solvent, Antibiotics Single cell proteins (SCP) Vitamins (Riboflavin) Enzymes, Recombinant protein	
CO 4	Understand pathogenesis, Clinical conditions, laboratory diagnosis, epidemiology, Prophylaxis and treatment of the diseases caused by microorganisms.	
CO 5	Perform Specimen collections, handling, transport, identification of pathogens from specimens and hospital management	

<b>Particulars</b>	<b>No of Hours ( 50 Hrs)</b>
<b>Unit 1 Introduction to Microbiology:</b>	
Contributions of Antony van Leeuwenhoek, Louis Pasteur, Robert Koch, Joseph Lister, Edward Jenner, Alexander Flemming. Beneficial and harmful microorganisms, Introduction to branches of Microbiology: a) Air, b) Water, c) Sewage, d) Soil, e) Dairy, f) Food, g) Medical, h) Industrial, i) Biotechnology j) Geomicrobiology.	<b>09 Hrs</b>
<b>Unit – 2 Prokaryotic and Eukaryotic cells:</b>	
Introduction and evolution of Prokaryotic and Eukaryotic cells, Structural organization of Prokaryotic and Eukaryotic cell, Major groups of Microorganisms – Viruses, Bacteria, Algae, Fungi and Protozoa.	<b>08 Hrs</b>
<b>Unit -3 Industrial microbiology:</b>	
Industrial production of Alcohol (Ethanol), Wine, Beer, Organic acids (Citric, acetic, Lactic and Gluconic acid) Solvent (Glycerol Acetone, Butanol), Antibiotics (Penicillin, streptomycin, tetracycline) Amino acids (lysine, glutamic acid) Single cell proteins (SCP) Vitamins (Riboflavin) Enzymes (Amylase, lactase, protease), Hydrocarbons – Biodegradable plastic – Polyhydroxyalkanoates (butyrate, propionate etc), recombinant protein	<b>11 Hrs</b>

(hepatitis – B vaccine)	
<b>Unit 4 Microbial diseases:</b>	
Pathogenesis, Clinical conditions, laboratory diagnosis, epidemiology, Prophylaxis and treatment of the following diseases. a) Virus – Measles, Mumps, Influenza, Yellow fever, HIV, Herpes, Rabies, Hepatitis, Polio myelitis, Dengue fever, Japanese Encephalitis, KFD, Rhinovirus, CJD and Kuru. b) Bacteria – Diphtheria, Typhoid, Gonorrhea, Syphilis, Plague, Leprosy, Tuberculosis, Gas gangrene, Tetanus, Septicemia, Cholera and Brucellosis. c) Fungi – <i>Candidiasis</i> , <i>Mycetoma</i> , <i>Chromomycosis</i> , <i>Sporotrichosis</i> , <i>Cryptococcosis</i> , <i>Blastomycosis</i> , <i>Coccidiomycosis</i> and <i>Histoplasmosis</i> . d) Protozoa– Amoebiasis, Giardiasis, Malaria, <i>Leishmaniasis</i> and <i>Trypanosomiasis</i> . e) Dental Infections – Dental Plaque, Dental carries and periodontal diseases. f) Nosocomial Infections – Bacterimia, Burn wounds, surgical site infections, Urinary tract and miscellaneous infections.	<b>14 Hrs</b>
<b>Unit 5 Clinical Microbiology:</b>	
Specimen collections, handling, transport, identification of pathogens from specimen, growth and biochemical characteristics, Rapid methods of identification, Immunological techniques, Bacteriophage typing, molecular measures (DNA probes, Restriction endonucleases, DNA Finger printing, RIA, ELISA, PCR) and susceptibility testing. A brief account on hospital management	<b>09 Hrs</b>
<b>PRACTICALS</b>	
<b>MBCP 2.8 based on MBET-2.4-Fundamentals and Applications of Microbiology</b>	
1. Safety Measures in Microbiology laboratory 2. Study of Instruments – Autoclave, Hot air Oven, Incubator, Laminar airflow, Centrifuge, pH meter, Colorimeter, Spectrophotometer. 3. Isolation and Study of Different groups of Microorganisms- Algae, Fungi, Bacteria and Protozoa 4. Micrometry 5. Camera Lucida 6. Study of motility of cells by hanging drop technique 7. Effect of growth curve of bacteria ( <i>E.coli</i> ) 8. Effect of temperature on the growth of microorganisms 9. Effect of pH on the growth of microorganisms Effect of antibiotics on bacterial growth – paper disc and cup plate method	
<b>REFERENCE</b>	
1. Hayes W. (1970) Genetics of Bacteria and their viruses. The English Book Society of Blackwell Scientific publication, Oxford. 2. Prescott L.M., J.P. Hanley and D.A. Klein. (1999) Microbiology WCB McGraw- Hill, Con .NY. 3. Atlas R.M.(1998) Microbiology, Fundamentals and Application 2 <sup>nd</sup> Edition Mac Millan Publishing Company. 4. Hunderson et al., (1999), Cellular Microbiology Wiley Publications. 5. Bruijin et al., (1998), Bacterial Genomes, Chapman and Hill.	

6. Sullia S.B. and S. Shantaram. (1998), General Microbiology, Oxford IBH Publishing Con, New Delhi.
7. Dale J.W. Molecular Genetics and Bacteria, (1994), John Wiley and Sons.
8. Lewin. B. (2002) Genes VIII, Oxford Press.
9. Roger L.P. John T., Knowler and D.A. Violp. Leadr. (1992).The Biochemistry of Nucleic Acids 11<sup>th</sup> Edition Chapman and Hall.
10. Stanley R., Maloy, John E., Cronan, Junior. David Friefelour(1994). Microbial Genetics Jones and Barlett Publications. Bosten.

Samuel Singer. (2001)Experiments on Applied Microbiology, Academic Press.New-York

### **MICROBIOLOGY THIRD SEMESTER**

#### **MB CT 3.1 ENVIRONMENTAL MICROBIOLOGY**

##### **Course Outcome**

<b>Paper Code and Name</b>		<b><u>MB CT 3.1 ENVIRONMENTAL MICROBIOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Know the history, scope of environment and environmental pollution.	
CO 2	Understand the Sources and characteristics of air pollutants, health hazards and control measures of air, soil, water pollution and waste management.	
CO 3	Concepts and principles of bioremediation, biodeterioration biodegradation, biomining, and bioleaching.	
CO 4	Provide Environmental Education regarding Agrochemicals, Botanicals of Global Warming, ozone depletion, Greenhouse gas effect, acid rains & their impact and Biotechnological approaches in the environment.	

<b>Particulars</b>		<b>No of Hours (Hrs)</b>
<b>Unit 1: Environment and environmental pollution</b>		
Meaning, scope, concept of Environment and environmental pollution		<b>02 Hrs</b>
<b>Unit – 2 Aerobiology:</b>		
Air sampling techniques, Identification of Airborne bioparticles, Sources and characteristics of air pollutants, health hazards due to air pollution. Air borne diseases and control measures of air pollution		<b>06 Hrs</b>
<b>Unit -3 Soil Microbiology</b>		
Classification based on physical and chemical characteristics, Microorganisms in various soil types, soil pollution –sources and characteristics of soil pollutants, health hazards due to soil pollution, control measures of soil pollution-interaction among soil microbes-mutualism, commensalisms, amensialism, parasitism, predation, competition, antibiosis and their significance. Interrelationship between microbes, plant and soil-brief account on rhizosphere, phyllosphere and spermosphere Symbiotic and non-symbiotic association with higher plants, role of enzymes of microbial origin in the release of plant nutrients		<b>08 Hrs</b>
<b>Unit 4 Aquatic Microbiology</b>		
Water ecosystem (Fresh water and marine), Zonation of water ecosystem, water pollution-sources, characteristics of water pollution, health hazards due to		<b>08 Hrs</b>

water pollution, eutrophications. Biological indicators of water pollution-Chemical, Microbiological, enzymes and Biotechnological indicators, Water purifications, Brief account on water born diseases and control measures	
<b>Unit 5 Waste management:</b>	
Solid and Liquids wastes and their characterization. Treatment-Physical, chemical, biological solid waste treatment: Saccharification, Gasification, Composting and wastewater recycling-chlorination, ozonization, radiation, filtrations, reverse osmosis. Effluent treatment - (Dairy, Distillery, Tannery, Textile, Paper and sugar industries) Physical, chemical and biological sewage treatment-Trickling filters, oxidation pond, ditch and activated sludge treatment. Advanced wastewater treatment-rotating biological contactors (RBC), submerged aerobic filters, fluidized bed reactors, biological aerated flooded system, combination of anaerobic, denitrification and aerobic treatment of wastewater. Advanced activated sludge process and biogas Production, effluent treatment, DOC, COD, BOD and disposal of effluents.	<b>12 Hrs</b>
<b>Unit 6 Bioremediation</b>	
Concepts and principles <i>In-situ</i> and <i>Ex-situ</i> bioremediation, Phytoremediation. Biodegradation- Recalcitrant of pesticides in soil and their influence on soil micro flora, Xenobiotic (Halocarbons, C-1 compounds, aliphatic hydrocarbons, alicyclic hydrocarbons, aromatic hydrocarbons, Polycyclic hydrocarbons, Halogenated compounds). Biodegradation of natural polymers-Cellulose Lignin, Pectin, Chitin Detergents, soaps and plastics Biodeterioration-paper, Leather, Wood, Textiles, Mode of Deterioration and organisms involved	<b>10 Hrs</b>
<b>Unit 7 Bioleaching and bio-mining</b>	
Bioleaching and bio-mining, Productions of Oils and fuels from wood wastes, biofuels, Bio-diesel and byproducts of sugar industries	<b>02 Hrs</b>
<b>Unit 8 Environmental Education</b>	
Agrochemicals, Botanicals of Global Warming, ozone depletion, Greenhouse gas effect, acid rains & their impact and Biotechnological approaches in the environment	<b>02 Hrs</b>
<b>PRACTICALS</b>	
<b>MB CP 3.5 based on MB CT 3.1 - Environmental Microbiology</b>	
<ol style="list-style-type: none"> <li>1. Detection of coli forms for determination of purity of potable water samples MPN method</li> <li>2. Isolation of Bacteriophages from sewage water samples</li> <li>3. Study of micro flora of industrial waste and effluents</li> <li>4. Isolation of nucleic acids from environmental samples</li> <li>5. Determination of DO, DOC, CO<sub>2</sub>, BOD, COD and TDS of water samples (RO water, Tap water, Pond water and Sewage waste water)</li> <li>6. Isolation of Xenobiotic degrading bacteria by selective enrichment technique</li> <li>7. Study on Biogenic methane production</li> <li>8. Estimation of phosphate, sulphates, nitrates and major cations (Na, K, Mg, and Ca) in water samples</li> <li>9. Effect of industrial effluents/ heavy metals on seed germination and seedling growth</li> <li>10. Effect of herbicides (Glyphosate and 2, 4, - D) on chlorophyll content</li> <li>11. Sampling and quantification of airborne endotoxins by Limulus Amoebocyte Assay.</li> <li>12. Field excursion to an industrial area to assess environmental impact</li> <li>13. Isolation and determination of Iron and Manganese reducing bacteria</li> <li>14. Selective enrichment of auxotrophic and antibiotic (Tet<sup>R</sup>, Ref<sup>R</sup>) mutants(Isolation of antibiotic resistant microbes from Hospital waste)</li> </ol>	
<b>REFERENCES</b>	

1. Christon, J., Harst (1997). Manual of Environmental Microbiology, ASM press, Washington DC,
2. Metcalf and Eaddy (2001) Inc., waste water engineering treatment disposal and reuse. TATA McGraw Hill Delhi.
3. Raju, B.S.N. (1998) water supply and waste water engineering, Tata McGraw Hill publications, Co.
4. Atlas R.M., Taylor and Francis (2005) – Hand book of Media for Environmental Microbiology. CRC press
5. Patrick, K. Jemba (2004). Environmental microbiology. Principles and applications. Science Publishers.
6. McKinney, R.E (2004), Environmental pollution control, Microbiology. CRC press
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8. Varnam A.H. and Evans, M. (2000) Environmental Microbiology. Black Well Publishers.
9. Paul A. Rochelle, Environmental Molecular Microbiology: Protocols and Applications Bioscientific Publishers Ltd.
10. Francis H Chapelle (2000) Ground Water Microbiology and Geochemistry 2<sup>nd</sup> edition, John Wiley and Sons.
11. Robert. S. Burlage, Ronald Atlas, David Stahl, Gill Geesey, Gary Sayler. (1998). Techniques in Microbial Ecology. Oxford University Press. New York.
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13. Hiremath, M.B., Baligar, P.N. and Prashanth, M.S. (2012). Environmental Biotechnology. Prateeksha publishers, New Delhi.

### **MB CT 3.2 AGRICULTURAL MICROBIOLOGY AND PLANT PATHOLOGY**

#### **Course outcome**

<b>Paper Code and Name</b>		<b><u>MB CT 3.2 AGRICULTURAL MICROBIOLOGY AND PLANT PATHOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Know the history, scope of agricultural microbiology and plant pathology	
CO 2	Understand the Sources and characteristics of air pollutants, health hazards and control measures of air, soil, water pollution and waste management.	
CO 3	Know the Concepts and principles of nitrogen fixation, Mineralization and immobilization of nitrogen,	
CO 4	Gain knowledge on Types and applications of Biopesticides, biofertilizers,	
CO 5	Analyse plant diseases, etiology, post harvest disease and control measures	
CO 6	Understand post harvest diseases, Integrated pest management and biological control agents for disease management	

<b>Particulars</b>	
<b>Unit 1 Agricultural Microbiology and Plant Pathology</b>	
History, concepts and scope of agricultural microbiology and plant pathology	<b>02 Hrs</b>
<b>Unit – 2 Biological nitrogen fixation:</b>	
Mineralization and immobilization of nitrogen, nitrification and denitrification. Symbiotic nitrogen fixation ( <i>Rhizobium</i> , <i>Frankia</i> ), Non symbiotic nitrogen fixation ( <i>Azotobacter</i> ), Associative symbiotic nitrogen fixation ( <i>Azospirillum</i> ), Mycorrhiza, Nitrogenase enzymes, Nif genes. Role of	<b>08 Hrs</b>

nodulin genes in nodule development and symbiosis	
<b>Unit -3 Biofertilizer</b>	
Types, production and quality control. Cultivation and mass-production of biofertilisers- <i>Azotobacter</i> , <i>Rhizobium</i> , <i>Azospirillum</i> , <i>Cyanobacteria</i> , phosphate solubilizing microorganisms, <i>Azolla</i> . Carrier-based inoculants - production and applications	<b>06 Hrs</b>
<b>Unit 4 Biopesticides:</b>	
Types and applications (Entamopathogenic bacteria, fungi and virus, <i>Pseudomonas fluorescens</i> , <i>Bacillus thuringiensis</i> , <i>Bacillus sphaericus</i> , <i>Trichoderma harzianum</i> , <i>Trichoderma viridae</i> , Nuclear Polyhedrosis Virus, Fungi ( <i>Culicinomyces</i> , <i>langenidium</i> and <i>coelomomyces</i> )	<b>06 Hrs</b>
<b>Unit 5 Plant pathology:</b>	
Disease cycle, Mode of entry of pathogens into the plant system, Plant immune system- PTI and ETI. Defense Mechanisms of Plant- structural and chemical defenses, induced structural and biochemical defenses. Pathways involved in disease resistance- SA, JA and EA	<b>08 Hrs</b>
<b>Unit 6 Host parasite interaction</b>	
Production of phytoalexins, involvement of elicitors, role of R and Avr genes in disease development	<b>02 Hrs</b>
<b>Unit 7 Plant Diseases:</b>	
Plant Diseases: a. Diseases caused by Fungi (symptomology, etiology and control) i. Wilt disease ii. Downy mildew iii. Powdery mildew iv. Rusts v. Smuts b. Diseases caused by Bacteria (symptomology, etiology and control) i. Bacterial wilt ii. Bacterial blight of rice iii. Angular leaf spot of cotton iv. Citrus canker c. Mycoplasmal diseases i. Sandal spike ii. Grassy shoot of sugarcane d. Viral diseases (symptomology, etiology and control) i. Tobacco mosaic disease ii. Banana bunchy top iii. Cucumber mosaic iv. Cowpea mosaic e. Disease caused by Virioids i. Potato spindle tuber virioid Post-harvest diseases and control measures	<b>15 Hrs</b>
<b>Unit 8 Integrated pest management</b>	
Integrated pest management and biological control agents for disease management	<b>03 Hrs</b>
<b>PRACTICALS</b>	
<b>MBCP 3.6 based on MBCT-3.2-Agricultural Microbiology and Plant Pathology</b>	
1. Isolation and Characterization of Rhizosphere, Spherosphere and phyllosphere	

<p>microorganisms.</p> <ol style="list-style-type: none"> <li>Mass production of bacteria or fungi in laboratory.</li> <li>Isolation, enumeration and characterization of nitrogen fixing bacteria.</li> <li>Measurement of nitrogen fixation – the tube culture, Leonard Jar and Pot culture methods.</li> <li>Isolation, enumeration and characterization of phosphate solubilizing bacteria and fungi.</li> <li>Assessment of Vesicular Arbuscular <i>mycorrhiza</i> association with plants and isolation spores.</li> <li>Observation of wet mount of NPV.</li> <li>Isolation of Cellulose, Hemicellulose, Starch, Lignin, Pectin degrading microorganisms.</li> <li>Demonstration of Biogas production using different substrates like cattle dung, water hyacinth, sewage.</li> <li>Mushroom cultivation and evaluation of protein content.</li> <li>Organic matter decomposition - CO<sub>2</sub> evolution.</li> <li>Evaluation of seed germination and vigor - Grow on test.</li> <li>Artificial challenge inoculation techniques for bacterial and fungal pathogens.</li> <li>Quantitative skills for biotic and abiotic disease stress evaluation and data analysis.</li> <li><i>In vitro</i> methods to determine antagonism effects of biological agents against fungal pathogens.</li> <li>Laboratory scale production of bacterial and fungal biofertilizers.</li> </ol>
<b>REFERENCES</b>
<ol style="list-style-type: none"> <li>Agrios, G. N. (2000). Plant pathology. Harcourt Asia Pvt. Ltd.</li> <li>Bergersen, F.J. and Postgate, J.R. (1987). A Century of Nitrogen Fixation Research Present Status and Future Prospects. The Royal Soc., London.</li> <li>Dixon, R.O.D. and Wheeler, C.T. (1986). Nitrogen Fixation in plants. Blackie USA, Chapman and Hall, New York.</li> <li>Richard E. Issacson. Marry. E. and Torrece (2005) Microbial Food Safety in Animal Agriculture: Current Topic. Black well Publishers.</li> <li>Singh. R.S. Introduction to Principles of Plant Pathology.</li> <li>Steinhaus. (1963). Insect Pathology. Vol I &amp; II. Academic Press, New York.</li> <li>SubbaRao. (2003) Bio-fertilizers in Agriculture. Oxford &amp; IBH.</li> <li>Swaminathan M. S. (1998) Biotechnology in Agriculture. McMillan.</li> <li>Sylvia D.M., Jeffrey. J.Ficherman, Peter G. Hartel, David A Zuberer .(1997). Principles and applications of Soil Microbiology. 1<sup>st</sup> Edition Prentice Hall.</li> <li>Vidhyasekaran , P. (2008). Fungal pathogenesis in plants and crops: molecular biology and host defence mechanisms, <i>Volume 58 of Books in soils, plants, and the environment</i>, 2nd ed., illustrated, CRC Press.</li> <li>Singh, H.B., Vijai, G.K and Jogaiah, S. (2018). New and Future Developments in Microbial Biotechnology. Elsevier Publications, UK.</li> </ol>

### **MB CT 3.3 FOOD AND DAIRY MICROBIOLOGY**

#### **Course Outcome**

<b>Paper Code and Name</b>	<b>MB CT 3.3 FOOD AND DAIRY MICROBIOLOGY</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	

CO 1	Know the Concepts and scope of food and dairy microbiology.
CO 2	Understand the Important microorganisms in food and their source.
CO 3	Know the various principles of food spoilage, contamination. and detection of food borne microbes. Food preservation techniques
CO 4	Gain knowledge on food borne diseases, Food Borne outbreaks, lab testing procedures and preventive measures
CO 5	Analyze the food borne diseases, Food Borne outbreaks, lab testing procedures and preventive measures
CO 6	Know the Sanitation in manufacture and retail trade; food control agencies and their regulations. Food safety laws, standards and Food packing strategies.

Particulars	No of Hours (Hrs)
<b>Unit 1 Introduction:</b>	
Definition, Concepts and scope of food and dairy microbiology	02 Hrs
<b>Unit – 2 Food as a substrate for microorganisms:</b>	
Important microorganisms in food (Molds, yeasts, Bacteria) and their source. (Air, soil, water, plants and animals)	04 Hrs
<b>Unit -3 Contamination and spoilage:</b>	
Principles of food spoilage. spoilage of cereals sugar products, fruits, vegetables, meat and meat products, fish and sea foods poultry, spoilage of canned foods, Detection of food borne microbes- sampling, detection by culturing methods, physical and chemical methods	08 Hrs
<b>Unit 4 Food preservation:</b>	
General principles, physical methods (low temperature, high temperature and drying), chemical methods (Food additives), irradiation, biological methods of food preservation. Processing for heat treatment- D, Z and F values and working out treatment parameters, Freeze drying methods	08 Hrs
<b>Unit 5 Fermented foods:</b>	
Microbial activity in food vegetables (olives and cucumbers), meat (sausages), bread, idli, cocoa and coffee. Dairy foods – cheese, Shrikand, Tempeh, Therapeutic and nutritional value of fermented foods, spoilage and defects of fermented dairy products, oriental fermented foods their quality, standard and control	08 Hrs
<b>Unit 6 Milk and milk products:</b>	
Composition, properties, food and nutritional value and microbiology of milk, contamination, preservation, spoilage, testing of milk and milk products. Safety systems in dairy industries, Fermented milk products – cheese, yoghurt, shrikand, Kefir, Kumis and acidophilus milk.	08 Hrs
<b>Unit 7 Food borne infections and Bacterial Intoxication</b>	
<i>Brucella, Bacillus, Clostridium, Escherichia, Salmonella, Shigella, Staphylococcus, Vibrio, Yersinia and Listeria, Nematodes, Protozoa, Algae, Viruses and Molds. Mycotoxins</i> –Aflatoxins, Ochratoxins, Trichothecenes, Zealenone, Ergot Alkaloids; Food Borne outbreaks, lab testing procedures and preventive measures	08 Hrs
<b>Unit 8 Food sanitation:</b>	
Sanitation in manufacture and retail trade; food control agencies and their regulations. Food safety laws and standards, Food packing International – HACCP, ISO 9000 series, GMP and GLP, FDA and EU	04 Hrs

India – PFAA, FPO, MPO, CSO, the AGMARK, standards, bureau of Indian Standards (BIS). Food testing laboratories in India - SRI, FRAC.	
<b>PRACTICALS</b>	
<b>MB CP 3.7 based on MB CT 3.3 - Food and Dairy Microbiology</b>	
<ol style="list-style-type: none"> <li>1. Microbiological Examination of Utensils.</li> <li>2. Enumeration of microorganisms from healthy and spoiled fruits and vegetables</li> <li>3. Enumeration of microorganisms from cereals, spices and dry products</li> <li>4. Enumeration study of spoilage of stored meat and fish</li> <li>5. Study of microbiology of milk and milk products</li> <li>6. Rapid platform test for milk - Resazurin test</li> <li>7. Methylene blue reduction test</li> <li>8. Production of yoghurt, acidophilus milk and tempeh</li> <li>9. Production of cheddar from fermented food</li> <li>10. Estimation of lactic acid in milk and curd</li> <li>11. Estimation Fat in milk and milk products</li> <li>12. Estimation of proteins from Spirulina</li> <li>13. Estimation of ascorbic acid from tomato, chilly and lemon</li> <li>14. Estimation of Aflatoxin from food samples</li> <li>15. Mushroom cultivation (Oyster) and Spirulina, Agar-agar and single cell proteins</li> <li>16. Mandatory visit to food research institutes/Industries</li> </ol>	
<b>REFERENCES</b>	
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### **MB ET - 3.4 FOOD AND FERMENTATION TECHNOLOGY**

#### **Course Outcome**

Paper Code and Name	<b><u>MB ET - 3.4 FOOD AND FERMENTATION TECHNOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Know the Concepts and scope of food and dairy microbiology.
CO 2	Understand the Important microorganisms in food and their source.
CO 3	Know the various principles of food spoilage, contamination. and detection of food borne microbes. Food preservation techniques
CO 4	Gain knowledge on food borne diseases, Food Borne outbreaks, lab testing procedures and preventive measures
CO 5	Understand the industrial production of agar, alcohols, vitamins recombinant protein

	etc
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<b>Particulars</b>	<b>No of Hours (Hrs) Total (50 Hours)</b>
<b>Unit 1 Introduction:</b>	
Definition, Concepts and scope of food and dairy microbiology	<b>02 Hrs</b>
<b>Unit – 2 Food as a substrate for microorganisms:</b>	
Important microorganisms in food (Molds, Yeasts, Bacteria) and their source. (Air, soil, water, plants and animals)	<b>04 Hrs</b>
<b>Unit -3 Contamination and spoilage:</b>	
Principles of food spoilage. spoilage of cereals sugar products, fruits, vegetables, meat and meat products, fish and sea foods poultry, spoilage of canned foods, Detection of food borne microbes- sampling, detection by culturing methods, physical and chemical methods	<b>08 Hrs</b>
<b>Unit 4 Food preservation:</b>	
General principles, physical methods (low temperature, high temperature and drying), chemical methods (Food additives), irradiation, biological methods of food preservation. Processing for heat treatment- D, Z and F values and working out treatment parameters, Freeze drying methods	<b>08 Hrs</b>
<b>Unit 5 Fermented foods:</b>	
Microbial activity in food vegetables (olives and cucumbers), meat (sausages), bread, idli, cocoa and coffee. Dairy foods – cheese, shrikand, Temph, Therapeutic and nutritional value of fermented foods, spoilage and defects of fermented dairy products, oriental fermented foods their quality, standard and control	<b>08 Hrs</b>
<b>Unit 6 Introduction to bioprocess engineering</b>	
Isolation, screening, selection, preservation and maintenance of industrial microorganisms strain improvement, Inoculum development for bacterial and fungal processes, spore inoculum or vegetative mycelia inoculum for fungi	<b>03 Hrs</b>
<b>Unit 7 Fermentation media:</b>	
Natural, synthetic media typical media and media formulation strategies, Source of Carbon, Nitrogen, Vitamins and minerals, Role of buffers, precursors, inhibitors, inducers and antifoam agents. Solid state fermentation	<b>03 Hrs</b>
<b>Unit 8 Sterilization process in fermentation industry</b>	
– Media sterilization, method of batch sterilization and the design of continuous sterilization process, sterilization of fermentor, feeds air, and filter design	<b>03 Hrs</b>
<b>Unit 9 Bioreactors</b>	
Design of fermentors, basic function of a fermentors, body construction aeration and agitation. The achievement and maintenance of aseptic conditions sterilization of fermentors air supply, aeration and agitation, addition of inoculum and nutrients, sampling, foam control monitoring and control of various parameters, various types of values Types of bioreactors Specialized bioreactors – Tubular bioreactors, membrane bioreactors, Tower	<b>06 Hrs</b>

bioreactors, fluidized bed reactor, packed bed reactor and photo bioreactors	
<b>Unit 10 Fermentation technology</b>	
Types of fermentation process – Analysis of batch, fed batch and continuous bio-reactions, stability of microbial reactors, analysis of mixed microbial population, specialized bio-reactors (pulsed, fluidized, photo bioreactors etc). Measurement and control of bio-process parameters	<b>04 Hrs</b>
<b>Unit 11 Industrial production</b>	
Agar, Alginate, Alcohol (Ethanol), Organic acids (Citric, acetic, Lactic and Gluconic acid) Solvent (Glycerol Acetone, Butanol), Antibiotics (Penicillin, streptomycin, tetracycline) Amino acids (lysine, glutamic acid) Single cell proteins (SCP) Vitamins (Riboflavin) Enzymes (Amylase, lactase, protease), Hydrocarbons – Biodegradable plastic – Polyhydroxyalkanoates (butyrate, propionate etc), recombinant protein (hepatitis – B vaccine)	<b>08 Hrs</b>
<b>PRACTICALS</b>	
<b>MBCP 3.8 based on MBCT 3.4. Food and Fermentation Technology</b>	
<ol style="list-style-type: none"> <li>1. Isolation and Enumeration of food pathogens from fruits, vegetables, cereals and dry products.</li> <li>2. Extraction of starch from Potato.</li> <li>3. Extraction of Casein from Milk.</li> <li>4. Estimation of Ascorbic acid from Tomato, Chills and Lemon.</li> <li>5. Estimation of Lactic acid from fermented milk products.</li> <li>6. Estimation of Aflotoxins from food samples</li> <li>7. Production Curd, Yoghurt, Paneer, Acidophilus milk, Tempeh.</li> <li>8. Production of Microbial lipids</li> <li>9. Production of Sauerkraut.</li> <li>10. Production of Probiotics.</li> <li>11. Isolation of lycopene from tomato</li> <li>12. Mushroom Cultivation and spirulina</li> </ol>	
<b>REFERENCE</b>	
<ol style="list-style-type: none"> <li>1. WC Frazier; (2001) Food Microbiology; Tata McGraw Hill, Delhi</li> <li>2. Bisen (1995) Hand Book of Microbiology;</li> <li>3. Dayte M.P., Lorry R.B. and Thomas J.M., (2008) Food Microbiology, ASM, Washington D.C.</li> <li>4. Adams M.R. and Moss M.O. (2000) Food Microbiology. Royal Publishing Corporation.</li> <li>5. Bibek Ray (2001). Fundamentals of Food Microbiology. Bibek Ray. 2nd Edition. CRC Press.</li> <li>6. Bieleckis, Tramper J, Polak J. (2000), Food Biotechnology. Elsevier.</li> <li>7. James.M.Jay (1996) Modern food Microbiology CBS Publishers and Distributors. Delhi.</li> <li>8. John S. Norak, Gerald M.Sapers, Vijay Kumar Juneja, Daniel K Gay (2002), Microbial Safety of minimally processed foods 1st Edition CRC Press.</li> <li>9. Ananthkrishnan C.P. et.al. (1994), dairy Microbiology, Sreelakshmi Publication., Chennai.</li> <li>10. Robinson R.K. (1990), dairy microbiology, Elsevier Applied Science, London.</li> <li>11. Casida(1994), Industrial Microbiology, Wiley Eastern Ltd. New Delhi.</li> <li>12. Mary.E.Torrence, Richard E.Isaacson (2003), Microbial Food Safety in Animal Agriculture: Current Topics Low State University Press.</li> <li>13. Diam Robert. (2002), Food Microbiology: An Introduction. Black Well Publishers</li> </ol>	

### **MICROBIOLOGY FOURTH SEMESTER SYLLABUS**

## Course Outcome

<b>Paper Code and Name</b>	<b><u>MB CT 4.1 IMMUNOLOGY AND IMMUNOTECHNOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Know the fundamental concepts and cells involved in immunology.
CO 2	Understand the principles, types of antigens and immunoglobulins
CO 3	Know the various principles of different Serological methods for detection and quantization of viral diseasesborne microbes.
CO 4	Gain knowledge on Immunotechniques and applications
CO 5	Understand the different methods of immunization and also about the different types of vaccines.

<b><u>PARTICULARS</u></b>	<b>No of Hours (Hrs)</b>
<b>Unit 1: Immunology- fundamental concepts and anatomy of the immune system:</b>	
History and scope of immunology, cells involved in immune system – T-lymphocytes, B-lymphocytes, Monocytes, Macrophages, APC, Neutrophils, Mast cells, Types of immunity-Adaptive immunity, Innate immunity, Components of Innate and Acquired immunity; Phagocytosis, Complement and Inflammatory responses, Haematopoiesis, Organs of the immune system- primary and secondary lymphoid organs, Lymphatic system, Lymphocyte circulation, Lymphocyte homing, Mucosal and Cutaneous associated Lymphoid tissue (MALT&CALT).	<b>08 Hrs</b>
<b>Unit 2: Antigen:</b>	
Concept of haptens, determinants, conditions of antigenicity, antigens and immunogenicity, super-antigen. Self and non-self-recognition, epitopes mapping, paratopes, nature of B-cell and T – cell epitopes, haptens, carbohydrate antigens, blood group antigens, synthetic peptides as antigens. <b>Immunoglobulins:</b> Structure and properties of immunoglobulin classes. Theories of antibody formation, Multiple myelomas and structural basis of antibody diversity.Freund’s adjuvants and its significance	<b>05 Hrs</b>
<b>Unit 3: Antigen-antibody Interaction and Immunotechniques:</b>	
Agglutination, Precipitation, Affinity, avidity and cross reactivity, Immuno double- diffusion, single radial immunodiffusion, Haemagglutination and complement fixation, direct and indirect Immunofluorescence	<b>05 Hrs</b>
<b>Unit 4: Immunodiagnostics:</b>	
Anti-microbial immunity: a general scheme, Defense against bacteria, viruses, fungi and parasites. Immunodiagnostics in virology – Serological methods for detection and quantitation of viruses including Hepatitis, Influenza, HIV and others	<b>05 Hrs</b>

<b>Unit 5: Immunotechniques and applications:</b>	
Immuno-assays, SRID, ELISA, ELISA-PCR, RIA, Western Blotting, Immunofluorescence and their application. Immuno-deficiencies and autoimmunity. Immunoelectrophoresis, Flow cytometry, Immunoblot, Complement fixation test (CFT), Montaux test. Applications of these methods in diagnosis of Microbial infections	<b>05 Hrs</b>
<b>Unit 6: Expressions and Regulation of Immune Response:</b>	
Regulation of immune response: Antigen processing and presentation, generation of humoral and cell mediated immune response, activation of B and T lymphocytes, cytokines and their role in Immune regulation, T cell regulation, MHC restriction, Immunological tolerance	<b>04 Hrs</b>
<b>Unit 7: Hypersensitivity reactions:</b>	
Allergy, Type I- Anaphylaxis, Type II- Antibody dependent cell cytotoxicity, Type III- Immune complex mediated reactions, Type IV- delayed type hypersensitivity, Symptoms and Immunological methods of diagnosis of hypersensitive reactions. Lymphokines and cytokines Assay methods, Immunological tolerance and modulation	<b>03 Hrs</b>
<b>Unit 8: Transplantation immunology:</b>	
Structure and functions of MHC and the HLA systems, types of grafts, grafts rejection, GVH reactions, mechanism of graft rejection, and prevention of graft rejection. Gene regulation and Ir-genes; HLA and tissue transplantation – Tissue typing methods for transplantations in humans; graft versus host reaction and rejection, Xeno-transplantation, (inter species, intra Species, Intra Genus) immunosuppressive therapy	<b>04 Hrs</b>
<b>Unit 9: Tumor immunology:</b>	
Tumor specific antigens, Immune response to tumors, Theory of surveillance, Immunodiagnosis of tumors – detection of tumor markers – Alpha foetal proteins, carcinoembryonic antigen, cancer therapeutics	<b>04 Hrs</b>
<b>Unit 10: Immunization &amp; Vaccine technology and recombinant vaccines:</b>	
Common immunization practice, types of vaccines and its application, edible vaccines, conventional vaccines, viral vaccines, bacterial vaccines, peptide vaccines, genetically engineered vaccines, hybridoma technology, immunization of animals Isolation of stimulated spleen cells, myeloma cell lines used and fusion partners. Fusion method production, detection and applications of monoclonal and polyclonal antibodies, production and application of lymphokines	<b>05 Hrs</b>
<b>Unit 11: Cytokines:</b>	
Structure and receptors, signal transduction, modulation of immune response cytokine profile of diseases	
<b>PRACTICALS</b>	

**MB CP 4.4 Based on MB CT 4.1 - Immunology and Immunotechnology**

1. Study of cells / Organs of Immune system
2. WBC and RBC count
3. Determination of Blood groups and Rh factor.
4. Estimation of Hemoglobin.
5. Determination of Bleeding Time (BT) and Clotting Time (CT).
6. Separation of Serum / Plasma from whole blood, Electrophoretic separation of serum proteins/plasma
7. Blood film preparation and identification of cells.
8. Precipitation of Immunoglobulins from serum by Ammonium sulphate precipitation.
9. Partial purification of Ammonium sulphate precipitated Immunoglobulins by dialyzing against phosphate buffered saline.
10. Agglutination tests (Haemagglutination, Latex agglutination, Bacterial agglutination).
11. Immunoprecipitation tests – Radial Immunodiffusion test / Ouchterlony double diffusion test.
12. Demonstration of antigen administration to animals Mice / Rat. (Intra muscular, Intra venial, Intra peritoneal)
13. Demonstration of ELISA
14. Demonstration of Western blot.
15. Isolation of Neutrophils
16. Determination of antibody titer of the serum.
17. Immunoelectrophoresis – Rocket Immunoelectrophoresis,

**REFERENCES**

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3. Bisen, S.P. (2014). Laboratory Protocols in Applied Life Sciences, CRC Press Taylor and Francis Group
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### **MB CT- 4.2 MEDICAL MICROBIOLOGY**

### **MB CT- 4.2 MEDICAL MICROBIOLOGY**

#### **Course Outcome**

<b>Paper Code and Name</b>		<b><u>MB CT- 4.2 MEDICAL MICROBIOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Know the classify medically important microorganisms, normal microbial flora and their significance..	
CO 2	Understand the modes of disease transmission.	
CO 3	Know the various principles of different Serological methods for detection and quantization diseases	
CO 4	Gain knowledge on Immunotechniques and applications	
CO 5	Understand the Clinical Microbiology: Students will learn methods of Specimen collections, handling, transport, identification of pathogens.	
CO 6	Analyse the Pathogenesis, Clinical conditions, laboratory diagnosis, epidemiology, Prophylaxis and treatment of the microbial diseases. Nosocomial and Dental infections.	

<b><u>Particulars</u></b>	<b>No of Hours (Hrs)</b>
<b>Unit 1: History, development and scope of medical microbiology:</b>	
Classification of medically important microorganisms, normal microbial flora of human body and their significance. Human microbiome project	<b>04 Hrs</b>
<b>Unit – 2: Disease transmission:</b>	
Infection by bacteria, fungi, viruses and protozoa – Signs, symptoms, sources and reservoir of infection nosocomial infections, Pathogenesis - adhesion, invasion, host cell damage, release of pathogens, modes of transmission and epidemiology	<b>10 Hrs</b>
<b>Unit -3: Clinical Microbiology:</b>	
Specimen collections, handling, transport, identification of pathogens from specimen, growth and biochemical characteristics, Rapid methods of identification, immunological techniques, Bacteriophage typing, molecular	<b>10 Hrs</b>

measures (DNA probes, Restriction endonucleases, DNA Finger printing, RIA, ELISA, PCR) and susceptibility testing. A brief account on hospital management	
<b>Unit 4: Antimicrobial Therapy:</b>	
General Characteristics of antimicrobial agents, determination of antimicrobial activity. Mechanisms of action of antimicrobial agents; Antibacterial drugs- Sulfonamide, Quinolones, Penicillin, Cephalosporin, Tetracycline, Erythromycins; Antifungal drugs-Clotrimazole, Econazole, Miconazole, Terbinafine, Fluconazole and antiviral drugs- Abacavir, Adefovir; Drug resistance – Types, mechanism and implication.; Brief account on available vaccines and schedules	<b>12 Hrs</b>
<b>Unit 5: Disease diagnosis and epidemiology:</b>	
Pathogenesis, Clinical conditions, laboratory diagnosis, epidemiology, Prophylaxis and treatment of the following diseases. a) <b>Protozoa:</b> Amoebiasis, Giardiasis, Malaria, Leishmaniasis and Trypanosomiasis. b) <b>Bacteria:</b> Diphtheria, Typhoid, Gonorrhea, Syphilis, Plague, Leprosy, Tuberculosis, Gas gangrene, Tetanus, Septicemia, Cholera and Brucellosis. c) <b>Fungi:</b> Candidiasis, Mycetoma, Chromomycosis, Sporotrichosis, Cryptococcosis, Blastomycosis, Coccidiomycosis and Histoplasmosis. d) <b>Virus:</b> Measles, Mumps, Influenza, Yellow fever, HIV, Ebola, Zika, Herpes, Rabies, Hepatitis, Polio myelitis, Dengue fever, Japanese Encephalitis, KFD, Rhinovirus, CJD and Kuru. e) <b>Nosocomial Infections:</b> Bacteremia, Burn wounds, surgical site infections, Urinary tract and miscellaneous infections. <b>Dental Infections:</b> Dental Plaque, Dental carries and periodontal diseases	<b>08 Hrs</b>
<b>PRACTICALS</b>	
<b>MBCP 4.5 based on MBCT 4.2 Medical Microbiology</b>	
<ol style="list-style-type: none"> <li>1. Preparation of culture media for the culture of different pathogenic microorganisms.</li> <li>2. Anaerobic culture method for anaerobes of clinical importance.</li> <li>3. Presumptive identification of pathogenic microorganisms using colony morphology on selective/differential/selective-differential/enrichment media.</li> <li>4. Isolation and characterization of clinical significant species of <i>Staphylococcus</i>, <i>Streptococcus</i>, <i>Candida</i>, <i>Cryptococcus</i>, <i>Corynebacterium</i>, <i>Bacillus</i>, <i>Nocardia</i>, <i>Neisseria</i>, <i>Enterobacteriaceae</i>, <i>Vibrio</i>, <i>Pseudomonas</i>, <i>Aeromonas</i>.</li> <li>5. Microscopic observation of important human pathogens.</li> <li>6. Study of commensal microbial flora of human body (mouth/skin/hands/nose/ear).</li> <li>7. Isolation, characterization and identification of bacterial pathogen from clinical specimen (Urine sample/Pus sample/Blood sample).</li> <li>8. Study of <i>Mycobacterium tuberculosis</i> by AFB method using sputum (Bacterial infection).</li> <li>9. Demonstration of the diagnosis of HIV by Dot-ELISA (Viral infection).</li> <li>10. Detection of malarial parasite from human blood sample (Parasitic infection).</li> <li>11. Identification of pathogenic fungi (Germ tube test/Slide culture technique).</li> <li>12. Study of antibiotic sensitivity test by paper disc method.</li> <li>13. Determination of MIC value for selected antibiotics by Kirby-Bauer method.</li> <li>14. Analysis of antibiotic resistant mutants from clinical samples.</li> <li>15. Lymphocyte viability test (Trypan blue exclusion test of cell viability).</li> </ol>	

16. Study of cancer cells and visit to cancer research institute.
17. Mandatory visit to hospital and medical research centers.

## REFERENCES

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### **MB CT- 4.3 BIOPROCESS ENGINEERING AND TECHNOLOGY**

#### **Course Outcome**

<b>Paper Code and Name</b>	<b><u>MB CT- 4.3 BIOPROCESS ENGINEERING AND TECHNOLOGY</u></b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Know the concept of Bioprocess engineering, Isolation, screening, selection, preservation and maintenance of industrial important microorganisms..
CO 2	Understand the types of sterilization, bioreactors, and design of fermentors
CO 3	Know the various principles of downstream processing, crystallization, packaging and quality assurance.
CO 4	Gain knowledge on <b>Entrepreneurship</b> : Potential entrepreneurship activities in biotechnology,. Biotechnology industries in India and the potential job opportunities and Intellectual property rights (IPRs)

<b><u>MB CT- 4.3</u></b> <b><u>BIOPROCESS ENGINEERING AND TECHNOLOGY</u></b>	<b>No of Hours (Hrs)</b>
<b>Unit 1: Introduction:</b>	
Bioprocess engineering, Isolation, screening, selection, preservation and maintenance of industrial important microorganisms Strain improvement, Inoculum development for bacterial and fungal processes, spore inoculum or vegetative mycelia inoculum for fungi.	<b>03 Hrs</b>
<b>Unit – 2: Fermentation media:</b>	
Natural, synthetic media typical media and media formulation strategies, source of Carbon, Nitrogen, Vitamins and minerals, Role of buffers, precursors, inhibitors, inducers and antifoam agents. Solid state fermentation	<b>04 Hrs</b>
<b>Unit -3: Sterilization process in fermentation industry:</b>	
Media sterilization, method of batch sterilization and the design of continuous sterilization process, sterilization of fermentor, feeds air, and filter design	<b>04 Hrs</b>
<b>Unit 4: Bioreactors:</b>	
Design of fermentors, basic function of a fermentors, body construction aeration and agitation. The achievement and maintenance of aseptic conditions sterilization of fermentors air supply, aeration and agitation, addition of inoculum and nutrients, sampling, foam control monitoring and control of various parameters, various types of values, Types of bioreactors Specialized bioreactors – Tubular bioreactors, membrane bioreactors, Tower bioreactors, fluidized bed reactor, packed bed reactor and photo bioreactors	<b>06 Hrs</b>
<b>Unit 5: Fermentation technology:</b>	
Types of fermentation process – Analysis of batch, fed batch and continuous bio-reactions, stability of microbial reactors, analysis of mixed microbial population, specialized bio-reactors (pulsed, fluidized, photo bioreactors etc). Measurement and control of bio-process parameters	<b>05 Hrs</b>
<b>Unit 6: Downstream processing:</b>	

Introduction objectives and criteria for downstream processing, Removal of microbial cells and solid matter, Foam precipitation, filtration centrifugation, cell disruptions, liquid-liquid extraction, chromatography, membrane process, drying, crystallization, packaging and quality assurance	<b>06 Hrs</b>
<b>Unit 7: Immobilization:</b>	
Definition and concepts of immobilization, enzyme and whole cell immobilization, immobilization techniques – adsorption, cross-linking, ionic bonding, entrapment encapsulation, advantages and industrial applications of immobilized enzymes ( $\alpha$ -galactosidase, glucoseisomerase, etc.) and cells	<b>04 Hrs</b>
<b>Unit 8: Industrial production:</b>	
Agar – Agar, Alginate, Alcohol (Ethanol), Organic acids (Citric, acetic, Lactic and Gluconic acid) Solvent (Glycerol Acetone, Butanol), Antibiotics (Penicillin, streptomycin, tetracycline) Amino acids (lysine, glutamic acid) Single cell proteins (SCP) Vitamins (Riboflavin) Enzymes (Amylase, lactase, protease), Hydrocarbons – Biodegradable plastic – Polyhydroxyalkanoates (butyrate, propionate etc), recombinant protein (hepatitis – B vaccine)	<b>12 Hrs</b>
<b>Unit 9: Entrepreneurship:</b>	
Potential entrepreneurship activities in biotechnology, An-inter disciplinary challenge, product development, marketing, research and training units, Industrial licensing, venture capital, Biotech parks. Biotechnology industries in India and the potential job opportunities and Intellectual property rights (IPRs) Trade Mark, and development of branding, Trade market, Market survey, etc., Future challenges, and its solution)	<b>06 Hrs</b>
<b>PRACTICALS</b>	
<b>MB CP 4.6 based on MB CT 4.3 - Bioprocess Engineering and Technology</b>	
<ol style="list-style-type: none"> <li>1. Study of Fermentor and Bioreactor</li> <li>2. Isolation of industrially important microorganisms.</li> <li>3. Study of antibiotic producing microorganisms in mass culture process and recovery of the product</li> <li>4. Detection and quantification of Siderophores produced by <i>Pseudomonas sp.</i></li> <li>5. Study of alcohol fermentation – alcohol production from different substrates, Lab production of Wine, Estimation of percentage of Alcohol, Total acidity and volatile acidity in wine</li> <li>6. Estimation of Alcohol by Potassium dichromate method</li> <li>7. Production and analysis of SCP from <i>Spirulina</i> and <i>Yeast</i></li> <li>8. Production of Citric acid by <i>Aspergillus niger</i>, <i>Penicillium citranum</i> and its estimation</li> <li>9. Production of Pectinase from <i>Aspergillus niger</i> by using Wheat bran, Coffee pulp using small scale fermentor and its assay</li> <li>10. Production of <math>\alpha</math>- Amylase using <i>Aspergillus oryzae</i>, <i>Bacillus licheniformis</i> using Wheat bran in small scale solid state fermentation and its assay</li> <li>11. Immobilization of yeast cells by calcium alginate gel entrapment and assay for enzymes Invertase and Catalase</li> <li>12. Preparation of immobilized cells of <i>Bacillus licheniformis</i> for the use in the production of <math>\alpha</math>- amylase</li> <li>13. Extraction and estimation of vitamins- Thiamine/ Niacin/ Riboflavin/ Vitamin C</li> <li>14. Mandatory visit to Research Institutes / Industries</li> </ol>	

REFERENCE
1. Olia and Oly, (1998). Introduction to Biochemical Engineering, 2 <sup>nd</sup> Edn, bailey Publ.
2. Michael., Scheler and Fikretkargi (2001). Bioprocess engineering – basic concepts. 2 <sup>nd</sup> Edn , Prentice Hall.
3. Frazier, W. C. and Westhoff, P.C. (1998). Food Microbiology, Tat McGraw Hill Publishers, New Delhi.
4. P.T. Kalaichelvan. (2011) Bioprocess Technology. MJP Publishers, Chennai
5. Subhaschand, S.C. Jain. – Fermentation Biotechnology. Panima Book Distributors, New Delhi.
6. Michael, J. Waites. Neil, L., Morgan., John S- Rockey (2001). Industrial Microbiology, Panima Book distributors, New Delhi.
7. Wulfrueger and Anneliesecrueger. (2005) Biotechnology- A Text Book of Industrial Microbiology- Second Edn, Panima Book distributors, New Delhi
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9. El-mansi, E.M.T and Bruce, C.F.A. (2002). Fermentation Microbiology, 2 <sup>nd</sup> Edn, Cambridge University Press.
10. Paulins, M.D. (2003). Bioprocess Engineering – Principles. John Wiley Publishers.
11. Prescott, S.C. and Dunn, C. (1984). Industrial Microbiology. McGraw Hill, New York.
12. Arnolod L. Demain. (2001) Manual of Industrial Microbiology and Biotechnology, Panima Book distributors, New Delhi

**MB CP- 4.7 Project Work/ Dissertation**

**Course Outcome**

Paper Code and Name		<b><u>MB CP- 4.7 Project Work/ Dissertation</u></b>
<b>COURSE OUTCOMES (COs)</b>		
After completing this paper, the students will be able to:		
CO 1	Know the concept and skill of scientific writing papers	
CO 2	Understand the research methodology	
CO 3	Gain knowledge on skills, applications and entrepreneurship activities in Microbiology	

## **P.G. Department of Music**

### **Criterion I - A.**

#### **A. Format for presentation of current curriculum**

### **Karnataka University, Dharwad Dept. of Music**

#### **Revised Syllabus for M. Music Semester Course w.e.f. 2018-19 onwards.**

#### **Introduction and a brief history**

Music has ever been in India, an inseparable part of its cultural life music reveals the true form and feeling that lie hidden in the depth of every soul and disclose the secrets of the inner life thus touching a man's conscience and elevating him to a finer being.

The art of music is allied to other fine arts like sculpture, architecture and painting. It accommodates itself to the character of all people and all tunes. In view of this in the words of Romain Rolland, "Although music may be known as an individual art, yet it is considered as a social art". It plays a vital role in moulding the cultural life of a country and hence its importance in the field of education.

With this in view, as to also further meaningful research in the field of Indian music, the Post-Graduate Department of music was started in the year 1976 under the able guidance of Dr. Mallikarjun Mansur, who was appointed as an Honorary Director of the Department of music and the faculty of Fine Arts.

Dr. (Smt.) Gangubai Hangal, Pt. Basavaraj Rajguru, Prof. Rajeev Purandare and Smt. Janaki Ayer, joined the Department as honorary lecturers and thus rendered their valuable services at the altar of Hindustani classical music.

In the mean while Pt. Panchakshariswami Mattigatti, Pt. R.P. Hugar, Pt. Sangmeshwar Gurav and, Pt. Basavaraj Bendigeri, joined the Department. Further Prof. A.U. Patil and Prof. B.D. Pathak and Dr. Meera Gundi worked as a Chairman of P.G. Dept of Music and Fine arts KUD.

In the year 1984-85 Dr. (Smt.) Meera Gundi appointed as a honorary musician and Ph.D. work done under the able guidance of Prof. A.U. Patil, chairman of the P.G. Dept of Music and Fine arts KUD.

The Department availed opportunity of visiting professors of outstanding merit like Pandit M.D. Sadolikar, Smt. Padmavathi Saligram, Prof. Ramesh Nadkarni, Pt. Sudhakar Digarajkar, Prof. Padmakar Burve, Pt. Bhimshankar, Pt. Narayanrao Mujumdar, Dr. (Smt) Bharathi Vaishanpayan, Pt. Panshikar, Pt. Utturkar Bua, Pt. V.R. Athole, Pt. Appasaheb Deshpande, Pt. Chandrashekhar Puranikmath, Pt. Sheshagiri Dandapur, Pt. Balekhan, Shri.

Sanjay Deshpande, Pt. Arvind Mulagavkar, Pt. Raghunath Nakod and Pt. Hayavadhan Joshi etc. And the Department intends to invite renowned visiting artists a every year.

## **Genesis**

The Department of studies in music and Fine Arts was founded in the academic year 1976-77 in Karnataka University, Dharwad by late Dr. Mallikarjun Mansur who was first Honorary Director of the Department. It had the credit of reputed Musicians like Dr. Basavaraj Rajguru, Prof. A.U. Patil and Prof. Bindhumadhav Pathak, Vidushi Janaki Ayer, Pt. Sangmeshwar Gurav, prof. Basavaraj Bendigeri, Prof. R.P. Hugar, Pt. Basavaraj Rajguru, Pt. Smt. Janaki Ayer and Dr. Meera Gundi appointed together as a Honorary Musicians in the P.G. Dept of Music and Fine Arts, Karnatak University, Dharwad. The Department had the credit of having international reputed musicians Dr. Gangubai Hangal, Pt. Panchaxarswami Mattigatti. For the past 25 years the Department has produced renowned artists who are presently either working in university's, central schools and international schools, giving public and private concerts and giving the training for the students in music both vocal and instruments like Sitar, Tabla etc.

In the meanwhile Dr. V.R. Hugar, Dr. M.H. Agadi thus rendered there valuable service in Hindustani Classical Music. The Music Department is one of the renowned Department and has the reputed presence among the other Department for its excellence and unique teaching of Rare Ragas being taught at present. The music department is having instruments like Tanpura, Tabla, Sitar, Harmonium, Television, Radio cum Tape recorder, CD Player etc. which are all ment for teaching purposes. Our student have the facilities to listen to the music of Great Musicians, our students indulge in cultural activities and there is a complete encouragement from the Department contribution of our students to the field of music is commendable. They have performed many classical and light classical programs through out India. They participate in youth festivals and central and state government scholarship music competitions. There are many students in vocal, sitar and tabla etc. students are given good education and also there is a full time for practice, to them to get good results. In the Department Seminars, Group Discussion, Conference and Concerts and Study Tours compulsory for all the students and staff.

While teaching music compulsorily tabla accompaniment is provided, for vocal and sitar and for tabla students harmonium for lehara sathi is provided. For tabla accompaniment the accompanists are Shri. Sudhindra Mujumdar, Shri. Nandikeshwar Gurav.

Since 1999-2000 National Music conference is conducting every year. In the P.G. Department of Music & Fine Atrs, K.U.D.

## **PRESENT STAFF**

### **Teaching Staff**

- 1) Dr. M.H. Agadi

M.A. History, Sangeet Alankar (M.Music) Ph.D., SLET Vidwat Vocal, Vidwat Tabla

Professor and Chairman A Grade Classical Vocal Arist of AIR Dharwad.

- 2) Dr. V.R. Hugar

M.A. Psychology, M. Music & Ph.D.

Associate Professor, AIR Artist in Music

Non Teaching Staff :

1) Shri Nadikeshwar S. Gurav (AIR Tabla Artist)

## **Revised Syllabus of M. Music Semester System w.e.f. 2018-19 onwards.**

### **I Semester Vocal**

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
1.1	Theory - Topics : 1. Origin and development of Hindustani Music 2. History of Indian Music during Vedic Period 3. Folk Music 4. Contribution of 12 <sup>th</sup> century Shiva Sharana's to the Music Field 5. Theoretical knowledge of Ragas and Talas Prescribed 6. Knowledge of Notation system (swar-lipi-paddathi) of Ragas and Talas prescribed 7. Biographies : 1) Pt. Neelakant Bhuva Alurnath 2) Dr. Basavaraj Raj Guru 3) Pt. Panchaksariswamy Mattigatti	25	75	100	4	4
1.2	<u>Practical</u> : Khyal Ragas : 1 Miyakitodi Talas : 2. Goud Sarang	25	75	100	4	4
1.3	<u>Practical</u> : Khyal Ragas 1) Bhairava 2) Multani	25	75	100	4	4
1.4	<u>Practical</u> : Ragas Talas 1) Kaffhi 2) Khamaj 1) Vilanbit Teental 2) Deepchandi	25	75	100	4	4
1.5	<u>Practical</u> : 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

### **II Semester Vocal**

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
2.1	Theory : Topics 1) Voice Culture in Music 2) Gharana's in Hindustani Vocal Music	25	75	100	4	4

	3) Evaluation and Development of Shruti, Swar & Saptak 4) Detail Study of Raga System in Indian Music 5) Biographics 1) Pt. Panchakshari Gavayigal 2) Ustad Abdul Kareem Khan 3) Vidushi Kishori Amonkar 6) Knowledge of Swar lipi Paddhati and Tala lipi Paddati Prescribed 7) Detailed theoretical Study of Ragas & Talas Prescribed					
2.2	<u>Practical :</u> Ragas 1) Deskar 2) Boopali Todi Tala - Japtal	25	75	100	4	4
2.3	<u>Practical :</u> Ragas 1) Miyamalhar 2) Shankara Tal : Roopak	25	75	100	4	4
2.4	<u>Practical :</u> Thumari - Raga 1) Pehedi 2) Bhairavi Tal : Adda	25	75	100	4	4
2.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

### III Semester Vocal

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
3.1	Theory : Topics 1) History of Indian Music during Moghal Period 2) Contribution of 14 <sup>th</sup> Century Dasas to the Indian Music 3) A Theoretical & Music 4) Theoretical Knowledge of Talas and Ragas Prescribed 5) Knowledge of Swar-lipi-Paddhati of the Ragas and Talas 6) Detail Study Musical Forms 7) Biographics : 1) Dr. Smt. Gangubai Hangal 2) Dr. Bimshen Joshi 3) Pt. Kumar Gandharva	25	75	100	4	4
3.2	<u>Practical :</u> Khyal 1) Marava that Bibhas 2) Basant Talas : Tilwad	25	75	100	4	4
3.3	<u>Practical :</u> Khyal – Ragas 1) Nayaki Kanada	25	75	100	4	4

	2) Marobihag Talas : Zumra					
3.4	<u>Practical</u> : Thumari 1) Maand 2) Pilu Tala : Punjabi	25	75	100	4	4
3.5	<u>Practical</u> : 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

#### IV Semester Vocal

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
4.1	Theory : Topics 1) Comparative study of Karnataki and Hindustani Music 2) Music and Fine Arts 3) Knowledge of Indian musical instruments 4) The Role of Music in Human life 5) Knowledge of Swar-lipi-Paddhati prescribed 6) Biographics : 1) Ustad Alladiya Khan 2) Dr. Mallikarjun Mansur 3) Ustad Faiyaz Khan 7) Detailed theoretical Study of Ragas and Talas Prescribed	25	75	100	4	4
4.2	<u>Practical</u> : Khyal : Ragas 1) Darbari Kanada 2) Malkouns Tala : Addha choutal	25	75	100	4	4
4.3	<u>Practical</u> : Khyal : Ragas 1) Komal Rishabh Asavari 2) Shri Tala : Ektal	25	75	100	4	4
4.4	<u>Practical</u> : Thumari 1) Jhinjoti 2) Jogiya Tala : Matt	25	75	100	4	4
4.5	<u>Practical</u> : 1) Stage Performance 20 Minutes. 2) Dissertation			50 50	4	4

#### I Semester Tabla

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
1.1	Theory - Topics : 1. Origin and development of Tabla 2. Detail knowledge of following tabla	25	75	100	4	4

	gharana's 1) delhi 2) purab 3. Origin of Music 4. Knowledge of the following technical terms Naad, Taal, Laya, Sum, Pettu, Husi, Dugun, Tigun, Chougun, Peshkar, Kayada, , Rela, Tukada, Mukada, Paran 5. Knowledge of writing taal lipi System (Bhatakhanda) 6. Biography 1) Pt. Basavaraj Bendigeri 2) Pt. Sheshagiri Hanagal 3) Ustad Shekh Dawood Khan					
1.2	Practical : Topics : 1) Solo in taal teentaal (20 min) 2) One tishra and one mishra kayada in taal teentaal 3) Solo play in taal zhaptal (20 Min) 4) Two tishra jati kayada in taal – zhaptaal 5) Knowledge and Demonstration of following taals and lehra (10 min) a) Tilwada b) Zhumra c) Adachowtaal d) Dhamar	25	75	100	4	4
1.3	Practical : Topics : 1) Solo play in taal roopak (20 min) 2) Two tishra jati kayada in Roopak taal 3) Two rela in roopak taal Thailaya 4) Knowledge of playing dugan and chowagun in following taal (10 min) a) Teen taal b) Zhaptaal c) Ektaal d) Adachowtaal e) Dhamar f) Roopak 5) Padanth of 5 gats in taal teentaal keeping theka on tabla continuously (10 min)			50 50	4	4
1.4	Practical : 1) Two Rela's in taal Zhaptaal one should consist Dhir- Dhir with 5 paltas ending with tihayi. (10 min) 2) 5 gats and 5 chakradar gat in taal roopak (10 Min) 3) 5 gats and 2 chakradar gat in poorab	25	75	100	4	4

	Gharana (10 Min) 4) Playing technics of Delhi and Poorab Gharana (10 Min) 5) 5 mishr jati gat in taal teentaal (10 Min)					
1.5	Practical : 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

## II Semester Tabla

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
2.1	Theory - Topics : 1) Comparison Of Karnataki & Hindustani taal paddhati 2) Knowledge of taal rachana siddhant 3) Study of Hindustani & western taal system 4) Study of taal Dashapran 5) Comparison of tabla & pakhawaj 6) Biography Of the Following Musicians a) Khxnte maharaj b) Jahangir Khan b) Ustad Karamatulla Khan	25	75	100	4	4
2.2	Practical : 1) Solo play in taal Ektaal (30 Min) 2) Two Ekeri kayadas in teentaal with 5 palta ending of tihai 3) Five farmayishi gats in teentaal 4) Five Anagat gats in taal teentaal 5) Knowledge Demonstration of following taal in Vilambit Laya a) Teentaal b) Ektaal c) Zhaptaal	25	75	100	4	4
2.3	Practical : 1) Knowledge of playing following taals in single dugan tigon & chougun a) Teentaal b) Zhaptaal c) Roopak 2) 5 sum to sum thihayi in taal roopak, Zhaptal and Teentaal 3) Ten laggis in taal Kehrwa 4) Knowledge & demonstration of following taals a) Kehrwa b) Dadra c) Deepehandi d) Adda 5) Accompaniment of tabala For vocal in taal teentaal & Zhaptaal	25	75	100	4	4
2.4	Practical 1) Solo play in taal dadra (30 Min) 2) Rang peshkar in taal teentaal with five paltas 3) 2 vistar pradhan gat in taal teentaal 4) One darja gat in taal Teentaal 5) Knowledge of following taal in single, dugan, tigon and chougun a) Choutaal b) Dhamar c) Sool taal	25	75	100	4	4

2.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4
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### III Semester Tabla

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
3.1	Theory - Topics : 1) Study of Avanadh vadya as described in bharat Natya shastra 2) Brief study of pakhwaj & mrudang 3) Classification of Instruments 4) Study of Indian musical Instruments 5) Brief knowledge of tabala solo 6) Biography : a) Ahmadjaan Tirkwa b) Habibuddin Khan c) Amir Hussain Khan	25	75	100	4	4
3.2	Practical : 1) Solo play in taal porodast (13 beas) (30 Min) 2) 2 parans in taal teentaal 3) 2 Tripalli gats in taal teentaal 4) 5 sum to sum tihayi in taal Ektaal & Adachoutal 5) Demonstration of following taals and knowledge of playing lehra. a) Deephandi b) Tilwada c) Zhumara	25	75	100	4	4
3.3	Practical : 1) Solo play in taal matt (30 Min) 2) 2 tishr jati kayada in matt taal 3) 5 laggis & 5 ladis in taal Kehrwa 4) 5 laggis in taal dadra & deepchandi 5) Demonstration of following taal a) Gajajampa b) Vishnu c) Brahma	25	75	100	4	4
3.4	Practical : 1) Solo play in taal Deepchandi 2) Knowledge of playing tabala in Ajrada & farukhabad gharana 3) Knowledge playing tihayi from 1 matra, 5 matra, 9 matra & 13 matra in taal teentaal 4) Knowledge of playing Jhumra & deepachandi in vilambit laya 5) Demonstration of following taals and knowledge of playing lehra. a) Aadha b) Choutaal c) Sawari	25	75	100	4	4
3.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

### IV Semester Tabla

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
4.1	Theory - Topics : 1) Knowledge of tabala technical terms 2) Importance of taal, laya in Music 3) Importance of tabala saat sangat 4) Taal lipi paddhati according to bhatkhande & paluskar notation system 5) Brief study of tabala Gharanas 6) Biography a) Allarakha Khan b) Nazamuddin Khan c) Anokhelal Mishra	25	75	100	4	4
4.2	Practical : 1) Solo play in taal Sawari (15 beats) 2) 5 Chakradar gats in taal Sawari 3) Playing technics of Banaras & Panjab Gharan 4) 5 Chakradar gats in taal Matt 5) Demonstration of following taals and knowledge of playing lehra. a) Panjab b) Dhumali c) Adha teentaal	25	75	100	4	4
4.3	Practical : 1) Solo play in taal Laxmi 2) 5 Chakradar gats in taal Laxmi 3) Comparison of playing technics of Pakhwaz 4) Sum to Sum 5 tihayi in taal Roopak 5) Tow dhomukhi gat in taal teentaal	25	75	100	4	4
4.4	Practical : 1) Solo play in taal Ashtamangal 2) Two kayadas in taal Kehrwa 3) Accompaniment with Sitar 4) One rela of dhir dhir in taal Ashtamangal 5) Demonstration of following taals a) Posto b) Ganesh c) Tevra	25	75	100	4	4
4.5	Practical : 1) Stage Performance 20 Minutes. 2) Dissertation			50 50	4	4

### I Semester Sitar/Violin

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
1.1	Theory - Topics : 1. Origin and development of Hindustani Music 2. History of Indian Music during Vedic	25	75	100	4	4

	Period 3. Folk Music 4. Contribution of 12 <sup>th</sup> century Shiva Sharana's to the Music Field 5. Theoretical knowledge of Ragas and Talas Prescribed 6. Knowledge of Notation system (swar-lipi-paddathi) of Ragas and Talas prescribed 7. Biographics : 1. Ustad Vilayat Khan 2. Pt. Ravi Shankar 3. Pt. V.G.Jog					
1.2	<u>Practical :</u> Ragas : 1 Miyakitodi 2. Goud Sarang	25	75	100	4	4
1.3	<u>Practical :</u> Ragas 1) Ahir Bhairava 2) Multani	25	75	100	4	4
1.4	<u>Practical :</u> Ragas 1) Kafi                      2) Khamaj Talas 1) Vilanbit Teental 2) Deepchandi Learn to play Gat or Violin composition in Tala Zaptal from the above mentioned any one Raga	25	75	100	4	4
1.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

## II Semester Sitar/Violin

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
2.1	Theory : Topics 1) The playing technics of Sitar/Violin 2) Origin and development of Sitar/Violin 3) Evaluation and Development of Shruti, Swar & Saptak 4) Detail Study of Raga System in Indian Music 5) Biographics 4) Pt. Panchaksary Gayagalu 5) Pt. Nikhil Banerjee 6) Dr. N.Rajam	25	75	100	4	4

	6) Knowledge of Swar lipi Paddati and Tala lipi Paddati Prescribed Ragas and Talas 7) Detailed theoretical Study of Ragas & Talas Prescribed					
2.2	<u>Practical :</u> Ragas 1) Devagiri Bilawal 2) Boopali Todi Tala - Japtal	25	75	100	4	4
2.3	<u>Practical :</u> Ragas 1) Miyamlhar 2) Madhuvanti Tal : Roopak	25	75	100	4	4
2.4	<u>Practical :</u> Dhun in 1) Pahadi 2) Bhairavi Learn to play a Gat or Violin composition in Tala Roopak from the above mentioned any one Raga Talas : 1) Sawari 2) Adachoutal	25	75	100	4	4
2.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

### III Semester Sitar/Violin

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
3.1	<u>Theory :</u> Topics 1) History of Indian Music during Moghal Period 2) Contribution of 14 <sup>th</sup> Century Dasas to the Indian Music 3) A sthetics & Music 4) Theoretical Knowledge of Talas and Ragas Prescribed 5) Knowledge of Swar-lipi-Paddati of the Ragas and Talas 6) Detail Study Musical Forms 7) Biographics : Ustad Ali Akbar Khan Ustad Alla Uddin Khan Pt. Puttaraj Gavaigalu	25	75	100	4	4
3.2	<u>Practical :</u> 1) Bibhas 2) Pooriya Danshree	25	75	100	4	4
3.3	<u>Practical</u> Ragas 1) Kausi Khanda 2) Marobihag	25	75	100	4	4
3.4	<u>Practical :</u> Dhun in 1) Maand 2) Pilu Taals : 1) Zumra 2) Tilwad	25	75	100	4	4

	Learn to play a Gat or Violin composition in Tala Ek-Tal from the above mentioned any one Raga					
3.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Viva-Voce			50 50	4	4

#### IV Semester Sitar/Violin

Paper Code	Name of The Paper Theory/ Practical	Internal Assessment	Exam	Total Marks	Hours week	Credits
4.1	Theory : Topics 1) Comparative study of Karnataki and Hindustani Music 2) Music and Fine Arts 3) Knowledge of Indian musical instruments 4) The Role of Music in Human life 5) Knowledge of Swar-lipi-Paddati prescribed 6) Biographies : 1. Ustad Abdul Halim Jaffer Khan 2. Vidushi Annapuran Devi 3. Ustad Amjadali Khan	25	75	100	4	4
4.2	<u>Practical :</u> Ragas 1) Darbari Khanada 2) Malkouns	25	75	100	4	4
4.3	<u>Practical :</u> Ragas 3) Komal Risha Aswari 4) Srl	25	75	100	4	4
4.4	<u>Practical :</u> Dhun in 3) Jinjoti 4) Jogiya Taals : 1) Matt 2) Dhamar Learn to play a Gat or Violin composition in Tala Damar Tal from the above mentioned any one Raga	25	75	100	4	4
4.5	<u>Practical :</u> 1) Stage Performance 20 Minutes. 2) Dissertation			50 50	4	4

#### M.A. I, II, III and IV Semester

##### Reference books for Vocal, Sitar and Tabala

- ಹಿಂದೂಸ್ತಾನಿ ರಾಗಮಾಲಿಕಾ
- ಸಂಗೀತ ಸ್ಮೃತಿ
- ಸಂಗೀತ ರಸಪ್ರಶ್ನೆಗಳು

ಪ್ರೊ. ಮೃತ್ಯುಂಜಯ ಅಗಡಿ,

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### **English books**

- |  |                          |
|--|--------------------------|
| 1. A History of Indian music               | - by Swami Prajnanand    |
| 2. Theory of Indian music                  | - by Bishan Swaroop      |
| 3. Hindustani music                        | - by G.H.Ranade          |
| 4. An Indian music (collection essays)     | - by Pt. Degu Choudhary  |
| 5. Rasa in Asthetics                       | - by Krishna Murthy      |
| 6. The music of India                      | - by Shripad Pandopadhya |
| 7. The music of India                      | - by A.H.Phopale         |
| 8. Music in the Vedas                      | - by G.U.Thite           |
| 9. Elements of western music               | - by P.Sambamurthy       |
| 10. Understanding Indian music             | - by Babarao Joshi       |
| 11. Trends and tradition in Indian music   | - by V.K.Agarwal         |
| 12. Universal History Wala Indian music    | - by S.M.Tagore          |
| 13. Indian music                           | - by B.V.Keskar          |
| 14. Historical development of Indian music | - by Swami Prajnanand    |
| 15. Aspects of Indian music                | - by Govt. publication   |
| 16. Melodic types of Hindustani music      | - by Narendra Kumar      |
| Bohas.                                     |                          |
| 17. Musical instruments of India           | - by Govt. Publication   |
| 18. Music and musicians of Hindustani      | - by Ashok Ranade        |
| 19. Cultural history of India              | - by Dr. Abid Husain     |
| 20. Facts of Indian culture                | - by Shrinivas           |

### **Hindi books**

- |   |                              |
|---|------------------------------|
| 1. Karnatiki Pustak Mallika                     | - by Pandit V.N.Bhatakande   |
| 2. Bhatakande Sangeet Shastra<br>(part I to IV) | - by Pandit V.N.Bhatakande   |
| 3. Sangeet Visharad                             | - edited by Garg             |
| 4. Sangeet Shastra Darpan                       | - by Shanty Govardhan        |
| 5. Sangeet Chintamani                           | - by Acharya Brahaspati      |
| 6. Sangeet Paddatyonka Tulatmak Adyan           | - by Bhagavat                |
| 7. Bharat Ka Sangeet Siddhant                   | - by Radha Vallab            |
| 8. Tala Matand                                  | - By Satyanarayan Vishishtha |
| 9. Tabla Koumadi                                | - By Pagaldas                |

10. Sitar Marg	– by S.P. Padaopadhyay
11. Sangeetantil Gharana (Marathi)	– by Dr Marukar
12. Hamare Sangeet Ratna	– edited By Garg
13. Uttar Bharatiya Sangeet Ka Itihas	– by A.K. Sen
14. Maripunnagmath (Part I, II & III)	
15. Tabla	- by Aravind Mulgaokar

### O.E.C. (Vocal, Sitar & Tabla)

Semester	No. of OEC per Course Titles	Internal Assess- ment	Practical Exam	Total Marks	Hours week	Credits
I	Sub : Vocal 1. Technical Terms 2. Swara Alankars in Kerava Dadra Raga : a) Boop b) Bhimpalas 3. Laxangeet & Sargamgeet 4. Singing with tanpura chota Khyal	25	75	100	4	3
I	Sub : Sitar 1. Technical Terms 2. Basic Practical's 3. Swar Alankaras-Kerva and Dadra Raga : a) Boop b) Bimpalas 4. Suravath & Drut gat	25	75	100	4	3
I	Sub : Tabla 1. Technical Terms 2. Dashawarnas 3. Basic Tabla & Dagga bols 4. Dadra & Kerva its badal thekas	25	75	100	4	3
II	Sub : Vocal 1. Swara lipi 2. Khyal 3. Chota Raga : Kafhi Bhairav 4. Teental Japtal	25	75	100	4	3
II	Sub : Sitar 1. Swara lipi 2. Madhyalaya and drut gat 3. Paltas and Stoyi Raga : Kafhi & Bhairav 4. Meend khakta and jhala	25	75	100	4	3
II	Sub : Tabla 1. Tala lipi 2. Teental 3. Ektal & badal thekas 4. Jhaptal & roopak tal	25	75	100	4	3
III	Sub : Vocal 1. Brief history of Indian Music	25	75	100	4	3

	2. Advanced Swralankars 3. Laxangeet and chouta khyal Rag : Bridavani a) Sarang b) Yaman 4. Vistar of Chota khyal					
III	Sub : Sitar 1. Brief history of Indian Music 2. Raga Brindavani Sarang 3. Raga Kafi Rag: Bridavani a) Sarang b) Yaman 4. Gamak	25	75	100	4	3
III	Sub : Tabla 1. Brief history of Tabala 2. Deepchandi and badal tekhas 3. Kayadas and peshkars 4. Chakradhar and tukdas in Teental	25	75	100	4	3
IV	Sub : Vocal 1. Introduction of Gharanas 2. Ragas Khamaj Swargeet and Laksanageet 3. Vilambit bandish & vistar in Bagesharee Tal : Vilambit Teental 4. Manch Pradarshan	25	75	100	4	3
IV	Sub : Sitar 1. Introduction of Gharanas 2. Masit Khani and Rajakhani Vistar 3. Jhala and Paltas in Rag Bageshree 4. Manch Pradarshan	25	75	100	4	3
IV	Sub : Tabla 1. Introduction of Gharanas 2. Vilambit Ektal & Teental 3. Rela & Rav 4. Manch Pradarshan	25	75	100	4	3

**Prescribed Books :**

- 1) Vocal : Raga Darshan, Raga Parichaya, Sangeet Visharada, History of Indian Music
- 2) Instrumental : Sangeet Sanjivini, Sitar Music in Culcutta, Kramik Pustak Malika
- 3) Tabala : Tal Prakash, Sangeet Shastra Darpan, Table par Delhi aur Poorab
- 4) Sangeet Smriti & Hindustani Rag Malik of Dr. Mrityunjaya Agadi
- 5) Vocal : Raga Darshan, Raga Parichaya, Sangeet Visharada, History of Indian Music
- 6) Instrumental : Sangeet Sanjivini, Sitar Music in Culcutta, Kramik Pustak Malika
- 7) Tabala : Tal Prakash, Sangeet Shastra Darpan, Table par Delhi aur Poorab

Intake Capacity fixed for the Department is Total-25, Normal-15, Enhanced-10 and M.Music Final

### **Expansion of proposals :**

The Department proposes to build a 'Record Library' by way of recording the vocal and Instrumental recitals of the well known visiting artists. It also proposes to develop commercial 'Record Library' so as to provide 'Listening hours' to the students of Music.

O Cert. Mus.4 : The Commencement and closure of the term shall be notified by the University every year.

O. Cert. Mus.5: A Candidate shall be deemed to have kept necessary terms as required in a Semester provided he/she has attended 75 % of the total number of lectures delivered and practical conducted during the Semester. There shall be an examination at the end of each Semester.

### **Master of Music (I, II, III & IV Semester) Examination Ordinances & Regulations Governing the admission & examination for the Degree of Master of Music**

4 0.1 a) A candidate who has passed the examination of B.Music or B.A. With Music Vocal, Sitar, Tabala & Violin of this University or an examination of any other University recognized as equivalent with good knowledge of Music, there is eligible for admission to the Master of Music Course of this University.

b) Admission will be given 80 % to B.Music and 20 % to B.A. with Music students.

0.2 A Candidate has to take his/her Bachelor's degree before the close of IV Sem. of the first year of the master of music course.

0.3 Master of Music course extends over a period of IV Semester. There will be an examination at the end of each Sem. One at the II Sem. Called the Master of Music Previous & Second at the end of the IV Sem. Called M.Music Final.

0.4 A candidate to be eligible for admission to the M.Music Previous examination must have kept two Sem. In the University Department concerned. Similarly for the M.Music Final examination a candidate must have kept two sem. (i) after passing the Previous examination (ii) after being allowed to keep Sem. On the results of the previous examination (iii) after having not appeared for the M.Music I & II Sem. examination for bonafide reasons if he/she is recommended for continuing for the M.Music III & IV Sem. Course by the Head of the Department concerned. In the case of candidates under (ii) and (iii) the candidates will have to appear the M.Music Previous examination.

R.1. The M.Music degree is to be taken by a written and practical examination only.

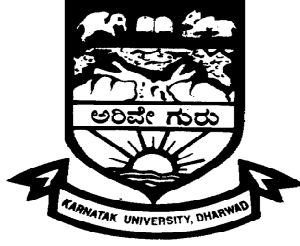
- R.2. Four Tests are made compulsory for all the students studying the Music Degree course as part of their studies each Sem. These tests are held by the teacher who has actually taught the subjects & the Head of Department concerned will issue a certificate to the effect that the student has complied with his requirement, to the Controller of Examination, before the close of the Academic yer. The marks obtained in the class tests will be counted for aggregate of the M.Music examination.
- R.1. ON the recommendations of the boards of studies, the Academic Council may from time to time, prescribe or recommend text books in the various subjects of this examination & modify from time to time, as will be found necessary, the details of the courses laid down for this examination.
- R.4. The following is the syllabus in music for this examination.
- R.5. To be successful at the M.Music examination, a candidate must obtain a minimum of 35 % of marks separately in each of the theory paper (s) and not less than 40 % of marks in aggregate at each of the previous and final examination, separately in theory and practicals.

A successful candidate obtaining 50 % of marks or more but less than 60 % of marks in the aggregate of the previous & final examination will be declared to have passed the examination in Secound Class.

A successful candidate obtaining 60 % of marks or more but less than 75 % of marks in the aggregate of the previous & final examination will be declared to have passed the examination in First Class.

A successful candidate obtaining 70 % of marks in the aggregate of the previous & final examination will be declared to have passed the examination in First Class with distinction.

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

**For**

**MASTER OF PHILOSOPHY**

**CHOICE BASED CREDIT SYSTEM (M.A. – CBCS)**



**2020-2021 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



# **REGULATIONS**

**For**

## **MASTER OF ARTS**

**CHOICE BASED CREDIT SYSTEM (M.A. – CBCS)**

**From**

**2020-2021 & Onwards**

# KARNATAK UNIVERSITY, DHARWAD

## Regulations concerning Master Degree Programme

### Faculty of Social Sciences, from 2020-2021

#### Master Degree Programme in Philosophy (M.A.-CBCS)

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000.

#### **Title:**

These Rules shall be called “Karnatak University Rules Governing Post-Graduate Programs under the Choice-Based Credit System” for Master Degree programmes.

#### **Commencement:**

These Rules shall come into force from the academic year 2020-2021.

#### **Definitions:**

In these Rules, unless otherwise mentioned:

- a) “University” means Karnatak University;
- b) “Post-Graduate Programs” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area.
- e) “Open elective” means a course offered by Department for students of other Departments across the Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes; however, if in a P.G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Rules, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of credits. These grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.
- h) “Grade Point Average” or GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses a student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this rule. (Annexure-II)

#### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/ four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programs under the KU-CBCS Program

provided they also satisfy the eligibility conditions like percentage of marks, etc, as may be prescribed by the University and as per Ordinance of the course.

**Duration of the Programme:**

The programme of study for the Post-Graduate Master's Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

**Medium of Instruction:**

The medium of instruction shall be English for all subjects, except in languages.

**Minimum Credits and Maximum Credits:**

- a) There shall be three categories of courses viz., Compulsory Course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned department only. The Open Electives are the courses offered by other Departments across the Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of Compulsory Course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4, In case of Open Elective Course, it shall be 1 to 3 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However to qualify for the Degree in any Department under any school and Faculty, he/she should have registered and cleared a minimum number of credits, which shall vary from course to course.

**Course Structure:**

a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.

b) A typical Master's Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the program (also referred to as paper). In essence the courses are of three types:

- i) Compulsory Course
- ii) Specialization Course or Optional Course and
- iii) Open Elective Course.

c) Each program shall have a set of Compulsory Course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the Department.

d) The Students shall also choose a minimum number of Specialization Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also spell out the number of such Specialization Courses a student will have to take for the Specialization. The Department offering of Specialization Course shall provide the flexibility in the system so that the student can opt for a variety of programs depending upon their interest.

e) Each Department shall offer at least one Open Elective Course per semester for students from other Department. Student from the same Department are generally not allowed to opt the courses offered as Open Elective Course in the same Department.

f) Each course (paper) in this system is designed carefully to include lectures/tutorials//laboratory work/seminars, project work/practical training/report writing/Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.

g) Masters Degree Programs are essentially semester system Programs. There shall be 4 semesters in each Program. There shall be two semesters for each year of the Program. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 40 hrs of teaching/learning periods in six days session per week.

h) The normal calendar for the semester would be as follows:

- i) I and III Semester -August to November

**Attendance:**

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the Department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfillment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has attended not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, state or Nation in sports, NCC, NSS or Cultural or any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the Head/Chairman of the Department.

**Evaluation:**

- a. Each Course has two components, the first being Internal Assessment Marks – 22 marks each paper, each semester. The Internal Assessment (IA) consists of two written tests of 11 marks each per semester per paper. Three (3) marks are awarded/given for attendance as shown in (d), below, and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous internal assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance if a Compulsory Course has a Credit award of 4, then the total maximum marks would be 100 for the subject.
- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for Internal Assessment.
- d. To encourage the students for the regular participation in academic curricula, the following break-up of marks for attendance has been recommended –

Attendance (in percentage)	Marks
Above 90	3
Above 80 & upto 90	2
Above 75 & upto 80	1
75	No marks

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condoned off shall be considered for the allotment of marks as above.
- f. There shall be one end semester examination of 3 hrs duration (for 75 marks/ paper). Each answer scripts of the semester-end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by a third external examiner. The marks allotted by the third examiner shall be averaged with nearer award of marks of the two evaluations.

**Completion of Course:**

- a. A candidate is expected to successfully complete Master's (P.G.) Degree course in two years from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.

- c. The CBCS scheme is fully carry-over system. However, the four-semester two years course should be completed by a student within double duration of the normal course period (i.e. 4 years). For these periods, candidate may be permitted to take examination in cross-semester (even semester examination in even and odd semester examination in odd semester examination) after paying the examination fee of Rs. 1000/- per paper.

**Declaration of Results:**

- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, the student/candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However after adding the IA and the semester end examinations, the candidates should score a minimum of 40% of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/provisional pass certificate/original marks cards of that semester within 15 days of announcement of result.

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***Programme Specific Outcomes (PSO)***

After successfully completing the TWO year Post Graduate degree course the following Programme Specific Outcomes are expected of the students:

1. After completion of the three-year honours course in Philosophy students are expected to read the philosophical books written by various philosophers on various philosophical topics to get an overall idea of philosophy and also for widening the philosophical knowledge, to create enthusiasm and interest to do progress in research works and to write small articles on various philosophical topics. To develop the logical thinking capabilities, to inspire other students also to study philosophy, to develop their power of constructive critical thinking and to provide a reflective, logical and systematic solutions to the problems faced in philosophy - either metaphysical, empirical social, political and religious.
2. to decide and progress in the philosophical areas which interest them most and to pursue in that area, inquire, understand and to write research articles for the further progress of those areas, to learn and understand the different methods of doing philosophy, understanding their significance and applying them in the relevant areas.
3. At the end of the programme the students are expected to learn the research methodology and to apply them validly while writing research papers. While donning so they are expected to consult both the primary and the secondary sources of books and also to study research articles both contemporary and modern.
4. Recognizing and understanding the different values - personal, social and global, recognizing the value of the total existence and their harmonious relations, building ability to live in harmony in the midst of diversity and its importance, Identifying the inherent problems of philosophy and endeavour to reflect logically on them and providing a necessary solution to it.
5. to understand the distinctive features of each philosophical systems either traditional, contemporary or modern and value them, to understand the importance and significance of the historical development of each philosophical tradition and attain knowledge from them.
6. to develop a proper understanding and significance of the different kinds of traditions, social change, the role of philosophy in guiding each and every branches of social and political theories and also evaluating them.
7. to understand the ethical and moral implications and to learn applying them in all the spheres of life either academic or non-academic and with the knowledge in philosophy students can attain the capacity to become either a good Philosopher, Counsellor, Academician, Politician and Social scientist. etc.

## Course Outline for the M.A. Philosophy.

KARNATAK UNIVERSITY, DHARWAD.

Department of Philosophy.

Course outline of M.A. Philosophy for Semester Courses as per CBCS pattern.

2020-2021 onwards

### I) Semester-I

Sl. No.	Details (Course Type/ Name)	Main Marks	Internal Marks (Including Attendance)	Total Marks	Credits	Teaching Hrs
a)	<b>Compulsory Course:</b>					
1	1.1: Indian Epistemology	75	25	100	4	4 hrs/week
2	1.2: Indian Logic	75	25	100	4	4 hrs/week
3	1.3: Ancient Indian Philosophy	75	25	100	4	4 hrs/week
4	1.4: Ancient & Mediaeval Western Philosophy	75	25	100	4	4 hrs/week
5	1.5: Contemporary Indian Philosophy	75	25	100	4	4 hrs/week

### II) Semester-II

Sl. No.	Details (Course Type/ Name)	Main Marks	Internal Marks (Including Attendance)	Total Marks	Credits	Teaching Hrs
a)	<b>Compulsory Course:</b>					
1	2.1: Western Epistemology	75	25	100	4	4 hrs/week
2	2.2: Logic and Scientific Method.	75	25	100	4	4 hrs/week
3	2.3: Mediaeval Indian Philosophy	75	25	100	4	4 hrs/week
4	2.4: Orthodox Systems of Indian Philosophy	75	25	100	4	4 hrs/week
5	2.5: Modern Western Philosophy	75	25	100	4	4 hrs/week
b)	<b>Open Elective:</b>					
6	2.6: Philosophy of Bhagavadgita	75	25	100	4	4 hrs/week

### III) Semester-III

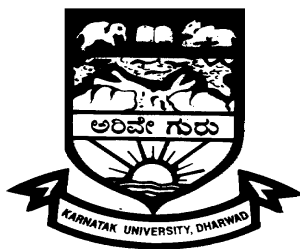
Sl. No.	Details (Course Type/ Name)	Main Marks	Internal Marks (Including Attendance)	Total Marks	Credits	Teaching Hrs
a)	<b>Compulsory Course:</b>					
1	3.1: Indian Moral Philosophy	75	25	100	4	4 hrs/week
2	3.2: Contemporary Western Philosophy	75	25	100	4	4 hrs/week
3	3.3: Philosophy of Religion – Indian	75	25	100	4	4 hrs/week
4	3.4: Modern Symbolic logic	75	25	100	4	4 hrs/week
b)	<b>Optional Course:</b>					

5	3.5: Classical Virasaivism (Lingayatism) OR Advaita Vedanta of Sankara OR Philosophy of Aristotle	75	25	100	4	4 hrs/week
c)	<b>Open Elective:</b>					
6	3.6: Philosophy of Swami Vivekananda	75	25	100	4	4 hrs/week

IV) **Semester-IV**

Sl. No.	Details (Course Type/Name)	Main Marks	Internal Marks/ Viva Voce(Including Attendance)	Total Marks	Credits	Teaching Hrs
a)	<b>Compulsory Course:</b>					
1	4.1: Western Moral Philosophy	75	25	100	4	4 hrs/week
2	4.2: Dissertation/Projects work	75	25	100	4	4 hrs/week
3	4.3: Philosophy of Religion - Western	75	25	100	4	4 hrs/week
4	4.4:Virasaivism (Lingayatism) of Vacanakaras	75	25	100	4	4 hrs/week
b)	<b>Optional Course:</b>					
5	4.5: Theistic Vedanta of Ramanuja and Madhva OR Philosophy of Sri. Aurobindo OR A.N.Whitehead's Philosophy of Organism.	75	25	100	4	4 hrs/week

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF ARTS**

**CHOICE BASED CREDIT SYSTEM**

**(M.A. – CBCS)**

<b>Paper Code and Name</b>	<b>A 01: Indian Epistemology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	about the different schools of Indian philosophy, regarding methods of knowledge.
CO 2	the sources of knowledge.
CO 3	the theory of hermeneutical understanding of Indian Epistemology.
CO 4	The different theories of error.
CO 5	The different theories of truth.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Nature and scope of Epistemology – A comparative perspective: Indian and Western	10 Hours
<b>Unit 2:</b> <i>Salient features of knowledge</i> Nature and definition of prama and distinction between prama and aprama.	10 Hours
<b>Unit 3:</b> Kinds of Pramana: Perception, ( <i>pratyaksa</i> ) Inference( <i>Anumana</i> ) Analogy( <i>Shabdha</i> ) Testimony( <i>Upamana</i> ), Postulation ( <i>Arthapatti</i> ) and Non-apprehension( <i>Anupalabdhi</i> ).	10 Hours
<b>Unit 4:</b> Theories of Error: Sat-khyati, Asat-khyati, Anyatha-khyati, Atma-khyati, Akhyati, Anirvachaniya-khyati vadas.	10 Hours
<b>Unit 5:</b> Theories of Truth: Correspondence, Coherence and Pragmatic theories.	10 Hours
<b>Unit 6:</b> Theories of Validity of Knowledge Pramanyavadas, Paratah and Svatah pramanyavadas	10 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Chatterjee, S.C: <i>Nyaya Theory of Knowledge</i>, Calcutta University Press, 1939.</li> <li>2. Datta, D.M: <i>Six ways of Knowing</i>, Calcutta University Press, 1932.</li> <li>3. Ingalalli, R.I: <i>Sabda-Pramana – An Epistemological Analysis</i>, Indian Books Centre, Delhi, 1988.</li> <li>4. Ingalalli, R.I: <i>Meaning and Knowledge</i>, Indian Books Centre, Delhi, 1989.</li> <li>5. Matilal, B.K: <i>Epistemology, Logic and Grammar in Indian Philosophical Analysis</i>, The Hague, Paris, 1971.</li> <li>6. Satprakashananda, S: <i>Methods of Knowledge</i>, Advaita Ashrama, Calcutta, 1974.</li> </ol>	

<b>Paper Code and Name</b>	<b>A 02: Indian Logic</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the distinct features of Indian Logic.
CO 2	the sources of knowledge and the fallacies according to the different Schools of Indian Philosophy.
CO 3	the comparative structures of anumana, upamana and arthapatti.
CO 4	justify the soundness of inference by making use of Tarka.
CO 5	identify the inferential fallacies (Hetvabhasas)

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> <i>Introduction to Logic (Western &amp; Indian), Deductive &amp; Inductive. Definitions of logic, its utility and scope. General Characteristics of Indian Logic - Anviksiki or nyaya. The utility of the study of Indian Logic.</i>	12 Hours
<b>Unit 2:</b> <i>Nature of Anumana Pramana (Inference): Its soundness.</i> <i>(i) Inference for oneself (svārtha) and Inference for others (parārtha).</i> <i>(ii) Inference for others: Pratijna(Thesis), hetu(Reason), nidarsana (Example Illustration), anusandhana (Subsumptive co-relation), nigamana (conclusion). Vyapti (pervasion): Concept, its ascertainment, its function.</i> <i>(iii) Varieties of inference: kinds of inferential mark (linga)-Drstam and adrastam (Samanyato drsta) lingam- Drst and samanyato drsta anumana.</i> <i>(iv) Elements of anumana pramana (Sound inference)- An explanation of the Pancavayava vakya-syllogism-and its members.</i> <i>(v) Inference: Classification recognized by Naiyayikas: 1) Kevalanyayi 2) Kevala-vyatireki and 3) Anvaya vyatireki, Role of vyapti (pervasion) inference, Samavyapti and asama (or visama) Vyapti, Anvaya vyapti vyatireka vyapti and kevala vyatireka vyapti.</i>  <i>(vi) Tarka-its role in determining the validity of inference. Five kinds of tarka.</i>	16 Hours
<b>Unit 3:</b> <i>Upamana (Analogy or comparism) and Arthapatti (postulation) as the species of sound inference. Kinds of Upamana-Sadharmuopamana, Vaidharmyopamana and dharma matropamana.</i> <i>a) Nyaya definition of upamana (analogy).Steps in the process of reasoning in upamana (analogy), Elements of Analogical reasoning.</i> <i>b) Upamana (Analogy) as the instrumental cause of analogical knowledge. Upamana as an independent source of knowledge.</i> <i>c) Structure and content of Arthapatti (Postulation), Formal validity and material correctness of postulational inference. Drstarathapatti and srutarthapatti. Is arthapatti and anumana?</i>	16 Hours

<b>Unit 4: Inferential Fallacies: (Fallacies of Inference or Hetvabhasa)</b> a) Types of fallacies-(i) <i>savyabhicara, viruddha, prakaranasama or satpratipaksa, sadhyasama or asiddha, kalatita and badhita</i> (ii) <i>the fallacies of chala, jati and nigrahasthana</i>	16 Hours
<b>REFERENCES</b>	
1. Bhattacharya, C: <i>The Elements of Indian Logic and Epistemology</i> Modern Book Agency, Calcutta, 1974. 2. Chatterjee, S: <i>Nyaya Theory of Knowledge</i> , University of Calcutta, 1939. 3. Datta, D: <i>Six ways of Knowing</i> , University of Calcutta, 1974. 4. Ingall, R.I: <i>Sabda-Pramana – An Epistemological Analysis</i> , Indian Books Centre, Delhi, 1988. 5. Mullatti, L.C: <i>The Navya-Nyaya Theory of Inference</i> , Karnatak University, Dharwad, 1977.	

<b>Paper Code and Name</b>	<b>A 03: Ancient Indian Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the Ancient Indian Philosophical Systems.
CO 2	the basic tenets/concepts of these different systems.
CO 3	the present overviews and the comparative understanding of the different concepts of these Ancient Indian Philosophical Systems
CO 4	About Atheistic schools in Indian Philosophy.
CO 5	The theory of Karma Yoga and Jnana Yoga.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Introduction: General Characteristics of Indian Philosophy	10 Hours
<b>Unit 2:</b> The Upanisads: (a) Upanisads and their relation to the Vedas.(b) Levels of Consciousness (c) Atman-Brahman Identity (d) Sravana, Manana and nidid hyasana nature(e) <i>Liberation and its ideals of pravrtti and nivritti reconciled means jivamukti and videhamukti.</i>	10 Hours
<b>Unit 3:</b> Bhagavadgita: Karma yoga, <i>Bhakti yoga, Rajayoga</i> and Jnana-yoga.	10 Hours

<b>Unit 4:</b> Carvaka : Epistemology, Metaphysics and Ethics.	10 Hours
<b>Unit 5:.</b> Early Buddhism (a) Ksanikavada (b) <i>Liberation</i> ; Nirvana and Anatmavada (c) Pratityasamutpad Vada (d) Astangamarga.	10 Hours
<b>Unit 6:</b> Early Jainism :(a) <i>Metaphysics – substance and quality</i> . Jiva and Ajiva (b) Ethical code and values (c) Liberation and its means.	10 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Dasagupta, S.N:<i>A History of Indian Philosophy</i> Vol.I, Cambridge University Press, 1975.</li> <li>2. Datta and Chatterjee: <i>Introduction to Indian Philosophy</i> Calcutta University, 1954.</li> <li>3. Hiriyanna, M: <i>Outlines of Indian Philosophy</i> G.Allen &amp; Unwin, Bombay, 1973.</li> <li>4. Mahadevan, TMP: <i>An Invitation to Indian Philosophy</i>, Arnold-Hein may Publication, New Delhi, 1974.</li> <li>5. Radhakrishna, S: <i>Indian Philosophy</i>, Vol.I. Allen and Unwin. London, 1971 (Reprint).</li> <li>6. Sharma, Chandradhar: <i>Critical Survey of Indian Philosophy</i>, Motilal Banarasida, Delhi, 1987.</li> <li>7. Prabhushankar: <i>Bharatiya Tatvasastrada Roopareshegalu</i> (Tr)(K), Kannada Adhyayana Samsthe, Mysore-6, University of Mysore, 1973.</li> <li>8. Pandit Baldeva Upadhyaya, S.Ramachandra Shastry: <i>Bharatiya Darshana</i> (Tr)(K), The Institute of Kannada Studies, University of Mysore, Mysore, 1970.</li> <li>9. Shankaranarayana Bhat,A.K: <i>Hindu Dharmada Parichaya</i>(K), Sri Ramakrishna Prakashana, Bhagamandala-571247, Kodagu District, 1995 (4<sup>th</sup> Edition).</li> <li>10. Raghavendracharya,H.N: <i>Baratiya Tattvashastra Sangraha</i>(K), University of Mysore, Mysore, 1962.</li> <li>11. Radhakrishnan, S (Ed): <i>Tatvasastra Prachya mattu Paschatya</i>(K), translation of the History of Philosophy, Eastern and Western, Vol.I, Director, Prasaraanga, University of Mysore, Mysore, 1970 (Ist Edition).</li> <li>12. Ramakrishna Rao K.B (Tr.): <i>Bharatiya Tattvashastra Mulamshagalu</i>, Prasaraanga, University of Mysore.</li> <li>13. Sharma Chandradhar, A Critical Survey of Indian Philosophy Motilal Banarsidass publishers, Delhi 2016.</li> </ol>	

<b>Paper Code and Name</b>	<b>A 06: Ancient and Medieval Western Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	

CO 1	the early Greek philosophers and their Methods and get a overview of the development of Western Philosophy.
CO 2	and differentiate between different schools of Western Philosophy and evaluate the Philosophy of this period.
CO 3	the perspective of the Philosophical thinkers and know the religious aspect which influenced the Philosophy.
CO 4	read and critically assess the works of the main thinkers, in the History of Western philosophy.
CO 5	And develop critical understanding of various key concepts in philosophy.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> General Characteristics of Ancient Greek Philosophy. Pre-Socratic Philosophy	08 Hours
<b>Unit 2:</b> Socrates: (a) The Socratic Method (b) Virtue as Knowledge	08 Hours
<b>Unit 3:</b> Plato: (a) Nature of philosophical method. Theory of Ideas (b) Conception of soul.	08 Hours
<b>Unit 4:</b> Aristotle :(a) <i>Form</i> (b) <i>God and matter</i> (c) Causation (d) Universals.	08 Hours
<b>Unit 5:</b> Main characteristics of medieval philosophy.	06 Hours
<b>Unit 6:</b> Salient features of Augustine's Philosophy – Theory of perception: Sense Awareness and Imagination – Reason and truth – human will and action. God and the world.	08 Hours
<b>Unit 7:</b> Thomas Aquinas: Epistemological Views: Faith and Reason (two ways of knowing) - Nature of human knowledge – Man and Morals. Concept of God.	08 Hours
<b>Unit 8:</b> St. Anslem: Proofs for the existence of God.	06 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Copleston, F: <i>History of Philosophy</i> Vols. I, The Newman Press, Maryland, 1961.</li> <li>2. Guthrie, W.K.C: <i>Greek Philosophers from Thales to Aristotle</i>. Methuen, London, 1967.</li> <li>3. O'Conner, D.J (Ed.) <i>A Critical History of Western Philosophy</i>, Free Press of Glenco. New York. 1964.</li> <li>4. Russell, B: <i>History of Western Philosophy</i>, George, Allen and Unwin Ltd. London, 6<sup>th</sup> Impression, 1971.</li> <li>5. Stace, W.T: <i>Critical History of Greek Philosophy</i>, Mac Millan, London, 1960.</li> <li>6. Thilly, F : <i>History of Philosophy</i>, Holt, New York, 1951 of Central Park Book Depot, Allahabad, 1976.</li> <li>7. K.R.Srinivasa Iyengar (Tr): <i>Greekara Tattvasastrada Sarasangraha</i> (Kannada) Prasaranga, University of Mysore, 1960.</li> <li>8. Seshagiri Rao, V.N: <i>Pascatya Tatvika Cintane</i> (K), The Institute of Kannada Studies, University of Mysore, Mysore-570006, 1985 (1st Edition).</li> </ol>	

<b>Paper Code and Name</b>	<b>A 07: Contemporary Indian Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	different Contemporary Indian philosophers' new interpretations and their thoughts.
CO 2	Explain and defend a position on basic philosophical problems in the contemporary Indian philosophy.
CO 3	Apply the methods learnt in the course to their day to day life situations.
CO 4	know about the philosophical thinking of the great Indian thinkers regarding human life and reality.
CO 5	basic ideas and problems of philosophy and discuss by the contemporary Indian thinkers.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Main characteristics of Contemporary Indian Philosophy	08 Hours
<b>Unit 2:</b> Vivekananda : (a) <i>Concept</i> of God, World, Maya (b) <i>Concept</i> of Soul, its bondage and Liberation (c) The means to Liberation-Bhakti ,Karma, Jnana and Rajayoga <i>Nature and Ideal</i> of Universal Religion.	12 Hours
<b>Unit 3:</b> Rabindranath Tagore: (a) <i>Concept</i> of God (b) Degrees of Reality- <i>Doctrine</i> of Maya, (c) <i>Nature</i> of Man, Evil and Liberation (d) Humanism.	10 Hours
<b>Unit 4:</b> M.K. Gandhi: (a) God and Truth, <i>Characteristics of God</i> (b) <i>Concept of</i> World (c) <i>Nature of Man</i> , Karma and rebirth (d) Ahimsa and Satyagraha (e) <i>Sarvodaya</i> .	10 Hours
<b>Unit 5:</b> Sri Aurobindo: (a) Reality (Sat-Cit-Ananda) (b) World-Evolution and involution-maya and lila (c) <i>Nature</i> of Man, Rebirth and <i>law of Karma</i> (d) Supermind (e) Nature of Gnostic Being and Integral Yoga.	10 Hours
<b>Unit 6:</b> S. Radhakrishnan: (a) Nature of Philosophy (b) Concept of Ultimate Reality, World and Soul (c) <i>Doctrine</i> of Karma and Rebirth (d) Religion and ways of knowing.	10 Hours
<b>REFERENCES</b>	
1. Lal ,B.K : <i>Contemporary Indian Philosophy</i> (2 <sup>nd</sup> Edn.) Motilal Banarasidas, New Delhi, 1978.	
2. Mahadevan, T.M.P. and Saroja G.V.: <i>Contemporary Indian Philosophy</i> , Sterling Publishers, New Delhi, 1963.	
3. Srivastava, R.S: <i>Contemporary Indian Philosophy</i> , Munshiram Monoharlal, New Delhi, 1981.	
4. Sheshagiri Rao, V.N: <i>Samakaaleena Bharatiya Tattvasastra</i> , University of	

Mysore, Mysore, 1985. V.S.Naravane: <i>Modern Indian Thought</i> Asia Publishing house, Delhi.	
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## **M.A.II Semester:**

### **A) Compulsory course:**

<b>Paper Code and Name</b>	<b>B 01: Western Epistemology</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the nature and characteristics of Western Epistemology.
CO 2	the different valid sources of knowledge.
CO 3	the criteria of the truth.
CO 4	And give justification for the use of induction in every field of knowledge and practical life.
CO 5	And explain different philosophical positions in theories that are common to the Western traditions and articulate ones own point of view.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Nature and characteristics of Western epistemology	08 Hours
<b>Unit 2:</b> The Sources of Knowledge: Perception, Reasoning (Inference), Testimony, Intuition and Revelation	12 Hours
<b>Unit 3:</b> Nature of Knowledge: The Three conditions of knowledge: Truth, Belief and Justification.	10 Hours
<b>Unit 4:</b> Types of Knowledge: <i>analytic and synthetic propositions</i> ; A Priori and A Posteriori knowledge.	10 Hours
<b>Unit 5:</b> Nature and criteria of Truth: Correspondence, Coherence, Pragmatic & Semantic theories.	10 Hours
<b>Unit 6:</b> Nature of Induction, its problem and justification.	10 Hours
<b>REFERENCES</b>	
1. Ayer, A.J: <i>The Problem of Knowledge</i> : Mac Milan, London, 1956, also Penuin, 1981. 2. Hospers, J: <i>An Introduction to Philosophical Analysis</i> , Delhi, Allied Publishers, 1971. 3. Lehrer, K: <i>Knowledge</i> , Oxford, Clarendon Press, 1974. 4. O'Connor, D.J: <i>Introduction to Theory of Knowledge</i> , The Harvester Press, 1982.	

5. Pollock, J: <i>Knowledge and Justification</i> , Princeton University Press, 1974.	
6. Russell ,B: <i>Problems of Philosophy</i> , Oxford University Press, 1973.	
7. Swinburne, R. (Ed): <i>Justification of Induction</i> , Oxford Press, 1974.	
8. Woozley, A.D: <i>Theory of Knowledge</i> , Hutchinson and Co. New York, 1967.	

<b>Paper Code and Name</b>	<b>B 01: Logic and Scientific Method</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the reasoning process well and to apply it upon arguments or decision procedures to find out the truth.
CO 2	Form standard syllogisms out of grammatical sentences and cumbersome thoughts of daily life.
CO 3	Introduce the ideas of terms showing a clear distinction among them.
CO 4	Identify the scientific ground in Western Logic to differentiate it from other descriptive studies.
CO 5	Determine certain things with certainty and others with probability, Understand and explain Mill's five cannons.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> . Nature ,definition and scope of Deductive logic, and its utility. Analysis of Proposition; what is a proposition? Traditional Analysis of propositions; compound, simple and general propositions.	08 Hours
<b>Unit 2:</b> <u>Categorical Propositions.</u> <ul style="list-style-type: none"> <li>➤ Categorical Propositions and classes, Analysis of A,E,U, and O propositions.</li> <li>➤ Quality, Quantity and distribution</li> <li>➤ Standard form categorical propositions</li> <li>➤ The traditional square of opposition – contradictories, contraries, sub contraries, sub alternation, the square of opposition.</li> </ul> <u>Immediate inferences:</u> <ul style="list-style-type: none"> <li>➤ Conversion, obversion, contraposition</li> <li>➤ Diagrams for categorical propositions</li> </ul>	08 Hours
<b>Unit 3:</b> <u>Categorical Syllogisms:</u> <ul style="list-style-type: none"> <li>➤ <i>Standard form categorical syllogisms.</i></li> <li>➤ <i>Major, minor and middle term</i></li> <li>➤ <i>Mood and figure</i></li> </ul>	08 Hours

<ul style="list-style-type: none"> <li>➤ Formal nature of syllogistic arguments,</li> <li>➤ Venn diagram technique for testing syllogism.</li> <li>➤ Rules and fallacies (of syllogism).</li> <li>➤ Disjunctive and Hypothetical syllogisms:</li> <li>➤ The Dilemma</li> </ul>	
<b>Unit 4: Fallacies:</b> <ul style="list-style-type: none"> <li>➤ What is a fallacy? Nature and Kinds of logical fallacies.</li> <li>➤ Fallacies of relevance- Argument from ignorance (Argument Ad Ignorantiam); Appeal to Inappropriate Authority (Argument Ad Verecundiam); complex Question; Argument Ad Hominem; Accidents, converse Accident: False cause; Begging the question, Petitio Principii; Appeal to emotion (Argument Ad populum); appeal to pity (Argument Ad Misericordiam); Appeal to force (Argument Ad Baculum); Irrelevant conclusion (Ignorato Elenchi).</li> <li>➤ Fallacies of Ambiguity - Equivocation, Amphiboly, accent, Composition, Division.</li> </ul>	08 Hours
<b>Unit 5:</b> Aim and characteristics of Inductive logic. Its role in scientific reasoning.	06 Hours
<b>Unit 6:</b> Scientific method – What is Science? Aim and mission of Science, Essential steps in scientific or inductive method. Hypothesis its nature, origin, formation, verification and role of hypothesis in science. Kinds of Hypothesis, observation and Experiment.	08 Hours
<b>Unit 7:</b> Mill's Experimental methods -5 methods	08 Hours
<b>Unit 8:</b> Nature of scientific explanation; evaluating scientific explanation.	06 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Cohen, M.R. &amp; Nagel, N: <i>Introduction to Logic and Scientific Method</i>, Allied Publishers, New Delhi, 1975.</li> <li>2. Copi, I.M : <i>An Introduction to Logic</i>, Prentice Hall of India, Indian Reprint, 1994, (Latest Edition).</li> <li>3. Joseph, H.W.B: <i>An Introduction to Logic</i>, Clarendon Press, Oxford, 1957.</li> <li>4. Salmon, W.C: <i>Logic</i>, Prentice Hall, Englewood, 1951.</li> <li>5. Stebbing, L.S: <i>A Modern Introduction to Logic</i>, Methuen Publisher, London, 1954.</li> </ol>	

<b>Paper Code and Name</b>	<b>B 03: Medieval Indian Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	

CO 1	Understand the heterodox schools of Indian philosophy, namely, Carvaka, Buddhism and Jainism.
CO 2	Think over the methods adopted by these schools.
CO 3	Implement their methods and techniques (of these schools) in their future life.
CO 4	develop a critical understanding of various key concepts in these philosophies.
CO 5	Explore and understand the historical development of these schools' philosophical ideas.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> General characteristics of Medieval Heterodox systems; <i>Its general characteristics</i>	10 Hours
<b>Unit 2:</b> Pluralistic realism of the Jainism	06 Hours
<b>Unit 3:</b> Jainism: Theory of knowledge – five kinds of knowledge; <i>Matijnana, Srutajnana, Avadhijnana manahparyajnana, kevalajnana</i>	08 Hours
<b>Unit 4:</b> Nature of consciousness in Jainism and its kinds.	06 Hours
<b>Unit 5:</b> <i>Vaibhasikas and Sautrantikas</i> .-Their realistic metaphysics and epistemology	08 Hours
<b>Unit 6:</b> Nature of Yoga-cara idealism.	06 Hours
<b>Unit 7:</b> Madhyamika views on degree of truth and reality	08 Hours
<b>Unit 8:</b> Sunya-vada and its implications.	08 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Dasagupta, S.N: <i>A History of Indian Philosophy</i> Vol.I, Cambridge University Press, 1975.</li> <li>2. Datta and Chatterjee: <i>Introduction to Indian Philosophy</i> Calcutta University, 1954.</li> <li>3. Hiriyanna, M: <i>Outlines of Indian Philosophy</i> G.Allen &amp; Unwin, Bombay, 1973.</li> <li>4. Mahadevan, TMP: <i>An Invitation to Indian Philosophy</i>, Arnold-Hein may Publication, New Delhi, 1974.</li> <li>5. Radhakrishna, S: <i>Indian Philosophy</i>, Vol.I. Allen and Unwin. London, 1971 (Reprint).</li> <li>6. Sharma, Chandradhar: <i>Critical Survey of Indian Philosophy</i>, Motilal Banarasida, Delhi, 1987.</li> <li>7. Prabhushankar (Tr.): <i>Bharatiya Tatvashttrada Rooparekhegalu</i>, Kannada Adhyayana Samsthe, Mysore-6, University of Mysore, 1973.</li> <li>8. Ramakrishna Rao K.B (Tr.): <i>Bharatiya Tattvashastra Mulamshagalu</i>, Prasaraanga, University of Mysore.</li> <li>9. Siddharam Swamiji(Tr): <i>Bharatiya Tattvashastra Vimarshatmak Adhyayan</i>, Naganur Shri Shivabasava Swamigalu Kalyana Kendra, Rudrakshimath, Belgavi (2018)</li> </ol>	

<b>Paper Code and Name</b>	<b>B 04: Orthodox Systems of Indian Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the importance of Orthodox systems of Indian Philosophy.
CO 2	And know the aim and characteristics of Astangayoga.
CO 3	categories of Indian philosophy and the valid sources of knowledge according to these schools.
CO 4	the concept of Reality, role of soul and world in different Philosophical systems.
CO 5	the social, ethical and religious perspectives of the Virasaiva saints.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Sankhya: Purusa and Prakriti, Theory of Evolution, Satkaryavada	07 Hours
<b>Unit 2:</b> Yoga: Aim and Characteristics of Astanga yoga.	07 Hours
<b>Unit 3:</b> Vaisesika theories: Categories and Atomism.	06 Hours
<b>Unit 4:</b> Nyaya theory of pramanas	06 Hours
<b>Unit 5:</b> Purvamimamsa: Categories, Pramanas.	06 Hours
<b>Unit 6:</b> Advaita of Sankara: Brahman, Jiva and Atman, Vivartavada – Moksa & its means.	07 Hours
<b>Unit 7:</b> Visistadvaita of Ramanuja: Brahman, cit and acit. Moksa and its means.	07 Hours
<b>Unit 8:</b> Dvaita of Madhva: God, Classification of souls, Panca-Bheda-Moksa and its means.	07 Hours
<b>Unit 9:</b> Virasaivism: Siva and Sakti, Evolution of 36 Principles, Sat-Sthala-Linganga Samarasya	07 Hours
<b>REFERENCES</b>	
1. Baldeva Upadhyaya, S.Ramachandra Shastry : <i>Bharatiya Darshana</i> (Tr)(K),The Institute of Kannada Studies, University of Mysore, Mysore, 1970. 2. Dasagupta, S.N: <i>A History of Indian Philosophy Vol. I to V</i> , Cambridge University Press, 1957. 3. Datta and Chatterjee: <i>Introduction to Indian Philosophy</i> , Calcutta University, 1954. 4. Frauwallner, Erich: <i>History of Indian Philosophy Vol. I &amp; II</i> ,Translated from German into English by Bedekar Motilal Banarasidass, Delhi, 1973. 5. Hiriyanna,M : <i>Outlines of Indian Philosophy</i> , G.Allen and Unwin, Bombay,	

1973.	
6. Malimath, Premadevi (Tr): <i>Virasaivadharmada Kaipidi</i> , Karnatak University, Dharwad, 1999.	
7. Mahadevan, T.M.P: <i>An Invitation to Indian Philosophy</i> , Arnold Heinemann Publication, New Delhi, 1974.	
8. Nandimath, S.C: <i>A Handbook of Virasaivism</i> , M.L.B.D. Delhi, 1977.	
9. Prabhushankar (Tr): <i>Bharatiya Tatvashastra Roopareshegalu</i> , Kannada Adhyayana Samsthe, Mysore University, Mysore-6, 1974.	
10. Mahadevappa.N.G.Yoga Matthu Bharatiya Tatvashastra(K) Suyoga Prakashana, Kalyan Nagar, Dharwad (2008).	
11. Radhakrishnan, S: <i>Indian Philosophy</i> Vol. I & II G.Allen and Unwin, London, 1971. (Reprint).	
12. Sharma, Chandradhar: <i>Critical Survey of Indian Philosophy</i> , Motilal Banarasidass, Delhi, 1987.	
13. Sivabasava Swamigalu Immadi: <i>Sarva Darsana Sangraha</i> (Tr) (K), J.Shri. Sivaratreeswara granthmale, Mysore, 1999 (2 <sup>nd</sup> Edition).	
14. Shankaranarayana Bhat,A.K : <i>Hindu Dharmada Parichaya</i> (K), Sri Ramakrishna Prakashana, Bhagamandala-571247, Kodagu 1995 (4 <sup>th</sup> Edition).	
15. Raghavendracharya, H.N: <i>Baratiya Tattvashastra Sangraha</i> (K), University of Mysore, Mysore, 1962.	
16. Radhakrishnan, S (Ed): <i>Tatvasastra Prachya mattu Paschatya</i> (K), translation of the History of Philosophy, Eastern and Western, Vol.I, University of Mysore, Mysore, 1970 (1st Edition).	

<b>Paper Code and Name</b>	<b>B 05: Modern Western Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand the General characteristics of Modern Western Philosophy.
CO 2	Understand the different methods (Epistemology) of empiricism and rationalism.
CO 3	Know the comparative understanding of the methods and concepts advocated by these philosophers and their importance.
CO 4	Know the comparative understanding of the various concepts of these philosophers
CO 5	Know the comparative understanding of the concept of God.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> General Characteristics of modern Western philosophy.	08 Hours
<b>Unit 2:</b> Descartes: Method of Philosophy, Cogito ergo-sum, Body-mind relation. Proofs for the existence of God.	09 Hours
<b>Unit 3:</b> Spinoza: Substance, attributes and modes; Determinism.	08 Hours
<b>Unit 4:</b> Leibnitz: doctrine of monads, pre-established harmony.	08 Hours
<b>Unit 5:</b> Locke: (a) Origin and limits of knowledge (b) Substance-Primary, Secondary and tertiary qualities.	09 Hours
<b>Unit 6:</b> Berkeley: (a) Immaterialism, rejection of Locke's distinction between primary and secondary qualities (b) Esse est percipi.	09 Hours
<b>Unit 7:</b> Hume: (a) Impressions and Ideas (b) Distinction between relations of ideas & matters of fact (c) Causation.	09 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Copleston, P: <i>History of Philosophy</i> Vols. IV,V,VI., The Newman Press, Maryland, 1961.</li> <li>2. Falckenberg, R: <i>History of Modern Philosophy</i>, Hort, New York, and Progressive Publications, 1893.</li> <li>3. O'Conner, D.J (Ed): <i>A Critical History of Western Philosophy</i>, Free Press of Glance, New York, 1964.</li> <li>4. Russell, B: <i>History of Western Philosophy</i>, George Allen and Unwin Ltd., London, 6<sup>th</sup> impression, 1971.</li> <li>5. Thilly, F: <i>History of Philosophy</i>, Holt, New York, 1951 or Central Book Depot, Allahabad, 1976.</li> <li>6. Sheshagiri Rao.V.N: <i>Paschatya Tattvika Chintane</i>, The Institute of Kannada studies, University of Mysore, Mysore-570006, 1985 ( Ist Edition).</li> </ol>	

<b>Paper Code and Name</b>	<b>H 61: Open Elective: Philosophy of Bhagavadgita</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the importance of Indian culture and the teachings of Bhagavad-Gita, its ethics – the paths to self-realization.
CO 2	The distinction between Karma (duty), Kama and Nishkama karmas.
CO 3	the Ethical principles and paths to self-realisation.
CO 4	the spiritual teachings in Bhagavad Gita.
CO 5	the relevance of Bhagavad-Gita teachings in present society.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
Unit 1: <i>The nature and scope of Bhagavadgita</i> , The Importance of Bhagavadgita in Indian Culture. <i>Pravrtti and nivrtti</i>	08 Hours
<b>Unit 2:</b> Phenomenal characteristics of External World (jagat), <i>Higher and lower prakrti</i> .	08 Hours
<b>Unit 3:</b> The Individual Self and the Goal of life.	08 Hours
<b>Unit 4:</b> The ethical principles for individuals and society.	08 Hours
<b>Unit 5:</b> The nature and functions of jnanamarga.	07 Hours
<b>Unit 6:</b> The theory of Karmayoga and its applications.	07 Hours
<b>Unit 7:</b> Moksha: as human freedom and its methods of Realizations.	07 Hours
<b>Unit 8:</b> Relevance of Bhagavadgita for modern life.	07 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Gambhirananda Swami (Ed): <i>Bhagavad-Gita with the commentary of Sankaracharya</i>, Advaita Ashrama Calcutta.198</li> <li>2. Hiriyanna, M: <i>Outlines of Indian Philosophy</i>, George Allen &amp; Unwin Ltd London, 1974.</li> <li>3. Radhakrishnana,S: <i>Indian Philosophy</i>, Vol.I, Blacki and sons Mumbai.1977.</li> <li>4. Shivananda,S: <i>The Bhagavadgita</i>, The Divine Life Society, Shivanandanagar, 1974.</li> <li>5. Shri.Bhaktivedant Swami Prabhupad.A.C.Kanthi Rao:<i>Bhadvadgita Yatha Roopa</i>(Tr) (K), Bhakti Vedanta Book House, ISKON, Bangalore-560010, 1990 (2<sup>nd</sup> Edition).</li> <li>6. Narayanachar,K.S(K): <i>Sri Gitartha Rathnanidhi</i>, Malola Prakashana,Kalyan Nagar, Dharwad, 1989.</li> <li>7. Universal message of the Bhagavedgita (Volume1,2,3) Swami Ranganathananda, Advaita Ashrama, Kolkata,2000.</li> <li>8. A Critical Survey of Indian Philosophy, Chandradha Sharma motilal, Banarsidass publishers, Delhi-2016.</li> </ol>	

### **M.A. III SEMESTER:**

#### **A) Compulsory course:**

<b>Paper Code and Name</b>	<b>C 01: Indian Moral Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	

After completing this paper, the students will be able to understand :	
CO 1	Indian Ethics / Moral Philosophy.
CO 2	The Classification of duties by the different schools of Indian Philosophy.
CO 3	The moral standards in the various schools of Indian Philosophy
CO 4	The meaning of Vidhis and Nishedhas.
CO 5	The Moral standards.

PARTICULARS	Teaching Hours (Max. 60)
<b>Unit 1:</b> Introduction: Nature and scope of Dharma, Dharma as universal moral law.	08 Hours
<b>Unit 2:</b> Nyaya-Vaisesika Classification of duties: Samanya-Dharmas-Generic duties. Visesa-Dharmas-Specific duties.	10 Hours
<b>Unit 3:</b> Mimamsa: Classification of duties: Nityakarmas-unconditionally obligatory duties. Naimittikakarmas-obligatory duties on special occasions. Kamyakarmas-Duties conditional on subjective desire. Vidhis as positive injunctions and Nishedhas as mere Prohibitions. <i>Ramanujas Classification of duties</i>	12 Hours
<b>Unit 4:</b> Classification of Virtues and vices: Nyaya-Classification of Virtues and Vices, Patanjali's Classification of Virtues, Jain <i>Classification</i> of Virtues. Buddhist Classification of Virtues.	12 Hours
<b>Unit 5:</b> The Moral Standards (Criteria), Custom and Tradition; Social; Category; Moral Utility; Moral Law.	10 Hours
<b>Unit 6:</b> The Nature of Nishkama Karma Bhagvadgita	08 Hours
<b>REFERENCES</b>	
1. Banerjee, N.V: <i>Spirit of Indian Philosophy</i> (Arnold) Heinemann Pubs. Delhi, 1974.	
2. Banerjee, S.C : <i>Dharma Sutras: A Study in their origin &amp; development</i> . Punthi Pustak, Calcutta, 1962.	
3. Hiriyanna, M : <i>Indian Conception of Values</i> , Kavyalaya Publishers, Mysore, 1975.	
4. Maitra, S.K: <i>The Ethics of the Hindus</i> , Calcutta University, 1970.	
5. Mackenzie, John: <i>Hindu Ethics: A Historical &amp; Critical Essay</i> , Oriental Books Corporation, Reprint Delhi, 1971.	
6. Panikkar, K.M: <i>Hinduism at Crossroads</i> , Asia Publications, Bombay, 1955.	

<b>Paper Code and Name</b>	<b>C 08: Contemporary Western Philosophy</b>

COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to understand:	
CO 1	the theories and the analysis of language, its meaning, limits and use.
CO 2	different theories of Reality in Contemporary Western Philosophers.
CO 3	core ideas of Phenomenology and Existentialism and the Relational philosophy.
CO 4	And give clarity and precision of moral concept often making use of formal logic and conceptual analysis.
CO 5	Reality as an organism (relational) – consisting of God, world and man.

PARTICULARS	Teaching Hours (Max. 60)
<b>Unit 1:</b> Characteristics of Contemporary Western Philosophy.	08 Hours
<b>Unit 2:</b> Philosophy of Frege - Concept and Object – Sense and Reference.	10 Hours
<b>Unit 3:</b> Russell’s Theory of Definite Descriptions and Logical Atomism.	08 Hours
<b>Unit 4:</b> Wittgenstein’s Picture theory of Meaning, Limits of Language. Wittgenstein’s later Philosophy – Language-Games, <i>Family Resemblance Theory</i> and Use Theory of Meaning.	12 Hours
<b>Unit 5:</b> Philosophy of W.V. O Quine – Critique of Empiricism.	06 Hours
<b>Unit 6:</b> Phenomenology and Existentialism and its characteristics.	08 Hours
<b>Unit 7:</b> Whitehead’s Organic Theory of Reality.	08 Hours
REFERENCES	
<ol style="list-style-type: none"> <li>1. Ammerman, R. (Ed): <i>Classics of analytic Philosophy</i> (Ind.Ed.) New Delhi, Tata Macgraw hill, 1965.</li> <li>2. Emmet Dorothy: <i>Whitehead’s Philosophy of Organism</i>, London Macmillan Co, 1932, New York St.Martin’s Press, 1966.</li> <li>3. Munitz Milton, K: <i>Contemporary Analytic Philosophy</i>, New York, Macmillan Co, 1991.</li> <li>4. Peterfreund, S.P.Denise, T.C. (Ed): <i>Contemporary Philosophy and Its Origins</i>, New Delhi, Affiliated East Press.</li> <li>5. Rajgopal, L.V: <i>The Philosophy of A.N.Whitehead: The Concept of Reality and Organism</i> , Mysore University Press, 1966.</li> <li>6. Sinha Debarbata: <i>Phenomenology and Existentialism</i>, Calcutta, Progressive Publishers, 1974.</li> <li>7. Strawson, P.F: <i>Individuals – An Essay in Descriptive Metaphysics</i>, Oxford University Press, 1959.</li> <li>8. Srinivasan, G: <i>Samkalina Paschatya Tattvashastra</i> (K) , Nabhasree Prakashana Mysore-9, 1983.</li> </ol>	

<b>Paper Code and Name</b>	<b>C 03: Philosophy of Religion - Indian</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the nature and scope of Philosophy of Religion.
CO 2	Indian Culture, tradition and the goals of life according to the different schools of Indian Philosophy.
CO 3	the proofs for the existence and nature of God, human bondage and immortality
CO 4	And know how to see religious view point scientifically / rationally.
CO 5	cause for human bondage and means to immortality in Indian context.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
Unit 1: The Nature and Scope of Philosophy of Religions in Indian Tradition	12 Hours
<b>Unit 2:</b> Theism ( <i>Vaidika</i> ) and Athiesm ( <i>Avaidika</i> )	12 Hours
<b>Unit 3:</b> Nature of God and his relation to world ( <i>Jagat</i> ) and finite individuals ( <i>jiva</i> ).	12 Hours
<b>Unit 4:</b> Human bondage and liberation-Soul ( <i>Atma</i> ) and its immortality ( <i>Amaratva</i> )– Doctrine of Karma.	12 Hours
<b>Unit 5:</b> Indian conception of purusarthas; <i>Dharma, Artha, kama and moksa</i> .	12 Hours
<b>Unit 6:</b> Nyaya proofs for the existence of God. Realization of ultimate values according to Vedanta. ( <i>Advaita, Vishistadvaita and Dvaita</i> )	12 Hours
<b>REFERENCES</b>	
1. Banerjee, W.V: <i>The Spirit of Indian Philosophy</i> , Arnold Heinemann, New Delhi, 1974, (Relevant chapter on Philosophy of Religion). 2. Hirianna, M: <i>Indian Conception of Values</i> , Kavyalaya Publ. Mysore, 1975. 3. Hirianna, M: <i>Popular Essays in Indian Philosophy</i> Kavyalaya, publishers Mysore, 1958. 4. Mahadevappa, N.G: <i>Dharmika Nambikegalu Mattu Darshanika Visleshane</i> , Virasaiva Adhyayana Academy, Belgaum, 1995.	

<b>Paper Code and Name</b>	<b>C 04: Modern Symbolic Logic</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	

CO 1	Articulate key philosophical arguments in the field of symbolic logic.
CO 2	Translate natural language sentence into precise symbolic form and vigorously evaluate standard inferences.
CO 3	Apply formal techniques and systematically codify deductively valid arguments.
CO 4	Students will translate English sentences into two basic languages used in formal logic, viz., the language of truth-functional logic and the language of quantificational logic.
CO 5	Construct arguments on issues dealing with symbolic logic using critical reasoning to identify and investigate philosophical theses and evaluate information and its sources.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> 1.Introduction: a) Definition and Utility of Symbolic Logic. b) <i>Nature of Argument</i> . Its elements- <i>Propositions-(subject-copula-predicate), Premises and conclusion</i> . c) Formal Characteristics of Logic – Forms of arguments and forms of propositions. d) Validity and Invalidity as distinguished from truth and falsity.	15 Hours
<b>Unit 2:</b> Propositional Theory a) Simple and compound statements (Propositions), Truth functions – Negation, Conjunction, disjunction, conditional and bi-conditional statements. b) Truth-Table: <i>Statement forms and argument forms. Statement variables, substitution instances, specific form, a form</i> . Tautology, contradiction and contingency. c) The Nature of truth-functional arguments – <i>Use of truth tables to decide the validity/invalidity of arguments/argument forms</i> . Means of establishing the validity of such arguments.	15 Hours
<b>Unit 3:</b> Construction of formal proofs ( <i>Method of Deduction</i> ), <i>Elementary valid argument forms</i> . -rules of Inference for propositional (sentential) Logic. ( <i>including and Rule of Replacement</i> ). <i>Proving the invalidity of arguments by the method of assigning truth values; the Rule of Conditional Proof, Indirect Proof; shorter Truth-table Technique</i> .	15 Hours
<b>Unit 4:</b> Quantification Theory: a) Singular and General Propositions. b) Construction of Formal Proofs of validity using Preliminary Quantification Rules c) Proving Invalidity of Invalid arguments. d) Structures of Multiply General propositions. e) Logical truth involving Quantifiers.	15 Hours
<b>REFERENCES</b>	
1. Copi, I.M: <i>Symbolic Logic</i> (Vth Ed.) Macmilan, New York, Prentice Hall Delhi, 1996.	
2. Ingalalli, R.I: <i>Modern Symbolic Logic</i> , 'Sachchidananda' Publication Dharwad,	

2000.	
3. Jeffrey , R.C: <i>Formal Logic: Its Scope and Limits</i> , Ma-Graw-Hill, Book Co. New York, 1967.	
4. Mates, Bensons: <i>Elementary Logic</i> , Oxford University Press, 1968.	
5. Quine, W.V.O: <i>Methods of Logic</i> , (Revised Ed.) Harvard University Press, Cambridge (Mass.) 1951.	

<b>Paper Code and Name</b>	<b>C 09: Classical Virasaivism/ Lingayatism</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	The pre-historic origin of Saivism, the religious and philosophical significances.
CO 2	The Virasaiva philosophical concepts in Vedas and Sivagamas.
CO 3	the meaning of <i>Saktivisistadvaita</i> and the ethical philosophy of classical Virasivism.
CO 4	the religious and philosophical significance of Saivism.
CO 5	And know the significance of the Virasaiva ethical concept as against other ethical concepts.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Introduction: Pre-historic origin of Saivism. Fundamental concepts of Siva, Sakti, etc in Indus valley civilization and their Philosophical and Religious significance.	10 Hours
<b>Unit 2:</b> Virasaiva philosophical concepts in Vedas and Sivagamas.	10 Hours
<b>Unit 3:</b> Pramanas: <i>Perception (Pratyaksa)</i> <i>Inference (Anumana)</i> and <i>Testimony (Sabda)</i> .	10 Hours
<b>Unit 4:</b> Ethical Philosophy: a) <i>Pancacaras</i> in Sivagamas b) <i>Sat-Sthala</i> s in Siddhanta Shikhamani, <i>and the criticisms</i> .	10 Hours
<b>Unit 5:</b> Theory of Bheda-Abheda in Srikara-Bhasya	10 Hours
<b>Unit 6:</b> Metaphysics: a) Concept of <i>God (Parasiva)</i> and Parasakti, and their relation b) Concept of soul ( <i>jiva</i> ) c) Concept of world ( <i>jagat</i> ) d) Relation of <i>Parasiva</i> to Soul and world e) Concept of Liberation ( <i>Linganga samarasya</i> ).	10 Hours
<b>REFERENCES</b>	
1. Sakhare, M.R: <i>History and Philosophy of Lingayat Religion</i> , Mahavira Press, Belgaum, 1942.	
2. Hayavadhana Rao, C. (Ed): <i>Srikarabhasya Being the Virasaiva commentary on The Vedanta sutras by Sripati</i> , Aksayaprakasana, New Delhi 2003.	
3. Kashinathsastri: <i>Saktivisistadvaitasiddhanta(K)</i> Panchachara Electric Press,	

<p>Mysore 1966.</p> <ol style="list-style-type: none"> <li>Chandrashekar Shivachary Swamigalu, Jangamavadimath, Varanasi: <i>Shree Siddhanta Shikhamani Pravachana Prabhe</i> (K), Vol.I &amp; II, Shee Jagadguru Panchacharya Manava Dharma Samsthe, Mahantanamath, Bangalore, 2000.</li> <li>Siddheswara Swamiji: <i>Siddhanta Shikhamani</i> (K), J.Shri. Shivarathreeswara Grantamale Mysore-570004.1999, (3<sup>rd</sup> Edition).</li> <li>Shivakumarswamy, C: <i>Veerashaiva Sourabha</i> (K), Sreemadveerashaiva Sadbodhana Samsthe, Rambhapuri Veerasimhasama Peetha, Balehonnur-, 2004.</li> <li>Shivakumar Swamy, M (Ed): <i>Vedagamagalu Mattu, Shivasharnaru</i> (K), Vol.I &amp; II. Veerashaiva Anusandhana Samsthana, vijayanagar, 2<sup>nd</sup> stage, Bangalore-40, 2002 &amp; 2003 ( 1st Edition).</li> <li>Siddapparadhya, T.G: <i>Saktivisistadvaitadarsana</i> (K), Gubbi Shri Channbasawesvar Granthamale Mysore, 1963.</li> <li>Shivakumarswami, M: <i>Saivagamgalu Mattu Vacanasahitya</i> (K) ,Basavapetha, Karnatak University,Dharwad,2002.</li> <li>Kumara Swamigalu: <i>Virasaivadarsana</i> (K) ,Navakalyana math, Dharwad ,2002.</li> <li>Annadanishwar Mahaswamigalu: <i>Virasaiva Darsanika Siddhanta</i> (K), Shri. Ja. Annadaniswara Samsthanmath,Mundaragi, 1989.</li> <li>Hiremath,R.C(Ed): <i>Virasaiva Darsana</i> (K), Chenna Chetana Prakashana, Hirekalmath Honnali,1998.</li> <li>Nandimath, S.C: <i>A Handbook of Veerashaivism</i>, M.L.B.D, New Delhi,1975.</li> <li>Kumara Swami: <i>Virasaiva Philosophy and Mysticism</i>, Navakalyanamath, Dharwad, 1960.</li> </ol>	
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<b>Paper Code and Name</b>	<b>C 06: Advaita Vedanata of Sankara</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the Advaita metaphysics and their elements.
CO 2	the meaning, definition and sources of epistemology.
CO 3	the ethical concepts according to Sankara.
CO 4	the relation of Advaita to other systems.
CO 5	get a comparative understanding of Advaita with other schools of Vedanta.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Metaphysics: (a) Nirguna-Brahman (b) Maya (c) Adhyasa (d) Saguna Brahman (Isvara) (e) Jiva (f) jagat (g) Atman (h) Atman-Bhahman Identity (i)	15 Hours

Vivarta vada.	
<b>Unit 2:</b> Epistemology: (a) The nature of Janana (b) Pramanas (c) Theory of Truth and (d) Theory of error.	15 Hours
<b>Unit 3:</b> Ethics: (a) Nature of liberation (b) Means of Liberation-Relations between reason and revelation (c) Jivanmukti and Social concern.	15 Hours
<b>Unit 4:</b> Relation of Advaita to other systems, especially Buddhism and Sankhya.	15 Hours
<b>REFERENCES</b>	
Atmananda Swami: <i>Sankara's Teachings in his own words</i> , Bharatiya Vidyabhavan, Bombay, 1960. 2. Belavalkar K: <i>Brahma Sutras with Sankara's Bhasya</i> , Bilvakunj, Poona, 1931. 3. Das Rasavihary : <i>Introduction to Sankara</i> , Mukhopadhyaya Pub. Calcutta, 1. 4. Devaraj, N.K: <i>An Introduction to Sankara's Theory of Knowledge</i> Motilal Banarasidass, New Delhi, 1962. 5. Deussen, Paul: <i>The System of the Vedanta</i> Oriental Publishers, Delhi, 1972. 6. Mahadevan ,T.M.P : <i>Sankaracharya</i> National Book Trust, Delhi. 7. Mahadevan ,T.M.P : <i>Insights of Advaita</i> , University of Mysore, Mysore, 1970. 8. Nikhilananda Swami: <i>Atmabodhah of Samkaracharya</i> , Ramkrishnamata, Madras, 1947. 9. Shri.Sachchidanandendra Saraswati Swamigaluvaru: <i>Sankarvedanta Sara(K)</i> , Adyatma prakash karyalaya Holenarasipura, 2000, (3 <sup>rd</sup> Edition).	

<b>Paper Code and Name</b>	<b>C 07: Philosophy of Aristotle</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	Understand as to how to think logically in and about the given circumstance.
CO 2	understand the metaphysical concepts of Aristotle.
CO 3	lead ideal life following the Aristotelian ethics
CO 4	understand Aristotle's logic and his theory of syllogism.
CO 5	Know Aristotle's philosophy of nature.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Logic: (a) Logic of form: Terms, Proposition, Syllogism, Enthymeme. (b) Logic of Science: Demonstration, Definition and fallacies	12 Hours

<b>Unit 2:</b> Epistemology: (a) Nature of Knowledge: Sources of Knowledge. (b) Perception and Reason.	12 Hours
<b>Unit 3:</b> Metaphysics: (a) Matter and form: Analysis of becoming (b) Potentiality and actuality.	12 Hours
<b>Unit 4:</b> Ethics: The ideal life and its goodness, voluntary action choices, Moral virtues, justice and continence.	12 Hours
<b>Unit 5:</b> Philosophy of Nature: (a) Substratum, form privation, and four causes and (b) Teleology and necessity.	12 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Allan, D.J: <i>The Philosophy of Aristotle</i>, Oxford University Press, 1978.</li> <li>2. Allen, G.E (Ed): <i>Greek Philosophy: Thales to Aristotle</i> (only Chs, XV-XXIX) The Free Press of Glenco, New York, 1966.</li> <li>3. Bambrough, R (Ed): <i>New Essay's on Plato and Aristotle</i> (Last 5 Chs.) Rutledge and K.Pa: 1, London, 1965.</li> <li>4. Hope, Ridhard (Tr): <i>Metaphysics, with an analytical Index &amp; Technical Terms</i>. Ann Arbor Michigan University Press, 1960.</li> <li>5. Ross, W.D: <i>Aristotle</i>, Methuen, London, 1953.</li> <li>6. Taylor, A.E: <i>Aristotle</i> (Revised Ed.): Dover Publication, New York, 1952.</li> </ol>	

<b>Paper Code and Name</b>	<b>I 62: Philosophy of Swami Vivekananda</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the teachings of Swami Vivekananda and the foundations of Hinduism.
CO 2	the practical Vedanta and the concept of Universal religion and its significance in evaluating the various religions.
CO 3	the nature of duty, the realization of reality and the mission of Vedanta.
CO 4	the concept of universal religion and its significance in valuating various religion.
CO 5	Vivekananda concept of God, world and soul.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
Unit 1: <i>Introduction: Life Swami Vivekananda – Ramakrishna, Paramahansa</i>	07 Hours
Unit 2: Nature and characteristics of <i>Practical</i> Vedanta Philosophy.	07 Hours

Unit 3: Vedic Teaching in theory and practice.	07 Hours
Unit 4: The common basis of Hinduism.	07 Hours
Unit 5: Vedanta, <i>Upanishads</i> , <i>Vedas</i> .	07 Hours
Unit 6: The Influence of Vedantic thought in England.	06 Hours
Unit 7: The nature of duty, and realization of reality.	06 Hours
Unit 8: God, world and soul.	07 Hours
Unit 9: The mission of Vedanta	06 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Swami Vivekananda: <i>Vedanta Philosophy</i> at the Harvard University Udbodhana Office, Calcutta, 1978.</li> <li>2. Swami Vivekananda: <i>Lectures from Colombo to Almora</i>, Advaita Ashrama, Calcutta, 1978.</li> <li>3. Swami Vivekananda: <i>Karma-Yoga</i>. Advaita Ashrama, Calcutta.</li> <li>4. Swami Vivekananda: <i>Jnanayoga</i> Advaitashrama, Calcutta.</li> <li>5. Swami Vivekananda: <i>Complete Works of Swami Vivekananda</i>, Volumes (Related topics only); Advaita Ashrama, Calcutta. 1980.</li> <li>6. ಸ್ವಾಮಿ ವಿವೇಕಾನಂದ, ಕೃತಿಶ್ರೇಣಿ (ಅನುವಾದ, ಸಂಬಂಧಿಸಿದ ಅಧ್ಯಾಯಗಳು) 1 ರಿಂದ 10 ಸಂಪುಟಗಳು, ರಾಮಕೃಷ್ಣಾಶ್ರಮ, ಮೈಸೂರು.</li> </ol>	

#### **M.A. IV Semester:**

A Compulsory course:

<b>Paper Code and Name</b>	<b>D 01: Western Moral Philosophy</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	understand the nature of Western Moral Philosophy.
CO 2	understand kinds of ethics and their methods.
CO 3	think about moral freedom and his responsibility in the society
CO 4	The relation between Fact and Value.
CO 5	To learn about Professional ethics, particularly Moral freedom and responsibility.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Introduction: Nature and definition of morality, Scope of Moral Philosophy.	08 Hours
<b>Unit 2:</b> Relation between first order moral discourse and second order moral discourse. Nature of moral reasoning, <i>moral standards</i>	09 Hours

<b>Unit 3:</b> Normative Ethics; Utilitarianism: Act Utilitarianism and Rule Utilitarianism, Ross's egoism, Kant's Categorical Imperative, Rawls's Social contract theory. Kant and Rawls.	09 Hours
<b>Unit 4:</b> Meta-Ethics: Naturalism of Perry, Intuitionism of Moore, Emotivism of Ayer and Stevenson, Prescriptivism of Hare.	09 Hours
<b>Unit 5:</b> Distinction between normative Ethics and meta-ethics	08 Hours
<b>Unit 6:</b> Descriptivism: Relation between fact and value (Is-ought relation)	08 Hours
<b>Unit 7:</b> Professional ethics: moral freedom and responsibility.	09 Hours
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Feldman, F :<i>Introductory Ethics</i> ,Englewood, Prentice Hall, 1978.</li> <li>2. Finis, J: <i>Fundamental Ethics</i> Clarendon Press, Oxford, 1983.</li> <li>3. Garner, R.T. and Rosen, B: <i>Moral Philosophy</i> Macmillan New York, 1967.</li> <li>4. Moore, C.E: <i>Principia Ethica</i> Cambridge University Press,1957.</li> <li>5. Nowell-Smith, P.H: <i>Ethics</i>, Philosophical Library, New York, 1959.</li> <li>6. Quinton, A: <i>Utilitarian Ethics</i>, Macmillan Co., London, 1967.</li> <li>7. Ross, W.D: <i>The Right and the Good</i>, Clarendon Press, Oxford, 1930.</li> <li>8. Warnock, C.J: <i>Contemporary Moral Philosophy</i>, Macmillan, London, 1967.</li> </ol>	

<b>Paper Code and Name</b>	<b>D 08: Dissertation/Projects work</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to:	
CO 1	understand the importance of data collection, field work and analysis.
CO 2	write proposals for projects works.
CO 3	recognize the burning problems/issues in the present society and propose a possible philosophical solution to it in the dissertation.
CO 4	Develop independent thinking skills.
CO 5	Develop critical and constructive thinking.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> The topics to be given to the students for dissertation work be decided in the Departmental Council meetings as per the University rules.	

<b>Paper Code and Name</b>	<b>D 03: Philosophy of Religion – Western</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the analyses of religious concepts, beliefs, terms, arguments and practices.
CO 2	arguments or proofs for the existence of God and explications of apparent inconsistencies in the description of the nature of God.
CO 3	the existence of God and his divine attributes, religious language, and the justification of religious belief.
CO 4	Kinds of values and uniqueness of religious values.
CO 5	And know about the problem of evil in religion and try to find possible solutions.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> The nature and scope of Philosophy of Religion.	10 Hours
<b>Unit 2:</b> Religious language: The <i>general</i> Characteristics of religious language-religious statements as symbolic - religious language as non-cognitive-paradox in religious language.	10 Hours
<b>Unit 3:</b> God and Religion: <i>Introduction</i> , Meaning, Nature and Attributes of God - <i>Different</i> theories of God-Proofs for the Existence of God-Cosmological, Teleological, Ontological and Ethical Religion without God.	10 Hours
<b>Unit 4:</b> Religious Experience: Religion as Experience-The Nature, the foundations and the validity of religious experience-The nature, characteristics, kinds and evaluation of mysticism.	10 Hours
<b>Unit 5</b> Religious values: Kinds of values – Nature and uniqueness of religious value – Belief in immortality as an aspect of religious values.	10 Hours
<b>Unit 6:</b> Religion and Evil: The problem of <i>Good and</i> evil in religion – origin, nature and kinds of evils – Theories of evil and possible solutions.	10 Hours
<b>REFERENCES</b>	
1. Diamond, M.L: <i>Contemporary Philosophy and Religious Thought</i> , Mac Graw Hall Book Co, New York, 1974. 2. Frederick Ferre : <i>Basic Modern Philosophy of Religion</i> , Goerge Allen & Umwin, London,1976. 3. Hick, John: <i>Philosophy of Religion</i> , Englewood Cliffs H.J. Prentice Hall, New York, 1963. 4. Mahadevappa, N.G: <i>Dharmika Nambikegalu Mattu Darshanika Visleshane</i> ,	

Virasaiva Adhyayana Academy, Belgaum. 1995.	
5. Mahadevappa, N.G. (Tr): <i>Dharma-mimamse</i> , Published by: Prasaraanga, Karnatak University, Dharwad. 1992.	
6. Jalihal, M.A: “ <i>Dharma-Samprati</i> ”, Chennachetana Prakashana, Hirekalmatha, Honnalli, Dist: Shimoga. 1999.	
7. Mitchell, Basil: <i>The Philosophy of Religion</i> , Oxford University Press, 1971.	
8. Mitchell, Basil: <i>Justification of Religious Belief</i> , Macmillan, London, 1975.	
9. Radhakrishnan, S.: <i>East and West in Religion</i> , George Allen & Unwin, 1949.	
10. Thomas.Mc.Pherson: <i>The Philosophy of Religion</i> , Van Nostrand, London, 1965.	

Paper Code and Name	D 04: Virasaivism / Lingayatism of <i>Vacanakaras</i>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the various philosophical concepts in the Vacanas.
CO 2	the contribution of Vacanakaras in the twelfth century - Social, Ethical and religious.
CO 3	the hidden ethical aspects in the vacanas and their practical applicability leading to peace and harmony in present society.
CO 4	And know the significance of Linganga Samarasya as an ultimate goal of human life.
CO 5	And know the Vacanakaras' concept of universal religion and its characteristics in compassion to other schools.

PARTICULARS	Teaching Hours (Max. 60)
<b>Unit 1:</b> The Philosophy of the <i>Vacanakaras</i> . a) The concept of Reality – concept of God ( <i>Parasiva</i> ), man ( <i>jiva</i> ) and the world ( <i>jagat</i> ) and their relation. b) <i>Anubhavamantapa</i> – An Academy of Philosophical and Religious dialogues.	12 Hours
<b>Unit 2:</b> Ethics of the <i>Vacanakaras</i> : Practical application of the philosophical and religious principles in actual life – <i>Sat-sthala</i> , <i>Asthavarna</i> , <i>Pancacara</i> .	10 Hours
<b>Unit 3:</b> Concept of Liberation ( <i>Linganga Samarasya</i> ) in Vacanas.	08 Hours
<b>Unit 4:</b> <i>Vacanakara</i> ’s concept of Religion; Universal Religion – its characteristics.	10 Hours
<b>Unit 5:</b> Social Philosophy of the <i>Vacanakaras</i> - <i>Kayaka</i> , <i>Dasoha</i> , Sacredness and Equality of professions leading to Linganga Samarasya. Peace and Harmony in Society.	10 Hours
<b>Unit 6:</b> Relevance of the above scheme of the <i>Vacanakaras</i> to the present society – Moral Behaviour, commitment, sincerity and integrity.	10 Hours

REFERENCES	
<ol style="list-style-type: none"> <li>Desai, P.B : <i>Basaveshwar and His Times</i> KRI, Karnatak University, Dharwad, 1968.</li> <li>Kumara Swami: <i>Virasaiva Philosophy and Mysticism</i>, Navakalyanamath, Dharwad,1960.</li> <li>Shri , M.R(K) : <i>Vacana-Dharma Sara</i>, University of Mysore, Mysore, 1956.</li> <li>Tipperudraswamy, H: <i>Virasaiva Saints – A Study</i>, JSS Granthamala, Mysore,1958.</li> <li>Tipperudraswamy, H (K): <i>Vacanagalalli Virasaiva Dharama</i>, D.V.K. Murthy, Mysore, 3<sup>rd</sup> Reprint 1997.</li> <li>Tipperudraswamy, H (K): <i>Saranara Anubhava Sahitya</i>, D.V.K.Murthy, Mysore, 1991.</li> <li>Nandimath, S.C :<i>A Handbook of Virasaivism</i>, Motilal Banarsidas, New Delhi,1975.</li> <li>Shri. Kumara Swamiji: <i>Mirror of Virashaivism</i>, Navakalyanamath, Dharwad, 1960.</li> <li>Schouten, J.P: <i>Revolution of the Mystics</i>, Motilal Banarsidas, New Delhi,1995.</li> <li>Micheal, R.Blake: <i>The Origins of Virasaiva Sects</i>, Motilal Banarsidas, New Delhi,1992.</li> <li>Malimath, Premadevi (Tr) (K): <i>Virasaiva Dharmada Kaipidi</i>, Kannada Adhyayana Peetha, K.U. Dharwad. 1990.</li> <li>Hiremath, S.M (K): <i>Anubhava Mantapa Darsana</i>, Shri. Annadaneswara Samsthan,Mundaragi,1997.</li> <li>Mahadevappa, N.G (K): <i>Vachanagalalli Thathva Mimanse</i>, Lingayata Adhyayana Academy, Rudraakshimath, Belgaum, 2004.</li> <li>Diwakar,R.R: <i>Vacana Sastra Rahasya</i> (K), Sri Ja.Gangadhara Dharma Pracharaka Mandala, Hubli,1968 (reprint).</li> <li>Halakatti, P.G. (Ed): <i>Vacana-Sastra-Sara</i> (K), Virasaiva Adhayana Samsthe, Dambal-Gadag, 1982.</li> <li>Mahadevappa, N.G: <i>Metaphysics of Lingayatism</i>, Lingayata, Adhyayana Kendra, Rudrakshimath, Belgaum, (2011).</li> </ol>	

Paper Code and Name	D05: Theistic Vedanta of Ramanuja and Madhva.
COURSE OUTCOMES (COs)	
After completing this paper, the students will be able to:	
CO 1	understand the metaphysical concepts in these systems and get their comparative understanding.
CO 2	understand the epistemological issues in the systems.
CO 3	understand the ethical concepts according to Ramanuja and Madhva.
CO 4	Know the criticism of Advaita by Ramanuja and Madhva.
CO 5	Realise/understand the Concept of sakshi as a distinct concept in Madhva.

PARTICULARS	Teaching
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	<b>Hours (Max. 60)</b>
<b>Ramanuja's Visistadvaita:</b>	10 Hours
<b>Unit 1:</b> Metaphysics: (a) Criticism of Advaita (b) Brahman, (c) Cit and, (d) Acit	
<b>Unit 2:</b> Epistemology: (a) The concept of Jnana-distinction between substantive and attributive knowledge (b) Pramanas, (c) Theory of error.	10 Hours
<b>Unit 3:</b> Ethics: (a) Nature of Liberation – Videha Mukti, (b) Means of liberation; Jnana, Sruti, Tarka, anubhava and relation of revelation to reason; Karma, Bhakti and Prapatti	10 Hours
<b>Madhva's Dvaita:</b>	10 Hours
<b>Unit 1</b> Metaphysics: (a) Criticism of Sankara's Advaita and Ramanuja's Visistadvaita (b) Brahman, (c) Jiva, (d) Jagat, (e) Panchabheda and (f) Pratibimbhavada.	
<b>Unit 2 :</b> Epistemology: (a) The concept of Jnana (b) Pramanas, (c) Theory of error,(d) The concept of Saksi.	10 Hours
<b>Unit 3::</b> Ethics: (a) Nature of liberation (b) Means of Liberation: Jnana-Sruti, tarka and anubhava; Karma and Bhakti.	10 Hours
<b>REFERENCES</b>	
<b>I. On Ramanuja:</b>	
<ol style="list-style-type: none"> <li>1. Rangacharya, M: <i>Shree Bhasya of Ramanjua</i>: Adhyaya-I Pada Sutra, 1-4, Adhyaya-II Pada I/II ,Educational Publishing, Madras, 1961,1963 and 1964.</li> <li>2. Raghavachar, S.S: <i>Vedantha Sanghra of Sri.Ramanuja carya</i>, Sri. Ramakrishna Ashrama, Mysore, 1968.</li> <li>3. Srinivasachari, P.N: <i>Fundamentals of Visistadvaita</i>, M.L.B.D.</li> <li>4. Yamunacharya, M: <i>Ramanuja's teachings in his own word,s</i> Bharatiya Vidya Bhavan, Bombay, 1970.</li> <li>5. Narayanachar,K.S:<i>The epistemology and Metaphysics of Sri Ramanuja-Vindicated</i>, S.Krishnaswamy Igengar, 3-B, Puthur Agraharam, Tiruchirapalli, 1990.</li> <li>6. Narayanachar, K.S: <i>Basic Concepts of Visistadvaita</i>, VedaVidya Prakashana, Dharwad, 1990.</li> <li>7. Narayanachar, K.S: "<i>Tattvamasi</i>", <i>matu "Neti Neti"</i>, <i>Sri Ramanuja Darshan</i>, Veda Vidya Prakashana, Dharwad, 1991.</li> <li>8. Settaloore Srinivas Rangacharya: <i>Visistdvaita Darpan(K)</i>, Part-1 &amp; 2, Nrusimha nilaya, chamrajpet,Bangalore,1986.</li> </ol>	
<b>II. On Madhva:</b>	
<ol style="list-style-type: none"> <li>1. Sharma, B.N.K: <i>Philosophy of Madhvacharya</i>, Bharatiya Vidya Bhavan, Bombay.</li> <li>2. Srinivasan, G: <i>Vedanta Parichaya</i> (K), Samaja Book Depot, Dharwad, 1991.</li> <li>3. Subba Rao S: <i>Vedanta-sutras with commentary of Madhvacharya</i> ,Vyasa press, Tirupati, 1936.</li> <li>4. Sharma, B.N.K: <i>Madhva's Teachings in His Own Words</i>, Bharatiya Vidya Bhavan, Bombay, 1961.</li> <li>5. Raghavendracharya, H.N: <i>Dvaita Vedanta</i> (K), Sahitya Sankruti Abhivruddi Ilaakhe, Mysore,1988.</li> <li>6. Raghavachar, S.S.: <i>Visnutattva Vinirnaya</i> (Sri Ramakrishna Ashrama, Mangalore)</li> </ol>	

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<b>Paper Code and Name</b>	<b>D06: Philosophy of Sri Aurobindo</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the nature of integral philosophy, the concept of man, world, God, etc.
CO 2	and develop the habit of logical thinking.
CO 3	The importance of integral yoga and spirituality.
CO 4	Aurobindo's concept of man, world and God.
CO 5	Aurobindo's graded worlds, and the problems of rebirth

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Nature of Integral Philosophy.	10 Hours
<b>Unit 2:</b> The origin and remedy of falsehood and error.	10 Hours
<b>Unit 3:</b> Nature and function of Reason, need to cultivate the habits of logical thinking.	10 Hours
<b>Unit 4:</b> The Graded worlds, the ascending and the descending movements.	10 Hours
<b>Unit 5</b> The structural and functional aspects of Purusa, Ishwara, Maya, Prakrit and Shakti.	10 Hours
<b>Unit 6:</b> Western metaphysics and yoga, the problems of rebirth and personality.	10 Hours
<b>REFERENCES</b>	
1. Pandit, M.P: <i>The Teachings of Sri.Aurobindo</i> , Bharatiya Vidyabhavan, Bombay, 1964. 2. Sri.Aurobindo: <i>Reason and Beyond Reason</i> , Bharatiya Vidya bhavan, Bombay, 1963. 3. Sri.Aurobindo: <i>The Yoga and its objects</i> , Sri. Aurobindo Ashrama, Pondicherry, 1984. 4. Sri.Aurobindo: <i>The Riddle of this world</i> , Shi. Aurobindo Ashrama, Pondicherry, 1972. 5. Sri. Aurobindo: <i>The Synthesis of Yoga</i> : Sri.Aurobindo Ashrama, Pondicherry, 1972. 6. Sri. Aurobindo: <i>The Life Divine</i> ; Sri.Aurobindo, Ashrama, Pondicherry,	

1972. 7. Sri. Aurobindo: <i>Essays on the Gita</i> , Aurobindo Ashrama, Pondicherry, 1972. 8. Choudary Haridass: <i>The Integral Philosophy of Sri.Aurobindo</i> , London, 1960.	
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<b>Paper Code and Name</b>	<b>D07: A.N. Whitehead's Philosophy of Organism.</b>
<b>COURSE OUTCOMES (COs)</b>	
After completing this paper, the students will be able to understand:	
CO 1	the meaning of the new terms used by Whitehead in his philosophy, and see different aspects as being related to each other.
CO 2	the relation between Philosophy and other branches of knowledge, the various concepts in the philosophy of organism.
CO 3	the metaphysical, ethical, religious and philosophical aspects of existence such as God, his nature and necessity, etc., and get to understand the differences with the traditional philosophies.
CO 4	the importance of the language and its relation to object (reality).
CO 5	the difference of Whitehead's concept of God with the traditional philosophical concepts.

<b>PARTICULARS</b>	<b>Teaching Hours (Max. 60)</b>
<b>Unit 1:</b> Speculative Philosophy and its defence-Philosophic method. The role of Language. Science and Philosophy; Science and religion; Religion and Philosophy; Literature and Philosophy.	15 Hours
<b>Unit 2:</b> Experience: Its structure and content. Experience, knowledge and clarity, Exactness, vagueness as morbid craving for metaphysics. Impossibility of any existence beyond experience.	15 Hours
<b>Unit 3:</b> Organic theory of reality: Actual entities, the becoming, the being and the objective immortality of actual entities; Reconciliation of permanence and flux, one and many (i.e. unity and plurality) in the concept of process.	15 Hours
<b>Unit 4:</b> Necessity of God as the principle of concretion. Nature of God.	15 Hours
<b>REFERENCES</b>	
1. Emmet Dorothy: <i>Whitehead's Philosophy of Organism</i> , London: St. Martin's Press, 1966. 2. Leclare Ivor: <i>Whitehead's Metaphysics – An Introductory Exposition</i> , London: George Allen & Unwin Ltd. 1955 &1965.	

3. Rajagopal L.V: <i>The Philosophy of A.N. Whitehead: The Concept of Reality and Organism</i> , Mysore University Press, 1966. 4. Whitehead A.N: <i>Process and Reality: An Essay in Cosmology</i> , New York: The Free Press, 1977. (Correction edition) 5. Whitehead A.N: <i>Science and the Modern World</i> . New York: The Free Press, 1967. 6. Whitehead A.N: <i>Adventures of Ideas</i> , New York: Mac Millan Co. 1933.	
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Tel: "UNIKARNATAK"

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KARNATAK



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Phone:0836-2215224

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ಪಾವಟೆ ನಗರ, ಧಾರವಾಡ - 580003  
ಕರ್ನಾಟಕ (ಭಾರತ)

"Diamond Jubilee Year 1949-2009"

No. KU/Aca(S&T)/(SSK-235)/BOS(Phy)/18-19/2900 Date:

24 JAN 2018

### NOTIFICATION

**Sub:** Regarding revised M.Sc Physics (CBCS) Syllabus I & II Semester w.e.f. 2018 and for III & IV Semester w.e.f. 2019 & onwards.

**Ref:** 1. Ad-hoc BOS Res. No. 02, dt. 21.9.2017.

2. Science Faculty Res. No. 07, dt. 24.11.2017.

3. AC Res. No. 08, dt. 16.12.2017.

4. Vice-Chancellor order dt. 18.01.2018

Adverting to the above it is hereby notified to the Chairman, Dept. of Physics, K.U.Dharwad and the Principals of Constituent & Affiliated Colleges that the M.Sc Physics (CBCS) Syllabus I & II Semester w.e.f. 2018 and for III & IV Semester w.e.f. 2019 & onwards.

Hence, the contents of this notification may please be brought to the notice of the student and all concerned.

The said syllabus is displayed on our University website i.e. [www.kud.ac.in](http://www.kud.ac.in) Academic Folder.

Sc 11/2011  
REGISTRAR

To,

1. The Chairman, Dept. of Physics, K.U. Dharwad for kind information.
2. The Principals of Constituent & Affiliated Colleges.
3. The Registrar (Evaluation), K.U.Dharwad.

Copy to:

1. Dr. K.Pancharatna, Dean Faculty of Science and Technology, PG Dept. of Studies in Zoology, K.U. Dharwad.

Copy for information and necessary action to:

1. P.S. to Vice-Chancellor, K.U.Dharwad.
2. S.A. to Registrar, K.U.Dharwad.
3. O.S. Exam (Confl) / QP / GAD / PG, Academic (PG) & CDC Section, K.U.Dharwad.

**Karnatak  University**

**Dharwad**

**Department of Physics**

**Syllabus based on Choice Based Credit System (CBCS)**

**(2018 Scheme)**

**for**

**M. Sc.Course in PHYSICS**

***With effect from the year 2018 for the I & II Semesters and from  
the year 2019 for III & IV Semesters Onwards***

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**Karnatak University, Dharwad**  
**Department of Physics and Electronics**

**Preamble:**

The Department of Physics, one of the oldest and major Departments at Karnatak University, was founded in the year 1953. Eminent spectroscopist Dr. N.R.Tawade was the first Head of the Department and its faculty included very distinguished scientists. The Department, at present, has 11 faculty members, 03 teaching assistants and 56 research scholars. The Department has had a tradition of strong teaching program and quality research output. As a result, it has been nationally recognized for excellence in teaching and research programs with major grants from UGC under Special Assistance Program (SAP) and DST under FIST program and for the individual faculty members from UGC, DST, BRNS and IUAC. Under the UGC-SAP Program, the Department is recognized as Centre of Advanced Study at Level-II with a grant of Rs 2.63 cr and the Department is associated with UGC's the Center with Potential for Excellence in a Particular Area(CPEPA) involving other Science Departments as well. While most of the passed-out students have become school and college teachers, allied job holders, a small but significant number of the students have excelled as scientists (some are Bhatnagar awardees), university faculty and vice-chancellors, and likewise some are successful in foreign countries.

**The Course Details:**

The Department offers M.Sc. and M.Phil Courses and Ph.D. Program in Physics. The M.Sc. Program is a two-year Course, spread over four semesters, each of which is sixteen weeks duration. The Course comprises compulsory and specialization Courses and Open Elective Courses. A student admitted to the Course leading to a M. Sc. Degree should necessarily study the compulsory and specialization Courses in Physics, offered in the Department as well as the Open Elective Courses (OEC), in different subject(s), offered by other Departments. The Student has the freedom to choose two Courses during the study under prescribed OECs.

There are 6 compulsory and 8 specialization theory Courses, 7 practical Courses and one Project. Of these, 10 theory Courses and 4 practical Courses are common to all the students studying in I- and II-Semesters. The remaining 4 theory Courses, 3 practical Courses and the Project are specialization-based Courses offered in the III- and IV- semesters. Specialization Courses are offered in the following subjects:

- 1) Atomic & Molecular Physics**
- 2) Condensed Matter Physics**
- 3) Electronics**
- 4) Nuclear & Particle Physics.**

There are two Elective Courses (under OEC), one in II-Semester and one in III-Semester, offered by the Department of Physics for the students of other science Departments.

**Credits:**

A student shall register for 24 credits in I-, II- and III-semester and 26 in IV-Semester and is required to successfully complete 98 credits for the M.Sc. Course in Physics. The credits for each of the theory (compulsory, specialization and elective) courses, and for each of the practical (compulsory and specialization) courses shall be 4. For the semesters I to IV, there shall be 40 credits for the compulsory theory courses and in each of the III- and IV-semester, there shall be 8 credits for the specialization theory courses. There shall be 4 credits each for the open elective courses(OEC). In the I-, II- and III-semester, there are two practical courses, each of which carries 4 credits and in the IV semester, however, while one practical course 4 credits, the project carries 6 credits (see Table 1). Students are allotted to specializations in the third semester on the basis of their order of preference

The student shall opt for an elective course (OEC) at the time of admission.

**1. M.Sc. Degree Course:**

**1.1 Duration of the Course:** The M.Sc. Course is of two years duration spread over four semesters each of sixteen weeks duration.

**1.2 Eligibility for Admission:** B.Sc. graduates of this University or of any other University recognized as equivalent thereto with Physics and Mathematics as optional subjects are eligible. The candidate should have obtained at least 45% of marks in optional subjects as well as in aggregate. Relaxation in respect of SC/ST/Cat-I etc. will be applicable as per prevailing rules of the University.

**1.3 Intake :** Total intake to the M.Sc Course in Physics under the jurisdiction of Karnatak University is 259. The intake to the Course at the Department of Physics at Karnatak University, Dharwad, is 69. The Course is also offered at Karnatak Science College (intake, 35), JSS College, Dharwad (intake 60 (30 under KUD quota + 30 under Management quota), Sri Siddeshwar First Grade Govt College, Naragund (15 all under KUD quota), JT Science College, Gadag (intake 30 (15 under KUD quota + 15 under Management quota) and KSS College, Gadag (intake 50 (25 under KUD quota + 25 under Management quota) The Karnatak University reserves the right to vary intake as deemed necessary including admission rules, fee structures and roster as per notification from time to time.

**2. Attendance:** Every student must have at least 75% attendance in each of the Courses (theory and practicals) in each of the semesters. Shortage of attendance will be dealt with as per the University rules from time to time.

**3. Medium of Instruction:** The medium of Instruction shall be English.

**4. Scheme of Instructions :**

4.1 In each semester there will be FOUR Theory Courses and TWO Practical Courses.

4.2 Each theory course is of FOUR hours of lectures per week. Each practical course is of FOUR contact hours per week. These include seminars, tutorials and discussion classes. Internal Assessment (IA) shall be conducted during the semesters. Each theory and practical Course shall carry 100 marks, out of which 25 marks are for internal assessment (IA). The various components of IA for 25 marks are as follows: Attendance-3 marks, written test(s)/seminars/assignments (minimum two)-22 marks. Total maximum marks are 600 per I-, II- and III-semester and 650 marks in IV-Semester.

4.3

**Project:** Every student has to compulsorily take a Project course. This is in the IV-semester. The Project may be a theoretical or an experimental work in the respective specialization subject. More than one student may be required to work on an assigned project. Project course carries 150 marks, of which 25 is for IA, 50 marks for viva-voce examination with presentation of the work and 75 marks for the evaluation of dissertation, at the semester-end examination.

**5. Scheme of Evaluation:**

Evaluation of each of the courses will have two components: the first being internal assessment (IA) and the second being the semester-end examinations.

For theory and practical courses having a credit award of 4, the total maximum marks shall be 100. Out of the total of 100, 25 marks shall be earmarked for the IA and the remaining 75 marks for the semester-end examination.

For the project, carrying 6 credits, the total maximum marks shall be 150. Out of 150, 25 marks shall be earmarked for the IA and the remaining 125 marks is shared between viva-voce carrying 50 marks and evaluation of dissertation carrying 75 marks for the semester-end examination.

### 5.1 Examination:

Examinations will be conducted at the end of the each semester as per the University regulations governing PG Courses.

The semester-end examination in each theory course will have a question paper for 3 hours duration and will carry a maximum of 75 marks. The IA tests will be conducted during the semester. The mode of conducting the tests may involve a common time-table for all the courses in that semester.

Each practical course will have an examination, generally, of four hours duration and will carry a maximum of 75 marks in the semester-end exam. A two-hour duration IA for 25 marks is conducted at the end of the semester.

**Project:** A project dissertation should be submitted by each student at the end of IV-semester to become eligible for the examination. The evaluation of the project dissertation carries a maximum of 75 marks. The viva-voce examination carries a maximum of 50 marks and will be in the form of presentation by the student. During this examination, one external examiner and one project supervisor or along with internal examiner will be involved in the evaluation. IA for 25 maximum marks is conducted during the mid semester, either through a test or a seminar. In the case of seminar, an internal examiner along with the project supervisor will be involved in the evaluation.

**5.2 Question Paper Pattern:** Each theory Course paper is organized into I, II, III and IV Units. A question paper comprises two questions as internal choice from each of these four Units, giving a total of eight questions and, a ninth question has four sub-questions drawn from each of the Units with an option to answer any three. The four sub questions may be in the form of a problem / short answer question / question for explanation of a concept. Each question carries 15 marks, giving a total of 75 marks for the question paper. Below is the summary of the Scheme:

### 5.3 Distribution of Marks :

|                                                |                                                                  |
|------------------------------------------------|------------------------------------------------------------------|
| <b>a) Theory Course:</b>                       | Max Marks                                                        |
| Semester-end Examination                       | 75                                                               |
| Internal assessment(IA)                        | <u>25</u>                                                        |
| Total:                                         | <u>100</u>                                                       |
| <b>b) Practical Course:</b>                    | Max Marks                                                        |
| Semester-end Examination                       | 75 (inclusive of 5 marks for journal and 10 marks for viva-voce) |
| Internal assessment (IA)                       | <u>25</u>                                                        |
| Total:                                         | <u>100</u>                                                       |
| <b>c) Project:</b>                             |                                                                  |
| Semester-end Examination                       | 125                                                              |
| (Project Dissertation – 75;<br>Viva-voce – 50) |                                                                  |
| Internal assessment (IA)                       | <u>25</u>                                                        |
| Total:                                         | <u>150</u>                                                       |

## **6. Maximum Period for the completion of the M.Sc. Degree programme :**

There shall be carry-over from first to fourth semester. The maximum number of years required by a student to complete the degree is as specified by the University from time to time.

## **7. Rules and Award of Degree :**

7.1 The Minimum for a pass in each course shall be 40% (semester-end exam and IA put together). Further, the candidate shall obtain at least 40% of the marks in the semester-end exam and 50% in aggregate when all Courses of four semesters are put together. There shall be no separate minimum for IA.

7.2 **Award of Degree:** Students after successfully completing all the Courses prescribed for all the four semesters by scoring minimum of 50% in aggregate will become eligible for the award of M.Sc. Degree in Physics.

## **7.3 Results: Marks and Grading**

Results of candidates are declared based on the marks obtained and grades earned and classes are awarded as per the University rules.

## **8. Co-Curricular and Extra Curricular activities :**

### **8.1 Co-curricular Activities :**

Seminars, tutorials, problem solving sessions, discussion classes will be conducted periodically. However, these activities do not carry any marks or credits.

### **8.2 Computer Laboratory facilities:**

Students are provided with computer facilities for their curricular as well as for their co-curricular studies and internet browsing.

### **8.3 Library Facilities:**

The Department has a library with research journals and text/reference books. Students are allowed to borrow on regular basis.

### **8.4 Students Counseling :**

Students will be assigned to teachers for counseling regarding their academic and other matters.

### **8.5 Epsilon club :**

An association called € (epsilon) club exists in the Department for the all round development of the students. Lectures by students, staff and special lectures by eminent scientists are arranged under the auspices of this club.

Extra-Curricular activities such as sports, literary and cultural activities are also conducted under the auspices of this club.

### 8.6 Special Encouragement:

Students interested in research activities are encouraged by providing them with an opportunity to work in the research laboratories and USIC under the guidance of the faculty members.

**M.Sc. Course in Physics**  
**Choice Based Credit System (CBCS)**  
**(2018 Scheme)**  
**Teaching and Evaluation Scheme**

|         |                           |                                                                                  |         |                   |                                                 | Maximum Marks      |    |       |
|---------|---------------------------|----------------------------------------------------------------------------------|---------|-------------------|-------------------------------------------------|--------------------|----|-------|
| Sem. No | Course code               | Title of the Paper                                                               | Credits | Teaching Hrs/week | Duration of Exam. In hours for Theory/Practical | Semester -End Exam | IA | Total |
|         | <b>Compulsory courses</b> |                                                                                  |         |                   |                                                 |                    |    |       |
| I       | <b>PG85T101</b>           | Mathematical Methods in Physical Sciences                                        | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>PG85T102</b>           | Classical Mechanics                                                              | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>PG85T103</b>           | Electronics (General)                                                            | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>PG85T104</b>           | Condensed Matter Physics (General)                                               | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>PG85P105</b>           | <b>Practical– I</b> Electronics and Condensed Matter Physics (General)           | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>PG85P106</b>           | <b>Practical– II</b> Atomic & Molecular and Nuclear & Particle Physics (General) | 4       | 4                 | 3                                               | 75                 | 25 | 100   |

| Sem. No | Course code        | Title of the Paper                                                        | Credits | Teaching Hrs/week | Duration of Exam. In hours for Theory/Practical | Semester -End Exam | IA | Total |
|---------|--------------------|---------------------------------------------------------------------------|---------|-------------------|-------------------------------------------------|--------------------|----|-------|
|         | Compulsory courses |                                                                           |         |                   |                                                 |                    |    |       |
| II      | PG85T201           | Quantum Mechanics-I                                                       | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T202           | Atomic & Molecular Physics (General)                                      | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T203           | Nuclear & Particle Physics (General)                                      | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T204           | Open Elective Course: Modern Physics                                      | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85P205           | Practical–III Electronics and Condensed Matter Physics (General)          | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85P206           | Practical– IV Atomic & Molecular and Nuclear & Particle Physics (General) | 4       | 4                 | 3                                               | 75                 | 25 | 100   |

|         |                                |                                                                                                                            |         |                   |                                                 | Maximum Marks      |    |       |
|---------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------------------------------------|--------------------|----|-------|
| Sem. No | Course code                    | Title of the Paper                                                                                                         | Credits | Teaching Hrs/week | Duration of Exam. In hours for Theory/Practical | Semester -End Exam | IA | Total |
|         | <b>Compulsory courses</b>      |                                                                                                                            |         |                   |                                                 |                    |    |       |
|         | PG85T301                       | Quantum Mechanics-II                                                                                                       | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>Specialization Courses:</b> |                                                                                                                            |         |                   |                                                 |                    |    |       |
| III     | PG85T302                       | Electronics-I/ Condensed Matter Physics-I/ Atomic & Molecular Physics-I/ Nuclear & Particle Physics-I                      | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T303                       | Electronics-II/ Condensed Matter Physics-II/ Atomic & Molecular Physics-II/ Nuclear & Particle Physics-II                  | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T304                       | <b>Open Elective Course:</b> a. Instrumental Methods Or b. Physics of Nanomaterials                                        | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85P305                       | <b>Practical Electronics-I/</b> Condensed Matter Physics-I/ Atomic & Molecular Physics-I/ Nuclear & Particle Physics-I     | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85P306                       | <b>Practical Electronics-II/</b> Condensed Matter Physics-II/ Atomic & Molecular Physics-II/ Nuclear & Particle Physics-II | 4       | 4                 | 3                                               | 75                 | 25 | 100   |

|         |                                |                                                                                                               |         |                   |                                                 | Maximum Marks      |    |       |
|---------|--------------------------------|---------------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------------------------------------|--------------------|----|-------|
| Sem. No | Course code                    | Title of the Paper                                                                                            | Credits | Teaching Hrs/week | Duration of Exam. In hours for Theory/Practical | Semester -End Exam | IA | Total |
|         | <b>Compulsory courses</b>      |                                                                                                               |         |                   |                                                 |                    |    |       |
|         | PG85T401                       | Classical Electrodynamics                                                                                     | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | <b>Specialization Courses:</b> |                                                                                                               |         |                   |                                                 |                    |    |       |
| IV      | PG85T402                       | Statistical and Thermal Physics                                                                               | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T403                       | Electronics-III/ Condensed Matter Physics-III/ Atomic & Molecular Physics-III/ Nuclear & Particle Physics-III | 4       | 4                 | 3                                               | 75                 | 25 | 100   |
|         | PG85T404                       | Electronics-IV/ Condensed Matter Physics-IV/ Atomic & Molecular Physics-IV/ Nuclear & Particle Physics-IV     | 4       | 4                 | 3                                               | 75                 | 25 | 100   |

|  |                  |                                                                                                                                             |   |   |   |    |    |     |
|--|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|----|----|-----|
|  | <b>PG85P405</b>  | <b>Practical Electronics-III/</b><br>Condensed Matter Physics-<br>III/ Atomic & Molecular<br>Physics-III/ Nuclear &<br>Particle Physics-III | 4 | 4 | 3 | 75 | 25 | 100 |
|  | <b>PG85PJ406</b> | <b>Project: Electronics/</b><br>Condensed Matter Physics/<br>Atomic & Molecular<br>Physics/ Nuclear & Particle<br>Physics                   | 4 | 4 | 3 | 75 | 25 | 100 |

**Total No. of Credits, 98**

**Total No. of Maximum Marks, 2450**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>1. Program Code &amp; Name:</b> PG85 & <b>M. Sc. Physics (2018-19)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>2. Programme Outcomes (POs):</b> M.Sc. Physics Program outcomes are expected to be aligned closely with attributes. The program consists of theory, practical and project work. After successful completion of the program, the students will be able</p> <ul style="list-style-type: none"> <li>• to create, apply and disseminate knowledge leading to innovation in physics</li> <li>• to think critically, explore possibilities and exploit opportunities positively</li> <li>• to develop the ability to identify, formulate, analyze and solve problems</li> <li>• to develop ability to use and learn techniques, skills and modern tools for scientific practices</li> <li>• to work in teams, facilitating effective interaction in work places</li> <li>• to provide research ambience and develop related technical proficiency</li> <li>• to work in R &amp; D projects to pursue further research and finding placement avenues through it</li> <li>• to communicate effectively on general and scientific topics with the scientific community and with society at large</li> <li>• to inculcate academic and social ethical values and apply ethical issues related to one's work, avoid unethical behaviour such as fabrication of data, committing plagiarism and unbiased truthful actions in all aspects of work among the students</li> </ul> |
| <b>Semester – I</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>3. Course code and Name of the Course</b></p> <p style="text-align: center;"><b>PG85T101(Course PHCT 1.1): Mathematical Methods in Physical Sciences</b></p> <p style="text-align: right;">Teaching hours per week: 4<br/>No. of Credits: 4</p> <p><b><u>Course Outcomes (COs):</u></b></p> <p>At the end of this course, the students will be able to</p> <ul style="list-style-type: none"> <li>• Interpret the various special mathematical functions to understand the physical consequences.</li> <li>• Discuss and interpret the matrices for solving the physical problems.</li> <li>• Apply the group theory for knowing the physical properties of the matter.</li> <li>• Describe the mathematical techniques for the statistical interpretation of the physical sciences</li> <li>• Studying the Probability functions using Monte Carlo Simulations</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

#### **4. Revised curriculum with changes/ additions/ modifications highlighted\***

##### **Unit I**

**Special functions:** Beta and gamma functions. Solution of differential equation using power series-Frobenius method.

**Legendre functions:** Legendre polynomials, Rodrigue's formula; generating function and recursion relations; Orthogonality and normalization; associated Legendre function, special harmonics.

**Bessel functions:** Bessel functions of the first kind, recursion relations and orthogonality.

**Hermite functions:** Hermite polynomials, generating function, recursion relations; Orthogonality.

**Laguerre functions:** Laguerre and associated Laguerre polynomials, recursion relations; Orthogonality.

Applications of special functions to problems in physics.

##### **Unit II**

**Matrices:** Orthogonal, Hermitian, and unitary matrices; eigenvectors and eigenvalues, diagonalization of matrices, Matrix representation of linear operators, eigenvalues and eigenvectors of operators, simultaneous eigen vectors and commutativity, applications to physical problems

**Tensors:** Types of tensors, contravariant and covariant tensors, symmetric and antisymmetric tensors, Tensor algebra : equality, addition and subtraction, tensor multiplication, outer product; contraction of indices, inner product, quotient theorem, Kronecker delta, metric tensor, Christoffel symbols. Tensors in physics. Problems.

12 Hours

##### **Unit III**

**Group Theory:** Groups, subgroups and classes; homomorphism and isomorphism, group representation, reducible and irreducible representation, Schur's Lemmas, orthogonality theorem, character of a representation, character tables, decomposing a reducible representation into irreducible representations, construction of representations, lie groups, rotation groups  $SO(2)$  and  $SO(3)$ . Problems

12 Hours

##### **Unit IV (Newly Added)**

**Monte Carlo methods:** Introduction, definitions, Illustration of the use of Monte Carlo Methods, Examples on Particles in a Box and Radioactive Decay, Probability Distribution Functions, Multivariable Expectation Values, The Central Limit Theorem, Definition of Correlation Functions and Standard Deviation, Random Numbers and properties, Improved Monte Carlo Integration, Change of Variables, Importance of Sampling, Acceptance Rejection Method, Monte Carlo Integration of Multidimensional Integrals, Brute Force Integration, Importance of Sampling, Classes for Random Number Generators. Metropolis algorithm and detailed balance, Ising model. Examples and problems.

12 Hours

## **5. Recommended Readings**

### **Text Books**

1. Mathematical Methods for Physicists (4th edition): George Arfken & Hans J. Weber, Academic Press, San Diego (1995).
2. Mathematical Methods in Physical Sciences (2nd edition): Mary L. Boas, John Wiley & Sons, New York (1983).
3. Mathematical Physics: P. K. Chatopadhyay, Wiley Eastern Ltd., New Delhi (1990).
4. Introduction to Mathematical Physics: Charlie Harper, Prentice Hall of India Pvt. Ltd., New Delhi (1995).
5. Matrices and Tensors in Physics (3rd edition): A.W. Joshi, New Age International (P) Ltd. Publishers, New Delhi (2000).
6. Elements of Group Theory for Physicists (3rd Edition): A.W. Joshi, Wiley Eastern limited (1982).
7. Monte Carlo Methods, , 2nd Edition, M.H. Kalos, P.A. Whitlock, Wiley VCH

### **Reference Books**

1. Mathematical Methods for Physics and Engineering: K. F. Riley, M. P. Hobson and S. J. Bence, Cambridge Univ. Press Cambridge (1998).
2. Advanced Mathematics in Physics and Engineering : Arthur Bronwell, Mc Graw Hill Book Company, New York (1953).
3. Group theory and its Applications to Physical Problems: M. Hammermesh, Addison Wesley, Mass (1962).
4. Schaum's Outline Series: Programming with FORTRAN : Seymour Lipschutz & Arthur Poe, McGraw Hill company, Singapore (1982).
5. Schaum's Outline Series: Vector Analysis and Introduction to Tensor Analysis: M.R. Spiegel, McGraw Hill Company, Singapore (1983).
6. Mathematical Physics A. K. Ghatak, I. C. Gayal and S. J. Chua, Trinity Publications, 2017.
7. Computational Physics. J. M. Thijssen , Cambridge - 2007.
8. Understanding Molecular simulations , D. Frenkel and B. Smith, Academic press, 2002.

9. Steven E Koonin and D C Meredith, Computational Physics [fortran version], Perseus Books.
10. Numerical Recipes, Cambridge Univ. Press.

**Course code and Name of the Course**

**PG85T102 (Course PHCT1.2): Classical Mechanics**

Teaching hours per week: 4  
No. of Credits: 4

**Course Outcomes (COs):**

After successful completion of the course on Classical Mechanics, a student will be able to

- Demonstrate a basic and advanced knowledge of Lagrangian and Hamilton's principles and solve related problems.
- Demonstrate the concept of motion of a particle under central force, concepts of different orbits and apply advanced methods to deal with the central force problems.
- Understand the kinematics and dynamics of rigid body in detail and ideas regarding Euler's equations of motion and techniques for solving problems of rigid body mechanics.
- Learn the details of fixed and moving co-ordinate systems, Coriolis force acting on falling body, torque free motion and motion of symmetric top.
- Understand the Hamiltonian formalism in solving physics problems and understand Poisson bracket method in tackling physical problems.
- Use Hamilton-Jacobi theory for finding the solutions of various classical systems.
- Understand the fundamentals of rocket propulsion, including thrust equation, specific impulse of a rocket engine.
- Understand the effect of gravity on rocket, equation for burnout velocity, rocket staging and optimization of multistage rocket.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Lagrangian Mechanics:** Generalized coordinates, constraints, Lagrange equation, Hamilton's principle, Derivation of Lagrange's equation from Hamilton's Principle. Symmetry and

conservation laws: momentum conservation, cyclic co ordinates, angular momentum conservation and conservation of energy.

**Motion in central force field:** Equivalent one body problem, motion in central force field, Equation of orbit. Elliptic orbits, hyperbolic orbits and parabolic orbits. Elastic scattering in central force field, Rutherford scattering. Problems

12 hours

## Unit II

**Motion of Rigid body:** Fixed and moving co ordinate systems. Coriolis force, Coriolis force acting on falling body Euler theorem. Euler angle, angular momentum and kinetic energy of a rigid body. Inertia tensor, Euler's equations of motion. Torque free motion. Motion of symmetric top – Nutational motion, Problems.

12 hours

## Unit III

**Hamiltonian Mechanics and Brackets:** Legendre transformation and Hamilton equations of motion: conservation theorem and physical significance of Hamiltonian. Derivation of Hamilton's equation from a variation principle: principle of least action.

Lagrange and Poisson brackets, Equation of motion in Poisson bracket notation.

**Hamilton Jacobi Theory:** Hamilton Jacobi equation of motion for Hamilton's principle and characteristic functions, Harmonic oscillator problem as example of Hamilton Jacobi method. Problems

12 hours

## Unit IV (Newly Added)

**Rocket Dynamics:** Introduction equation of motion for variable mass – performance of single stagerocket; exhaust velocity, structure factor and mass ratio. Exhaust speed parameter, effect of gravity; expression for height attained by single stage rocket, performance of single stage rocket optimization of multi stage rocket Launch site selection problems

12 hours

## Recommended Readings

### Text Books

1. Classical Mechanics: H. Goldstein, Narosa Publishing Pvt. Ltd. (1998).
2. Introduction to Classical Mechanics: R. G. Takwale & P. S. Puranik. Tata McGraw Hill, New Delhi (1997).

### **Reference Books**

1. Classical Mechanics: H. Goldstein, C. Poole & J. Safko. Third Edition. Pearson Education Asia (2002).
2. Classical Mechanics: N. C. Rana and P. S. Joag, Tata McGraw Hill, New Delhi (1991).
3. Classical Dynamics of Particles and Systems: J. B. Marion, Academic Press (1964).
4. Classical Mechanics of Particles and Rigid Bodies: Kiran. C. Gupta, New Age International (1998).
5. Classical Mechanics: Dr. J. C. Upadhyaya, Himalaya Publishing House, Revised Edition (2009).
6. Classical mechanics: K. Sankara Rao, P. H. E Learning Private Limited (2008)

### **Course code and Name of the Course**

**PG85T103 (Course PHCT1.3): Electronics and Communication (General)**

Teaching hours per week: 04  
No. of credits: 4

### **Course Outcomes (COs):**

At the end of this course, the students will be able to

- Understand the basic principles of working of operational amplifiers and design op-amp based circuits such as amplifier, integrator, differentiator, full wave and half wave rectifiers. Understand the design of various electronic circuits.
- Gain knowledge of designing additional op-amp based filter circuits and oscillators, comparators, frequency multipliers, basics of modulation and demodulation.
- Appreciate the importance and working of Optical Fibre Communication system, its design and applications which help the student to appreciate the current advances in communication system.
- Gain knowledge of working of various Gates and logic circuits, sequential circuits which form the elements of Digital circuits.
- Will be able to implement the above practically with the help of Numerical problems solving.

**Revised curriculum with changes/ additions/ modifications highlighted\***

## Unit I

**Operational amplifier:** Introduction to Op Amp, Basic op amp circuit, 741 IC Op-Amp, open loop op-amp configurations – inverting, non inverting and differential amplifiers, feedback configurations, voltage follower, non inverting amplifier, Inverting amplifier, Op-Amp parameters Input output voltages, common mode rejection ratio, slew rate and frequency limitations. Summing, difference, scaling and averaging amplifier. DC and AC Voltmeter, instrumentation amplifier, Integrator and differentiator, Differentiator and Integrator design and performance, Precision half wave and full wave rectifier, Clipper and Clamping circuits, Peak detector, Sample and hold Circuit.

12 hours

## Unit II

**Op-amp applications and specialized ICs:** Active filters – types, All pass phase shifting circuits, first and second order active low and high pass filter. Band pass filter, band stop filter. Oscillators – basic principles, phase shift oscillator, Wein bridge oscillator, triangular and rectangular wave generator. Comparators and converters – basic comparator, zero crossing detector, Inverting and non inverting Schmitt trigger, Astable and monostable multivibrator. Precision voltage regulator (fixed and adjustable). IC 565 Phase locked loop, characteristics, Frequency multiplier, AM and FM demodulator.

12 hours

## Unit III

**Optical fiber communications:** Introduction, optical fiber wave guide, ray theory transmission total internal reflection, acceptance angle, numerical aperture, skew rays, Electromagnetic mode theory, Modes in planar guide, Phase and group velocity, Types of fibers, step index fiber, graded index fiber, single mode fiber, mode field diameter and spot size, effective refractive index, photonic bandgap fibers. Intrinsic and extrinsic absorption losses, Rayleigh scattering, fiber bend loss, material dispersion and scattering effects. Preparation of optical fibers, liquid phase (melting) techniques, Plasma activated chemical vapor deposition. Structure and characteristics of multimode step index fibers, graded index fibers, single mode fibers and plastic clad fibers, optical fiber connectors, fiber alignment and joint loss, fiber splices. Light sources for OFC, LED and laser diodes, detectors p-n, p-i-n and avalanche photodiodes.

12 hours

## Unit IV

**Digital Electronics:** Boolean operations and expressions, Boolean analysis of logic gates, simplification of Boolean expression. Karnaugh map: two, three and four variable map.

**Digital logic gates:** AND, OR, NAND and NOR gates, AND-OR and NAND-NOR implementation of Boolean Expressions. Logic gate operation with pulse waveforms.

**Combinational Logic circuits:** Adder, parallel binary adder, subtractor, parity generators and checkers, comparators, decoders, BCD to seven segment decoder, encoders, code conversion, multiplexers, demultiplexers.

**Sequential circuits:** Latches, flip flops, SR, D, JK, Master Slave JK, T flip flops, counters, synchronous and asynchronous counters, ripple counters, mod n counters, mod 3, mod 5 and mod 10 counters, registers, shift registers, timing sequences, memory units, random access memory (RAM).

12 hours

### **Recommended Readings**

#### **Text books**

1. Operational Amplifier and Linear IC's: Robert F. Coughlin and Frederick F. Driscoll, PHI publications (1994).
2. Op Amps and linear Integrated Circuits: R. Gayakwad, PHI publications, New Delhi (2000).
3. Digital Principles and Applications: A.P. Malvino and D. Leach, TMH Publications (1991).
4. Digital fundamentals – 10th Edition: Thomas L Floyd, Pearson Education (2003).
5. Optical Fiber Communication Principles & Practice, John M. Senior, Prentice Hall International Ltd, London (1992).

#### **Reference Books**

1. Microelectronics Circuits: Adel S. Sedra and Kenneth C. Smith, Oxford University Press (1991).
2. Digital Computer fundamentals, Thomas C. Bartee, McGraw Hill Ltd. (1977).
3. Digital Logic and Computer Design: Morris Mano. Prentice Hall of India Pvt.Ltd New Delhi (2000).
4. Logic Circuit Design: Alan W. Shaw, Sanders College Publication Company (1999).

### **Course code and Name of the Course**

**PG85T104 (Course PHCT 1.4): Condensed Matter Physics (General)**

Teaching hours per week: 4

No of credits : 4

### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- The formation of crystalline state in solids along with the basic definitions associated with geometrical arrangement of atom in crystal can be understood.
- The atomic arrangement in real crystals can be studied experimentally by using X-ray diffraction by introducing the concept of reciprocal lattice.
- The crystal binding of solids through chemical bonding is an important topic to understand the strength and physical properties of materials that can be achieved by this course.
- The behavior of materials in terms of interaction of atoms and electrons in subject to applied external fields/force can be understood.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Crystal structure:** Lattice translational vectors and lattices, basis and crystal structure, primitive and non primitive cells, fundamental types of lattices, Miller indices. Symmetry elements, point groups and space groups. Examples of simple crystal structures.

**Crystal diffraction and reciprocal lattice:** Bragg law, reciprocal lattice vectors, diffraction conditions, Laue equations, Brillouin zones. Atomic form factor, structure factor and its calculations in simple cases. Experimental methods of X-ray diffraction, details of powder X ray diffraction of crystal structure determination. (Newly Added)

12 Hours

#### **Unit II**

**Crystal binding:** Crystals of inert gases: Van der Waals London interaction, repulsive interaction, cohesive energy, compressibility and bulk modulus.

**Ionic Crystals:** Madelung energy, Born Mayer Model, evaluation of Madelung constant for an infinite line of ions. The nature of binding in covalent, metal and hydrogen bonded crystals.

**Lattice vibrations and thermal properties:** Elastic waves, density of states of a continuous medium, Theories of specific heat: Classical, Einstein and Debye models. Vibration of one dimensional monatomic and diatomic lattices, properties of lattice waves, phonons. Lattice thermal conductivity.

12 Hours

#### **Unit III**

**Free electron model of metals:** Free electron gas and formulation of free electron theory of

metals, electrical conductivity and origin of collision time, electrical conductivity versus temperature, Mattheissen's rule. Heat capacity of free electrons, Fermi Dirac distribution, the concept of Fermi surface, the effect of Fermi surface on electrical conductivity. Thermal conductivity: Wiedemann Franz law.

**Energy bands in solids:** Origin and magnitude of energy gap. Bloch functions. Kronig Penney model (qualitative). Number of states in a band. Distinction between metals, insulators and semiconductors. Velocity of the Bloch electron, electron dynamics in an electric field, concept of hole, dynamic effective mass of electrons and holes.

12 Hours

#### Unit IV

**Semiconductors:** Intrinsic and extrinsic semiconductors. Intrinsic and extrinsic carrier concentrations, position of Fermi level, electrical conductivity and mobility and their temperature dependence. Hall effect in semiconductor.

**Superconductivity:** Experimental survey, qualitative ideas about BCS theory, high temperature superconductors and their applications.

**Magnetic properties:** Classification of magnetic materials, quantum theory of paramagnetism Curie law; Weiss' molecular field theory of ferromagnetism, Curie – Weiss law.

**Defects in solids:** Types of imperfections, Schottky and Frenkel defects and their concentrations.

12 Hours

#### Recommended Readings

##### Text Books

1. Introduction to Solid State Physics: C.Kittel. Wiley Eastern Ltd., Bangalore (1976).
2. Elementary Solid State Physics: M.A. Omar. Addison Wesley Pvt., Ltd., New Delhi (1993).
3. Solid State Physics: A.J. Dekker, Macmillan India Ltd., Bangalore, (2000).
4. Solid State Physics: F.W. Ashcroft & N.D. Mermin. Saunders College Publishing, New York (1976).

##### Reference Books

1. Introduction to Solids: L.V. Azaroff. McGraw Hill inc, New York (1960).
2. Solid State and Semiconductor Physics: J.P. McKelvey. Harper and Row, New York (1966).
3. Elements of Solid State Physics (2nd Ed): J.P. Srivastava, PHI Learning Pvt. Ltd., New Delhi (2009).

#### Course code and Name of the Course

**PG85P105 (Course PHCP 1.5): Practical-I: Electronics and Condensed Matter Physics**

Contact hours per week: 4  
Number of credits: 4

**Course Outcomes (COs):**

The specific outcomes of this course are as under:

- It helps to solve the crystal structure of given X-ray patterns and hence to estimate the lattice and lattice parameters.
- The experiment gives an idea to measure the energy gap of a given semiconductor through the temperature dependent resistivity measurement.
- It clears the concept of structure factor and its significance.
- Design and learn implementing the operational amplifier IC 741 based amplifier, adder, subtractor, differentiator, integrator circuits
- Design and learn implementing op-amp 741 based circuits in generation of sinusoidal and triangular waveforms and characterize them
- Design and learn implementing op-amp based low-pass, high-pass and band-pass filter circuits.
- Learn simplification of Boolean expressions using NAND gates
- Learn using FORTRAN programming for solving E&C related problems

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Op-Amp 741 as an adder, subtractor, differentiator and integrator.
2. Wien bridge oscillator using Op-Amp 741.
3. Triangular wave generator using op-amp 741.
4. Low pass, high –pass and band pass active filters using Op Amp 741.
5. Simplification of Boolean expressions and implementation using 2 input NAND gate IC7400.
6. Fortran Programming using Fortran 77.
7. Analysis of X ray diffraction pattern.
8. Thermistor characteristics
9. Determination of energy gap of semiconductor by resistivity measurement (4 probe method).
10. Developing of X - ray pattern for a given substance using X – ray diffractometer and determination interplanar spacing.
11. Structure factor calculation of simple crystal structures.

*(New experiments may be added)*

### **Recommended Readings**

#### **References**

1. Microelectronics Circuits: Adel S. Sedra and Kenneth C. Smith, Oxford University Press (1991).
2. Electronic devices and circuits: R. Boylestad and Nashalsky: PHI publications (1999).
3. Electronics Principles: A.P. Malvino, TMH Publications (1984).
4. Operational Amplifier and Linear IC's: Robert F. Coughlin and Frederick F. Driscoll, PHI publications (1994).
5. Op-Amps and Linear Integrated Circuits: R. Gayakwad, PHI publications, New Delhi (2000).
6. Elementary Solid State Physics: M.A. Omar, Addison Wesley Pub. Ltd. New Delhi (1993).
7. X ray Diffraction: B.D. Cullity, Addison Wesley Ltd. New York (1972).
8. Introduction to Solid State Physics: C. Kittel, Wiley Eastern Ltd. Bangalore (1976).
9. Laboratory Manuals

### **Course code and Name of the Course**

**PG85P106 (Course PHCP 1.6): Practical-II: Atomic & Molecular Physics and Nuclear & Particle Physics (General)**

Contact hours per week: 4  
Number of credits: 4

### **Course Outcomes (COs):**

After successful completion of the course on practicals, a student will be able to:

- Understand the fundamentals of various physical phenomena and physical concepts.
- Understand the interference and diffraction by means of He-Ne laser.
- Determine the ionization potentials in atoms by the Franck-Hertz experiment.
- Understand the impact of electric and magnetic fields on electron and determine  $e/m$  of electron using Zeeman Effect.
- Understand the dispersion of a Grating Spectrograph.
- Write the Fortran program, compile and execution to solve the spectroscopy problems.
- Understand the performance and characteristics of Geiger-Muller counter for estimating the random nature of radioactive decay and attenuation of beta particles.
- Understand the performance and characteristics of NaI(Tl) scintillation gamma ray spectrometers.

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Study of Interference and Diffraction by means of He-Ne laser.
2. Determination of ionization potentials in atoms by the Franck-Hertz experiment.
3. Study of Zeeman Effect: Determination of  $e/m$  for an electron.
4. Study of dispersion of a Grating Spectrograph.
5. Spectroscopy Assignments in Computer Lab.
6. Study of the performance of G.M. Counter and Proportional counter.
7. Study of the performance of Scintillation detector and scintillation spectrometers.
8. Study of the random nature of radioactive decay.
9. Study of the absorption of beta particles.

*(New experiments may be added)*

**Recommended Readings**

**References**

1. Advanced Practical physics: (9th Edition) B.C.Worsnop & H.T. Flint Methuen & Co. Ltd. London (1951).
2. Instrumental Methods of Analysis : (6th Edition) H.H. Willard, L.L.Meritt, J.A. Dean & F.A. Settle, J.K. Jain for CBS Publishers (1986).
3. Optics (2nd Edition) A.K. Gathak Tata Mc Graw Hill Pub. Comp.Ltd New Delhi (1977).
4. Experimental Spectroscopy (3rd ed): Ralph A.Sawyer, Dover Pub, N.Y. (1950).
5. Lab Manuals/Books/Charts.
6. Experiments in Modern Physics: A.C. Melissions academic press (NY)(1966).
7. Experiments in Nuclear Science, ORTEC Applications Note. ORTEC,(1971) (Available in Nuclear Physics Laboratory).
8. Practical Nucleonics: F.J.Pearson., and R.R. Dsborne, E7 F.N. Spon Ltd(1960).
9. The Atomic Nucleus: R.D. Evans, Tata McGraw Hill Pub.comp.Ltd(1960).
10. Nuclear Radiation Detectors: S.S.Kapoor and V.S. Ramamurthy, Wiley Eastern Limited (1986).
11. Experimental Nucleonics: E. Bleuler and G.J. Goldsmith, Rinehart & Co. Inc. (NY). (1958).

**Semester – II**

**Course code and Name of the Course**

**PG85T201 (Course PHCT 2.1): Quantum Mechanics – I**

Teaching hours per week: 4  
No. of Credits: 4

**Course Outcomes (COs):**

At the end of the course students will learn:

- Basic postulates of Quantum mechanics, Ehrenfest's theorem and simple applications of Quantum Mechanics.

- Reduction of two body problem to single particle problem. Centre of mass and relative motions, eigen values and eigen functions.
- Theory of time-independent perturbation theory (the case of a system with non-degenerate energy levels) its applications.
- Theory of time-dependent perturbation theory its concept and its applications.
- Scattering theory: Differential and total cross-section. Born approximation and its derivation of the expression for different cross-section.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Basic Principles:** Hermitian operators, observables; Eigenfunctions, eigenvalues and orthonormalization of eigenfunctions, completeness. State functions as probability amplitude and the principle of superposition. Momentum, Hamiltonian and energy operators, Schrodinger equation. Probability density and probability current density, expectation value, Ehrenfest's theorem; basic postulates of quantum mechanics.

**Simple Applications:** Eigenvalues and eigenfunctions of free particle, particle in infinite square well and of simple harmonic oscillator by polynomial method, barrier transmission: leakage of free particle through a thick rectangular potential barrier and transmission and reflection coefficients.

12 hours

#### **Unit II**

**Hydrogen atom:** Particle in spherically symmetric potential, Reduction of two body problem to a single particle problem. Center of mass and relative motions; eigenvalues and eigenfunctions. Hydrogen like atom, eigenvalues of energy and eigenfunctions.

**Angular momentum:** The expression for the three Cartesian components and the square of the angular momentum, their commutation relations, expression for the operators in polar coordinates, eigenvalues and eigenfunctions in terms of polar coordinates; eigenvalues and eigenfunctions of the square and z component of angular momentum.

12 hours

#### **Unit III**

**Time Independent Perturbation Theory:** Eigenvalue of energy and eigenfunction in the first order approximation (the case of a system with non degenerate energy levels). Application to anharmonic oscillator and to the ground state of Helium atom.

**Time Dependent Perturbation Theory:** Concept of the theory, transition from one discrete level to the other, to a continuum states: Fermi's Golden rule. The harmonic perturbation, resonance

transitions. Semi classical theory of Einstein's A & B coefficients. Interaction of radiations with a system of atoms, transition dipole moment, selection rules.

12 hours

#### **Unit IV**

**Elastic Scattering:** Differential and total cross section, phase analysis. Significance of the partial waves and phase shifts, S wave scattering from a square well potential. The Born approximation, derivation of the expression for differential scattering cross section, condition for validity of the approximation: application to square well potential and screened coulomb potential.

12 hours

#### **Recommended Readings**

##### **Text Books**

1. Quantum Mechanics – Theory & Applications (3rd Ed): A.K. Ghatak & S. Loknathan, MacMillan India Ltd. 91984).
2. A Text of Quantum Mechanics: P.M. Mathews & K. Venkatesan, Tata McGraw Hill, New Delhi (1982).
3. Quantum Mechanics (2nd ed): G. Aruldas, Prentice Hall India Pvt.Ltd., New Delhi (2009).
4. Quantum Physics (3rd ed): S. Gasiorowicz, Wiley India (P) Ltd., New Delhi (2007).

##### **Reference Books**

1. Introduction to Quantum Mechanics: L. Pauling & E. Bright Wilson, McGraw Hill, N.Y.(1935).
2. Quantum Mechanics(3rd ed): L.I. Schiff, McGraw Hill, N.Y.(1968).
3. Quantum Mechanics: E. Merzbacher, 2nd ed., Wiley, N.Y.(1970).
4. Quantum Mechanics (2nd Ed): V.K. Thankappan, new Age International (P) Ltd.(1993).

#### **Course code and Name of the Course**

**PG85T202 (Course PHCT 2.2): Atomic & Molecular Physics (General)**

Teaching hours per week: 4

No. of Credits: 4

#### **Course Outcomes (COs):**

At the end of the course students will learn:

- How to interpret optical spectra using theoretical models & achieve agreement with experiment.
- How typical lasers work, their use in advanced frontier areas.

- How to interpret microwave and mid IR spectra due to diatomic molecules, their relevance in chemical sciences, astrophysics & planetary science.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Atomic spectra and structure:** Overview of the salient features of optical spectra due to alkalis, Boron group and IIA and IIB group of elements (as in Periodic Table). Spin orbit interaction due to single valence electron atoms and its doublet spectra. Vector model for two valence electron atoms: Determination of spectral terms (singlets, doublets, triplets, etc); derivation of interaction energies in LS and jj couplingschemes; the Lande interval rule; singlet and triplet splitting. Normal and anomalous Zeeman Effect of singlets and doublet states(qualitative). Stark effect in hydrogen (qualitative).

12 Hours

#### **Unit II**

**Laser Physics:** Laser principles: Einstein coefficients, optical pumping, population inversion, the threshold condition– the Schawlow Townes condition for laser oscillations. Three level and four level laser systems. The Ruby laser and He Ne Laser: energy level diagrams, excitation mechanism, construction and working. Shape and width of spectral lines: mechanisms; Natural, Doppler, Collision/pressure and Stark broadenings. Laser cooling: basic concepts, trapping techniques of neutral atoms, the Bose Einstein condensation. Atom lasers: basic ideas with illustrations.

12 Hours

#### **Unit III**

**Diatomic rotational spectra and structure:** General features of observed spectra of typical diatomic molecules in Far IR(microwave) and due to Raman scattering; empirical series for the observed wave numbers in both IR and Raman spectra. Diatomic molecule as rigid and non rigid rotator models: energy levels, eigenfunctions, selection rules, IR spectra and correlation with empirical series and illustrations. Raman scattering and spectra due to the rigid and non rigid rotator: energy levels, eigenfunctons, selection rules, spectra and correlation with empirical series and illustrations.

12 Hours

#### **Unit IV**

**Diatomic vibrational spectra and structure:** General features of observed spectra of typical diatomic molecules in Near IR and due to Raman scattering; empirical series for the observed wave numbers in both IR and Raman spectra. Diatomic molecule as Harmonic and Anharmonic oscillator models: energy levels, eigenfunctions, selection rules, IR spectra and correlation with empirical series and illustrations. Raman scattering and spectra due to Harmonic and Anharmonic

oscillator models: energy levels, eigenfunctions, selection rules, spectra and correlation with empirical series and illustrations. The vibrating rotator model: energy levels, selection rules, IR and Raman spectra, IR fine structure spectrum of a rotation vibration band and correlation with empirical series.

12 Hours

### **Recommended Readings**

#### **Text Books**

1. Introduction to Atomic Spectra : H.E. White, McGraw – Hill, Tokyo (1934)[Free soft copy available on Net].
2. Atomic Spectra: H.G.Kuhn, Longmans, Green & Co.Ltd, London & Harlow (1962) [Free soft copy available on Net].
3. Molecular Spectra & Molecular Structure(Vol I; 2nd ed): G.Herzberg, D. Van Nostrand Inc. N.Y. (1950) [Free soft copy available on Net].
4. Spectroscopy (Vol. 3):S. Walker & B. P. Strauhghan, Chapman & Hall, London (1976)
5. Fundamentals of Molecular Spectroscopy : C. N. Banwell and E.M. McCash, Tata McGraw-Hill Co., (4th revd Ed; 9th reprint, 2000)
6. Lasers and Non-Linear Optics : B. B. Laud, Wiley Eastern Ltd., New Delhi (1991).
7. Laser Fundamentals: William T. Silfvast, Cambridge Univ Press, 1999.

#### **Reference Books**

1. Fundamentals of Spectroscopy (2nd ed ): B. Narayan, Allied Publishers Ltd., New Delhi (1999).
2. Physics of Atoms and Molecules – 2nd Ed., Bransden B.H. and Joachain C.J., Pearson Education, India (2006).
3. Modern Spectroscopy (4th Ed): J.M. Hollas, John Wiley & Sons Ltd. UK 2004[Free soft copy available on Net]
4. Laser Electronics: Joseph T. Verdeyen, Prentice-Hall of India Pvt. Ltd. New Delhi (1989).
5. Lasers: Theory & Applications: K. Thyagarajan & A. Ghatak, MacMillan India, New Delhi (1981).

### **Course code and Name of the Course**

**PG85T203 (Course PHCT 2.3): Nuclear & Particle Physics (General)**

Teaching hours per week: 4

Number of credits: 4

### **Course Outcomes (COs):**

After successful completion of this course a student will be able to:

- Describe the basic properties of nucleus, its structure and different models that explain the static and dynamical properties of a nucleus.

- Understand the phenomenon of radioactive decays of alpha and beta particles and gamma rays, their detailed formalism and outcomes.
- Acquire knowledge about various type of radiation detectors used in nuclear physics experiments, unique properties of different detectors and their applications.
- Differentiate between different types of nuclear reactions, relevant aspects associated with nuclear reactions and kinematics of such reactions.
- Learn about conditions of controlled chain reaction in different nuclear reactors. Know about different elementary particles their classifications and quark model to understand the fundamental forces of nature and classification.
- Understand the stopping power of different energetic charged particles in a medium and mechanisms of interaction of gamma photon with matter.
- Understand the trace elemental analysis and applications of radioisotopes in cancer treatment, agriculture and industry.

#### **Revised curriculum with changes/ additions/ modifications highlighted\***

##### **Unit I**

**Basic Properties:** Binding Energy and separation energy. Radius of nucleus by scattering of high energy neutrons, by X rays from muonic atom and by high energy electron scattering method.

**Nuclear spin and magnetic moment:** Spin and magnetic moment of odd A nucleus. Experimental determination of magnetic moment by Rabi's atomic beam method.

**Nuclear quadrupole moment:** Electric quadrupole moment of nucleus (Prolate and Oblate) qualitative

**Nuclear models:** Liquid drop model, stability against beta decay, stability against spontaneous fission, Fermi gas model, Fermi energy and kinetic energy, nuclear shell model and magic numbers.

12 Hours

##### **Unit II**

**Alpha decay:** Gamow's theory of alpha decay, quantum mechanical tunneling, relation between mean life and decay energy. Hindrance factor.

**Beta decay:** Energetics of beta decay, continuous beta ray spectrum, neutrino hypothesis, Fermi's

theory of beta decay (derivation), Fermi Kurie plot, non conservation of parity in beta decay

**Gamma decay:** Gamma transitions in nuclei and classifications. Internal conversion(qualitative)

**Detectors:** Gas filled detector, proportional counter, NaI(Tl) scintillation gamma ray spectrometer, semiconductor detector for detection of X ray and gamma radiation.

12 Hours

### Unit III

**Nuclear Reaction:** Types of nuclear reactions. conservation laws, laboratory and center of mass systems. Q value of a nuclear reaction and relation between Q value and energy of outgoing particle, threshold energy. Compound nucleus model and its experimental verification. Briet Wigner formula (qualitative).

**Reactor Physics:** Condition for controlled chain reaction, four factor formula, thermal reactor, fast breeder reactor.

**Elementary particles:** Fundamental interactions and their general features, conservation laws, classification of elementary particles as leptons, mesons and baryons. Quark model (Qualitative).

12 Hours

### Unit IV (Modified or Improved)

**Interactions of gamma rays and charged particles with matter:** Photoelectric effect, Compton effect and pair production, Mass attenuation co efficient of gamma rays. Mossbauer effect; Resonance scattering of gamma rays, experimental technique, simple applications. Energy loss of heavy charged particles; ionization, radiation processes, Bethe Bloch formula, applications. Energy loss of fast electrons; ionization, excitation and radiation process (Bremsstrahlung).

**Application of Nuclear Physics:** Trace elemental analysis and alpha decay applications, applications of radioisotopes in cancer treatment, agriculture and industry.

12 Hours

### Recommended Readings

#### Text Books

1. Nuclei and Particles : E. Segre –The Benjamin Publishing, Pvt Ltd (1977).
2. Introductory Nuclear Physics : K.S. Krane John Wiley & Sons (1987).
3. Atomic and Nuclear Physics: Vol. II S.N.Goshal S. Chand and Company (1996).
4. Nuclear Physics: D.C.Tayal Himalaya Publishing House( 2009)
5. Nuclear and Partilce Physics: S.L.Kakani, ShubhraKakani Vira Books( 2008)
6. Environmental radioactivity: Eisenbud M, Academic Press (1987)

## **Reference Books**

1. The Atomic Nucleus : R.D. Evans – Tata McGraw Hill New Delhi (1992).
2. Physics of Nuclei and Particles: Marmer and E.Sheldon, Vol.II Academic press (1970).
3. Physics of Nuclear Reactors: S.Garag, F.Ahmed and L.S. Kothari. – Tata McGraw Hill New Delhi (1986).
4. Introductory Nuclear Physics : Samuel Wong Prentice Hall (1996).
5. Fundamentals of Nuclear Physics : N.A.Jelly Cambridge University Press (1990).
6. Introduction to Nuclear Physics : Harald A. Engle Addison –Wiseley (1996).
7. Introduction to Nuclear and Particle Physics: V.K.Mittal, R.C. Verma, S.C. Gupta PHI Learning Limited ( 2009).
8. Radiation detectors: Kapoor S S and Ramamurthy V S Wiley Eastern (1986).

## **Course code and Name of the Course**

**PG85P205 (Course PHCP 2.5): Practical III: Electronics and Condensed Matter Physics**

Contact hours per week: 4

Number of Credits: 4

## **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Students learn to measure the Hall effect which in turn helps to measure the basic parameters such as carrier density, sign of carriers and mobility of charge carriers in a semiconductor.
- It helps to explore the temperature dependent properties of a diode estimate the energy gap of a semiconductor.
- The indexing of cubic patterns and calculation of lattice parameters is possible.

## **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Study of triggered SR, JK and D-flip-flops.
2. Ripple counter and Shift Register using JK flip-flop.
3. Regulated power supply using 78xx integrated circuits.
4. R 2R ladder network D/A converter
5. Fortran Programming using Fortran 77.
6. Hall Effect and Hall mobility in semiconductors.
7. Determination of energy gap by reverse saturation current of pn-junction.
8. Computer programming using Fortran 77.
9. Developing of X-ray pattern for a cubic lattice using X-ray diffractometer and indexing of the pattern.

*(New experiments may be added)*

## **Recommended Readings**

**Reference books**

1. Microelectronics Circuits: Adel S.Sedra and Kenneth C.Smith, Oxford University, Press (1991).
2. Electronic devices and circuits: R. Boylestad and Nashalsky : PHI publications (1999).
3. Electronic Principles: A.P. Malvino, TMH Publications (1984).
4. Operational Amplifier and Linear IC's: Robert F. Coughlin and Frederick F. Driscoll, PHI publications (1994).
5. Op Amps and Linear Integrated Circuits: R. Gayakwad, PHI publications, New Delhi (2000).
6. Elementary Solid State Physics: M.A. Omar, Addison Wesley Pub. Ltd. New Delhi (1993).
7. X ray Diffraction: B.D. Cullity, Addison Wesley, Ltd. New York (1972).
8. Introduction to Solid State Physics: C. Kittel, Wiley Eastern Ltd. Bangalore (1976).
9. Laboratory Manuals.

**Course code and Name of the Course**

**PG85P206 (Course PHCP 2.6): Practical-IV - Atomic & Molecular Physics and Nuclear & Particle Physics**

Contact hours per week: 4  
Number of credits: 4

**Course Outcomes (COs):**

After successful completion of the course on practical's, a student will be able to:

- Demonstrate the production and analysis of elliptically polarized light.
- Understand the Beer's Law to measure the fraction of the incident light transmitted through a solution.
- Understand the dispersion spectra of radiations using glass prism spectrograph.
- Acquire practical knowledge on calibrating NaI(Tl) gamma ray spectrometer and to determine the energy of a given gamma ray source and calculate the energy resolution.
- Able to determine the attenuation of gamma rays in matter using NaI(Tl) gamma ray spectrometer.
- Understand the semi-empirical mass formula to calculate the binding energy of any nucleus using Fortran 77 computer programming.

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Study of Elliptically Polarized Light
2. Study of Beer's law

3. Study of Dispersion of a Glass Prism Spectrograph.
4. Stefan's constant of Radiation : High resistance by leakage method
5. Study of gamma ray spectrum obtained in NaI (TI) detector spectrometer.
6. Study of attenuation of gamma rays in matter.
7. computer programming using Fortran 77

*(New experiments may be added)*

### **Recommended Readings**

### **References**

1. Advanced Practical Physics: (9th Edition) B. C Worsnop & H.T. Flint, Methuen & Co. Ltd. London (1951)
2. Instrumental Methods of Analysis : (6th Edition) H. H. Willard, L. L. Merit, J. A. Dean & F. A. Settle, J. K. Jain for CBS Publishers (1986)
3. Optics: (2nd Edition) A. K. Gathak Tata Mc Graw Hill Pub. Comp. Ltd New Delhi (1977)
4. Lab Manuals / Books / Charts.
5. Experiments in Modern Physics: A C. Melissions, Academic press (N.Y.) (1966).
6. Experiments in Nuclear Science ORTEC Application Note ORTEC, (1971) (Available in Nuclear Physics Laboratory)
7. Practical Nucleonics: F.J. Pearson., and R.R. Osborne, E & F.N. Spon Ltd., London (1960)
8. The Atomic Nucleus : R.D. Evans Tata Mc Graw Hill Pub. Comp. Ltd., (1960)
9. Nuclear Radiation Detectors: S.S. Kapoor and V.S. Ramamurthy, Wiely Eastern Limited (1986)
10. Experimental Nucleonics : E Bleuler and G.J. Goldsmith, Rinehart & Co, Inc. (NY) (1958)

### **Semester – III**

### **Course code and Name of the Course**

**PG85T301 (Course PHCT 3.1): Quantum Mechanics – II**  
**(No changes have made only shifted here From 4<sup>th</sup> sem 4.2)**

Teaching hours per week: 04  
Credits per week: 04

### **Course Outcomes (COs):**

At the end of the Course students will learn:

- How to formulate the foundational aspects of quantum mechanics in the formalism of linear vector algebra.
- How to use different approximate methods for solving higher problems.
- How the different aspects of angular momentum can be used in theoretical models to understand variety of physical problems.

- How the synthesis of two fundamental theories – theory of relativity & quantum mechanics – leads to enhanced understanding of new major results in agreement with experiment.

## **Pre-revised curriculum**

### **Unit I**

**Linear Vector Algebra:** Linear Vectors space, Orthonormality, linear independence. Operators Eigenvalues, eigenvectors; Hermitian, Unitary and Projection operators. Bra and Ket notation for vectors. The elements of Representation Theory. Idea of Measurements, Observables and generalized uncertainty relation. Coordinate and momentum representations. Quantum Poisson Bracket.

**Quantum Dynamics:** Schrödinger and Heisenberg pictures; Interaction picture; the Heisenberg equation of motion. Linear harmonic oscillator problem by matrix method.

12 Hours

### **Unit II**

**Angular Momentum:** Introduction, angular momentum operator and its representation, Eigen values and eigen functions of  $L^2$ , commutation relations, Angular momentum and rotations. Bra and Ket representation, Eigen values, ladder operators, Eigenvectors of  $J^2$  and  $J_z$ . Angular momentum matrices for  $j=1/2$  and  $j=1$ . Pauli wavefunction and equation, Theory of addition of two angular momenta, Clebsch Gordan coefficients, allowed values of  $j$ , singlet and triplet states (qualitative).

12 Hours

### **Unit III**

**Approximation Methods:** First order stationary perturbation theory for a degenerate case; the secular equation; applications: particle in a infinitely deep potential well subject to perturbing potential and, Stark effect in hydrogen atom; Second order perturbation theory and its application to a linear harmonic oscillator subject to a potential. W.K.B. approximation: Connection formulas; application to a potential well and alpha decay. The Variation method and its application to the ground state of hydrogen atom and helium atom.

12 Hours

### **Unit IV**

**Relativistic Quantum Mechanics:** Klein–Gordon equation. Dirac’s relativistic equation for a free particle: commutation relations and matrices for and ; free particle solutions; probability charge and current densities; positive and negative energy states; the spin of the Dirac particle, Zitterbewegung. Dirac equation in electromagnetic potentials and magnetic moment. Dirac equation for a central field; the hydrogen atom: energy levels and fine structure (without derivation).

**Recommended Readings****Text Books**

1. Quantum Mechanics (2nd Edition) : L. I. Schiff, McGraw – Hill Co, New York (1955)
2. Quantum Mechanics (Vol. I) : A. Messiah, North Holland Pub Co, Amsterdam (1962)
3. Quantum Mechanics – Theory and Applications (3rd Edition): A. Ghatak and S. Lokanathan, MacMillan India Ltd. New Delhi (1984)
4. A Text book of quantum Mechanics: P. M. Mathews and K. Venkateshan, Tata Mc Graw - Hill, New Delhi (1987).

**Reference Books**

1. The Principles of Quantum Mechanics (4th Edition) : P.A.M. Dirac, Oxford Univ Press, New York (1958)
2. Quantum Mechanics (1st Edition): V. K. Thankappan, New Age Intl. Pvt. Ltd., New Delhi (1985)
3. Quantum Mechanics : E. Merzbacher., John Wiley, New York (1970)
4. Modern Quantum Mechanics : J. J. Sakurai, Addison Wesley, Massachusetts (1994)
5. Applied Quantum Mechanics: A.F.J Levi, Cambridge Univ Press, 2003.

**Course code and Name of the Course**

**PG85T302 (Course PHST- 3.2): Electronics & Communication – I**

Teaching hours per week: 04

No. of credits: 4

**Course Outcomes (COs):****(Transmission lines, waveguides and communication satellite)**

At the end of this course, the students will be able to-

- Learn transmission of electrical energy from one point to another and will be able to analyse the working of different types of transmission lines and also clear understanding of working of wired telephone communication system.
- Working of transmission lines at higher frequencies such as Radio Frequencies which helps student to appreciate the use of transmission lines in video/picture transmission.
- Get a comprehensive picture of signal transmission, analysing various waveguides as well as antennas.

- Gain knowledge of how satellites communicate with ground stations and help in appreciating various applications.
- Will be able to implement the above practically with the help of Numerical problems solving.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Transmission lines:** Line parameters, inductance and capacitance of open wire and coaxial line, line of cascaded sections, transmission line general solution, physical significance of the equations, the infinite line, wavelength, velocity of propagation, wave form distortion, distortion less line, telephone cable, induction loading of telephone cable, reflection of line not terminated with characteristic impedance, open and short circuited lines, insertion losses.

12 Hours

**Unit II**

**Lines at RF:** Parameters of open wire line at high frequencies, parameter of co axial cable at high frequencies, constants of lines of zero dissipation, voltage and current on dissipation less lines, standing wave ratio, impedance of open and short circuit lines, the  $\frac{1}{4}$  wave line,  $\frac{1}{2}$  wave line, impedance matching of  $\frac{1}{2}$  wave line, single stub matching, Circle diagram for the dissipationless line and its applications.

12 Hours

**Unit III**

**Waveguides:** Solutions of wave equations in rectangular and cylindrical coordinates, TE and TM modes in rectangular and cylindrical wave guides, characteristics of rectangular and circular wave guides.

**Antennas:** Hertzian dipole, Current and voltage distributions Resonant antennas, radiation patterns, and length calculations, Nonresonant antennas, Antenna gain and effective radiated power, Radiation measurement and field intensity, Antenna resistance, Bandwidth, beam width, and polarization, Ungrounded antennas, Grounded antennas, Grounding systems, Effects of antenna height, loop antennas, phased arrays, antenna as aperture, different types of apertures, Principles of pattern multiplication, phased arrays, Yagi Uda antenna, helical antenna.

12 Hours

**Unit IV**

**Satellite communication:** Introduction, Kepler's laws, orbits, geostationary orbit. Power systems, attitude control, satellite station keeping, antenna look angles, limits of visibility, frequency plans and polarization, transponders, up link and down link power budget calculations, digital carrier transmission, multiple access methods, fixed and mobile satellite service, earth stations, INSAT.

**Recommended Readings****Text books**

1. Networks, Lines and Fields: J. D. Ryder, Prentice Hall India Pvt., Ltd., New Delhi (1995)
2. Electronic communications, 4th edition: Dennis Roddy and John Coolen, Prentice – Hall of India Pvt. Ltd. New Delhi (1997)
3. Electronic Communication systems – 4th edition: George Kennedy and Bernard Davis, Tata McGraw – Hill Publishing Company Ltd., New Delhi (1999).
4. Satellite communication – 3rd edition, Dennis Roddy, McGraw – Hill Publishing Company Ltd., New Delhi (2001)

**References books**

1. Communications Systems: Simon Haykin, Wiley Eastern Ltd., New Delhi
2. Radio Engineering: G. K. Mittal, Khanna Publishers, Delhi (1998)
3. Modern Communication Systems – Principles and Applications : Leon W. Couch II, Prentice Hall of India Pvt. Ltd. New Delhi (1998)

**Course code and Name of the Course**

**PG85T302 (Course PHST 3.2): Condensed Matter Physics – I**

Teaching hours per week: 4

No. of Credit: 4

**Course Outcomes (COs):****(Electron Transport in Solids & Lattice Vibration)**

The specific outcomes of this course are as under:

- The effect of periodic structure a lattice on the electron energy states can be learnt.
- The concept of Fermi surface is important in the understanding the properties of crystalline materials. The can be thoroughly understood by studying this course.
- The quantization of lattice vibrations that leads to formation of quantum particle that is phonon can be understood.
- The course helps to apply the Boltzmann transport equation to understand the charge transport mechanism in metals and semiconductors.

**Revised curriculum with changes/ additions/ modifications highlighted\*****Unit I**

**Periodic Structures:** Reciprocal lattice and its properties, periodic potential and Bloch theorem, reduction to Brillouin zone, Born von Karman boundary conditions. Counting of states.

**Electron States:** Nearly free electron model, discontinuity at zone boundary, energy gap and Bragg reflection. Tight binding method, band width and effective mass in linear lattice and cubic lattices. APW and k.p. methods of band structure calculations.

12 Hours

## Unit II

**Fermi surface Studies:** Extended, reduced and periodic zone schemes. Construction of Fermi surface in square lattice, Harrison construction, slope of bands at zone boundary, electron orbits, hole orbits and open orbits. Experimental methods: Electron dynamics in a magnetic field, cyclotron frequency and mass, cyclotron resonance. Quantization of orbits in a magnetic field, Landau quantization, degeneracy of Landau levels, quantization of area of orbits in  $k$  – space, de Hass-van Alphen effect, external orbits.

12 Hours

## Unit III

**Electrical Transport in Metals and Semiconductors:** Boltzmann equation, relaxation time approximation, electrical conductivity, thermal conductivity, thermoelectric effects Calculation of relaxation time, scattering by impurities and lattice vibrations, Mattheisen's rule, temperature dependence of resistivity, residual resistance.

12 Hours

## Unit IV

**Quantization of lattice vibrations and phonons:** Potential and kinetic energies in terms of generalized coordinates and momenta, Hamiltons equations of motion, quantization of normal modes.

**Elastic properties of solids:** Stress and strain tensors, elastic constants and Hooke's law, strain energy, reduction of elastic constants from symmetry, isotropy for cubic crystals, technical moduli and elastic constants. Propagation of long wavelength vibrations. Experimental determination of elastic constants by ultrasonic interference method.

12 Hours

## Recommended Readings

### Text Books

1. Principles of Theory of Solids: J. M. Ziman, Cambridge University Press, (1972).
2. Introduction to Solid State Physics : C. Kittel, Wiley Eastern Ltd, Bangalore (1976).
3. Lattice Dynamics: A. K. Ghatak and L. S. Kothari, Addison Wesley, Reading (1971).

4. Solid State Physics: J. D. Patterson and B.C. Bailey, Springer Verlag, Berlin (2007)

### References Books

1. Physics of Solids: F. C. Brown, Benjamin Inc. Amsterdam (1967).
2. Elements of Solid State Physics (2nd Ed): J.P. Srivastava, PHI Learning Pvt. Ltd., New Delhi (2009)
3. Solid State Physics: N. W. Aschcroft and A. D. Mermin, Saunders College Publishing New York (1976)

### Course code and Name of the Course

**PG85T302 (Course PHST 3.2): Atomic & Molecular Physics -I  
(Atomic and Molecular Spectra)**

Teaching hours per week: 4  
No. of credits per week: 4

### Course Outcomes (COs):

The specific outcomes of this course are as under:

- Students will learn application of theoretical models to the interpretation of atomic spectra in agreement with experiment.
- Electronic structure of atoms under the influence of electric & magnetic fields.
- Application of theoretical models to the interpretation of diatomic molecular states, electronic, vibrational & rotation spectra in agreement with experiment.
- Relevance of these spectra in understanding atmosphere, comets, stars and intergalactic matter

### Revised curriculum with changes/ additions/ modifications highlighted\*

#### Unit I

**One electron atoms: Fine structure and Hyperfine structure:** Fine structure of hydrogenic atoms (quantum mechanical treatment): energy shifts due to relativistic and spin orbit corrections, fine structure splitting (hydrogen atom), fine structure and intensities of spectral lines. The Lamb shift.

**Hyperfine structure and isotope shifts:** magnetic dipole hyperfine structure; energy shift, hyperfine structure multiplet, hyperfine transitions in hydrogen, isotope shift.

12 Hours

## Unit II

**Interaction of One electron Atoms with External Electric and Magnetic fields:** (Quantum mechanical treatment) The Stark effect-first order correction to energy and eigen states: splitting of the degenerate level of hydrogen; the Zeeman effect: Normal Zeeman effect-magnetic interaction energy, selection rules, Lorentz triplet, polarization states; the Paschen-Back effect (qualitative); anomalous Zeeman effect magnetic interaction energy, selection rules, splitting of levels in hydrogen atom.

12 Hours

## Unit III

**Elementary discussion of electronic states:** Electronic energy and Total energy, Born-Oppenheimer approximation. Symmetry properties of electronic eigen functions.

Vibrational structure of electronic bands; Progressions and Sequences, isotope effect, Deslandres' table; Intensity distribution in the vibrational structure of electronic bands; the Franck-Condon principle (absorption), Dissociation energy.

MO theoretical treatment of  $\text{H}_2^+$  and  $\text{H}_2$  electronic states and correlation of states.

12 Hours

## Unit IV

**Finer details about electronic states and electronic transitions:** Coupling of Rotation and Electronic Motion: Coupling of rotation and electronic motion in diatomic molecules. Hund's coupling cases, Spin uncoupling, Lambda doubling, symmetry properties of rotational levels of  $\Sigma$  and  $\Pi$  electronic states.

Types of allowed electronic transitions; selection rules, Rotational structure of bands due to  $\Sigma-\Sigma$ ,  $\Pi-\Sigma$ ,  $\Sigma-\Pi$  and  $\Pi-\Pi$  transitions of singlet multiplicity, P,Q,R branches; the Fortrat diagram; combination relations; evaluation of rotational constants.

12 Hours

### Recommended Readings

#### Text Books

1. Physics of Atoms and Molecules(2nd ed): Bransden B.H. and Joachain C.J., Pearson Education, India (2006)
2. Atoms & Molecules : Mitchel Weissbluth, Academic Press, N. Y. (1982)
3. Molecular Spectra & Molecular Structure(Vol I): G.Herzberg, D. Van Nostrand Co Princeton, N.J. (1945)
4. Spectroscopy (Vol. 3): S. Walker & B. P. Strauhghan, Chapman & Hall, Lon (1976)

#### Reference Books

1. Introduction to Atomic Spectra : H.E. White, McGraw – Hill, Tokyo (1934)
2. Quantum Chemistry : Ira Levine, Prentice – Hall of India, New Delhi (1991)
3. Fundamentals of Spectroscopy (2nd ed ): B. Narayan, Allied Publishers Ltd., NewDelhi, (1999).
4. Modern Spectroscopy (4th Ed): J.M. Hollas, John Wiley & Sons Ltd. UK 2004.

### **Course code and Name of the Course**

#### **PG85T302 (Course PHST3.2): Nuclear & Particle Physics – I**

Teaching hours per week: 4

No. of Credits: 4

### **Course Outcomes (COs):**

After completing this course, the students should be able to:

- Learn the scattering phenomenon using high energy electrons on nucleus to understand the electric and magnetic form factors of protons, and magnetic form factor of neutron.
- Understand electric quadrupole moment due to single nucleon in a state  $J$  and magnetic dipole moment for odd proton and odd neutron using extreme single particle model.
- Know and learn about the theory of deuteron, explore its ground state properties of and applications with square well potential.
- Know the range of tensor interaction using quadrupole moment to understand the saturation of nuclear forces.
- Understand the neutron-proton scattering and concept of scattering length and its effective range theory along with spin dependence of nuclear force.
- Learn the effect of Coulomb and nuclear scattering, and Meson theory of nuclear force.
- Understand the symmetry classification of elementary particles and apply the Gellmann Nishijima and Gell-Mann-Okubo formula to solve numerical problems.
- Learn the basics of strong interactions and quark structures, experimental support for quark model and quark dynamics.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Basic Properties:** Scattering of high energy electrons by nucleus; Expression for Mott Scattering, differential cross section, form factor, charge distribution in nuclei.

Scattering of high energy electrons by nucleons; Expression for Rosenbluth formula, electric and magnetic form factors of protons, the magnetic form factor of neutron, their distribution in nucleon. . **(Modified)**

**Electric quadrupole moment:** Expression for axial quadrupole moment, quadrupole moment of spheroidal nucleus. Quadrupole moment due to single nucleon in a state J.

**Magnetic dipole moment:** Nuclear g factor for neutron and proton, expression for g factor for a nucleon in a state J in special cases for odd proton and odd neutron on extreme single particle model, Schmidt limits.

12 Hours

## Unit II

**Nuclear forces:** Characteristics of nuclear forces, deuteron problem, basic properties, ground state of deuteron for square well potential, relation between the range and depth of potential. Non-existence of excited states, basic properties of non central force, deuteron in mixture of S and D states using magnetic moment. Range of tensor interaction using quadrupole moment, saturation of nuclear forces. **(Modified)**

12 Hours

## Unit III

**Nucleon-Nucleon Scattering:** n-p scattering, partial wave analysis, scattering of neutron by hydrogen molecules: ortho and para hydrogen, spin dependence of nuclear force, effective range theory for n-p scattering. Qualitative features of p-p scattering, effect of Coulomb and nuclear scattering. High energy n-p and p-p scattering (qualitative). Meson theory of nuclear force: Yukawa and pseudo scalar theory, one pion exchange potential.

12 Hours

## Unit IV

**Elementary Particles:** Pion-nucleon scattering and its resonances. Strange particles: associated Production-strangeness quantum number, Gell-Mann and Nishijima formula, Kaons, lambda, sigma, omega hyperons. Symmetry classification of elementary particles: SU(3) symmetry and eight-fold way, Gell-Mann Okubo formula, Weight diagram, discovery of  $\Omega^-$  particle.

**Quark Model:** fundamental representation of SU(3) and quarks, experimental support for quark model, quark structure of mesons and baryons, color quark and gluons, quark dynamics, charm, beauty and truth quarks, grand unification theory. **(Modified)**

12 Hours

## **Recommended Readings**

### **Text Books**

1. Introductory Nuclear Physics: Kenneth S. Krane, John Wiley and sons (1988)
2. Subatomic Physics: Nuclei and Particles (Volume II) : Luc Valentin North Holland (1981)
3. Physics of Nuclei and Particles: P. Marmier and E. Sheldon Academic press (1970)
4. Introduction to Particle Physics: M. P. Khanna Prentice Hall of India (1990)
5. Nuclear Physics: R. R. Roy and B.P. Nigam, Wiley Eastern (2014)

### **Reference Books**

1. Subatomic Physics (Second Edition) : Hans Frauenfelder and E. M. Henley, Prentice Hall (1991)
2. Introduction Nuclear Physics : Herald. A. Enge., Addison Wesley (1983)
3. Introductory Nuclear Physics : Samuel S. M. Wong, Prentice – Hall (1996)
4. Atomic Nucleus : R. D. Evans, Tata Mc Graw –Hill (1982)
5. Theoretical Nuclear Physics Volume I : Nuclear structure : AmosdeShalit and Herman Feshbach, John Wiley (1974)
6. Nuclear and particle Physics : W. Burcham and M. Jobes, Addison wesley (1998)
7. Theoretical Nuclear Physics : J. M. Blatt and V. F. Weisskoff, Wiley (1962)
8. Introduction to quantum electrodynamics and particle physics: Deep Chadra Joshi,
9. Modern Atomic and Nuclear Physics: A.B. Gupta Books and Allied ( 2009)
10. Nuclear Physics: S. N. Ghoshal, S Chand & Company (2014)
11. Nuclear Physics: D. C. Tayal, Himalaya Publishing House (5th ed.) (2013)
12. Introduction to Elementary Particles: D. Griffiths, John Wiley (1987)

## **Course code and Name of the Course**

### **PG85T303 (Course PHST 3.3): Electronics & Communication – II**

Teaching hours per week: 4  
No. of credits: 4

### **Course Outcomes (COs):**

At the end of this course, the students will be able to-

- Get a clear picture of various transducer based electronic instruments used for measuring various physical quantities such as light, pressure, temperature, humidity, etc.
- Obtain a detailed knowledge of role of technology in medicine, biomedical signals and medical instrumentation system such as ECG, EEG, EMG, MRI, etc.
- Learn classification of signals and systems and various mathematical techniques

employed to study and analyse these.

- A detailed knowledge about conversion of signals from frequency domain to time domain and vice-versa, detailed mathematical background for resolving the signals in both domains.
- Will be able to implement the above practically with the help of Numerical problems solving.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Basic concepts of measurements & instruments:** Static characteristics of instruments, accuracy & precision, sensitivity, reproducibility, errors, Transducers, classification & selection criteria, principles of piezoelectric, photoelectric, thermoelectric transducers, resistance temperature transducers (RTD), Thermister, strain gauge, load cells, LVDT. Digital voltmeter, digital multimeter, Q meter, Electronic LCR meter, Frequency & time interval counters.

12 Hours

#### **Unit II**

**Biomedical Instrumentation:** Role of technology in medicine, Developments in biomedical instrumentation, physiological systems of the body, sources of biomedical signals, basic medical instrumentation system, performance requirements of medical instrumentation systems, intelligent medical instrumentation systems, consumer and portable medical equipment, implantable medical devices, micro-electro mechanical systems (MEMS), wireless connectivity in medical instruments, electrocardiograph (ECG), vector cardiograph (VCG), phonocardiograph (PCG), digital stethoscope, electroencephalograph (EEG), electromyography, magnetic resonance imaging (MRI), real-time ultrasonic imaging systems. pace makers, defibrillators.

12 Hours

#### **Unit III**

**Continuous time signals:** Classification of signals, continuous time signals, discrete time signals, standard test signals, operations on signals. Definition of a system, classification of system, examples of systems. Classification of system, Continuous time systems defined by an input/output differential equation, system modeling, zero input response zero state response and causality, unit impulse response, convolution, convolution integral and properties, system stability. Discrete time systems, difference equation, initial conditions and iterative solution, zero input response, unit impulse response, zero state response, discrete time convolution, properties of convolution sum, convolution examples, system stability, numerical convolutions.

12 Hours

## Unit IV

**Transform domain representation of signals:** Fourier series representation of periodic signals, exponential form of the Fourier series, aperiodic signal representation, Fourier transform, transforms of some useful functions, properties, generalized Fourier transform. Computations of output response via the Fourier transform, analysis of ideal filters, amplitude modulation, angle modulation. Discrete time Fourier transform, discrete Fourier transform, system analysis via the DTFT and DFT.

12 Hours

### Recommended Readings

#### Text books

1. Electronic Measurements and Measuring techniques: A. D. Helfrick and W.D. Cooper
2. Electrical and Electronic measurements and techniques: A. K. Shawney The educational and Technical Publications, New Delhi (1985)
3. Biomedical digital signal procession: William J. Tompkins, Prentice hall of India Pvt. Ltd. (2000)
4. Electronic Signals and Systems: Paul A. Lynn, English Language Book Society Macmillan (1986)

#### Reference books

1. Communication systems: Simon Haykin, Wiley eastern Ltd. New Delhi (1983)
2. Modern Communication Systems – Principles and Applications: Leon W. Couch II, Prentice Hall of India Pvt. Ltd., New Delhi (1998)
3. Discrete time Signal procession –2nd Edition, A.V. Oppenheim, R. W. Schaffer and J. R. Buck, Prentice Hall, New Jersey (1999).
4. Digital Signal Processing – A Computer Based approach : Sajith K. Mitra, Tata – McGraw Hill Publications, New Delhi (2000).
5. Principles of Electronic Instrumentation : A. J. Diefenderfer, and B.E. Hotton, Saunders college Publishing, London (1994).

### Course code and Name of the Course

**PG85T303 (Course PHST 3.3): Condensed Matter Physics – II**

Teaching hours per week: 4  
No of Credit: 4

### Course Outcomes (COs):

#### **(Magnetism & Dielectrics)**

The specific outcomes of this course are as under:

- The classification of magnetic materials and Weiss molecular field theory of

ferromagnetism can be understood.

- It clears the concept of formation of magnons at very low temperature in a ferromagnetic material and their behavior through Bloch  $T^{3/2}$  law will be evident.
- Other class of magnetic materials like anti-ferromagnetic and ferromagnetic can be understood.
- The significance of dielectric materials and their associated phenomena such as dipolar polarizability, ferroelectrics and piezoelectric can be learn.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Ferromagnetism:** Review of Weiss theory of ferromagnetism, its successes and failures, Heisenberg exchange interaction, exchange integral, exchange energy, spin waves (one dimensional case only), quantization of spin waves and magnons, density of modes, thermal excitation of magnons and Bloch  $T^{3/2}$  law, specific heat using spin wave theory. Origin of ferromagnetic domains, hysteresis curve, magnetocrystalline anisotropy energy, Bloch wall formation.

**Antiferromagnetism:** Characteristic property of antiferromagnetic substance, Neutron diffraction experiment. Two sub lattice model molecular field theory of antiferromagnetism, Neel temperature, Susceptibility below and above Neel temperature.

**Ferrimagnetism:** Ferrimagnetic order, ferrites, Curie temperature and susceptibility of ferrimagnets.

12 Hours

#### **Unit II**

**Magnetic Resonance:** Basic principles of paramagnetic resonance, spin spin and spin–lattice relaxation, susceptibility in a.c. magnetic field power absorption, equations of Bloch, steady state solutions, determination of g factor, line width and spin –lattice relaxation time, electron paramagnetic resonance and nuclear magnetic resonance. Effect of crystal field on energy levels of magnetic ions (qualitative). Spin Hamiltonian, zero field splitting.

**Novel Magnetic Materials and Devices:** Magneto optic effect: Kerr and Faraday. The basic concepts of Giant Magnetoresistance (GMR) and Colossal Magnetoresistance (CMR), applications to memory storage, actuators and sensors.

12 Hours

#### **Unit III**

**Dielectrics:** Review of basic formulae, dielectric constant and polarizability, local field, Clausius Mossotti relation, polarization catastrophe. Sources of polarizability, Dipolar polarizability: dipolar dispersion, Debye's equations, dielectric loss, dipolar polarization in solids, dielectric relaxation. Ionic polarizability. Electronic polarizability: classical treatment, quantum theory, interband transitions in solids.

12 Hours

#### Unit IV

**Ferroelectrics:** General properties of ferroelectrics, classification and properties of representative ferroelectric crystals, dipole theory of ferroelectricity, dielectric constant near Curie temperature, microscopic source of ferroelectricity, Lyddane –Sachs Teller relation and its implications, thermodynamics of ferroelectric phase transition, ferroelectric domains, piezoelectricity and its applications.

12 Hours

#### Recommended Readings

##### Text Books

1. The Physical Principles of Magnetism : A. H. Morrish, John Wiley & sons, New York (1965)
2. Solid State Physics : A. J. Dekker, Macmillan India Ltd., Bangalore (1981)
3. Introduction to Solid State Physics : 5th Edn C. Kittel, Wiley Eastern Ltd., Bangalore (1976)
4. Elementary Solid State Physics : M. A. Omar, Addison Wesley Pvt. Ltd., New Delhi (2000).
5. Elements of Solid State Physics, Second Edition, J.P. Srivastava, Eastern Economy Edition, PHI Learning Private Limited, New Delhi (2009).

##### Reference Books

1. Introduction to Magnetic Resonance: A. Carrington and A. D. McLachlan, Harper & Row, New York, (1967).
2. Elements of Solid State Physics (2nd Ed): J.P. Srivastava, PHI Learning Pvt. Ltd., New Delhi (2009)

#### Course code and Name of the Course

**PG85T303 (Course PHST 3.3): Atomic & Molecular Physics -II  
(Spectroscopy Instrumentation Techniques)**

Teaching hours per week: 4

No of Credits per week: 4

#### Course Outcomes (COs):

The specific outcomes of this course are as under:

- Students will learn how to employ the analytical techniques for the analysis of atomic and molecular samples.
- How to select an analytical technique for a given application.
- How to apply the basic knowledge to characterize atomic & molecular samples.
- How to set up these analytical techniques in a physical, chemical & life science laboratory.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Components of Optical Instruments:** Sources of radiation for uv, visible and IR regions; types of prism and grating monochromators; Radiation detector types Photon (photovoltaic, vacuum phototube, PMT); Multichannel types Photodiode arrays, CID, CCD; Thermal detectors Thermocouples, Bolometer, Pyroelectric types. Principles of FT optical measurements.

**Atomic Spectroscopy**

**Atomic Absorption Spectrometry:** Sources of flames; Instrumentation: Single and Double beam instruments. Sampling techniques. Simple applications.

**Atomic Emission Spectrometry:** Sources; Typical spectrometers; sampling techniques. Arc and spark sources; instrumentation.

12 Hours

**Unit II**

**Luminescence Spectroscopy**

**UV Visible Absorption Spectrometry:** The Beer's law and its limitations. Instrumentation: sources; single and double beam spectrometers; Solvent effects; Bathochromic and Hypsochromic shifts; Assignment of  $\pi \rightarrow \pi^*$  and transitions.

**Fluorescence Spectrometry:** Theory of Fluorescence and Phosphorescence (with energy level diagram); Transition types; quantum efficiency (yield). Instruments: Fluorometers and Spectrofluorometers; lifetime measurements, Radiative and Natural lifetime, Decay curves. Applications.

12 Hours

**Unit III**

## **Vibrational Spectroscopy**

**Infrared Spectrometry:** Molecular vibrations and Group frequencies. IR sources; transducers. Instruments: Dispersive and FT based spectrometers; sample handling. Interpretation of spectra structure correlations.

**Raman Spectrometry:** Origin of Raman scattering (qualitative); comparison of vibrational Raman and infrared spectra; activity and intensity of Raman bands; depolarization ratio. Instrumentation; sources; dispersive and FT-based Raman spectrometers; sample handling. Simple applications.

12 Hours

## **Unit IV**

### **NMR Spectroscopy**

**Proton NMR Spectrometry:** Theory of NMR: Interaction between nuclear spin and magnetic moment; resonance condition; population of energy levels. Relaxation processes: spin lattice and spin-spin relaxations (qualitative). The chemical shift and its correlation with molecular structure. Typical NMR spectrometers (cw/FT); sample handling. Simple applications of <sup>1</sup>H.NMR.

### **Photoelectron Spectroscopy**

**Photoelectron spectroscopy:** Types UPS and XPS. Experimental method for UPS and XPS. Ionization processes and Koopmans' theorem. Interpretation of UP and XP spectra with applications.

12 Hours

### **Recommended Readings**

#### **Text Books**

1. Instrumental Methods of Analysis: H. H. Willard, L. L. Merrit, J. A. Dean and F. A. Settle, J. K. Jain for CBS Publishers (1986)
2. Principles of Instrumental Analysis (5th Ed) : D. A. Skoog, F. J. Holler & T. A. Nieman, Harcourt Asia Pvt. Ltd. (1998)
3. Fundamentals of Molecular Spectroscopy : C. N. Banwell and E.M. McCash, Tata McGraw-Hill Co.,(4th revd Ed; 9th reprint, 2000).

#### **Reference Books**

1. Raman Spectroscopy: D. A. Long, McGraw Hill Intl. Co. (1977)
2. Modern Spectroscopy (4th Ed): J.M. Hollas, John Wiley & Sons Ltd, UK (2004)[Free soft copy available on Net].

**Course code and Name of the Course**

**PG85T303 (Course PHST 3.3): Nuclear & Particle Physics – II  
(Nuclear Instruments and Techniques)**

Teaching hours per week : 4  
No of Credits:4

**Course Outcomes (COs):**

After completing this course, the students should be able to

- Learn about the classification, mechanisms, properties and factors affecting performance of scintillator detectors.
- Learn about the differences between single channel analyzer and multichannel analyzer in NaI(Tl) gamma ray spectrometers and to estimate calibration constant.
- Know the basics, construction, working, advantages and disadvantages of semiconductor detectors and types and characteristics of solid-state detectors.
- Understand about the various types of nuclear accelerators and their basic components and types of accelerations and principles of operation.
- Understand the basic principles, construction and working of energy and wavelength dispersive x-ray fluorescence spectrometers.
- Learn the basics and working principles of positron annihilation spectroscopy and perturbed angular correlation for study of condensed matter.
- Learn about the neutron classification, sources of neutrons and neutron detectors, especially BF<sub>3</sub> counter and <sup>3</sup>He based neutron detector.
- Understand the theory of neutron diffraction of powder and single crystals, neutron diffraction patterns of superconductors and magnetic materials.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Nuclear Detectors:** Scintillation detector, different types of scintillators, photomultiplier tubes;

gain and types of photomultiplier tubes, Preamplifiers; charge sensitive, voltage sensitive and current sensitive preamplifiers, Amplifiers; linear and spectroscopy amplifiers, Single channel analyzers; integral, window and normal modes, Multichannel analyzer; various types of ADC, memory, linear gate and working, NaI(Tl) gamma ray spectrometer; Calibration, photopeak, Compton edge and back scattered peak, single escape and double escape peak. Role of thickness of the crystal for detecting the radiation.

**Semiconductor Detector:** Relation between applied voltage and depletion layer thickness, Lithium drifted germanium detector, High purity germanium detector, Lithium drifted silicon detector, position sensitive silicon detector. Principle and working of magnetic spectrometer and Cherenkov detector.

12 Hours

## Unit II

**Particle Accelerators and Applications:** Basic components of accelerator, types of accelerations, principles of operation.

**Ion sources:** Duoplasmatron ion source and electron cyclotron resonance (ECR) ion source.

**Accelerators:** Principle and working of electrostatic accelerators, azimuthally varying field (AVF) cyclotron and pelletron accelerator, RIB accelerator, Microtron, Super Conducting Cyclotron, synchrotron source.

**Application of ion beams:** Rutherford Backscattering Spectroscopy (RBS), Elastic Recoil Detection (ERD), Nuclear Reaction Analysis (NRA).

12Hours

## Unit III

**X – ray Fluorescence Spectroscopy:** X ray Fluorescence; Energy and wavelength dispersive X – ray fluorescence spectrometers. microXRF, Total XRF and their applications

**Positron Annihilation Spectroscopy:** Principles, positron sources and experimental arrangements, Angular correlation of annihilation radiation (ACAR), positron annihilation life time (PALT) measurement. Applications

**Perturbed angular correlation (PAC):** PAC sources, experimental arrangement, magnetic dipole interaction, electric quadrupole interaction, applications.

12 Hours

## Unit IV

**Neutron Physics:** Basic properties of neutron, production of neutrons, detection of slow and fast neutrons; BF<sub>3</sub> counter and <sup>3</sup>He based neutron detector, scintillation detectors for fast neutrons, detection of ultra high energy neutrons, cloud chamber as a neutron detector, the crystal monochromator, neutron diffraction (theory), powder and single crystal neutron diffraction, neutron diffraction from magnetic materials, neutron diffraction in fluids, reflection of neutrons, polarization of neutrons, small angle neutron scattering (SANS).

**Recommended Readings****Text Books**

1. Atomic and Nuclear Physics volume II : S. N. Goshal, S. Chand and company (1998)
2. Nuclear Radiation Detectors : S. S. Kapoor and V. S. Ramamurthy, Wiley Eastern Limited (1986)
3. Techniques for Nuclear and Particle : W. R. Leo, Springer Verlag (1987).
4. Radiation Detection and Measurement : Glenn. F. Knoll, John Wiley and sons (1989)
5. Principles of Charged Particle Acceleration : S. Humphris, John Wiley (1986)
6. Introduction to Neutron Physics: L. F. Curtis, East west press (1958)
7. Nuclear Electronics: P.W. Nicholson, John Wiley & Sons (1974)
8. Experimental neutron scattering: B.T.M. Willis & C.J. Carlie, Oxford University Press (2009)
9. Introduction to Neutron Physics: L.F. Curtiss, East West Press (1969)

**Reference Books**

1. Introduction to Nuclear Physics : Herald A. Enge, Addison – Wesley (1983)
2. Physics of Nuclei and Particles Vol II : P. Marmier and E. Sheldon, Academic Press (1969)
3. Nuclei and Particles (second edition) : E. Segre, Benjamin (1977)
4. Nuclear and Particle Physics : W. Burcham and M. jaobes, Addison Wesley (1998)
5. Physics of Nuclei and Particles : P. Marmier and E. Sheldon Academic press (1970)
6. Alpha, Beta and Gamma Spectroscopy : K Seighban Vol. I and II North Holland (1966)
7. Experimental Techniques in Nuclear Physics: Dorin N. Poenaru, Walter Greiner Walter de Gruyter, Berlin( 1997)
8. Experimental Neutron Scattering: BTM Willis and C J Calile Oxford University Press (2009)
9. Quantitative X ray Fluorescence analysis: G. R. Lachance and F. Claisse John Wiley and sons (1995)
10. Ion Implantation Science and Technology: J. P. Ziegler, Academic Press (1988).
11. Nuclear electronics: Kowalski E., Springer Verlag, Berlin (1970)
12. Nuclear Physics Experimental and theoretical, Hans H.S., New Age International Publishers (2001)

**Course code and Name of the Course**

**PG85P305 (Course PHSP3.5): Electronics & Communication Practical– I**

Contact hours per week : 4  
No of Credit: 4

**Course Outcomes (COs):**

Upon completion of this course, the students will be able to-

- Design and learn implementing the operational amplifier IC 741 based wave form generator circuits
- Design and learn implementing op-amp 741 based instrumentation amplifier and characterize it
- Design and learn implementing op-amp based twin-T and notch filter circuits.
- Implementation of 2's complement adder and subtractor and bidirectional shift registers

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Square, triangular and ramp generation using op amp
2. Instrumentation amplifier gain, CMRR and input impedance
3. Active notch and twin T filter realization using Op Amp
4. Precision half wave and full wave rectifier using Op amp
5. 2's complement adder and subtractor
6. 4 – bit bidirectional shift register

**(New experiments/assignments may be added)**

**Recommended Readings**

**References**

1. Operational Amplifier and Linear IC's: Robert F. Coughlin and Frederick F. Driscoll, PHI publications (1994).
2. Op Amps and linear Integrated Circuits: R Gayakwad, PHI publications, New Delhi (2000).
3. Digital Principles and Applications: A.P. Malvino and D. Leach, TMH Publications (1991).
4. Digital fundamentals – 8th edition: Thomas L Floyd, Pearson Education (2003)
5. Microelectronics Circuits: Adel S. Sedra and Kenneth C. Smith, Oxford University Press (1991).
6. Digital Computer fundamentals, Thomas C. Bartee, McGraw Hill Ltd. (1977).
7. Digital Logic and Computer Design: Morris Mano. Prentice Hall of India Pvt.Ltd New Delhi (2000).
8. Logic Circuit Design: Alan W. Shaw, Sanders College Publication Company (1999).

**Course code and Name of the Course**

**PG85P305 (Course PHSP3.5): Condensed Matter Physics Practical – I**

Contact hours per week : 4  
No of Credits : 4

**Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Calculation of d-spacing, structure factor and indexing of cubic and non-cubic pattern can be understood.
- The significance of intensity of X-ray scattering and its relation to the position of atoms in a unit cell can be learnt.
- The experimental measurement of specific heat of different metals can be realized.

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Structure factor calculations
2. d spacing calculations
3. Indexing of cubic systems
4. Determination of Debye temperature by study of specific heat of metals
5. Assignment using FORTRAN programming
6. Calculation of relative integrated intensity
7. Indexing of tetragonal systems
8. Obtaining X ray pattern for a given substance using X ray diffractometer and indexing the pattern.

**(New experiments/assignments may be added)**

**Recommended Readings****Reference Books**

1. X ray diffraction: B.D. Cullity, Addison Wesley, New York (1972).
2. X ray diffraction procedures: H.P. Klug and L.E. Alexander, John Wiley and sons, New York.
3. Interpretation of X ray powder diffraction pattern: H.P. Lipson and H. Steeple, Macmillan, London (1968).
4. Introduction to Solid State Physics : 5th Edn C. Kittel, Wiley Eastern Ltd., Bangalore (1976)
5. Elementary Solid State Physics : M. A. Omar, Addison Wesley Pvt. Ltd., New Delhi (2000)
6. Introduction to magnetochemistry: A. Earnshaw, Academic press, London (1968).
7. Lab manuals.

**Course code and Name of the Course**

**PG85P305 (Course -PHSP 3.5): Atomic & Molecular Physics Practical – I**

Contact hours per week : 4

No of Credits : 4

**Course Outcomes (COs):**

The specific outcomes of this course student will study:

- Basic experiments related to atomic & molecular physics.
- Hands-on experience in setting up experiments.
- Analysis of both measured & given data as assignments.
- Interpretation of results and make critical comments.

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Study of Constant Deviation Spectrograph
2. Study of Grating spectrograph
3. Study of Small Quartz Spectrograph
4. Vibrational analysis of CN violet bands
5. Study of Copper Spark Spectrum
6. Spectrochemical analysis of Mixture
7. Rotational analysis of HCl

**(New Experiments / Assignments may be added)**

**Recommended Readings**

**Reference Books**

1. Experimental Spectroscopy (3rd Edition): R. A. Sawyer. Dover Publication, Inc, New York (1963).
2. Atomic Spectra and Atomic Structure (2nd Edition) – G. Herzberg. Dover Publication New York (1944)
3. Atomic Spectra – H.E. White, Mc Graw –Hill, New York (1934).
4. A Course of Experiments with He-Ne Lasers (2nd Edition) : R. S. Sirohi. Wiley Eastern, New Delhi (1991).
5. Lab. Manuals.
6. Molecular Spectra & Molecular Structure Vol. I : G. Herzberg, D. Van Nostrand Co, New York (1950)
7. Instrumental Methods of Analysis : H. H. Willard, L. L. Merrit, J. A. Dean and F. A. Settle, J. K. Jain for CBS Publishers (1986)
8. The Identification of Molecular Spectra : R.W. B. Pears & A. G. Gaydon, Wiley, New York (1961).
9. Fiber Optic Laboratory Experiments: Joel Ng.

**Course code and Name of the Course**

## **PG85P305 (Course PHSP 3.5): Practical Nuclear & Particle Physics –I**

Contact hours per week : 4

No of Credits : 4

### **Course Outcomes (COs):**

After successful completion of this course, the students will be able to

- acquire practical knowledge on calibrating NaI(Tl) gamma ray spectrometer and to determine the energy of a given gamma ray source.
- Learn various modes in a multichannel analyzer and use them to calculate the energy resolution, energy of gamma ray.
- Determine the mass attenuation coefficient of beta particles from  $^{204}\text{Tl}$ ,  $^{210}\text{Pb}$  and  $^{137}\text{Cs}$  sources in Al foils using G.M. Counting system.
- Able to verify the Bohr's frequency condition and Moseley's law using MCA based NaI(Tl) scintillation detector.
- Understand the defects present in metals and semiconductors using positron annihilation lifetime parameters.
- Construct the pulse generator circuit using IC 4049 and study its output waveforms.
- Determine the gamma ray attenuation coefficient for different absorbers using NaI(Tl) gamma ray spectrometer using  $^{137}\text{Cs}$  source.
- Learn the rotational energy and angular momentum of a compound nucleus.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Calibration of NaI(Tl) scintillation spectrometer
2. Attenuation beta particles I
3. Verification of Mosley's law
4. Positron annihilation
5. Multivibrator circuit using transistors and IC 555
6. Pulse generator using IC 4049
7. Attenuation gamma rays I
8. Calibration of X ray proportional counter spectrometer
9. Magnetic beta ray spectrometer I
10. Nuclear rotational studies
11. Regulated power supply using transistors and LM 309
12. R.C coupled amplifier

(New experiments/assignments may be added)

### **Recommended Readings**

### **Reference Books**

1. Experiments in Modern Physics : A. C. Melissions, Academic Press (NY) (1966)
2. Experiments in Nuclear Science, ORTEC Application Note. ORTEC, (1971)
3. (Available in Nuclear Physics Laboratory)
4. Practical Nucleonics : F. J. Pearson., and R. R. Osborne, E & F. N. Spon Ltd. London (1960)
5. The Atomic Nucleus: R. D. Evans, Tata Mc Graw Hill Pub. Comp. Ltd. (1960)
6. Nuclear Radiation Detectors : S. S. Kapoor and V. S. Ramamurthy, Wiley Eastern Limited (1986)
7. Experimental Nucleonics : E. Bleuler and G. J. Goldsmith, Rinehart & Co. Inc. (NY) (1958)
8. A manual of experiments in reactor physics : Frank A. Valente, Macmillan company (1963)
9. A practical introduction to electronic circuits : Martin Harthley Jones, Cambridge University Press (1977)
10. Integrated circuit projects : R. M. Marston, Newnes Technical Books (1978)
11. Semiconductor projects : R. M. Marston, A Newnes Technical Books (1978)
12. Waveform generator projects : R. P. Marston, A Newnes Technical Books (1978)

### **Course code and Name of the Course**

**PG85P306 (Course PHSP 3.6): Electronics & Communication Practical –II**

Contact hours per week : 4  
No of Credit: 4

### **Course Outcomes (COs):**

Upon completion of this course, the students will be able to-

- Implement Use of crystal oscillator and frequency division circuits
- Conduct Analog and digital optical fiber experiments
- Study of staircase generator using 4-bit counters and decade counter with 7-segment display
- Study Phase locked loop ICs and characteristics

### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Crystal oscillator and frequency division circuits
2. Optical fiber experiments: Analog & digital
3. Phase locked loop ICs and characteristics

4. Dual power supply using IC regulators.
5. Staircase generator using 4-bit counters
6. Decade counter with 7-segment display

**(New experiments/assignments may be added)**

### **Recommended Readings**

### **References**

1. Operational Amplifier and Linear IC's: Robert F. Coughlin and Frederick F. Driscoll, PHI publications (1994).
2. Op Amps and linear Integrated Circuits: R Gayakwad, PHI publications, New Delhi (2000).
3. Digital Principles and Applications: A.P. Malvino and D. Leach, TMH Publications (1991).
4. Digital fundamentals – 8th edition: Thomas L Floyd, Pearson Education (2003)
5. Microelectronics Circuits: Adel S. Sedra and Kenneth C. Smith, Oxford University Press (1991).
6. Digital Computer fundamentals, Thomas C. Bartee, McGraw Hill Ltd. (1977).
7. Digital Logic and Computer Design: Morris Mano. Prentice Hall of India Pvt.Ltd New Delhi (2000).
8. Logic Circuit Design: Alan W. Shaw, Sanders College Publication Company (1999).

### **Course code and Name of the Course**

**PG85P306 (Course PHSP 3.6): Condensed Matter Physics Practical – II**

Contact hours per week : 4  
No of Credits : 4

### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- It helps to experimentally measure the ratio of fundamental constants like  $e$  and  $k_B$ .
- The magneto-resistance effect in a semiconductor can be determined.
- The ferromagnetic to paramagnetic phase transition in a metallic sample can be carried out.
- The experimental determination of electrical resistivity of semiconductor by four probe method can be understood

### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Hall effect and Hall mobility
2. Determination of  $e/k_B$
3. Susceptibility of paramagnetic substance by Gouy's method
4. Specific heat of metals

5. Magnetoresistance of semiconductors
6. Determination of Curie temperature of a ferromagnet.
7. Electron spin resonance
8. Resistivity by four probe method.
9. Determination of elastic constants.
10. Thermoluminescence studies of alkali halides by X ray irradiations
11. Size estimation of nanocrystals

**(New experiments/assignments may be added)**

### **Recommended Readings**

#### **Reference Books**

1. X ray diffraction: B.D. Cullity, Addison Wesley, New York (1972).
2. X ray diffraction procedures: H.P. Klug and L.E. Alexander, John Wiley and sons, New York.
3. Interpretation of X ray powder diffraction pattern: H.P. Lipson and H. Steeple, Macmillan, London (1968).
4. Introduction to Solid State Physics : 5th Edn C. Kittel, Wiley Eastern Ltd., Bangalore (1976)
5. Elementary Solid State Physics : M. A. Omar, Addison Wesley Pvt. Ltd., New Delhi (2000)
6. Introduction to magnetochemistry: A. Earnshaw, Academic press, London (1968).
7. Lab manuals.

### **Course code and Name of the Course**

**PG85P306 (Course PHSP 3.6): Atomic & Molecular Physics Practical – II**

Contact hours per week : 4

No of Credits : 4

### **Course Outcomes (COs):**

The specific outcomes of this course student will learn:

- How to set up experiments using hands-on experience & different techniques.
- How to analyze data & interpret them.
- How to connect class room learning with lab experience to reduce the gap in understanding.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Determination of screening constants for sodium doublets
2. Vibrational analysis of AlO bands
3. Zeeman Effect (Photographic method):

4. Vibrational Analysis of I<sub>2</sub> absorption bands
5. Verification of Lande's interval rule
6. Verification of Beer's law using USB spectrometers
7. Optical fiber attenuation

**(New Experiments / Assignments may be added)**

### **Recommended Readings**

### **Reference Books**

1. Experimental Spectroscopy (3rd Edition): R. A. Sawyer. Dover Publication, Inc, New York (1963).
2. Atomic Spectra and Atomic Structure (2nd Edition) – G. Herzberg. Dover Publication New York (1944)
3. Atomic Spectra – H.E. White, Mc Graw –Hill, New York (1934).
4. A Course of Experiments with He-Ne Lasers (2nd Edition) : R. S. Sirohi. Wiley Eastern, New Delhi (1991).
5. Lab. Manuals.
6. Molecular Spectra & Molecular Structure Vol. I : G. Herzberg, D. Van Nostrand Co, New York (1950)
7. Instrumental Methods of Analysis : H. H. Willard, L. L. Merrit, J. A. Dean and F. A. Settle, J. K. Jain for CBS Publishers (1986)
8. The Identification of Molecular Spectra: R.W. B. Pears & A. G. Gaydon, Wiley, New York (1961).
9. Fiber Optic Laboratory Experiments: Joel Ng.

### **Course code and Name of the Course**

**PG85P306 (Course PHSP 3.6): Practical Nuclear & Particle Physics –II**

Contact hours per week : 4  
No of Credits : 4

### **Course Outcomes (COs):**

After successful completion of this course, the students will be able to

- Understand the mass attenuation coefficient of 2260 keV and 545 keV beta particles in Al foils using <sup>90</sup>Sr - <sup>90</sup>Y source using G.M. Counting system.
- Determine the half-life of <sup>116</sup>In nucleus by observing the beta activity with time using G.M. Counting System
- Learn the gamma ray attenuation coefficient for different absorbers using NaI(Tl) gamma ray spectrometer using <sup>137</sup>Cs source.
- Determine the end point energy of beta particles from <sup>204</sup>Tl source using Nomogram

method using G. M. Counting System.

- Estimate the K x-ray fluorescence yield and K x-ray production cross section in silver target using  $^{57}\text{Co}$  source using MCA based NaI(Tl) scintillation spectrometer.
- Design and construct linear pulse amplifier using BC 107 and AC 128 transistors and to study its performance, output pulse height is linearly proportional to input pulse height.
- Determine the rest mass energy of electron using NaI(Tl) gamma ray spectrometer using different gamma sources (  $^{137}\text{Cs}$ ,  $^{60}\text{Co}$ ,  $^{54}\text{Mn}$ ).

#### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Attenuation beta particles II
2. Half life of Indium
3. Attenuation gamma rays II
4. Compton Scattering
5. Study of emitter follower circuit
6. FET amplifier
7. Magnetic beta ray spectrometer I I
8. X ray fluorescence studies
9. Rutherford scattering
10. Pulse stretch and pulse delay using IC 74121
11. Pulser: variable width and frequency using LM 310
12. Scale of two circuit

**(New experiments/assignments may be added)**

#### **Recommended Readings**

##### **Reference Books**

1. Experiments in Modern Physics : A. C. Melissions, Academic Press (NY) (1966)
2. Experiments in Nuclear Science, ORTEC Application Note. ORTEC, (1971)
3. (Available in Nuclear Physics Laboratory)
4. Practical Nucleonics : F. J. Pearson., and R. R. Osborne, E & F. N. Spon Ltd. London (1960)
5. The Atomic Nucleus : R. D. Evans, Tata Mc Graw Hill Pub. Comp. Ltd. (1960)
6. Nuclear Radiation Detectors : S. S. Kapoor and V. S. Ramamurthy, Wiely Eastern Limited (1986)
7. Experimental Nucleonics : E. Bleuler and G. J. Goldsmith, Rinehart & Co. Inc. (NY) (1958)
8. A manual of experiments in reactor physics : Frank A. Valente, Macmillan company (1963)

9. A practical introduction to electronic circuits : Martin Harthley Jones, Cambridge University Press (1977)
10. Integrated circuit projects : R. M. Marston, Newnes Technical Books (1978)
11. Semiconductor projects : R. M. Marston, A Newnes Technical Books (1978)
12. Waveform generator projects : R. P. Marston, A Newnes Technical Books (1978)

**Semester – IV**

**Course code and Name of the Course**

**PG85T401 (Course PHCT 4.1): Classical Electrodynamics**

Teaching hours per week: 4  
Number of Credits: 4

**Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Understand the basics of Electrostatics, Poisson Laplace equations, boundary conditions and electrostatic energy in dielectric media.
- Learn about Magneto statics, current density, continuity equation, magnetic moment and energy in the magnetic field.
- Understand the basics of electrodynamics, faradays laws of induction, displacement current, Maxwell's equations, conservation of energy and momentum in electromagnetic fields.
- Learn about electromagnetic waves, propagation of waves in linear media, reflection and transmission at normal and oblique incidence, skin depth and refraction at conducting surface.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Electrostatics:** Divergence and curl of electrostatic field, Gauss law in integral and differential forms, Poisson and Laplace equations, Boundary conditions and uniqueness theorem, electrostatic potential energy and energy density of a continuous charge distribution. Multipole expansion of the potential and energy of a localized charge distribution, monopole and dipole terms, electric field of a dipole, dipole dipole interaction. Electrostatic fields in matter, polarization, macroscopic field equations, electrostatic energy in dielectric media.

12 Hours

**Unit II**

**Magnetostatics:** Current density, continuity equation, magnetic field of a steady current, the divergence and curl of  $\mathbf{B}$ , Ampere's law, magnetic vector potential, multipole expansion of vector potential of a localized current distribution, magnetic moment. Torques and forces on magnetic dipoles, effect of a magnetic field on atomic orbits. Magnetic fields in matter, macroscopic equations, magnetostatic boundary conditions, magnetic scalar potential. Energy in the magnetic field.

12Hours

### Unit III

**Electrodynamics:** Faraday law of induction, displacement current, Maxwell's equations. Vector and scalar potentials. Gauge transformations, Lorentz gauge, Coulomb gauge. Continuity equation, Poynting's theorem, momentum, Maxwell's stress tensor, conservation of energy and momentum in electromagnetic fields.

**Electromagnetic Waves:** Propagation of waves in linear media, reflection and transmission at normal and oblique incidence, Electromagnetic waves in non conducting and conducting medium, skin depth, reflection at conducting surface.

**Wave guides:** Fields at the surface and within a conductor, modes in rectangular wave guide, TE waves in a rectangular wave guide, Co axial transmission line and cylindrical cavities.

12 Hours

### Unit IV

**Electromagnetic radiation:** Retarded Potentials, Lenard Wiechert potentials, fields of a moving point charge. Electric dipole radiation, Magnetic dipole radiation, Power radiated by a point charge, Larmor formula, Power radiated by a point charge with collinear velocity and acceleration, Bremsstrahlung radiation, radiation from a charged particle moving in a circular orbit, cyclotron and synchrotron radiation.

**Plasma Physics:** Plasma behavior in magnetic field, plasma as a conducting fluid magnetohydrodynamics, magnetic confinement Pinch effect.

12 Hours

### Recommended Readings

#### Text Books

1. Classical Electrodynamics: J.D.Jackson , Wiley Eastern Ltd., Bangalore (1978)

2. Introduction to Electrodynamics: D.J.Griffiths, Prentice Hall of India, Ltd., New Delhi (1995).

### **Reference Books**

1. Electromagnetics: B.B. Laud. Wiley Eastern Ltd., Bangalore (1987)
2. Classical Electromagnetic Radiation: J.B. Marion, Academic press, NewYork (1968).
3. Classical Electrodynamics; S P Puri, Tata McGraw Hill Publishing Company Ltd., New Delhi, (1990).

### **Course code and Name of the Course**

#### **PG85T402 (Course PHCT 4.2): Statistical and Thermal Physics**

Teaching hours per week: 04

No. of Credits: 04

### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Understand the basic postulates of statistical mechanics, different types of ensembles, fundamental differences between microstates and macrostates.
- Learn about different types of partition functions for the system of particles and apply these to calculate important thermodynamical quantities.
- Learn the fundamental differences between classical and quantum statistics and learn about postulates of quantum statistical mechanics.
- Formulate the quantum statistical distribution laws, viz. Fermi-Dirac (FD) and Bose-Einstein (BE) statistics and origin of Bose-Einstein condensation and its applications.
- Understand fluctuations in ensembles and quantum gases and their analysis.
- Describe the theoretical basis of Brownian motion on the basis of Langevin approach.
- Understand the concept of random walk, Einstein relation for mobility and diffusion, time dependence of fluctuations, their spectral analysis and applications in noises.
- Understand the reversible and irreversible thermodynamic processes, analysis of Onsager reciprocity relations in thermoelectric phenomena.
- Understand the Saha theory of ionization of a gas in thermal equilibrium to the temperature and pressure.
- Understand superfluid properties and quantum theory of  $^3\text{He}$  and mixture of  $^3\text{He}$ - $^4\text{He}$ .

## **Pre-revised curriculum**

### **Unit I**

**Classical Statistics:** Basic postulates of statistical mechanics, phase spaces, Liouville equation; concept of ensembles, postulate of equal a priori probability; microstates and macrostates; general expression for probability; canonical ensemble: most probable distribution of energies, thermodynamic relations in canonical ensemble; canonical partition function; micro canonical ensemble; grand canonical ensemble, grand partition function. Partition function for the system and for the particles, translational partition function; Gibbs paradox: Sackur-Tetrode equation; Boltzmann equipartition theorem; rotational partition function; vibrational contribution to thermodynamic quantities; electronic partition function.

12 Hours

### **Unit II**

**Quantum Statistics:** Postulates of quantum statistical mechanics, ideal quantum gases, quantum statistics in classical limit, symmetric and antisymmetric wave functions for indistinguishable particles; Bose-Einstein and Fermi-Dirac distributions, ideal Bose and Fermi gases, their properties at high temperature and densities, weak and strong degeneracy of perfect gases, Bose-Einstein condensation, black body radiation, phonons and specific heats of solids.

12 Hours

### **Unit III**

**Fluctuations and Brownian motion:** Fluctuations in canonical, grand canonical and microcanonical ensembles, number fluctuations in quantum gases. Brownian motion: Langevin equation, random walk problem. Diffusion: Einstein relation for mobility. Time dependence of fluctuations: power spectrum, spectral density; persistence and correlation of fluctuations; Wiener-Khinchin theorem, Johnson noise, Nyquist theorem; shot noise; Fokker-Planck equation.

12 Hours

### **Unit IV**

**Irreversible thermodynamics:** Reversible and irreversible processes, Onsager reciprocity relations and their derivations; thermoelectric phenomena, linear response theory, Kubo relations, fluctuation dissipation theorem; Saha theory of ionisation.

**Liquid helium:** phase diagram, superfluid properties, two fluid model, thermo-mechanical, fountain and mechano-caloric effects, quantum theory of superfluid  $^3\text{He}$  and mixture of  $^3\text{He}$ - $^4\text{He}$ .

12 Hours

## **Recommended Readings**

### **Text books**

1. Statistical mechanics and properties of matter: Theory and applications: E.S.R. Gopal, John Wiley & Sons, New York (1974).
2. Statistical mechanics (3rd ed.): B.K. Agarwal and M. Eisner, New Age International (P) Ltd. Publishers, New Delhi (2013).

### **Reference Books**

1. Fundamentals of statistical and thermal Physics: F. Reif, McGrawHill Ltd., New Delhi (1965).
2. Elementary statistical physics: C. Kittel, John Wiley & Sons, New York (1958).
3. Statistical mechanics; Theory and applications; S.K. Sinha, TMH Pub. Ltd., New Delhi (1990).
4. Statistical Thermodynamics: M.C. Gupta, New Age Publishers (2nd ed.) (2010)
5. Statistical Mechanics, R.K. Pathria & Paul D. Beale, Butterworth Heinemann (2nd ed.) (2012)
6. Fundamentals of Statistical Mechanics: B.B. Laud, New Age International (2012)

### **Course code and Name of the Course**

#### **PG85T403 (Course PHST 4.3): Electronics & Communication - III**

Teaching hours per week: 4

No. of credits: 4

### **Course Outcomes (COs):**

At the end of this course, the students will be able to-

- Understand the architecture of 8085 microprocessor which completes the basic foundation necessary to understand how CPU works and communicates with RAM, ROM and external devices.
- Get information about execution of each command written in language form. This includes knowledge of arithmetic operations, looping, stacking, etc.
- Understand Interfacing peripherals of 8085 microprocessor with 7-segment display, analog to digital system vice-versa, additional input/output devices etc., incorporated to account the applications.
- Gain knowledge about 8051 microcontroller architecture to programming, the complete idea of execution of commands, instructions to interfacing with external input/output devices.
- Will be able to implement the above practically with the help of Numerical problems solving.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Microprocessor Architecture:** Introduction, microprocessor and its operations, architecture of 8085 microprocessor, memory, input and output devices, basic interfacing concepts, memory interfacing, interfacing input and output devices.

12 Hours

**Unit II**

**Programming of 8085:** Introduction, instruction classification, instruction format, over view of instruction set of 8085, data transfer operations, arithmetic operations, logic operations, branch operation; Instructions for Looping, counting, and indexing, additional data transfer instructions, 16-bit arithmetic operation, logic operations: rotate, compare; stack, subroutine, conditional call and return instructions.

12 Hours

**Unit III**

Interfacing peripherals and applications: The 8085 interrupt, multiple interrupts and priorities, additional 8085 interrupts: TRAP, RST 7.5, 6.5 and 5.5, triggering levels, additional I/O concepts, DMA; Interfacing A/D and D/A converters, handshaking and polling, the 8155 multipurpose programmable interfacing device; interfacing 7-segment display, the 8259 timer as square wave generator.

12 Hours

**Unit IV**

Microcontroller: 8051 architecture: 8051 microcontroller hardware-I/O pins, ports and circuits- External memory-Counter and Timers-Serial data I/O Interrupts. 8051 programming: instruction syntax-moving data-logical operations-arithmetic operations- branching instructions.

12 Hours

**Recommended Readings**

**Text books**

1. Microprocessor Architecture, Programming, and Applications with 8085/8080 A: Ramesh S. Gaonkar, New Age International Publishers Ltd.
2. The 8051 Microcontroller, Architecture, Programming and Applications, Kenneth J Ayala, International Thompson Publishing.

**References books**

1. Microcomputer theory and Applications: Rafiquzzaman Mohamed, John Wiley and Sons, New York (1987)
2. Introduction to Microprocessors (3rd Edition): Aditya P. Mathur, Tata – Mc Graw – Hall Publishing Company Ltd., New Delhi (1989)
3. The 8051 Microcontroller and Embedded systems: M.A. Mazidi, J.G. Mazidi, Pearson, Prentice Hall (2005)

#### **Course code and Name of the Course**

#### **PG85T403 (Course PHST4.3): Condensed Matter Physics – III**

Teaching hours per week: 4

No. of Credit: 4

#### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- The course offers a good understanding on the basics of semiconductors.
- Theoretical understanding of charge transport in semiconductors can be understood.
- It also helps to clear the basic concepts on the effect of external fields on the electron transport in a crystalline state.
- It makes is clear how the working of basic devices like pn-junction, Gunn diode, laser diode etc. can be understood.
- Finally, the course gives an idea on the importance of low dimensional semiconductors, their synthesis and the formation of electronic devices.

#### **Revised curriculum with changes/ additions/ modifications highlighted\***

##### **Unit I**

**Semiconductors:** General properties of semiconductors, Elemental and compound semiconductors, band structure of real semiconductors. Intrinsic semiconductors: Carrier concentration, Fermi energy, extrinsic semiconductors: Binding energy of impurity, impurity levels, Population of impurity levels, carrier concentration, Fermi energy and its dependence on impurity concentration and temperature.

12 Hours

##### **Unit II**

**Transport in Semiconductors:** Electrical conductivity and mobility, their dependence on temperature and scattering mechanisms, energy gap determination. Diffusion, Einstein relation,

diffusion equation and diffusion length.

**Magnetic Field Effects:** Hall effect, Hall resistance, magnetoresistance (qualitative), cyclotron resonance and effective mass determination.

**Optical Properties:** Interband and intraband absorption, fundamental absorption, absorption edge, exciton absorption, free carrier absorption, impurity involved absorption. Photoconductivity, luminescence.

12 Hours

### Unit III

**Low-dimensional semiconductor structures:** Metal-oxide-semiconductor junction, Inversion layer, quantum well. Modulation doping, quantum well wire, quantum dot and superlattice. Two – dimensional electron gas, energy levels and density of states. Quantum Hall effect (qualitative)

**Thin Film Physics:** Preparation : Thermal evaporation spray pyrolysis and spin coating. Epitaxial growth and Chemical vapor deposition, methods. MBE, MOCVD, Thickness measurements: Electrical methods, (resistivity and capacitance measurements), Optical methods (optical absorption and interference) and vibrating quartz crystal method.

12 Hours

### Unit IV

**Semiconductor Devices:** p-n junction in equilibrium Metal-oxide-semiconductor junction equilibrium : Space charge region, barrier potential, barrier thickness, contact field, junction capacitance and its determination, potential diagram of p-n junction. p-n junction in non – equilibrium: generation and recombination current. Continuity equations, current voltage relation, saturation current, tunnel diode, Gunn diode, semiconductor lasers, LED and photocell.

12 Hours

### Recommended Readings

#### Text Books

1. Solid State and Semiconductor Physics : J. P. McKelvey, Harper and Row, New York (1966)
2. Solid State Physics: N. W. Ashcroft and A. S. Mermin, Saunders College Publishing, New York (1976).
3. The Physics of Low Dimensional Semiconductors: J. H. Davies. Cambridge University

press, (1998).

4. Elementary Solid State Physics: M.A. Omar, Addison – Wesley Pvt.Ltd., New Delhi (1993).
5. Thin Film Phenomena: K. L. Chopra. Mc Graw – Hill Book Company, New York (1969).

### Reference Books

1. Elements of Solid State Physics (2nd Ed): J.P. Srivastava, PHI Learning Pvt. Ltd., New Delhi (2009)
2. Physics of Thin Films: L. Eckertova, Cambridge University Press, Cambridge (1998).

### Course code and Name of the Course

#### **PG85T403 (Course PHST 4.3): Atomic and Molecular Physics - III (Molecular Spectroscopy of Polyatomic molecules)**

Teaching hours per week: 4  
No. of credits: 4

### Course Outcomes (COs):

At the end of this course, students will learn:

- Interpretation of vibrational IR and Raman spectra of polyatomic molecules.
- Methods of determining vibrational properties of polyatomic molecules based on IR and Raman spectra.
- How to apply combined analysis of vibrational & electronic spectra for characterizing vibrational properties that may be correlated to identification of molecules, structure and other phenomena.

### Revised curriculum with changes/ additions/ modifications highlighted\*

#### **Unit I**

**Molecular Symmetry:** Point Groups, symmetrically equivalent atoms.

**Rotational Spectra:** Classification of molecules as rotors: Linear, Symmetric top, Spherical top, Asymmetric top molecules. Energy levels: thermal distribution, symmetry properties and statistical weights of rotational levels, Spectrum; IR and Raman spectra.

12 Hours

#### **Unit II**

**Molecular Vibrations:** Separation of rotational and vibrational motions; the secular equation for small vibrations (classical treatment). Normal modes of vibration. Normal coordinates. Simple illustrations. Internal coordinates, symmetry co-ordinates, determination of number of normal co

ordinates (symmetry species). Potential energy functions and force fields.

12 Hours

### Unit III

**Vibrational Energy levels and Selection Rules:** The Schrodinger's vibrational wave equation. Energy levels, Vibrational Spectra and Degeneracy. Symmetry properties of wave functions, overtones, combinations, components of electric dipole moment, and the polarizability. Selection Rules for Infrared and Raman Spectra. The rule of mutual exclusion. Group frequencies; the Product rule; Fermi resonance.

12 Hours

### Unit IV

**Electronic Structure & Spectra:** Classification of Electronic States based on angular momentum, spin, multiplet components. Types of electronic transitions; Allowed transitions, general selection rules, spin selection rules. Forbidden transitions: Magnetic and electric quadrupole transitions.

12 Hours

### Recommended Readings

#### Text Books

1. Molecular Vibrations: E. Bright Wilson, J. C. Decius, P. C. Cross, Dover Pub., Inc., N.Y. (1955)
2. Introduction to the theory of Molecular Vibrations and Vibrational Spectroscopy: L A Woodward, Clarendon Press, Lon, (1976)
3. Vibrational Spectroscopy – Theory and Applications : D. N. Sathyanarayana, New Age International Pub., New Delhi (1996)
4. Fundamentals of Molecular Spectroscopy: C. N. Banwell, Tata Mc Graw-Hill, New Delhi (1983)
5. Molecular Spectra and Molecular Structure(Vol.III)-Electronic Spectra & Electronic Structure of Polyatomic Molecules : G. Herzberg, D. van Nostrand & Co. N. J. (1966)

#### Reference Books

1. Molecular Spectra and Molecular Structure(Vol.II)-Infrared & Raman Spectra of Polyatomic Molecules : G. Herzberg, D. Van Nostrand & Co. N. J. (1945)
2. Atoms & Molecules : Mitchel Weissbluth, Academic Press, N. Y. (1978)
3. Raman Spectroscopy: D. A. Long, McGraw-Hill, NY (1977).
4. Introduction to Infrared and Raman Spectroscopy: N.B. Colthup, L. H. Daly and S.E. Wiberley, Academic Press, N. Y. (1975)
5. Vibrating Molecules : P. Gans, Chapman & Hall, London (1971)
6. Vibration Spectra and Structure Vol. 4 : (Ed) J. R. Durig, Elsevier Sci. Pub. Co. N. Y. (1975).
7. Microwave Spectroscopy: C.H.Townes and Arthur Schawlow, McGraw Hill, 1955.

### Course code and Name of the Course

**PG85T403 (Course PHST - 4.3): Nuclear & Particle Physics – III**  
**(Nuclear Structure and Nuclear Reactions)**

Teaching hours per week: 4

No of Credits: 4

**Course Outcomes (COs):**

After completion of this course, a student should be able to

- Learn the evidences for nuclear shell structure and understand the energy levels according to the infinite square well potential and harmonic oscillator potential.
- Get knowledge about the collective nuclear model, vibrational energy levels of even nuclei and rotational energy levels of deformed even-even nucleus.
- Know the concept of cross section and apply it to resonance theory of scattering and absorption and learn the Briet –Wigner formula for scattering and reaction.
- Understand the principle of detailed balance–optical model–mean free path – optical potential and its parameters for elastic scattering.
- Understand the plane wave Born approximation (PWBA) and its predictions of angular distributions, distorted wave Born approximation (DWBA) and spectroscopic factors.
- Learn the importance of heavy ion reactions, formation compound nucleus, fusion of heavy ions and formation of super heavy nuclei in heavy ion reactions.
- Understand the Feynman diagrams, leptonic, semi leptonic and non-leptonic processes, verification of electromagnetic and weak interactions.
- learn about the intermediate vector bosons: W and Z bosons, their masses and range of weak interactions, charged weak interactions of quarks: Cabibbo factor, CPT theorem

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Nuclear Models**

**Shell model:** evidences for nuclear shell structure-energy levels according to the infinite square well potential and harmonic oscillator potential, effect of spin orbit interaction, prediction of

ground state spin – parity of odd A nuclei and odd-odd nuclei – Nordheim's rules,

**Collective Model:** Evidences for collective motion, vibrational energy levels of even nuclei. Rotational energy levels of deformed even-even nucleus, moment of inertia-rigid body value, back bending, spectrum of odd A nuclei,

**Nilsson model:** Calculation of energy levels and prediction of ground state.

12 Hours

## Unit II

**Nuclear Reaction I:** Comparison of features of compound nucleus model and direct reaction model. Partial wave analysis of nuclear reactions, expressions for scattering and reaction cross sections and their interpretation – shadow scattering – resonance theory of scattering and absorption – overlapping and isolated resonance – Briet –Wigner formula for scattering and reaction shape of cross section curve near a resonance. Inverse nuclear reactions – principle of detailed balance–optical model–mean free path – optical potential and its parameters for elastic scattering.

12 Hours

## Unit III

**Nuclear Reaction II:** Transfer reactions – semi-classical description – plane wave Born approximation (PWBA) – its predictions of angular distributions – distorted wave Born approximation (DWBA)- spectroscopic factors – transfer reactions and the shell model.

**Heavy ion reactions:** Importance of heavy ion reactions, Elastic scattering; critical angle, deflection function, Rainbow scattering and diffraction.. Nuclear and Coulomb scattering and its experimental results, compound nucleus formation, formation of nuclear molecule, fusion of heavy ions and formation of super heavy nuclei in heavy ion reactions.

12 Hours

## Unit IV (Newly Added)

**Particle Physics:** Weak interactions Weak decays, neutral Kaons, the  $K_S$   $K_L$  systems, regeneration of short lived component of neutral kaons, lifetimes and cross sections, Feynman diagrams, leptonic, semi leptonic and non leptonic processes, verification of electromagnetic and weak interactions intermediate vector bosons, quark flavour changing interactions with examples, muon decay – Fermi's four particle coupling and modern perspective with a mediating vectorboson, W and Z bosons; their masses and range of weak interactions. Charged weak interactions of quarks: Cabibbo factor, GIM mechanism (Glashow Iliopoulos Miani mechanism) Neutral kaons: CP as a symmetry, CP violation in neutral kaon decay (Fitch Cronin experiment), CPT theorem (qualitative), evolution of a neutral kaon beam with time, regeneration experiments.

12 Hours

## Recommended Readings

**Text Books**

1. Nuclear Physics : Theory and Experiment : R.R.Roy and B. P. Nigam, Wiley Eastern Publications (1986)
2. Atomic and Nuclear Physics volume II : S. N. Goshal, S. Chand and company (1998)
3. Introductory Nuclear Physics : K. S. Krane, Wiley and sons (1988)
4. Nuclear Reaction with heavy Ions : Reiner Bass, Springer – Verlag (1980)
5. Heavy Ion Reaction : R. A. Broglia and Aage Winter, Addison Wesley (1991)
6. Nuclear reaction : R. Sing and S. N. Mukherjee, New Age International (1996)
7. Nuclear Physics Experimental & Theoretical: H.S. Hans, New Age International, (2001)

**Reference Books**

1. Subatomic Physics : Nuclei and Particles (Volume II) : Luc Valentin North Holland (1981)
2. Subatomic Physics (Second Edition) : Hans Frauenfelder and E. M. Henley, Prentice Hall (1991)
3. Introduction to Nuclear Physics : Herald. A. Enge Addison-Wesley (1983)
4. Introduction to Nuclear Physics : Samuel S. M. Wong Prentice – Hall (1996)
5. Atomic Nucleus : R. D. Evans, Tata McGraw-Hill (1982)
6. Theoretical Nuclear Physics Volume I : Nuclear structure : Amos de Shalit and Herman Feshbach, John Wiley (1974)
7. Nuclear and Particle Physics: W. Burcham and M. Jobes, Addison – Wesley (1998).
8. Introduction to Elementary Particles, D. Griffiths: John Wiley, 1987.
9. Quarks and Leptons, F. Halzen&A.D. Martin, John Wiley & Sons, New York, 1984.
10. Unitary Symmetry and Elementary Particles, D. B. Lichtenberg:2nd edition, Academic Press, 1978.
11. Elementary Particles, J. M. Longo:II edition, Mc Graw-Hill, New York, 1973.
12. Particles and Nuclei: Povh, Rith, Scholz, Zetsche, Springer (1999)
13. Subatomic Physics: Hans Frauenfelder and Ernest M. Henley, Prentice Hall (1991)
14. Introduction to High Energy Physics: Donald H. Perkins, Addison Wesley Publishing, (1987)

**Course code and Name of the Course**

**PG85T404 (Course PHST 4.4): Electronics & Communication – IV**

Teaching hours per week: 4

No. of credits: 4

**Course Outcomes (COs):****( Amplitude, Frequency, Analog & Digital Modulation)**

- Upon completion of this course, the students will be able to-
- Get a complete knowledge of use of modulation in electronic communication, amplitude modulation, the instrumentation and techniques of amplitude modulation, transmitters and receivers used in amplitude modulation and their functioning.

- Understand theory of frequency modulation, FM instrumentation, its advantages over AM, experimental techniques of FM, etc.
- Learn the basics of pulse modulation, types of pulse modulation, pulse amplitude modulation, pulse position modulation, pulse width modulation and other methods that form basis of Digital Communication.
- Deal with communication techniques which lie in the base band region with explanation of inter symbol interference, pulse data transmission, scrambling and descrambling, pulse shaping, etc.
- Will be able to implement the above practically with the help of Numerical problems solving.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Amplitude Modulation:** Amplitude Modulation, Theory, Frequency spectrum of the AM wave, Representation of AM, Power relations in the AM wave, Generation of AM, Basic requirements, Modulated transistor amplifiers, Single Sideband Techniques, Evolution and Description of SSB, Suppression of Carrier, Effect of nonlinear resistance on added signals, balanced modulator, Suppression of unwanted Sideband, filter system, phase shift method, The "third" method, System evaluation and comparison, Vestigial sideband transmission, AM transmitter and receiver, TRF and super heterodyne receivers, SNR in DSBSC and SSBSC systems.

12 Hours

**Unit II**

**Frequency Modulation:** Theory of Frequency and Phase Modulation, Description of Systems, Mathematical Representation of FM, Frequency Spectrum of FM Wave, Phase Modulation, Intersystem Comparisons, Noise and Frequency Modulation, Effects of Noise on Carrier Noise Triangle, Pre emphasis and De emphasis, Comparison of Wideband and Narrowband FM, Stereophonic FM Multiplex System, Generation of Frequency Modulation, Direct Methods, Stabilized Reactance Modulator AFC, Indirect Method, Basic FM demodulators

12 Hours

**Unit III**

**Analog Pulse Modulation:** Sampling theorem for band pass signals, Pulse Amplitude modulation: generation and demodulation, PAM/TDM system, PPM generation and demodulation, PWM, Spectra of Pulse modulated signals, SNR calculations for pulse modulation systems. Waveform coding: quantization, PCM, DPCM, Delta modulation, Adaptive delta modulation Design of typical systems and performance analysis.

12 Hours

#### **Unit IV**

Pulse Shaping, Nyquist criterion for zero ISI, Signaling with duobinary pulses, Eye diagram, Equalizer, Scrambling and descrambling. Signal space concepts: geometric structure of the signal space, L2 space, distance, norm and inner product, orthogonality Base band pulse data transmission: Matched filter receiver, Inter symbol interference, Gram Schmidt Orthogonalization Procedure.

Digital modulation schemes: Coherent Binary Schemes: ASK, FSK, PSK, MSK. Coherent M-ary Schemes, Calculation of average probability of error for different modulation schemes.

12 Hours

#### **Recommended Readings**

##### **Text books**

1. Electronic communications, 4th edition: Dennis Roddy and John Coolen, Prentice – Hall of India Pvt. Ltd. New Delhi (1997)
2. Modern Communication Systems – principles and applications: Leon W. Couch II, Prentice Hall of India Pvt. Ltd. New Delhi (1998).
3. Electronic Communication systems – 4th edition: George Kennedy and Bernard Davis, Tata McGraw – Hill Publishing Company Ltd., New Delhi (1999).
4. Communication Systems, 3rd ed., Simon Haykin, John Wiley & Sons.
5. Modern Digital and Analog Communication, 3rd Ed., B.P. Lathi, Oxford University Press.

##### **Reference books**

1. Communication Systems: Simon Haykin, Wiley Eastern Ltd., New Delhi (1978).
2. Radio Engineering: G. K. Mittal, Khanna Publishers, Delhi (1998).

#### **Course code and Name of the Course**

**PG85T404 (Course PHST 4.4): Condensed Matter Physics – IV**

Teaching hours per week: 4

No of Credits: 4

#### **Course Outcomes (COs):**

##### **(Superconductivity & Nanoscience)**

The specific outcomes of this course are as under:

- The experimental discovery and various experimental properties of superconductors can be understood.

- The concept and predictions of fundamental BCS theory of superconductivity can be studied.
- The concepts, classification, and important properties of new materials like amorphous semiconductors, polymers and liquid crystals can be explored.
- Nanoscience is emerging branch of Physics, its concepts, importance, characterizations are studied and selected applications will be explored.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Superconductivity:** Occurrence of superconductivity, destruction of superconductivity by magnetic field, heat capacity and energy gap, microwave and infrared properties, type I and type II superconductors, high  $T_c$  superconductors (qualitative ideas only). Thermodynamics of superconductivity, London equations, coherence length, flux quantization in superconducting ring, duration of persistent current.

12 Hours

#### **Unit II**

**BCS Theory:** Attraction between Cooper – pairs, accomplishments of BCS theory.

**Tunneling:** Basic concepts of tunneling, metal-insulator tunneling, metal insulatorsuperconductor tunneling, supercondutror-insulator-superconductor tunneling, Cooper-pair tunneling, A. C. and D. C. Josephson effect, macroscopic quantum interference.

12 Hours

#### **Unit III**

**Amorphous Semiconductors:** Preparation of amorphous semiconductors, classification, band structure, electronic conduction, optical absorption, electrical switching (Ovonic diode).

**Polymers:** Basic concepts, classification of polymers, effect of temperature, mechanical properties of general polymers. Conducting polymers, classes, synthesis, charge transport mechanism.

**Liquid crystals:** Classification, orientational order and inter-molecular forces, magnetic effects, optical properties and general applications.

12 Hours

#### **Unit IV**

**Nanostructured materials:** Introduction, electronic and optical properties: quantum confinement effect. Synthesis of nanoparticles: gas phase and colloidal synthesis. Carbon based nanomaterials:

qualitative ideas of carbon nanotubes and graphene. Magnetic nanostructures. Applications of nanomaterials.

**Characterization techniques:** X-ray diffraction, optical spectroscopy, scanning electron and transmission electron microscopies. The basic concepts of scanning tunneling and atomic force microscopies.

12 Hours

### **Recommended Readings**

#### **Text Books**

1. Introduction to Solid State Physics: C. Kittel, Editions: 2,5,6,7, Wiley Eastern Ltd., Bangalore.
2. Elementary Solid State Physics: M.A. Omar Addison-Wesley Pvt. Ltd., New Delhi, (2000).
3. Amorphous Semiconductors: D. Adler, CRC, London, (1972).
4. Introduction to Nanotechnology: C.P. Poole Jr. and F.J. Owens, John Wiley and Sons, Singapore (2006).
5. Nano: The Essentials: T. Pradeep, Tata McGraw-Hill Publishing New Delhi (2007).

#### **Reference Books**

1. Solid State Physics : A. J. Dekker, Macmillan India Ltd., Bangalore (1981)
2. Solid State Physics: F. W. Aschroft and N. D. Mermin, Saunders College Publishing, New York, (1976).
3. Electronic processes in Non-Crystalline Materials : N. F. Mott and E. A. Davis, Clarendon press, Oxford, (1979).
4. Nanoscale Materials – (Ed) L.M. Liz-Marzan and P.V.Kamat, (Kluwer, 2003)
5. Nanostructured Materials and Nanotechnology, (Ed) H.S.Nalwa, (Academic,2002)
6. Elements of Solid State Physics (2nd Ed): J.P. Srivastava, PHI Learning Pvt. Ltd., New Delhi (2009)
7. Solid State Physics, J.D. Patterson and B.C. Bailey, Springer Verlag, Berlin (2007)

### **Course code and Name of the Course**

**PG85T404 (Course 4.4): Atomic & Molecular Physics IV  
(Lasers, Nonlinear Optical Effects and Laser Spectroscopy)**

Teaching hours per Week: 4  
No. of Credits: 4

### **Course Outcomes (COs):**

At the end of the course, students will learn:

- Principles, working and scientific and practical applications of different laser types.
- How design parameters will produce lasers.
- How intense lasers can be used to produce nonlinear optical effects & their

exploitation in the working of lasers.

- How high-resolution spectroscopy is achievable based on principles of nonlinear effects, lasers and physical optics.
- How nonlinear Raman effects can be produced by intense laser as radiation sources combined with physical optics. In addition, wide ranging applications in spectroscopy and other fields.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Laser Amplifiers:** Requirements for population inversions for Two , Three and Four level systems:necessary and sufficient conditions for laser action, threshold requirements for laser action with and without cavity, rate equations. Pumping requirements and techniques.

**Laser Resonators:** Longitudinal and transverse modes: Fabry Perot resonator, its cavity modes. Properties of modes: spatial dependence, frequency dependence and mode competition. Spherical, Plane parallel, confocal resonator and unstable resonators. Stability stability criteria, properties of Gaussian beams. Q switching and mode locking:general techniques and examples.

12 Hours

#### **Unit II**

**Lasers with low density gain media:** General description, laser structure, excitation mechanism and applications of Copper vapor laser, Helium-Cadmium laser, Argon and Krypton ion lasers. Nitrogen laser, Carbon-dioxide laser, Excimer laser, X-ray laser, and Free Electron laser.

12 Hours

#### **Unit III**

**Lasers with high density gain media:** General description, laser structure, excitation mechanism and applications of Dye lasers, Neodymium YAG and Glass lasers, Alexandrite laser, Titanium sapphire laser, Fiber lasers and semiconductor diode lasers(homo and hetero junction and quantum well lasers)

12 Hours

## Unit IV

**Nonlinear Optical Effects:** Wave propagation in an anisotropic crystal, Second harmonic generation, Phase matching, Parametric oscillation, Self focusing light.

**High Resolution Spectroscopy:** Idea of hole burning, the Lamb dip, Inverse Lamb dip, stabilization of frequency. Doppler free and Doppler limited Spectroscopy. Two photon spectroscopy.

**Laser Raman Spectroscopy:** Hyper Raman spectroscopy, Stimulated Raman effect, Inverse Raman effect, CARS (Coherent Anti Stokes Raman Spectroscopy).

12 Hours

## Recommended Readings

### Text Books

1. Laser and Non Linear Optics: B.B.Laud, Wiley Eastern Ltd., New Delhi(1991)
2. Laser Electronics: Joseph T. Verdeyen, Prentice Hall of India Pvt Ltd. New Delhi.
3. Introduction to Fiber Optics: A. Ghatak & K. Thagarajan, Cambridge Univ. Press (1999)
4. Lasers: Theory of Applications: A. Ghatak & K. Thagarajan, MacMillan India (1981)
5. Modern Spectroscopy (4th ed), J.Michael Hollas, John Wiley, 2004.
6. Optical Fiber & Communication Principles & Practice: John M. Senior, Prentice Hall Intl. Ltd. London (1992)
7. Laser Fundamentals: W. Silfvast, Cambridge Univ. Press.

### Reference Books

1. Principles of Lasers: O. Svelto, Plenum Press, N.Y(1982)
2. Introduction to Gas Lasers Population Inversion Mechanisms: C.S.Willet, Permon Press, Oxford (1974)
3. High Resolution Spectroscopy: K. Shimoda, Springer Verlag, Berlin (1976)
4. Raman Spectroscopy: D.A. Long, McGraw Hill Intl. Book Co (1977)
5. Laser Principles & Applications: J. Wilson & J.F.B. Hawkes, Prentice Hall Intl. Inc.(1983)
6. Encyclopedia of Lasers & Optical Technology: Robert A. Meyers, Academic Press, Cal.(1991)
7. Laser Spectroscopy: H. Walther, Springer Verlag, Berlin (1976)

## Course code and Name of the Course

**PG85T404 (Course PHST 4.4): Nuclear & Particle Physics – IV**

## (Nuclear Energy and Nuclear Decay)

Teaching hours per week : 4

No of Credits: 4

### **Course Outcomes (COs):**

Upon completion of this course, a student should be able to

- Learn the theory of nuclear fission, evidence for the existence of second well in fission isomers, nuclear fission with heavy ions and nuclear fission-fission time scale.
- Understand the basic nuclear fusion processes, controlled thermonuclear reactions and magnetic confinement systems for controlled thermonuclear fusion.
- Learn the slowing down of neutrons by elastic collisions, logarithmic decrement in energy, thermalization, slowing down power and moderating ratio.
- Understand the theory of diffusion of neutrons, spatial distributions of neutron flux in different mediums, reflections of neutrons – Albedo.
- Learn about Fermi age equation, correction for absorption, resonance escape probability, pile equations, buckling: critical size for spherical and rectangular piles.
- Know the classification of beta transition on the basis of  $ft$  values and learn the selection rules, detection of neutrino and its properties.
- Learn the symmetry breaking in beta decay, the relevance of pseudoscalar quantities, Wu-Ambler experiment, fall of parity conservation and discovery of W and Z bosons
- Understand the gamma decay transition probability for single particle transition in nuclei-Weisskopf's estimates: comparison with experimental values.
- Learn the lifetime measurements and understand the angular correlation for dipole-dipole transitions, gamma-gamma correlation and polarization of gamma radiation.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Nuclear Fission:** Bohr-Wheeler theory of nuclear fission, saddle point, scission point, barrier penetration, shell correction to the liquid drop model, Strutinsky's smoothing procedure, evidence for the existence of second well in fission isomers. Nuclear fission with heavy ions. Nuclear fission-fission time scale.

**Nuclear Fusion:** Basic fusion processes, characteristics of fusion, fusion in stars. Controlled

thermonuclear reactions. magnetic pressure, pinch effect, magnetic confinement systems for controlled thermonuclear fusion.

12 Hours

## Unit II

**Slowing down of Neutrons:** Slowing down of neutrons by elastic collisions, – logarithmic decrement in energy, number of collisions for thermalization, slowing down power, moderating ratio.

**Neutron diffusion:** Elementary theory of diffusion of neutrons, spatial distributions of neutron flux (I) in an infinite slab with a plane source at one end (II) in an infinite medium with point source at the center – reflections of neutrons – albedo.

**Reactor Theory:** Slowing down density – Fermi age equation correction for absorption – resonance escape probability – the pile equations – buckling-critical size for spherical and rectangular piles – condition for chain reaction – the four factor formula – Classification of reactors – thermal neutron and fast breeder reactors.

12 Hours

## Unit III

**Beta decay:** Classification of beta transition on the basis of ft values, selection rules and shapes of beta spectra. Universal fermi interaction.. The neutrino in beta decay-inverse beta decay processes-detection of neutrino; Cowan and Reins experiment, determination of neutrino mass, different types of neutrinos, Symmetry breaking in beta decay- parity operation: relevance of pseudoscalar quantities. The Wu-Ambler experiment and fall of parity conservation. Discovery of W and Z bosons. Double beta decay, beta delayed nucleon emission .Elementary theory of K-electron capture.

12 Hours

## Unit IV

**Gamma decay:** Qualitative discussion of multiple radiation, selection rules, determination of gamma decay transition probability for single particle transition in nuclei-Weisskopf's estimates, comparison with experimental values. Elementary theory of internal conversion and discussion of experimental results. Lifetime measurements, the angular correlation for dipole-dipole transitions, gamma-gamma correlation studies. Polarization of gamma radiation.

12 Hours

## Recommended Readings

### Text Books

1. Structure of the Nucleus: M. A. Preston and R.K. Bhaduri Addison – Wesley (1975).
2. Nuclear Physics Vol. II: S. N. Goshal. S. Chand and Company (2013).

3. Introductory Nuclear Physics : Kenneth S. Krane, John Wiley and sons (1998)
4. Subatomic Physics: Nuclei and Particles (Volume – II): Luc Valentin North Holland (1981).
5. Introduction to Neutron Physics: L. F. Curtis, East west press (1958).
6. Nuclear Reactor Engineering: Glasstone S and Sesonske A, CBS, Delhi, (1994)

### **Reference Books**

1. Theoretical Nuclear Physics: J. M. Blatt and V. F. Weisskoff, Wiley (1992).
2. Subatomic Physics (Second Edition) : Hans Frauenfelder and E.M.Henley, Prentice Hall (1991)
3. Introduction to Nuclear Physics: Herald. A. Enge, Addison-Wesley (1983).
4. Introductory Nuclear Physics: Samuel S. M. Wong, Prentice – Hall (1996).
5. Reactor Physics: Zweifel P F, International student Edn. (McGraw Hill, 1973)

### **Course code and Name of the Course**

**PG85P405 (Course PHSP – 4.5): Electronics & Communication Practical – III**

Contact hours per week : 4

No of Credits : 4

### **Course Outcomes (COs):**

Upon completion of this course, the students will be able to-

- Implement 8085 microprocessor interfacing – stepper motor interface
- Carry out ADC and DAC circuit interfacing
- Implement 8085 Programming – mathematical operations, block transfer and sorting of 8-bit and 16-bit data
- Understand the use of code conversion methods
- Study 8085 interrupts and subroutines

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **(8085 Interfacing)**

1. Stepper motor interface
2. ADC and DAC circuit interfacing

#### **(8085 programming)**

1. Mathematical operations, block transfer and sorting of 8-bit data
2. Mathematical operations with 16-bit data
3. Code conversion methods
4. 8085 Interrupts and subroutines

**(New experiments /Assignments may be added)**

**Recommended Readings**

**References books**

1. Microprocessor Architecture, Programming, and Applications with 8085/8080 A: Ramesh S. Gaonkar, New Age International Publishers Ltd.
2. Microcomputer theory and Applications: Rafiquzzaman Mohamed, John Wiley and Sons, New York (1987)
3. Introduction to Microprocessors (3rd Edition): Aditya P. Mathur, Tata – Mc Graw – Hall Publishing Company Ltd., New Delhi (1989)
4. Modern Digital and Analog Communication, 3rd Ed., B.P. Lathi, Oxford University Press.

**Course code and Name of the Course**

**PG85P405 (Course PHSP 4.5): Condensed Matter Physics Practical – III**

Contact hours per week : 4

No of Credits : 4

**Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Indexing of tetragonal and hexagonal patterns can experimentally realize.
- Precise lattice parameters on the experimentally recorded X-ray patterns can be studied.
- Characterization of solar cell, magnetic materials and skin depth in metals can be carried out.
- Many other experiments to measure the basic properties of dielectrics and ferroelectrics can be carried out under this course.

**Revised curriculum with changes/ additions/ modifications highlighted\***

1. Indexing of hexagonal systems.
2. Precise parameter determination:
  - a. Extrapolation method.
  - b. Cohen's method
3. Structure determination of CdTe.
4. Universal curves for ferromagnets
5. Determination of skin depth
6. Phase transition in ferroelectric crystals
7. Temperature dependence of susceptibility of a paramagnetic substance
8. Characteristics of a solar cell

9. Defect formation energy in metals
10. Diamagnetic susceptibility of water molecule.
11. Fermi energy of copper
12. Dielectric constant of non polar liquids (benzene)
13. Dipole moment of organic molecule (acetone)
14. BH curve using integrator

**(New experiments/assignments may be added)**

### **Recommended Readings**

### **Reference Books**

1. X ray diffraction: B.D. Cullity, Addison Wesley, New York (1972).
2. X ray diffraction procedures: H.P. Klug and L.E. Alexander, John Wiley and sons, New York.
3. Interpretation of X ray powder diffraction pattern: H.P. Lipson and H. Steeple, Macmillan, London (1968).
4. Introduction to Solid State Physics : 5th Edn C. Kittel, Wiley Eastern Ltd., Bangalore (1976)
5. Elementary Solid State Physics : M. A. Omar, Addison Wesley Pvt. Ltd., New Delhi (2000)
6. Introduction to magnetochemistry: A. Earnshaw, Academic press, London (1968).
7. Solid State Physics : A. J. Dekker, Macmillan India Ltd., Bangalore (1981)
8. Solid State Physics : N. W. Aschroft and A. D. Mermin, Saunders College Publishing New York (1976)

### **Course code and Name of the Course**

**PG85P405 (Course -PHSP 4.5): Atomic & Molecular Physics Practical – III**

Contact hours per week : 4  
No of Credits : 4

### **Course Outcomes (COs):**

The specific outcomes of this course student will learn:

- How to set up experiments using hands-on experience & different techniques.
- How to analyze data & interpret them.
- How to connect class room learning with lab experience to reduce the gap in understanding.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Rotational analysis of (0, 0) band of BeO:
2. Study of Spatial and Temporal Coherence of He-Ne Laser:
3. Determination of refractive index of the material using He-Ne Laser

4. Study of Absorption spectra on a Single Beam Spectrophotometer
5. Fiber Optic Sensors
6. Vibrational analysis of emission bands of N<sub>2</sub>.
7. Rotational spectral analysis of N<sub>2</sub>
8. Measurements of Emission spectra on USB Spectrometer
9. Vibrational Analysis of Emission band spectrum of C<sub>2</sub>

**(New Experiments / Assignments may be added)**

### **Recommended Readings**

#### **Reference Books**

1. Experimental Spectroscopy (3rd Edition) : R. A. Sawyer. Dover Publication, Inc, New York (1963).
2. Atomic Spectra and Atomic Structure (2nd Edition) – G. Herzberg. Dover Publication New York (1944)
3. Atomic Spectra – H.E. White, Mc Graw –Hill, New York (1934).
4. A Course of Experiments with He-Ne Lasers (2nd Edition): R. S. Sirohi. Wiley Eastern, New Delhi (1991).
5. Principles of Lasers: Svelto. O, Plenum Press New York (1982).
6. Lab. Manuals.
7. Molecular Spectra & Molecular Structure Vol. I : G. Herzberg, D. Van Nostrand Co, New York (1950)
8. Instrumental Methods of Analysis : H. H. Willard, L. L. Merrit, J. A. Dean and F. A. Settle, J. K. Jain for CBS Publishers (1986)
9. The Identification of Molecular Spectra: R.W. B. Pears & A. G. Gaydon, Wiley, New York (1961).
10. Fiber Optic Laboratory Experiments : Joel N.G

### **Course code and Name of the Course**

**PG85P405 (Course PHSP 4.5): Nuclear & Particle Physics Practical –III**

Contact hours per week : 4

No of Credits : 4

### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Understand the  $Z^2$  dependence of external bremsstrahlung radiations using NaI(Tl)gamma ray spectrometer using <sup>90</sup>Sr – <sup>90</sup>Y beta source.
- Design and construct the double coincidence circuit using transistors, study its output wave form and determine its resolving time.
- Understand the energy spectrum of beta particles using <sup>204</sup>Tl source and determine the end point energy of beta particles from <sup>204</sup>Tl using Si(Li) detector spectrometer.

- Determine the K shell internal conversion coefficient  $\alpha_K$  of  $^{137}\text{Ba}$  using NaI(Tl) gamma ray spectrometer.
- Determine the half-life of  $^{40}\text{K}$  using GM counting system and to analyze the results.
- Determine the range of 1.150 MeV beta particles from  $^{210}\text{Pb}$  by Feather's method using G.M. counting system with unknown source  $^{204}\text{Tl}$ .
- Determine the effective atomic number of brass by measuring gamma ray attenuation coefficient using NaI(Tl) gamma ray spectrometer.

#### **Revised curriculum with changes/ additions/ modifications highlighted\***

1. Z dependence of external bremsstrahlung
2. Anthracene crystal beta ray spectrometer
3. Electron capture transition energy using internal bremsstrahlung
4. Coincidence circuit
5. Si(Li) beta ray spectrometer
6. Digital to analog converter circuits
7. Half life of  $^{40}\text{K}$
8. Gamma gamma angular correlation
9. Nuclear reaction analysis
10. Schmidt trigger circuit using transistors and IC 555
11. Charge sensitive pre amplifier using LF 357
12. Function generator using IC 741

**(New experiments/assignments may be added)**

#### **Recommended Readings**

#### **References**

1. Experiments in Modern Physics: A.C. Melissions, Academic Press (NY) (1966).
2. Experiments in Nuclear Science, ORTEC Application Note. ORTEC, (1971)
3. (Available in Nuclear Physics Laboratory).
4. Practical Nucleonics: F. J. Pearson., and R. R. Osborne, E & F. N. Spon Ltd., London (1960).
5. The Atomic Nucleus: R. D. Evans, tata Mc Graw Hill Pub. Comp. Ltd. (1960).
6. Nuclear Radiation Detectors: R. D. Kapoor and V. S. Ramamurthy, Wiely Eastern Limited (1986).
7. Experimental Nucleonics : E. Bleuler and G. J. Goldsmith, Rinehart & Co. Inc. (NY)
8. (1958)
9. A manual of experiments in reactor physics: Frank A. Valente the Macmillan company
10. (1963).
11. A practical introduction to electronic circuits: Martin Harthley Jones Cambridge University

Press (1977).

12. Integrated Circuit Projects: R. M. Marston Newnes Technical Books (1978).

13. Semiconductor Projects: R. M. Marston A Newnes Technical Books (1978).

14. Linear Integrated Circuits: D. Roy Choudhary and Shail Jain, New Age International (1995).

15. Op-Amps and Linear Integrated Circuits: Ramakanth A Gayakawad, Prentice-Hall of India (1995).

16. Op-Amps and Linear Integrated Circuits: Ramakanth A Gayakawad, Prentice Hall of India (1995).

#### **Course code and Name of the Course**

##### **PG85PJ406 (Course SPJ4.6): Project in Electronics & Communication**

Contact hours per week: 6

No of Credits: 6

#### **Course Outcomes (COs):**

Upon completion of this course, the students will be able to-

- Implement a Project in analog/digital electronics under guidance of a supervisor

#### **Course code and Name of the Course**

##### **PG85PJ406 (Course PH SPJ 4.6): Project in Solid State Physics**

Contact hours per week: 6

No of Credits: 6

#### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Project helps students to search the research problem.
- It also helps to carry out the systematic research work on individual topics with the help of research mentor.
- Students also learn how to present, prepare and if possible to publish their findings in the projects work.

#### **Course code and Name of the Course**

##### **PG85PJ406 (Course PHSPJ 4.6): Project in Atomic & Molecular Physics**

Contact hours per week: 6

No of Credits: 6

#### **Course Outcomes (COs):**

The specific outcomes of this course student will learn:

- How a detailed study of one aspect of the subject should be studied.

- How the methodology (i.e. selecting a problem, understanding theoretical & empirical principles, set up experiments, conduct measurements, etc) should be adopted to execute the work.
- How to work in a team while remain active to learn independently.
- How scientific method works to successfully carry out project work.
- How to use advanced analytical techniques for a chosen project topic.

#### **Course code and Name of the Course**

**PG85PJ406 (Course PHSPJ 4.6): Project in Nuclear and Particle Physics**

Contact hours per week: 6

No of Credits: 6

#### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- Demonstrate knowledge and understanding of the scientific principles, gain experience in researchable to design the nuclear physics research project.
- Understand need of literature review to decide the research problem and understand the synthesis methods and characterization techniques for different applications.
- Understand and get familiar with operation of various instruments and software for characterizations, data collection and analysis of results using computer programs.
- Understand how to analyze, interpret the experimental data, make conclusions based on the results and able to write a research article and scientific research project.
- They will understand the research methodology and will help them in their future research career.

#### **Recommended Readings**

**Topic(s) for the project may be selected in consultation with the project supervisor.**

Reference/Text books to be recommended by the Course Teacher

#### **Course code and Name of the Course**

#### **OPEN ELECTIVE COURSES IN PHYSICS**

**PG85T204 (Course PHET 2.4): Elective I – Modern Physics**

Teaching hours per week: 04  
No. of Credits per week: 04

**Course Outcomes (COs):**

After successful completion of this course a student will be able to:

- Learn nature of black body spectrum, classical radiation laws and their limitations; Laws of photoelectric effect and Einstein photoelectric equation and Compton effect.
- Understand the atomic structure, matter waves, Quantum Physics and its applications.
- Acquire knowledge about nuclear structure and Molecular structure, quantum statistics, F-D and B-E distributions. Lasers action its characteristics.
- Acquire knowledge about nuclear fission/fusion nuclear reactor stellar energy and their applications.

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Blackbody Radiation:** Nature of Blackbody spectrum; classical radiation laws and their limitations; Planck's radiation law and quantum hypothesis. Simple examples/problems.

**The Photoelectric Effect:** Apparatus used to study the Photoelectric Effect; laws of Photoelectric Effect; Einstein Photoelectric Equation. Simple examples.

**X-Rays:** Nature and production of X rays; the Bragg law; Bragg X ray crystal spectrometer.

**The Compton Effect:** X ray Compton scattering from an electron; experimental set up for Compton scattering. Simple problems.

12 Hours

**Unit II**

**Atomic Structure:** Hydrogen spectrum; the Bohr model; experimental measurement of the Rydberg constant; Franck Hertz experiment.

**Matter Waves:** The de Broglie wavelength and its relation with the Bohr model; Davisson Germer experiment. Heisenberg Uncertainty principle: Momentum position and Energy time relations. Simple examples.

**Quantum Physics:** Idea of wave function and probability. One dimensional Schrödinger wave equation: Its application to the particle in a box and Hydrogen atom; energies and wave functions.

**Vector Model:** Space quantization: Orbital angular moment and magnetic moment; Spin angular

moment and magnetic moment; Stern Gerlach experiment. States of Hydrogen in terms of  $n$ ,  $l$ ,  $m_l$ . The normal Zeeman Effect; experimental set up for Zeeman effect. Simple problems.

12 Hours

### Unit III

**Statistical Physics:** Distinguishability and Indistinguishability; Maxwell Boltzmann distribution for gas molecules; vrms; Equipartition theorem. Quantum statistics: F D and B E distributions.

**Molecular Structure:** Bonding mechanisms: Ionic bonds; Covalent bonds; the Hydrogen bond; Van der Waals bonds. Molecular vibration and rotation spectra. Molecular orbitals: Hydrogen molecular ion and molecule; bonding in complex molecules.

**Solid State Physics:** Ionic solids; covalent solids; metallic solids; molecular crystals; amorphous solids. Classical models of electrical and heat conductivities in solids; Ohm's Law; Wiedemann Franz law; the quantum view point.

**Lasers:** Absorption, Spontaneous and Stimulated emissions; Population inversion; laser action; typical gas (He Ne/CO<sub>2</sub>) characteristics.

12 Hours

### Unit IV

Magnetism; Magnetic moment; Magnetization. Magnetic materials: Diamagnetic, paramagnetic and ferromagnetic materials. Superconductivity phenomenon.

**Nuclear Structure:** Nuclear properties: Charge, Mass, Size and Structure; Nuclear spin and magnetic moment; Nuclear Magnetic Resonance (NMR) phenomenon. Binding energy and nuclear forces. The liquid drop model. Radioactivity: Decay constant, Half life.

**Nuclear Fission / Fusion:** Fission – Basic process; a simple model; a typical nuclear reactor. Fusion: basic process; stellar energy.

**Relativity:** The Michelson Morely experiment. Postulates of Special theory of Relativity; Time dilation; Length contraction; Simultaneity of events;  $E = mc^2$ .

12 Hours

### Recommended Readings

#### Text Books

1. Modern Physics (2nd Ed) Serway, Moses and Moyer, Saunders College Pub, 1997.
2. Fundamentals of Physics extended with Modern Physics (4th Ed) Halliday, Resnick and Walker, John Wiley, 1993.

### Course code and Name of the Course

**PG85T304 (Course PHET 3.4): Elective- II:  
Course PHET 3.4a: Instrumental Methods**

Teaching hours per week: 4

No. of Credits per week: 4

**Course Outcomes (COs):**

At the end of this course, the students will be able to

- Understand the basic principles of working of Digital voltmeter, electronic multimeter, digital multimeter, power meter, electronic LCR meter and cathode ray oscilloscope.
- Learn about UV/Visible absorption spectrometry and gain knowledge of about Single/double beam spectrometer. Infrared absorption spectroscopy, sample techniques etc.
- Understand the basic principles of Fluorescence and Phosphorescence, energy level diagram, Fluorimeter construction, working its applications.
- Learn about radioactivity and its applications as well as nuclear Physics applications

**Revised curriculum with changes/ additions/ modifications highlighted\***

**Unit I**

**Electronic instruments for measurement** – Single and dual power supply units. Digital voltmeter principles of electronic multimeter, digital multimeter, Q meter, Power meter, Electronic LCR meter, Frequency & time interval counters. Electronic instruments for signal generation & analysis – Function generators, Pulse generators, Frequency synthesizer, Principles & applications of cathode ray oscilloscope.

12 Hours

**Unit II**

**UV/Visible Absorption Spectrometry:** Concept of electronic energy levels, transitions, Beer's law and its limitations. Instrumentation: Components of Colorimeter, Single beam spectrometer, Double beam spectrophotometer; principle, construction and working, sampling technique; Applications.

**Infrared Absorption Spectrometry:** Concept of molecular vibrational energy levels, transitions. Instrumentation: Components of single beam and double beam spectrometers; principle, construction, working, sampling technique; Applications

12 Hours

**Unit III**

**Fluorescence Spectrometry:** Fluorescence and Phosphorescence phenomena(with energy level diagram). quantum yield, fluorescence quenching, rate parameters, radiative and natural lifetime. Fluorimeter: Basic components, principle, construction, working, sampling technique; Applications.

**Nuclear Magnetic Resonance Spectrometry:** Principle of resonance; the chemical shift. Components of NMR spectrometer: principle, construction, working, sampling technique; Applications.

12 Hours

#### Unit IV

##### **Radioactivity and its Applications**

**Radioactivity:** Unit of radioactivity, source strength, production and decay of radioactivity, alpha decay, beta decay, gamma decay, natural and artificial radioactivity, Geiger counter, NaI(Tl) detector.

**Applications of Nuclear Physics:** Trace element analysis, mass spectrometry with accelerators. Alpha decay application, diagnostic nuclear medicine, therapeutic nuclear medicine, food preservation, plant metabolism.

12 Hours

#### **Recommended Readings**

##### **Text Books**

1. Cooper W. Electronic Instrumentation & Measurement Technique – Prentice Hall of India.
2. George C. Barney, Intelligent Instrumentation – Prentice Hall India
3. Instrumental Methods of Analysis : H. H. Willard, L. L. Merrit, J. A. Dean and F. A. Settle, J. K. Jain for CBS Publishers (1986)
4. Principles of Instrumental Analysis (5th ed) : D. A. Skoog, F. J. Holler & T. A. Nieman, Harcourt Asia Pte. Ltd. (1998)
5. Fundamentals of Molecular Spectroscopy : C. N. Banwell and E.M. McCash, Tata Mc Graw Hill Co., 4th revised edition, (9th reprint, 2000).
6. Introductory Nuclear Physics: Kenneth s Krane, John Wiley and Sons ( 2005).

#### **Course code and Name of the Course**

**PG85T304 (Course PHET 3.4): Elective- II:  
Course PHET 3.4b: Physics of Nanomaterials**

Teaching hours per week: 4  
No. of Credits per week: 4

#### **Course Outcomes (COs):**

The specific outcomes of this course are as under:

- The course offers a good understanding on the basics of nanoscience.
- The course offers a good understanding basic quantum Mechanics.
- It also helps to synthesis and characterization of nano-materials using SEM, TEM, STEM, AFM and Diffraction techniques.
- Learn about properties of nano-materials like electrical mechanical, band structures etc.

### **Revised curriculum with changes/ additions/ modifications highlighted\***

#### **Unit I**

**Basics of nanoscience:** The nanoscale, historical background, quantum confinement, size dependent properties, types of nanomaterials, fullerenes, nanowires, nanotubes, thin film.

**Basic quantum mechanics:** Wave particle duality, Heisenberg uncertainty principle Schrödinger equation solution of one dimensional time independent equation, particle in a one dimensional box; density of states for zero , one , two and three dimensional box; particle in a coulomb potential. Tunneling of a particle through potential barrier

12 Hours

#### **Unit II**

**Synthesis of nanomaterials:** Physical methods mechanical ball milling, melt mixing; evaporation ion sputtering, laser ablation, laser pyrolysis, chemical vapour deposition, molecular beam epitaxy.

**Chemical methods:** colloidal synthesis and capping of nanoparticles. Types of nanoparticles metals, semiconductors, graphene, carbon nano tubes etc.

12 Hours

#### **Unit III**

**Characterization techniques:** microscopes optical, SEM, TEM, STM, AFM; diffraction techniques XRD, EXAFS neutron diffraction; spectroscopes UV visible IR absorption, FTIR, Photoluminescence.

12 Hours

#### **Unit IV**

**Properties of nanomaterials:** Mechanical; Electrical classification metals semi conductors, insulators, band structures; mobility, resistivity, Hall effect, magneto resistance; Optical optical absorption and transmission, photoluminescence, electro luminescence, thermoluminescence; Magnetic magnetism and types of magnetic materials dia , para , ferro , antiferro ; nano magnetism.

12 Hours

## **Recommended Readings**

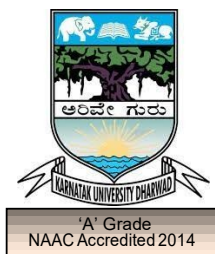
### **Text books**

1. Nanotechnology: Principles and practices, S. K Kulkarni, Capital Publ. Co., New Delhi (2007)
2. Nanocrystals : Synthesis, Properties and Applications, C.N.R.Rao, P. John Thomas and G.U. Kulkarni, Springer series in Materials Science 95, Springer Verlag, Berlin, Heidelberg (2007).

### **Reference books**

1. Quantum Mechanics – Vol 1 & 2, Cohen, Tannoudji
2. The Physics and Chemistry of Solids, Stephen Elliot & S.R. Elliot
3. Solid State Physics A.J. Dekker
4. Introduction to Nanotechnology Charles P.Poole Jr and Franks J. Owens
5. Electronic Transport in macroscopic systems, Supriyo Datta
6. Nanotubes and Nanowires CNR Rao and A Govindaraj, RCS Publishing.
7. From Atom to Transistor Supriyo Datta
8. Encyclopedia of Nanotechnology Hari singh Nalwa

# **KARNATAK UNIVERSITY, DHARWAD**



## **DEPARTMENT OF STUDIES IN POLITICAL SCIENCE**

### **REGULATIONS AND SYLLABUS**

#### **FOR**

#### **POST GRADUATE (M.A.) COURSE IN POLITICAL SCIENCE**

#### **UNDER CHOICE BASED CREDIT SYSTEM**

#### **(I TO IV SEMESTERS)**

#### **WITH EFFECT FROM 2020 - 2021 AND ONWARDS**

# **DEPARTMENT OF POLITICAL SCIENCE KARNATAK UNIVERSITY, DHARWAD**

## **Regulations Governing Post Graduate (M.A.) Course in Political Science (Scheme: Choice Based Credit System)**

### **I. Commencement:**

The Regulations shall come into force from the academic year 2020-2021.

### **II. Definitions:**

In this Regulation, unless otherwise mentioned,

- a) 'University' means Karnatak University, Dharwad.
- b) 'Board of Studies' means Board of Studies in Political Science (P.G) of the Karnatak University.
- c) 'Compulsory Paper' means the paper that is prescribed by the Department from time to time as compulsory.
- d) 'Specialization paper' means a Specialization paper prescribed by the Department from time to time.
- e) 'Open Elective' means, a paper offered by the Department of Political Science, for the students of other Departments in Karnatak University from time to time. However, the students of the Department of Political Science have freedom to choose any one of the Open Electives offered by other Departments to add to their credits required for the completion of their degree.
- f) 'Credit' means the unit by which the course work is measured. For this Regulation, one credit means one hour of teaching work per week. As regards the marks for the papers, 1 Credit is equal to 25 marks, 2 Credits are equal to 50 marks, 3 credits are equal to 75 marks, 4 credits are equal to 100 marks as used in the conventional system.
- g) 'Grade' is an index to indicate the performance of a student. These Grades are arrived at by converting marks scored in each paper by the candidate after completing his/her Internal Assessment and Semester End Examinations. These grades are awarded for each paper at the end of each semester (For details please refer Point No. XIII-Marks & Grade Points.)
- h) 'Grade Point Average' or GPA refers to an indicator of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of papers a student takes and the grades awarded to him/her for each of the paper so chosen.
- i) 'Cumulative Grade Point Average' or CGPA refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown in these regulations (For details please refer Point No. XV-Grade Points Calculating Formula.)

### **III. Admission:**

The details of the admission rules are governed by the Notifications/Website and Circulars issued by the University from time to time. However, the applicant should have studied Political Science as one of the optionals at under Graduate level for admission to the Department of Political Science.

### **IV. Duration of the Programme:**

The Post Graduate Course (M.A.) in Political Science shall be for a period of two academic years, each academic year comprising of two semesters as notified by the University.

## **V. Teaching of the Course:**

Each paper shall be taught for 4 hours per week. However, it may vary from paper to paper depending on the activities of the Department, general holidays and the calendar of events prescribed by the University from time to time.

## **VI. Medium of Instruction**

The medium of instruction shall be English

## **VII. Scheme of Papers and Credits/Classes and Marks**

- a) There shall be three categories of papers viz., Compulsory papers, Specialization papers and Open Electives. Compulsory and Specialization papers are meant for the students of Department of Political Science. The Open Electives are the papers offered by the Department for the students of other Departments. However, the students of the Department of Political Science shall choose the Open Electives offered by other Departments to add to their Credits depending on their interest.
  - b) The Credits for each of the Compulsory paper and Specialization paper are FOUR. The Open Electives offered by the Department to the students of other Departments also carry FOUR credits each. However, the number of credits for the Open Electives offered by other departments may vary from one Department to the other Department.
  - c) **Streams of Specialization** are meant to train the students in certain area of Specialization. There are four Streams of Specialization. The students are expected to choose any one of the stream in the first semester itself and such students will continue to learn in the same stream all through the four semesters. Thus the student will gain Specialization in a specific stream which is a necessity in current scheme of higher education.
- c) **Scheme of Papers for the Post Graduate Course (M.A.) in Political Science**

### **FIRST SEMESTER COMPULSORY PAPERS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>               | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|-----------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| I                | A24                     | Ancient Indian Political Thought        | 25                               | 75                                        | 100                | 4                     | 4              |
| II               | A25                     | Classical Western Political Thought     | 25                               | 75                                        | 100                | 4                     | 4              |
| III              | A26                     | Contemporary Indian Politics            | 25                               | 75                                        | 100                | 4                     | 4              |
| IV               | A27                     | Contemporary Public Administration      | 25                               | 75                                        | 100                | 4                     | 4              |
| V                | A28                     | Introduction to International Relations | 25                               | 75                                        | 100                | 4                     | 4              |

**FIRST SEMESTER  
STREAMS OF SPECIALIZATION  
VI-A-INDIAN GOVERNMENT AND POLITICS**

| <b>Paper No.</b> | <b>Exam.<br/>Paper<br/>Code</b> | <b>Title of the<br/>Paper</b> | <b>Internal<br/>Assessment<br/>Marks</b> | <b>Marks for<br/>Semester end<br/>Examination</b> | <b>Total<br/>Marks</b> | <b>Hours per<br/>week</b> | <b>Credits</b> |
|------------------|---------------------------------|-------------------------------|------------------------------------------|---------------------------------------------------|------------------------|---------------------------|----------------|
| VI-A-1           | A29                             | Indian National Movement      | 25                                       | 75                                                | 100                    | 4                         | 4              |

**VI-B-PUBLIC ADMINISTRATION**

| <b>Paper No.</b> | <b>Exam.<br/>Paper Code</b> | <b>Title of the Paper</b>         | <b>Internal<br/>Assessment<br/>Marks</b> | <b>Marks for<br/>Semester<br/>end<br/>Examination</b> | <b>Total<br/>Marks</b> | <b>Hours per<br/>week</b> | <b>Credits</b> |
|------------------|-----------------------------|-----------------------------------|------------------------------------------|-------------------------------------------------------|------------------------|---------------------------|----------------|
| VI-B-1           | A30                         | Theories of Public Administration | 25                                       | 75                                                    | 100                    | 4                         | 4              |

**VI-C-INTERNATIONAL RELATIONS**

| <b>Paper No.</b> | <b>Exam.<br/>Paper<br/>Code</b> | <b>Title of the Paper</b> | <b>Internal<br/>Assessment<br/>Marks</b> | <b>Marks for<br/>Semester end<br/>Examination</b> | <b>Total<br/>Marks</b> | <b>Hours per<br/>week</b> | <b>Credits</b> |
|------------------|---------------------------------|---------------------------|------------------------------------------|---------------------------------------------------|------------------------|---------------------------|----------------|
| VI-C-1           | A31                             | Foreign Policy of India   | 25                                       | 75                                                | 100                    | 4                         | 4              |

**VI-D-COMPARATIVE GOVERNMENT AND POLITICS**

| <b>Paper No.</b> | <b>Exam.<br/>Paper<br/>Code</b> | <b>Title of the Paper</b>                                      | <b>Internal<br/>Assessment<br/>Marks</b> | <b>Marks for<br/>Semester<br/>end<br/>Examination</b> | <b>Total<br/>Marks</b> | <b>Hours per<br/>week</b> | <b>Credits</b> |
|------------------|---------------------------------|----------------------------------------------------------------|------------------------------------------|-------------------------------------------------------|------------------------|---------------------------|----------------|
| VI-D-1           | A32                             | Comparative Government and Politics: A Theoretical Perspective | 25                                       | 75                                                    | 100                    | 4                         | 4              |

## SECOND SEMESTER COMPULSORY PAPERS

| Paper No.  | Exam. Paper Code | Title of the Paper                   | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|------------|------------------|--------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| VII        | B19              | Medieval Indian Political Thought    | 25                        | 75                                 | 100         | 4              | 4       |
| VIII       | B20              | Medieval Western Political Thought   | 25                        | 75                                 | 100         | 4              | 4       |
| IX         | B21              | Indian Government and Administration | 25                        | 75                                 | 100         | 4              | 4       |
| X          | B22              | Theories of International Relations  | 25                        | 75                                 | 100         | 4              | 4       |
| XI<br>OE** | H73              | Human Rights: Theory and Practice    | 25                        | 75                                 | 100         | 4              | 4       |

**\*\*Open Elective to be offered by the students of other Departments.**

*The students of the Department of Political Science have to choose one Open Elective offered by any one of the other Departments in the University.*

## STREAMS OF SPECIALIZATION XII-A- INDIAN GOVERNMENT AND POLITICS

| Paper No. | Exam. Paper Code | Title of the Paper                  | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|-------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XII-A-2   | B23              | Making of the Constitution of India | 25                        | 75                                 | 100         | 4              | 4       |

## XII-B-PUBLIC ADMINISTRATION

| Paper No. | Exam. Paper Code | Title of the Paper              | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|---------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XII-B-2   | B24              | Public Personnel Administration | 25                        | 75                                 | 100         | 4              | 4       |

## XII-C-INTERNATIONAL RELATIONS

| Paper No. | Exam. Paper Code | Title of the Paper              | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|---------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XII-C-2   | B25              | Diplomacy : Theory and Practice | 25                        | 75                                 | 100         | 4              | 4       |

## XII-D-COMPARATIVE GOVERNMENT AND POLITICS

| Paper No. | Exam. Paper Code | Title of the Paper                                                             | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|--------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XII-D-2   | B26              | Unitary and Federal Governments.<br>(Japan and China; America and Switzerland) | 25                        | 75                                 | 100         | 4              | 4       |

## THIRD SEMESTER COMPULSORY PAPERS

| Paper No.    | Exam. Paper Code | Title of the Paper                     | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|--------------|------------------|----------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XIII         |                  | Modern Indian Political Thought        | 25                        | 75                                 | 100         | 4              | 4       |
| XIV          |                  | Contemporary Western Political Thought | 25                        | 75                                 | 100         | 4              | 4       |
| XV           |                  | Contemporary Political Theories        | 25                        | 75                                 | 100         | 4              | 4       |
| XVI          |                  | Modern Political Analysis              | 25                        | 75                                 | 100         | 4              | 4       |
| XVII**<br>OE |                  | Political Journalism                   | 25                        | 75                                 | 100         | 4              | 4       |

**\*\*Open Elective to be offered by the students of other Departments.**

*The students of the Department of Political Science have to choose one Open Elective offered by any one of the other Departments in the University.*

## STREAMS OF SPECIALIZATION XVIII-A-INDIAN GOVERNMENT AND POLITICS

| Paper No. | Exam. Paper Code | Title of the Paper              | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|---------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XVIII-A-3 |                  | Dynamics of Indian Constitution | 25                        | 75                                 | 100         | 4              | 4       |

## XVIII-B-PUBLIC ADMINISTRATION

| Paper No. | Exam. Paper Code | Title of the Paper          | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------|------------------|-----------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| XVIII-B-3 |                  | Organization and Management | 25                        | 75                                 | 100         | 4              | 4       |

**XVIII-C-INTERNATIONAL RELATIONS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>                        | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|--------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XVIII-C-3        |                         | International Law and International Organization | 25                               | 75                                        | 100                | 4                     | 4              |

**XVIII-D-COMPARATIVE GOVERNMENT AND POLITICS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>                                                         | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|-----------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XVIII-D-3        |                         | Parliamentary and Presidential Governments (UK and Australia; Brazil and Nigeria) | 25                               | 75                                        | 100                | 4                     | 4              |

**FOURTH SEMESTER  
COMPULSORY PAPERS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>                                                                                                                               | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XIX              |                         | Local Government and Politics in India                                                                                                                  | 25                               | 75                                        | 100                | 4                     | 4              |
| XX               |                         | Elections and Electoral Process in India                                                                                                                | 25                               | 75                                        | 100                | 4                     | 4              |
| XXI              |                         | Political Economy                                                                                                                                       | 25                               | 75                                        | 100                | 4                     | 4              |
| XXII             |                         | Research Methods in Social Science                                                                                                                      | 25                               | 75                                        | 100                | 4                     | 4              |
| XXIII            |                         | Project Work<br>(A topic to be chosen from an area nearer to the syllabus in any paper prescribed for Post Graduate (M.A.) Course in Political Science) | 25<br>(Viva-Voce)                | 75<br>(Project Evaluation)                | 100                | 4                     | 4              |

**STREAMS OF SPECIALIZATION  
XXIV-A-INDIAN GOVERNMENT AND POLITICS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>               | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|-----------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XXIV-A-4         |                         | Political Process and Politics in India | 25                               | 75                                        | 100                | 4                     | 4              |

**XXIV-B-PUBLIC ADMINISTRATION**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b> | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|---------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XXIV-B-4         |                         | New Public Management     | 25                               | 75                                        | 100                | 4                     | 4              |

**XXIV-C-INTERNATIONAL RELATIONS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>        | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|----------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XXIV-C-4         |                         | India and Regional Organizations | 25                               | 75                                        | 100                | 4                     | 4              |

**XXIV-D-COMPARATIVE GOVERNMENT AND POLITICS**

| <b>Paper No.</b> | <b>Exam. Paper Code</b> | <b>Title of the Paper</b>                                                              | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|------------------|-------------------------|----------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| XXIV-D-4         |                         | South, South East and West Asian Studies (Korea and Indonesia; Egypt and Saudi Arabia) | 25                               | 75                                        | 100                | 4                     | 4              |

**TOTAL MARKS FOR ALL THE FOUR SEMESTERS**

| <b>Semesters</b>                        | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|-----------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| First Semester                          | 150                              | 450                                       | 600                | 24                    | 24             |
| Second Semester                         | 150                              | 450                                       | 600                | 24                    | 24             |
| Third Semester                          | 150                              | 450                                       | 600                | 24                    | 24             |
| Fourth Semester                         | 150                              | 450                                       | 600                | 24                    | 24             |
| <b>Total for all the Four Semesters</b> | <b>600</b>                       | <b>1800</b>                               | <b>2400</b>        | <b>96</b>             | <b>96</b>      |

## Summary of Credits for the Post Graduate Course (M.A.) in Political Science

### **I Semester:**

|                          |   |                   |
|--------------------------|---|-------------------|
| Five Compulsory Papers   | : | 20 Credits        |
| One Specialization Paper | : | 04 Credits        |
| <b>Total</b>             | : | <b>24 Credits</b> |

### **II Semester:**

|                          |   |                   |
|--------------------------|---|-------------------|
| Four Compulsory Papers   | : | 16 Credits        |
| One Specialization Paper | : | 04 Credits        |
| Open Elective            | : | 04 Credits        |
| <b>Total</b>             | : | <b>24 Credits</b> |

### **III Semester:**

|                          |   |                   |
|--------------------------|---|-------------------|
| Four Compulsory Papers   | : | 16 Credits        |
| One Specialization Paper | : | 04 Credits        |
| Open Elective            | : | 04 Credits        |
| <b>Total</b>             | : | <b>24 Credits</b> |

### **IV Semester:**

|                                                    |   |                   |
|----------------------------------------------------|---|-------------------|
| Five Compulsory Papers<br>(Including Project Work) | : | 20 Credits        |
| One Specialization Paper                           | : | 04 Credits        |
| <b>Total</b>                                       | : | <b>24 Credits</b> |

**Grand Total for Four Semesters:      96 Credits**

- d) The students of Post Graduate Course (M.A.) in Political Science have to offer one of the Open Electives offered by other Departments in the II and III semesters.
- e) The Department offers one Open Elective paper in II and III semesters to the students of other Departments in the University. The students of the Department of Political Science are not allowed to choose the Open Elective offered by the Department. However, the students of the department of Political Science have freedom to choose any one of the Open Electives offered by the other Departments.

### **VIII. Attendance:**

- a) The student shall be considered to have satisfied the requirement of attendance as per the requirement of UGC if he/she has attended not less-than 75% of total number of classes held in each paper till the end of the semester inclusive of tutorials. Marks will be awarded to students in each paper depending upon their fulfillment of attendance as shown below in the table\*\*.

- b) Each student will have to sign his/her attendance for every hour of teaching of each paper. At the end of every month the Chairman of the Department shall notify the status of the attendance of every student on the Notice Board of the Department in each paper. The Chairman of the Department shall send to the Registrar (Evaluation) a detailed statement of attendance at the end of every semester.
- c) In order to encourage regularity in attendance a maximum of three marks shall be awarded to the students as shown below:

**\*\*Marks for attendance in each paper**

| Sl. No | Percentage of Attendance | Internal Assessment Marks |
|--------|--------------------------|---------------------------|
| 1      | Above 90                 | 3 Marks                   |
| 2      | Above 80 and up to 90    | 2 Marks                   |
| 3      | Above 75 and up to 80    | 1 Mark                    |
| 4      | 75                       | No Marks                  |

- d) However, if a student represents the Department/ University/ State/ Nation in Sports, NCC, NSS or Cultural or any other officially sponsored activities he/she shall be eligible to claim the attendance for the actual number of days utilized in such activities (including travel days) subject to the production of certificate from an appropriate authority within two weeks after the event.
- e) A student who does not satisfy the requirement of attendance of 75% in each paper shall not be permitted to appear for the semester end examination; such candidates may seek admission afresh to the given semester.

**IX. Evaluation:**

- a) Evaluation of the papers will have two components-
- i) Internal Assessment, and
  - ii) Semester end examination

However for Paper XXIII (Compulsory) Project Work: the evaluation marks shall be 75 for Project Report and 25 marks for the Viva-Voce Test to be conducted by the Members of the Faculty under the Chairmanship of the Chairman of the Department.

The total marks for the Internal Assessment shall be 25 as classified below in addition to 3 marks for attendance.

|                                      |   |          |
|--------------------------------------|---|----------|
| 1. Two written Tests of 5 marks each | : | 10 marks |
| 2. Seminar paper                     | : | 6 marks  |
| 3. Group Discussion                  | : | 6 marks  |

The tests shall be written in separate designated answer booklet. The marks of internal assessment shall be notified on the notice board of the Department and submitted to the Registrar (Evaluation) at the end of every semester, and shall be taken into account for the compilation of grades. In case of candidates appearing for improvement examination the marks obtained in the Internal Assessment shall not be revised since there is no provision for improvement of Internal Assessment.

- b) There shall be one semester end examination of 3 hours duration for 75 marks. The examination shall be conducted as per the rules, regulations, notifications, orders, instructions, procedures, formats and circulars issued by the University from time to time.

#### X. Challenge Evaluation:

There shall be a provision for challenge valuation as per the rules and regulations of the University issued from time to time.

#### XI. Completion of the Course:

- a) A candidate is expected to successfully complete Post Graduate (M.A.) Course within two years from the date of admission.
- b) **Whenever the syllabus is revised, the candidate reappearing/golden opportunity will have to write the examination as per the existing syllabi.**
- c) The CBCS scheme is a fully carry-over system. However, the four-semester (two years course) should be completed by the student within a maximum period of 4 years.

#### XII. Declaration of Results:

- a) Minimum for a pass in each paper shall be 40% of the total 100 marks including both the Internal Assessment and the semester end examination. However a candidate should obtain at-least 40% marks in the semester end examination which will be for 75 marks. There is no minimum marks for the Internal Assessment. However after adding the Internal Assessment marks and the semester end examination marks, the candidates should score a minimum of 40% of the maximum marks per paper. Candidate shall secure a minimum of 50 percent in aggregate in all the papers of a programme in each semester to successfully complete the programme.
- b) **The improvement of the performance is permitted as per the rules and regulations of the University as per the existing syllabus only.**  
(To be read with XI-b)

#### XIII. Marks and Grade points:

| Sl.No. | Percentage of Marks           | GPA/CGPA       | Grade |
|--------|-------------------------------|----------------|-------|
| 1      | 75 and above                  | 7.50 to 10.00  | A     |
| 2      | 60 and above but less than 75 | 6.00 to 07.49  | B     |
| 3      | 50 and above but less than 60 | 5.00 to 05.99  | C     |
| 4      | 40 and above but less than 50 | 4.00 to 4.99   | D     |
| 5      | Less than 40.00%              | Less than 4.00 | F     |

#### XIV. Grading:

The Grade Point Average (GPA) shall be given to each candidate based on his/her performance during the semester which includes both the Internal Assessment and the semester end examination. The GPA of each semester should be carried to the next semester as Cumulative Grade Point Average CGPA.

#### XV. Grade Points (Formula):

**Semester GPA** =  $\frac{\text{Total Credit Points in all papers}}{\text{Credit Hours}}$

Credit Hours

**Cumulative Grade Point Average** =  $\frac{(\text{GPA of all Semesters})}{\text{Credits of All Semesters}}$

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## **XVI. Model Question Paper:**

### **Question Paper Pattern for Semester end Examination.**

**Maximum Marks: 75**

**Time: 3.00 hours**

**Note: All parts – A, B and C, are compulsory**

#### **Part -A (15 marks)**

**Instruction: Answer any three of the following questions in 200 words each.**

**All questions carry equal marks (3X5=15)**

- 1.
- 2.
- 3.
- 4.

#### **Part- B (30 marks)**

**Instruction: Answer any three of the following questions in 300 words each.**

**All questions carry equal marks (3X10=30 marks)**

- 5.
- 6.
- 7.
- 8.

#### **Part-C (30 marks)**

**Instruction: Answer any two of the following questions in 500 words each.**

**All questions carry equal marks (2X15=30 marks)**

- 9.
- 10.
- 11.

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## **XVII. Question Paper Pattern for Class Test:**

**Maximum Marks: 5**

**Time: 30 minutes**

**Instruction: Answer any one of the following question in 200 words**

- 1.
  - 2.
-

## PROGRAMME SPECIFIC OUTCOMES (PSOS)

After completion of this programme, the student will be able to:

1. Understand a comprehensive and up-to-date review of the major fields of Political Science and is equipped with a rigorous conceptual framework, basic analytical tools and sound methodological training in the discipline.
2. The programme provides 96 credits spread over four semesters, with the foundational courses introduced in the first semester and more specialized areas in the final semester.
3. Comprehend Political Science as 'Master Science' and emphasis is laid on Political Thought, Political Theories, International Relations, , Comparative Politics later shifting to Area Studies and Public Administration and policy studies, India's foreign policy, gender and politics and social movements.
4. The programme provides a balanced treatment to both empirical and normative aspects of the discipline of Political Science. The students get a balanced footing on concepts and methodology as the programme has made Research Methodology and Field studies as an integral part of research. The programme draws inputs from allied disciplines and empowers the students with an interdisciplinary focus and understanding
5. The programme supports problem solving skills, thinking, creativity through assignments, project work, both individual and group based. The programme empowers and motivates students for research in Political Science and related fields.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                       | PG 50T101.: Ancient Indian Political Thought |                                    |             |                |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                              |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Understand ancient Indian Political Thinkers and their writings.<br>CO-2. Make comparisons; understand different political institutions, actors and processes that shaped the ancient Indian polity and the political processes.<br>CO-3. Undertake further research into the ancient texts<br>CO-4. Understand the contributions of the Ancient Political thinkers towards Humanity. |                                              |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                        | Internal Assessment Marks                    | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Ancient Indian Political Thought                                                                                                                                                                                                                                                                                                                                                                                                                          | 25                                           | 75                                 | 100         | 4              | 4       |
| Unit-I: Introduction to Ancient Indian Polity<br>1. Nature, significance and relevance of the study of Ancient Indian Polity<br>2. Sources and Approaches to the study of Ancient Indian Polity<br>(Philosophical, Historical and Institutional)                                                                                                                                                                                                          |                                              |                                    |             |                |         |

## **Unit-II: Nature of Indian State, Vedas and Upanishads**

- 1.State in Ancient India: Nature and Functions, Concept of Dharma
- 2.Significance of Vedas and Upanishads – Sabha, Samiti and Vidhata

## **Unit-III: Ancient Texts and their Significance**

1. Ramayana, Mahabharata –Significance, Relevance, Rajadharma and Shantiparva. Philosophy of Bhagavadgeeta.
2. Buddhist literature - Jataka Tales and Panchatantra

## **Unit-IV: Theories of State Craft**

1. Manu's Socio-Political Ideas: Social Order and Duties of King and Ministers.
2. Kautilya's Arthashastra – Importance, Duties of the King, Saptanga Theory of State, Mandal Theory, Espionage System

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2. Varma, V.P. (1993). *Ancient and Medieval Indian Political Thought*. Agra: Laxmi Agarwal.
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4. Bhandarkar, D.R. (1984). *Lectures on Ancient Indian Numasmatics*. Patna: Eastern Book House.
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6. Pant, Suresh Chandra. (1973). *Ancient Indian Thought : State and Govt. in Ancient India*. Lucknow: Prakashan Kendra.
7. Bhambri, C.P. (1969). *Primer of Indian Polity*. Meerut: Loyala Book Depot.
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10. Altekar, S. A. (1958). *State and Government in Ancient India*. Delhi: Motilal Banarasidas.

|                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                        |                                           |                    |                       |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PG 50T102.: CLASSICAL WESTERN POLITICAL THOUGHT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                |                                                        |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Understand ancient Indian thinkers and their writings.<br>CO-2. Make comparisons understand different political institutions, actors and processes that shaped the ancient Indian polity and the political processes.<br>CO-3. Undertake further research into the ancient texts<br>CO-4. Develop the ability to analyze political events and problems. |                                                        |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Internal Assessment Marks</b>                       | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| CLASSICAL WESTERN POLITICAL THOUGHT                                                                                                                                                                                                                                                                                                                                                                                         | 25                                                     | 75                                        | 100                | 4                     | 4              |
| <b>Unit – I: Political Thought and Political Theory</b><br>1. Meaning of Political Thought and Political Thought as a Tradition<br>2. Nature, Significance, Decline and Revival of Political Theory<br>3. Characteristics of Western Political Thought: Ancient, Medieval and Modern.                                                                                                                                       |                                                        |                                           |                    |                       |                |
| <b>Unit - II: Greek Political Thought</b><br>1. Plato- (The Laws) : The Theory of State, Nature of Law, Second Best State, Government.<br>2. Aristotle (Politics) : State, Property, Slavery, the Best State.<br>3. The Epicureans and Stoics: The Epicureans (The Nature of Things): Origin of the State. Stoics: Natural Law and State                                                                                    |                                                        |                                           |                    |                       |                |
| <b>Unit - III: Roman Political Thought</b><br>1. Polybius – (History of Rome)<br>a. Cyclic Theory of Government<br>b. Mixed Form of Government<br>2. Cicero (De Republica) :<br>a. Natural Law<br>b. Forms of Government                                                                                                                                                                                                    |                                                        |                                           |                    |                       |                |
| <b>Unit – IV: The Roman Legal System</b><br>1. Its Development : Jus Gentium, Jus Naturale, Jus Civile<br>2. Roman Contribution to Law                                                                                                                                                                                                                                                                                      |                                                        |                                           |                    |                       |                |

### **REFERENCES**

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2. Mukherjee , Subrata., Ramaswamy, Sushila. (1999). *A History of Political Thought Plato to Marx*. New Delhi: Prentice – Hall.
3. Bhandari, D.R. (1986). *History of European Political Philosophy*. Bangalore: Bangalore Printing and Publications.
4. Dunning, W.A. (1976). *A History of Political Philosophies*. Volumes I and II, Allahabad: Central Book Depot.
5. Suda, J.P. (1973). *History of Political Thought*, Volumes I & II Meerut: K.Nath & Co.
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9. Sabine, G.H. (1951). *A History of Political Theory*. London: George G. Harrap,
10. William, Ebenstein. (1951). *Great Political Thinkers: Plato to the Present*. London: Rinehart Publication.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                 | PG 50 T 103 : CONTEMPORARY INDIAN POLITICS |                                    |             |                |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                               |                                            |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Understand contemporary Indian politics<br>CO-2. Develop skills of presenting dynamics of Indian politics<br>CO-3. learn the skill of critical thinking<br>CO-4 Analyze the day to day politics by understanding its multi-dimensions and the realities of the social fabric of Indian society. |                                            |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                  | Internal Assessment Marks                  | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| CONTEMPORARY INDIAN POLITICS                                                                                                                                                                                                                                                                                                                                        | 25                                         | 75                                 | 100         | 4              | 4       |
| <div>Unit-I: Understanding India</div> <div>1. India as a Nation- Varied Discourses, Political Culture of India, Revivalism and Secularism</div> <div>2. Caste and Class: Social Reality, Political Representation and Political Community, Emerging social cleavages</div>                                                                                         |                                            |                                    |             |                |         |

### **Unit-II: Change and Stability in Indian Politics**

1. Issues in Indian Democracy: Stability, Federation and its Future, Role of Political Parties
2. Democratic Project in India: Elections and Expansion of democracy, Crisis of Governance

### **Unit-III: Politics and Economy in India: An Interface**

1. Changing Nature of Indian State, Its Philosophy and Practice, Role of State and Market in India
2. Demography and its Economic Implications, Inequality – Policies related to Land, Differences in income and wealth

### **Unit-IV: India and her Geo-Economic Positioning**

1. India's geo-economic positioning - Neighbour first policy, her changing foreign policy for competitive repositioning
2. India and the world - leadership issues, development challenges, Look East and South Asia policy

### **REFERENCES**

- Kothari, Rajani. (2010). *Caste in Indian Politics*, Hyderabad: Orient Black Swan.
- Acharya, Shankara. (2006). *Essay on Macroeconomic Policy and Growth in India*, New Delhi: Oxford university Press.
3. Fernandes, Leela. (2006). *India's New Middle Class: Democratic Politics in an Era of Reform* Miineapolis: University of Minnesota Press.
  4. Frankel, Francine R. (2005). *India's Political Economy 1947-2004*, New Delhi: Oxford University Press.
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  9. Kramer, Matthew H. (et.al). (2000). *A Debate Over Rights*, London: Oxford University Press.
  10. Macedo, Stephen. (Ed.). (1999). *Deliberative Politics*, London: Oxford University Press.

|                                    |                                                         |
|------------------------------------|---------------------------------------------------------|
| <b>Paper<br/>Code and<br/>Name</b> | <b>PG 50 T 104 : CONTEMPORARY PUBLIC ADMINISTRATION</b> |
|------------------------------------|---------------------------------------------------------|

| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                  |                                           |                    |                       |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| After completing this paper, the students will be able to:<br>CO-1. Develop the skill of becoming good administrators.<br>CO-2. Understand Major Concepts of Public Administration<br>CO-3. To understand the Contemporary Developments in Public Administration<br>CO-4. Analyse the Contemporary Public Administration.                                                                                                                                                                                                                                                                                                      |                                  |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>CONTEMPORARY PUBLIC ADMINISTRATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I: Essentials of Public Administration</b><br>1. Meaning, Nature and Scope of Public Administration<br>2. Approaches to the study of Public Administration – Historical, Legal, Behavioural and Case Study.                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |                                           |                    |                       |                |
| <b>Unit-II: Major Concepts and theories of Public Administration</b><br>1. New Public Administration, Good Governance, Decentralization, Bureaucracy, Stake holder and Citizen's charter<br>2. Public Management, Decision Making and Rational Choice Theory                                                                                                                                                                                                                                                                                                                                                                   |                                  |                                           |                    |                       |                |
| <b>Unit-III: Contemporary Developments in Public Administration</b><br>1. Result Orientation, Performance Appraisal, Transparency and Accountability<br>2. Performance Management Systems, Development Objectives,                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |                                           |                    |                       |                |
| <b>Unit-IV: New Public Management</b><br>1. Honey Report and Minnow brook Conference (I, II and III)<br>2. Washington Conference: Economic Growth and Inequality                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  |                                           |                    |                       |                |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1. Alka, Dhameja. (Ed). (2003). <i>Contemporary Debates in Public Administration</i> . New Delhi: Prentice Hall.<br>2. Arora, Ramesh., & others. (2003). <i>Ethics and Accountability and Government and Business</i> . Jaipur: Aalekha.<br>3. Spicer Michael, W. (2001). <i>Public Administration: A post modern perspective</i> . Albama: University of Albama Press.<br>4. Hasnat, Abdul Hye. (Ed). (2001). <i>Governance: South Asian Perspective</i> New Delhi, Manohar.<br>5. Sharma, P.D. (2000). <i>Management thought and Thinkers</i> . Jaipur: Research |                                  |                                           |                    |                       |                |

Publications.

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10. Self, Peter.(1981).*Administrative Theories and Politics*. New Delhi: S.Chand.

| Paper Code and Name                                                                                                                                                                                                                                                  | PG 50T105 : INTRODUCTION TO INTERNATIONAL RELATIONS |                                    |             |                |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOME (COs)                                                                                                                                                                                                                                                 |                                                     |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Understand the International Relations<br>CO-2. Analyse the International Politics<br>CO-3. Understand the Global affairs easily<br>CO-4. Understand International Relations in Globalized world |                                                     |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                   | Internal Assessment Marks                           | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| INTRODUCTION TO INTERNATIONAL RELATIONS                                                                                                                                                                                                                              | 25                                                  | 75                                 | 100         | 4              | 4       |
| <b>Unit –I: Introduction</b><br>1. Meaning, Nature and Importance of the study of International Relations<br>2. Evolution and Autonomy of International Relations as a Discipline                                                                                    |                                                     |                                    |             |                |         |
| <b>Unit-II: Approaches to the study of International Relations</b><br>1. Traditional and Scientific Approaches to the study of International Relations<br>2. Functions and Utility of International Relations, Significance of the International Theories.           |                                                     |                                    |             |                |         |
| <b>Unit-III: Theories of International Relations</b><br>1. Theories of Realism, Neo-realism and Constructivism and Social Constructivism<br>2. Samuel P. Huntington's Theory of Clash of Civilizations, Green Politics.                                              |                                                     |                                    |             |                |         |
| <b>Unit-IV: Globalization and World Order</b><br>1. Nature and Characteristics of Systems Theory: Morton Kaplan's Systems                                                                                                                                            |                                                     |                                    |             |                |         |

Theory, Decision Making Theory.

2. Globalization and Post Cold War - World Order

### **REFERENCES**

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|                                                                                                                                                                                                                                                                                       |                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                            | <b>PG 50 T 106A : VI.A. INDIAN GOVERNMENT<br/>AND POLITICS Paper VI -A – 1<br/>(SPECIALIZATION)<br/>INDIAN NATIONAL MOVEMENT</b> |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                                                           |                                                                                                                                  |
| After completing this paper, the students will be able to:<br>CO-1. Understand the history of National Movement<br>CO-2. Understanding the Spirit and Patriotism and Nationalism<br>CO-3. Understand the Struggle for Freedom<br>CO-4. Understand the Ideologies of National Movement |                                                                                                                                  |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| VI.A. INDIAN GOVERNMENT AND POLITICS Paper VI -A – 1 (SPECIALIZATION)<br>INDIAN NATIONAL MOVEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25                        | 75                                 | 100         | 4              | 4       |
| <p align="center"><b>Unit-I: Evolution of National Movement</b></p> <p>1. Historical Background: Uprisings against British Rule, Growth of Indian Nationalism.</p> <p>2. Genesis of Indian National Congress, Its role in National Movement.</p>                                                                                                                                                                                                                                                                                                              |                           |                                    |             |                |         |
| <p align="center"><b>Unit-II: Ideologies and National Movement</b></p> <p>1. Ideologies and National Movement : Moderates, Extremists, Home Rule Movement, Call for Diarchy</p> <p>2. Gandhi and National Movement: Non-Cooperation 1920-22, Civil Disobedience (1930-34), Quit India (1942).</p>                                                                                                                                                                                                                                                             |                           |                                    |             |                |         |
| <p align="center"><b>Unit-III: Formation of Indian State</b></p> <p>1. Background of the formation of the Indian State : Minto –Morley (1909), Montagu Chelmsford (1919), Simon Commission(1927)</p> <p>2. Nehru Report (1928), Government of India Act (1935), Cripps Mission Plan(1942), Lord Wavell Plan (1945), Cabinet Mission Plan(1946),</p>                                                                                                                                                                                                           |                           |                                    |             |                |         |
| <p align="center"><b>Unit-IV: Making of the Constitution</b></p> <p>1. Formation of the Constitution of India: Formation of Constituent Assembly – Issues of Composition, Mount Batten Plan and Partition of India, Reorganization of States.</p> <p>2. India wins Freedom: Government of India Act 1947, Adoption and Enforcement of the Constitution of Indian Republic.</p>                                                                                                                                                                                |                           |                                    |             |                |         |
| <p align="center"><b><u>REFERENCES</u></b></p> <p>1. Edmond, Thompson. (1989). <i>Indian National Movement</i>. Delhi: Akashdeep.</p> <p>2. Patil, V.S. (1988). <i>Netaji Subhas Chandra Bose, His Contribution to Indian Nationalism</i>. New Delhi: Sterling.</p> <p>3. Das, H.H. (1983). <i>Subhas Chandra Bose and his Indian National Movement</i>. New Dehli: Stering.</p> <p>4. Gupta, D.C., (1973). <i>Indian National Movement and Court</i>. Silken.</p> <p>5. Tarachand. (1967). <i>History of the Freedom Movement in India (2 Vols)</i>. New</p> |                           |                                    |             |                |         |

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| Paper Code and Name                                                                                                                                                                                                                                                                  | PG 50 T 106B : VI-B-PUBLIC ADMINISTRATION PAPER VI –B-1 (SPECIALIZATION)THEORIES OF PUBLIC ADMINISTRATION |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOME (COs)                                                                                                                                                                                                                                                                 |                                                                                                           |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Understand some of the important and best works in the field.<br>CO-2. Understand the ongoing developments in Public Administration<br>CO-3. Gain Theoretical Understanding<br>CO-4.Understand Governance issues |                                                                                                           |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                   | Internal Assessment Marks                                                                                 | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| VI-B-PUBLIC ADMINISTRATION PAPER VI –B-1 (SPECIALIZATION)THEORIES OF PUBLIC ADMINISTRATION                                                                                                                                                                                           | 25                                                                                                        | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: Introduction to the Theories</b><br>1. Meaning, Nature and functions of theories in Public administration<br>2. Types of theory-Classical (Gullick), Neo Classical (Behavioural and Human Relations) Bureaucratic (Weber)                                                 |                                                                                                           |                                    |             |                |         |
| <b>Unit-II: Administrative Thinkers</b><br>1. Importance of Administrative Thought and their Contribution to theory building<br>2. Contemporary Theories – Post Modern and New Public Management Theories                                                                            |                                                                                                           |                                    |             |                |         |
| <b>Unit-III: Theory Construction in Public Administration</b><br>1. Stages - Defining Concepts, Exploring Causal Relationships, Finding Variables and Observations                                                                                                                   |                                                                                                           |                                    |             |                |         |

## 2. Models and Simulations-Methods of Building and Utility

### **Unit-IV: Towards New Generation Public Administration**

1. The Limitations of Modern Public Administration: Vertical Governing, Professional Dominance, Reified bureaucracy, Placating citizens and Social complexity
2. Learning from Cross Cultural Perspectives

### **REFERENCES**

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2. Arora, Ramesh., and others, ( 2003). *Ethics and Accountability and Government and Business*, Jaipur, Aalekha.
3. Dilorenzo, thomas J. (2002). *The Futility of Bureaucracy: The Free Market*, The Mises Institute Monthly.
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>PG 50 T 106C : VI – C-INTERNATIONAL RELATIONS PAPER VI – C-1 (SPECIALIZATION) FOREIGN POLICY OF INDIA</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                              |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Learn about the principles and Objects of foreign policy of India<br>CO-2. Understand India’s relations with various countries<br>CO-3. Understand Role of Institutions in the formulations of Foreign Policy of India.<br>CO-4. Understand the dynamics of Foreign Policy of India.                                                                                                                                                                                                                |                                                                                                              |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Internal Assessment Marks</b>                                                                             | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>PG 50 T 106C : VI – C-INTERNATIONAL RELATIONS PAPER VI – C-1 (SPECIALIZATION) FOREIGN POLICY OF INDIA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25                                                                                                           | 75                                        | 100                | 4                     | 4              |
| <b>Unit I- Roots of India’s Foreign policy</b><br>1. Meaning, objectives and philosophical foundations of Foreign policy of India<br>2. Basic determinants of India’s Foreign Policy- Historical, Geographical, strategic, Economic, Political and Cultural,                                                                                                                                                                                                                                                                                                            |                                                                                                              |                                           |                    |                       |                |
| <b>Unit II- Objectives of India’s Foreign Policy</b><br>1. National Security and Economic development, Political Unity and integrity<br>2. International Peace, containment of terrorism and India’s view of World Order.                                                                                                                                                                                                                                                                                                                                               |                                                                                                              |                                           |                    |                       |                |
| <b>Unit III- Formulation of India’s Foreign Policy</b><br>1. Formal Institutions - Ministry of External Affairs, Cabinet, Parliament, Civil and military, Bureaucracy.<br>2. Informal Institutions Political Parties, Public Opinion, Media, Elites, and International System.                                                                                                                                                                                                                                                                                          |                                                                                                              |                                           |                    |                       |                |
| <b>Unit IV- India’s Relations with other Countries</b><br>1. India and the United States, Russia, China and the Middle East<br>2. India – Neighbour policy, India’s foreign policy an evaluation                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                              |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b><br>1. Hansel, Mischa., Khan, Raphaëlle., & Levailant, Mélissa. (Eds.). (2017). <i>Theorizing Indian Foreign Policy</i> . UK: Routledge.<br>2. Malone, David M., Raja Mohan, C., & Raghavan, Srinath. (2015). <i>The Oxford Handbook of Indian Foreign Policy</i> . UK: Oxford University Press.<br>3. Miller, Manjari. (2014). <i>Wronged by Empire: Post-Imperial Ideology and Foreign Policy in India and China</i> . UK: Stanford University Press.<br>4. Bajpai, Kanti P., & Pant, Harsh V. (23-May-2013). <i>India's Foreign Policy</i> . |                                                                                                              |                                           |                    |                       |                |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                | PG 50T106D: VI-D<br><b>COMPARATIVE GOVERNMENT AND POLITICS PAPER VI – D-1 (SPECIALIZATION)</b><br><b>COMPARATIVE GOVERNMENT AND POLITICS: A THEORETICAL PERSPECTIVE</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                               |                                                                                                                                                                         |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Compare the cross nation relations<br>CO-2. make comparatives studies<br>CO-3. Undertake research in Comparative Politics and Governments<br>CO-4. Develop analytical skills to study |                                                                                                                                                                         |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                 | <b>Internal Assessment Marks</b>                                                                                                                                        | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| VI-D COMPARATIVE GOVERNMENT AND POLITICS PAPER VI – D-1(SPECIALIZATION)<br>COMPARATIVE GOVERNMENT AND POLITICS: A THEORETICAL PERSPECTIVE                                                                                                                 | 25                                                                                                                                                                      | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I: Introduction</b><br>1. Comparative Politics : Meaning, Nature , Scope, Importance and Growth of Comparative Politics<br>2. Approaches to the Study of Comparative Politics : Traditional and Modern                                            |                                                                                                                                                                         |                                           |                    |                       |                |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p align="center"><b>Unit-II: Constitution and Constitutionalism</b></p> <ol style="list-style-type: none"> <li>1. Constitution – Meaning, Types, limitations and Historical Perspective of Constitution.</li> <li>2. Constitutionalism- Meaning and concept of Constitutionalism, Problems and Prospects of Constitutionalism</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                            |
| <p align="center"><b>Unit-III: Modern Legislatures (with reference to UK, USA and Switzerland)</b></p> <ol style="list-style-type: none"> <li>1. Growth, Importance, Organization, Functions.</li> <li>2. Unicameralism and Bicameralism, Law making procedure, Decline of Legislature.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                            |
| <p align="center"><b>Unit-IV: Modern Executive and Judiciary</b></p> <ol style="list-style-type: none"> <li>1. Nature, Functions and Types of Executive.</li> <li>2. Judiciary, Judicial Review, Rule of Law: Organization and Functions</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                            |
| <p align="center"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Johari, J.C. (1986). <i>Major Modern Political Systems</i>. Delhi: Vishal Publications.</li> <li>2. Almond, Gabriel A., &amp; G. Bingham Powell, (1975). <i>Comparative Politics – A Developmental Approach</i>. New Delhi: Oxford &amp; IBH Publishing Company.</li> <li>3. Mark, Peter H. (1975). <i>Modern Comparative Politics</i>. New York: Holt Rinehart and Winston.</li> <li>4. Carter, G.M., &amp; Herz, J.H. (1972). <i>Government and Politics in the Twentieth Century</i>. New York: Praeger Publishers.</li> <li>5. Blondel, Jean. (1969). <i>An Introduction to Comparative Government</i>. London: Weidenfeld and Nicolson.</li> <li>6. Apter, David E. (1965). <i>The Politics of Modernization</i>. Chicago: University of Chicago Press.</li> <li>7. Wheare, K.C. (1964). <i>Modern Constitutions</i>. London: Oxford University Press.</li> <li>8. Eckstien, Harry. &amp; Apter, David E. (Ed.). (1963). <i>Comparative Politics, A Reader</i>. New York: The Free Press.</li> <li>9. Strong, C.F. (1958). <i>Modern Political Constitutions</i>. London: Oxford University Press.</li> <li>10. Finer, Herman. (1957). <i>Theory and Practice of Modern Government</i>. New York: Holt and Co.</li> </ol> |                                                                                                                                                            |
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p align="center"><b>PG 50T201.</b></p> <p align="center"><b>PAPER-VII (COMPULSORY)</b></p> <p align="center"><b>MEDIEVAL INDIAN POLITICAL THOUGHT</b></p> |
| <p align="center"><b>COURSE OUTCOME (COs)</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                            |
| <p>After completing this paper, the students will be able to:</p> <p>CO-1. Gain background knowledge in the classical texts</p> <p>CO-2. Develop interest in reading the original works, the debates</p> <p>CO-3. Gain knowledge about the Historical Contributions</p> <p>CO-4. Understand the socio religious movements</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                            |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| MEDIEVAL INDIAN POLITICAL THOUGHT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25                        | 75                                 | 100         | 4              | 4       |
| <b>Unit-I – Introduction to Medieval Political Thought</b><br>1. Introduction: History of Medieval India – Early and Late Medieval History (from 6 <sup>th</sup> century to 16 <sup>th</sup> Century)<br>2. Sources and features: Historical Writings, Travelogues and literary writings (Early Shashan Historical Writings, Tariquiq Hind Al-Beruni, Tuhfat-un- Nuzzar fi Gharibi-il-Amsar by Batuta, Shahnama (10th century) by Firdausi) (13 <sup>th</sup> to 16 <sup>th</sup> Century)                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                    |             |                |         |
| <b>Unit-II- Kingdoms and their Contribution</b><br>1. Middle Kingdoms of India: Rashtrakoota, Pallava, Chola, Chalukya, Gupta rule and contribution<br>2. Late and early Modern Period: Delhi Sultanate, Rajputs, Mughals, Marathas and the Sikh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                    |             |                |         |
| <b>Unit-III–Theistic and Social Reform Movements</b><br>1. Administration: Importance of Theology, Military and Revenue Administration.<br>2. Vedanta School of Thought – Shankaracharya, Madhvacharya and Ramanujacharya.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                    |             |                |         |
| <b>Unit-IV– Socio- Religious Movements</b><br>1. Bhakti Movement - Vachanas and Dasa Sahitya – Sarvagna, Basavanna, Purandaradasa, Kanakadasa.<br>2. Sufi Movement in India – Features and Contribution – Khwaja Muinuddin Chisti, Kabir, Guru Nanak and Shishunal Shareef                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1. Avari, Burjor. (2016 ). <i>India: The Ancient Past: A History of the Indian Subcontinent from C. 7000 BCE to CE 1200</i> . (2nd edn), London: Routledge.<br>2. Farooqui, Salma Ahmed. (2011). <i>A Comprehensive History of Medieval India: From Twelfth to the Mid-Eighteenth Century</i> . London: Pearson Education.<br>3. Chandra, Satish. (2010). <i>Historiography, Religion and State in Medieval India</i> , Har-Anand Publications.<br>4. Gommans, Jos J. L. (2002). <i>Mughal Warfare: Indian Frontiers and Highroads to Empire, 1500-1700</i> . London: Routledge.<br>5. Keay, John. (2000). <i>India: A History</i> . Harper Collins,<br>6. Lal, K. S. (1999). <i>Theory and practice of Muslim state in India</i> . New Delhi: Aditya Prakashan.<br>7. Sarkar, Jadunath. (1997). <i>Fall of the Mughal Empire: Vol. 1-4</i> . Hyderabad: Orient Longman. |                           |                                    |             |                |         |

8. Harle, J.C. (1994). *The Art and Architecture of the Indian Subcontinent*. (2<sup>nd</sup> ed). Yale University Press: Pelican History of Art,
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| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                      | PG 50 T 202. PAPER-VIII<br>(COMPULSORY) MEDIEVAL WESTERN POLITICAL THOUGHT |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOME (COs)                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                            |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Understand the growth of State and its influence<br>CO-2. Know the development of institutions such as the legal system and the universities during this period.<br>CO-3. Can critically evaluate the strong relationship during this period between philosophy and religion<br>CO-4.Understand Transitory Period & Political Theory of Reformation. |                                                                            |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                       | Internal Assessment Marks                                                  | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| MEDIEVAL WESTERN POLITICAL THOUGHT                                                                                                                                                                                                                                                                                                                                                                                       | 25                                                                         | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: The Early Church and its Political Theory</b><br>1. The Establishment of the Church, Comparison between the Roman Empire and the Roman Catholic Church<br>2. Christianity and Political Thought                                                                                                                                                                                                               |                                                                            |                                    |             |                |         |
| <b>Unit–II: Political Theory of Fathers of the Church</b><br>1. St. Augustine: (De Civitate Dei) Features of two cities Feudalism: Meaning, Features and importance<br>2. St.Thomas Aquinas: (De Regimine Principum and Commentary on Aristotle’s Politics) Classification of Laws, Temporal and Spiritual Power                                                                                                         |                                                                            |                                    |             |                |         |
| <b>Unit–III: Church –State Controversy</b><br>1. Marsiglio of Padua (Defensor Pacis) State and Sovereignty<br>2. Dante Alighieri (De Monarchia): Universal Monarchy;Conciliar Movement: Meaning, aims, objectives and significance                                                                                                                                                                                       |                                                                            |                                    |             |                |         |
| <b>Unit–IV: Transitory Period &amp; Political Theory of Reformation.</b><br>1. Machiavelli (The Prince): Human Nature, the Prince, Morality & Religion<br>2. Martin Luther (of Secular Authority, How far is Obedience Due): Passive Obedience and the Right to Resist. <b>John Calvin</b> (Institutes of the Christian Religion ): Passive Obedience, Origin and Functions of Civil Government.                         |                                                                            |                                    |             |                |         |

### **REFERENCES**

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2. Bhandari, D.R. (1986). *History of European Political Philosophy*. Bangalore: Bangalore Printing and Publication.
3. Dunning, W.A. (1976). *A History of Political Philosophies*. Volumes I and II Allahabad : Central Book Depot.
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5. Sabine, G.H. (1969). *A History of Political Theory*. London: George G. Harrap.
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10. Waring, L.H. (1910). *The Political Theories of Martin Luther*. New York:

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PG 50T203. PAPER-IX COMPULSORY<br>INDIAN GOVERNMENT AND ADMINISTRATION |                                    |             |                |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOME (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                        |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. Learn the broad areas of political science and public administration<br>CO-2. Gain a clear and critical understanding about India’s Constitution, its framing and the processes involved in realizing its goals and objectives.<br>CO-3. understand the necessity of a government and the difference between a government and administrative machinery.<br>CO-4.Able to read the Constitution, its socio-political and ideological basis and its relationship with the society. |                                                                        |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Internal Assessment Marks                                              | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| INDIAN GOVERNMENT AND ADMINISTRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 25                                                                     | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: Indian Government and Administration</b><br>1. Significance of the Indian Model of Political System and its constitutional philosophy<br>2. Federalism, centre-state relations and interstate relations                                                                                                                                                                                                                                                                                                                                  |                                                                        |                                    |             |                |         |

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| <p align="center"><b>Unit-II: Dichotomy in government and Administration</b></p> <ol style="list-style-type: none"> <li>1. Policy making – Cabinet, Legislature, Executive Vs. Bureaucracy</li> <li>2. Policy implementation and evaluation Process –NDC, Niti Ayog, Secretariat, Revenue Administration</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <p align="center"><b>Unit-III: Governability Crisis and Citizen Role</b></p> <ol style="list-style-type: none"> <li>1. Crisis of Governability, Ethical Values in Administration</li> <li>2. Coalition and Instability, Transparency in Administration, Citizen's Charter</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <p align="center"><b>Unit-IV: E- Governance</b></p> <ol style="list-style-type: none"> <li>1. Information Technology and Administrative accountability</li> <li>2. Impact of Globalisation on administration, E-Governance: Problems and Prospects.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <p align="center"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Bhattacharya, Mohit. (2019). <i>New Horizons of Public Administration</i>. (Rev. Ed). New Dehli: Jawahar Publishers &amp; Distributors.</li> <li>2. Roy, Himanshu., &amp; Singh, M P. (2018). <i>Indian Political System</i>. London, Pearson.</li> <li>3. Myneni, S.R. (2016). <i>Principles of Public Administration</i>. UP: Allahabad Law Agency.</li> <li>4. De Vries, Michiel S. (2016). <i>Understanding Public Administration</i>. (1<sup>st</sup> Ed). London: Palgrave Macmillan.</li> <li>5. Arora, R. K. (2012). <i>Indian Public Administration - Institutions and Issues</i>. (3rd Ed). New Delhi: New Age International Publishers LTD.</li> <li>6. Basu. Rumki, (2012). <i>Public Administration: Concepts and Theories</i>. Noida: Sterling Publishers.</li> <li>7. Chakrabarty, Bidyut., &amp; Panday, Rajendra Kumar. (2008). <i>Indian Government and Politics</i>. New Delhi: SAGE Publications India Pvt.</li> <li>8. Maheswari, S. (2001). <i>Indian Administration</i>. Hyderabad: Orient BlackSwan.</li> <li>9. N, Jayapalan. (2001). <i>Indian Administration</i>. (Vol.1). New Delhi: Atlantic Publishers &amp; Distributors Pvt Ltd.</li> </ol> |  |

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| <b>Paper<br/>Code and<br/>Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>PG 50T204 : PAPER -X COMPULSORY</b></p> <p><b>CONTEMPORARY ISSUES IN INTERNATIONAL RELATIONS</b></p> |
| <p align="center"><b>COURSE OUTCOME (COs)</b></p>                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                            |
| <p><b>After completing this paper, the students will be able to:</b></p> <p>CO-1. improve critical thinking and writing skills of the students and demonstrate their ability to understand and describe the social, political, and economic forces that influence social behaviour and the global system</p> <p>CO-2. Enhance the comprehension skills of students leading to discussions, simulations, and policy papers based on the course</p> |                                                                                                            |

CO-3. Understand State System in a Globalized world and the role of Non-state Actors.

CO-4. Environmental Concerns in International Relations

| Title of the Paper                             | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| CONTEMPORARY ISSUES IN INTERNATIONAL RELATIONS | 25                        | 75                                 | 100         | 4              | 4       |

### **Unit- I: Globalization: Concepts and Perspectives**

1. Globalization: Meaning, State System in a Globalized world and the role of Non-state Actors.
2. Challenges before Global Democracy and Global Civil Society: Recent developments

### **Unit-II: International Relations and Information Revolution**

1. Impact of Information Revolution on International Relations and Challenges before Policy making
2. International Security: Concepts, threats and effects on international political Economy

### **Unit-III: Environmental Concerns in International Relations**

1. Environmental Agenda, issues and challenges: from the Stockholm to Johannesburg
2. Women and Environment: Gender Issues, Transnational Women's Movement, Perspectives of the Developing Nations

### **Unit-IV: Terrorism and Human Rights**

1. Causes and consequences of Terrorism: New developments
2. The New Economic Order and the Human Rights

### **REFERENCES**

1. Chatterjee, Aneek. (2018). *International Relations Today*. New York: Pearson Education.
2. Basu, Rumki. (2017). *International Politics: Concepts, Theories and Issues*. New Dehli: SAGE Publications Pvt. Ltd.
3. Khanna, V.N. (2013). *International Relations*. New Dehli: Vikas Publishing House.
4. Brincat, Shannon., Lima, Laura., & Nunes Joao. (Ed.). (2011). *Critical Theory in International Relations and Security Studies: Interviews and Reflections*. New

Dehli: Rutledge.

5. Salmon, Trevor C., & Imber, Mark F. (ed.). (2008). *Issues in International Relations*. New York: Routledge.
6. Wilkinson, Paul. (2007) *International Relations - A Very Short Introduction*. USA: Oxford University Press.
7. Forsythe, David P. (2006). *Human rights in international relations*. UK: Cambridge University Press.
8. Soumyen, Sikdar. (2006). *Contemporary Issues in Globalization - An Introduction to Theory and Policy in India*. India: OUP.
9. Brown, Chris., & Ainsley, Kirsten. (2005). *Understanding international relations*. New York: Palgrave Macmillan.
10. Erskine, Toni. (2004). *Can Institutions Have Responsibilities?: Collective Moral Agency and International Relations (Global Issues)*. USA: Palgrave Macmillan.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | OEC ( Human Rights).<br>PAPER-XI (OPEN ELECTIVE)<br>HUMAN RIGHTS: THEORY AND PRACTICE |                                    |             |                |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOM (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1. understand the contentious relationship between human rights and economic development;<br>CO-2. Understand historical contexts and the modern idea of human rights including the debate between universality and cultural relativism, between civil and human rights, between individual and community, drawing on real life examples from current affairs.<br>CO-3. Give an insight in to the policy issues connected to human rights and their operational procedures.<br>CO-4.Understand Human Rights Mechanisms and Responsibility |                                                                                       |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Internal Assessment Marks                                                             | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| (OPEN ELECTIVE)<br>HUMAN RIGHTS: THEORY AND PRACTICE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 25                                                                                    | 75                                 | 100         | 4              | 4       |
| Unit-I: Understanding Human Rights and Theory<br>1. Defining Human Rights, Difference between Rights and Obligations<br>2. Theories of Rights - Views of John Locke, J.S. Mill, H.J. Laski, Mahatma Gandhi and B.R.Ambedkar.                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                    |             |                |         |

### **Unit–II: Evolution of Human Rights and its Dimensions**

1. Evolution of the concept of Human Rights - Universal Declaration of Human Rights and International Covenants thereon
2. Human Rights Dimensions – Rights of Women, Children, Minorities, the subalterns and right to development

### **Unit–III: Human Rights Mechanisms and Responsibility**

1. Human Rights Monitoring Mechanisms - United Nations System, Judiciary, International Court of Justice
2. Human Rights and Social Responsibility – Role of Education, NGOs, Media, Civil Society

### **Unit–IV: Human Rights and the Constitution**

1. Human Rights and the Constitution of India - National and State Human Rights Commissions in India
2. Human Rights Violations – case studies of Kashmir, Israel and Palestine, Rohingya's of Myanmar, Syrian conflict.

### **REFERENCES**

1. Ansari, M.R. (2006). *Protecting Human Rights*. New Delhi : Maxford Books.
2. Ray, Arun. (2005). *National Human Rights Commission of India*. Delhi : Khama Publishers.
3. Rajindra, Sachar. (2004). *Human Rights: Perspectives and challenges*. New Delhi: Gyan Publishing House.
4. J O'Byrne, Darren. (2003). *Human Rights: an introduction*. Delhi: Pearson Education.
5. Sinha, P.C. (2003). *India's Human Rights Regime (Two Parts)*. New Delhi : Kanishka Publishers.
6. Saksena K.P., (Ed.). (2003). *Human Rights and the Constitution : Vision and the Reality*. New Delhi: Gyan Publishing House.
7. Vinod, Sharma. (2002). *Human Rights Violations : A Global Phenomenon*. New Delhi : A.P.H.
8. Mamta, Rajwath. (Ed.). (2001). *Burning Issue of Human Rights*. Delhi : Kalpaz.
9. Chandra, Umesh. (2000). *Human Rights*. Allahabad : Allahabad Law Agency Publications.
10. Borgonain, B. (1999). *Human Rights: Social Justice and Political Challenges*. New Delhi: Kanishka Publishers.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                       | <b>PG 50T206A : XII – A- INDIAN GOVERNMENT AND POLITICS</b><br><b>PAPER XII –A –II (SPECIALIZATION)</b><br><b>MAKING OF THE CONSTITUTION OF INDIA</b> |                                           |              |                       |                |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                       |                                           |              |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Understand the efforts of Constitution makers<br>CO-2. Understand the Philosophy of the Constitution<br>CO-3. Develop the ability to be the responsible citizens<br>CO-4. Understand the debates of the Constituent assembly |                                                                                                                                                       |                                           |              |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                        | <b>Internal Assessment Marks</b>                                                                                                                      | <b>Marks for Semester end Examination</b> | <b>Total</b> | <b>Hours per week</b> | <b>Credits</b> |
| INDIAN GOVERNMENT AND POLITICS PAPER XII –A –II (SPECIALIZATION)<br>MAKING OF THE CONSTITUTION OF INDIA                                                                                                                                                                                          | 25                                                                                                                                                    | 75                                        | 100          | 4                     | 4              |
| <b>Unit-I: Making of the Constitution</b><br>1. Historical Background of the Constituent Assembly, Composition, Functions and various Committees<br>2. Enforcement of the Constitution – Salient Features of Indian Constitution                                                                 |                                                                                                                                                       |                                           |              |                       |                |
| <b>Unit-II: Philosophy of the Constitution</b><br>1. The Preamble, Fundamental Rights and Duties, Directive Principles of State Policies<br>2. Gandhian, Liberal and Socialistic Principles - An Evaluation                                                                                      |                                                                                                                                                       |                                           |              |                       |                |
| <b>Unit-III: Structure of the Government</b><br>1. Federalism – Structure and Functioning, Powers of Parliament-Quality of Debates and Composition<br>2. Decentralized Governance – Philosophy, Responsibility and Institutional structure, Evaluation of their functioning                      |                                                                                                                                                       |                                           |              |                       |                |

#### **Unit-IV: Institutions**

1. Indian Judiciary – Judicial review, Public Interest Litigation, Judicial Activism
2. Lok Pal and Lok Ayukta, Communalism and Evaluation of Working of Indian Constitution

#### **REFERENCES**

1. Bakshi, P. M. (2019). *Constitution of India*. New Dehli: Universal.
2. Agrawal. P.K., & Gupta, Virag. (2019). *The Constitution of India*. New Dehli: Prabhat Prakashan.
3. Basu, D D. (2018). *Introduction to the Constitution of India*. New Dehli: Lexis Nexis; Twenty-Third.
4. Pal, S. (2015). *India'S Constitution –Origins And Evolution*. New Dehli: Lexis Nexis.
5. Subhash, Kashyap. (2015). *Concise Encyclopedia of Indian Constitution*. Mubai: Orient Paperbacks.
6. Rama, Jois. (2014). *Legal and Constitutional History of India*. UP: Universal Law Publishing Co Ltd.
7. Atlantic Research Division, (2012). *Constitutional Democracy and Government in India*. Channai: Atlantic.
8. Pandey, Ashwani. (2012). *Making of the constitution of india*. New Dehli: Abhijeet Publication.
9. Ashutosh, Kumar. (2011). *Indian Constitution and Its Features*. Bengaluru: Anmol Publications Pvt Ltd.
10. Agarwal R.C., & Bhatnagar, Mahesh. (2006). *Constitutional Development and National Movement in India*. New Dehli: S Chand & Co Ltd.

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| <b>Paper<br/>Code and<br/>Name</b>                                                                    | <b>PG 50T206B : XII-B-PUBLIC<br/>ADMINISTRATION Paper-XII-B-2<br/>(SPECIALIZATION)<br/>PUBLIC PERSONNEL ADMINISTRATION</b> |
| <b>COURSE OUTCOME (COs)</b>                                                                           |                                                                                                                            |
| After completing this paper, the students will be able to:                                            |                                                                                                                            |
| CO-1. sharpen the student's intellect in understanding the need and importance of the line and staff. |                                                                                                                            |
| CO-2. Understand Administrative Procedure                                                             |                                                                                                                            |
| CO-3. Know about Types of Career Planning                                                             |                                                                                                                            |

| CO-4. Distinguish between Theory and Practice of Public Administration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |       |                |         |
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| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Internal Assessment Marks | Marks for Semester end Examination | Total | Hours per week | Credits |
| XII-B-PUBLIC ADMINISTRATION<br>Paper-XII-B-2 (SPECIALIZATION)<br>PUBLIC PERSONNEL ADMINISTRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 25                        | 75                                 | 100   | 4              | 4       |
| <b>Unit-I: Nature of Public Personnel Administration</b><br>1. Nature, Scope and Importance of Public Personnel Administration<br>2. Factors influencing Personnel Policies, Classification of Position- Position Classification V/S Rank Classification                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                    |       |                |         |
| <b>Unit-II: Types of Career Planning</b><br>1. Recruitment Process and Methods, Merit, Merit vs. Reservation, Career Planning.<br>2. Promotion: Methods, Benefits, Training, Types and Methods of Training.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                    |       |                |         |
| <b>Unit-III: Administrative Procedure</b><br>1. Discipline, Punishment and Code of Conduct, Ethics and morale in administration.<br>2. Transfers – Methods and Challenges, Administrative Reforms Commissions,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                    |       |                |         |
| <b>Unit-IV: Essentials of Public Personnel Administration</b><br>1. Generalists vs. Specialists Debate, Grievance redressal Mechanism.<br>2. Corruption – Forms of corruption, Committees, Superannuation and Benefits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                    |       |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1. Maheshwari, S.R. (2001). <i>Indian Administration</i> . New Delhi: Orient Longman.<br>2. Sharma, M.P., & Sadana, B.I. (2001). <i>Public Administration in Theory and Practice</i> . New Delhi: Kitab Mahal.<br>3. Gadakari, S.G., & Kolhatkar, M.R. (Ed.). (2000). <i>Innovation in public administration</i> . Delhi: Allied.<br>4. Ramchandran, Padma. (1998). <i>Public Administration</i> . New Delhi: NBT.<br>5. Gupta, M.C., & Tiwari, R.K. (Eds.). (1998). <i>Restructuring Government</i> . New Delhi: IIPA.<br>6. Bhattacharya, Mohit. (1997). <i>Restructuring public Administration : Essays in Rehabilitation</i> . New Delhi: Jawahar. |                           |                                    |       |                |         |

7. Chaturvedi, T.N. (Ed.). (1996). *Contemporary Administrative Culture of India*. New Delhi: I.I. P.A.
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9. Singh, Hoshiyar., & Singh, D.P. (Ed.). (1990). *Indian Administration*. Jaipur: Alekh pub.
10. Goel, S.L. (1987). *Public Personnel Administration*. New Delhi: Sterling publishers.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                       | PG50T206C : XII-C-INTERNATIONAL RELATIONS<br>PAPER-XII-C-2 (SPECIALIZATION) DIPLOMACY: THEORY AND PRACTICE |                                           |              |                       |                |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                                                                                                      |                                                                                                            |                                           |              |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Develop skills of diplomatic language, etiquettes through a classroom discussion<br>CO-2. Take up research in Diplomacy<br>CO-3. Understand the role of Diplomacy in International Relations<br>CO-4.Unrstand Globalization and Changing Nature of Diplomacy |                                                                                                            |                                           |              |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                        | <b>Internal Assessment Marks</b>                                                                           | <b>Marks for Semester end Examination</b> | <b>Total</b> | <b>Hours per week</b> | <b>Credits</b> |
| XII-C-INTERNATIONAL RELATIONS<br>PAPER-XII-C-2<br>(SPECIALIZATION)<br>DIPLOMACY: THEORY AND PRACTICE                                                                                                                                                                                                                             | 25                                                                                                         | 75                                        | 100          | 4                     | 4              |
| <b>Unit-I: Introduction</b><br>1. Meaning , Nature, Evolution and Objectives of Diplomacy<br>2. Classification of Diplomats and Consuls, Functions of Diplomacy                                                                                                                                                                  |                                                                                                            |                                           |              |                       |                |
| <b>Unit-II: Techniques of Diplomacy</b><br>1. Recruitment of Diplomats and Consuls, Establishment of Consular Relations and Diplomatic Privileges and Immunities<br>2. Techniques and Instruments of Diplomacy, Formation of Treaties, its Interpretation and Termination , Diplomacy and UN                                     |                                                                                                            |                                           |              |                       |                |

### **Unit-III: Types of Diplomacy**

1. Diplomacy Types – Conference, Summit, Consultative or Collective and Personal Diplomacy
2. Traditional or Bilateral Diplomacy, Modern or Multilateral Diplomacy, Cultural Diplomacy

### **Unit-IV: Diplomacy and International law**

1. Role of Diplomacy and International law, Globalization and Changing Nature of Diplomacy
2. Diplomacy, Security and Mediation, Diplomacy in the Age of Terrorism

### **REFERENCES**

1. Sahay, Paramjit. (2019). *Indian Cultural Diplomacy: Celebrating Pluralism in a Globalised World*. India: VIJ Books.
2. Saran, Shyam. (2018). *How India Sees the World: Kautilya to the 21st Century*. New Dehli: juggernaut.
3. Bjola, Corneliu., & Kornprobst, Markus. (2018). *Understanding International Diplomacy: Theory, Practice and Ethics*. New Yark: Routledge.
4. Alison, Holmes. (2016). *Global Diplomacy*. Bengaluru: Taylor & Francis Inc.
5. Berridge, G. R. (2015). *Diplomacy Theory and Practice*. UK: Palgrave Macmillan.
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8. Hamilton, Keith., & Langhorne, Richard. (2010). *The Practice of Diplomacy: Its Evolution, Theory and Administration*. UK: Routledge.
9. Kissinger, Henry. (1995). *Diplomacy*. New Yark: Simon & Schuster.
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                            | <b>PG 50 T 206 D : Paper-XII-D-2 (SPECIALIZATION)<br/>UNITARY AND FEDERAL GOVERNMENTS.<br/>(JAPAN AND CHINA, AMERICA AND SWITZERLAND)</b> |
| <b>COURSE OUTCOME (COs)</b>                                                                                                                                                                                                                                                           |                                                                                                                                           |
| After completing this paper, the students will be able to:<br>CO-1. make comparisons of federal and unitary systems,<br>CO-2. Understand Constitution and Constitutionalism<br>CO-3. Know about world Constitutions<br>CO-4. Take up research in comparative government and politics. |                                                                                                                                           |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Internal Assessment Marks | Marks for Semester end Examination | Total | Hours per week | Credits |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------|----------------|---------|
| <b>Paper-XII-D-2<br/>(SPECIALIZATION)<br/>UNITARY AND FEDERAL GOVERNMENTS.<br/>(JAPAN AND CHINA, AMERICA AND SWITZERLAND</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25                        | 75                                 | 100   | 4              | 4       |
| <b>Unit-I: Introduction</b> <ol style="list-style-type: none"> <li>1. Nature, Scope and Significance of the study of Comparative Government and Politics</li> <li>2. Approaches to the Study of Comparative Government and Politics – Traditional (Philosophical, Historical and Institutional) Modern (Sociological, Psychological, Economic )</li> </ol>                                                                                                                                                                                                                                                                                                      |                           |                                    |       |                |         |
| <b>Unit-II: Constitution and Constitutionalism</b> <ol style="list-style-type: none"> <li>1. Comparative Analysis of the Features of the Constitutions of Japan, China,U.S.A and Switzerland.</li> <li>2. Constitution and Constitutionalism: Structure and Functions, Elements of Constitutionalism (Government according to the constitution; separation of power; sovereignty of the people and democratic government; constitutional review; independent judiciary; limited government subject to a bill of individual)</li> </ol>                                                                                                                          |                           |                                    |       |                |         |
| <b>Unit-III: Structure of the Governments</b> <ol style="list-style-type: none"> <li>1. Executive, Legislature and Judiciary - Unique Features of Japan, China, U.S.A, Switzerland</li> <li>2. Political Culture and Political Values of Japan, China, U.S.A, Switzerland</li> </ol>                                                                                                                                                                                                                                                                                                                                                                            |                           |                                    |       |                |         |
| <b>Unit-IV: Politics and Political Developments</b> <ol style="list-style-type: none"> <li>1. Politics and Political Developments – Party System, Pattern of Voting, Policy Making and Functioning of Peoples’ Representatives in Japan, China, U.S.A, Switzerland</li> <li>2. Political Process and Media – Elections, Foreign Policy and Leadership, Media and Its Role in Politics in Japan, China, U.S.A, Switzerland.</li> </ol>                                                                                                                                                                                                                           |                           |                                    |       |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Vile, John R. (2015). <i>The United States Constitution</i>. New Yark: Palgrave Macmillan.</li> <li>2. Bhagwan, Vishnoo., Bhushan, Vidya., &amp; Mohla, Vandana. (2014). <i>World Constitution</i>. New Dehli: Sterling Publication.</li> <li>3. Galanti, Sigal Ben-Rafael., &amp; Otmazgin. Nissim. (2014). <i>Japan's Multilayered Democracy (New Studies in Modern Japan)</i>. United States: Lexington Books.</li> <li>4. Brooker, Paul. (2013). <i>Non-Democratic Regimes (Comparative Government and Politics)</i>. US: Red Globe Press.</li> </ol> |                           |                                    |       |                |         |

5. Kriesi, Hanspeter. & Trechsel, Alexander H. (2008). *The Politics of Switzerland: Continuity and Change in a Consensus Democracy*. London: Cambridge University Press.
6. Treisman, Daniel. (2007). *The Architecture of Government*. New York: Cambridge University Press.
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8. Saich, Tony. & Wright, Vincent. (2004). *Governance and Politics of China*. UK: Palgrave Macmillan.
9. Hickey, James. (1996). *Government Structures in the U.S.A. and the Sovereign States of the Former U.S.S.R.: Power Allocation Among Central, Regional, and Local Governments*. Praeger Publishers Inc.
10. Bowles, Nigel. (1993). *The Government and Politics of the United States*. UK: Macmillan Education.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                           | <b>PG 50T301.: PAPER-XIII (COMPULSORY)</b><br><b>MODERN INDIAN POLITICAL THOUGHT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                         |                                                                                      |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO 1 –Understand Modern Indian Political Thought<br>CO 2- Know about theories propounded by modern Indian thinkers<br>CO 3- Understand the Ideologies of Indian thinkers<br>CO 4-Make Comparative studies and research |                                                                                      |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                            | <b>Internal Assessment Marks</b>                                                     | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Modern Indian Political Thought</b>                                                                                                                                                                                                                                               | 25                                                                                   | 75                                        | 100                | 4                     | 4              |

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| <p style="text-align: center;"><b>Unit-I: Revolutionary Thinkers</b></p> <ol style="list-style-type: none"> <li>1. Bal Ganghadhar Tilak: Revolutionary Nationalism</li> <li>2. Subhash Chandra Bose: Revolutionary Nationalism</li> <li>3. V.D. Savarkar : National Integrity and Patriotism</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p style="text-align: center;"><b>Unit-II: Liberal Traditionalists</b></p> <ol style="list-style-type: none"> <li>1. Gopal Krishna Gokhale: Constitutionalism</li> <li>2. Mahatma Gandhi: Theory of State and Satyagraha</li> <li>3. Moulana Abul Kalam Azad and Mohamad Iqbal: Their Political Ideas</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <p style="text-align: center;"><b>Unit-III: Secular Spiritual Thinkers</b></p> <ol style="list-style-type: none"> <li>1. M.N. Roy: Radical Humanism</li> <li>2. Jawahar Lal Nehru: Democratic Socialism</li> <li>3. Swami Vivekananda: Spiritual Nationalism</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p style="text-align: center;"><b>Unit-IV: Socialist Thinkers</b></p> <ol style="list-style-type: none"> <li>1. Jayaprakash Narayan: Total Revolution</li> <li>2. Ram Manohar Lohia: Socialism, Four Pillar State.</li> <li>3. Dr.Ambedkar and Dr.Jagajivan Ram: Theory of Social Justice</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Gupta, Ram Chandar. (1999). <i>Indian Political Thought</i>. Agra: Laxmi Narain Agarwal.</li> <li>2. Sharma, U. (1997). <i>Modern Indian Political Thought</i>. Agra: Laxmi Narain Agarwal.</li> <li>3. Sharma, U. (1997). <i>Modern Indian Political Thought</i>. Agra: Laxmi Narain Agarwal.</li> <li>4. Bakshi, B., &amp; Ram, Jagjivan. (1992). <i>The Harijan Leader</i>. New Delhi : Anmol Publication.</li> <li>5. Verinder, Grover. (1990). <i>Modern Indian Thinkers</i>. (30 Vols), New Delhi: Deep and Deep.</li> <li>6. Patil, V.S. (1988). <i>Netaji Subhash Chandra Bose, His Contribution to Indian Nationalism</i>. Delhi: Sterling.</li> <li>7. Bali, Dev Raj. (1988). <i>Modern Indian Thought (From Rammohan Roy to Jayaprakash Narayan)</i>. Bangalore: Sterling publishers Pvt. Ltd.</li> <li>8. Rathna Reddy, A.V. (1984). <i>Political Philosophy of Swami Vivekananda</i>. Bangalore: Sterling publishers Pvt. Ltd.</li> <li>9. Varma, V.P. (1978). <i>Modern Indian Political Thought</i>. Agra: Laxmi Narain Agrawal.</li> <li>10. Narayan, Jayaprakash. (1964). <i>Socialism, Sarvodaya and Democracy: selected works</i>. Bombay: Asia Publication.</li> </ol> |  |

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| <b>Paper<br/>Code and<br/>Name</b>                         | <b>PG 50T302.: PAPER-XIV (COMPULSORY)<br/>CONTEMPORARY WESTERN POLITICAL THOUGHT</b> |
| <b>COURSE OUTCOMES (COs)</b>                               |                                                                                      |
| After completing this paper, the students will be able to: |                                                                                      |

| CO 1- Understand the foundational aspects of Modern Governments<br>CO 2- Understand the ideas of Political Thinkers<br>CO 3- Make comparative studies<br>CO 4- Take up research in Western Political thought.                                                                                                                                                                                                                                                                                                                                                               |                           |                                    |             |                |         |
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| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| <b>Contemporary Western Political Thought</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 25                        | 75                                 | 100         | 4              | 4       |
| <p style="text-align: center;"><b>Unit-I: Contractualists</b></p> <ol style="list-style-type: none"> <li>1. Thomas Hobbes - (The Leviathan): Social Contract and Absolute Sovereignty</li> <li>2. John Locke- (Two Treatises on Government): Social Contract, Natural Rights, Property and Right of Revolution</li> <li>3. Jean Jacques Rousseau- (Social Contract): Social Contract and Theory of General will</li> </ol>                                                                                                                                                  |                           |                                    |             |                |         |
| <p style="text-align: center;"><b>Unit-II: Theory of Separation of Powers, Conservatism &amp; Utilitarianism</b></p> <ol style="list-style-type: none"> <li>1. Charles De Montesquieu(The Spirit of Laws) : Liberty and Theory of Separation of Powers</li> <li>2. Edmund Burke (Reflections on the French Revolution and Speeches on the American Revolution) : Theory of State, Conservatism</li> <li>3. Jeremy Bentham: (Fragment on Government) –Utilitarianism;<br/>J.S. Mill: (On Liberty, Representative Government) –Liberty, Representative Government.</li> </ol> |                           |                                    |             |                |         |
| <p style="text-align: center;"><b>Unit-III: Idealists</b></p> <ol style="list-style-type: none"> <li>1. Immanuel Kant (Metaphysical First Principles of the Theory of Law, For Perpetual Peace) : Moral Freedom, State</li> <li>2. G.W.F. Hegel (Outline of the Philosophy of Right) : Dialectic Interpretation of History and State</li> <li>3. T.H. Green (Principles of Political Obligation): Positive Freedom, State and Political Obligation.</li> </ol>                                                                                                              |                           |                                    |             |                |         |
| <p style="text-align: center;"><b>Unit-IV: Socialists</b></p> <ol style="list-style-type: none"> <li>1. Karl Marx ( The Communist Manifesto) : Materialistic Interpretation of History, Communism</li> <li>2. V.I. Lenin (State and Revolution) : Theory of Revolution, Democratic Centralism</li> <li>3. Harold J. Laski -(State in Theory and in Practice): Pluralist theory of Sovereignty, State and Rights</li> </ol>                                                                                                                                                  |                           |                                    |             |                |         |

### **REFERENCES**

1. Nelson, Brian R. (2004). *Western Political Thought From Socrates to the Age of Ideology*. Delhi: Pearson Education.
2. Mukherjee, Subrata., & Ramaswamy, Sushila. (1999). *A History of Political Thought: Plato to Marx*. New Delhi: Prentice Hall.
3. Wolff, Jonathan. (1996). *An Introduction to Political Philosophy*. New Delhi: OUP.
4. Dunning, W.A. (1976). *A History of Political Philosophies*. (Vol. 3) Allhabad: Central Book Depot.
5. Suda, J.P. (1973). *Modern Political Thought*. Meerut: K.Nath & Co.
6. Coker, Francis W. (1962). *Recent Political Thought*. Calcutta: World publication.
7. Ebenstein, William. (1960). *Modern Political Thought: Great Issues*. New York: Holt publication.
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9. Sabine, G.H. (1951). *A History of Political Theory*. London: George G.Harrap.
10. Spahr, Margaret. (Ed.). (1948). *Readings in Recent Political philosophy*. New York: Macmillan.

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| <b>Paper Code and Name</b>                                                                                                | <b>PG 50T303.: PAPER-XV (COMPULSORY)</b><br><b>CONTEMPORARY POLITICAL THEORIES</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                              |                                                                                    |                                           |                    |                       |                |
| After completing this paper, the students will be able to:                                                                |                                                                                    |                                           |                    |                       |                |
| CO 1- Offer rationale explanations to the political changes and develop professionalism.                                  |                                                                                    |                                           |                    |                       |                |
| CO 2- Develop theoretical knowledge in the discipline                                                                     |                                                                                    |                                           |                    |                       |                |
| CO 3- Develop a critical skill to analyse an occurrence                                                                   |                                                                                    |                                           |                    |                       |                |
| CO 4- Analyze the political developments systematically                                                                   |                                                                                    |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                 | <b>Internal Assessment Marks</b>                                                   | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Contemporary Political Theories</b>                                                                                    | 25                                                                                 | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I Political Theory:</b>                                                                                           |                                                                                    |                                           |                    |                       |                |
| 1. 1. Defining Political Theory, its emergence, Inter disciplinary character of political Theory, Process of theorization |                                                                                    |                                           |                    |                       |                |
| 2. Positivism, Post Modernism, Cultural Studies                                                                           |                                                                                    |                                           |                    |                       |                |

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| <b>Unit–II Recent Theories in Political Science</b> <ol style="list-style-type: none"> <li>1. Civil Society: Hegel and Gramsci, Multi Cultural Societies</li> <li>2. Post Colonialism: Edward Said, Gayatri Spivak,</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Unit-III Perspectives on Democracy</b> <ol style="list-style-type: none"> <li>1. Public Sphere: Jurgen Habermas, Justice as fairness: John Rawls</li> <li>2. Theories of Alienation, Terrorism</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| <b>Unit-IV Global Theory; Emerging Issues</b> <ol style="list-style-type: none"> <li>1. Globalization and Global Political Theory – David Held</li> <li>2. End of History: Francis Fukuyama; Human Rights –Emerging Trends</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Joseph, Sarah. (2006). <i>Political Theory and Power</i>. New Delhi: Foundation Books.</li> <li>2. Beteille, Andre. (2006). <i>Ideology and Social Science</i>. New Delhi: Penguin Books.</li> <li>3. Brass, Paul R. &amp; Vanaik, Achin. (eds.). (2002). <i>Competing Nationalism in South Asia</i>. New Delhi: Orient Longmans.</li> <li>4. Seidman, Steven., &amp; Alexander, Jeffery C. (2001). <i>The New Social theory reader</i>. New York.</li> <li>5. Bhargava, Rajeev. (1998). <i>Secularism: A Critic</i>. New Delhi: Oxford University Press.</li> <li>6. Barry, Norman P. (1998). <i>An Introduction to Modern Political Theory</i>. London: Mc Millan.</li> <li>7. Bronner, Stephen Eric. (1997). <i>Twentieth Century Political Theory A Reader</i>. New York and London: Routledge.</li> <li>8. Chatterjee, Partha. (1997). <i>Nationalism and its Fragments</i>. New Delhi: Oxford University Press.</li> <li>9. Said, Edward W. (1995). <i>Orientalism</i>. New Delhi: Penguin Books.</li> <li>10. Chohen, J.L., &amp; Arato, A. (1992). <i>Civil Society and Political Theory</i>. Cambridge: M.I.T. Pres.</li> </ol> |  |

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| <b>Paper Code and Name</b>   | <b>PG 50T304.: PAPER XVI (COMPULSORY):</b><br><b>MODERN POLITICAL ANALYSIS</b> |
| <b>COURSE OUTCOMES (COs)</b> |                                                                                |

| After completing this paper, the students will be able to:<br>CO 1- Develop a strategic approach to understand the Politics<br>CO 2- Understand the Dynamics of Politics<br>CO 3-Analyze the Political Events<br>Co 4-Interpret the political Developments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                    |             |                |         |
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| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Modern Political Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 25                        | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: Introduction to Political Analysis</b><br>1. Traditional and Modern views about the meaning of Politics<br>2. Major Approaches to Political Analysis ,Significance of Political Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |             |                |         |
| <b>Unit-II: Characteristics and Classifications of Political Systems</b><br>1. Characteristics of a Political System ,David Easton's Input and Output Analysis<br>2. Gabriel Almond's classification of Political Systems, Theory of Structural-Functionalism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                    |             |                |         |
| <b>Unit-III: Political Participation</b><br>1. Political Participation and its Significance, Factors Influencing Political participation,<br>2. Modes of Participation, Political Apathy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                    |             |                |         |
| <b>Unit-IV: Political Culture and Socialization</b><br>1. Political Culture and Types, Political Socialization and Agents of Political Socialization<br>2. Lucian Pye's Development Syndrome, David Apter's Paradigm of the Developing Countries,Inter-Connection between Political Decay and Political Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1. Jayapalan. (2002). <i>Comprehensive Modern Political Analysis</i> . New Delhi: Atlantic.<br>2. Ray, S.N. (1999). <i>Modern Comparative Politics</i> . New Delhi: Prentice Hall of India.<br>3. Jangam, R.T., & others. (1997). <i>Modern Political Analysis</i> . New Delhi: Oxford & IBH.<br>4. Dahl, R.A. (1997). <i>Modern political analysis</i> . New Delhi: Printice Hall of India.<br>5. Dahl, R.A., & others. (1997). <i>Readings in Modern Political Analysis</i> . New Jersey: Printice Hall.<br>6. Gandhi, M.G. (1981). <i>Modern Political Analysis</i> . New Delhi: Oxford and IBH.<br>7. Kohl, E. J. (1978). <i>A Framework of Political Analysis</i> . New Jersey: Prentice Hall.<br>8. Young, O.R. (1968). <i>System of Political Science</i> . New Jersey: Prentice Hall.<br>9. Charlesworth, J.C. (Ed.). (1967). <i>Contemporary Political Analysis</i> . New York : Free Press.<br>10. Young, R. (1958). <i>Approaches to the study of Politics</i> . Evanston: North Western |                           |                                    |             |                |         |

University Press.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                         | <b>PAPER-XVII (OPEN ELECTIVE)<br/>POLITICAL JOURNALISM</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                       |                                                            |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO1-Learn the fundamentals of covering political world in reporting it professionally.<br>CO2- Develop insights and complete knowledge of political reporting<br>CO3- Develop skills of reporting and research insights about the system and its structural contours.<br>CO4- Gain in depth knowledge of Political Institutions and Their Assessment |                                                            |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                          | <b>Internal Assessment Marks</b>                           | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Political Journalism</b>                                                                                                                                                                                                                                                                                                                                                                                        | 25                                                         | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I: Understanding Politics</b><br>1. Meaning and Nature of State, Defining Politics and the Political Process<br>2. Measuring Political Developments and defining the role of Mass Media-Press, Radio and TV                                                                                                                                                                                                |                                                            |                                           |                    |                       |                |
| <b>Unit-II: Political Actors and Political Action</b><br>1. Defining Political Culture, Nature of Political Parties and Forms of Political Participation<br>2. Defining Constitutionalism and working of Lobbies and Pressure Groups                                                                                                                                                                               |                                                            |                                           |                    |                       |                |
| <b>Unit-III: Political Institutions and Their Assessment</b><br>1. Central, State, Local Governments and Judiciary - an assessment of their performance<br>2. Writing Evaluative Reports - background information, criteria for evaluation (parameters), conclusions and recommendation                                                                                                                            |                                                            |                                           |                    |                       |                |
| <b>Unit-IV: Political Communication</b><br>1. Journalistic writing skills, Date Line discussions and Hard Talk Interviews<br>2. Writing Political Blogs, Punctuation, Epitomization and Interpretations                                                                                                                                                                                                            |                                                            |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b><br>1. Iorio, Sharon Hartin. (2004). <i>Qualitative Research In Journalism</i> . London: Erlbaum Associates.                                                                                                                                                                                                                                                                               |                                                            |                                           |                    |                       |                |

2. Merritt, Davis. (2004). *Public Journalism And Public Life*, London: Erlbaum Associates.
3. Kuhn, Raymond. (2003). *Political Journalism New Challenges*. New York: New Practices, Rutledge.
4. Sedorkin, Gail., & McGregor, Judy. (2002). *Interviewing – A Guide For Journalist And Writers*, Crows Nest. N.S.W: Allen And Unwin.
5. Mcnair, Brian. (2000). *Journalism And Democracy*. London: Rutledge.
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9. Johari, J.C. (1982). *Comparative Politics*. New Delhi : Sterling Publishers.
10. Dahl, Robert A. (1981). *Modern Political Analysis*. New Delhi: Prentice Hall of India.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                               | <b>PG 50T306A: XVIII-A- INDIAN GOVERNMENT AND POLITICS</b><br><b>PAPER XVIII-A-3 (SPECIALIZATION)</b><br><b>DYNAMICS OF INDIAN CONSTITUTION</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1. Understand the Philosophy of the Constitution<br>CO -2 Inculcate the noble ideals of Constitution<br>CO-3. Understand the <i>Constitutional Development and National Movement in India</i><br>CO - 4. Understand the dynamics of Indian Constitution |                                                                                                                                                 |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                | <b>Internal Assessment Marks</b>                                                                                                                | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Dynamics Of Indian Constitution</b>                                                                                                                                                                                                                                                                                   | 25                                                                                                                                              | 75                                        | 100                | 4                     | 4              |
| <b>Unit –I: Making of the Constitution</b><br>1. Demand for and Creation of the Constituent Assembly , Major Debates<br>2. Philosophy of the Constitution, Parliamentary Form of Government. (Essentials,                                                                                                                |                                                                                                                                                 |                                           |                    |                       |                |

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| Features, Structure, Representation and Decline)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Unit-II: Structure of the Institution</b> <ol style="list-style-type: none"> <li>1. Lok Sabha and the Rajya Sabha (Composition, Powers and Functions)</li> <li>2. Party System, Defection- Politics of Defection and Anti– Defection Law, Hung Parliament and Coalition Politics,</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b>Unit-III: Composition of the Judiciary</b> <ol style="list-style-type: none"> <li>1. Supreme Court – Composition, Structure and Jurisdiction, Public Interest Litigation.</li> <li>2. Judicial Review, Judicial Activism, Amendment procedures to constitution</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Unit-IV: Union-State Relations</b> <ol style="list-style-type: none"> <li>1. Union-State Relations-Trends in Indian Federalism, Debate over Article 356, Demand for State Autonomy and Separatist Movements</li> <li>2. Major Recommendations of the Administrative Reforms Commission, Sarkaria Commission, Madan Mohan Punchhi Commission, Venkatachalaiah Commission.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Government of India</a>. (2019). <i>Constitution of India</i>. New Dehli: Government of India.</li> <li>2. Bakshi, P. M. (2019). <i>The Constitution of India</i>. UP: Universal Law Publishing.</li> <li>3. <a href="#">Basu</a>, D. D. (2018). <i>Introduction to the Constitution of India</i>. New Yark: Lexis Nexis,</li> <li>4. Shukla, V.N., &amp; Pal Singh, Mahender. (2018). <i>Constitution of India</i>. Lucknow: EBC.</li> <li>5. <a href="#">Laskar</a>, Mokbul. (2017). <i>Dynamics of Indian Federalism: A Comprehensive Historical Review</i>. Chennai: Notion Press.</li> <li>6. Pal, Samaraditya. (2015). <i>India 'S Constitution –Origins And Evolution</i>. New Yark: Lexis Nexis.</li> <li>7. <a href="#">Khanna</a>, H. R. (2008). <i>Making of India's Constitution</i>, Bengaluru: Eastern Book Co.</li> <li>8. Agarwal, R.C., &amp; Bhatnagar, Mahesh. (2005). <i>Constitutional Development and National Movement in India</i>. New Dehli: S Chand &amp; Co Ltd.</li> <li>9. <a href="#">Austin, Granville</a>. (1999). <i>The Indian Constitution: Cornerstone of A Nation</i>, New Dehli: Oxford University Press.</li> <li>10. <a href="#">Palkhivala</a>, N. A. (1999). <i>We, the People</i>. New Dehli: UBS Publishers &amp; Distributors Ltd.</li> </ol> |  |

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| <b>Paper Code and Name</b> | <b>PG 50T306B.: XVIII-B- PUBLIC ADMINISTRATION<br/>PAPER-XVIII-B-3 (SPECIALIZATION)</b> |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ORGANIZATION AND MANAGEMENT |                                    |             |                |         |
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO 1-learn skills of managing an organization<br>CO 2- Understand the process of Management<br>CO 3-Develop strategic abilities<br>CO 4-Understand Personal Administration and Management                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Internal Assessment Marks   | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Organization And Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 25                          | 75                                 | 100         | 4              | 4       |
| Unit-I: Introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                             |                                    |             |                |         |
| 1. Meaning, Nature and Scope of the concept of Organization and Management.<br>2. Significance, Goals and Objectives of Organization and Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                                    |             |                |         |
| Unit-II: Theories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                    |             |                |         |
| 1. Human Relations Theory of Organization (Elton Mayo)<br>2. Scientific Management Theory (F.W.Taylor), Management by Objectives (Peter Drucker)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |                                    |             |                |         |
| Unit-III: Process                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                    |             |                |         |
| 1. Hierarchy, Division of work, Unity of Command, Span of Control<br>2. Coordination, Training , Performance appraisal, Goal Orientation,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             |                                    |             |                |         |
| Unit-IV: Planning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                    |             |                |         |
| 1. Meaning, Significance of planning, Programme planning and Perspective planning.<br>2. Plan implementation, Plan Evaluation, Decision making and stages in Decision making.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |                                    |             |                |         |
| REFERENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                                    |             |                |         |
| 1. Banarjee, S. (1996). <i>Principles and Practice of Management</i> . New Delhi: Oxford IB.H.<br>2. Goel, S.L. (1993). <i>Personal Administration and Management</i> . New Delhi: Sterling.<br>3. Drucker, Peter. (1990). <i>The Practice of Management</i> . Singapore: Mac Grew Hill.<br>4. Koontz, H.W. (1990). <i>Essentials of Management</i> . Singapore: Mac Graw Hill.<br>5. Bhattacharya, Mohit. (1987). <i>Public Administration</i> . (2 <sup>nd</sup> ed). Calcutta: World Press.<br>6. Lynch, Thomas D. (Ed.). (1983). <i>Organization Theory and Management</i> . New York: Marcel Dekker.<br>7. Nigro, Felix. (1983). <i>Modern Public Administration</i> . New York: Harper and Row. |                             |                                    |             |                |         |

8. Etzioni, Amitai. (1965). *Modern Organization*. New Delhi: Prentice Hall of India.
9. Pfeiffer., & Shorewood. (1960). *Administrative Organization*. Englewood Cliffs: Prentice Hall.
10. Moorey, James D. (1957). *The Principles of Organization*. New York: Harper and Row.

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| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                          | PG 50T306C: XVIII-C- INTERNATIONAL RELATIONS<br>PAPER-XVIII-C-3 (SPECIALIZATION)<br>INTERNATIONAL LAW & INTERNATIONAL ORGANIZATIONS |                                    |             |                |         |
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO 1-Understand Conflict Resolution and International Settlement of Disputes.<br>CO2- <i>Understand The Dynamics of International Law in Conflict Resolutions.</i><br>CO3- Know the responses of <i>developing Countries towards International Law.</i><br>CO4- Know about the Role of U.N. in World Politics. |                                                                                                                                     |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                           | Internal Assessment Marks                                                                                                           | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| International Law & International Organizations                                                                                                                                                                                                                                                                                                                              | 25                                                                                                                                  | 75                                 | 100         | 4              | 4       |
| Unit-I: Introduction                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                     |                                    |             |                |         |
| 1. Sources and Significance of International law, Difference between International Law and Domestic law, International Humanitarian Law                                                                                                                                                                                                                                      |                                                                                                                                     |                                    |             |                |         |
| 2. Operationalising International law - Institutions and actors.<br>(Focus on Agreements, Treaties, U.N. Conventions, Summits)                                                                                                                                                                                                                                               |                                                                                                                                     |                                    |             |                |         |
| Unit-II: Conflict Resolution Mechanisms                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                     |                                    |             |                |         |
| 1. International law and Conflicts: Conflict Resolution, International Settlement of Disputes.                                                                                                                                                                                                                                                                               |                                                                                                                                     |                                    |             |                |         |
| 2. Conflict Resolution Mechanisms: Neutrality, Sanctions, Peace keeping.                                                                                                                                                                                                                                                                                                     |                                                                                                                                     |                                    |             |                |         |
| Unit-III: International Organizations                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     |                                    |             |                |         |
| 1. Genesis of League of Nations and United Nations –Structure and Functioning.                                                                                                                                                                                                                                                                                               |                                                                                                                                     |                                    |             |                |         |
| 2. Challenges before U.N. - Economy, Autonomy, Need for Reform, Role of U.N. in World Politics.                                                                                                                                                                                                                                                                              |                                                                                                                                     |                                    |             |                |         |
| Unit-IV: U.N. and World Order                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                     |                                    |             |                |         |
| 1. Role of U.N. in Development and Environmental Challenges, Democratizing U.N. and the New World Order                                                                                                                                                                                                                                                                      |                                                                                                                                     |                                    |             |                |         |

2. Effectiveness of U.N. - Achieving Millennium Goals 2030, Prospects of U.N.

**REFERENCES**

1. Clark, Ian. (1999). *Globalization and International Relations Theory*. London: Oxford university Press.
2. Bajpai, Kanti., & Shukul, Harish C. (1995). *Interpreting World Politics*. New Delhi: Sage.
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6. Anand, R.P. (1987). *International Law and the developing Countries*. Nijhoff: Martinus.
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8. Mehrish, B.N. (1988). *International Organizations: Structure and Process*. New Delhi: Vishal Publications.
9. Rebeca, M., & Wallace, M. (1986). *International Law*. London : Sweet with Maxwell.
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                        | <b>PG 50T306D: XVIII-D- COMPARATIVE GOVERNMENT AND POLITICS</b><br><b>PAPER XVIII-D-3 (SPECIALIZATION)</b><br><b>PARLIAMENTARY AND PRESIDENTIAL GOVERNMENTS</b><br><b>(UK AND AUSTRALIA; BRAZIL AND NIGERIA)</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                  |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO1-Understand Parliamentary and Presidential form Governments<br>CO2- Make Comparative Studies<br>CO3- Take up research in Comparative Government and Politics<br>CO4- Analyze the Parliamentary and Presidential form Governments |                                                                                                                                                                                                                  |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                         | <b>Internal Assessment Marks</b>                                                                                                                                                                                 | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |    |     |   |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|---|---|
| <b>Parliamentary And Presidential Governments<br/>(Uk And Australia; Brazil And Nigeria)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 25 | 75 | 100 | 4 | 4 |
| <b>Unit – I: Historical Background</b> <ol style="list-style-type: none"> <li>1. Brief Historical background of UK, Australia, Brazil and Nigeria and the features of these societies</li> <li>2. <a href="#">Presidential and Parliamentary Systems</a> - <a href="#">Essential Characteristics, Main influences on these systems in</a> UK, Australia, Brazil and Nigeria.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |     |   |   |
| <b>Unit- II: Features and Composition</b> <ol style="list-style-type: none"> <li>1. Features and composition of Presidential and Parliamentary System of Government: Major differences and similarities</li> <li>2. Features and composition of Legislature, Executive and Judiciary in UK, Australia, Brazil and Nigeria.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |    |     |   |   |
| <b>Unit–III: Socio-Economic Dimensions</b> <ol style="list-style-type: none"> <li>1. Social and Economic contexts of UK, Australia, Brazil and Nigeria and its impact on these societies; Foreign policies of UK, Australia, Brazil and Nigeria</li> <li>2. Major issues in UK, Australia, Brazil and Nigeria; Brexit, Migration, Poverty, Racism and Policy making in this direction</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |    |     |   |   |
| <b>Unit–IV: Political Democracy</b> <ol style="list-style-type: none"> <li>1. Nature of Politics, prominent leadership and civil societies in UK, Australia, Brazil and Nigeria</li> <li>2. Institutional response to Political Democracy, challenges and role of UK, Australia, Brazil and Nigeria in world politics.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |    |     |   |   |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Afonso da Silva, Virgilio. (2019). <i>The Constitution of Brazil: A Contextual Analysis</i>. London: Bloomsbury Publishing Plc.</li> <li>2. Bhagwan, Vishnoo., Bhashan, Vidya., &amp; Mohla, Vandana. (2013). <i>World Constitutions: A Comparative Study</i>. New Delhi: Sterling Publishers.</li> <li>3. Andre Melo, Marcus. &amp; Pereira, Carlos. (2013). <i>Making Brazil Work: Checking the President in a Multiparty System</i>. New York: Palgrave Macmillan.</li> <li>4. King, Anthony. (2009). <i>The British Constitution</i>. USA: Oxford University Press.</li> <li>5. Turpin, Colin., &amp; Tomkins, Adam. (2007). <i>British Government and the Constitution: Text and Materials (Law in Context)</i>. England: Cambridge University Press.</li> <li>6. Kemp, Rod., &amp; Stanton, Marion. (2005). <i>Speaking for Australia: Parliamentary Speeches that Shaped the Nation</i>. Melbourne: Allen &amp; Unwin.</li> <li>7. Mowoe, Kehinde., (2003). <i>Constitutional Law in Negeria. (Vol.I)</i>. Nigeria: Malthouse</li> </ol> |    |    |     |   |   |

Press.

8. Harris, (ed 1.). (2002). *A New Constitution for Australia (Australian)*. Melbourne: Routledge. edition.
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10. Nigeria., (1979). *The Constitutional of the Federal Republic of Nigeria*. Nigeria: Daily Times.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                           | PG 50T401.: PAPERS-XIX (COMPULSORY)<br>LOCAL GOVERNMENT AND POLITICS IN INDIA |                                    |             |                |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                         |                                                                               |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO1- Gain in depth knowledge about <b>Local Government and Decentralization</b><br>CO2-Understand Urban Local Government and Administration in India.<br>CO3- Develop interest in becoming practitioners of local government<br>CO4- Analyze the functioning of local governments                                               |                                                                               |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                            | Internal Assessment Marks                                                     | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Local Government And Politics In India                                                                                                                                                                                                                                                                                                                                                        | 25                                                                            | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: Local Government and Decentralization</b><br>1. Meaning, Concept and Significance of Local Government in India (Urban and Rural), Constitutional Frame work relating to Local governments in India.<br>2. Theories of Decentralization, Concept of Delegation, De-Concentration and Devolution: its Benefits. Significance of Development of Rural and Urban Institutions in India |                                                                               |                                    |             |                |         |
| <b>Unit-II: Evolution of Local Governments</b><br>1. Local Governments (Urban and Rural): Evolution, Meaning, Features, Significance and Leadership.<br>2. 73rd and 74th Constitutional Amendment Acts. Panchayati Raj Institutions: Composition, Functions, Sources of Income and Significance                                                                                               |                                                                               |                                    |             |                |         |
| <b>Unit-III: Urban Local Governments</b><br>1. Urban Local Bodies: Varieties (Metropolitan Corporation, Municipal Corporation, Municipality, Town Panchayat) Meaning, Features, Role and Significance.                                                                                                                                                                                        |                                                                               |                                    |             |                |         |

2. District Administration: Evolution, Features and Functions. District Collector: Colonial legacy, Revenue Administration, Functions and Position.

#### **Unit-IV: Globalization and Local Government**

1. State Finance Commission, State Election Commission. Urban-Rural Relationship and Problems.
2. Globalization and Concept of Citizen Centric Administration: Features and Significance Citizen's Charter, Concept of Stake holders and Service Providing.

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10. Mackenzie, W J. M. (1975). *Explorations in Government Collected Papers 1951-1968*. UK: Palgrave Macmillan.

| Paper<br>Code and<br>Name                                                                                                                                                                                                                                                             | <p align="center"><b>PG 50T402.: PAPER-XX (COMPULSORY)</b></p> <p align="center"><b>ELECTIONS AND ELECTORAL PROCESS IN INDIA</b></p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                 |                                                                                                                                      |
| <p>After completing this paper, the students will be able to:</p> <p>CO1-Understand Election Process and its Dynamics.</p> <p>CO2- Gain knowledge to become elected representatives.</p> <p>CO3- Know about Electoral reforms</p> <p>CO4-Become Sephalogists ( Election Analysts)</p> |                                                                                                                                      |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Elections And Electoral Process In India</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 25                        | 75                                 | 100         | 4              | 4       |
| <b>Unit-I: Election and Electoral Methods</b> <ol style="list-style-type: none"> <li>History of Franchise in India, Methods of Election</li> <li>Provisions of the Constitution of the India, Representation of the People's Act</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                    |             |                |         |
| <b>Unit-II: Electoral Machinery</b> <ol style="list-style-type: none"> <li>Election Commission of India, Electoral Machinery in the States and Districts</li> <li>Recognition and Regulation of Political Parties, Election Campaign and Election Expenses, model code of conduct</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                    |             |                |         |
| <b>Unit-III: Procedures of Election</b> <ol style="list-style-type: none"> <li>Election Procedure, Impact of Multi Party System on Election</li> <li>Election Disputes and Election Tribunals</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                    |             |                |         |
| <b>Unit-IV: Electoral Reforms</b> <ol style="list-style-type: none"> <li>Voting Behavior, Opinion Polls and Election Result Predictions</li> <li>Electoral Reforms: Problems, Need and Issues</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>Age, Robin. (2019). <i>Elections in India: Everything You Need to Know</i>. India: HarperCollins Publishers.</li> <li>Roy, Prannoy., &amp; Sopariwala, Dorab R. (2019). <i>The Verdict: Decoding India's Elections</i>. UK: Vintage.</li> <li>Singh, Shivam Shankar. (2019). <i>How to Win an Indian Election: What Political Parties Don't Want You to Know</i>. UK: Penguin eBury Press.</li> <li>Tiwari, R. K. (2018). <i>Political Parties, Party Manifestos and Elections in India, 1909–2014</i>. New Dehli: Routledge.</li> <li>Kidwai, Rasheed. (2018). <i>Ballot: Ten Episodes that Have Shaped India's Democracy</i>. New Dehli: Hachette India.</li> <li><a href="#">Kumar</a>, Ashutosh., &amp; <a href="#">Sisodia</a>, Yatindra Singh. (2018). <i>How India Votes: A State-by-State Look</i>, Hyderabad: Orient BlackSwan.</li> <li><a href="#">Rama Devi</a>, V. S., &amp; <a href="#">Mendiratta</a>, S. K. (2016). <i>How India Votes - Election Laws, Practice and Procedure</i>. New Yark: Lexis Nexis.</li> <li>Agrawal, Manoj. (2015). <i>Electoral Reforms</i>. New Dehli: Prabhat Prakashan.</li> <li>Saha, K. C. (2015). <i>Model Code of Conduct Handbook: Elections in India</i>. New Dehli: Shipra Publications.</li> </ol> |                           |                                    |             |                |         |

10. [Palshikar, Suhas. Et Al.](#), (2014). *Party Competition in Indian States: Electoral Politics in Post-Congress Polity*. New Dehli: Oxford University Press.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PG 50T403.: PAPER-XXI (COMPULSORY)<br>POLITICAL ECONOMY |                                    |             |                |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                         |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO 1- Develop the analytical skill of measuring the political dimensions of economic output and policy in given context<br>CO 2- to assess the impact of Politics in both formal and informal ways on the formulation of economic policies, general economic development in increasing the standard of living in the country<br>CO 3- Analyze Political Economy and Domestic Politics<br>CO 4-Understand Political Economy and Civil Society, |                                                         |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Internal Assessment Marks                               | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Political Economy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 25                                                      | 75                                 | 100         | 4              | 4       |
| Unit –I: Introduction to Political Economy<br>1. Meaning, Nature, Significance and Scope of Political Economy<br>2. Political Economy, Globalisation and Nation States                                                                                                                                                                                                                                                                                                                                      |                                                         |                                    |             |                |         |
| Unit-II: Political Economy and Domestic Politics<br>1. International Concerns and Domestic Concerns, Difference among National Economies<br>2. Governance and Economic Stability, Political Economy as the cause for Backwardness                                                                                                                                                                                                                                                                           |                                                         |                                    |             |                |         |
| Unit-III: Political Economy and Regionalism<br>1. Political Economy and Regional Integration, Foreign Policy issues<br>2. Domestic Politics, Policies and Its impact on Political Economy                                                                                                                                                                                                                                                                                                                   |                                                         |                                    |             |                |         |
| Unit-IV: Political Economy and Development<br>1. Political Economy: State Criticism Vs Corporatism<br>2. Political Economy and Civil Society, Prospects of Political Economy                                                                                                                                                                                                                                                                                                                                |                                                         |                                    |             |                |         |
| REFERENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                         |                                    |             |                |         |

1. Athreya, Venkatesh. (2019). *Marxian Political Economy – An Introduction to Capital*. (Vol. 1). Chennai: Tulika Books.
2. [Mill](#), John Stuart. (2012). *Principles of Political Economy*. Create Space Independent Publishing Platform.
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10. [Bardhan. Pranab](#), (1998). *The Political Economy of Development in India*. New Dehli: oxford University Press.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                     | <b>PG 50T404.: PAPER-XXII (COMPULSORY)</b><br><b>RESEARCH METHODS IN SOCIAL SCIENCE</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                   |                                                                                         |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO 1- Develop interest in Social Science Research<br>CO 2- Become Research Assistants in Projects<br>CO 3- Become good researchers<br>CO 4- Take up short term research Projects and make career |                                                                                         |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                      | <b>Internal Assessment Marks</b>                                                        | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Research Methods In Social Science</b>                                                                                                                                                                                                                      | 25                                                                                      | 75                                        | 100                | 4                     | 4              |
| <b>Unit – I: Research Methods</b><br>1. Meaning and Need for Research, Types of Research: Fundamental and Applied<br>2. Political Science Research: Its History and Utility<br>3. Traditional and Scientific Methods of Research                               |                                                                                         |                                           |                    |                       |                |

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| <b>Unit – II: Research Design</b> <ol style="list-style-type: none"> <li>1. Meaning and Types of Research Design, Formulation of Research Problem</li> <li>2. Literature Review: Sources and Use of Information Technology</li> <li>3. Hypothesis: Formulation, Characteristics and Types</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Unit – III: Techniques of Data Collection</b> <ol style="list-style-type: none"> <li>1. Types of Data and Choice of Data Collection Method</li> <li>2. Survey Research, Observation.</li> <li>3. Document Analysis</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <b>Unit – IV: Data Analysis, Interpretation and Research Reporting</b> <ol style="list-style-type: none"> <li>1. Processing of Data; Univariate, Bivariate, Multivariate Data Analysis</li> <li>2. Generalization and Theory- Building ;Computer Application in Data Analysis</li> <li>3. Research Report Writing ; Use of Chicago and MLA Style Manual</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Kothari, C. R., &amp; Garg, Gourav. (2014). <i>Research Methodology: Methods &amp; Techniques</i>. New Delhi: New Age International.</li> <li>2. Ahuja, Ram. (2012). <i>Research Methods</i>. Jaipur: Rawat Publishers.</li> <li>3. McNabb, David E. (2005). <i>Research Methods for Political Science : Quantitative and Qualitative Methods</i>. New Delhi: Prentice Hall of India.</li> <li>4. Jaypalan, N. (2000). <i>Research Methods in Political Science</i>. New Delhi: Atlanta.</li> <li>5. Ghosh, B.N. (1997). <i>Scientific Methods and Social Research</i>. New Delhi: Sterling.</li> <li>6. Chicago University press. (1996). <i>The Chicago Manual of Style</i>. New Delhi: Prentice – Hall of India.</li> <li>7. Johnson, J.B., &amp; Joslin, R.A. (1989). <i>Political Science Research Methods</i>. New Delhi: Prentice-Hall of India.</li> <li>8. Young, P.V. (1984). <i>Scientific Social Survey and Research</i>. New Delhi: Prentice – Hall.</li> <li>9. Sharma, B A V., &amp; Others. (1983). <i>Research Methods in Social Sciences</i>. New Delhi: Sterling Publishers.</li> <li>10. Greenstein, F.I., &amp; Polsby, N.W. (Eds.). (1975). <i>Strategies of Inquiry. Vol.7: Handbook of Political Science. 8 Vols</i>. California: Addison – Wesley.</li> </ol> |  |

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|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper<br/>Code and<br/>Name</b> | <b>PG50D405:</b><br><b>PAPER-XXIII (COMPULSORY)</b><br><b>PROJECT WORK</b><br><b>(A topic to be chosen from the area nearer to the syllabus in any paper prescribed for M.A. Degree in Political Science)</b> |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                            |                           |                                    |             |                |         |
|------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
|                                                            |                           |                                    |             |                |         |
| COURSE OUTCOMES (COs)                                      |                           |                                    |             |                |         |
| After completing this paper, the students will be able to: |                           |                                    |             |                |         |
| Title of the Paper                                         | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|                                                            |                           |                                    |             |                |         |
|                                                            |                           |                                    |             |                |         |
|                                                            |                           |                                    |             |                |         |
| 3.                                                         |                           |                                    |             |                |         |
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                   | <b>PG 50T406A.: STREAMS OF SPECIALIZATION</b><br><b>XXIV-A-INDIAN GOVERNMENT AND POLITICS</b><br><b>PAPER-XXIV-A-4 (SPECIALIZATION)</b><br><b>POLITICAL PROCESS AND POLITICS IN INDIA</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                           |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO 1- Understand the nature of Indian state and its operational mechanisms.<br>CO 2- sharpen the students’ critical intellect and their ability to analyze Indian Government and Politics.<br>CO 3-Gain knowledge about the Challenges to the electoral system<br>CO 4-Understand the Major issues in Politics |                                                                                                                                                                                           |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                    | <b>Internal Assessment Marks</b>                                                                                                                                                          | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Political Process And Politics In India</b>                                                                                                                                                                                                                                                                                                                               | 25                                                                                                                                                                                        | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I: Understanding Political Process and Politics</b><br>1. Meaning and Nature of Political system, Political Parties and the Party System:                                                                                                                                                                                                                            |                                                                                                                                                                                           |                                           |                    |                       |                |

- National and Regional Parties
2. Trends in the Party System - Congress system, Coalitions and Majoritarianism, Dominant Party culture

### **Unit II- Political Action and Societal Response**

1. Challenges to the electoral system - Social determinants of voting, Religion and Politics, Debates on secularism, majority and minority Communalism
2. Federalism and Regional Aspirations - Politics of secession, autonomy and control, Fiscal federalism and social movements

### **Unit III- Political Institutions – Emergence and Decay**

1. The Legislature, Executive, and Judiciary- Nature of the Indian State, discrimination and affirmative action policies, Nature of political power in India.
2. Development Issues-Power sharing, Welfare, Ideological and Coercive dimensions Caste in politics and the politicization of caste and gender

### **Unit IV- Major issues in Politics**

1. Political Representation–Types, Gender empowerment and representation, debates over reservation and creamy layer, demands for internal reservation
2. Major political challenges – Unemployment, Poverty, Agricultural distress, Health care, environmental hazards.

### **REFERENCES**

1. [Singh](#), Abhay Prasad., & [Murari](#), Krishna. (2019). *Political Process in Contemporary India*. London: Pearson Education.
2. [Sharma](#), Ruchir. (2019). *Democracy on the Road: A 25 Year Journey through India*. New Dehli: Penguin.
3. [Roy](#), Himanshu., & [Singh](#), M P. (2018). *Indian Political System*. Chennai: Pearson.
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5. Mitra, Subrata K. (2014). *Politics In India - Structures, Processes, and Policy*. New Dehli: Oxford.
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8. Hewitt, Vernon. (2009). *Political Mobilization and Democracy in India*. London: Routledge.
9. Chakrabarty, Bidyut. (2008). *Indian Politics and Society since Independence Events, processes and ideology*. New York: Routledge.

10. Brass, Paul R. (2003). *The Politics of India since Independence*. New Dehli: Cambridge University Press.

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| <b>Paper Code and Name</b>                                                                                                                                                                                               | <b>PG 50T406B.: XXIV-B-PUBLIC ADMINISTRATION</b><br><b>PAPER-XXIV-B-4 (SPECIALIZATION)</b><br><b>NEW PUBLIC MANAGEMENT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                             |                                                                                                                            |                                           |                    |                       |                |
| After completing this paper, the students will be able to:                                                                                                                                                               |                                                                                                                            |                                           |                    |                       |                |
| CO 1- The ability to analyze and critique the complexity of public administration                                                                                                                                        |                                                                                                                            |                                           |                    |                       |                |
| CO 2-Understand Administrative Behaviour                                                                                                                                                                                 |                                                                                                                            |                                           |                    |                       |                |
| <b>CO 3-Know Modern Management Techniques</b>                                                                                                                                                                            |                                                                                                                            |                                           |                    |                       |                |
| CO 4-Understand <i>Public Administration in Theory and Practice</i> .                                                                                                                                                    |                                                                                                                            |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                | <b>Internal Assessment Marks</b>                                                                                           | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>New Public Management</b>                                                                                                                                                                                             | 25                                                                                                                         | 75                                        | 100                | 4                     | 4              |
| <b>Unit-I: Introduction</b><br>1. Nature, Scope and Significance of Management in Administration<br>2. Development as Science and Profession, Tasks and Functions of Management                                          |                                                                                                                            |                                           |                    |                       |                |
| <b>Unit-II-New Public Management</b><br>1. Genesis and Growth of New Public Management, Principles and Characteristics: Egalitarianism, Hierarchy V/s Horizontal Administration<br>2. Concept and Components: Governance |                                                                                                                            |                                           |                    |                       |                |
| <b>Unit-III-Administrative Behavior</b><br>1. Communication and Control<br>2. Morale and Motivation, Leadership                                                                                                          |                                                                                                                            |                                           |                    |                       |                |
| <b>Unit-IV-Modern Management Techniques</b><br>1. Management Information System (MIS)<br>2. Management by Objectives (MBO), The Effective organization                                                                   |                                                                                                                            |                                           |                    |                       |                |

## **REFERENCES**

1. Sharma, M.P., & Saldana, B.L. (2006). *Public Administration in Theory and Practice*. Allahabd: kitab Mahal.
2. Sapra, R.K. (2006). *Administrative Theories and Management Thought*. New Delhi: Prentice Hall and India.
3. Gormley Jr, W., & Bhalla, S. (2004). *Bureaucracy and Democracy Accountability and Performance*. Washington D.C: C.Q.Press.
4. Cloke, Kenneth., & Goldsmith, John. (2002). *The End of Management and the Rise of Organizational Democracy*. Jossey: Basswiley.
5. Kettl, Donald. (2000). *The Global Public Management Revolution*. Washington D.C: Brookings.
6. Bhaskar Rao, V., & Sharma, Arvind. (Eds.). (1996). *Public Administration Quest for Identity*. New Delhi: Vikas.
7. Osborne, David., & Gaebler, Ted. (1993). *Registrar-Inventing Government*. New York: Penguin.
8. Srivastava, O.P.S. (1991). *Public Administration and Management the Brodening Horizons*. Bombay: Himalaya.
9. Koontz, Herold., & Donnel, Cyril O. (1968). *Principles of Managements*. New York: M.C.Graw Hill.
10. Likert, Rensis. (1961). *New Public Management*. New York: M.C.Graw Hill.

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                           | <b>PG 50T406C.: XXIV-C-INTERNATIONAL RELATIONS</b><br><b>PAPER-XXIV-C-4 (SPECIALIZATION)</b><br><b>INDIA AND REGIONAL ORGANIZATIONS</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                         |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO 1-Understand Concept, Approaches and Theories of Regional Cooperation<br>Co 2-Gain knowledge on Areas of Conflict and Cooperation in Regional Organizations<br>CO 3-Understand <i>Regionalism in World Politics: Regional Organization and International Order</i><br>CO 4- Analyze Regional organizations functioning and its relation with India. |                                                                                                                                         |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                            | <b>Internal Assessment Marks</b>                                                                                                        | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |    |     |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|---|---|
| <b>India And Regional Organizations</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 25 | 75 | 100 | 4 | 4 |
| <b>Unit-I-Introduction</b> <ol style="list-style-type: none"> <li>1. Concept, Approaches and Theories of Regional Cooperation - Cultural uniformity and Economic necessity as factors in Regional cooperation.</li> <li>2. India and her Neighbour, South Asian Society and Culture, Foreign Policies of South Asian Countries.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |     |   |   |
| <b>Unit-II: Need for Regional Organization</b> <ol style="list-style-type: none"> <li>1. Need for Regional Organizations, India's Agenda for Regional Cooperation,</li> <li>2. Government and Politics of South Asia, Problems of South Asian Countries</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |    |     |   |   |
| <b>Unit-III: Areas of Conflict and Cooperation</b> <ol style="list-style-type: none"> <li>1. Areas of Conflict and Cooperation in Regional Organizations – SAARC, BRICS, Commonwealth and ASEAN</li> <li>2. South Asian Regional Identity: Composition, aspiration and Constraints, Economic Development of South Asia,</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |    |     |   |   |
| <b>Unit-IV: Universalism vs. Globalisation</b> <ol style="list-style-type: none"> <li>1. National Power, Balance of Power, Collective Security, Universalism vs. Globalisation</li> <li>2. Bilateral and Regional Cooperation: Areas of Complementarities and Conflicts.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |    |     |   |   |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Singh, Sanjay. (2016). <i>Regional Diplomacy: SAARC, ASEANS, BRICS &amp; SCO</i>. Dehli: Prashant Publishing House.</li> <li>2. Alam, Mohammed Badrul. (2015). <i>India and Her Neighbours: Towards A Proactive Partnership</i>, New Dehli: Kalpaz Publications.</li> <li>3. Kaplan, Robert D. (2015). <i>Asia's Cauldron: The South China Sea and the End of a Stable Pacific</i>. New Dehli: Random House.</li> <li>4. Leifer, Michael. (2013). <i>ASEAN and the Security of South-East Asia</i>. New Dehli: Routledge.</li> <li>5. <a href="#">Bajpai</a>, Kanti P. (2013). <i>India's National Security: A Reader</i>, New Dehli: Oxford.</li> <li>6. <a href="#">Roy. Meenu</a>, (2010). <i>India and Her Sub-Continent Neighbours: New Pattern of Relationships</i>. New Dehli: Deep &amp; Deep Publications.</li> <li>7. <a href="#">Rumelili</a>, Bahar. (2007). <i>Constructing Regional Community and Order in Europe and Southeast Asia</i>. UK: Palgrave Macmillan.</li> <li>8. <a href="#">Jayapalan</a>, N. (2000). <i>India and Her Neighbours</i>. New Dehli: Atlantic.</li> </ol> |    |    |     |   |   |

9. [Fawcett](#), Louise., & [Hurrell](#) Andrew. (Ed.). (1996). *Regionalism in World Politics: Regional Organization and International Order*. London: OUP Oxford.
10. Haas, Michael. (1989). *The Asian Way to Peace: A Story of Regional Cooperation*. Westport: Praeger.

|                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                         |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| Paper Code and Name                                                                                                                                                                                                                                                                                                      | PG 50T406D.: XXIV-D-COMPARATIVE GOVERNMENT AND POLITICS<br>PAPER-XXIV-D-4 (SPECIALIZATION)<br>SOUTH, SOUTH EAST AND WEST ASIAN STUDIES<br>(KOREA AND INDONESIA; EGYPT AND SAUDI ARABIA) |                                    |             |                |         |
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                         |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO 1- Understand the geo political environment.<br>CO 2-Understand Functioning of Political Institutions and Policy making.<br>CO 3- Take up research in Comparative government and Politics<br>CO 4- Analyze the South, South East and West Asian studies |                                                                                                                                                                                         |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                       | Internal Assessment Marks                                                                                                                                                               | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| South, South East And West Asian Studies<br>(Korea And Indonesia; Egypt And Saudi Arabia)                                                                                                                                                                                                                                | 25                                                                                                                                                                                      | 75                                 | 100         | 4              | 4       |
| Unit – I: Historical Background                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                         |                                    |             |                |         |
| 1. Brief Historical background of Korea and Indonesia, Egypt and Saudi Arabia and the important features of these societies                                                                                                                                                                                              |                                                                                                                                                                                         |                                    |             |                |         |
| 2. Forms of Political <a href="#">Systems</a> - <a href="#">Essential characteristics, Main influences on these systems in</a> Korea and Indonesia, Egypt and Saudi Arabia                                                                                                                                               |                                                                                                                                                                                         |                                    |             |                |         |
| Unit- II: Functioning of Political Institutions                                                                                                                                                                                                                                                                          |                                                                                                                                                                                         |                                    |             |                |         |
| 1. Features and composition of Legislature, Executive and Judiciary: Major differences and similarities in Korea and Indonesia, Egypt and Saudi Arabia                                                                                                                                                                   |                                                                                                                                                                                         |                                    |             |                |         |
| 2. Functioning of Political Institutions and Policy making in Korea and Indonesia, Egypt and Saudi Arabia.                                                                                                                                                                                                               |                                                                                                                                                                                         |                                    |             |                |         |

**Unit – III: Socio-Economic Dimensions**

1. Social and Economic contexts of Korea and Indonesia, Egypt and Saudi Arabia and its impact on these societies; Foreign policies of Korea and Indonesia, Egypt and Saudi Arabia
2. Major issues in Korea and Indonesia, Egypt and Saudi Arabia; Threat of North Korea, China, Terrorism, Regime Change and Policy making in this direction

**Unit – IV: Political Democracy**

1. Nature of politics, prominent leadership and civil societies in Korea and Indonesia, Egypt and Saudi Arabia
2. Institutional response to political democracy, challenges and role of Korea and Indonesia, Egypt and Saudi Arabia in world politics
- 3.

**REFERENCES**

1. Lindsey, Tim., & Butt, Simon. (2019). *Indonesian Law*. London: Oxford University Press.
2. Hulsman, Comelis., & Serbdio Diana. (eds). (2017). *The 2014 Egyptian Constitution: Perspectives From Egypt*. Egypt: Nomos Verlagsgesellschaft.
3. Hahm, Chaihark., & Kim, Sung Ho. (2015). *Making we the People: Democratic Constitutional Founding in postwar Japan & South Korea (Comparative Constitutional Law & Polity)*. London: Cambridge University Press.
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6. Bhagwan, Vishnoo., Bhushan, Vidya., & Mohla, Vandana. (2013). *World Constitutions: A Comparative Study*. New Delhi: Sterling Publishers.
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# **Choice Based Credit System Syllabus**

**2019-20 onwards**

## **PUBLIC ADMINISTRATION**

**DEPARTMENT OF STUDIES AND RESEARCH IN PUBLIC  
ADMINISTRATION**

**KARNATAK UNIVERSITY**

**DHARWAD**

**Semester - I**

| Sl. No.                | Paper Code: | Type of Paper | Marks Semester Exam | Internal | Total | Title of the Paper                          | Credits and Hours per week |
|------------------------|-------------|---------------|---------------------|----------|-------|---------------------------------------------|----------------------------|
| 1                      | Paper: 1.1  | CPT           | 75                  | 25       | 100   | Introduction to Public Administration       | 4                          |
| 2                      | Paper: 1.2  | CPT           | 75                  | 25       | 100   | Administrative Thinkers                     | 4                          |
| 3                      | Paper: 1.3  | CPT           | 75                  | 25       | 100   | Theories of Public Administration           | 4                          |
| 4                      | Paper: 1.4  | CPT           | 75                  | 25       | 100   | Public Policy Analysis: Theory and Practice | 4                          |
| 5                      | Paper: 1.5  | CPT           | 75                  | 25       | 100   | Public Personnel Administration             | 4                          |
| <b>Optional Papers</b> |             |               |                     |          |       |                                             |                            |
| 6                      | Paper: 1.6A | SPT           | 75                  | 25       | 100   | Theories of Local Government                | 4                          |
| 7                      | Paper: 1.6B | SPT           | 75                  | 25       | 100   | Environmental Administration                | 4                          |
| 8                      | Paper: 1.6C | SPT           | 75                  | 25       | 100   | Theories of Development                     | 4                          |

## Semester - II

| Sl. No. | Paper Code: | Type of paper | Marks Semester Exam | Internal | Total | Title of the Paper | Credits and Hours per week |
|---------|-------------|---------------|---------------------|----------|-------|--------------------|----------------------------|
| 1       | Paper:      | CPT           | 75                  | 25       | 100   | Indian             | 4                          |

|                        |                  |     |    |    |     |                                                       |   |
|------------------------|------------------|-----|----|----|-----|-------------------------------------------------------|---|
|                        | 2.1              |     |    |    |     | <b>Administration</b>                                 |   |
| 2                      | Paper:<br>2.2    | CPT | 75 | 25 | 100 | <b>Social Welfare<br/>Administration</b>              | 4 |
| 3                      | Paper:<br>2.3    | CPT | 75 | 25 | 100 | <b>Financial<br/>Administration</b>                   | 4 |
| 4                      | Paper:<br>2.4    | CPT | 75 | 25 | 100 | <b>Theories of<br/>Bureaucracy</b>                    | 4 |
| 5                      | Paper:<br>2.5 OE | *OE | 75 | 25 | 100 | <b>Human Resource<br/>Development</b>                 | 4 |
| <b>Optional Papers</b> |                  |     |    |    |     |                                                       |   |
| 6                      | Paper:<br>2.6A   | SPT | 75 | 25 | 100 | <b>Urban Governments<br/>in India</b>                 | 4 |
| 7                      | Paper:<br>2.6B   | SPT | 75 | 25 | 100 | <b>Selected<br/>Environmental Policy<br/>Analysis</b> | 4 |
| 8                      | Paper:<br>2.6C   | SPT | 75 | 25 | 100 | <b>Contemporary<br/>Development Debates</b>           | 4 |

### **Semester - III**

| <b>Sl. No.</b> | <b>Paper<br/>Code:</b> | <b>Type<br/>of<br/>Paper</b> | <b>Marks<br/>Semester<br/>Exam</b> | <b>Internal</b> | <b>Total</b> | <b>Title of the Paper</b>     | <b>Credits<br/>and<br/>Hours<br/>per<br/>week</b> |
|----------------|------------------------|------------------------------|------------------------------------|-----------------|--------------|-------------------------------|---------------------------------------------------|
| 1              | Paper:<br>3.1          | CPT                          | 75                                 | 25              | 100          | <b>Administrative<br/>Law</b> | 4                                                 |

|                        |                       |     |    |    |     |                                                      |   |
|------------------------|-----------------------|-----|----|----|-----|------------------------------------------------------|---|
| 2                      | Paper:<br>3.2         | CPT | 75 | 25 | 100 | Comparative<br>Public<br>Administration              | 4 |
| 3                      | Paper:<br>3.3         | CPT | 75 | 25 | 100 | Administration of<br>Tribal Areas                    | 4 |
| 4                      | Paper:<br>3.4         | CPT | 75 | 25 | 100 | Research<br>Methodology                              | 4 |
| 5                      | Paper:<br>3.5 -<br>OE | *OE | 75 | 25 | 100 | Understanding the<br>Bio-Diversity                   | 4 |
| <b>Optional Papers</b> |                       |     |    |    |     |                                                      |   |
| 6                      | Paper:<br>3.6A        | SPT | 75 | 25 | 100 | Rural Governments<br>in India                        | 4 |
| 7                      | Paper:<br>3.6B        | SPT | 75 | 25 | 100 | Sustainable<br>Development<br>Theory and<br>Practice | 4 |
| 8                      | Paper:<br>3.6C        | SPT | 75 | 25 | 100 | Analysis of selected<br>Development<br>Policies      | 4 |

### Semester - IV

| Sl. No. | Paper Code:   | Type of Paper | Marks Semester Exam | Internal | Total | Title of the Paper                      | Credits and Hours per week |
|---------|---------------|---------------|---------------------|----------|-------|-----------------------------------------|----------------------------|
| 1       | Paper:<br>4.1 | CPT           | 75                  | 25       | 100   | New Public Management                   | 4                          |
| 2       | Paper:<br>4.2 | CPT           | 75                  | 25       | 100   | Good Governance:<br>Theory and Practice | 4                          |

|                        |                |              |    |    |     |                                                       |   |
|------------------------|----------------|--------------|----|----|-----|-------------------------------------------------------|---|
| 3                      | Paper:<br>4.3  | CPT          | 75 | 25 | 100 | Organisation and Management                           | 4 |
| 4                      | Paper:<br>4.4  | CPT          | 75 | 25 | 100 | Civil society and Administration                      | 4 |
| 5                      | Paper:<br>4.5  | Project Work | 75 | 25 | 100 | Dissertation                                          | 4 |
| <b>Optional Papers</b> |                |              |    |    |     |                                                       |   |
| 6                      | Paper:<br>4.5A | Field Work   | 75 | 25 | 100 | E - Governance and Corporate Governance: Case Studies | 4 |
| 7                      | Paper:<br>4.5B | Field Work   | 75 | 25 | 100 | Sustainable Development Projects: Case Studies        | 4 |
| 8                      | Paper:<br>4.5C | Field Work   | 75 | 25 | 100 | Development Projects in the region: An Evaluation     | 4 |

**CPT**=Core Paper Theory, **SPT**= Special Paper Theory,\* **OE**= Open Elective (Paper offered for other department students), **Project Work and Case Studies** - Dissertation/ Project Work/Assignments.

## PROGRAMME SPECIFIC OUTCOMES (PSOS)

After completion of this programme, the student will be able to:

1. Learn about the basic concept of Public Administration
2. Learn about the discipline of Public Administration
3. As a multidisciplinary field of study covering Arts, Science and Management Students
4. Understanding the skills in the field of Public Administration, Private and non government sectors
5. Helps the students with learning experience that develop broad knowledge for competitive examination

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>PG88T101: PAPER 1.1 (Compulsory): INTRODUCTION TO PUBLIC ADMINISTRATION</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 define Administration and Public Administration<br>Co-2 distinguish between Private and Public Administration<br>Co-3 Distinguish between Civil servants and Ministers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Internal Assessment Marks</b>                                               | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Introduction To Public Administration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 25                                                                             | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                           |                    |                       |                |
| 1. Meaning, Nature and Scope of Public Administration<br>2. Approaches to the study of Public Administration<br>3. Difference between Public and Private Administration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                |                                           |                    |                       |                |
| <b>UNIT II</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                |                                           |                    |                       |                |
| 1. Public Administration – Limits of Constitution<br>2. Role of Conventions in Administration<br>3. Public Administration and Decision Making                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                           |                    |                       |                |
| <b>UNIT III</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                           |                    |                       |                |
| 1. Relation between Ministers and Civil Servants<br>2. Working of governments and bureaucracy<br>3. Permanent and Temporary executive – an analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                |                                           |                    |                       |                |
| <b>UNIT IV</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                |                                           |                    |                       |                |
| 1. Civil Service and Civil Service Examinations<br>2. Preparatory methods and UPSC working<br>3. Relation between Administration and the Administered (Project)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                |                                           |                    |                       |                |
| 1. Ongaro, Edoardo., (2020). Philosophy and Public Administration: An Introduction. (Second Edition), UK, Edward Elgar Publishing Limited.<br>2. Avasthi., & Maheshwari., (2018). Public Administration.(34 <sup>th</sup> Revised and Enlarged Edition), Agra, Laxmi Narain Aggarwal.<br>3. <a href="#">Chakrabarty</a> , Bidyut., & <a href="#">Chand</a> , Prakash., (2016). Indian Administration: Evolution and Practice. India, Sage Publications<br>4. Holzer, Marc, & Schwester, W. Richard, (2015). Public Administration: An Introduction. (Second Edition), London, Routledge.<br>5. Fadia, B. L., & Fadia, Kuldeep., (2014). Indian Administration. New Delhi, Sahitya Bhawan<br>6. Laxmikanth, M., (2012). Public Administration. New Delhi, Tata McGraw-Hill Publishing Company Ltd.<br>7. Khan, A. Haroon., (2008). An Introduction to Public Administration. New York, University Press of America.<br>8. Singh, Hoshiar., & Sachdeva, Pardeep., (2005). Administrative Theory. New Delhi, Kitab |                                                                                |                                           |                    |                       |                |

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| Mahal.                                                                                                                |
| 9. Devesh, Kapur., & Mehta B. Pratap (Ed.), (2005). Public Institutions in India. New Delhi, Oxford University Press. |
| 10. Goel, S.L., (2003). Public Administration: Theory and Practice. New Delhi, Deep & Deep Publications.              |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PG88T102: PAPER 1.2 (Compulsory): ADMINISTRATIVE THINKERS |                                    |             |                |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 know the important contributors of administrative management approach;<br>CO-2 understand the general principles of administration;<br>CO-3 explain the relevance of administrative management.                                                                                                                                                                                                                  |                                                           |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Internal Assessment Marks                                 | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Administrative Thinkers                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 25                                                        | 75                                 | 100         | 4              | 4       |
| UNIT I                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                           |                                    |             |                |         |
| 1. Nature and importance of the study of Administrative thought<br>2. History of the growth of Schools of Administrative thinkers – Classical, Scientific and Humanistic<br>3. Understanding Administrative Management – Henry Fayol, James D. Mooney and Luther Gullick                                                                                                                                                                                                            |                                                           |                                    |             |                |         |
| UNIT II                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |                                    |             |                |         |
| 1. Scientific Management Movement – Principles and contribution of Frederick Winslow Taylor.<br>2. Human Relation Approach - Principles and contribution of Elton Mayo<br>3. Participative Management –Principles and contribution of Rensis Likert                                                                                                                                                                                                                                 |                                                           |                                    |             |                |         |
| UNIT III                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                           |                                    |             |                |         |
| 1. Principles of Organisation and Bureaucracy - Urwick and Max Weber<br>2. Management explained - Mary Parker Follett and Douglas McGregor<br>3. Approaches to Management - Chester Barnard’s Social Systems Approach and Chris Argyris’s Theory of Action                                                                                                                                                                                                                          |                                                           |                                    |             |                |         |
| UNIT IV                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                           |                                    |             |                |         |
| 1. Herbert Alexander Simon - Theories of Bounded rationality and Satisficing<br>2. Peter Drucker – Theories of Management by Objectives and Self control<br>3. Elinor Ostrom – Institutional Analysis and Development framework                                                                                                                                                                                                                                                     |                                                           |                                    |             |                |         |
| REFERENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                    |             |                |         |
| 1. Sapru, R.K., (2019). Administrative Theories and Management Thought. (Third Edition), Delhi, PHL Learning Private Limited.<br>2. Prasad, Ravindra., Prasad, V.S., Satyanarayana, P., & Pardhasaradhi, Y., (Eds.), (2017). Administrative Thinkers. New Delhi, Sterling Publishers Ltd.<br>3. Ragi,S. Kumar., (2015). Administrative Thinker. New Delhi, Laxmi Publications Pvt. Ltd.<br>4. Laxmikanth, M., (2012). Public Administration. New Delhi, Tata McGraw-Hill Publishing |                                                           |                                    |             |                |         |

Company Ltd.

5. Kumar, [Ashutosh.](#), & Singh, M. K., (2011). Administrative Thinkers. New Delhi, Anmol Publisher.
6. Goel, S.L., (2008). Administrative and Management Thinkers: Relevance in New Millennium. New Delhi, Deep & Deep Publications Ltd.
7. Basu, Rumki., (2008). Public Administration: Concepts and Theories. (Third revised and enlarged edition), New Delhi, Sterling Publishers Private Ltd,
8. Goel, S.L., (2003). Public Administration: Theory and Practice. New Delhi, Deep and Deep.
9. Maheshwari, S R., (2003). Administrative Thinkers. New Delhi, Macmillan India limited.
10. Shumsunnisa, Ali., (1998). Eminent Administrative Thinkers. New Delhi, Associated Publishing House.

| Paper Code and Name                                                                                                                                                                                                                                       | PG88T103: PAPER 1.3 (Compulsory): THEORIES OF PUBLIC ADMINISTRATION |                                    |             |                |         |
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| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                     |                                                                     |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 understand the impact of globalization on administrative theories.<br>CO-2 highlight the changing nature of public service<br>CO-3 explain the relevance of administrative management. |                                                                     |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                        | Internal Assessment Marks                                           | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Theories Of Public Administration                                                                                                                                                                                                                         | 25                                                                  | 75                                 | 100         | 4              | 4       |
| <b>UNIT I:</b><br>1. Nature, significance and the need for theory in Public Administration<br>2. Inter disciplinary nature of theories in Public Administration<br>3. Theory building in Public Administration                                            |                                                                     |                                    |             |                |         |
| <b>UNIT II:</b><br>1. Classical Theory<br>2. Modern Theory<br>3. Post Modern theory                                                                                                                                                                       |                                                                     |                                    |             |                |         |
| <b>UNIT III:</b><br>1. Neo Classical theory<br>2. Ecological Approach – F.W.Riggs<br>3. New Public Management Theory                                                                                                                                      |                                                                     |                                    |             |                |         |
| <b>UNIT IV:</b><br>1. Feminist perspectives in theories of Public Administration<br>2. Theories of inclusion, exclusion and social justice<br>3. Prospects for theories in Public Administration                                                          |                                                                     |                                    |             |                |         |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                  |                                                                     |                                    |             |                |         |

1. Prasad, Ravindra., Prasad, V.S., Satyanarayana, P., & Pardhasaradhi, Y., (Eds.), (2017). Administrative Thinkers. New Delhi, Sterling Publishers Ltd.
2. Dong, Lisheng., (2015). Public Administration Theories: Instrumental and Value Rationalities. New York, Palgrave Macmillan.
3. Raczlpwki, Konrad., (2015). Public Management: Theory and Practice. London, springer.
4. Naidu, S.P., (2013). Public Administration: Concepts and Theories. New Delhi, New Age International Ltd.
5. Sapru, R.K., (2013). Administrative Theories and Management Thought.(Third Edition), New Delhi, Prentice Hall of India
6. Shafritz, M. Jay., & Hyde, C. Albert., (2012). Classics of Public Administration.(7<sup>th</sup> Edition), London, Oxford University Press.
7. Chakrabarty, Bidyut., & Chanda, Prakash., (2012). Public Administration in a Globalizing World: Theories and Practices. New Delhi, Sage Publications.
8. Basu, Rumki., (2008). Public Administration: Concepts and Theories. (Third revised and enlarged edition), New Delhi, Sterling Publishers Private Ltd,
9. Goel, S.L., (2003). Public Administration: Theory and Practice. New Delhi, Deep and Deep.
10. Dhameja Alka (Ed), (2003). Contemporary Debates in Public Administration. New Delhi, Prentice Hall.

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|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>Paper Code and Name</b>                                                                                                                           | <b>PG88T104: PAPER 1.4 (Compulsory): PUBLIC POLICY ANALYSIS: THEORY AND PRACTICE</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                         |                                                                                      |                                           |                    |                       |                |
| After completing this paper, the students will be able to:                                                                                           |                                                                                      |                                           |                    |                       |                |
| CO-1 Understand public policy, and its significance;                                                                                                 |                                                                                      |                                           |                    |                       |                |
| CO-2 Understand the Institutional approach, which addresses the role that state and social institutions have in defining and shaping public policies |                                                                                      |                                           |                    |                       |                |
| CO-3 Understand the distinguish between policy, decision, plan, goals, policy analysis, and policy advocacy;                                         |                                                                                      |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                            | <b>Internal Assessment Marks</b>                                                     | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Public Policy Analysis: Theory And Practice</b>                                                                                                   | 25                                                                                   | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b>                                                                                                                                       |                                                                                      |                                           |                    |                       |                |
| 1. Introduction, Meaning, Nature, Scope and Importance of Public Policy                                                                              |                                                                                      |                                           |                    |                       |                |
| 2. Public Policy Processes and institutions                                                                                                          |                                                                                      |                                           |                    |                       |                |
| 3. Types of Public Policy and Context of Public Policy                                                                                               |                                                                                      |                                           |                    |                       |                |

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| <b>UNIT II:</b> <ol style="list-style-type: none"> <li>1. Models of Public Policy – Institutional Rational and Systems Models</li> <li>2. Lindblom's Incremental Approach and Dror's Normative-Optimum Model</li> <li>3. Theories of sustainability and Public Choice Theory in Public Policy making</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b>UNIT III:</b> <ol style="list-style-type: none"> <li>1. Public Policy Formulation and Role of Different Actors</li> <li>2. Public Policy Implementation Process and Approaches</li> <li>3. Policy Evaluation and Methods of Evaluation</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>UNIT IV:</b> <ol style="list-style-type: none"> <li>1. Making of Public Policy in India-Methods and limitations</li> <li>2. Economic Liberalisation model and its challenges</li> <li>3. Economic analysis of Public Policy</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Sapru, R.K., &amp; Sapru, Y. (2019). Public Policy: Formulation, Implementation and Evaluation. New Delhi, Sterling Publishers.</li> <li>2. Morgan, M. Granger., (2017). Theory and Practice in Policy Analysis: Including Applications in Science and Technology. India, Cambridge University Press.</li> <li>3. Hausman, Daniel., Mcpherson, Michael., &amp; Debra Satz., (2016). Economic Analysis, Moral Philosophy and Public Policy. (Third Edition), Cambridge University Press.</li> <li>4. Knill, Christoph., &amp; Tosun, Jale., (2012). Public Policy: A New Introduction. Basingstoke, Palgrave Macmillan.</li> <li>5. Dunn, N. William., (2012). Public Policy Analysis. (Fifth Edition), London, Routledge.</li> <li>6. Sapru, R. K., (2010). Public Policy: Art and Craft to Policy Analysis. New Delhi, PHI Learning.</li> <li>7. Fischer, Frank., Miller, J. Gerald., &amp; Sidney, S. Mara., (eds), (2007). Public Policy Analysis: Theory, Politics and Methods. New York, Taylor &amp; Francis Group.</li> <li>8. Fischer, Frank., &amp; Miller, J. Gerald., (Ed), (2007). Handbook of Public Policy Analysis: Theory, Politics and Methods. New York, CRC Press.</li> <li>9. Bellinger, K. William., (2007). The Economic Analysis of Public Policy. (Second Edition), London, Routledge.</li> <li>10. Moran, Michael., Rein, Martin., &amp; Goodin, E. Robert (eds.), (2006). The Oxford Handbook of Public Policy. New York, Oxford University Press.</li> </ol> |  |

| <b>Paper Code and Name</b>                                                                                                                                                                                                                      | <b>PG88T105: PAPER 1.5 (Compulsory): PUBLIC PERSONNEL ADMINISTRATION</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                    |                                                                          |
| After completing this paper, the students will be able to:<br>CO-1 understand the concept of personnel administration;<br>CO-2 understand the highlight its evolution and development<br>CO-3 understand the Recruitment , Training, Promotion. |                                                                          |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Public Personnel Administration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 25                        | 75                                 | 100         | 4              | 4       |
| <b>UNIT I:</b> <ol style="list-style-type: none"> <li>1. Meaning, Nature and Scope of Public Personnel Administration</li> <li>2. Basic Principles and essentials of Public Personnel Administration</li> <li>3. Generalists and Specialists debate, Civil Servants and their role in administration</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                    |             |                |         |
| <b>UNIT II:</b> <ol style="list-style-type: none"> <li>1. Recruitment, Position and job classification, Rank Classification</li> <li>2. Recruitment: Concept, Methods and aptitude test models</li> <li>3. Problems of Personnel Organisation</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                    |             |                |         |
| <b>UNIT III:</b> <ol style="list-style-type: none"> <li>1. Training: Nature, Importance and Types of Training;</li> <li>2. Promotion, Advancement, Transfers –Methods and challenges</li> <li>3. Performance Appraisal Schemes and Administrative Reforms Commissions</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                    |             |                |         |
| <b>UNIT IV:</b> <ol style="list-style-type: none"> <li>1. Discipline, Punishment and Code of conduct</li> <li>2. Administrative ethics, Morale, and Grievance Redressal Mechanism</li> <li>3. Corruption- forms and committees and superannuation (retirement)</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Cayer</a>, N. Joseph., &amp; <a href="#">Sabharwal</a>, Meghna., (2016). Public Personnel Administration: Managing Human Capital. San Diego, Birkdale Publishers.</li> <li>2. Nigro, G. Lloyd., &amp; Kellough, J. Edward., (2014 ). The New Public Personnel Administration. (Seventh Edition), USA, Wadsworth Cengage Learning.</li> <li>3. Goel, S.L., &amp; Rajneesh, Shalini., (2008). Public Personnel Administration: Theory and Practice. New Delhi, Deep &amp; Deep Publications Pvt.</li> <li>4. Ali, Farazmand., (ed), (2007). Strategic Public Personnel Administration: Building and Managing Human Capital for the 21<sup>st</sup> Century. London, Praeger Publishers.</li> <li>5. Otenyo, E. Eric., &amp; Lind, S. Nancy (eds.), (2006). Comparative Public Administration: The Essential Readings. London, Elsevier Ltd.</li> <li>6. Hays, W. Steven, &amp; Kearney, C. Richard., (2003). Public Personnel Administration: Problems and Prospects. London, Prentice Hall.</li> <li>7. Maheshwari ,S.R., (2001). Indian Administration. New Delhi, Orient Longman.</li> <li>8. Sharma , M.P., &amp; Sadana, B.L., (2001). Public Administration in Theory and Practice. New Delhi, Kitab Mahal.</li> <li>9. Gadkari, S.S, &amp; Kolhatkared, M.R., ( 2000). Innovations in Public Administration. New Delhi, Allied.</li> <li>10. Ramachandran, Padma., (1998). Public Administration. New Delhi, National Book Trust.</li> </ol> |                           |                                    |             |                |         |

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| <b>Paper Code and Name</b>                                                                                                        | <b>PG 88T106A: PAPER 1.6A (Optional) THEORIES OF LOCAL GOVERNMENT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                      |                                                                       |                                           |                    |                       |                |
| After completing this paper, the students will be able to:                                                                        |                                                                       |                                           |                    |                       |                |
| CO-1 Understand the historical evolution of urban local government in India                                                       |                                                                       |                                           |                    |                       |                |
| CO-2 Understand the structure and working of the LSG in rural and urban areas of India                                            |                                                                       |                                           |                    |                       |                |
| CO-3 Understand the urban local government in the wake of 74th constitutional amendment                                           |                                                                       |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                         | <b>Internal Assessment Marks</b>                                      | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Theories Of Local Government</b>                                                                                               | 25                                                                    | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b>                                                                                                                    |                                                                       |                                           |                    |                       |                |
| 1. Meaning, Definitions, Concepts, Principles and Values of Local Government                                                      |                                                                       |                                           |                    |                       |                |
| 2. Approaches to the study of Local Government                                                                                    |                                                                       |                                           |                    |                       |                |
| 3. Types of Local Government                                                                                                      |                                                                       |                                           |                    |                       |                |
| <b>UNIT II:</b>                                                                                                                   |                                                                       |                                           |                    |                       |                |
| 1. Theories of Local Government                                                                                                   |                                                                       |                                           |                    |                       |                |
| 2. Democratic Theory                                                                                                              |                                                                       |                                           |                    |                       |                |
| 3. Decentralization Theory                                                                                                        |                                                                       |                                           |                    |                       |                |
| 4. Theory and Practice of Local Government                                                                                        |                                                                       |                                           |                    |                       |                |
| <b>UNIT III:</b>                                                                                                                  |                                                                       |                                           |                    |                       |                |
| 1. Meaning of Local Self Government in India                                                                                      |                                                                       |                                           |                    |                       |                |
| 2. Functions                                                                                                                      |                                                                       |                                           |                    |                       |                |
| 3. Rural Local Governments, Zilla Panchayat, Mandal or Taluka Panchayats, Gram Panchayats                                         |                                                                       |                                           |                    |                       |                |
| 4. The Balwant Rai Mehta Committee (1957)                                                                                         |                                                                       |                                           |                    |                       |                |
| 5. G.V.K. Rao Committee (1985)                                                                                                    |                                                                       |                                           |                    |                       |                |
| 6. L. M. Singhvi Committee (1986)                                                                                                 |                                                                       |                                           |                    |                       |                |
| 7. The 73rd Constitutional Amendment Act                                                                                          |                                                                       |                                           |                    |                       |                |
| 8. Present scenario                                                                                                               |                                                                       |                                           |                    |                       |                |
| <b>UNIT III:</b>                                                                                                                  |                                                                       |                                           |                    |                       |                |
| 1. Urban Local Governments                                                                                                        |                                                                       |                                           |                    |                       |                |
| 2. Municipal Corporations                                                                                                         |                                                                       |                                           |                    |                       |                |
| 3. Municipal Councils                                                                                                             |                                                                       |                                           |                    |                       |                |
| 4. Nagar Panchayats                                                                                                               |                                                                       |                                           |                    |                       |                |
| 5. Functions                                                                                                                      |                                                                       |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b>                                                                                                          |                                                                       |                                           |                    |                       |                |
| 1. Stephen, F., (2015). The Theories of Decentralization and Local Govenment. Texas, Austin State University.                     |                                                                       |                                           |                    |                       |                |
| 2. Steve, Leach., (2015). Local Government Reorganization. London. Routledge.                                                     |                                                                       |                                           |                    |                       |                |
| 3. Sachdeva, Pradeep., (2011). Local Government in India. India, Pearson                                                          |                                                                       |                                           |                    |                       |                |
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                     | <b>PG88T106B: PAPER 1.6B (Optional) ENVIRONMENTAL ADMINISTRATION</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 Sensitise learners to the need to follow Environment friendly practices on a daily basis.<br>CO-2 the important aspect of Waste Management<br>CO-3 discussed about such interventions or planning in the realm of our habitats, having green architecture buildings, promoting sustainable transportation, relying on renewable sources etc |                                                                      |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                      | <b>Internal Assessment Marks</b>                                     | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Environmental Administration</b>                                                                                                                                                                                                                                                                                                                                                                            | 25                                                                   | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b><br>1. Introduction: Meaning, Importance and Definitions of Environment<br>2. Components of Environment, Ecology, Eco-System, Bio Diversity<br>3. Environmental Pollution, Problems and the need for education                                                                                                                                                                                   |                                                                      |                                           |                    |                       |                |
| <b>UNIT II:</b><br>1. Environmental Management in India: Laws and Planning<br>2. National Environment Policy-content and challenges before policy implementation<br>3. Economic development and Environmental Sustainability                                                                                                                                                                                   |                                                                      |                                           |                    |                       |                |
| <b>UNIT III:</b><br>1. Structure and Functions of Ministry of Environment<br>2. Functions and responsibilities of departments of Forest, Agriculture and the Pollution Boards<br>3. Traditional methods of sustainability of environmental degradation - Role of citizens                                                                                                                                      |                                                                      |                                           |                    |                       |                |
| <b>UNIT IV:</b><br>1. Protection of Environment: role of United Nations and international agreements for Environmental Protection<br>2. Environmental Protection – Peoples role, Common Resources Management methods<br>3. Social Movements to protect Environmental Degradation – India and in the rest of world                                                                                              |                                                                      |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                                                                                                                                                                       |                                                                      |                                           |                    |                       |                |

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| Paper Code and Name                                                                                          | PG88T106C: PAPER 1.6 C (Optional) THEORIES OF DEVELOPMENT |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                        |                                                           |                                    |             |                |         |
| After completing this paper, the students will be able to:                                                   |                                                           |                                    |             |                |         |
| CO-1 Understand the different theories of development;                                                       |                                                           |                                    |             |                |         |
| CO-2 Assess the relevance of different theories of development to different contexts of extension education; |                                                           |                                    |             |                |         |
| CO-3 Understand the relevant theory in relevant context of extension education                               |                                                           |                                    |             |                |         |
| Title of the Paper                                                                                           | Internal Assessment Marks                                 | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Theories Of Development                                                                                      | 25                                                        | 75                                 | 100         | 4              | 4       |
| UNIT I:                                                                                                      |                                                           |                                    |             |                |         |
| 1. Meaning, Nature and significance of Development                                                           |                                                           |                                    |             |                |         |
| 2. Role of Institutions in Development – Social, Economic and Political                                      |                                                           |                                    |             |                |         |
| 3. Dimensions of Development and its impact                                                                  |                                                           |                                    |             |                |         |
| UNIT II:                                                                                                     |                                                           |                                    |             |                |         |
| 1. Emergence of Development Theories - Theories of Modernization and Growth                                  |                                                           |                                    |             |                |         |
| 2. Types of Development, Linear Stages of Growth Model                                                       |                                                           |                                    |             |                |         |
| 3. Critics of Modernization, Neoclassical Theory and counter revolution                                      |                                                           |                                    |             |                |         |
| UNIT III:                                                                                                    |                                                           |                                    |             |                |         |
| 1. Perspectives of Development - Economic Growth, Human Development, Sustainable Development                 |                                                           |                                    |             |                |         |

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| 2. Theories of Underdevelopment - Baran's theory, World System theory, Dependency theory<br>3. Theory of Unequal Exchange - Theory of Economic Growth, Theory of Positivist Development and Theory of Realistic Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>UNIT IV:</b><br>1. Challenges before Development – Economic, Rural and Urban, Bureaucracy and women<br>2. Assessment of Poverty alleviation programmes and backwardness<br>3. Globalisation and Prioritising Development – Challenges of Millennium Development Goals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1. Bhattacharya, Mohit., (2016). Social Theory and Development Administration. (Second Edition), New Delhi, Jawahar Publishers.<br>2. Peet, Richard, & Hartwick, Elaine. (2015). Theories of Development, Contentions, Arguments and Alternatives. (3rd Ed), New York, Division of Guilford Publications.<br>3. Nagaraj, R., (2012). Growth, Inequality and Social Development in India: In Inclusive Growth Possible?. New York, Palgrave Macmillan.<br>4. Crain, William., (2011). Theories of Development: Concepts and Applications. (Sixth Edition), London, Routledge.<br>5. Preston, P.W., (2011). Theories of Development. London, Routledge.<br>6. Peet, Richard., & Hartwick, Elaine., (2009). Theories of Development: Contentions, Arguments, Alternatives. London, The Guilford Press.<br>7. Rapley, John., (2007). Understanding Development: Theory and Practice in the Third World. (3 <sup>rd</sup> Ed), USA, Lynne Rienner Publishers.<br>8. Hazary, N., (2006). Development Administration: Quest for Identity. New Delhi, APH Publishing Corporation.<br>9. Chakrabarti, Anjan., & Cullenberg, Stephen., (2003). Transition and Development in India. London, Routledge.<br>10. Ros, Jaime., (2001). Development Theory and the Economics of Growth. America, The University of Michigan Press.. |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>PG88201: PAPER 2.1(Compulsory) INDIAN ADMINISTRATION</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                             |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 Understand the evolution of administration in ancient India,<br>CO-2 explain the central, provincial, local, and other fields of administration during the Mauryan period,<br>CO-3 describe the central, provincial, local, and other fields of administrations during the Gupta period.                                                                                                                                                                                                                                                                            |                                                             |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Internal Assessment Marks</b>                            | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Indian Administration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 25                                                          | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b><br>1. Evolution of Indian Administration – Arthashastra, Mughal contribution and the Colonial legacy<br>2. Indenisation of public services, revenue administration and Administrative Culture<br>3. Salient features of Constitution, Constitutionalism and Values in administration                                                                                                                                                                                                                                                                                                                                    |                                                             |                                           |                    |                       |                |
| <b>UNIT II:</b><br>1. Structure of Governments – Central, State and Union Territories<br>2. Public Services: Constitutional Position, All India Services: Role and functions<br>3. Nature and functions of Union Public Service Commission and State Public Service Commissions                                                                                                                                                                                                                                                                                                                                                        |                                                             |                                           |                    |                       |                |
| <b>UNIT III:</b><br>1. Administrative responsibility, autonomy, control and accountability<br>2. Budget, Parliamentary control of public expenditure, impact of privatisation on administration<br>3. Role of Controller General of Accounts and Comptroller and Auditor General of India.                                                                                                                                                                                                                                                                                                                                             |                                                             |                                           |                    |                       |                |
| <b>UNIT IV:</b><br>1. Regulatory Commissions; Securities and Exchange Board of India (SEBI), National Human Rights Commission<br>2. Problems of administration in Coalition regimes, Citizen-administration interface, Disaster management.<br>3. NITI Aayog and Law and Order Administration                                                                                                                                                                                                                                                                                                                                          |                                                             |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b><br>1. Avasthi., & Maheshwari., (2018). Public Administration.(34 <sup>th</sup> Revised and Enlarged Edition), Agra, Laxmi Narain Aggarwal.<br>2. <a href="#">Chakrabarty</a> , Bidyut., & <a href="#">Chand</a> , Prakash., (2016). Indian Administration: Evolution and Practice. India, Sage Publications<br>3. Fadia, B. L., & Fadia, Kuldeep., (2014). Indian Administration. New Delhi, Sahitya Bhawan<br>4. Laxmikanth, M., (2012). Public Administration. New Delhi, Tata McGraw-Hill Publishing Company Ltd.<br>5. Kanta, Ahuja., & Ojha, A.K., (ed.), (2008). Governance and Reforms. Jaipur. Aalekh |                                                             |                                           |                    |                       |                |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                  | <b>PG88202: PAPER 2.2 (Compulsory) SOCIAL WELFARE ADMINISTRATION</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                |                                                                      |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 understand the concepts of administration, social administration and social welfare administration<br>CO-2 study the nature and scope of social welfare administration and social welfare administration as a profession.<br>CO-3 features and history of social welfare administration. |                                                                      |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                   | <b>Internal Assessment Marks</b>                                     | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Social Welfare Administration</b>                                                                                                                                                                                                                                                                                                                        | 25                                                                   | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b><br>1. Introduction: Meaning, Nature, Scope and Importance of Social Welfare Administration<br>2. Ministry of Social Justice and Empowerment- Powers and functions<br>3. National Commission for SCs and STs, Central Social Welfare Board – powers and functions                                                                             |                                                                      |                                           |                    |                       |                |
| <b>UNIT II:</b><br>1. Theories of Social welfare and Social Justice<br>2. Dimensions of Social Change and the concept of Social Security<br>3. Social movements and subaltern welfare                                                                                                                                                                       |                                                                      |                                           |                    |                       |                |
| <b>UNIT III:</b><br>1. Administration of Women and Child Welfare<br>2. Structure and functioning of the Department of Women and Child Development<br>3. National Commission for Women and Karnataka State Commission for women –performance evaluation                                                                                                      |                                                                      |                                           |                    |                       |                |
| <b>UNIT IV:</b><br>1. Welfare Administration of Physically Challenged and Aged<br>2. Department of Persons with Disabilities – Powers, functions and challenges<br>3. Legislating for social welfare – Concerns and priorities                                                                                                                              |                                                                      |                                           |                    |                       |                |

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| Paper Code and Name                                                                                                                                                                                                                                                                                    | PG88203: PAPER 2.3 (Compulsory) FINANCIAL ADMINISTRATION |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                  |                                                          |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 importance of financial administration<br>CO-2 highlight the enlarging scope of financial administration;<br>CO-3 highlight the enlarging scope of financial administration;                                                        |                                                          |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                     | Internal Assessment Marks                                | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Financial Administration                                                                                                                                                                                                                                                                               | 25                                                       | 75                                 | 100         | 4              | 4       |
| <b>UNIT I:</b><br>1. Meaning, Concept and Significance of Financial Administration<br>2. Structure and Functions of Finance Ministry and Finance Commission<br>3. Nature Scope and Principles of Financial Administration                                                                              |                                                          |                                    |             |                |         |
| <b>UNIT II:</b><br>1. Principles of Public Finance and types of Public Finance<br>2. Budget: Meaning, Significance and Execution, Types of Budget - evaluation<br>3. Legislative Committees: Estimates Committee, Public Accounts Committee, Public Undertaking committee                              |                                                          |                                    |             |                |         |
| <b>UNIT III:</b><br>1. Tax structure and forms of tax , Features and performance of Goods and Services Tax<br>2. Fiscal federalism – Fiscal relations between centre and state governments<br>3. Management of Natural resources – fiscal policies and infrastructural investments fiscal implications |                                                          |                                    |             |                |         |

**UNIT IV:**

1. Macro Economic Management- Relations with World Bank, IMF and BRICKS
2. Fiscal deficit, inflation and principles of financial management
3. Capital inflow, effects of import and exports on economy

**REFERENCES**

1. Mahajar, S. K., & Mahasar, A.P., (2014). Financial Administration in india. Chennai, PHI Pvt. Ltd.
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| Paper Code and Name                                                                                                                                                                                                                              | PG88204: PAPER 2.4 (Compulsory) THEORIES OF BUREAUCRACY |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                            |                                                         |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 state the meaning of bureaucracy and its various types<br>CO-2 the growing importance of bureaucracy in recent years<br>CO-3 Highlight the expanding functions of bureaucracy |                                                         |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                               | Internal Assessment Marks                               | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Theories Of Bureaucracy                                                                                                                                                                                                                          | 25                                                      | 75                                 | 100         | 4              | 4       |
| UNIT I:                                                                                                                                                                                                                                          |                                                         |                                    |             |                |         |
| 1. Bureaucracy: Concept, Origin, Nature and significance of Bureaucracy<br>2. Theories of Bureaucracy: Wilson, Weber, Hegel and Milovan Dilas<br>3. Scientific Study of Bureaucracy – Principal Agent Theory, transactional Cost Theory          |                                                         |                                    |             |                |         |
| UNIT II:                                                                                                                                                                                                                                         |                                                         |                                    |             |                |         |
| 1. Theories of Development – Modernisation and Growth, Dependency, Neoclassical<br>2. Marxists Theory- Karl Marx, Lenin, Stalin and Mao<br>3. Democracy Vs Bureaucracy, Ruling Bureaucracy Vs Representative Bureaucracy - Samuel Krislov        |                                                         |                                    |             |                |         |

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| <b>UNIT III:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <ol style="list-style-type: none"> <li>1. New Public Management and Bureaucracy – limitations of Bureaucracy, De-Bureaucratisation</li> <li>2. Bureaucracy and public delivery systems – Public Bureaucracy and Policy Capacity – Guy Peters</li> <li>3. A Critical Assessment of the functioning and performance of Bureaucracy</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b>UNIT IV:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <ol style="list-style-type: none"> <li>1. Technological development and Bureaucracy, Problems of Corruption and transparency</li> <li>2. Good Governance and Bureaucracy, Citizens Participation and Bureaucratic administration</li> <li>3. Hierarchy and Horizontal Administration, Stakeholders and Bureaucratic Accountability, Prospects for Bureaucracy</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <ol style="list-style-type: none"> <li>1. Guy Peters, B., (2018). The Politics of Bureaucracy. London, Routledge.</li> <li>2. Myneri, S.R., (2016). Principles of Public Administration. Allahabad, Allahabad Law Agency.</li> <li>3. <a href="#">Palombara</a>, Joseph La., (2017). Bureaucracy and Political Development. (SPD–2), Volume 2. Princeton University Press.</li> <li>4. <a href="#">Ray</a>, Kalyan., (2011). Why Bureaucracy Fails. Uttar Pradesh, Manas Publications.</li> <li>5. Alli, Farazmad., (2009). Bureaucracy and Administration. US, CRC Press.</li> <li>6. Sapru R.K. , (2006). Administrative Theories and Management Thought. New Delhi, Prentice-Hall.</li> <li>7. Chakrabarty, Bidyut., &amp; Bhattacharya, Mohit., (ed), (2003). Public Administration – A Reader. New Delhi, Oxford University Press.</li> <li>8. Basu.,Rumki., (2000). Public Administration – Concepts and Theories. New Delhi, Sterling Publication.</li> <li>9. Bhattacharya, Mohit., (1993). Bureaucracy and Development Administration. Delhi, Uppal.</li> <li>Raj, Hans., (1991). Principles of Public Administration. Delhi, Surjeet</li> </ol> |  |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                    | <b>PG: PAPER 2.5 (Open Elective) HUMAN RESOURCE DEVELOPMENT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                  |                                                                 |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 highlight the human elements of an organisation;<br><br>CO-2 theoretical basis and conceptual issues associated with alternative approaches to human resources planning,<br>CO-3 the application of management techniques to HRD such as participative management and TQM; |                                                                 |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                     | <b>Internal Assessment Marks</b>                                | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Human Resource Development</b>                                                                                                                                                                                                                                                                                                             | 25                                                              | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I:</b><br>1. Meaning, Nature and scope of Human Resource Development<br>2. Concept, and significance of Human Resource Development                                                                                                                                                                                                    |                                                                 |                                           |                    |                       |                |

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| 3. Objectives and Trends in Human Resource Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>UNIT II:</b> <ol style="list-style-type: none"> <li>1. Human Resource Planning: Recruitment, Selection Process and Placement Procedure</li> <li>2. Career Planning and Development: Training, Career Opportunities and Performance Appraisal</li> <li>3. Employer and Employee Relationship: Unions, Collective Bargaining, Managing Employee Safety and Compensation</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UNIT III:</b> <ol style="list-style-type: none"> <li>1. Human Resource Development: Methods and Activities – Job Rotation, Assigning positions, academic activities – Seminar, Lectures, outdoor training</li> <li>2. Skills of Management- Leadership, Team Building, conflict resolution</li> <li>3. Planning, Organisation, Entrepreneurship, Resource management</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>UNIT IV:</b> <ol style="list-style-type: none"> <li>1. Corporate Entrepreneurship – Concept and Models</li> <li>2. Assessing governments – Policies of Industrial and commerce Ministries</li> <li>3. Governance and Human Resource Development, Prospects</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. <a href="#">Werner</a>, Jon M., &amp; <a href="#">DeSimone</a>, Randy L., (2016). Human Resource Development. India, Cengage Learning India Private Limited</li> <li>2. <a href="#">York</a>, Kenneth M., (2009). Applied Human Resource Management. India, Sage Publications.</li> <li>3. Rao, V.S.P., (2007). Human Resource Management. New Delhi, Excel Books.</li> <li>4. Singh, Shahib., &amp; Singh, Swinder., (2007). Public Financial Administration. Jalandhar, New academic Publisher Company.</li> <li>5. Singhet, A.K., (2005). Human Resource Management, New Delhi: Sun India Publications,</li> <li>6. Jain, C.M., (2003). Public Personnel Administration. Jaipur, College Book Depot.</li> <li>7. Krishnaveni, R., (2008). Human Resource Development: A Researcher's Perspective. New Delhi, Excel Books.</li> <li>8. Singh, S.K., (2008). Human Recourse Development. New Delhi, Atlantic.</li> <li>9. Durai, Pravin., (2010). Human Recourse Management. Delhi, Pearson.</li> <li>10. Kandula, S.R., (2006). Strategic Human Resource Development. New Delhi, Prentice-Hall of India Pvt.</li> </ol> |

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|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                                                           | <b>PG88206A: PAPER 2.6 A (Optional) URBAN GOVERNMENT IN INDIA</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                         |                                                                   |
| After completing this paper, the students will be able to:                                           |                                                                   |
| CO-1 Describe the role played by various policies and programmes in urban development and management |                                                                   |
| CO-2 Define urban area in India. Analyse the level and trend of urbanization in India.               |                                                                   |
| CO-3 Analyze the impact and outcome of these policies and programmes                                 |                                                                   |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Urban Government In India</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 25                        | 75                                 | 100         | 4              | 4       |
| <b>UNIT I:</b> <ol style="list-style-type: none"> <li>1. Introduction: Evolution, Nature, Significance Urban Governance in India</li> <li>2. Constitutional Status: Constitutional Provisions, Twelfth Schedule</li> <li>3. 74<sup>th</sup> Amendment Act – an assessment</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                    |             |                |         |
| <b>UNIT II:</b> <ol style="list-style-type: none"> <li>1. Urban Local Bodies: Municipal Corporation, Municipality – composition, powers and functions</li> <li>2. Notified Area and Cantonment Board– composition, powers and functions</li> <li>3. Town Panchayati's – composition, powers and functions</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                    |             |                |         |
| <b>UNIT III:</b> <ol style="list-style-type: none"> <li>1. Karnataka Municipalities Act 1964 – Provisions and Status</li> <li>2. Globalisation and its impact on Urban Development – Governance issues, Financial Position and Finance Commission</li> <li>3. Role and Responsibilities of Civil Societies - Citizens Charter, Stakeholders Concept – partnering governance</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                    |             |                |         |
| <b>UNIT IV:</b> <ol style="list-style-type: none"> <li>1. Measuring Decentralization – Theory and Practice</li> <li>2. Recent Debates: Smart City Project – Success and difficulties</li> <li>3. Global Local Debate and New Localism, Prospects</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Nagaraja Rao, <a href="#">C.</a>, (2016). Urban Governance in India. New Delhi, Kalpaz Publications.</li> <li>2. Sachdeva, Pradeep., (2011). Local Government in India. India, Pearson</li> <li>3. Prasad, G. Sai., &amp; <a href="#">Rao</a>, C. N., (2007). Accountability of Urban Local Governments in India. New Delhi, Atlantic.</li> <li>4. Chaba, P. K., (2004). Urban Local Bodies in India ; Governance with Self Reliance. New Delhi, Indian Institute of Public Administration.</li> <li>5. Sachdeva, Pardeep., (2000). Urban Local Government and Administration in India. New Delhi. Kitab Mahal.</li> <li>6. Singh, Hoshier., (1997). Local Government in India, Britain, France and USA, Allahabad: Kitab Mahal,</li> <li>7. Wilson, David., Game, Chris, &amp; Others, (1994). Local Government in the United Kingdom. London, Macmillan.</li> <li>8. Singh, Sahib., &amp; Singh, Swinder., (1991). Local Government in India. Jalandhar, New Academic Publishing Co.</li> </ol> |                           |                                    |             |                |         |

9. Sachdeva, Pardeep., (1991). Dynamics of Municipal Government and Politics in India. New Delhi, Kitab Mahal.
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                     | <b>PG88206B: PAPER 2.6 B (Optional) ENVIRONMENTAL MANAGEMENT</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                   |                                                                  |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 illustrate the close relation between safety and environmental issues and maintenance management<br>CO-2 Understand the concept of environment Management<br>CO-3 identify the major environmental concerns of the South Asian countries                    |                                                                  |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                      | <b>Internal Assessment Marks</b>                                 | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Environmental Management</b>                                                                                                                                                                                                                                                                                                | 25                                                               | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I</b><br>1. Environment: Concepts and theories<br>2. Environmental Degradation : Causes and Consequence - Perceptions of Developed and Developing Countries<br>3. Environment Policies –An analysis                                                                                                                    |                                                                  |                                           |                    |                       |                |
| <b>UNIT II</b><br>1. Environment issues; International Agenda - From the Stockholm to Johannesburg<br>2. Global Environmental Politics: Ozone layer depletion, Global warming<br>3. Tropical deforestation, Desertification, Problems of Pollution                                                                             |                                                                  |                                           |                    |                       |                |
| <b>UNIT III</b><br>1. Endangered species, Marine pollution, and trans-boundary movement of hazardous wastes<br>2. Environmental Ethics and development – Conflicts and Debates (in Developed and Developing Nations)<br>3. Environmental Preservation Movements – Types and content                                            |                                                                  |                                           |                    |                       |                |
| <b>UNIT IV</b><br>1. Environmental issues and Development tensions in India and Karnataka<br>2. Case studies of Environmental Movements - any two movements in India<br>3. Role of NGOs in Environmental Movements, Prospects of environment growth                                                                            |                                                                  |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b><br><br>1. Pamela, S. Chasek., Downie, L. David., & Janet, W. Brown, (2018). Global Environment Politics: Dilemmas in World Politics. New York, Routledge.<br>2. Harper, Charles., & Snowden, Monica., (2017). Environment and Society: Human Perspectives on Environmental Issues. London, Routledge. |                                                                  |                                           |                    |                       |                |

3. Lye, Irene Lin-heng., [Kondepudi](#), Sekhar Narayana., & Neo, [Harvey](#) (Ed)., (2017). Sustainability Matters: Environmental Management In The Anthropocene. Singapore, World Scientific Publishing Co Pte Ltd.
4. [Sarkar](#), Dibyendu., [Datta](#), Rupali., & [Mukherjee](#), Avinandan (Ed)., (2015). An Integrated Approach to Environmental Management. New Delhi, Wiley.
5. Harris, Francis., (2102). Global Environmental Issues. New Jersy, John wiely and Sons.
6. Nepal, Padam., (2009). Environmental Movements in India : Politics Dynamism and Transformation. New Delhi, Authors press Publication.
7. Singh, Amrita., (2000).The politics of Environment Administration. Delhi, Galgotia.
8. Kumar, Naresh., (1999). Air pollution and environment protection: Legislature politics judicial trends and social Perceptions. New Delhi, Mittal Publication.
9. Seth, Pravin., (1997). Environmentalism: Politics Ecology and development, Jaipur, Rawat Publication.
10. Sumi, Krishna., (1996). Environmental politics: people's lives and development choices. New Delhi, Sage.

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| <b>Paper Code and Name</b>                                                                                               | <b>PG88206C: PAPER 2.6 C (Optional) CONTEMPORARY DEVELOPMENT DEBATES</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                             |                                                                          |                                           |                    |                       |                |
| After completing this paper, the students will be able to:                                                               |                                                                          |                                           |                    |                       |                |
| CO-1 The importance of understanding contemporary debates in human rights;                                               |                                                                          |                                           |                    |                       |                |
| CO-2 How the debates influenced the concept, formulation, codification and implementation of certain category of rights; |                                                                          |                                           |                    |                       |                |
| CO-3 Major areas of debates in human rights discourse;                                                                   |                                                                          |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                | <b>Internal Assessment Marks</b>                                         | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Contemporary Development Debates</b>                                                                                  | 25                                                                       | 75                                        | 100                | 4                     | 4              |
| <b>UNIT I</b>                                                                                                            |                                                                          |                                           |                    |                       |                |
| 1. Development: Concepts and theories                                                                                    |                                                                          |                                           |                    |                       |                |
| 2. Development and underdevelopment: Causes and Consequence - Perceptions of Developed and Developing Countries          |                                                                          |                                           |                    |                       |                |
| 3. Development Policies of GOI/GOK –An analysis                                                                          |                                                                          |                                           |                    |                       |                |
| <b>UNIT II</b>                                                                                                           |                                                                          |                                           |                    |                       |                |
| 1. Development issues: International Agenda goals and achievements                                                       |                                                                          |                                           |                    |                       |                |
| 2. Global Developmental Politics: Issues and concerns                                                                    |                                                                          |                                           |                    |                       |                |
| 3. Development Theories and Institutional framework                                                                      |                                                                          |                                           |                    |                       |                |
| <b>UNIT III</b>                                                                                                          |                                                                          |                                           |                    |                       |                |
| 1. Development – Rural and Urban dichotomy                                                                               |                                                                          |                                           |                    |                       |                |
| 2. Development – Role and Responsibilities of people’s Representatives and Bureaucracy                                   |                                                                          |                                           |                    |                       |                |
| 3. The State and Economic Growth - Class, Capitalism and Development                                                     |                                                                          |                                           |                    |                       |                |

**UNIT IV**

1. Indian Development Debate: Growth and / vs. Inclusion
2. India's Development Model – stories of success and crisis
3. Tribal Development in India –an assessment

**REFERENCES**

1. Besley, Timothy. (Eds.), (2016). Contemporary Issues in Development Economics. UK, Palgrave Macmillan.
2. Venkateswar, Sita., Bandyopadhyay, Sekhar., (Eds), (2016). Globalisation and the Challenges of Development in Contemporary India. Singapore, Springer Singapore.
3. Bhattacharya, Mohit., (2016). Social Theory and Development Administration. (2nd Ed), New Delhi, Jawahar Publishers.
4. Ghosh, R. N., & Siddique, B., (Eds.), (2015). Corruption, Good Governance and Economic Development: Contemporary Analysis and Case Studies. Dehli, World Scientific.
5. Richards, Grege., (2007). Tourism, Creativity and Development: Contemporary Geographies of Leisure, Tourism and Mobility. UK, Routledge.
6. Rath, C. Govinda., (Ed), (2006). Tribal Development in India: The Contemporary Debate. New Delhi, Sage Publications.
7. Biju, M.R., (2010). Developmental Issues in Contemporary India. New Delhi, Concept Publishing Company Pvt. Ltd.
8. Chandhoke, Neera., & Priyadarshi, Praveen., (Ed), (2009). Contemporary India: Economy, Society, Politics.
9. Dhameja, Alka., (Ed), (2010). Contemporary Debates in Public Administration. Delhi, PHL Learning Pvt.
10. Durant, R.F., & Durant, J.R.S., (2012). Debating Public Administration: Management Challenges, Choices and Opportunity. New York, CRC Press.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                  | PG88301: Paper 3.1 Administrative Law |                                    |             |                |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                |                                       |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 Understand the characteristics of administrative tribunals and reasons for their growth .<br>CO-2 Know about the advantages and disadvantages of tribunals<br>CO-3 the principles that govern implementation of law - principle of rule of law and principles of natural justice; |                                       |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                   | Internal Assessment Marks             | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Administrative Law                                                                                                                                                                                                                                                                                                                                   | 25                                    | 75                                 | 100         | 4              | 4       |

**Unit I:**

- 1) Introduction – Administrative law – its evolution, Definition and Nature, significance.
- 2) Scope of Administrative Law, Relationship between Constitutional Law and Administrative Law.
- 3) Meaning of Delegated Legislation, and Control Mechanisms of Delegated Legislation: Parliamentary and Legislative controls.

**Unit II:**

- 1) Administrative Action-Meaning, Classification and Need for control.
- 2) Evolution of HRDA(Human Resource Development Administration), it's significance, functions and responsibilities.
- 3) Laws governing Human Resource Administration –Planning, Recruitment, Training, Supervision and Career Development.

**Unit III:**

- 1) Basic Doctrines-Rule of Law, Social Justice, Equality - its significance, constitutional provisions and its application.
- 2) Doctrine of Separation of Powers and its relevance, Delegation of Powers its importance and Rule making
- 3) Administrative Adjudication- Meaning, Need and Reasons for its growth,

**Unit IV:**

- 1) Problems of Administrative Adjudication, Mechanism and grievance redressed.
- 2) Quasi judicial bodies, Tribunals-meaning, difference between tribunals and courts, their Constitutional Status.
- 3) Principles of Natural Justice and its Application, exceptions and violations.

**REFERENCES**

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2. Khan, Hamid., (2013). Principles of Administrative Law. Delhi, Oxford University Press.
3. Wade, S. W., & Forsyth, Christopher., (2009). Administrative Law. London, Oxford University Press.
4. Jayakumar, N.K., (2005). Administrative Law. New Delhi, PHI Learning Pvt.
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6. Basu, D.D., (2004). Administrative Law. (Sixth Edition), Kolkata, Kamal Law House.
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PG88302: Paper 3.2 Comparative Public Administration (CPA) (UK, USA, India and China)</b> |                                           |                    |                       |                |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |                                           |                    |                       |                |
| After completing this paper, the students will be able to:<br>CO-1 Understand the significance of Comparative Public Administration<br>CO-2 helpful of Describe the conceptual approaches in Comparative Public Administration.<br>CO-3 Know about the nature and range of comparative studies                                                                                                                             |                                                                                              |                                           |                    |                       |                |
| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Internal Assessment Marks</b>                                                             | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
| <b>Paper 3.2 Comparative Public Administration (CPA) (UK, USA, India and China)</b>                                                                                                                                                                                                                                                                                                                                        | 25                                                                                           | 75                                        | 100                | 4                     | 4              |
| <b>Unit I:</b><br><br>1) Meaning, Nature, Scope, Characteristics and Importance of CPA.<br>2) Evolution of Comparative Public Administration (in General).<br>3) Comparative Administrative Group [CAG] Administrative Theory: Classical, New Public Management Theory and Postmodern Public Administration Theories.                                                                                                      |                                                                                              |                                           |                    |                       |                |
| <b>Unit II:</b><br><br>1) Approaches to the study of Comparative Public Administration – Need and Significance.<br>2) Max Weber Bureaucratic approach - David Easton, Structural Functional –F.W. Riggs Prismatic approach.<br>3) Ecological Approach –Ferrel Heady Behavioural approach of– Herbert Simon, and their critique.                                                                                            |                                                                                              |                                           |                    |                       |                |
| <b>Unit III:</b><br><br>1) Administrative systems in a comparative perspective – Features of UK, USA, India and Chinese Administration (covering the Legislative controls, Executive Working and Judiciary and their role in administration).<br>2) Need for Comparison- Justification and outcome, a comparative evaluation.<br>3) Models of Administration: Human Centric, Sustainable, Inclusive Development -features. |                                                                                              |                                           |                    |                       |                |
| <b>Unit IV:</b><br><br>1) Issues and problems of administration in developed and developing societies.<br>2) Challenges before developed and developing countries – societal and cultural diversities, application of rule of law, and institutional functioning.<br>3) Critique of Comparative Public Administration.                                                                                                     |                                                                                              |                                           |                    |                       |                |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                              |                                           |                    |                       |                |

1. Farazmand, Ali., (2019). Handbook of Comparative and Development Public Administration. Uk, CRC Press.
2. [Chaturvedi](#), T. N., (2017). Comparative Public Administration. research publications
3. Dong, Lisheng., (2015). Public Administration Theories: Instrumental and Value Rationalities. New York, Palgrave Macmillan.
4. Dahiya, [Sewa Singh.](#), & [Singh, Ravindra.](#), (2014). Comparative Public Administration. New York, Sterling Publications Private Limited.
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9. Heady, Ferrel., (1995). Public Administration: A Comparative Perspective. New York, Marcel Dekker Inc.
10. Gajanan, R. P., & Sharma, Anoop., Comparative Public Administration. New Delhi, Crescent Publishing Corporation.

| Paper Code and Name                                                                                                                | PG88303: Paper 3.3 Administration of Tribal Areas |                                    |             |                |         |
|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                              |                                                   |                                    |             |                |         |
| After completing this paper, the students will be able to:                                                                         |                                                   |                                    |             |                |         |
| CO-1 know about the attitude of government towards the tribals                                                                     |                                                   |                                    |             |                |         |
| CO-2 identify some aspects of modernisation in relation to the tribal societies in India.                                          |                                                   |                                    |             |                |         |
| CO-3 Understand the protection provided to Scheduled Tribes by the constitution of India                                           |                                                   |                                    |             |                |         |
| Title of the Paper                                                                                                                 | Internal Assessment Marks                         | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Administration of Tribal Areas                                                                                                     | 25                                                | 75                                 | 100         | 4              | 4       |
| Unit I:                                                                                                                            |                                                   |                                    |             |                |         |
| 1) Introduction: Nature, Scope and Importance of Tribal Area Studies                                                               |                                                   |                                    |             |                |         |
| 2) Concept of Tribe: Meaning, Definitions, Conceptual History, Different Terms, Basic Traits.                                      |                                                   |                                    |             |                |         |
| 3) Categories and Classification of Tribe: Geographical Distribution and Demographical Pattern in India and around the World.      |                                                   |                                    |             |                |         |
| Unit II:                                                                                                                           |                                                   |                                    |             |                |         |
| 1) Ethnicity and Tribal Identity, Approaches to the Tribal Society - Synchronic and Diachronic Approaches                          |                                                   |                                    |             |                |         |
| 2) Laws governing Tribal Areas in India – Pre and Post Independent India, Nehru and Verrier Elwin’s contribution to Tribal Studies |                                                   |                                    |             |                |         |

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| 3) Emic and Etic Approaches and Empiricism in Tribal Studies, Subaltern Approach                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| <b>Unit III:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
| 1) Basic Trends in Tribal Studies, Social Structure and Institutions, Tribal Religion and Customary Laws, Gender and Ethics.<br>2) Oral Tradition and Performing Art, Indigenous Knowledge, Intellectual Property Rights.<br>3) Tribal Issues and Policies for the protection and promotion of tribal rights in relation to Forest and Environmental Acts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| <b>Unit IV:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| 1) Contemporary Debates and Discourses, Development and Cultural Identity.<br>2) Tribal's in situ context and their displacement issues, Policies relating to tribal development with special reference to India.<br>3) Changing Tribal Life and Livelihood, Tribal studies and other social sciences.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <b><u>REFERENCES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| 1. Ganguly, B. Varsha, & Kumar, S., (2020). India's Scheduled Areas: Untangling Governance, Law and Politics. New York, Routledge.<br>2. Johari, J.C., (2007). The Constitution of India : A Politico-Legal Study, New Delhi, Sterling Publishers Pvt. Ltd.<br>3. Rath, C. Govind, (Ed.), (2006). Tribal Development in India: The Contemporary Debate, New Delhi, Sage Publication.<br>4. Das, J.K. (2001). Human Rights and Indigenous Peoples, New Delhi, A.P.H. Publishing Corporation.<br>5. Basu, A. Ranjan, & Nijhawan, S., (1994). Tribal Development Administration in India, New Delhi, Mittal Publications.<br>6. Deogaonkar, S.G. (1994). Tribal Administration and Development(with Ethnographic Profiles of Selected Tribes), New Delhi, Concept Publishing Company.<br>7. Thakur, D. & Thakur, D.N. (1994). Tribal Law and Administration: Tribal line in India-7, New Delhi, Deep & Deep Publications Pvt. Ltd.<br>8. Ghosh, S.K., (1987). Law Enforcement in Tribal Areas, New Delhi, Ashish Publishing House.<br>9. Vidyarthi, L.P. (Ed.) (1981). Tribal Development and Its Administration, New Delhi, Concept Publishing Company.<br>10. Dube, S.C. (Ed.), (1977). Tribal Heritage of India: Ethnicity, Identity and Interaction. Noida, Vikas Publishing House. |  |

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| <b>Paper Code and Name</b>                                                                                  | <b>PG88304: Paper 3.4 Research Methodology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                |                                                |
| After completing this paper, the students will be able to:                                                  |                                                |
| CO-1 Describe various research approaches and strategies that are applied to answer the research questions; |                                                |
| CO-2 State the various philosophical perspectives that guide research in social sciences;                   |                                                |

CO-3 Understand the various steps involved in the research process;

| Title of the Paper          | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Research Methodology</b> | 25                        | 75                                 | 100         | 4              | 4       |

#### Unit I:

- 1) Meaning, nature, scope, significance and relevance of Research in Public Administration.
- 2) Research and Teaching in Public Administration, its importance
- 3) Forms of Social Science Research – Normative and Empirical, Pure and Applied, survey research.

#### Unit II:

- 1) Research Process in Public Administration–Types of Research and Formulation of Research Problem and Operational sing Research.
- 2) Research Design and its outline, Hypothesis, Survey of literature, Sources of data.
- 3) Techniques of Research –Data Collection, Interview, Questionnaire, Sampling.

#### Unit III:

- 1) Tabulation and Research Report writing, steps, problems of Report writing.
- 2) Statistical analysis, SPSS Package and use of Computers in Social Science Research.
- 3) Processing of Data and interpretations, cross references and explanations, Use of theory.

#### Unit IV:

- 1) Hypothesis testing, ANOVA and ANOCOVA, Uni and Multi Variety Analysis.
- 2) Research Layout and types of Report writing.
- 3) Prospects of Social science Research and need for change.

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| Paper Code and Name                                                                        | Paper 3.5 Understanding Bio Diversity (Open Elective) |                                    |             |                |         |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                      |                                                       |                                    |             |                |         |
| After completing this paper, the students will be able to:                                 |                                                       |                                    |             |                |         |
| CO-1. understand what is meant by biodiversity and its value;                              |                                                       |                                    |             |                |         |
| CO-2. understand current threats to biodiversity;                                          |                                                       |                                    |             |                |         |
| CO-3 understand the opportunities and challenges surrounding community-based conservation; |                                                       |                                    |             |                |         |
| Title of the Paper                                                                         | Internal Assessment Marks                             | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Understanding Bio Diversity (Open Elective)                                                | 25                                                    | 75                                 | 100         | 4              | 4       |
| <b>Unit I:</b>                                                                             |                                                       |                                    |             |                |         |
| 1) Natural Resources: Basic ecological concepts and ecosystems: types.                     |                                                       |                                    |             |                |         |
| 2) Biodiversity-levels, values, threats, conservation measures.                            |                                                       |                                    |             |                |         |
| 3) Sustaining Natural resources - Planning and conservation.                               |                                                       |                                    |             |                |         |
| <b>Unit II:</b>                                                                            |                                                       |                                    |             |                |         |
| 1) Defining Integrated watershed management- strategies                                    |                                                       |                                    |             |                |         |
| 2) Urbanization and its impact - Disasters and urbanization Effects                        |                                                       |                                    |             |                |         |
| 3) Open space provisions; Planning Agencies, laws and environment                          |                                                       |                                    |             |                |         |
| <b>Unit III:</b>                                                                           |                                                       |                                    |             |                |         |
| 1) Biodiversity - ecosystem diversity significance of the endemism                         |                                                       |                                    |             |                |         |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>2) Hot spots of Biodiversity - endangered and vulnerable species</p> <p>3) Ecological consequences of reduction in biodiversity- Deforestation and its impact conservation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>Unit IV:</b></p> <p>1) Legal control of Environment - The Wildlife protection Act –1972, The Forest Conservation Act, 1980,</p> <p>2) The Environment protection Act. 1986, Biological Diversity Act of India, 2002</p> <p>3) Sustainable Development - Basic concepts of sustainable development, Education for sustainable development</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <p>1) Chiras, D. Daniel., (2020). Natural Resource Conversation. Delhi, Pearson India.</p> <p>2) Brinkmann., (2017). Introduction to Sustainability. New Jersey, John Wiley Publication.</p> <p>3) Onara, M. Jean., &amp; Cheek, Martien., (2011). Red Data Book of The Flowering Plants of Cameroon IUCN Global Assessment. United Kingdom, KEW Publication.</p> <p>4) Heathcote, W. Isobel., (2009). Integrated Watershed Management: Principal and Practice. New Jersey, John Wiley.</p> <p>5) Kumar, Das Amiya., (2007). Urban Planning in India. Delhi, Rawat Publication.</p> <p>6) Zeigler, David., (2007). Understanding Bio-diversity. California, Greenwood Publishing.</p> <p>7) Wood, Alexander., Stedman, Pamela, Edwards., &amp; Mang, Johanna., (2000). The Route of Causes of Bio diversity Losses. London, Routledge.</p> <p>8) Kormondy, J. Edward., (1996). Concepts of Ecology. New Jersey, Prentice-Hall.</p> <p>9) Diwan, Sham., (1991). Environment Law and Policy In India. Delhi, OUP.</p> <p>10) Allane D Mckinight, Pauline K. Marstand, T. Craig Sinclair, (1974). Environmental Pollution Control. Australia, Allan and Unwin Publication.</p> |

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|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>Paper Code and Name</b>                                                                                                              | <b>PG88306A: Paper 3.6 Rural Governments in India</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                            |                                                       |
| <p>After completing this paper, the students will be able to:</p> <p>CO-1 To understand the concept of democratic decentralization.</p> |                                                       |

CO-2 To trace the evolution of local government in India.

CO-3 To comprehend the institutional arrangements and processes of rural and urban governance.

| Title of the Paper                | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|-----------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Rural Governments in India</b> | 25                        | 75                                 | 100         | 4              | 4       |

#### Unit I:

- 1) Nature and Importance of Rural Governments in India – Constituent Assembly Debate and thoughts on Local Government: Kautilya, MK Gandhi, BR Ambedkar, RM Lohia, Jaya Prakash Narain
- 2) Evolution of Rural Government in India -Royal Commission (1909) –Montagu-Chelmsford Report on Local Self Government (1918)-Govt. of India Resolution (1918) Government of India Act (1919).
- 3) Indian Statutory Commission on Local Self Government(1928) Diarchy and its Consequences-Government of India Act (1935) -Provincial Autonomy and its consequences

#### Unit II:

- 1) Rural Government in India after independence: Community Development Programme (1952) - Major Committee Reports: Balwant Rai Mehta (1957), RR Diwakar (1964), Asoka Mehta (1978)
- 2) PK Thungan (1984) –CH Hanumantha Rao (1984), GVK Rao Committee (1985), LM Singhvi (1986) -64thConstitutional Amendment Bill (1989) –ML Dantwala Committee Report (1998) -73rdConstitutional Amendment (1992) -11thSchedule of the Constitution –Significance of Grama Sabha.
- 3) Types of Decentralisation- Deregulation, De-concentration, Delegation and Devolution – Major Principles: Subsidiary and Autonomy– Democratic Decentralisation

#### Unit III:

- 1) Decentralized Planning: History, Concept, importance and Approaches.
- 2) Need for Decentralized Planning -Difference between Centralized Planning and Decentralized Planning -Recent Initiatives of Decentralized planning in India.
- 3) Local Level Planning: Objectives, Significance, Advantages and Disadvantages, Procedure for Preparation of Draft Plan -Role of Gram Sabha, Challenges.

#### Unit IV:

- 1) Models of Decentralized Planning – Kerala, Karnataka and West Bengal.
- 2) Fiscal Federalism in India –Principles, Centre –State –Local Financial Relations.
- 3) Local Finance: Village Panchayats, Panchayat Samitis, Zilla Parishads, Resources and Resource Mobilisation Methods, Local Finance in 11th to 15thFinance Commission (include the latest).

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| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                         | PG88306B: Paper 3.7 Sustainable Development Theory |                                    |             |                |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                       |                                                    |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 Distinguish complex aspects of sustainable development (economic, environmental, social equity);<br>CO- 2. Identify systemic sustainability challenges in different sectors and at different institutional levels;<br>CO-3 Think critically and assess different public policy alternatives for responding to sustainability challenges; |                                                    |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                          | Internal Assessment Marks                          | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Sustainable Development Theory                                                                                                                                                                                                                                                                                                                                                                              | 25                                                 | 75                                 | 100         | 4              | 4       |
| Unit I:                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                    |             |                |         |
| 1) Sustainable development: Understanding the Environment and ecology, y; Economics of                                                                                                                                                                                                                                                                                                                      |                                                    |                                    |             |                |         |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>natural resources, Resource scarcity and Managing exhaustible and renewable resources.</p> <p>2) Natural resource - Irreversibility and uncertainty in environmental processes, Concept of sustainable development and intergenerational justice.</p> <p>3) Indicators of sustainability- Sustainable development –a critical assessment of past and present view.</p>                                                                                                                                                       |
| <p><b>Unit II:</b></p> <p>1) Sustainable development - a flawed concept? Unresolved questions on sustainable development, theories Sustainability.</p> <p>2) Ideology, conceptual models, accounting frameworks and indicators for sustainability.</p> <p>3) Central and local policies, Public Policies and Programs for Sustainability Global Policies for Sustainability.</p>                                                                                                                                                |
| <p><b>Unit III:</b></p> <p>1) Sustainability - Socio--cultural Aspects of Environmental and Land Use.</p> <p>2) Politics and Strategies of Implementation- Environmental Kuznet's Curve hypothesis, Environmental accounting.</p> <p>3) Externalities- Managing of Common property resources, Poverty and environment; Climate change debates.</p>                                                                                                                                                                              |
| <p><b>Unit IV:</b></p> <p>1) Conceptualizing poverty –Social, political, economic and cultural factors and forms of deprivations.</p> <p>2) Inequalities between the rich and the poor, Effects of Globalization, development and its impact on traditional water resources.</p> <p>4) Measurement of development and poverty-vulnerability - concepts of welfare and well-being – Gandhiji and Amartya Sen's approach to sustainability and development</p>                                                                    |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <p>1) Brinkmann, Robert., (2020). Introduction to Sustainability. New Jersey, John Wiley.</p> <p>2) Oztunk, L. Burcu ozcar, (2019). Environmental Kuznets Curve (EKC). United States, Academic Press.</p> <p>3) Khaiter, A, Peter , Enechthoukova, G. Marina, (2019). Sustainability Perspective: Science, policy, and Practice. London UK, Springer Nature.</p> <p>4) Guha, Ramachandra., ( 2018). Gandhi the Year that changed the World 1914 to 1948. Delhi,</p> |

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| Paper Code and Name                                                                                                                                                                                                                                                                                            | PG88306C: Paper 3.8 Analysis of Selected Development Policies |                                    |             |                |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                          |                                                               |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 Distinguish between policy analysis and policy advocacy.<br>CO-2 Describe the policy process and activities associated with the adoption of public policy.<br>CO-3 Identify the role of government in policy formulation and implementation |                                                               |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                             | Internal Assessment Marks                                     | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Analysis of Selected Development Policies                                                                                                                                                                                                                                                                      | 25                                                            | 75                                 | 100         | 4              | 4       |
| Unit I:<br>1) Policies of Decentralisation and development: Community Development and MGNREGA.                                                                                                                                                                                                                 |                                                               |                                    |             |                |         |
| Unit II:<br>1) Policies of Education- Kothari Commission and NEP.                                                                                                                                                                                                                                              |                                                               |                                    |             |                |         |
| Unit III:<br>1) Poverty Alleviation programmes –Integrated rural Development Programmes and Jawahar Gram Samruddi Yojana.                                                                                                                                                                                      |                                                               |                                    |             |                |         |
| Unit IV:<br>1) Sustainable Development Policies - National Policy on Resource Efficiency (RE) and                                                                                                                                                                                                              |                                                               |                                    |             |                |         |

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2. Roy, Bedprakas Syam., & Roy, Maniparna Syam., (2018). India's Approach towards Sustainable Development Goals. Delhi, Kalpaz Publications.
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4. **Banerjee**, Swapnendu, **Mukherjee**, Vivekananda, **Haldar**., & Kumar, Sushil., (2016). Understanding Development. India, Springer. (Eds.).
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|------------------------------------------------------------|-------------------------------------------------|
| <b>Paper Code and Name</b>                                 | <b>PG88401: Paper 4.1 New Public Management</b> |
| <b>COURSE OUTCOMES (COs)</b>                               |                                                 |
| After completing this paper, the students will be able to: |                                                 |
| CO-1 Understand the evolution, and nature of NPM           |                                                 |
| CO-2 Understand the Conceptual framework of NPM            |                                                 |

| <b>Title of the Paper</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Internal Assessment Marks</b> | <b>Marks for Semester end Examination</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>New Public Management</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Unit I:</b> <ol style="list-style-type: none"> <li>1) Understanding Public Administration- Post Weber / Post Wilson Conception of Public Administration.</li> <li>2) Traditional Public Administration, Changes in advanced countries, the CAPAM Conference.</li> <li>3) Evolution of New Public Management, Key Concerns of New Public Management..</li> </ol>                                                                                                                                                 |                                  |                                           |                    |                       |                |
| <b>Unit II:</b> <ol style="list-style-type: none"> <li>1) Components of NPM, Theoretical Bases for New Public Management, Features of New Public Management</li> <li>2) Implementation of NPM: Experiences of UK, USA,</li> <li>3) New Public Management, State versus Market debate</li> </ol>                                                                                                                                                                                                                    |                                  |                                           |                    |                       |                |
| <b>Unit III:</b> <ol style="list-style-type: none"> <li>1) Citizen administration interface - The State and the Citizen - women, minorities, internally displaced people and weaker sections –Administrative Policies and Programmes.</li> <li>2) Citizen's Charter - Accountability of Administration, Citizen, friendly Administration and Judiciary (Judicial Activism and PIL).</li> <li>3) People's Participation in Administration and Good Governance.</li> </ol>                                           |                                  |                                           |                    |                       |                |
| <b>Unit IV:</b> <ol style="list-style-type: none"> <li>1) Machineries of Grievance Redressal- Lokpal, Lokayukta, Directorate of Public Grievance, Consumer Forum.</li> <li>2) Right to Information, E-Governance and Role of Civil Society in administration, Citizen Empowerment.</li> <li>3) Transparency and Corruption: use of technology in administration, automation, contributory factors for corruption, its manifestations, eradication/mitigation and New Public Management-emerging trends.</li> </ol> |                                  |                                           |                    |                       |                |

### **REFERENCES**

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|------------------------------------------------------------|----------------------------------------------------------------|
| <b>Paper Code and Name</b>                                 | <b>PG88402: Paper 4.2 Good Governance: Theory and Practice</b> |
| <b>COURSE OUTCOMES (COs)</b>                               |                                                                |
| After completing this paper, the students will be able to: |                                                                |

| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                                                   | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Good Governance: Theory and Practice</b>                                                                                                                                                                                                                                                                                                                                                                          | 25                        | 75                                 | 100         | 4              | 4       |
| <b>Unit I:</b> <ol style="list-style-type: none"> <li>1) Concept, Nature, Scope, Significance and evolution of good governance.</li> <li>2) Re-inventing Government for good governance, agenda for good governance.</li> <li>3) Elements and Requirements of good governance –Key elements in good governance, Requirements –Political and administrative requirements, Reforms for good governance.</li> </ol>     |                           |                                    |             |                |         |
| <b>Unit II:</b> <ol style="list-style-type: none"> <li>1) Perspectives of good governance –Human Rights Perspective, Globalization, New Public Management.</li> <li>2) Practicing good governance –People’s participation, Role of NGOs in good governance.</li> <li>3) Challenges of Good Governance –Empowerment, Regional diversity and Delivery of services.</li> </ol>                                          |                           |                                    |             |                |         |
| <b>Unit IV:</b> <ol style="list-style-type: none"> <li>1) Good Governance: Definition, Elements, Characteristics.</li> <li>2) Reforms for good governance, Bureaucracy and good governance in Indian context.</li> <li>3) Globalization and good governance.</li> </ol>                                                                                                                                              |                           |                                    |             |                |         |
| <b>Unit IV:</b> <ol style="list-style-type: none"> <li>1) Initiatives of Good Governance in India and Challenges.</li> <li>2) Good governance and the world Bank – Breton woods agreements and Washington Consensus.</li> <li>3) Prospects for good governance and challenges.</li> </ol>                                                                                                                            |                           |                                    |             |                |         |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> <ol style="list-style-type: none"> <li>1. Vinod, Rai., (2019). Rethinking Good Governance. India, Rupa Publications.</li> <li>2. Karthikeyan, M., (2019). Governance in India: Basic and Beyond. India, Pearson Education.</li> <li>3. <a href="#">Singh</a>, Abhay Prasad., &amp; <a href="#">Murari</a>, Krishna., 2018. Governance: Issues</li> </ol> |                           |                                    |             |                |         |

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| Paper Code and Name                                                                                                                                                                                                                                                                                 | PG88403: Paper 4.3 Organization and Management |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                               |                                                |
| After completing this paper, the students will be able to:<br>CO-1 Use fundamental management concepts and principles as guides to analyze class environment case incidents.<br>CO-2 Identify many of the factors and forces managers must confront both internal and external to the organization. |                                                |

CO-3 Identify and describe the major components of the organization's internal and external environments, their effect, significance, and impact on an organization

| Title of the Paper                 | Internal Assessment Marks | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
|------------------------------------|---------------------------|------------------------------------|-------------|----------------|---------|
| <b>Organization and Management</b> | 25                        | 75                                 | 100         | 4              | 4       |

**Unit-I:**

- 1) Meaning, Nature and characteristics of Organization and Management, Evolution of Management.
- 2) Theories of Organization and Management – Scientific, Behavioural Decision Making.
- 3) Contingency theory of Management; Social and Ethical issues in Management, Challenges before Management in the 21st century.

**Unit-II:**

- 1) Managerial Functions: Planning - concept, significance, types; Organizing -concept, principles, theories.
- 2) Types of organizations, authority, responsibility, power, delegation. Decentralization; Staffing; Directing; Coordinating.
- 3) Nature, process, and techniques of Control

**Unit-III:**

- 1) Organizational Behaviour: Organizational behaviour - concept and significance; Relationship between management and organization.
- 2) Organizational culture, Attitudes; Perception; Learning; Personality and values; emotions.
- 3) Motivation: Process of motivation; Theories of motivation - need hierarchy theory, theory X and theory Y.

**Unit IV:**

- 1) Two factor theories, McClelland's learned need theory, Victor Vroom's expectancy theory.
- 2) Leadership styles; Concept of Leadership, Definitions, Theories -trait theory, behavioral theory, Fielder's contingency theory.
- 3) Harsey and Blanchard's situational theory; Managerial grid; Likert's four systems of leadership, contemporary issues in leadership.

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- 10) Gadkari, S.S., (1997). Office Management for Public Administration: Principles and Techniques, New Delhi, Concept Publishing Company.

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                        | PG88404: Paper 4.4 Civil society and Administration |                                    |             |                |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------|-------------|----------------|---------|
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                      |                                                     |                                    |             |                |         |
| After completing this paper, the students will be able to:<br>CO-1 Understand different approaches to civil society, State and the relationship between these two concepts<br>CO-2 Understand impact of civil society in the democratic form of government<br>CO-3 Understand how civil society interacts with other social institutions such as the state, religion and gender in society |                                                     |                                    |             |                |         |
| Title of the Paper                                                                                                                                                                                                                                                                                                                                                                         | Internal Assessment Marks                           | Marks for Semester end Examination | Total Marks | Hours per week | Credits |
| Civil society and Administration                                                                                                                                                                                                                                                                                                                                                           | 25                                                  | 75                                 | 100         | 4              | 4       |
| Unit-I:                                                                                                                                                                                                                                                                                                                                                                                    |                                                     |                                    |             |                |         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) Meaning, Nature and characteristics of Civil Society and Administration.<br>2) Relations between State and Civil Society and public Administration.<br>3) Perspectives of State: Liberal, Marxist, Neo-liberal and Gandhian.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Unit-II:</b><br>1) Perspectives on Civil Society – Alexis de Tocqueville, Putnam, Marx and Hegel.<br>2) Bureaucratic Paradigm and changing Nature of Civil society in Contemporary world.<br>3) Changing Nature of states and growing role of civil society organizations, in /administration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Unit III:</b><br>1) Civic Participation in Governance - Concept of good governance and citizen's charter, Impact of globalization on administration and Global citizenship.<br>2) Ethical Concerns in Public Administration Concept of Citizen Centric Administration.<br>3) Functions of Government: Regulatory functions, Service providing functions and Developmental functions.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit IV:</b><br>1) Participatory Democracy and Liberalism: its Promises and administration; Elections and peoples participation, functioning of legislature, executive and Judiciary.<br>2) Neo liberalism and globalization: its impact on governments and governance; concept of downsizing, rightsizing, less government and more governance.<br>3) Effects of social movements on citizens involvement in Administration, prospects of civil society engagements in administration.                                                                                                                                                                                                                                                                                                                           |
| <p style="text-align: center;"><b><u>REFERENCES</u></b></p> 1) Chakrabarty, Bidyut, (2016). Ethics in Governance in India, London, Routledge.<br>2) Abbas, Hoveyda, & Kumar, Ranjay, (2012). Political Theory, Delhi, Pearson.<br>3) Edwards, M., (2011). The Oxford Handbook of Civil Society, New York, Oxford University.<br>4) Cox III, R.W., (2009). Ethics and Integrity in Public Administration: Concepts and Cases, New York, M.E.Sharpe.<br>5) Box, R.C., (2007). Democracy and Public Administration, London, Routledge.<br>6) Jayaram, N., (2005). On Civil Society: Issues and Perspectives, (Volume-7), New Delhi, Sage Publications.<br>7) Quadir, Fahimul, & Lele, Jayant, (Eds.) (2004). Democracy and Civil Society in Asia: Volume 1, Globalization, Democracy and Civil Society in Asia, London, |

Palgrave Macmillan.

- 8) Arora, Ramesh., and others, ( 2003). *Ethics and Accountability and Government and Business*, Jaipur, Aalekha.
- 9) Rosenblum, N.L., & Post, R.C., (2002). *Civil Society and Government*, New Jersey, Princeton University Press.
- 10) Kaviraj, Sudipta, & Khilnani, Sunil, (2001). *Civil Society: History and Possibilities*, Cambridge, Cambridge University Press.

### **Paper 4.5 Dissertation**

**(To be allotted by the teachers within the prescribed syllabus)**

**PG88406A-** Governance and Corporate Governance: Case Studies.

**PG88406B-**Sustainable Development Projects: Case Studies.

Unit I- Rain Water Harvesting

Unit-II- Urban Management- Space Management, Park Management,

Unit-III -Common Property Research Management, Lake Rejuvenation, A Forestation

Unit-IV –Water Resource Management

**PG88406C-** Development Projects in the region: An Evaluation.

Unit I-Kappatgudda Project

Unit-II- Sea Bird Project , Kaiga Project

Unit-III –National Highways, Upper Krishna Project

Unit-IV – Agriculture Development Project

(for all these the teachers are expected to give dissertation work or assignments to students in consultation with the Department Council)

**KARNATAK UNIVERSITY, DHARWAD**



**REGULATIONS**  
**For**  
**MASTER OF ARTS IN PSYCHOLOGY**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**From**

**2015-16 Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning Master Degree Programme**

### **Faculty of Social Sciences**

#### **Master Degree Programme in Psychology**

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000

### **MASTER OF ARTS IN PSYCHOLOGY CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree programmes.

#### **Commencement:**

These Regulations shall come into force from the academic year 2015-2016.

#### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means on hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after

completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.

h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.

i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

**Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Psychology Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

**Entrance Test**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University, for the 1st Semester.

**Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1st Semester.

**Intake**

The total number of candidates to be admitted to the course would be 35 only for the 1st semester. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state. Eight seats are under enhanced fee. Total Seats is 35

**Course of Study:**

The courses of study M.A in PSYCHOLOGY degree shall comprise of Theory and Practicals as noted in the syllabus.

**Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years, each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

**Medium of Instruction**

The medium of instruction and examination is English.

**Minimum Credits and Maximum Credits:**

a) There shall be three categories of courses viz., Compulsory course, Specialization Course and Open Elective Course. Compulsory and Specialization Course should be from the concerned

department only. The Open Elective are the courses offered by other Departments in the same Faculty.

b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.

c) The credits for each of compulsory course may vary from 3 to 4 credits; for specialization course it may vary from 1 to 4. In case of Open Elective Course, it shall be 1 to 3 credits for each paper.

d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

### **Course Structure:**

a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.

b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:

i. Compulsory Course

ii. Specialization Course or Optional Course and

iii. Open Elective Course.

c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.

d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.

e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department.

f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.

g) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.

h) The normal calendar for the semester would be as follows:

i. I and III semester - August to November

ii. II and IV Semester - January to April

**Attendance**

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2nd week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural or any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

**Course Outline for the MA in PSYCHOLOGY****SEMESTER I**

| <b>Paper No.</b>         | <b>Title of the Paper</b>             | <b>Marks for Semester end Examination</b> | <b>Internal Assessment Marks</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|--------------------------|---------------------------------------|-------------------------------------------|----------------------------------|--------------------|-----------------------|----------------|
| <b>COMPULSORY PAPERS</b> |                                       |                                           |                                  |                    |                       |                |
| <b>PG51T101</b>          | Biopsychology                         | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T102</b>          | Theories of Learning                  | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T103</b>          | Theories of Personality               | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T104</b>          | Research Methodology                  | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T105</b>          | Core paper: Positive Psychology       | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51P106</b>          | Practicum: Experimental Psychology- I | 75                                        | 25                               | 100                | 8                     | 4              |

## SEMESTER II

| <b>Paper No.</b>            | <b>Title of the Paper</b>                | <b>Marks for Semester end Examination</b> | <b>Internal Assessment Marks</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|-----------------------------|------------------------------------------|-------------------------------------------|----------------------------------|--------------------|-----------------------|----------------|
| <b>COMPULSORY PAPERS</b>    |                                          |                                           |                                  |                    |                       |                |
| <b>PG51T201</b>             | Cognitive Psychology                     | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T202</b>             | Psychological Statistics                 | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T203</b>             | Theories of Motivation and Emotion       | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T204</b>             | Principles of Psychological Measurements | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51P205</b>             | Practicum: Experimental Psychology- II   | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>OPEN ELECTIVE COURSE</b> |                                          |                                           |                                  |                    |                       |                |
| <b>PG51T206</b>             | Foundations of Human Behavior (OEC)      | 75                                        | 25                               | 100                | 8                     | 4              |

### SEMESTER-III

| <b>Paper No.</b>         | <b>Title of the Paper</b>                      | <b>Marks for Semester end Examination</b> | <b>Internal Assessment Marks</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|--------------------------|------------------------------------------------|-------------------------------------------|----------------------------------|--------------------|-----------------------|----------------|
| <b>COMPULSORY PAPERS</b> |                                                |                                           |                                  |                    |                       |                |
| <b>PG51T301</b>          | Counselling and Guidance                       | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T302</b>          | Health Psychology                              | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T303A</b>         | Basic Counselling skills                       | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T304A</b>         | Educational and Career Counselling             | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PG51T303B</b>         | Child Development                              | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T304B</b>         | Child Psychopathology                          | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T303C</b>         | Clinical Psychology                            | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T304C</b>         | Psychopathology and Behavior Dysfunction       | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T303D</b>         | Industrial Psychology                          | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T304D</b>         | Organizational Behaviour                       | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T305A</b>         | Practical : Counselling Specialization         | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T305B</b>         | Screening and Test Administration for Children | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T305C</b>         | Assessment of Mental Ability and Personality   | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51P305D</b>         | Assessment of Ability and Interests            | 75                                        | 25                               | 100                | 8                     | 4              |
| <b>PG51T306</b>          | Developing Effective Self (OEC)                | 75                                        | 25                               | 100                | 8                     | 4              |

## SEMESTER IV

| Paper No. | Title of the Paper                             | Marks for Semester end Examination | Internal Assessment Marks | Total Marks | Hours per week | Credits |
|-----------|------------------------------------------------|------------------------------------|---------------------------|-------------|----------------|---------|
| PG51T401A | Special areas of counseling                    | 75                                 | 25                        | 100         | 4              | 4       |
| PG51T402A | Techniques of individual and group counselling | 75                                 | 25                        | 100         | 4              | 4       |
| PG51T401B | Child Assessment                               | 75                                 | 25                        | 100         | 4              | 4       |
| PG51T402B | Child counselling and Therapies                | 75                                 | 25                        | 100         | 4              | 4       |
| PG51T401C | Clinical Assessment                            | 75                                 | 25                        | 100         | 8              | 4       |
| PG51T402C | Clinical Intervention                          | 75                                 | 25                        | 100         | 8              | 4       |
| PG51T401D | Application of Psychology to Work Settings     | 75                                 | 25                        | 100         | 8              | 4       |
| PG51T402D | Organizational Development                     | 75                                 | 25                        | 100         | 8              | 4       |
| PG51T403  | Core Paper: Community Psychology               | 75                                 | 25                        | 100         | 8              | 4       |
|           | Practicum for each Specialization              |                                    |                           |             |                |         |
| PG51P404B | Practical for Counselling & Guidance           | 75                                 | 25                        | 100         | 8              | 4       |
| PG51P404C | Practical for Child Psychology                 | 75                                 | 25                        | 100         | 8              | 4       |
| PG51P404D | Practical for Clinical Psychology              | 75                                 | 25                        | 100         | 8              | 4       |
| PG51P404B | Practical for Industrial Psychology            | 75                                 | 25                        | 100         | 8              | 4       |
| PG51I405  | Internship                                     | 75                                 | 25                        | 100         | 8              | 4       |
| PG51D406  | Dissertation                                   | 75                                 | 25                        | 100         | 8              | 4       |

### Internship

The students need to undergo Internship (which is compulsory) for one month after the completion of third semester M A IN PSYCHOLOGY.

## Evaluation

a) Evaluation of the papers will have two components-

i) Internal Assessment, and

ii) Semester End examination

Total marks for the Internal Assessment are 25. In addition to 3 marks for attendance as shown in the table above (VIII C), the internal assessment shall consist of Two components-

i. Two written Tests of 8 marks each : 16 marks

ii. Seminar (Presentation) : 6 marks

Two written tests of 11 marks each : 22 Marks

b) **For C.B.C.S students**

The tests shall be written in separate designated answer booklet. The Departmental Council has decided that the course teacher has to conduct written test and seminars. The marks of all the components shall be notified on the notice board of the Department and submitted to the Registrar (Evaluation) at the end of every semester. The Internal Assessment marks shall be taken into account for compilation of grades. In case of candidates appearing for improvement examination the marks obtained in the Internal Assessment shall not be revised since there is no provision for improvement of Internal Assessment.

c) There shall be one Semester-End examination of 3 hours duration for every paper for 75 marks. The examination shall be conducted as per the rules, regulations, notifications, orders, instructions, procedures, formats and circulars issued by the University from time to time.

## Completion of the Course

a) A candidate is expected to successfully complete the Degree programme within two years from the date of admission.

b) Whenever the syllabus is revised, the candidate reappearing will have to write the examination as per the syllabi prevailing at that time.

c) The CBCS scheme is a fully carry-over system. However, the four-semesters (two years course) should be completed by the student within a maximum period of 4 years.

## Declaration of Results:

A. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.

- B. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

### **Marks and Grade Points**

**The grading of successful candidate/s at the examination shall be as follows:**

| <b>Percentage of Marks</b>    | <b>GPA/CGPA</b> | <b>Grade Letter</b> | <b>Class Awarded</b>         |
|-------------------------------|-----------------|---------------------|------------------------------|
| 75 and above                  | 7.50 to 10.00   | A                   | First class with Distinction |
| 60 and above but less than 75 | 6.00 to 07.49   | B                   | First Class                  |
| 50 and above but less than 60 | 5.00 to 05.99   | C                   | Second Class                 |
| 40 and above but less than 50 | 4.00 to 4.99    | D                   | Third Class                  |
| Less than 40                  | Less than 4.00  | F                   | Pass                         |

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF ARTS IN PSYCHOLOGY**

**CHOICE BASED CREDIT SYSTEM**

**(MA IN PSYCHOLOGY-CBCS)**

| <b>MA in Psychology Program Outcomes</b> |                                                                                                                                               |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PO-1</b>                              | The students will understand and apply various research inquiry skills of professional psychology.                                            |
| <b>PO-2</b>                              | Empowers the students to involve in scientific research process and gain the skills necessary to conduct and disseminate original research.   |
| <b>PO-3</b>                              | The students will gain knowledge and competence in counseling, clinical and industrial setup.                                                 |
| <b>PO-4</b>                              | The students will demonstrate the skills of professional identity as counseling psychologist, clinical psychologist, Industrial Psychologist. |
| <b>PO-5</b>                              | The students will demonstrate the knowledge of Psychological theories, research for the appliment of the society.                             |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                | PG51T101: BIO PSYCHOLOGY                                                                                           |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    |                             |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                               | Having basic knowledge about the structure of human brain and its functions and impact of human behavior.          |                             |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                               | Understanding biological mechanism in mental process such as learning memory, and thinking.                        |                             |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                               | Providing an applied prospective with regard to various neurological disorders.                                    |                             |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                               | Gaining thorough knowledge with regard to genetic mechanisms and evolutionary aspects of behavior.                 |                             |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                               | Becoming aware of adverse effects of psychotropic medications and practicing ethical issues in psychopharmacology. |                             |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                    | Teaching Hours<br>(Max. 48) |
| Unit:1 Brain Behaviour Dynamics                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    | 10 hrs                      |
| <ul style="list-style-type: none"><li>Bio psychology- Nature and Scope, Methods of studying in brain- Ablation, Recording and Stimulation methods, Neurochemical methods.</li><li>Nervous systems – Structure and functions, Divisions – Central and Peripheral NS.</li><li>Brian and cognitive functions – intelligence, memory, learning, Endocrine system – functions and effects of endocrine glands</li></ul> |                                                                                                                    |                             |
| Unit : 2 Neuro psychology                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                             |
| <ul style="list-style-type: none"><li>Neurons- Structure, types and functions of neuron, Neuronal conduction-communication between neurons, synaptic conduction</li><li>Neurotransmitters- categories and functions</li><li>Neurological disorders- Tumours, Seizures Parkinson’s disease, Huntington’s disease, Alzheimer’s disease, Multiple Sclerosis</li></ul>                                                 |                                                                                                                    | 10 hrs                      |
| Unit : 3 Behaviour Genetics                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                    | 10 hrs                      |
| <ul style="list-style-type: none"><li>Behaviour Genetics: Nature and Scope,</li><li>Methods of study and research techniques</li><li>Chromosomal functions,</li><li>Hereditary determinations of behaviour</li></ul>                                                                                                                                                                                               |                                                                                                                    |                             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <ul style="list-style-type: none"> <li>Genetic engineering</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |
| <b>Unit : 4 Evolutionary Perspectives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 08 hrs |
| <ul style="list-style-type: none"> <li>Principles of Evolution –human behaviour – Reflexes, Instincts</li> <li>Environmental influences on behaviour- human and non-human species.</li> <li>Current researches in evolutionary bio-psychology</li> </ul> <p>Controversial issues in evolutionary bio-psychology</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |
| <b>Unit : 5 Psycho Pharmacology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10 hrs |
| <ul style="list-style-type: none"> <li>Basic Principles of psychopharmacology</li> <li>Classification of Psychotropic Medications – Antipsychotics, Antidepressants, Anxiolytics and sedatives, Mood stabilizers, Stimulants, Sedatives/ Hypnotics, Miscellaneous drugs.</li> <li>Adverse Effects of Psychotropic Medications- Drug-drug interactions, Side effects, Orthostatic, Hypotension, Sexual dysfunction and hyper prolactinemia, Liver/Kidney dysfunction.</li> <li>Ethical issues in Psycho- pharmacology.</li> </ul>                                                                                                                                                                                                                                                                           |        |
| <b>Books for References</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |
| <ol style="list-style-type: none"> <li>Neil R, Carlson (2005): Foundations of Physiological Psychology, 6<sup>th</sup> Edition. Person</li> <li>John P. J. Pinel (2007). Biopsychology, 6<sup>th</sup> Edition. Pearson</li> <li>James W. Kalat (1998). Biological Psychology. Thomson publishing Europe</li> <li>David M.Buss (2005): The Handbook of Evolutionary psychology, John Wiley and Sons</li> <li>Handbook of Psychology- Sage Publications,</li> <li><a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3031936/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3031936/</a>- principles of psychopharmacology</li> <li><a href="http://nursece4less.com/tests/materials/n075materilas.pdf">http://nursece4less.com/tests/materials/n075materilas.pdf</a> - classification, effects</li> </ol> |        |

| Paper Code and Name                                                                   | PG51T102: THEORIES OF LEARNING                                                                                                                                                |                          |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                       |                                                                                                                                                                               |                          |
| CO-1                                                                                  | The pupil will be able to understand the nature and history of learning theories                                                                                              |                          |
| CO-2                                                                                  | The pupil will be able to understand different types of learning theories                                                                                                     |                          |
| CO-3                                                                                  | The pupil will be able to acquire knowledge about concepts and principles of various learning theories.                                                                       |                          |
| CO-4                                                                                  | The pupil will be able to distinguish between various learning theories and critically evaluate them.                                                                         |                          |
| CO-5                                                                                  | The pupil will be able to choose appropriate techniques derived from any or many learning theories for clinical use, Industrial application or behavioural training purposes. |                          |
| PARTICULARS                                                                           |                                                                                                                                                                               | Teaching Hours (Max. 48) |
| Unit: 1 Introduction to Learning Theories                                             |                                                                                                                                                                               | 10 hrs                   |
| - Nature of Learning Theories, Early notions about learning theories.                 |                                                                                                                                                                               |                          |
| Unit: 2 Functionalistic theories:                                                     |                                                                                                                                                                               | 12 hrs                   |
| - E.L. Thorndike, B.F. Skinner, Daniel Premack, Clark B. Hull, Mowrer, Spence, Amsel. |                                                                                                                                                                               |                          |
| Unit: 3 Associationistic theories:                                                    |                                                                                                                                                                               | 12 hrs                   |
| - Ivan P. Pavlov, J. B. Watson, Edwin R. Guthrie, William K. Estes, Martin Seligman   |                                                                                                                                                                               |                          |

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| <b>Unit: 4 Cognitive theories</b>                                                                              |  | 10 hrs |
| - Gestalt Theories, E.C. Tolman, Albert Bandura ; Applications of observational learning                       |  |        |
| <b>Unit: 5 Neuropsychological Theories</b>                                                                     |  | 4 hrs  |
| - Donald Olding Hebb                                                                                           |  |        |
| <b>Books for References</b>                                                                                    |  |        |
| 1. Bower and Hillgard: Theories of Learning, 3 <sup>rd</sup> edition. Acc, NewYork                             |  |        |
| 2. Hergenhahn B.R. (1988) Introduction to Psychology of Learning, Prentice Hall, International edn. New Jersey |  |        |
| 3. Sahakian. Introduction to Psychology of Learning, Rand McNally College Publishing Co.                       |  |        |

| Paper Name                                                                                                                                                                                                                            | Code and | PG51T103: THEORIES OF PERSONALITY                                                                |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                       |          |                                                                                                  |                          |
| CO-1                                                                                                                                                                                                                                  |          | The Students will be able to understand different theoretical background related to personality. |                          |
| CO-2                                                                                                                                                                                                                                  |          | The Students will be able to implement the skills to assess personality.                         |                          |
| CO-3                                                                                                                                                                                                                                  |          | Students will be able to understand the basics for personality development.                      |                          |
| CO-4                                                                                                                                                                                                                                  |          | Students will understand the biological aspect involved in personality.                          |                          |
| CO-5                                                                                                                                                                                                                                  |          | Students will understand theoretical aspects of personality.                                     |                          |
| PARTICULARS                                                                                                                                                                                                                           |          |                                                                                                  | Teaching Hours (Max. 48) |
| Unit: 1 Personality                                                                                                                                                                                                                   |          |                                                                                                  | 10 hrs                   |
| - Meaning, Nature, Historical foundations, Determinants of Personality. Personality perspectives: Biological, Intrapsychic, Socio-cultural and Temporal-developmental. Person-Situation controversy, Modern interaction perspectives. |          |                                                                                                  |                          |
| Unit: 2 Psychoanalytical Perspectives                                                                                                                                                                                                 |          |                                                                                                  | 8 Hrs                    |
| - Freud’s psychoanalytical theory; Jung’s analytic theory. Neo-Freudian perspectives: Adler; Horney; Sullivan. Erikson’s contemporary perspective.                                                                                    |          |                                                                                                  |                          |
| Unit: 3 Trait Perspectives                                                                                                                                                                                                            |          |                                                                                                  | 8 hrs                    |
| - Allport; Cattell and Eysenck. Kurt Lewin’s field theory                                                                                                                                                                             |          |                                                                                                  |                          |
| Unit: 4 Humanistic/Existential Perspectives                                                                                                                                                                                           |          |                                                                                                  | 10 hrs                   |
| - Goldstein’s dynamics of personality; Maslow’s self-actualization position; Rogers’s person-centred theory. Social-Behaviouristic perspectives: Skinner; Dollard and Miller; Bandura; Watson.                                        |          |                                                                                                  |                          |
| Unit: 5 Assessment and Interpretation Techniques                                                                                                                                                                                      |          |                                                                                                  | 12 hrs                   |
| - Scales; Inventories; Questionnaires; Interview; Projective Tests; Observer Data. Research Designs: Idiographic and Nomothetic research approaches; Case study method; Correlation research; Experimental research.                  |          |                                                                                                  |                          |
| Books for References                                                                                                                                                                                                                  |          |                                                                                                  |                          |

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| <ol style="list-style-type: none"> <li>1. John D. Mayer. (2005). Personality Psychology: A Systems Approach. New Delhi: Pearson Custom Publishing.</li> <li>2. Richard M. Rickman. (1993). Theories of Personality. California: Brooks/Cole Publishing Company.</li> <li>3. Pervin L. A. (1984). Personality Theory and Research. New York: John Wiley.</li> <li>4. Hall, C. S. &amp; Lindsey G. (1998). Theories of Personality (4<sup>th</sup> Ed). New Delhi: John Wiley.</li> <li>5. Aiken, L.R. (1993). Personality: Theories, Research and Applications. New Jersey: Prentice Hall.</li> <li>6. Gatchel, R.J., &amp; Mears, F.G. (1982). Personality: Theory, Assessment and Research. New York: St. Martin's Press.</li> <li>7. Hergenhahn, B.R. &amp; Mathew, Olson. (2006). An Introduction to Theories of Personality (7<sup>th</sup> Ed.). New York: Prentice Hall.</li> </ol> |  |
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| Paper Name                                                                                                                                                                                                                                                                | Code and                                                                                                                 | PG51T104: RESEARCH METHODOLOGY |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                           |                                                                                                                          |                                |                          |
| CO-1                                                                                                                                                                                                                                                                      | Students will be able to design and carry out the research effectively at their master degree subsequently further also. |                                |                          |
| CO-2                                                                                                                                                                                                                                                                      | Students will come to know how to select the Research problem and how to formulate hypotheses.                           |                                |                          |
| CO-3                                                                                                                                                                                                                                                                      | Students will come to know how to design his research problem.                                                           |                                |                          |
| CO-4                                                                                                                                                                                                                                                                      | Students will come to know how to collect the data for his research problem.                                             |                                |                          |
| CO-5                                                                                                                                                                                                                                                                      | Students will be able to design and carry out the research effectively at their master degree subsequently further also. |                                |                          |
| PARTICULARS                                                                                                                                                                                                                                                               |                                                                                                                          |                                | Teaching Hours (Max. 48) |
| Unit: 1 Meaning of Research                                                                                                                                                                                                                                               |                                                                                                                          |                                | 8 hrs                    |
| - Objectives of Research – Flow Chart, Significance of Research – Research Methods v/s Methodology, Research Process: Criteria of good research, Problems encountered by Researcher in India, concepts and constructs and their constitutive and operational definitions. |                                                                                                                          |                                |                          |
| Unit: 2 Selecting the Research Problem                                                                                                                                                                                                                                    |                                                                                                                          |                                | 12 hrs                   |
| - Creterias of Research Problem, what is research problem, Selecting the problem, Necessity of defining the problem; Techniques involved in defining problem; Meaning and types of variables, Meaning and types of Hypotheses                                             |                                                                                                                          |                                |                          |
| Unit: 3 Research Design                                                                                                                                                                                                                                                   |                                                                                                                          |                                | 10 hrs                   |
| - : Meaning of Research Design; Need for Research Design, Features of good design; Purpose of Research Design, Important concepts relating to Research Design poor and good designs, Criteria of Research Design                                                          |                                                                                                                          |                                |                          |
| Unit: 4 Sampling                                                                                                                                                                                                                                                          |                                                                                                                          |                                | 6 hrs                    |
| - Meaning and Definitions, Principles and Purpose of sampling, Sample Size, Techniques and Types of Sampling, Sampling error                                                                                                                                              |                                                                                                                          |                                |                          |
| Unit: 5 A) Types of Research                                                                                                                                                                                                                                              |                                                                                                                          |                                | 12 hrs                   |

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| - Expost facto research, Laboratory Experiments, Field Experiments, Filed studies and survey research                                                         |  |
| <b>B) Methods of Data Collection</b>                                                                                                                          |  |
| Interview and interview schedules, Observation of behavior, Projective methods, content analysis, sociometry, case study, Report writing, Ethics in Research. |  |
| <b>Books for References</b>                                                                                                                                   |  |
| 1. C.K. Kothari (1985); Research Methodology; Methods and Techniques, New Delhi; Wiley Eastern Ltd                                                            |  |
| 2. Kerlinger Fred N.: Foundations of Behavioural Research, Sarget Publications, New Delhi                                                                     |  |

| Paper Name                                                                                                                                                                                                                                                                                                       | Code and                                                                                                                                  | PG51T105: POSITIVE PSYCHOLOGY (CORE PAPER) |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                  |                                                                                                                                           |                                            |                          |
| CO-1                                                                                                                                                                                                                                                                                                             | Student will develop insight of the aim and scope of Positive Psychology.                                                                 |                                            |                          |
| CO-2                                                                                                                                                                                                                                                                                                             | Student will be able to understand the distinction between Positive Psychology Principles and Other theoretical principles of Psychology. |                                            |                          |
| CO-3                                                                                                                                                                                                                                                                                                             | Student will develop insight into the Dimensions of Subjective well-being and how to apply it.                                            |                                            |                          |
| CO-4                                                                                                                                                                                                                                                                                                             | Student will able to apply the techniques to induce Happiness in real life setting.                                                       |                                            |                          |
| CO-5                                                                                                                                                                                                                                                                                                             | Students will know how to anticipate upcoming changes and be prepared to face the crisis                                                  |                                            |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                      |                                                                                                                                           |                                            | Teaching Hours (Max. 48) |
| Unit: 1 An Introduction to Positive Psychology                                                                                                                                                                                                                                                                   |                                                                                                                                           |                                            | 8 hrs                    |
| - Definition, Scope. Basic themes and assumptions of Positive Psychology, A short History of Well-being in the Western and Eastern World.                                                                                                                                                                        |                                                                                                                                           |                                            |                          |
| Unit: 2 Positive Psychology and Emotion                                                                                                                                                                                                                                                                          |                                                                                                                                           |                                            | 10 hrs                   |
| - The Evolutionary need for Positive Emotions, The 4biology of Positive Emotions. The Broaden and Build Model of Positive Emotions. Positive Emotions and Mental Health: Positive development across Life Span: Resilience, Generativity, Flourishing and Thriving, Wisdom, Authenticity, Strengths and Virtues. |                                                                                                                                           |                                            |                          |
| Unit: 3 Subjective Well-Being                                                                                                                                                                                                                                                                                    |                                                                                                                                           |                                            | 10 hrs                   |
| - The Measurement of Subjective Wellbeing, Predictors of Subjective Well being: Self-esteem, Sense of Perceived Control, Extroversion, Optimism, Positive relationships, A sense of Meaning and Purpose. Factors that Increase Subjective Well being: Cognition, The pursuit of Goals, Evaluation theory         |                                                                                                                                           |                                            |                          |
| Unit: 4 Flow, Mindfulness, and Peak Performance                                                                                                                                                                                                                                                                  |                                                                                                                                           |                                            | 10 hrs                   |
| - Definition of Flow, characteristics of flow, Flow and Well-being, Peak Performance: Peak Performance in Sports, Training for Peak performance. Additional Avenues to Well being: Mindfulness and Savoring                                                                                                      |                                                                                                                                           |                                            |                          |
| Unit: 5 Interventions for Enchanced Well being                                                                                                                                                                                                                                                                   |                                                                                                                                           |                                            | 10 hrs                   |

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| - The Dimensions of Positive mental health: Marie Jahoda and Positive mental health, Carol Ryff and Psychological well being, Richard Coan and the modes of Fulfillment, Keyes and Lopez and Complete mental health. Increasing Positive emotions, Increasing Happiness, Application of Mindfulness, Training for Forgiveness  |  |
| <b>Books for References</b>                                                                                                                                                                                                                                                                                                    |  |
| 1. Snyder, C & Lopez, J. (2002) Handbook of Positive Psychology, Oxford University Press<br>2. Linley, P. A., & Joseph, S. (2004). Toward a theoretical foundation for positive psychology in practice. In P. A. Linley & S. Joseph (Eds.), Positive psychology in practice (pp. 713-731). Hoboken, NJ: John Wiley & Sons, Inc |  |

| Paper Name                                                                                                                                                                                                                                                                         | Code and                                                                               | PG51P106: EXPERIMENTAL PSYCHOLOGY I |                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------|------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                    |                                                                                        |                                     |                        |
| CO-1                                                                                                                                                                                                                                                                               | The student will be able experience various Psychological phenomena                    |                                     |                        |
| CO-2                                                                                                                                                                                                                                                                               | The student will be able to conduct experiments and assess personality of the clients. |                                     |                        |
| CO-3                                                                                                                                                                                                                                                                               | The students will be able to conduct experiments to understand learning process.       |                                     |                        |
| CO-4                                                                                                                                                                                                                                                                               | The students will be able to assess personality of the clients using suitable tool .   |                                     |                        |
| PARTICULARS                                                                                                                                                                                                                                                                        |                                                                                        |                                     | Teaching Hours (Max. ) |
| A: Psychophysical Experiments                                                                                                                                                                                                                                                      |                                                                                        |                                     |                        |
| 1. Scaling a set of stimuli using paired comparison and rank order method<br>2. Muller-Lyer Illusion using method of average error<br>3. DL for Tactual sensation using method of limits<br>4. Verification of Weber’s law using method of constant stimuli<br>5. Signal Detection |                                                                                        |                                     |                        |
| B: Experiments on Learning                                                                                                                                                                                                                                                         |                                                                                        |                                     |                        |
| 1. Maze learning<br>2. Masses v/s Spaced learning<br>3. Peterson’s Rational Learning<br>4. Yerke’s Mutlptiple Choice<br>5. Schedules of Reinforcement                                                                                                                              |                                                                                        |                                     |                        |
| C: Assessment of Personality                                                                                                                                                                                                                                                       |                                                                                        |                                     |                        |
| 1. Neo-Five Factor personality Inventory<br>2. Edward’s Personal Preference Schedule<br>3. Mysore Personality Inventory<br>4. 16-Personality Factor Questionnaire<br>5. Contact Personality Test                                                                                   |                                                                                        |                                     |                        |

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| <b>Paper Name</b>                                                                                                                                                                                                                                                                                                                                                                              | <b>Code and</b>                                                                                                         | <b>PG51T201: COGNITIVE PSYCHOLOGY</b> |
| <b>COURSE OUTCOMES</b>                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                         |                                       |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                           | The student will be able to develop an understanding of how the Cognitive Process is measured using specific Techniques |                                       |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                           | The student will understand the Various Attention model and use it to enhance it in their Academics.                    |                                       |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                           | The student will know how the Memory can be enhanced.                                                                   |                                       |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                           | Students will get insight into the Transformational Grammar.                                                            |                                       |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                           | Students can understand how General knowledge can be organized for effective recall                                     |                                       |
| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                         | <b>Teaching Hours (Max. 48)</b>       |
| <b>Unit: 1 Approaches to Cognitive Psychology</b>                                                                                                                                                                                                                                                                                                                                              |                                                                                                                         | 9 hrs                                 |
| - Meaning and Definition, A brief history of Cognitive Psychology, Approaches, Current Techniques in Cognitive Psychology: Brain Lesions, Positron Emission Tomography (PET), Functional Magnetic Resonance Imaging (fMRI), Event related Potential technique, Single Cell recording technique. Artificial Intelligence: computer metaphor, Pure Artificial intelligence, computer simulation. |                                                                                                                         |                                       |
| <b>Unit: 2 Perceptual Processes I</b>                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                         | 7 hrs                                 |
| - The Visual system: Theories of Visual object Recognition: Template-matching theory, Feature Analysis theory, The recognition by components theory. Top down processing and Bottom up processing                                                                                                                                                                                              |                                                                                                                         |                                       |
| <b>Unit: 3 Attention</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                         | 7 hrs                                 |
| - Divided attention, Selective attention, Neuroscience research on Attention: the orienting attention network, the executive attention network. Theories of Attention: Bottleneck theory and Capacity theory                                                                                                                                                                                   |                                                                                                                         |                                       |
| <b>Unit: 4 Memory</b>                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                         | 10 hrs                                |
| - Alan Baddeley’s Model of working memory: Phonological loop, Visual sketchpad, Central executive, Episodic Buffer. Craik and Lockhart’s Levels of Processing approach, Autobiographical Memory, Flashbulb Memories, Eyewitness Testimony.                                                                                                                                                     |                                                                                                                         |                                       |
| <b>Unit: 5 Background of Semantic Memory</b>                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                         | 7 hrs                                 |
| - The feature comparison model, Approach Prototype, Exemplar and Networks Models                                                                                                                                                                                                                                                                                                               |                                                                                                                         |                                       |
| <b>Unit: 6 Language and Language Comprehension</b>                                                                                                                                                                                                                                                                                                                                             |                                                                                                                         | 8 hrs                                 |
| - Background on the structure of Language, Psycholinguistics, factors affecting Comprehension. Basic Reading Process: Comparing Written and Spoken language, Discovering the meaning of unfamiliar words. Reading and working memory.                                                                                                                                                          |                                                                                                                         |                                       |
| <b>Books for References</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                         |                                       |
| 1. Mark Ashcraft and Gabriel Radvansky (2006). Cognition Fifth Edition. Prentice Hall. USA<br>2. Stephen Reed (2005) Cognition Theory and Applications. Seventh edition. Thomson Wadsworth.US                                                                                                                                                                                                  |                                                                                                                         |                                       |

| Paper Code and Name                                                                                                                                                             | PG51T202: PSYCHOLOGICAL STATISTICS                                                                                                 |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                 |                                                                                                                                    |                          |
| CO-1                                                                                                                                                                            | Students will be able to analyze the research data with appropriate statistical techniques and also getting familiarized with SPSS |                          |
| CO-2                                                                                                                                                                            | Developing skills to use quantitative techniques to analyze the data.                                                              |                          |
| CO-3                                                                                                                                                                            | Grasping concepts related to hypothesis testing and developing related computational skills                                        |                          |
| CO-4                                                                                                                                                                            | Learning basic techniques of descriptive and inferential statistics (parametric and non-parametric).                               |                          |
| CO-5                                                                                                                                                                            | Learning to use the SPSS package for data analysis                                                                                 |                          |
| PARTICULARS                                                                                                                                                                     |                                                                                                                                    | Teaching Hours (Max. 48) |
| Unit: 1 Introduction                                                                                                                                                            |                                                                                                                                    | 8 hrs                    |
| - The definitions and purpose of statistics, Collection and Tabulation of data. Frequency distribution, Preparation of frequency tables, Graphical representation.              |                                                                                                                                    |                          |
| Unit: 2 Measures of Central Tendency and Variability                                                                                                                            |                                                                                                                                    | 10 hrs                   |
| - The mean, mode and median; when to use various measures of central tendency; Measures of variability: Range, Quartile deviation, Mean deviation, Standard deviation, variance |                                                                                                                                    |                          |
| Unit: 3 Test of Significance                                                                                                                                                    |                                                                                                                                    | 8 hrs                    |
| - Significance of mean and SD; difference between means and Standard Error of Mean, ‘t’ test ; Analysis of variance (ANOVA): one-way and two-way.                               |                                                                                                                                    |                          |
| Unit: 4 Correlation and Regression                                                                                                                                              |                                                                                                                                    | 8 hrs                    |
| - Product moment correlation and Rank order correlation; Simple and multiple regression.                                                                                        |                                                                                                                                    |                          |
| Unit: 5 Non-Parametric Statistics                                                                                                                                               |                                                                                                                                    | 8 hrs                    |
| - Chi-square and its various applications; Brief information on different non-parametric tests; Test for normality                                                              |                                                                                                                                    |                          |
| Unit: 6 Factor analysis                                                                                                                                                         |                                                                                                                                    | 6 hrs                    |
| - Factor loading, Factor extraction and Factor rotation; Computer applications: Use of statistical packages in data analysis                                                    |                                                                                                                                    |                          |
| Books for References                                                                                                                                                            |                                                                                                                                    |                          |
| 1. Arthor Aron, Elaine N. Aron and Elliot J. Coups (2007). Statics for Psychology. Pearsons                                                                                     |                                                                                                                                    |                          |
| 2. Garret: Statistics in Psychology and Education.                                                                                                                              |                                                                                                                                    |                          |
| 3. Guilford: Fundamental of Statistics in Psychology and Education                                                                                                              |                                                                                                                                    |                          |
| 4. Howell, D.C. (1997) Statistical Methods for Psychology. Singapore International Thomson Publishing, Asia.                                                                    |                                                                                                                                    |                          |
| 5. Kerlinger, N. (1996) Foundations of behavioural research. Prentice Hall                                                                                                      |                                                                                                                                    |                          |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PG51T203: THEORIES OF MOTIVATION AND EMOTION                                                                                        |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                     |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The students will be able to understand and able to deal problems related to motivation and emotion of the citizens in the society. |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will be able to understand theories related to motivation and emotion.                                                     |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will be able to gain skills to assess motivation and emotion.                                                              |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will gain ability to recognize, express and control emotions.                                                              |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Students will gain ability to understand theory of emotional expressions.                                                           |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     | Teaching Hours (Max. 48) |
| Unit: 1 Motivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                     |                          |
| - Nature; Definition; Origin of instinct concept; Species specific behaviour; Ethological approach: Tinbergen; Lorenz; Darwin’s; Mendel’s theories. Psychoanalytic theories of motivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                     | 8 hrs                    |
| Unit: 2 Drive and Reinforcement Theories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                     |                          |
| - Drive reduction theory: Hull; Spence; Mowrer; Tolman. Cognitive theories: Heider’s balance theory; Festinger’s cognitive dissonance theory; Aronson’s expectancy interpretation theory; Bem’s self-perception theory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                     | 10 hrs                   |
| Unit: 3 Achievement Motivation Theories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                     |                          |
| - McClelland; Atkinson. Miller’s conflict theory of behaviour; Lewin’s field theory; Rotter’s concept of locus of control. Social-learning approach of Mischel. Growth theories: Maslow; Rogers; Allport                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                     | 10 hrs                   |
| Unit: 4 Emotion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                     |                          |
| - Nature; definition and classification. Experience of Emotion: James-Lange; Cannon-Bard theories. Cognitive and cognitive-appraisal theories: Schechter and Singer; Arnold; Lazarus; Mandler and Izard. Theories of Emotional Intelligence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                     | 10 hrs                   |
| Unit: 5 Theory of Emotional Expression                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                     |                          |
| - Darwin and Frijda. Central theories of emotions: Papez; McClean. Physiological basis of emotion: Hormones and nervous system; Physiological response patterns; Activation theory of emotion; Optimal arousal theory. Arousal and performance; Interrelation between motivation and emotion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                     | 10 hrs                   |
| Books for References                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                     |                          |
| 1. Weiner, B. (1972). Theories of Motivation. New York: Rand MaNalley Publishing Co.<br>2. Coffey, C.N., & Atkinson, M.H. (1960). Motivation: Theory and Research. New York: Wiley Eastern Print.<br>3. Robert C. Beck. (2000). Motivation: Theories and Principles (4 <sup>th</sup> Ed.). New Delhi: Pearson Education.<br>4. Robert C. Bolles. (1969). Theory of Motivation. New York: Harper & Row.<br>5. Atkinson, J.W. (1964). An Introduction to Motivation. New York: D. Van Nostrand Company.<br>6. John Jung. (1978). Understanding Human Motivation: A Cognitive Approach. New York: MacMillan Publishing Co., Inc.<br>7. Strongman, K.T. (1981). The Psychology of Emotion (2 <sup>nd</sup> Ed.). Toronto: John Wiley & Sons.<br>Kalat, J.W., & Shiota, M.N. (2007). Emotion. Brazil: Thomson Wadsworth |                                                                                                                                     |                          |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Paper Code and Name                                                                                                                                                                  | PG51T204: PRINCIPLES OF PSYCHOLOGICAL MEASUREMENT                                                                                                                                                                         |                          |
| COURSE OUTCOMES                                                                                                                                                                      |                                                                                                                                                                                                                           |                          |
| CO-1                                                                                                                                                                                 | The students will be able to understand the nature, types of psychological testing and principles involved in testing construction, as a result they develop skills to develop tests for the assessment for the research. |                          |
| CO-2                                                                                                                                                                                 | Students will come to know how to develop psychological tests.                                                                                                                                                            |                          |
| CO-3                                                                                                                                                                                 | Students will come to know how to develop norms for interpretation of test scores.                                                                                                                                        |                          |
| CO-4                                                                                                                                                                                 | Students will come to know the Reliability and Validity of the tests.                                                                                                                                                     |                          |
| CO-5                                                                                                                                                                                 | Students will come to know the historical development of psychological testing.                                                                                                                                           |                          |
| PARTICULARS                                                                                                                                                                          |                                                                                                                                                                                                                           | Teaching Hours (Max. 48) |
| Unit: 1 General Nature of Testing                                                                                                                                                    |                                                                                                                                                                                                                           | 8 hrs                    |
| - Historical Development of Psychological testing, Uses of tests, Classification of tests                                                                                            |                                                                                                                                                                                                                           |                          |
| Unit: 2 Test Construction                                                                                                                                                            |                                                                                                                                                                                                                           | 12 hrs                   |
| - Steps in Constructing Psychological Test, Item analysis, Item Difficulty; Item Discrimination, Item reliability, item validity.                                                    |                                                                                                                                                                                                                           |                          |
| Unit: 3 Reliability                                                                                                                                                                  |                                                                                                                                                                                                                           | 10 hrs                   |
| - Meaning, Procedure of estimation, Factors influencing reliability, Validity; Types of validity                                                                                     |                                                                                                                                                                                                                           |                          |
| Unit: 4 Standardisation and Interpretation of scores                                                                                                                                 |                                                                                                                                                                                                                           | 10 hrs                   |
| - Development of age norms, Age grade scale, percentile ranks, Standard scores, Relativity of norms, Computer use in the interpretation of test scores. Criterion referenced testing |                                                                                                                                                                                                                           |                          |
| Unit: 5 Tests of General Intellectual abilities                                                                                                                                      |                                                                                                                                                                                                                           | 8 hrs                    |
| -                                                                                                                                                                                    |                                                                                                                                                                                                                           |                          |
| Books for References                                                                                                                                                                 |                                                                                                                                                                                                                           |                          |
| 1. Anastasi A. (1998) Psychological testing. New York: MacMillan                                                                                                                     |                                                                                                                                                                                                                           |                          |
| 2. Freeman, F.S. (1972) Theory and practices of Psychological testing. New Delhi. Oxford & IBH.                                                                                      |                                                                                                                                                                                                                           |                          |
| 3. Guildford J.P. (1954) - Psychometric methods, McGraw-Hill.                                                                                                                        |                                                                                                                                                                                                                           |                          |
| 4. A.K. Singh – Tests, measurements and Research Methods in Behaviour Sciences.                                                                                                      |                                                                                                                                                                                                                           |                          |
| 5. Rober M. Thorndike & Tracy Thorndike-Christ (2011): Measurement & Evaluation in Psychology & Selection, PHJ, New Delhi, 8 <sup>th</sup> Edition.                                  |                                                                                                                                                                                                                           |                          |

| Paper and Name                                                                                                                                                                     | Code                                                                            | PG51P205: EXPERIMENTAL PSYCHOLOGY II |                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------|-----------------------------|
| COURSE OUTCOMES                                                                                                                                                                    |                                                                                 |                                      |                             |
| CO-1                                                                                                                                                                               | The student will be able to Understand and Experience Cognitive processes.      |                                      |                             |
| CO-2                                                                                                                                                                               | The students will be able to assess emotions and motivation in the individuals. |                                      |                             |
| CO-3                                                                                                                                                                               | The student will be able to Understand and Experience Cognitive processes.      |                                      |                             |
| CO-4                                                                                                                                                                               | The students will be able to assess emotions and motivation in the individuals. |                                      |                             |
| PARTICULARS                                                                                                                                                                        |                                                                                 |                                      | Teaching Hours<br>(Max. 48) |
| A: Experiments on Perception                                                                                                                                                       |                                                                                 |                                      |                             |
| 1. Depth Perception<br>2. Perceptual Constancy<br>3. Phi phenomena<br>4. Time perception                                                                                           |                                                                                 |                                      |                             |
| B: Experiments on Memory                                                                                                                                                           |                                                                                 |                                      |                             |
| 1. N-Back Test for verbal working memory<br>2. Effect of Interference on Memory (Retroactive / Proactive)<br>3. Zeigarnick effect<br>4. Semantic Memory<br>5. Levels of processing |                                                                                 |                                      |                             |
| C: Assessment of Emotions and Motivation                                                                                                                                           |                                                                                 |                                      |                             |
| 1. Emotional maturity Scale<br>2. Emotional competence scale<br>3. Emotional intelligence<br>4. need for Achievement test<br>5. Level of aspiration                                |                                                                                 |                                      |                             |
| D: Experiments on Thinking and Problem solving                                                                                                                                     |                                                                                 |                                      |                             |
| 1. Concept Formation<br>2. Tower of Hanoi<br>3. Effect of mental set on Problem solving<br>4. Errors in syllogistic reasoning<br>5. Cognitive style – Embedded Figures Test        |                                                                                 |                                      |                             |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PG51T301: GUIDANCE AND COUNSELLING AT SCHOOL SETTING                                                                 |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                      |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Students will be able to practice effectively guidance and counseling at school settings                             |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Students will learn the skills to assess problems of children in the school setup                                    |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Students will learn to handle the Career issues of their prospective Clients who need Career Guidance and Counseling |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Students will learn to incorporate the Ethical Values at workplace                                                   |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Students will learn Tests and Nontest, techniques.                                                                   |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                      | Teaching Hours (Max. 48) |
| Unit: 1 Guidance and Counselling:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                      | 8 hrs                    |
| - Meaning and definitions of guidance and counselling: Areas of guidance and counselling; Need <i>for</i> guidance and counselling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                      |                          |
| Unit: 2 Models <i>for</i> guidance:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                      | 10 hrs                   |
| - Early guidance models, later guidance models contemporary guidance models                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                      |                          |
| Unit: 3 Perspectives and Approaches of Counselling:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                      | 10 hrs                   |
| - Psychodynamic, Behavioural, cognitive, Humanistic, Eclectic, transactional approaches: Directive, Non- directive counselling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                      |                          |
| Unit: 4 Counselling Process:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                      | 10 hrs                   |
| - Building counselling relationship, Exploration and identification of goals, Counsellor’s skill in understanding action phases, Termination and Follow up.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                      |                          |
| Unit: 5 Guidance and Counselling appraisal techniques:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                      | 10 hrs                   |
| - Tests and Nontest, techniques; Effective counsellor : Personal and professional qualities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                      |                          |
| BOOKS FOR REFERENCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                      |                          |
| 1. Asch, M. (2000). Principles of Guidance and Counselling; Sarup and sons, New Delhi.<br>2. Brance Shertzer and Shelley C. Stone. Fundamentals of guidance, Houghton Mifflin Company, London.<br>3. Feltham C & Horion (2000). Handbook of Counselling and Psychotheorapy, Sage Pub. New Delhi.<br>4. Indira Madhukar (2000). Guidance and Counselling, Author Press, New Delhi.<br>5. Samuel T.Gladding (1992). Counselling . Fourth Edition, Prentice Hall<br>6. Stephen Palmer (2000) Introduction to counselling and Psychtherapy; The essential guide, sage Pub. New Delhi.<br>7. J.C. Aggerwal (1990) Educational Vocational Guidance and Counselling, Doaba House, New Delhi.<br>8. R. L. George and T.S. Cristian (1990) : Counselling: Theory and practice, Allyn and Bacon, London. |                                                                                                                      |                          |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PG51T302: HEALTH PSYCHOLOGY                                                                                                       |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will gain knowledge about health, illness and disorders.                                                              |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will understand the Psychological factors involved in health behavior.                                                |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will be able to apply principles and techniques of psychology to manage health and deal with illness in their clients |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will be able to apply principles and techniques of psychology to manage and enhance health in the clients             |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The students will be able to help clients to deal with illness and disorders with suitable techniques of intervention             |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | Teaching Hours (Max. 48) |
| Unit: 1 Health Psychology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | 8 hrs                    |
| - Nature; Scope; Mind – Body Dualism; Changing patterns of illness. Models of Health: Biomedical; Psychosomatic and Biopsychosocial models                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                          |
| Unit: 2 Health Behaviour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | 8 hrs                    |
| - Meaning; Factors predicting health behaviours; Theories of health behaviour; Changing health habits; Modifying Health Behaviour: Cognitive-Behavioural approach; Trans-theoretical model; Social-engineering. Interdisciplinary perspectives on prevention                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                   |                          |
| Unit: 3 Systems of the Body and Disorders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | 10 hrs                   |
| - Nervous system and disorders; Endocrine system and disorders; Cardiovascular system and disorders; Respiratory system and disorders; Digestive system and disorders; Immune system and disorders.                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                          |
| Unit: 4 Role of Psychological Factors:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   | 12 hrs                   |
| - A. Aetiology; outcome and management of coronary heart disease; HIV/AIDS; Diabetes mellitus; Cancer. B. Causes; health effect; prevention and treatment of smoking; Alcohol use and drug use. Health enhancing behaviours: Diet; Exercise; Weight control; Sleep.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                          |
| Unit: 5 Stress and Illnesses:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                   | 10 hrs                   |
| - Theoretical contributions to stress study; Causal factors of stress; Stress and health related consequences; Behavioural and physical symptoms; Stress and immunology. Moderator Variables of Stress: SES and Gender; Social support; Personality; Coping strategies. Management of stress.                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                   |                          |
| References:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   |                          |
| 1. Shelley E. Taylor. (2006). Health Psychology. New Delhi: Tata McGraw-Hill Publishers.<br>2. Edward P. Sarafino. (1990). Health Psychology – Biopsychosocial Interactions. New York: John Wiley & Sons, INC.<br>3. Naima Khatoon. (2012). Health Psychology. New Delhi: Pearson Publishing.<br>4. Brannan, L & Feist, J. (1996). Health Psychology: An Introduction to Behaviour and Health. New York: Pacific Groove, CA: Brooks/Cole.<br>5. Ogden, J. (1996). Health Psychology: A Text Book. Buckingham: Open University Press.<br>6. Gatchel, R.I, Baum, A & Krantz, D.S. (1989). An Introduction to Health Psychology. New |                                                                                                                                   |                          |

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| York: McGraw Hill.                                                                           |  |
| 7. Bishop, G.D. (1994). Health Psychology: Integrating Mind and Body. Boston: Allyn & Bacon. |  |
| 8. Friedman, D.M. (1989). Health Psychology, New York: Prentice Hall.                        |  |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PG51T303A : BASIC COUNSELING SKILLS                                                                               |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Student will be able to develop the micro skills essential for a Counsellor and adapt these skills in counseling. |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Students will imbibe the Challenging skills to assist the clients to confront their issues                        |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Students will be able incorporate Reflecting skills in Counseling sessions                                        |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Students will learn to utilize Assessments tools in Counseling                                                    |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Students will learn the skill of Goal Setting for their Clients                                                   |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                   | Teaching Hours (Max. 48) |
| Unit: 1 Assessment and the Initial Interview:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                   | 8 hrs                    |
| Why Assessment, Beginning Assessment methods: The mental status examination, Observation, questing, genograms, conducting an initial interview using a brief intake form. Exercises, Homework, Journal starters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                          |
| Unit: 2 The Counseling Process:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   | (12 Hours)               |
| The First Session; the opening the Counseling process:. The Middle Sessions: Structure and Focus, Continuing the counseling relationship, moving through the counseling process. Ending the counseling process, the termination process: Follow-up Invitational Skills: Nonverbal communication between counselor and client: Eye contact, body position, attentive listening, voice tone, facial expressions and gestures, physical distance, touching and warmth. Opening skills: how to invite, Encouragers, questions. Goal setting skills: Set Goals, Characteristics of Constructive Goals, the technique of focusing on the client, the technique of boiling down the problem Exercises, Homework, Journal starters. |                                                                                                                   |                          |
| Unit: 3 Reflecting Skills: Paraphrasing:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   | (12 hours)               |
| Reflecting contents and thoughts, reflecting feelings and reflecting meaning, reasons for reflecting, The skill of Paraphrasing: Reflecting contents and thoughts: How to paraphrase, when to paraphrase, the concept of depth. Common problems in Paraphrasing: Simply reciting the facts, difficulty hearing the story because of “noise”, worrying about what to say next, being judgmental and taking client’s side, being judgmental of the client. : Reflecting Feelings. The importance of understanding emotions, the skill of reflecting feelings, how to reflect feelings, Common problems in reflecting. Exercises, Homework, Journal starters                                                                   |                                                                                                                   |                          |
| Unit: 4 Reflecting Skills:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                   | (10 hours)               |
| Reflecting Meaning and Summarizing: Meaning, Uncovering the next layer, How to identify Meaning issues with clients. The Nonjudgmental listening cycle. Challenging Skills: When should we use the challenging skills, Giving feedback, How to give feedback, Confrontation, How to confront, Evaluating Confrontation and Client response.                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                   |                          |

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| Exercises, Homework, Journal starters                                                                                                                                                                                                                                                                                                                                                                                                       |           |
| <b>Unit: 5 Outcome Evaluation and Termination Skills</b>                                                                                                                                                                                                                                                                                                                                                                                    | (6 hours) |
| Evaluating the effectiveness of Counseling, Basic outcome evaluation methods, Termination, How to Maintain therapeutic Gains and prevent relapse following termination.<br>- Exercises, Homework, Journal starters                                                                                                                                                                                                                          |           |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |           |
| <ol style="list-style-type: none"> <li>1. Lawrence Brammer (1979) The helping relationship: Process and Skills. Prentice Hall Inc. New Jersey. USA.</li> <li>2. Philip Burnard (2005) Counseling Skills Training: Sourcebook of Activities. Viva books Private Limited. New Delhi. India.</li> <li>3. Lennis Ecterling, Cowan (2002) Thriving: A Manual for students in the Helping Professions. Houghton Mifflin. New York. USA</li> </ol> |           |

| Paper Code and Name                                                                                                                                                                                                                                                       | PG51T304A :EDUCATIONAL AND CAREER COUNSELLING                                                                                                                   |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                           |                                                                                                                                                                 |                          |
| CO-1                                                                                                                                                                                                                                                                      | Students will be able to implement the updated information in educational and career counseling.                                                                |                          |
| CO-2                                                                                                                                                                                                                                                                      | It enables the students to carry out 26ounseling service skillfully.                                                                                            |                          |
| CO-3                                                                                                                                                                                                                                                                      | Developing basic understanding of counseling and guidance as a profession.                                                                                      |                          |
| CO-4                                                                                                                                                                                                                                                                      | Gaining over view of various approaches, models and techniques in counseling and guidance.                                                                      |                          |
| CO-5                                                                                                                                                                                                                                                                      | Developing the counseling skill of dealing with problems of school children such as leaning disability, slow learners, emotional and adjust mental problems etc |                          |
| CO-6                                                                                                                                                                                                                                                                      | Developing basic understanding of counseling and guidance as a profession.                                                                                      |                          |
| PARTICULARS                                                                                                                                                                                                                                                               |                                                                                                                                                                 | Teaching Hours (Max. 48) |
| Unit: 1 Elementary, Middle and Secondary School Counselling:                                                                                                                                                                                                              |                                                                                                                                                                 | 12 hrs                   |
| Elementary school Counselling and Guidance :emphases and Roles,Activities; Middle School Counselling and Guidance: Emphases and Roles, Activities; Secondary School Counselling and Guidance: Emphases and Roles, Activities.                                             |                                                                                                                                                                 |                          |
| Unit: 2 College Counselling and Student Life Services                                                                                                                                                                                                                     |                                                                                                                                                                 | 10 hrs                   |
| The beginning of student life services and college 26ounseling; The theoretical bases and professional preparation for working with college students; College 26ounseling, Student life professionals, Counselling and student life services with nontraditional students |                                                                                                                                                                 |                          |
| Unit: 3 Career Development:                                                                                                                                                                                                                                               |                                                                                                                                                                 | 8 hrs                    |
| Philosophies of work in East and West, Emergence of Vocational Guidance Movement, Work as career, Characteristics of career, The development of career, work ethics                                                                                                       |                                                                                                                                                                 |                          |
| Unit: 4 Theories of Career Psychology:                                                                                                                                                                                                                                    |                                                                                                                                                                 | 8 hrs                    |
| The Trait – Factor Approach, Holland’s Typological Theory, Developmental and Life span oriented approaches, Relevance to Indian situation, Social learning Theories, Social cognitive theory, Indian                                                                      |                                                                                                                                                                 |                          |

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| research                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |
| <b>Unit: 5 Understanding Skills for Career Counselling:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 hrs |
| Western Models and Asian Culture, what is career counseling? Skills for career counseling, stages in the career counseling process, Strategic foundations for career counseling, Activities for implementing career development interventions, counseling career preparation.                                                                                                                                                                                                                                                                                                                                                  |        |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |
| <ol style="list-style-type: none"> <li>1. Gideon Arulmani &amp; Sonali Nag-Arulmani(2004) : Career Counselling, Tata McGraw Hill New Delhi</li> <li>2. Patricia Anderson and Michael Vandehey(2006): Career Counselling and Development in Global Economy, Lahaska Press Houghton Mifflin Company, Boston, New York,</li> <li>3. Samuel T. Gladding (1998) 4<sup>th</sup> Edition : Counselling , Merrill Prentice Hall</li> <li>4. Spencer G. Niles and Joann Harris-Bowlsbey (2005) : Career Development, Interventions in the 21<sup>st</sup> century, Second Edition, Person Merrill Prentice Hall, New Jersey.</li> </ol> |        |

| Paper Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Code and                                                                                                                                                      | PG51T303B : CHILD DEVELOPMENT |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                               |                               |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | The students will have complete understanding of the nature and pattern of development in children. Which helps the students to plan and design intervention. |                               |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Students will gain ability to screen the child development book normal and pathological.                                                                      |                               |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Know various childhood Psychopathologies to apply the knowledge in Counseling Situations.                                                                     |                               |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To know the development pattern of child                                                                                                                      |                               |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | To understand the theories of Child Development.                                                                                                              |                               |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                               |                               | Teaching Hours (Max. 48) |
| Unit: 1 Theory and Research in Child Development:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                               |                               | (8 Hours)                |
| <ul style="list-style-type: none"><li>- Mid-Twentieth-Century Theories, Recent Theoretical Perspectives, Comparing Child Development Theories.</li><li>- Research Strategies : From Theory to Hypothesis, common Research Methods, Reliability and Validity: Keys to Scientifically Sound Research , General Research Designs, Designs for Studying Development.</li></ul>                                                                                                                                                           |                                                                                                                                                               |                               |                          |
| Unit: 2 Biological Foundations, Prenatal Development, and Birth                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                               |                               | (12Hours)                |
| <ul style="list-style-type: none"><li>- Genetic Foundations, Reproductive Choices.</li><li>- Prenatal Development: Prenatal Environmental Influences,</li><li>- Childbirth: Approaches to Childbirth, Birth Complications.</li><li>- Infancy: Early Learning, Motor Skills, and Perceptual Capacities, Motor Development in Infancy , Perceptual development in Infancy, Early Deprivation and Enrichment</li><li>- Physical Growth: The Course of Physical Growth : Brain Development, Factors affecting Physical Growth.</li></ul> |                                                                                                                                                               |                               |                          |

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| <ul style="list-style-type: none"> <li>- Puberty: The Physical transition to adulthood, The Psychological Impact of Pubertal events, Puberty and Adolescent Health</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |
| <b>Unit: 3 Cognitive and Language Development</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
| <ul style="list-style-type: none"> <li>- Cognitive Development: Theories – Piaget and Vygotsky ‘s information processing approach.</li> <li>- Intelligence: Definitions, Stages in development of intelligence; Giftedness: Creativity and Talent</li> <li>- Language Development: Components of Language, Theories of Language Development Prelinguistic Development: Phonological, Semantic, Grammatical Development, Pragmatic Development, Bilingualism</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             | (10 Hours) |
| <b>Unit: 4 Personality and Social Development:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |
| <ul style="list-style-type: none"> <li>- Emotional Development: Functions of Emotions, Development of Emotional Expression. Understanding and Responding to the emotions of others, Temperament and development, Development of attachment</li> <li>- Self and Social Understanding: Emergence of Self and development of Self-Concept, Self-Esteem, Constructing an Identity, Thinking about other People, Understanding Conflict: Social Problem Solving</li> <li>- Moral Development: Approaches to the study of moral development, Development of moral reasoning – Kohlberg’s theory, Factors affecting moral development.</li> </ul>                                                                                                                                                                                                         | (10 Hours) |
| <b>Unit: 5 Contexts for Development :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |
| <ul style="list-style-type: none"> <li>- Development of Sex Differences and Gender Roles : Gender Stereotypes and Gender Roles, Gender Identity, Developing Non-Gender-Stereotyped Children</li> <li>- The Family: Origins and Functions of the family, The family as a Social System, Socialization within the family, Family lifestyles and transitions, Vulnerable families: Child Maltreatment, Peers, Media, and Schooling.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                        | (8 Hours)  |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |            |
| <ol style="list-style-type: none"> <li>1. Ganie B. DeHart, L. Alan Sroufe Robert G. Cooper (2000), Child Development: Its nature and Course. 4<sup>th</sup> Edition. Mc Graw Hill Higher Education.</li> <li>2. Hughes, Fergus, P., Noppe, Lloyd., and Noppe, Illene, C. (1995). Child Development, 1<sup>st</sup> Edn. New York P. H.</li> <li>3. Laura E Berk (2012) Child Development. 9<sup>th</sup> Edition, Pearson Higher Education.</li> <li>4. Santrock J. W, (1998). Child Development. McGraw-Hill – International Ed</li> <li>5. Sroufe, I. Alan, Cooper, Robert, G.,&amp; DeHart, G. B. (1996). Child Development; Its Nature and Course, 3<sup>rd</sup> Edition. McGraw-Hill- International Ed.</li> </ol> <p><b>b.</b> Teresa M. McDevitt and Jeanne Ellis Ormrod (2002) Child Development and Education. Merrill Prentice Hall</p> |            |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PG51T304B : CHILD PSYCHOPATHOLOGY                                                                       |                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                         |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The students are in position to understand the nature and find the causes of childhood Psychopathology. |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Further this enables the students for accurate diagnosis of childhood psychopathology                   |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Know various childhood Psychopathologies to apply the knowledge in Counseling Situations.               |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | To understand the nature and causes of behavior disorder.                                               |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | To gain knowledge about psychoneurotic disorders.                                                       |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                         | Teaching Hours (Max. 48) |
| Unit: 1 Nature and Causes Psychoneurotic Disorders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                         | 10 hrs                   |
| - : Generalized anxiety disorders; Obsessive-compulsive disorders; Childhood phobia; Neurotic-anxiety disorders. Nature and Causes of Childhood Psychosis: Schizophrenia; Autism; Mood Disorders; Depression; Suicide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |                          |
| Unit: 2 Nature and Causes of Speech and Developmental disorders:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                         | 10 hrs                   |
| - Speech and language disorders; Stammering, and Developmental disorders – Mental retardation; Learning disability; Tic and movement disorders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                         |                          |
| Unit: 3 Nature and Causes of Behaviour Disorders:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                         | 10 hrs                   |
| - ADHD; Oppositional defiant disorders; Conduct disorders; Stealing; Juvenile delinquency; Temper-tantrums; Aggressive and emotional disorders; Withdrawal; Personality disorders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                         |                          |
| Unit: 4 Nature and Causes of Habit Disorders:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                         | 10 hrs                   |
| - Eating disorders; Enuresis and encopresis; Sleep disorders; Manipulative disorders: Rocking; Head-banging; Hair-pulling; Thumb-sucking; Nail-biting; Sexual perversions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                         |                          |
| Unit: 5 Substance Related Disorders:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                         | 8 hrs                    |
| - Nature and causes of smoking; drinking and drug use                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                         |                          |
| Books for reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                         |                          |
| 1. Achenbach, Thomas, M. (1982). Developmental Psychopathology. 3 <sup>rd</sup> ed. New York: Wiley John B Sons, Inc.<br>2. Heward W.L. & Orlansky M.D. (1996). Exceptional Children: An Introductory Survey to Special Education (5 <sup>th</sup> Ed.). Ohio: Prentice Hall.<br>3. Mask E & Wolfe D. A. (1998). Abnormal Child Psychology. New York: Addison.<br>4. Reinchmidt H & Schmidt M. H. (1992). Developmental Psychopathology. New York: Hogrefe & Huber publishers.<br>5. Wenar, Charles. (1994). Developmental Psychopathology from Infancy through Adolescence. New Delhi: McGraw-Hill.<br>6. Benjamin B. Lahey & Alan E. Kazdin. (1977). Advances in Clinical Child Psychology. New York: Plenum Publications.<br>7. Wiener J. M. (1999). Textbook of Child and Adolescent Psychiatry. American Psychiatric Press.<br>8. Mary Engel. (1970). Psychopathology in Childhood: Social, Diagnostic and Therapeutic |                                                                                                         |                          |

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| Aspects. New York: Harcourt Brace Jovanovich, Inc.                                                               |  |
| 9. Dutta Ray. S. (1980). Psychological Disorders of Young Children. New Delhi: Sterling Publishers.              |  |
| 10. Anthonay Davids. (1974). Child Personality and Psychopathology: Current Topics. New York: John Wiley & Sons. |  |
| 11. Philip Barker. (1971). Basic Child Psychiatry. London: Staples Press.                                        |  |

| Paper Code and Name                                                                                                                                                                                                                                     | PG51T303C : CLINICAL PSYCHOLOGY                                                                       |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                         |                                                                                                       |                          |
| CO-1                                                                                                                                                                                                                                                    | Student will be to diagnose the case thoroughly in the background of theories discussed in the paper. |                          |
| CO-2                                                                                                                                                                                                                                                    | Student will learn to use the different methods in the Clinical Setup                                 |                          |
| CO-3                                                                                                                                                                                                                                                    | Students will learn to apply the DSM and ICDS classifications                                         |                          |
| CO-4                                                                                                                                                                                                                                                    | Students will get to know to maintain the Professional standards and ethics in the Clinical Setup     |                          |
| CO-5                                                                                                                                                                                                                                                    | Students will learn that Psychological disorders have multiple causes and not single factor           |                          |
| PARTICULARS                                                                                                                                                                                                                                             |                                                                                                       | Teaching Hours (Max. 48) |
| Unit: 1 Abnormal Behaviour:                                                                                                                                                                                                                             |                                                                                                       | 10 hrs                   |
| - Historical Conceptions – Supernatural tradition; Biological traditions; Psychological traditions – Psychoanalytic model; Behavioural model; Cognitive model; Humanistic existential model; Modern scientific multidimensional model                   |                                                                                                       |                          |
| Unit: 2 Contributors to Psychopathology:.                                                                                                                                                                                                               |                                                                                                       | 10 hrs                   |
| - Genes and genetic models; Nervous system and neurotransmitters; Psycho-social Influences on brain; Behaviour and cognitive Factors; Socio-cultural and Interpersonal factors                                                                          |                                                                                                       |                          |
| Unit: 3 Nature and Classifications of Psychopathology                                                                                                                                                                                                   |                                                                                                       | 10 hrs                   |
| - : Meaning of normality and abnormality; Criteria of mental health; Mental health and illness; Stress, vulnerability and coping; Need for and types of classification of mental disorders; Multi-axial approach: DSM and ICD systems of classification |                                                                                                       |                          |
| Unit: 4 Research on Clinical Psychology                                                                                                                                                                                                                 |                                                                                                       | 10 hrs                   |
| - : Hypotheses; Studying individual cases; Research by correlation; Experimental research; Studying genetics; Cross-sectional designs; Longitudinal designs; Studying behaviour across cultures; Research ethics                                        |                                                                                                       |                          |
| Unit: 5 Profession of Clinical Psychology:                                                                                                                                                                                                              |                                                                                                       | 8 hrs                    |
| - Becoming a clinical psychologist; Professional issues; Ethical standards; Clinical psychology as science and profession; Future of clinical psychology                                                                                                |                                                                                                       |                          |
| Books for reference                                                                                                                                                                                                                                     |                                                                                                       |                          |
| 1. Bellack, A.S. & Hersen, M. (1980). Introduction to Clinical Psychology. Oxford: Oxford University Press.                                                                                                                                             |                                                                                                       |                          |
| 2. Bernstein, D. A. & Nietzel, M.T. (1980). Introduction to Clinical Psychology. New York:                                                                                                                                                              |                                                                                                       |                          |

McGraw Hill.

3. Choca, J.P. (1986). Manual for Clinical Psychology Trainees. New York: Brunner Mazel.
4. Hersen, M., Kazdin, A.E. & Bellack, A.S. (1983). The Clinical Psychology Handbook. New York: Pergammon Press.
5. Walker, C.E. (1991). Clinical Psychology. New York: Plenum Press.
6. Wolman, B.B. (1965). Handbook of Clinical Psychology. New York: McGraw Hill.
7. Barlow, D.H. & Durand, V.M. (2011). Textbook of Abnormal Psychology. New Delhi: Centage Learning.
8. Sarason, I.G., & Sarason, B.R. (1993). Abnormal Psychology: The Problem of Maladaptive Behaviour. New Jersey: Prentice Hall.
9. Korchin, S.J. (2004). Modern Clinical Psychology: Principles of Intervention in the Clinic and Community. New Delhi: CBS Publishers.
10. Carson, R.C. Butcher, J.N. Mineka, S., & Hooley, J.M. (2007). Abnormal Psychology (13<sup>th</sup> Ed). Noida: Pearson Publishing.

| Paper Code and Name                                                                                                                                                                                                                                    | PG51T304C : PSYCHOPATHOLOGY AND BEHAVIOUR DYSFUNCTION                                                                             |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                        |                                                                                                                                   |                          |
| CO-1                                                                                                                                                                                                                                                   | By the completion of this course the students will gain ability to find the nature, types and causes of various abnormal behavior |                          |
| CO-2                                                                                                                                                                                                                                                   | Gain knowledge related to adult psychopathology.                                                                                  |                          |
| CO-3                                                                                                                                                                                                                                                   | Gain knowledge related to psychotic disorder.                                                                                     |                          |
| CO-4                                                                                                                                                                                                                                                   | Gain knowledge related to developmental disorders.                                                                                |                          |
| CO-5                                                                                                                                                                                                                                                   | Gain knowledge related to eating and sleep disorders.                                                                             |                          |
| PARTICULARS                                                                                                                                                                                                                                            |                                                                                                                                   | Teaching Hours (Max. 48) |
| Unit: 1 Anxiety Disorders:                                                                                                                                                                                                                             |                                                                                                                                   | 8 hrs                    |
| - Anxiety, fear and Panic disorders; Generalized anxiety disorder; Phobic disorders; Obsessive-Compulsive disorders. Somatoform and Dissociative disorders: Hypochondriasis; Somatisation and conversion disorders; Pain and body dysmorphic disorders |                                                                                                                                   |                          |
| Unit: 2 Psychotic Disorders:                                                                                                                                                                                                                           |                                                                                                                                   | 12 hrs                   |
| - Clinical features, types and causes of schizophrenia. Mood disorders: Depression – Clinical features and causes. Bipolar disorders: Clinical features and causes. Clinical features and causes of suicide.                                           |                                                                                                                                   |                          |
| Unit: 3 Developmental Disorders:                                                                                                                                                                                                                       |                                                                                                                                   | 10 hrs                   |
| - Clinical features, types and causes of ADHD; Learning disorders, Autism and mental retardation. Organic mental disorders: Clinical features and causes of delirium and dementia                                                                      |                                                                                                                                   |                          |
| Unit: 4 Eating and Sleep Disorders:                                                                                                                                                                                                                    |                                                                                                                                   | 8 hrs                    |
| - Clinical features, types and causes of Eating and Sleep Disorders. Substance Abuse Disorders: Clinical features and causes of alcohol and drug abuse                                                                                                 |                                                                                                                                   |                          |

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| <b>Unit: 5 Sexual and Gender Identity Disorders</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |       |
| - : Clinical features, types and causes of sexual disorders; Gender identity disorders in adults. Stress and adjustment disorders; Effects of stressors on health; Post-traumatic stress disorders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8 hrs |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |
| 1. Barlow, D.H., & Durand, V.M. (2011). Textbook of Abnormal Psychology. New Delhi: Centage Learning.<br>2. Sarason, I.G., & Sarason, B.R. (1993). Abnormal Psychology: The Problem of Maladaptive Behaviour. New Jersey: Prentice Hall.<br>3. Korchin, S.J. (2004). Modern Clinical Psychology: Principles of Intervention in the Clinic and Community. New Delhi: CBS Publishers.<br>4. Carson, R.C., Butcher, J.N., Mineka S., & Hooley, J.M. (2007). Abnormal Psychology (13 <sup>th</sup> Ed). Noida: Pearson Publishing.<br>5. Bellack, A.S., & Hersen, M. (1980). Introduction to Clinical Psychology. Oxford: Oxford University Press.<br>6. Bernstein, D. A., & Nietzel, M.T. (1980). Introduction to Clinical Psychology. New York: McGraw Hill.<br>7. Walker, C.E. (1991). Clinical Psychology. New York: Plenum Press.<br>Wolman, B.B. (1965). Handbook of Clinical Psychology. New York: McGraw Hill |       |

| Paper Code and Name                                                                                                                                                                                                                                                               | PG51T303D :INDUSTRIAL PSYCHOLOGY                                                                                   |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                   |                                                                                                                    |                          |
| CO-1                                                                                                                                                                                                                                                                              | The students will be able to apply basic psychological principles in 32 Counseling the stakeholders of industries. |                          |
| CO-2                                                                                                                                                                                                                                                                              | The students will come to know the application of psychology in Industry.                                          |                          |
| CO-3                                                                                                                                                                                                                                                                              | The students will come to know Historical development of Industrial Psychology.                                    |                          |
| CO-4                                                                                                                                                                                                                                                                              | The students will come to know the man power planning in industry.                                                 |                          |
| CO-5                                                                                                                                                                                                                                                                              | The students will come to know the performance appraisal in Industry.                                              |                          |
| ARTICULARS                                                                                                                                                                                                                                                                        |                                                                                                                    | Teaching Hours (Max. 48) |
| Unit: 1 Historical Development :                                                                                                                                                                                                                                                  |                                                                                                                    | 10 hrs                   |
| - Social Economic and Psychological foundations of Industrial Psychology; Man Power Planning, Individual Differences, Basic selection model, Correlation, Regression; Statistical Significance; Characteristics of predictors, determining the utility of a selection instruments |                                                                                                                    |                          |
| Unit: 2 Jobs and their requirement:                                                                                                                                                                                                                                               |                                                                                                                    | 10 hrs                   |
| - Terminology; Job determinants; uses of Job information; Job Analysis, Methods of Job Analysis, Structured job analysis questionnaire, Job Dimension, Job requirements                                                                                                           |                                                                                                                    |                          |
| Unit: 3 Selection and Placement:                                                                                                                                                                                                                                                  |                                                                                                                    | 10 hrs                   |
| - Problems of selection, application blank, Biographical Data, Selection by means of interview and psychological tests; Procedure for placement                                                                                                                                   |                                                                                                                    |                          |

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| <b>Unit: 4 Human abilities :</b>                                                                                                                                                                                               |  | 8 hrs  |
| - Personality and Interest: The nature of basic human abilities; Mental abilities; Mechanical ability, Psychomotor abilities, Visual skills, Job specific abilities                                                            |  |        |
| <b>Unit: 5 Performance Appraisal :</b>                                                                                                                                                                                         |  | 10 hrs |
| - The nature and meaning of performance appraisal, purpose of performance appraisal, Traditional methods of performance appraisal, Modern methods of performance appraisal, Psychological problems related to 33ates and rater |  |        |
| <b>Books for reference</b>                                                                                                                                                                                                     |  |        |
| 1. Milton L. Blum And James C. Naylor: Industrial Psychology<br>2. Ernest J.M. McCormick, Daniel ilgen : Industrial Psychology<br>3. Ghosh and Ghorpade: Industrial and Organizational Psychology                              |  |        |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                        | PG51T304D: ORGANIZATIONAL BEHAVIOR                                                                                                                 |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                    |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                       | The pupil will understand the nature and dynamics of Organizations                                                                                 |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                       | The pupil will be able to apply principles of basic human processes in organizational setting to diagnose and solve problems.                      |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                       | The pupil will be able to apply methods of Psychology to form groups/teams, systems and to solve problems and conflicts in organizational setting. |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                       | The student will be able to comprehend communication process, decision making techniques and use them in organizational setting.                   |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                       | The students will be able to understand and evaluate leadership theories ,styles and processes and analyse power and politics in Organisations.    |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                    | Teaching Hours (Max. 48) |
| <b>Unit: 1 The Foundations of Organizational Behaviour:</b>                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                    | <b>(6 hours)</b>         |
| - Introduction to Organizational Behaviour-Historical Background: The Hawthorne Studies- Defining Organizational Behaviour-Theoretical framework. Research Methods in O. B. Today's organizations: Information technology, Contemporary challenges: The nature of Diversity-Managing Diversity, Ethics and ethical behaviour in Organizations                                                                              |                                                                                                                                                    |                          |
| <b>Unit: 2 Basic Human Processes in Organization:</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                    | (12 hours)               |
| - Perceptual processes: Nature and importance of Perception in Organisation. Perceptual selectivity, Perceptual Organization. Social perception, Impression management.<br>- Motivation: The Meaning of Motivation. Types of Motives, Theories- Content Theories of work motivation, Process Theories of work motivation, Contemporary Theories of work motivation.<br>- Personality: Individual difference in Personality |                                                                                                                                                    |                          |
| <b>Unit: 3 : Macro Dynamics of Organizational Behaviour:</b>                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                    | (10 hours)               |
| - Group Dynamics: The Nature and types of Groups-The Dynamics of Informal Groups-The Dynamics of Formal Work Groups-Teams in Modern Workplace.                                                                                                                                                                                                                                                                             |                                                                                                                                                    |                          |

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| Conflicts and Negotiation:<br>- Interactive conflict and negotiation skills, Intra Individual Conflict, interpersonal Conflict-Inter group Behaviour and Conflict- organizational conflict, Negotiation skills                                                                                                                                                                                                                                 |            |
| <b>Unit: 4 Communication and Decision Making in Organizations:</b>                                                                                                                                                                                                                                                                                                                                                                             |            |
| - Communication: Nature and Types of communication – Written, oral, nonverbal communication; Interactive communication in Organization.communication technology.<br>- Decision Making: Nature of Decision Making, Behavioural Decision Making techniques, group Decision Making techniques and Creativity.                                                                                                                                     | (10 hours) |
| <b>Unit: 5 Leadership and Power:</b>                                                                                                                                                                                                                                                                                                                                                                                                           |            |
| - Leadership: What is Leadership? - The historically important studies in Leadership-Traditional theories of Leadership-Modern theoretical process of leadership. Leadership styles, activities and skills.<br>- Power and politics: The Meaning of Power – Political implications of Power                                                                                                                                                    | (10 hours) |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |            |
| 1. Greenberg J. and Baron R. (1999). Behaviour in organizations, Pearson Higher Education. New Delhi. 9 <sup>th</sup> edn.<br>2. Luthans. F (1998).. Organizational Behaviour, 11 <sup>th</sup> ed Irwin Me Graw Hill.<br>3. Robins S. (1996). Organizational behaviour. PHI, New Delhi. 9 <sup>th</sup> ed<br>4. Ricky W. Griffin and Gregory Moorhead (2008) Organizational Behaviour, 10 <sup>th</sup> ed. South-Western, Cengage Learning. |            |

| Paper Code and Name                                                      | PG51T305A: PRACTICALS FOR COUNSELING SPECIALIZATION                                                                                                                                    |                          |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                          |                                                                                                                                                                                        |                          |
| CO-1                                                                     | Students will develop the skills to administer, interpret and write report based on the different scales.                                                                              |                          |
| CO-2                                                                     | Students will develop the demonstration skills necessary for Counseling.                                                                                                               |                          |
| CO-3                                                                     | The students gain skills for assessing different counseling abilities and personality traits of children to practice as counselors or psychologists in the clinical set up confidently |                          |
| CO-4                                                                     |                                                                                                                                                                                        |                          |
| CO-5                                                                     |                                                                                                                                                                                        |                          |
| PARTICULARS                                                              |                                                                                                                                                                                        | Teaching Hours (Max. 48) |
| A: Administration                                                        |                                                                                                                                                                                        |                          |
| 1. Assessment of Intelligence using WAIS Adults                          |                                                                                                                                                                                        |                          |
| 2. Assessment of Intelligence using WISC Children                        |                                                                                                                                                                                        |                          |
| 3. Assessment of Aptitude using David’s Battery of Differential Aptitude |                                                                                                                                                                                        |                          |
| 4. Assessment of Aptitude using Multidimensional Aptitude Battery-II     |                                                                                                                                                                                        |                          |
| 5. Assessment of General Health Using Goldberg’s General Health          |                                                                                                                                                                                        |                          |
| 6. Assessment of Dydaic Adjustment, Marital Adjustment                   |                                                                                                                                                                                        |                          |
| 7. Assessment of Interest using Holland’s Interest inventory             |                                                                                                                                                                                        |                          |
| 8. Assessment of Career Maturity using Crites’                           |                                                                                                                                                                                        |                          |

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| 9. Assessment of Self Image<br>10. Assessment of Old age Depression<br>11. Assessment of Quality of Life of Cancer Survivors<br>12. Assessment of Addiction: Drinking or Smoking                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| <b>B: Demonstration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| Developing Micro-And Macro-Skills:<br><i>Listening/ Identifying / experiencing / Eliciting/ exercising and responding:</i> employing the following skills: <i>Attending, Observing, Paraphrasing, Reflective feelings, Empathy, Positive assets search, Questioning, Analyzing consequences, Interpreting and Feedback, Summarization, Focusing, Reflective meaning , Self- disclosure, Confrontation.</i> <ol style="list-style-type: none"> <li>1. Invitational Skills</li> <li>2. Reflecting Skills</li> <li>3. Challenging Skills</li> <li>4. Goal Setting Skills</li> <li>5. Termination Skills</li> </ol> |  |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PG51P305B: SCREENING AND TEST ADMINISTRATION FOR CHILDREN                                                                                                                             |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                       |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The students gain skills for assessing different cognitive abilities and personality traits of children to practice as counselors or psychologists in the clinical set up confidently |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The student will be able to Understand and school readiness.                                                                                                                          |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The students will be able to assess intelligence.                                                                                                                                     |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The student will be able to Understand and Experience Cognitive processes.                                                                                                            |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | The students will be able to assess intelligence in the individuals.                                                                                                                  |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                       | Teaching Hours (Max. 48) |
| PART A - Administration:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                       |                          |
| 1. Assessment of intelligence using Seguin Form Board<br>2. Assessment of Intelligence using WISC (Performance only)<br>3. Assessment of visual memory using Benton’s Visual Retention test<br>4. Assessment of intelligence and personality using Draw a Man Test<br>5. Assessing for adjustment using pre-adolescent adjustment inventory<br>6. Screening for intellectual deficiency using NIMH protocol<br>7. Screening for school readiness<br>8. Screening for learning disability using NIMHANS index for SLD<br>9. Assessment of personality through CAT<br>10. Assessment of personality using Raven’s Controlled Projective test |                                                                                                                                                                                       |                          |
| PART B – Demonstration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                       |                          |
| 1. Case history and mental status examination<br>2. Screening for Development Psychopathology using DPCL – (Malavika Kapoor)<br>3. Developmental Screening test (Bharat Raj)<br>4. Sociometry                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                       |                          |

|                                      |  |
|--------------------------------------|--|
| 5. Behavioural analysis              |  |
| 6. Assessment of family interactions |  |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                    | PG51T305C : ASSESSMENT OF MENTAL ABILITY AND PERSONALITY                                                                               |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                        |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                   | The students will develop skills to make accurate assessment of various mental abilities and personality functioning of the individual |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                   | The student will be able to Understand and Neuropsychological Functioning.                                                             |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                   | The students will be able to assess Memory                                                                                             |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                   | The student will be able to Understand different experiments.                                                                          |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                   | The students will be able to demonstrate observation, sociometry etc.                                                                  |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                        | Teaching Hours (Max. 48) |
| PART A - Administration:                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                        |                          |
| 1. Knox Cube Imitation Test<br>2. PGI Memory Scale<br>3. Advanced Progressive Matrices<br>4. Bhatia’s Performance Intelligence Test<br>5. Jalota’s General Mental Ability Test<br>6. Assessing planning ability using the Porteus Maze Test<br>7. Assessment of Neuropsychological Functioning<br>8. Screening Subjects on the GHQ<br>9. Bell’s Adjustment Inventory<br>10. Bender Gestalt Test to Assess Brain Damage |                                                                                                                                        |                          |
| PART B - Demonstration:                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                        |                          |
| 1. Case History and Mental Status Examination<br>2. Observation<br>3. Sociometry<br>4. EMG Biofeedback<br>5. Examining for Aphasia<br>6. Assessment of Family Interactions                                                                                                                                                                                                                                             |                                                                                                                                        |                          |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PG51P305D : ASSESSMENT OF ABILITY AND INTEREST                                        |                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                       |                             |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will be able to assess aptitude and abilities and use it in their field. |                             |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The student will be able to Understand performance quotient..                         |                             |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will be able to assess the interests.                                    |                             |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The student will be able to assess the work efficiency.                               |                             |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will be able to assess health status in the individuals.                 |                             |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       | Teaching Hours<br>(Max. 48) |
| A: Administration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                       |                             |
| 1. Assessment of intelligence using the Raven’s Standard Progressive Matrices<br>2. Assessment of intelligence using WAIS<br>3. Assessment of Performance Quotient using Bhatia’s Battery of Performance test<br>4. Assessment of verbal intelligence using the General mental Ability Test<br>5. Assessment of aptitude using David’s Battery of Differential Aptitude (DBDA)<br>6. Assessment of aptitude using Multidimensional Aptitude Battery-II (MAB-II)<br>7. Assessment of interest using Comprehensive Interest Schedule<br>8. Assessment of interest using Thurstone’s interest Schedule<br>9. Assessment of interest using Holland’s career maturity scale<br>10. Assessment of Health status using GHQ<br>11. Effect of rest pause on work efficiency<br>12. Assessment of Stress using Hassel scale<br>13. Eating Disorder scale |                                                                                       |                             |
| B: Demonstration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                             |
| 1. Finger and Tweezer dexterity<br>2. Minnesota rate of Manipulation Test<br>3. Two-hand Coordination test<br>4. Steadiness tester<br>5. Test of Creativity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       |                             |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                             | PG51T401A :SPECIAL AREAS OF COUNSELLING                                                                                                         |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will be able to practice counselling confidently to deal with various cases including that of children, adults and women.              |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                            | Preparing the student to deal with psychological problems of children and adolescence                                                           |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                            | Training the students to identify the psychological problems and provide counseling to drug addicts’ alcoholics and cases of attempted suicide. |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                            | Developing the competency to provide counseling for family problems, problems of aged as well as health related issues.                         |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                            | Preparing the students to manage effectively the disasters’.                                                                                    |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 | Teaching Hours (Max. 48) |
| Unit: 1 Counselling Children and Adolescents :                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                 | 8 hrs                    |
| - Emotionally disturbed, learning disabled, slow learners, socially disadvantaged.                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                 |                          |
| Unit: 2 Counselling for drug addicts, alcoholic and cases of attempted suicide:                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 | 10 hrs                   |
| - Identification of psychological problems and counselling.                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |                          |
| Unit: 3 Marriage and Family Counselling:                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                 | 10 hrs                   |
| - Defining marriage and family, Family Life and Family life cycle, Marriage and couple counselling, Family counselling                                                                                                                                                                                                                                                                                                          |                                                                                                                                                 |                          |
| Unit: 4 Counselling for Special Population:                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 | 10 hrs                   |
| - Psychological and vocational evaluation and rehabilitation of physically and mentally challenged; Women and Aged: Identifying problems and Counselling                                                                                                                                                                                                                                                                        |                                                                                                                                                 |                          |
| Unit: 5 Counselling for promotion of health and Management of Disaster:                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                 | 10 hrs                   |
| - Cancer and HIV/AIDS: Issues, problems and counselling; Disaster Management: Trauma, Loss, Grief, Post – Traumatic Stress.                                                                                                                                                                                                                                                                                                     |                                                                                                                                                 |                          |
| Books for reference                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                 |                          |
| 1. Naland R.L. (1978) Counselling parents of mentally retarded, A Sourebok, C.C. Thomas.<br>2. Narayan Rao, S (1981) Counselling Psychology : Tat Megraw Hill, New Delhi.<br>3. Puluino C.J. & Colangelo (1980) : Counselling for the growing years, Media Corp.<br>4. Rotator A.F. (1986) : Counselling exceptional students, Human Science Press.<br>5. Samuel T.Gladding (1992). Counselling . Fourth Edition, Prentice Hall |                                                                                                                                                 |                          |
| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                             | PG51T402A : TECHNIQUES OF INDIVIDUAL AND GROUP COUNSELING                                                                                       |                          |
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                 |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will understand the importance of theoretical foundation in the practice of Counselling.                                               |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will able to develop the skills needed in Cognitive Behaviour Therapy/Behaviour Therapy/                                               |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will learn to utilize the Expressive Techniques to Special Clients                                                                     |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                            | The Students will be able to imbibe and execute the Group Counseling Sessions                                                                   |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will learn the art of choosing the specific techniques for the Specific Case.                                                          |                          |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Teaching Hours (Max. 48)</b> |
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| <b>Unit: 1 Classic Gestalt Techniques, Psychodynamic Techniques</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>10 hrs</b>                   |
| <b>Unit: 2 Cognitive-Behavioral Therapy, Dialectical Behavior Therapy, Scheme-Focused cognitive Therapy, and Paradoxical Techniques, Rational Emotive Behavior Therapy, Reality Therapy and Transactional Analysis</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>10 hrs</b>                   |
| <b>Unit: 3 Person-Centered Techniques and Psycho-educational life skills Intervention technique</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>10 hrs</b>                   |
| <b>Unit: 4 Eclectic Technique for Group Therapy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>8 hrs</b>                    |
| <b>Unit: 5 Expressive Techniques; Art Therapy, Dance/Movement Therapy, Drama Therapy, Music Therapy, Psychodrama, and Writing as Therapy</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>10 hrs</b>                   |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |
| <ol style="list-style-type: none"> <li>1. Eagan, G. (2001). The skilled helper: A problem management approach to helping. (7th Edi.) Pacific Grove CA: Brooks/Cole</li> <li>2. Kevin Fall (2013) Group Counseling Process and Technique. Routledge. New York USA</li> <li>3. Rosemary Thompson (2003) Counseling Techniques: Improving Relationships with others, ourselves, our families and our environment. Second Edition Routledge Taylor &amp; Francis Group New York London.</li> <li>4. Christian Conte (2009) Advanced Techniques for Counseling and Psychotherapy. Springer Publishing Company, LLC 11 West 42nd Street New York, NY 10036</li> </ol> |                                 |

| <b>Paper Code and Name</b>                                                                                                                                                                                                      | <b>PG51T401B : CHILD ASSESSMENT</b>                                                                    |
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| <b>COURSE OUTCOMES</b>                                                                                                                                                                                                          |                                                                                                        |
| CO-1                                                                                                                                                                                                                            | The students will be able to assess the nature and techniques of psychological assessment of children. |
| CO-2                                                                                                                                                                                                                            | Students will learn about the different Classification of Test                                         |
| CO-3                                                                                                                                                                                                                            | Students will learn to employ the Non-testing Methods in their Counseling                              |
| CO-4                                                                                                                                                                                                                            | Students will learn to employ the Testing methods in their Counseling                                  |
| CO-5                                                                                                                                                                                                                            | Students will learn to use the appropriate tests on their Clients for Screening and Diagnostic purpose |
| <b>PARTICULARS</b>                                                                                                                                                                                                              | <b>Teaching Hours (Max. 48)</b>                                                                        |
| <b>Unit: 1 Child guidance and Child-clinical psychology:</b>                                                                                                                                                                    | <b>10 hrs</b>                                                                                          |
| - Meaning, nature, goals. Assessment of children. Special issues in child assessment. Process of assessment -. Referral, planning, data gathering, analysis and interpretation, reporting. Nature, style and content of report. |                                                                                                        |
| <b>Unit: 2 Techniques of assessment:</b>                                                                                                                                                                                        | <b>10 hrs</b>                                                                                          |
| - Quantitative and qualitative methods – Case record, interview, psychological tests,                                                                                                                                           |                                                                                                        |

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| checklists, rating scales, observation, role-play, physiological measures, multimodal-multimethod assessment. Ethics and controversies.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                       |                                 |
| <b>Unit: 3 Assessment of cognitive functions:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                       | 10 hrs                          |
| - Nature, general considerations and assessment of intelligence, illustrative tests – Stanford Binet, Weschler scales. Tests of memory. Neuropsychological assessment. Assessment of Specific Learning Disability                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                       |                                 |
| <b>Unit: 4 Assessment of affective and temperamental traits:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                       | 7 hrs                           |
| - Tests of temperament, anxiety, personality tests – questionnaires, scales and projective - evaluation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       |                                 |
| <b>Unit: 5 Social behavior and Behavioral Problems:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                       | 8 hrs                           |
| - Assessment of social development, maturity and social competence, pro-social behavior and skills. Behavior problem checklists. Uses and evaluation.                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                                 |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                 |
| 1. Dulark. (1993). School based prevention program for children and adolescents. New Delhi: Sage Publication.<br>2. Freedheim.D.K. (1999). The Child Clinical Documentation source book: A comprehensive collection of forms and records for mental health practices with children. London: ‘Cambridge University Press.<br>3. Ginsburg, H. P. (1998). Entering child’s mind: The clinical interview in psychological research and practice. Tendon: Cambridge University Press.<br>4. Hoghugh. M. (1997). Assessing Child and Adolescent disorders: a practice manual. New Delhi Sage Publication. |                                                                                                                       |                                 |
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>PG51T402B : CHILD COUNSELING AND THERAPIES</b>                                                                     |                                 |
| <b>COURSE OUTCOMES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       |                                 |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The students will develop skills for intervention techniques to intervene with children facing psychological problems |                                 |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Students will learn the skills and strategies to carry out Individual Counseling session                              |                                 |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Students will learn the skills, and strategies to execute a Group Counseling Session                                  |                                 |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Students will learn the utilization of the various Counseling techniques on children.                                 |                                 |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Students will learn to incorporate the Ethical Values at workplace                                                    |                                 |
| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                       | <b>Teaching Hours (Max. 48)</b> |
| <b>Unit: 1 Therapies for Childhood Psychoses:.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                       | 8 hrs                           |
| - Educational approaches; Milieu therapy; Psychoanalytic approaches; Intensive psychotherapy; Organic therapies; Family and group therapy; Conjoint family therapy; Psychodynamic therapy; Behaviour and humanistic therapies; Cognitive-behaviour therapy                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                                 |
| <b>Unit: 2 Therapies for Psychoneurotic Disorders:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       | 10 hrs                          |
| - Positive reinforcement; Shaping; Contingency contracting; Token economies; Systematic desensitization; Aversion therapy; Training through observation; Implosive therapy;                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                                 |

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| Relaxation and emotive therapy; Modelling and imitation; Cognitive-behavioural approaches                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |
| <b>Unit: 3 Therapies for Developmental Disorders:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
| - Ability training; Skill training; Self-management skills; Normalization and Developmental programmes; Public school programs; Mainstreaming; Behaviour modification. Speech therapy; REBT in group settings at schools                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10 hrs |
| <b>Unit: 4 Therapies for Behaviour Disorders:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |
| - Drug therapy; Imitation; Feedback; Non-directive Play therapy; Self-regulation training; Anger management; Cognitive-behaviour therapy; Psycho-educational approaches.<br>- Therapies for Delinquency and Conduct disorders: Institutionalization; Psychotherapy; Therapeutic Milieux; Behaviour modification; Cognitive-behavioural approaches; Prevention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 10 hrs |
| <b>Unit: 5 Therapies for Substance Abuse Disorders:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |
| - Aversive conditioning; Drug treatments; Detoxification program; Cognitive-behavioural/Art therapy; Prevention. Relational-cultural therapy with cognitive-behavioural approaches for eating disorder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10 hrs |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |
| <ol style="list-style-type: none"> <li>1. Freedheim, D.K. (1999). The Child Clinical Documentation Source Book: A Comprehensive Collection of Forms and Records for Mental Health Practices with Children. London: Cmbridge University Press.</li> <li>2. Dulark. (1993). School Based Prevention Program for Children and Adolescents. New Delhi: Sage Publication.</li> <li>3. Hoghough, M. (1997). Assessing Child and Adolescent Disorders: A Practice Manual. New Delhi: SAGE Publications.</li> <li>4. Howlin, P. (1998). Behavioural Approaches to the Treatment of Children. New Delhi: SAGE Publications.</li> <li>5. Jones, C.C. (1993). Family Systems Therapy. New Delhi: John Wiley.</li> <li>6. Lane, D &amp; Miller, A. (1992). Child and Adolescent Therapy: A Hand Book. Milton Keynes Open Uni. Press.</li> <li>7. Norcross, J.C. (1980). Handbook of Psychotherapy Integration (Ed.). New York: Basic Books.</li> <li>8. Spiegler, M.D. (1997). Contemporary Behaviour Therapy. New Delhi: SAGE Publications.</li> <li>9. R.W.Christner; J.L. Stewart &amp; Arthur Freeman. (2007). Cognitive-Behaviour Group Therapy with Children and Adolescents. New York: Routledge.</li> <li>10. Thomas M. Achenbach. (1982). Developmental Psychopathology (2<sup>nd</sup> Ed.). New York: John Wiley and Sons, Inc.</li> <li>11. Kathryn Geldard &amp; David Geldard. (2008). Counselling Children: A Practical Introduction (3<sup>rd</sup> Ed.). New Delhi: SAGE Publications.</li> <li>12. J. C. Marfatia. (1971). Psychiatric Problems of Children. Bombay: Popular Prakshan.</li> <li>13. Heward W.L. &amp; Orlansky M.D. (1996). Exceptional Children: An Introductory Survey to Special Education (5<sup>th</sup> Ed.). Ohio: Prentice Hall.</li> <li>14. Hersen Van Hessel. (1987). Behaviour Therapy with Children and Adolscents: A Clinical Approach. New York: John Wiley &amp; Sons.</li> </ol> |        |

| Paper Code and Name                                                                                                                                                                                                                                                                    | PG51T401C : CLINICAL ASSESSMENT                                                                                                    |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                        |                                                                                                                                    |                          |
| CO-1                                                                                                                                                                                                                                                                                   | Students will develop the Mastery over the conducting tests and interpreting the test results related to various mental disorders. |                          |
| CO-2                                                                                                                                                                                                                                                                                   | Students will learn the skills to take up Cases and write Case studies                                                             |                          |
| CO-3                                                                                                                                                                                                                                                                                   | Students will know about the different assessment which can be utilized in Clinical setup                                          |                          |
| CO-4                                                                                                                                                                                                                                                                                   | Students will know how to use Projective techniques at clinical set up                                                             |                          |
| CO-5                                                                                                                                                                                                                                                                                   | Students will learn how to interpret the clinical data and write Psychological Report                                              |                          |
| PARTICULARS                                                                                                                                                                                                                                                                            |                                                                                                                                    | Teaching Hours (Max. 48) |
| Unit: 1 Diagnosing Psychological Disorders:                                                                                                                                                                                                                                            |                                                                                                                                    | 8 hrs                    |
| - Classification issues; Diagnosis before 1980; DSM and ICD classification; Multiaxial approach of DSM IV classification; Criticisms of DSM IV                                                                                                                                         |                                                                                                                                    |                          |
| Unit: 2 Assessing Psychological Disorders:                                                                                                                                                                                                                                             |                                                                                                                                    | 10 hrs                   |
| - a. Importance; Clinical interview and mental status examination; Stages in the Assessment Interview: Communication and language; Non-verbal communication; Clinical observation.                                                                                                     |                                                                                                                                    |                          |
| Unit: 3 Other Assessments:                                                                                                                                                                                                                                                             |                                                                                                                                    | 10 hrs                   |
| - Physical examination; Neurological examination, Behavioural assessment; Neuropsychological testing; Neuro-imaging; Psycho-physiological assessment; Cognitive assessment; Relational and body assessment                                                                             |                                                                                                                                    |                          |
| Unit: 4 Psychological Testing:                                                                                                                                                                                                                                                         |                                                                                                                                    | 12 hrs                   |
| - Projective Testing – Meaning, Nature, and Principles; Tests: Rorschach ink blot, Thematic Apperception Test (TAT); Sentence completion and other projective tests. Personality Inventories – MMPI. Screening – General health questionnaire; General Intellectual functioning – WAIS |                                                                                                                                    |                          |
| Unit: 5 Clinical Interpretation:                                                                                                                                                                                                                                                       |                                                                                                                                    | 8 hrs                    |
| - Process; Sources of error in interpretation; Computer application in interpretation; Psychological report writing                                                                                                                                                                    |                                                                                                                                    |                          |
| Books for reference                                                                                                                                                                                                                                                                    |                                                                                                                                    |                          |
| 1. Gilbert, I. (1980). Interpreting Psychological Test Data. Vol I & Vol II. New York: Van Vorstrand Cp.                                                                                                                                                                               |                                                                                                                                    |                          |
| 2. Goldstein, G., & Hersen, M. (1984). Handbook of Psychological Assessment. New York: Pergammon Press.                                                                                                                                                                                |                                                                                                                                    |                          |
| 3. Hunt, S.W., Clarkin, J.F., & Reznikofi, M. (1983). Psychological Assessment, Diagnosis and Treatment Planning (1 <sup>st</sup> Ed.). New York: Brunner Maze.                                                                                                                        |                                                                                                                                    |                          |
| 4. Sattler, J.M. (1986). Assessment of Children. New York: Plenum Press.                                                                                                                                                                                                               |                                                                                                                                    |                          |
| 5. Barlow, D.H. & Durand, V.M. (2011). Textbook of Abnormal Psychology. New Delhi: Centage Learning.                                                                                                                                                                                   |                                                                                                                                    |                          |
| 6. Sarason, I.G., & Sarason, B.R. (1993). Abnormal Psychology: The Problem of Maladaptive Behaviour. New Jersey: Prentice Hall.                                                                                                                                                        |                                                                                                                                    |                          |
| 7. Korchin, S.J. (2004). Modern Clinical Psychology: Principles of Intervention in the Clinic and                                                                                                                                                                                      |                                                                                                                                    |                          |

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| Community. New Delhi: CBS Publishers.                                                                                                  |  |
| 8. Carson, R.C., Butcher, J.N. Mineka, S. & Hooley, J.M. (2007). Abnormal Psychology (13 <sup>th</sup> Ed). Noida: Pearson Publishing. |  |
| 9. Bellack, A.S., & Hersen, M. (1980). Introduction to Clinical Psychology. Oxford: Oxford University Press.                           |  |
| 10. Choca, J.P. (1986). Manual for Clinical Psychology Trainees. New York: Brunner Mazel.                                              |  |
| 11. Hersen, M., Kazdin, A.E. & Bellack, A.S. (1983). The Clinical Psychology Handbook. New York: Pergammon Press.                      |  |

| Paper Code and Name                                                                                                                                                                                                                                                                                                 | PG51T402C : CLINICAL INTERVENTION                                                                                                              |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                     |                                                                                                                                                |                          |
| CO-1                                                                                                                                                                                                                                                                                                                | The students will be able to adopt different intervention strategy for various psychological disorders.                                        |                          |
| CO-2                                                                                                                                                                                                                                                                                                                | They will also be able to gain knowledge and skills related medicinal treatment and psychotherapy according to the requirements of the clients |                          |
| CO-3                                                                                                                                                                                                                                                                                                                | To understand the behavior and somatic therapy.                                                                                                |                          |
| CO-4                                                                                                                                                                                                                                                                                                                | Students will able to demonstrate the humanistic therapies.                                                                                    |                          |
| CO-5                                                                                                                                                                                                                                                                                                                | To understand the community based intervention.                                                                                                |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                         |                                                                                                                                                | Teaching Hours (Max. 48) |
| Unit: 1 Intervention: Introduction;                                                                                                                                                                                                                                                                                 |                                                                                                                                                | 8 hrs                    |
| Definition; Goals of intervention. Professional Issues: Training, Ethical issues; Personal characteristics of therapists. Psychotherapy in India; Development and current issues                                                                                                                                    |                                                                                                                                                |                          |
| Unit: 2 Somatic Therapy:.                                                                                                                                                                                                                                                                                           |                                                                                                                                                | 12 hrs                   |
| A. Evidence-based treatments; Pharmacological Treatments: Antipsychotic drugs; Antidepressant drugs; Antianxiety drugs; Lithium and other drugs; Electroconvulsive therapy; Neurosurgery. B. Psychodynamic Therapies: Freudian psychoanalysis; Neo-Freudian approach. Ego analytical therapies; Combined treatments |                                                                                                                                                |                          |
| Unit: 3 Behaviour Therapy:                                                                                                                                                                                                                                                                                          |                                                                                                                                                | 12 hrs                   |
| A. Exposure; Aversion; Therapies based on classical; operant and modelling theories, Behaviour modification techniques. B. Cognitive and cognitive-behavioural therapy: Therapy based on Ellis, Beck and Meichenbaum. Rational-emotive behaviour therapy                                                            |                                                                                                                                                |                          |
| Unit: 4 Humanistic-Existential Therapies:                                                                                                                                                                                                                                                                           |                                                                                                                                                | 8 hrs                    |
| A. Rogerian client-centred therapy; Gestalt therapy and process-experiential therapy. B. Group approaches: Marital and family therapy; types and need                                                                                                                                                               |                                                                                                                                                |                          |
| Unit: 5 Community Based Intervention:                                                                                                                                                                                                                                                                               |                                                                                                                                                | 8 hrs                    |
| Difference between therapeutic and community health models; Concepts of prevention; Crisis intervention and rehabilitation. Special Issues: Intervention in mental retardation; learning disability, autism and school problems of children                                                                         |                                                                                                                                                |                          |
| Books for reference                                                                                                                                                                                                                                                                                                 |                                                                                                                                                |                          |
| 1. Aveline, M & Shapiro, D. A. (1995) Eds. Research for Psychotherapy Practice. New York:                                                                                                                                                                                                                           |                                                                                                                                                |                          |

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| John Wiley & Sons.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               |                                 |
| 2. Bellack, A.S; Hersen, M & Kazdin, A.E. (1983). International Handbook of Behavioural Modification and Therapy. New York: Plenum Press.                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                               |                                 |
| 3. Bergin, A.E &Garfield, S.L. (1994) Eds. Handbook of Psychotherapy and Behavioural Change (4 <sup>th</sup> Ed.). New York: John Wiley & Sons.                                                                                                                                                                                                                                                                                                                                |                                                                                                                                               |                                 |
| 4. Jones, C.C. (1993). Family Systems Therapy. New York: John Wiley & Sons.                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |                                 |
| 5. Norcross, J.C. (1980). Handbook of Psychotherapy Integration. New York: Basic Books.                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                               |                                 |
| 6. Spielberger, M.D. (1997). Contemporary Behaviour Therapy. New Delhi: SAGE Publications.                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                               |                                 |
| 7. Steven J. Lynn & John P.G. (1985). Contemporary Psychotherapeutic Models and Methods. Ohio: Charles E. Merritt.                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               |                                 |
| 8. Wolberg, L.R. (1989). The Technique of Psychotherapy (Vol I & II). London: Warburg & Heinemann.                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               |                                 |
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>PG51T401D : APPLICATION OF PSYCHOLOGY TO WORK SETTING</b>                                                                                  |                                 |
| <b>COURSE OUTCOMES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                               |                                 |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will be able to understand the training in industry.                                                                             |                                 |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | They understand the work environment, attitude and job satisfaction and apply psychological principles to deal with problems in work setting. |                                 |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will come to know application of psychological principles to marketing.                                                          |                                 |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The students will come to know behavioral issues in Industry.                                                                                 |                                 |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The Students will come to know the work environment in industry                                                                               |                                 |
| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                               | <b>Teaching Hours (Max. 48)</b> |
| <b>Unit: 1 Work Environment:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                               | 12 hrs                          |
| Physical and Psychological Environment, Man-machine integration, Impact of environment on job performance and on the individual person environment, Fit theory, Determinant of ideal work environment, work stress, Causes, Types, Measurement and Management                                                                                                                                                                                                                  |                                                                                                                                               |                                 |
| <b>Unit: 2 Training in Industry:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                               | 10 hrs                          |
| Importance of training in industry; Psychological Principles in training , Principles of learning; Types of learning programmes in industry, Training needs of an organization; Training Aids; Some recent methods and techniques of training                                                                                                                                                                                                                                  |                                                                                                                                               |                                 |
| <b>Unit: 3 Attitude Measurement and Job Satisfaction:</b>                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                               | 12 hrs                          |
| Attitude and Social Phenomena, Methods of Measuring Attitude, Attitude Surveys and their application, The attitude of employees versus the attitude of employers, Confusion of Terminology, Reasons for job satisfaction Research, Factors Measured in Job satisfaction, Relative importance of different aspects of job satisfaction. Job satisfaction and job behavior, Theories of job satisfaction. Some General comments on job satisfaction, Predicting Job Satisfaction |                                                                                                                                               |                                 |
| <b>Unit: 4 Application of Psychological Principles to Marketing:</b>                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                               | 6 hrs                           |
| - Consumer behaviour and advertisement                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                               |                                 |
| <b>Unit: 5 Behavioural Issues in Industry:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                               | 8 hrs                           |
| - Absentism, Alcoholism, Attrition rate, Gender differences, Accidents, Intervention techniques for handling behavioral issues                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                               |                                 |

| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                         |  |
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| 1. Schultz & Schultz (1990): Psychology and Work Today, 6 <sup>th</sup> edition , Printice Hall, New Jersey<br>2. Blum & Naylor : Industrial Psychology<br>3. Paul Muchinsky(1993) : Psychology applied to Work, 6 <sup>th</sup> Edition, Bookers/Cole P.C.<br>4. Ghosh & Ghorpade: Organizational & Industrial Psychology<br>5. McCormick and Daniel ilgen: Industrial Psychology |  |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PG51T402D : ORGANIZATIONAL DEVELOPMENT                                                                                |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                       |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will be able to understand the methods of diagnosis and techniques of Organisational development.         |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will develop insight into the changing nature of organizational culture and its influence in the society. |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will be able to understand the characteristics and evaluate the process of organizational development.    |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The student will be able to understand various operational components of OD process.                                  |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | The students will be able to design and plan OD interventions                                                         |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                       | Teaching Hours (Max. 48) |
| Unit: 1 Introduction:                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                       | 10 hrs                   |
| Definition of Organizational Development; History of Organizational Development; Laboratory Training Stem; Survey Research and Feedback stem; Action Research Stem; Socio technical and Socio clinical Parallels; Extent of Application. Underlying assumptions and values: Relevant systems concepts.                                                                                                                                                                                            |                                                                                                                       |                          |
| Unit: 2 Organizational Theory, Design and Culture:                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       | 10 hrs                   |
| Classical organization Theory and Design; Modifications of Bureaucratic structuring; Modern organization theory; Modern organization designs. Virtual organizations.<br>Organizational culture: Nature of organizational culture; Definition and characteristics; Uniformity of culture; strong and weak cultures; Types of cultures; Creating and Maintaining a culture; How organizational culture starts? Maintaining cultures through steps of socialization; changing organizational culture |                                                                                                                       |                          |
| Unit: 3 Characteristics and foundations of OD process:                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       | 10 hrs                   |
| The Nature of Organization Development; OD is an ongoing Interactive Process; Form of Applied Behavioural Science; Normative Reductive strategy of changing; OD Views of organizations from a systems approach; Data – Based Approach to planed change; Experience Based; OD Emphasizes Goal setting and planning; OD Activities Focus on Intact work Teams; Action Research and Organizational Development.                                                                                      |                                                                                                                       |                          |
| Unit: 4 Operational components:                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                       | 8 hrs                    |
| Overview of the operational Components of Organization development; Diagnostic component; Action component; The Process - Maintenance component - Analysis of discrepancies                                                                                                                                                                                                                                                                                                                       |                                                                                                                       |                          |

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| <b>Unit: 5 Organizational Development Interventions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |
| An overview: Definition of OD Interventions; Inter group interventions: A descriptive inventory of OD interventions – personal, interpersonal, and group process; Intervention Process; Consultation Interventions – Third party Peacemaking Interventions; Sensitivity Training Laboratories; Transaction Analysis; Life and career – Planning Interventions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10 hrs |
| <b>Books for reference</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |
| <ol style="list-style-type: none"> <li>1. French, W. L. and Bell, C. H. (1990): Organization development, Prentice Hall of India, New Delhi.</li> <li>2. French, W.L.; Bell, C.H. and Zawalci, R.A. (1989) Organization development – theory practice and research; Richard grin Inc. Universal Book Stall, New Delhi.</li> <li>3. Harvey, D.F and Brown, Donald R (1988) An Experimental approaches to organization development, Prentice Hall International, Englewood, cliffs, New Jersey.</li> <li>4. Albrecht, Ic (1983) : Organization development: A total systems approach to positive change in any business organization, P.</li> <li>5. Burke, W.W. (1987) Organization development: A normative view, Addison Wesley Publishing, Reading Massachusets.</li> <li>6. Hnse, E.E. and Gunnings, T (1985) Organization Development and change, West Publ.</li> <li>7. Lawrence, P.R. and Lorsch, J.w. (1969) Developing Organization: Diagnosis and action. Addison Wesley Publishing, Reading Massachusets.</li> <li>8. Woodcock M. &amp; Francis, D. (1981) Organization development through team building, challanges Ltd. Mansfield, Motts.</li> <li>9. Goodman, P.S. (1984) Change in Organizations: New Perspectives on theory, research and practice, Jossey Ban, San Francisco.</li> <li>10. Nirenberg, John. (1993) The living organization: Transforming teams into workplace communities, Business one Irwin, Homewood.</li> </ol> |        |

| Paper Code and Name                                                                                                                                                                                                                                                                                 | PG51T403: COMMUNITY PSYCHOLOGY                                                                                                                                                         |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                        |                          |
| CO-1                                                                                                                                                                                                                                                                                                | The Student will understand important concepts of community mental health.                                                                                                             |                          |
| CO-2                                                                                                                                                                                                                                                                                                | The students will develop insight into the problems in the community and their role in preventing and solving them.                                                                    |                          |
| CO-3                                                                                                                                                                                                                                                                                                | The students will be able to deliver intervention technique to deal with community mental health problems                                                                              |                          |
| CO-4                                                                                                                                                                                                                                                                                                | The student will be able to understand and develop strategies to deal with crime & delinquency as well as alcoholism and preventing and controlling them in the community.             |                          |
| CO-5                                                                                                                                                                                                                                                                                                | The students will be able to understand the gravity of the social problems. like unemployment, and poverty and methods of measuring the psychological consequences to offer solutions. |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                        | Teaching Hours (Max. 48) |
| Unit: 1 Introduction:                                                                                                                                                                                                                                                                               |                                                                                                                                                                                        | 12 hrs                   |
| Definition of Community psychology, factors underlying emergence of Community psychology, Principles of Community psychology. Concept of prevention. Theory and research in Community psychology – ecology, epidemiology, General Systems Theory, evaluation research.                              |                                                                                                                                                                                        |                          |
| Unit: 2 Concept of Community Mental Health:                                                                                                                                                                                                                                                         |                                                                                                                                                                                        | 12 hrs                   |
| Medical model vs. CMH model, comprehensive community mental health centres, development and functions. Major techniques of CMH–Crisis intervention, Consultation, Mental Health Education and uses of Non Professionals. Community mental health movement in India – development and current status |                                                                                                                                                                                        |                          |
| Unit: 3 a) Aggression in the community –                                                                                                                                                                                                                                                            |                                                                                                                                                                                        | 8 hrs                    |
| Definition, nature, theories of aggressive behaviour. Control and prevention of aggression                                                                                                                                                                                                          |                                                                                                                                                                                        |                          |
| b). Violence: Definition, different types of violence –                                                                                                                                                                                                                                             |                                                                                                                                                                                        |                          |
| Domestic and group violence, effect, control and prevention. Role of community psychologists in control of such behaviour.                                                                                                                                                                          |                                                                                                                                                                                        | 8 hrs                    |
| Unit: 4 a): Crime and delinquency.                                                                                                                                                                                                                                                                  |                                                                                                                                                                                        |                          |
| Definition, types, causes – prevention of crime, rehabilitation of criminals, role of psychologists                                                                                                                                                                                                 |                                                                                                                                                                                        |                          |
| b). Problem of alcoholism and drug abuse;                                                                                                                                                                                                                                                           |                                                                                                                                                                                        |                          |
| Definition, types, theories of alcoholism, effects, methods of treatment, prevention and rehabilitation                                                                                                                                                                                             |                                                                                                                                                                                        | 8 hrs                    |
| Unit: 5 a) Problem of unemployment:                                                                                                                                                                                                                                                                 |                                                                                                                                                                                        |                          |
| Defining unemployment, causes and types, effects of unemployment, role of psychologists in solving the problem                                                                                                                                                                                      |                                                                                                                                                                                        |                          |
| - b) Poverty and deprivation: -                                                                                                                                                                                                                                                                     |                                                                                                                                                                                        |                          |
| definition, types, causes, psychological studies of effects of poverty and deprivation, poverty alleviation programmes                                                                                                                                                                              |                                                                                                                                                                                        |                          |
| Books for reference                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                        |                          |
| 1. Zax Malin and Specter, S S. An introduction to community psychology, NY, John Wiley and Sons, Inc. 1974.<br>2. Hemistra, N W. Psychology and Contemporary Problems. Monetary. California: Brooks/Cole                                                                                            |                                                                                                                                                                                        |                          |

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| co., 1974.                                                                                                         |  |
| 3. Bloom, M (1996). Primary Prevention Practices, New Delhi, Sage Publications.                                    |  |
| 4. Chelf, C P (1992). Controversial Issues in Social Welfare Policy. New Delhi, Sage Publications, India Pvt. Ltd. |  |
| Davar B (1999). Mental health of Indian Women. New Delhi, Sage Publications                                        |  |

| Paper and Name                                                             | Code                                                                                                  | PG51P404A : PRACTICALS FOR COUNSELING AND GUIDANCE |                          |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                            |                                                                                                       |                                                    |                          |
| CO-1                                                                       | The students will develop the skills needed to administer, interpret and write report of the clients. |                                                    |                          |
| CO-2                                                                       | Students will develop the skills needed to use the Specific Techniques to Specific Cases.             |                                                    |                          |
| CO-3                                                                       | Students will be able to execute the Invitation skills                                                |                                                    |                          |
| CO-4                                                                       | Students will learn to use assessment as per the Needs of the Client                                  |                                                    |                          |
| CO-5                                                                       | Students will learn to write the Psychological Report                                                 |                                                    |                          |
| PARTICULARS                                                                |                                                                                                       |                                                    | Teaching Hours (Max. 48) |
| A: Administration                                                          |                                                                                                       |                                                    |                          |
| I Cognitive Functions                                                      |                                                                                                       |                                                    |                          |
| 1. Draw-a-Man test                                                         |                                                                                                       |                                                    |                          |
| 2. Assessment of intelligence using Seguin Form Board                      |                                                                                                       |                                                    |                          |
| 3. BinetKamat test of intelligence                                         |                                                                                                       |                                                    |                          |
| II Aptitude And Interests                                                  |                                                                                                       |                                                    |                          |
| 1. David’s Battery of Differential Abilities – Revised [DBDA-R]            |                                                                                                       |                                                    |                          |
| 2 Comprehensive Interest Schedule [CIS]/ Vocational Interest Schedule(VIS) |                                                                                                       |                                                    |                          |
| III. Personality: Self-Report Methods                                      |                                                                                                       |                                                    |                          |
| 1. Eysenck’s Personality Questionnaire [JEPQ]                              |                                                                                                       |                                                    |                          |
| 2. R.B. Cattell’s 16 PF                                                    |                                                                                                       |                                                    |                          |
| 3. Neo Five Factor Inventory                                               |                                                                                                       |                                                    |                          |
| IV. Personality: Projective Methods                                        |                                                                                                       |                                                    |                          |
| 1. Draw-A-Person Test [DAP]                                                |                                                                                                       |                                                    |                          |
| 2. Thematic Apperception Test [TAT]                                        |                                                                                                       |                                                    |                          |
| 3. Children’s’ Apperception Test [CAT]                                     |                                                                                                       |                                                    |                          |
| V. Disability Screening                                                    |                                                                                                       |                                                    |                          |
| 1. Screening for learning disability using NIMHANS index for SLD           |                                                                                                       |                                                    |                          |
| 2. Social Development – Vineland Social Maturity Scale                     |                                                                                                       |                                                    |                          |
| VI. Other Measures                                                         |                                                                                                       |                                                    |                          |
| 1. Assertiveness                                                           |                                                                                                       |                                                    |                          |
| 2. Emotional Quotient                                                      |                                                                                                       |                                                    |                          |
| B: Demonstration:                                                          |                                                                                                       |                                                    |                          |
| 1. Gestalt Techniques                                                      |                                                                                                       |                                                    |                          |
| 2. Cognitive-Behavioral Therapy                                            |                                                                                                       |                                                    |                          |
| 3. Rational Emotive Behavior Therapy                                       |                                                                                                       |                                                    |                          |

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| 4. Eclectic Techniques for Group<br>5. Person-Centered Techniques<br>6. Writing as Therapy |  |
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| Paper and Name                                                                                                                                                                                                                                                                                                                                                                                    | Code                                                                                                                                    | PG51P404B : PRACTICALS FOR CHILD PSYCHOLOGY |                          |
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| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                         |                                             |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                              | The students will develop skills to make accurate assessment of various cognitive abilities and personality functioning of the children |                                             |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                              | To gain the knowledge about screening for ADHD                                                                                          |                                             |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                              | Students will understand the social problem solving skills.                                                                             |                                             |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                              | Students will assess the anxiety.                                                                                                       |                                             |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                              | Students will assess the depression of children.                                                                                        |                                             |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                         |                                             | Teaching Hours (Max. 48) |
| PART A – Administration                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                         |                                             |                          |
| 1. Screening for ADHD<br>2. Social problem solving skills<br>3. Screening for neuropsychological problems<br>4. Assessment of anxiety<br>5. Assessment of depression<br>6. Assessment of self-concept – Susan Harter<br>7. Assessment of personality dimensions using the junior EPQ<br>8. Assessment of locus of control<br>9. Assessment of social development – Vineland Social Maturity Scale |                                                                                                                                         |                                             |                          |
| PART B – Demonstration                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                         |                                             |                          |
| 1. Memory training: Organization, Imagery, Pegging<br>2. Skills training: Academic, Assertiveness, Prosocial behaviour<br>3. Behaviour modification techniques:<br>a. Systematic desensitization<br>b. Shaping<br>4. Dynamic approaches:<br>a. Play therapy<br>b. Transactional Analysis<br>c. Role-play<br>d. Psycho drama<br>E. Reinforcement                                                   |                                                                                                                                         |                                             |                          |

|                                                                                                                                                                                                                                                                                                                           |                                                                                                                                          |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Paper Code and Name                                                                                                                                                                                                                                                                                                       | PG51P404C : PRACTICALS FOR CLINICAL PSYCHOLOGY                                                                                           |                          |
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                           |                                                                                                                                          |                          |
| CO-1                                                                                                                                                                                                                                                                                                                      | The students will develop skills to make accurate assessment of various cognitive abilities and personality functioning of the children. |                          |
| CO-2                                                                                                                                                                                                                                                                                                                      | The students will develop skills to make accurate assessment of various techniques.                                                      |                          |
| CO-3                                                                                                                                                                                                                                                                                                                      | To conduct experiments of personality test.                                                                                              |                          |
| CO-4                                                                                                                                                                                                                                                                                                                      | To assess the Anxiety.                                                                                                                   |                          |
| CO-5                                                                                                                                                                                                                                                                                                                      | To assess the students Depression level.                                                                                                 |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                               |                                                                                                                                          | Teaching Hours (Max. 48) |
| PART A – Administration:                                                                                                                                                                                                                                                                                                  |                                                                                                                                          |                          |
| 1. Type A Personality Test<br>2. Cattell’s Neuroticism Scale<br>3. Eyesenck Personality Questionnaire<br>4. Minnesota Multiphasic Personality Inventory<br>5. Beck’s Depression Scale<br>6. Anxiety Inventory<br>7. Hassles Scale<br>8. Eating Disorder Scale<br>9. Rorschach Ink Blot Test<br>Thematic Apperception Test |                                                                                                                                          |                          |
| PART B – Demonstration:                                                                                                                                                                                                                                                                                                   |                                                                                                                                          |                          |
| 1. Systematic Desensitization<br>2. Aversive Therapy<br>3. Transactional Analysis<br>4. Psychodrama<br>5. Role Play<br>Shaping                                                                                                                                                                                            |                                                                                                                                          |                          |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------|
| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PG51P404D : PRACTICALS FOR INDUSTRIAL PSYCHOLOGY                                                                      |                          |
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The students will be able to screen various human problems in organizations and train people to deal with them.       |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The student will be able to understand the methods of diagnosis and techniques of Organizational development.         |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The student will develop insight into the changing nature of organizational culture and its influence in the society. |                          |
| CO-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The student will be able to understand the characteristics and evaluate the process of organizational development.    |                          |
| CO-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The student will be able to understand various operational components of OD process.                                  |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                       | Teaching Hours (Max. 48) |
| A. Administration:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                       |                          |
| 1. Assessment of Interpersonal Relationships using FIRO-B<br>2. Assessment of work motivation<br>3. Assessment of Job stress using OSI<br>4. Assessment of Burn out using MBI<br>5. Assessment of Personality using J.A.S.<br>6. Assessment of job satisfaction<br>7. Assessment of Organizational climate<br>8. Assessment of job commitment<br>9. Assessment of values<br>10. Effect of fatigue on mental task<br>11. Individual and group decision making<br>12. Leadership style and problem solving |                                                                                                                       |                          |
| B. Demonstration:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                       |                          |
| 1. Relaxation technique<br>2. Assertiveness training<br>3. Stress management techniques<br>4. Sociometry<br>5. Johari-window<br>6. Win as much as you can                                                                                                                                                                                                                                                                                                                                                |                                                                                                                       |                          |

| Paper Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Code and                                                                                           | PG51T206: FOUNDATIONS OF HUMAN BEHAVIOUR (OEC) |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                    |                                                |                          |
| CO-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The students will be acquainted with the basic concepts of Psychology.                             |                                                |                          |
| CO-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The students will understand various Psychological phenomena and methods of studying them.         |                                                |                          |
| CO-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Students will be able to know the role of chemistry in understanding the Behavior of an Individual |                                                |                          |
| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                    |                                                | Teaching Hours (Max. 48) |
| Unit: 1 Introduction:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                    |                                                | 8 hrs                    |
| What is psychology? Methods; Scope; Psychology as science; Approaches to study of psychology.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                    |                                                |                          |
| Unit: 2 Nervous System                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                    |                                                | 8 hrs                    |
| Human evolution; Principles of genetics; Behaviour genetics; Chemistry of behaviour; Hormones; Neurotransmitters; Neuropeptides                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                    |                                                |                          |
| Unit: 3 Perception and Attention:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                    |                                                | 10 hrs                   |
| a. Perception: Sensory process; Perceptual processes; Principles of perceptual organization; factors affecting perception.<br>b. Attention: Nature; Types, Determinants, Division of attention, Distraction, Sustained attention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                    |                                                |                          |
| Unit: 4 Learning and Memory:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                    |                                                | 10 hrs                   |
| Nature; types: Classical conditioning; Operant conditioning, Cognitive learning; Factors affecting learning. Memory: Nature; types: Sensory, Short-term and Long-term memory. Forgetting: Nature; Reasons for forgetting; Techniques for improving memory.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                    |                                                |                          |
| Unit: 5 Emotions and Motivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                    |                                                | 12 hrs                   |
| a. Emotion: Nature; Components of emotions; Basic emotions; Physiology of emotions; Theories of emotions; Emotional intelligence. b. Motivation: Drives; Needs and Incentives; Theories of Motivation: Maslow; McClelland; Atkinson; Motivation and performance relation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                    |                                                |                          |
| References                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                    |                                                |                          |
| 1. Morgan, C.T, King, R.A, Weisz, R.A. & John Schopler. (2005). Introduction to Psychology. New Delhi: Tata McGraw-Hill Publishing Company Limited.<br>2. Munn, N.L. (1993). Introduction to Psychology. New York: Wiley Eastern Print.<br>3. Fernald, L.D & Fernald, P.S. (2010). Munn’s Introduction to Psychology. Delhi: AITBS Publishers.<br>4. Hilgard, E.R, Atkinson, R.C. & Atkinson, R.L. (1975). Introduction to Psychology (6 <sup>th</sup> Ed.). New Delhi: Oxford & IBH Publishing Co, Pvt. Ltd.<br>5. Mangal, S.K. (2011). General Psychology. New Delhi: Sterling Publishers Pvt. Limited.<br>6. Witney Wayne. (1995). Themes and Variations (3 <sup>rd</sup> Ed.). New York: ITP International Thomson Publishing Company.<br>7. Weiner, B. (1972). Theories of Motivation. New York: Rand MaNalley Publishing Co.<br>8. Coffe, C.N., & Apply, M.H. (1960). Motivation: Theory and Research. New York: Wiley Eastern Print.<br>9. Robert C. Beck. (2000). Motivation: Theories and Principles (4 <sup>th</sup> Ed.). New Delhi: |                                                                                                    |                                                |                          |

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| Pearson Education.<br>10. Robert C. Bolles. (1969). Theory of Motivation. New York: Harper & Row.<br>11. Atkinson, J.W. (1964). An Introduction to Motivation. New York: D. Van Nostrand Company.<br>12. Strongman, K.T. (1981). The Psychology of Emotion (2 <sup>nd</sup> Ed.). Toronto: John Wiley & Sons.<br>13. Kalat, J.W., & Shiota, M.N. (2007). Emotion. Brazil: Thomson Wadsworth. |  |
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| Paper Code and Name                                                                                                                                                                                                                                                                      | PG51T306: DEVELOPING EFFECTIVE SELF(OEC)                                                                |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------|
| COURSE OUTCOMES                                                                                                                                                                                                                                                                          |                                                                                                         |                          |
| CO-1                                                                                                                                                                                                                                                                                     | The students will be able to develop self awareness.                                                    |                          |
| CO-2                                                                                                                                                                                                                                                                                     | The students will be able to manage their intrapersonal issues and interpersonal relations effectively. |                          |
| CO-3                                                                                                                                                                                                                                                                                     | Students will learn the technique to overcome their Worry Habit                                         |                          |
| CO-4                                                                                                                                                                                                                                                                                     | Students will be able to handle their Self Esteem Issues                                                |                          |
| CO-5                                                                                                                                                                                                                                                                                     | Students will recognize their Strength and utilize at workplace                                         |                          |
| CO-6                                                                                                                                                                                                                                                                                     | Students will learn the skills to set goals and work towards it                                         |                          |
| PARTICULARS                                                                                                                                                                                                                                                                              |                                                                                                         | Teaching Hours (Max. 48) |
| Unit: 1 Self Awareness:                                                                                                                                                                                                                                                                  |                                                                                                         | 10 hrs                   |
| Johari Window, Self Awareness through feedback of others. Worry, Basic Techniques in Analyzing Worry, How to break the Worry Habit Interpersonal effectiveness. Increasing Communication Skills: What is Communication, Sending messages effectively, Theory on listening and responding |                                                                                                         |                          |
| Unit: 2 Identifying the Core Competency:                                                                                                                                                                                                                                                 |                                                                                                         | 8 hrs                    |
| Strength spotting Tips: Realizing the Best in You. Maximize unrealized strengths for Growth and Development                                                                                                                                                                              |                                                                                                         |                          |
| Unit: 3 Self Esteem:                                                                                                                                                                                                                                                                     |                                                                                                         | 8 hrs                    |
| Definition, Influences on Self-Esteem, Seeing Yourself through Clear Glasses, Self-esteem for life. Emotions: Importance of Emotions in Life, Expressing your feelings verbally. Managing your Feelings Effectively                                                                      |                                                                                                         |                          |
| Unit: 4 Resolving Interpersonal Conflicts:                                                                                                                                                                                                                                               |                                                                                                         | 10 hrs                   |
| Strategies for managing Conflicts. Conflict strategies: what you are like? Turtle, shark, Teddy Bear, Fox, Owl. Dimensions of Conflict Situations. Defining Conflicts Constructively. Confrontation and Negotiation                                                                      |                                                                                                         |                          |
| Unit: 5 Management of Change                                                                                                                                                                                                                                                             |                                                                                                         | 10 hrs                   |
| Ten essential Cornerstones for Success in a Changing World, Basic truths about Academic Success, Creating Success through Positive Change. Eliminating Roadblocks to Success, Goal Setting                                                                                               |                                                                                                         |                          |
| References                                                                                                                                                                                                                                                                               |                                                                                                         |                          |
| 1. David W Johnson (1981) Reaching Out: Interpersonal effectiveness and Self-Actualization. Second edition. Prentice Hall Inc New Jersey.                                                                                                                                                |                                                                                                         |                          |
| 2. Robert M. Sherfield (2004) The Everything Self-Esteem Book: Boost your confidence, Achieve                                                                                                                                                                                            |                                                                                                         |                          |

inner strength and learn to love yourself. Adam Media. Avon USA.

3. Alex Linley, Janet Willars & Robert Biswas-Diener (2010) The Strengths Book: Be Confident, be successful and enjoy better relationships by releasing the Best in You. CAPP Press. Coventry UK.
4. Robert M. Sherfield, Rhonda J. Montgomery and Patricia G. Moody (2008). Cornerstone: Discovering Your Potential, Learning Actively and Living Well. Fifth edition. Pearson-Prentice Hall. New Jersey USA.
5. Dale Carnegie (2009) How to stop Worrying and Start Living. Mini books Publishers. Meerut India.

**KARNATAK UNIVERSITY, DHARWAD**



**REGULATIONS**  
**For**  
**P G DIPLOMA IN COUNSELLING &**  
**PSYCHOTHERAPY**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**From**

**2015-16 Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

Regulations concerning P.G Diploma in Counselling & Psychotherapy

**Faculty of Social Sciences**

**Post Graduation Diploma Program in Counselling & Psychotherapy**

Regulations Governing the Post-Graduate Diploma Programs under Choice Based Credit System (KU-CBCS), framed under Section 44(1)(C) of K.S.U. Act, 2000

## **P.G DIPLOMA IN COUNSELLING & PSYCHOTHERAPY CHOICE BASED CREDIT SYSTEM (CBCS)**

### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for P.G Diploma programs.

### **Commencement:**

These Regulations shall come into force from the academic year 2015-2016.

### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Diploma Programmes” means Counselling and Psychotherapy Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Diploma in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Diploma in the specialization area:
- e) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means on hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- f) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.
- g) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.

i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

**Eligibility for Admission :**

- a) The Eligibility for admission for the course mentioned above requires a post-graduate with M.A. /M.Sc in Psychology with any specialization securing 50% of marks (45% for SC/ST, Cat-I and Physically challenged) are eligible.
- b) Medium of Examination : English is the medium of instruction. However, the students who are willing to write exam in Kannada would also be permitted other than English.
- c) Intake of the course : Total intake of students for the course would be 30. The admission for the course would be made by the Karnatak University, Dharwad following the reservation system and the guidelines issued by the University from time to time.

**Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1st Semester.

**Intake**

The total number of candidates to be admitted to the course would be 20 only for the 1st semester. Two seats are allocated to other University candidates of which one for other University within the state and one for Outside state. Five seats are under enhanced fee. Total Seats is 20.

**Course of study:**

Each students shall study subjects mentioned below compulsorily and also submit a dissertation of minimum of five case reports after visiting the concerned clinics/hospitals/NGO’s/Organizations etc., in the second semester.

|                                              |   |             |
|----------------------------------------------|---|-------------|
| Paper I : Techniques of Counseling           | } | I Semester  |
| Paper II : Counseling Assessment             |   |             |
| Paper III : Counseling in Different Settings |   |             |
| Paper IV : Counseling and Psychotherapy      | } | II Semester |
| Paper V : Internship                         |   |             |

**Duration of the Programme:**

The programme of study for the Post-Graduate Diploma shall normally extend over a period of one academic years, comprising of two semesters, and each semester comprising of sixteen weeks of class work.

**Medium of Instruction**

The medium of instruction and examination is English.

**Minimum Credits and Maximum Credits:**

- a) There shall be one categories of courses viz., Compulsory course. Compulsory Course should be from the concerned department only.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 3 to 4 credits.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

**Course Structure:**

- a) The students of Post-Graduate Diploma Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce etc., to meet effective teaching and learning needs and the credits are assigned suitably.
- c) PG Diploma Programmes are essentially semester system Programmes. There shall be 2 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- d) The normal calendar for the semester would be as follows:
  - i. I semester - December to April
  - ii. II Semester – May to August

**Attendance**

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2nd week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

## Course Outline for the PG Diploma in Counseling and Psychotherapy

### I SEMESTER

| <b>Paper No.</b>         | <b>Title of the Paper</b>        | <b>Marks for Semester end Examination</b> | <b>Internal Assessment Marks</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|--------------------------|----------------------------------|-------------------------------------------|----------------------------------|--------------------|-----------------------|----------------|
| <b>COMPULSORY PAPERS</b> |                                  |                                           |                                  |                    |                       |                |
| <b>PGD101</b>            | Techniques of Counseling         | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PGD102</b>            | Counseling Assessment            | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PGD103</b>            | Counseling in Different Settings | 75                                        | 25                               | 100                | 4                     | 4              |

### II Semester

| <b>Paper No.</b>         | <b>Title of the Paper</b>    | <b>Marks for Semester end Examination</b> | <b>Internal Assessment Marks</b> | <b>Total Marks</b> | <b>Hours per week</b> | <b>Credits</b> |
|--------------------------|------------------------------|-------------------------------------------|----------------------------------|--------------------|-----------------------|----------------|
| <b>COMPULSORY PAPERS</b> |                              |                                           |                                  |                    |                       |                |
| <b>PGD201</b>            | Counseling and Psychotherapy | 75                                        | 25                               | 100                | 4                     | 4              |
| <b>PGD202</b>            | Internship                   | 75                                        | 25                               | 100                | 4                     | 4              |

#### **Internship**

The students need to undergo Internship (which is compulsory) for one month after the completion of second semester P. G DIPLOMA IN COUNSELLING AND PSYCHOTHERAPY.

**Scheme of Evaluation :**

Question paper on each theory paper will have two parts, Part-A will have 4 questions with a and b options for 15 marks each. Part-B will consist of 6 questions on short notes, out of which the students shall write 4 for 5 marks for each question.

- 1) There shall be a University examination at the end of each semester.
- 2) First semester will have three theory papers and second semester will have one theory paper and dissertation and viva-voce.
- 3) Examination for each theory papers will be for 80 marks with three hours time duration.
- 4) In case of Internal Assessment of the theory papers there shall be two tests for 10 marks each as decided by the members of the Department Council.
- 5) Internal Assessment marks secured by the candidates shall be displayed on the notice board from time to time.
- 6) The statement of Internal Assessment shall be sent to the Registrar (Eva) at least 15 days before the final examination.
- 7) There shall be Viva-voce test conducted by examiners from the department and called from other universities.

**Board of examiners/valuation**

1. There shall be a Board of examiners for scrutinizing and approving the question papers and scheme of valuation.
2. About 50% of the examiners appointed for setting of question papers and valuation work in each semester shall be external.
3. There shall be double valuation for all theory papers and dissertation work; the average of the marks awarded by the internal and external examiners shall be taken as the final award for that particular paper/dissertation.
4. In case of 20% or more deviations in the marks awarded by the internal and the external valuer, the script shall be referred to the third valuer (who shall be an external examiner who has not valued earlier) and the average of the nearest two shall be considered for the award of marks.

**Completion of the Course**

- d) A candidate is expected to successfully complete the Diploma programme within one years from the date of admission.
- e) Whenever the syllabus is revised, the candidate reappearing will have to write the examination as per the syllabi prevailing at that time.
- f) The CBCS scheme is a fully carry-over system. However, the two-semesters (one years course) should be completed by the student within a maximum period of 1 years.

**Declaration of Results:**

- C. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.

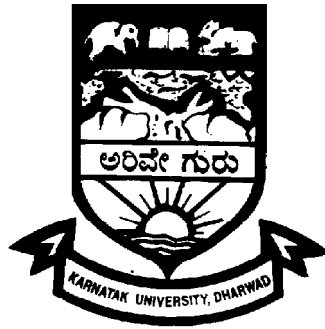
- D. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

### **Marks and Grade Points**

**The grading of successful candidate/s at the examination shall be as follows:**

| <b>Percentage of Marks</b>    | <b>GPA/CGPA</b> | <b>Grade Letter</b> | <b>Class Awarded</b>         |
|-------------------------------|-----------------|---------------------|------------------------------|
| 75 and above                  | 7.50 to 10.00   | A                   | First class with Distinction |
| 60 and above but less than 75 | 6.00 to 07.49   | B                   | First Class                  |
| 50 and above but less than 60 | 5.00 to 05.99   | C                   | Second Class                 |
| 40 and above but less than 50 | 4.00 to 4.99    | D                   | Third Class                  |
| Less than 40                  | Less than 4.00  | F                   | Pass                         |

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**PG DIPLOMA IN COUNSELLING AND  
PSYCHOTHERAPY**

**CHOICE BASED CREDIT SYSTEM**

**(PG DIPLOMA -CBCS)**

|             | <b>PG Diploma in Counselling and Psychotherapy Program Outcomes</b>                       |
|-------------|-------------------------------------------------------------------------------------------|
| <b>PO-1</b> | Enables the students to understand and to apply research and inquiry skills.              |
| <b>PO-2</b> | The students will engage in scientific methods of at looking at psychological problems.   |
| <b>PO-3</b> | Empowers the students with competence practice of counseling psychology.                  |
| <b>PO-4</b> | Students will demonstrate the knowledge and application of various counseling techniques. |
| <b>PO-5</b> | Student will demonstrate the development of professional identity as a counselor          |

| <b>Paper Code and Name</b> | <b>PGD101: Techniques of Counseling</b>                                                  |
|----------------------------|------------------------------------------------------------------------------------------|
| <b>CO-1</b>                | Students will learn the difference between Counseling and Psychotherapy                  |
| <b>CO-2</b>                | Students will learn the skills and strategies to carry out Individual Counseling session |
| <b>CO-3</b>                | Students will learn the skills, and strategies to execute a Group Counseling Session     |
| <b>CO-4</b>                | Students will learn the utilization of the various Counseling techniques.                |
| <b>CO-5</b>                | Students will learn to incorporate the Ethical Values at workplace                       |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                      | <b>Teaching Hours (Max. )</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit 1: Introduction,</b>                                                                                                                                                                                                                                                                                                            |                               |
| Meaning and definitions, nature and scope, types of counseling, different theoretical approaches to counseling (eg. Psychodynamic, cognitive etc)                                                                                                                                                                                       |                               |
| <b>Unit 2: Counseling process.</b>                                                                                                                                                                                                                                                                                                      |                               |
| Stages of counseling, starting, working, terminating, Recording of process, evaluation of counseling outcome, research in process and outcome of counseling. Issues in training, Elements of training, values and ethical considerations                                                                                                |                               |
| <b>Unit 3: Skills needed for counseling,</b>                                                                                                                                                                                                                                                                                            |                               |
| Individual skills: communication, listening, leading, summarizing, questioning, confrontation, reassurance, persuasion, confession. Group counseling skills: group formation, group action, dealing with specific situations in groups.                                                                                                 |                               |
| <b>Unit 4: Techniques based on behavioural approach,</b>                                                                                                                                                                                                                                                                                |                               |
| Classical, operant and social learning models, techniques based on cognitive behavioural model.                                                                                                                                                                                                                                         |                               |
| <b>Unit 5: Techniques based on non directive approaches,</b>                                                                                                                                                                                                                                                                            |                               |
| Client centered, humanistic, Gestalt, existential, etc                                                                                                                                                                                                                                                                                  |                               |
| <b>References:</b>                                                                                                                                                                                                                                                                                                                      |                               |
| 1. Fundamentals of Counselling, II Edi, Shertzer/Stone, Houghton Mifflin Company Boston : USA.<br>2. Counseling : A Comprehensive Profession, IV Edi, Samuel T. Gladding, Merril Prentice Hall: U.S.A.<br>3. Introduction to counseling and Guidance, VI Edi, Robert L. Gibson, Marianne H. Mitchell, Prentice Hall of India, New Delhi |                               |

| <b>Paper Code and Name</b> | <b>PGD102: Counseling Assessment</b>                                                                   |
|----------------------------|--------------------------------------------------------------------------------------------------------|
| <b>CO-1</b>                | Students will learn about the different Classification of Test                                         |
| <b>CO-2</b>                | Students will learn to employ the Non-testing Methods in their Counseling                              |
| <b>CO-3</b>                | Students will learn to employ the Testing methods in their Counseling                                  |
| <b>CO-4</b>                | Students will learn to use the appropriate tests on their Clients for Screening and Diagnostic purpose |
| <b>CO-5</b>                | Students will learn to use Diagnostic tests in Children                                                |

| <b>PARTICULARS</b>                                                                                                                                     | <b>Teaching Hours (Max. )</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit 1: Need for assessment,</b>                                                                                                                    |                               |
| Meaning and nature of psychological tests, classification of tests, principles of test construction, and ethical issues in use of tests.               |                               |
| <b>Unit 2: Non- testing methods:</b>                                                                                                                   |                               |
| Observation, interview, socio-metry, case study, rating scales, behavioural analysis, anecdotal and records.                                           |                               |
| <b>Unit 3: Testing for cognitive abilities</b>                                                                                                         |                               |
| Attention, memory and intelligence tests, testing for aptitudes, interests and attitudes, types of tests.                                              |                               |
| <b>Unit 4: Assessment of personality:</b>                                                                                                              |                               |
| questionnaires, inventories, rating scales, projective tests, Nature, advantages, usage etc.                                                           |                               |
| <b>Unit 5: Diagnostic tests:</b>                                                                                                                       |                               |
| For children, behavioural problems, retardation, childhood psychological problems, depression, anxiety, phobias and other conditions.                  |                               |
| <b>References:</b>                                                                                                                                     |                               |
| 1. Psychological testing and assessment, II Edi, Ronalt Jay Cohen, Mark I. Swerdlik, Douglas K. Smith (1992), Mayfield Publishing Company: California. |                               |
| 2. Skills in Person centered counseling and psychotherapy, Janet Tolan (2003), Sage Publications: New Delhi.                                           |                               |
| 3. Assessment for counselors, Bradley T. Erford (2007), Lahaska Press Boston : New York.                                                               |                               |

| <b>Paper Code and Name</b> | <b>PGD103: Counseling in different settings</b>                                                                      |
|----------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>CO-1</b>                | Students will learn the skills to assess problems of children in the school setup                                    |
| <b>CO-2</b>                | Students will learn to handle the Career issues of their prospective Clients who need Career Guidance and Counseling |
| <b>CO-3</b>                | Students will learn the skills to conduct Counseling sessions to Patients in Hospitals                               |
| <b>CO-4</b>                | Students will be able to deliver their services at Remand homes                                                      |
| <b>CO-5</b>                | Students will be able to work at the Rehabilitation Center                                                           |

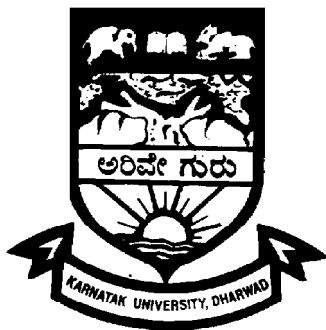
| <b>PARTICULARS</b>                                                                                                                                  | <b>Teaching Hours (Max. )</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit 1: Educational counseling,</b>                                                                                                              |                               |
| Slow learners, fidgeted child, underachievement, delinquency, learning disorders, retardation, problems of adjustment to school.                    |                               |
| <b>Unit 2: Career counseling:</b>                                                                                                                   |                               |
| Nature and scope, career decision making, job satisfaction, stress in job, adjustmental and other issues, human problems in work place.             |                               |
| <b>Unit 3: Counseling in hospital setting:</b>                                                                                                      |                               |
| Need and scope, physical illness, pain, terminal or life threatening illness, pre-surgical, post surgical counseling.                               |                               |
| <b>Unit 4: Counseling in legal settings:</b>                                                                                                        |                               |
| Juvenile courts, remand homes, family courts, custody, divorce etc.                                                                                 |                               |
| <b>Unit 5: Counseling in psychiatric setting:</b>                                                                                                   |                               |
| Need and scope, counseling patients after treatment, rehabilitation, family of patients, spouse and children of alcoholics etc                      |                               |
| <b>References:</b>                                                                                                                                  |                               |
| 1. Counseling Psychology, Narayan Rao S. (1981). Tata Megra Hill: New Delhi.                                                                        |                               |
| 2. Counseling Parents of Mentally Retarded, A Sourebok, & C. C. Thomas. Counseling Exceptional Students, Rotator A. F. (1986), Human Science Press. |                               |

| <b>Paper Code and Name</b> | <b>PGD201: Counselling and Psychotherapy</b>                                                          |
|----------------------------|-------------------------------------------------------------------------------------------------------|
| <b>CO-1</b>                | Students will learn the different Orientations, Strategies and Skills of Counseling and Psychotherapy |
| <b>CO-2</b>                | Students will learn to apply the Strategies and interventions for Needs of the Clients                |
| <b>CO-3</b>                | Students will learn to employ the Alderian, Existential techniques                                    |
| <b>CO-4</b>                | Students will develop the skills to use Person centred and Gestalt techniques                         |
| <b>CO-5</b>                | Students will learn to skills to carry out a session using REBT and Integrative Approaches            |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                        | <b>Teaching Hours (Max. )</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit 1: Theories of counseling and psychotherapy:</b>                                                                                                                                                                                                  |                               |
| Psychoanalytic approach, Jungian analytical theory: Applications, goals of counseling and psychotherapy, process of change, traditional intervention strategies, brief intervention strategies, clients with serious mental issues.                       |                               |
| <b>Unit 2: Adlerian theory and Existential theory:</b>                                                                                                                                                                                                    |                               |
| Human nature and developmental perspective, major constructs. Application-Goals, process of change, traditional intervention strategies, brief intervention strategies, clients with serious mental issues.                                               |                               |
| <b>Unit 3: Person-centered theory and Gestalt theory:</b>                                                                                                                                                                                                 |                               |
| Background, major constructs, human nature and developmental perspective, Applications- Goals of counseling and psychotherapy, process of change, traditional intervention strategies, Brief intervention strategies, clients with serious mental issues. |                               |
| <b>Unit 4: Cognitive Behaviour theory and Rational emotive theory:</b>                                                                                                                                                                                    |                               |
| Major constructs, human nature and developmental perspectives, application: Goals of counseling and psychotherapy, process of change, traditional intervention strategies, Brief intervention strategies, clients with serious mental issues.             |                               |
| <b>Unit 5: Reality theory and Integrative Approaches:</b>                                                                                                                                                                                                 |                               |
| Major constructs, human nature and developmental perspectives, application: Goals of counseling and psychotherapy, process of change, traditional intervention strategies, brief intervention strategies, clients with serious mental issues.             |                               |
| <b>References:</b>                                                                                                                                                                                                                                        |                               |
| 1. An Introduction to Psychotherapies, 3 <sup>rd</sup> ed., Bloch, S (2000). Oxford Medical Publications, New York.                                                                                                                                       |                               |
| 2. Encyclopedia of Psychotherapy, Vol 1 and 2, Hersen, M & Sledge W. (2002). Academic Press: USA.                                                                                                                                                         |                               |
| 3. The Techniques of Psychotherapy, 4 <sup>th</sup> ed., Part 1 & 2, Wolberg, L. R. Grune & Stratton: NY.                                                                                                                                                 |                               |
| 4. Theories of Psychotherapy & Counseling, 2 <sup>nd</sup> ed., Sharf, R. S. (2000). Brooks Cole: USA.                                                                                                                                                    |                               |
| 5. Handbook of Psychotherapy & Behaviour Change – An empirical Analysis,                                                                                                                                                                                  |                               |

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| <p>Bergin A. G. &amp; Garfield, S. L. (1978). John Wiley &amp; Sons: NY.</p> <p>6. Handbook of Individual Therapy, 4<sup>th</sup> ed., Dryden, W. (2002). Sage Publications: New Delhi.</p> <p>7. Psychotherapy: An eclectic Approach, 2<sup>nd</sup> ed., Garfield, S. L. (1995). John Wiley and Sons: USA.</p> <p>8. Behaviour Therapy: Techniques and Empirical findings, Rimm D. C. &amp; Masters, J.C. (1979). Academic Press: NY.</p> <p>9. Comprehensive Handbook of Cognitive Therapy, Freeman A., Simon K. M., Beuter L. E. &amp; Arkowitz, M (1988), Plenum Press: NY.</p> <p>10. Rational Emotive Behaviour Therapy, Dryden, W. (1995). Sage Publications: New Delhi.</p> <p>11. Cognitive Therapy: An Introduction, 2<sup>nd</sup> ed., Sanders, D &amp; Wills, F. (2005). Sage Publications: New Delhi.</p> <p>12. Advances in Cognitive Behaviour Therapy, Dobson, K. S. &amp; Craig, K. D. (1996). Sage Publication: USA.</p> <p>13. Counseling and Psychotherapy: Theories and Interventions, 3<sup>rd</sup> Ed., Capuzzi, D &amp; Gross, D. R. (2003), Merrill Prentice Hall: New Jersey.</p> <p>14. Psychoanalytic Techniques: A Handbook for Practicing Psychoanalyst, Wolman BB Basic Book: NY.</p> <p>15. Psychotherapy: The analytic Approach, Aronson, M. J. &amp; Scharfman, M. A. (1992). Jason Aronson Inc: USA.</p> <p>16. Counseling and Psychotherapy: Theories and Interventions, 4<sup>th</sup> Ed., Capuzzi, D &amp; Gross, D. R. (2003), Pearson Prentice Hall: New Delhi.</p> <p>Reason and Emotion in Psychotherapy, Ellis A. (1984). Secaucus Lyle Start: New Jersey.</p> |  |
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# **KARNATAK UNIVERSITY, DHARWAD**



## **REGULATIONS** **For** **Doctor of Philosophy**

**CHOICE BASED CREDIT SYSTEM (CBCS)**

**From**

**2015-16 Onwards**

| <b>PhD Program Outcomes</b> |                                                                                                                                |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>PO-1</b>                 | The students will develop evidence based knowledge of wellbeing science.                                                       |
| <b>PO-2</b>                 | Students will engage in scientific research activities and gain the skills necessary to conduct and publish original research. |
| <b>PO-3</b>                 | Students will demonstrate knowledge and competence in analyzing the data quantitatively and qualitatively.                     |
| <b>PO-4</b>                 | Students will demonstrate the knowledge and competence in ethical conduct of research.                                         |
| <b>PO-5</b>                 | Students will learn to integrate the theory and practice of psychological research.                                            |

| <b>Paper Code and Name</b> | <b>PHD101: Cognitive Psychology</b>                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                                                         |
| CO-1                       | 1.The scholar will attain knowledge about Meaning, nature and historical roots of cognitive psychology                                                  |
| CO-2                       | 2. The pupil will gain deeper understanding of Anatomy of brain and related cognitive functions                                                         |
| CO-3                       | 3. The pupil will be able to understand specific research techniques used in cognitive Psychology research and use them in designing their research.    |
| CO-4                       | 4. The scholar will be able to understand the process of cognitive development across life span and formulate age appropriate techniques of research.   |
| CO-5                       | 5. The pupil will be able to gain deeper understanding of various cognitive processes and compare western and indigenous perspectives of consciousness. |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Teaching Hours (Max. )</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit 1. Introduction to Cognitive Psychology</b>                                                                                                                                                                                                                                                                                                                                                                              |                               |
| Cognitive Psychology Defined, Emergence of Cognitive Psychology<br><b>Research Methods in Cognitive Psychology:</b><br>Goals of Research; Distinctive Research Methods : converging evidence for dissociation and Association, Behavioural Methods, Correlational Neural Methods, Causal neural Methods, Modeling and Neural-Network Models. Neurophysiological Sensing Techniques: MRI, EPI, CAT scan, PET scans, FMRI and ERP. |                               |
| <b>Unit 2: Cognitive Neuroscience</b>                                                                                                                                                                                                                                                                                                                                                                                            |                               |
| Cognition in the Brain: The Anatomy and Mechanisms of the brain; Gross Anatomy of the brain: Forebrain, Midbrain, Hindbrain; Cerebral Cortex and Localization of Function<br>The Structures and Functions of the Brain.                                                                                                                                                                                                          |                               |
| <b>Unit 3: Cognitive Development.</b>                                                                                                                                                                                                                                                                                                                                                                                            |                               |
| Theories of Cognitive development; Neurocognitive development<br>Cognitive development across life span: Information acquisition skills, Attention, Perception, Language, Memory, Intelligence and Abilities                                                                                                                                                                                                                     |                               |

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| <b>Unit 4: Cognitive processes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| <p><b>Perceptual process:</b> Visual Object recognition Theories, Face Perception, Speech Perception</p> <p><b>Attention and Consciousness:</b> The Nature of Attention and Consciousness</p> <p><b>Attention :</b> Selective attention, Divided attention , Factors that influence our ability to pay attention ,Neuroscience and Attention: A Network Model</p> <p>Intelligence and Attention ; Automatic and controlled processes in attention .</p> <p><b>Consciousness</b></p> <p>The Consciousness of mental processes; Preconscious processing, Functions of Consciousness.</p> <p>Altered states of Consciousness: Meditation</p>                                                                                                                                                                                                                                                                         |  |
| <b>Unit 5: Higher Cognitive Processes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| Memory, Thinking and Problem solving, Decision making and Creativity : Nature , Types and Models.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| <b>Books for References:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <ol style="list-style-type: none"> <li>1. Laura E Berk (2012) Child Development. 9<sup>th</sup> Edition, Pearson Higher Education.</li> <li>2. Edward E. Smith and Stephen M. Kosslyn (2011) Cognitive Psychology: Mind and Brain, PHI Learning Pvt. Ltd. New Delhi.</li> <li>3. Matthijs Cornellisen (2008) <i>Consciousness</i> in Handbook of Indian Psychology edited by K. Ramakrishna Rao, Anand Paranjpe and Ajit K. Dalal. Foundation Books, Bangalore.</li> <li>4. Robert Solso (2006) Cognitive Psychology. 6<sup>th</sup> Edition Pearson Education.</li> <li>5. Robert J. Sternberg, Karin Sternberg and Jeff Mio (2009), Cognitive Psychology, Sixth Edition. Wadsworth U.S.A.</li> <li>6. Santrock J. W, (1998). Child Development. McGraw-Hill - International Ed</li> <li>7. Teresa M. McDevitt and Jeanne Ellis Ormrod (2002) Child Development and Education. Merrill Prentice Hall.</li> </ol> |  |

| <b>Paper Code and Name</b> | <b>PHD102: Theoretical Foundation of Psychology (Core Paper)</b>                                                                            |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                                             |
| CO-1                       | Enables the student to know the Origins and basics of Psychology                                                                            |
| CO-2                       | Enables the student keep in mind the essence of Culture and cross-cultural differences, while designing and reporting the Research outcomes |
| CO-3                       | The researcher will be able to use the different therapeutic approaches                                                                     |
| CO-4                       | Enables the student to apply Positive Psychology in Mental and Physical Health                                                              |
| CO-5                       | The Student will know the role played by technology in health of Individual                                                                 |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Teaching Hours (Max. )</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit I: Different schools in Psychology:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                               |
| Structuralism, Functionalism, Behaviorism, Gestalt and Psychoanalysis.                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |
| <b>Unit II: Basic Concept of Culture, Cross-cultural Psychology: Background, Origin, Principles, Dimension of Culture.</b>                                                                                                                                                                                                                                                                                                                                                                              |                               |
| <b>Unit III: Maladaptive Behaviours of Childhood:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                               |
| Externalizing Disorders: ADHD, Conduct Disorders, and Juvenile Delinquency.<br>Internalizing Disorders: Anxiety, Depression and Eating Disorders. Therapies: Play Therapy, Family Therapy, Cognitive-behaviour Therapy.                                                                                                                                                                                                                                                                                 |                               |
| <b>Unit IV: Social Psychology of Psycho-Physical Health:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |
| Mental Health, The Burden of Disease due to Mental Illness, Depression; From Mental illness to Mental Health: Positive Psychology, Positive Psychology at Individual Level, Positive Psychology at the Subjective Level: Subjective Well being. Spirituality in Mental Health, Community based mental health care. Physical Health. Multiple Function of PNI. AIDS and the Lazarus Effect. Cancer, Smoking: Interventions,                                                                              |                               |
| <b>Unit V: Social Psychology of Technology:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                               |
| An Introduction to Psychology of Technology, Technology and the individual - The technologies fix, Technophobia, Techno-stress and High Tech-high touch. Technology and Individual Control, Technology in Education and at Work Technology and Health- Technology and telemedicine, technology and reproductive medicine and technology and Therapy. Technology and communication- Psychology of cyberspace-types of communication and organizational position. The limits of Psychology of Technology. |                               |
| <b>Unit VI: Forensic Psychology:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                               |
| Introduction. Legal and Ethical issues. Expert as Witness, Eyewitness: Identification and testimony-wrongful conviction. Memory factors in Eyewitness accounts. Sources in memory: Predictors of Juvenile Delinquency, Restorative Justice, Women and Law Enforcement                                                                                                                                                                                                                                   |                               |
| <b>Books for Study:</b><br>1. Daune P.Schultz and Sudney Ellen Schultz. (2000). A History of Modern                                                                                                                                                                                                                                                                                                                                                                                                     |                               |

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| <p>Psychology (7<sup>th</sup> Ed) Harcourt College Publishers. New York.</p> <ol style="list-style-type: none"> <li>2. Wayne Viney. (1994). A History of Psychology. Allyn &amp; Bacon, Boston</li> <li>3. Arun Kumar Singh. (1991). History of Psychology. Motilal Banarasisdass Publications, New Delhi</li> <li>4. Applied Social Psychology: A Global Perspective. (2006). V.K. Kool and Rita Agarwal. Atlantic Publishers and Distributors. New Delhi.</li> <li>5. Rajpal Kaur. (2006). Forensic Psychology: New Trends and Innovations. Deep and Deep Publications Pvt. Ltd. New Delhi.</li> <li>6. <a href="#">Gun Semin</a> &amp; <a href="#">Klaus Fiedler</a>. (1996). Applied Social Psychology. Sage Publications, New Delhi.</li> <li>7. David H. Barlow &amp; V. Mark Durand. (1995). Abnormal Psychology – An Integrative Approach. Brooks/Cole Publishing Company, London.</li> <li>8. Irwin S. Sarason &amp; Barbara R. Sarason. (1972). Abnormal Psychology: The Problem of Maladaptive Behaviour (7<sup>th</sup> ed). Prentice Hall, Englewood Cliffs, New Jersey.</li> </ol> |  |
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| <b>Paper Code and Name</b> | <b>PHD103: Educational Psychology</b>                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                           |
| CO-1                       | The students will understand the principles involved in effective learning.                                               |
| CO-2                       | The students will develop skills to apply psychological principles in teaching and learning situation for better outcome. |
| CO-3                       | They will become effective student counsellors to address issues related to career choice and learning.                   |
| CO-4                       | The students will understand Tests and evaluation procedures.                                                             |
| CO-5                       | The students will understand application of learning principles to the problems slow learners                             |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours (Max. )</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>Unit: 1 The Educative Process</b>                                                                                                                                                                                                                                                                                                                       |                               |
| The meaning of education: The educative act, role of Psychology in education,<br>Basic principles of behaviour change.                                                                                                                                                                                                                                     |                               |
| <b>Unit: 2 Learning and the Development of Personality</b>                                                                                                                                                                                                                                                                                                 |                               |
| Motivation, motives, needs and drives, identification of needs, Goal setting behaviour, needs of the child and educational objectives.                                                                                                                                                                                                                     |                               |
| <b>Unit: 3 Cognitive Processes</b>                                                                                                                                                                                                                                                                                                                         |                               |
| Process of concept formation, the development of critical thinking and associative thinking, problem solving behaviour.                                                                                                                                                                                                                                    |                               |
| <b>Unit 4: Personality and Self Concept</b>                                                                                                                                                                                                                                                                                                                |                               |
| Roles and role behaviour, Self concept, Adjustment, Socialization and Personality                                                                                                                                                                                                                                                                          |                               |
| <b>Unit : 5 Evaluation of Behaviour Change</b>                                                                                                                                                                                                                                                                                                             |                               |
| Tests and evaluation procedures, the process of test standardization, intelligence tests, achievement tests, measures of personality characteristics; using test information. Education Psychology to meet the special needs: Problems of slow learners, identification of slow learners- application of learning principles to the problems slow learners |                               |
| <b>Reference Books :</b>                                                                                                                                                                                                                                                                                                                                   |                               |
| 1) Educational Psychology – Fredrick J. McDonald<br>2) The Psychology of Education – Martyn Long<br>3) Advanced Educational Psychology- S.S. Chauhan                                                                                                                                                                                                       |                               |

| Paper Code and Name    | PHD104: Counselling and Guidance                                                                                     |
|------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b> |                                                                                                                      |
| CO-1                   | Students will learn the skills and strategies to carry out Individual Counseling session                             |
| CO-2                   | Students will learn the skills, and strategies to execute a Group Counseling Session                                 |
| CO-3                   | Students will learn the utilization of the various Counseling techniques.                                            |
| CO-4                   | Students will learn family and marriage counseling skills.                                                           |
| CO-5                   | Students will learn to handle the Career issues of their prospective Clients who need Career Guidance and Counseling |

| PARTICULARS                                                                                                                                                                                                                                                            | Teaching Hours (Max. ) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Unit: 1 Approaches to Counseling:</b>                                                                                                                                                                                                                               |                        |
| Psychoanalytic, Person Centered, Rational Emotive, Existential, Gestalt and Transactional, Cognitive Behavioural, Therapy.                                                                                                                                             |                        |
| <b>Unit: 2 Career Counseling over the Life Span:</b>                                                                                                                                                                                                                   |                        |
| Importance, Career Counseling Associations, Career Information, Career Development Theories and Counseling, Career Counseling with Diverse Population.                                                                                                                 |                        |
| <b>Unit: 3 School and College Counseling:</b>                                                                                                                                                                                                                          |                        |
| Elementary, Middle Secondary School Counseling and Guidance, Counselling for College students: Theoretical Bases and Professional Preparation for Working with College Students, Students Life Professionals                                                           |                        |
| <b>Unit 4: Marriage and Family Counseling:</b>                                                                                                                                                                                                                         |                        |
| Family Life and Family Life Cycle, Marriage/Family counseling Vs Individual and Group Counseling, Marriage and Couples Counseling with Application of Different Theories, Family Counseling with Application of Different Theories.                                    |                        |
| <b>Unit: 5 Mental Health, Substance Abuse, and Rehabilitation Counseling :</b>                                                                                                                                                                                         |                        |
| Theories and Functions of Mental Health Counseling, Preventive and Treating Substance Abuse, Treating Alcohol and other Drug Abuse, Families and Substance Abuse Treatment, Rehabilitation Counseling.                                                                 |                        |
| <b>BOOKS FOR REFERENCE</b>                                                                                                                                                                                                                                             |                        |
| 1) Samuel T. Gladding (1988). Counselling: A comprehensive profession (4 <sup>th</sup> ed.) Merrill Prentice Hall.<br>2) David Capuzzi and Douglas R. Gross (2008). Counselling and Psychotherapy: Theories and interventions (4 <sup>th</sup> ed.) Pearson Education. |                        |

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| 3) Bruce Sherzer and Shellay C. stone (1974) fundamentals of guidance Houghton Mifflin company, London.<br>4) Rickey L. George and Therese S. Cristiani (1990). Counseling : Theory and practice (3 <sup>rd</sup> ed.) Allyn and Bacon<br>5) L. Alan Sruofe, Robert G. Cooper (1996). Child Development: its Nature and course (3 <sup>rd</sup> ed.) McGraw Hill. |  |
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| <b>Paper Code and Name</b> | <b>PHD105: Health Psychology</b>                                                                                                       |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                                        |
| CO-1                       | The students will be able to understand the significance of psychological factors in origin of physical illnesses.                     |
| CO-2                       | The students will be able to apply psychological principles of behaviour modification to prevent, treat and manage physical illnesses. |
| CO-3                       | The students will be able to become effective well-being officers                                                                      |
| CO-4                       | The student will be able to apply principles and techniques of psychology to manage and enhance health in the clients                  |
| CO-5                       | The students will be able to help clients to deal with illness and disorders with suitable techniques of intervention                  |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                   | <b>Teaching Hours (Max. )</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>1. Introduction to Health Psychology</b>                                                                                                                                                                                                                                                          |                               |
| Definition of Health Psychology, The mind-body relationship, Importance of Health Psychology, The Biopsychosocial model in Health Psychology                                                                                                                                                         |                               |
| <b>2. Health Behaviour</b>                                                                                                                                                                                                                                                                           |                               |
| Meaning of Health Behaviours, role of behavioural factors in disease and disorder. Changing Health Behaviours-Changing Health Habits, Cognitive behavioural approaches to health behaviour change.                                                                                                   |                               |
| <b>3. Health Enhancing Behaviours-</b>                                                                                                                                                                                                                                                               |                               |
| Metabolism and health- exercise, healthy diet, weight control, obesity, eating disorders, sleep. Addiction and other risky behaviours- Alcoholism; Substance abuse, smoking-ill effects and Interventions.                                                                                           |                               |
| <b>4. Stress and Coping</b>                                                                                                                                                                                                                                                                          |                               |
| Meaning of stress, Sources of chronic stress. Coping with stress, coping styles, Management of Stress, Techniques of stress management.                                                                                                                                                              |                               |
| <b>5. Chronic and Terminal illness</b>                                                                                                                                                                                                                                                               |                               |
| Chronic illness- arthritis, diabetics, CVDS- causes and risk factors.<br>Coping strategies and Chronic illness<br>Psychological interventions and chronic illness.<br>Psychological Management of terminally ill- Individual counseling, Family Therapy, Management of terminal illness in children. |                               |

| <b>Reference Books :</b>                                                                                                                                                                                                          |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Health Psychology- Shelly E. Taylor 6 <sup>th</sup> edition.<br>Health and Human Behaviour- Robert. M. Kaplan.<br>Health Psychology- Biopsychosocial Interaction-Edward Sarafino 5 <sup>th</sup> edition,<br>John Wiley and Sons. |  |

| <b>Paper Code and Name</b> | <b>PHD106: Research Methodology and Advanced statistics</b>                                              |
|----------------------------|----------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                          |
| CO-1                       | Enable the basics of Research and different research approaches                                          |
| CO-2                       | Develop his own Research Designs                                                                         |
| CO-3                       | Will develop the skill of collecting sample using scientific method                                      |
| CO-4                       | The student will learn the essence, nuisances of different scales used for Scientific study of behaviour |
| CO-5                       | Enables to use different and relevant statistical tools for analyzing the Data                           |

| <b>PARTICULARS</b>                                                                                                                                                                                              | <b>Teaching Hours (Max. )</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>1) Introduction :</b>                                                                                                                                                                                        |                               |
| Meaning and Objectives of Research, Research Approaches, Ethical Issues in research, Research Problem, Hypothesis and its Types.                                                                                |                               |
| <b>2) Research Design :</b>                                                                                                                                                                                     |                               |
| Variables and its Types, Poor Designs and Good Designs, Characteristics of Good Designs, Different Research Designs, Basic Principles of Experimental Designs, Informal and Formal Experimental Designs.        |                               |
| <b>3) Sampling :</b>                                                                                                                                                                                            |                               |
| Population and Sample, Characteristics of a Good Sample, Types of Sample, Sampling Error. Sample Size.                                                                                                          |                               |
| <b>4) Measurement in Researches :</b>                                                                                                                                                                           |                               |
| Measurement Scales, Sources of Error in Measurement, Technique of Developing Measurement Tools, Different Types of Scales, Reliability, Validity, Norms and their Types.                                        |                               |
| <b>5) Data Processing and Analysis :</b>                                                                                                                                                                        |                               |
| Multiple, Partial Correlation, Regression, Normal Distribution Curve, 't' Test, ANOVA, MANOVA, ANCOVA and Non-parametric Tests - Mann-Witney U. Test, Wilcoxon Sign Rank Test Chi Square Test. Factor Analysis. |                               |
| <b>6) Report writing :</b>                                                                                                                                                                                      |                               |
| Writing in APA style- Significance of Report Writing, Different Steps in Report Writing, Reporting the findings, Computer Application : Excel, SPSS                                                             |                               |

### **BOOKS FOR STUDY**

1. Allen L Edwards- Experimental design in Psychological research- Indian Edition, 1971.
2. Anastasi A(1998) Psychological Testing Mc Millon, New York.
3. Aron Arthur, Aron Elaine N. & Coups Elliot (2006) Statistics for Psychology 4<sup>th</sup> Edition. Pearson India.
4. Cooley W.W. & P.R. Lohnes-Multivariate procedures for the Behavioural Science, Newyork willey 1962.
5. E.J. Mc, Guigan- Experimental Psychology- Methodological research, 2<sup>nd</sup> edn., 1978 Prentice Hall.
6. Festinger & Katz- Research Methods in the Behavioural Science- American Publication Co.
7. Fred. N. Kerlinger- Foundations of behavioural research Edn. 1973 Holt Rinehart & Winston.
8. Nicol Adelheid A. M. & Pexman Penny M. (2010) Presenting your Findings. 6<sup>th</sup> Edition. American Psychological Association, Washington D. C.
9. Robert Thorndike and Tracy Thorndike – Christ (2011) Measurement and Evaluation in Psychology and Education, 8<sup>th</sup> Edition, Prentice Hall, India , New Delhi.
10. Sales Bruce D. & Folkman Susan (2010) Ethics in Research with human participants 4<sup>th</sup> Edition. American Psychological Association, Washington.
11. Pauline V Young- Scientific Social Survey & Research 4<sup>th</sup> Edn., 1975, Prentice Hall, India.
12. Siegel- Non Parametric statistics.
13. Maxwell- Experimental designs.
14. Cooley W.W. and P.R. Lohnes- Multivariate Data Analysis, New York : Wiley, 1971.
15. David C. Howell (1997), Statistical Methods in Psychology, Duxbury Press, Newyork.
16. Guilford Benjamin Fruchta (1978) : Fundamental Statistics in Psychology

|                                          |  |
|------------------------------------------|--|
| and Education, Latest Edn., McGraw Hill. |  |
|------------------------------------------|--|

| <b>Paper Code and Name</b> | <b>PHD107: Organizational Behaviour</b>                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                               |
| CO-1                       | Researchers will be able to apply the fundamentals and key facets to maximize the effectiveness of Various HR Functions       |
| CO-2                       | The Researcher will be able to prepare Job Analysis Questionnaire                                                             |
| CO-3                       | The Researcher will develop the various methods of Selection for the selection of right person for the right job              |
| CO-4                       | Researcher will be develop the skill to prepare Job Profiles to enhance productivity and for the organizational effectiveness |
| CO-5                       | Researcher will be able to develop Performance Appraisals for the different Jobs in an                                        |

| <b>PARTICULARS</b>                                                                                                                                                                                                  | <b>Teaching Hours (Max. )</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>1) Introduction to Organizational Behaviour :</b>                                                                                                                                                                |                               |
| The Challenges facing management, The Behavioural Approach to Management, Globalization, Information technology, Total Quality, diversity and ethics.                                                               |                               |
| <b>2. Total quality management :</b>                                                                                                                                                                                |                               |
| Definition of TQM, Re-engineering, bench marking, empowerment, Putting empowerment into action, Learning organizations.                                                                                             |                               |
| <b>3. Group dynamics and Team :</b>                                                                                                                                                                                 |                               |
| The nature of groups, The dynamics of group-formation, Types of groups; Team in modern work place, The nature of teams, Effectiveness of team, How to make teams more effective, the use of cross-functional teams. |                               |
| <b>4. Organizational Stress :</b>                                                                                                                                                                                   |                               |
| Meaning and definition of stress, Causes of stress, the effects of stress, coping strategies for stress, Organizational Role stress.                                                                                |                               |
| <b>5. Organizational change and Development :</b>                                                                                                                                                                   |                               |
| Theoretical development of OD, traditional OD techniques and emerging OD techniques.                                                                                                                                |                               |
| <b>6. Special Applications of Organizational Development</b>                                                                                                                                                        |                               |
| : OD in global settings, OD in health care, school systems, and public sectors, future directions in OD                                                                                                             |                               |
| <b>BOOKS FOR STUDY</b>                                                                                                                                                                                              |                               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ol style="list-style-type: none"> <li>1. Fred. Luthans (1998) Organisational Behaviour, (8<sup>th</sup> Ed.), McGRAW-HILL international education, Management and organization series.</li> <li>2. Thomas G. Cummings and Christopher G. Worles (2001), Organisational Development and change, (7<sup>th</sup> ed.) Thomsom, South-western.</li> <li>3. Stephen P. Robbins (1999), Organisational Behaviour, concepts, controversies, applications, prentice-hall, India.</li> <li>4. John W. Newstroon and Keith Davis, Organisational Behaviours : Human Behaviour at work, Tata Mc. Grow Hill, New Delhi.</li> <li>5. Donelson R. Frosyth (2006), Group processes, Cengage Learning Publication, India.</li> </ol> |  |
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| Paper Code and Name    | PHD108: Positive Psychology                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b> |                                                                                                                                  |
| CO-1                   | Enbles the Researcher to get acquainted with Positive Psychology                                                                 |
| CO-2                   | The researcher develops designs focusing on Emotions and it's Role                                                               |
| CO-3                   | The Researcher learns to develop                                                                                                 |
| CO-4                   | Research design using Cognitive Approach                                                                                         |
| CO-5                   | Enables the Researcher to incorporate the role of Specific Coping Approaches and prosocial variables into their research designs |

| PARTICULARS                                                                                                                                                                                                 | Teaching Hours (Max. ) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>1. Positive Psychology Foundations:</b>                                                                                                                                                                  |                        |
| Welcome to Positive Psychology, Western Perspectives on Positive Psychology, Eastern Perspectives on Positive Psychology, Classifications and Measures of Human strengths and Positive outcomes.            |                        |
| <b>2. Emotion focused approaches:</b>                                                                                                                                                                       |                        |
| Subjective well being, Resilience, Flow, Positive affectivity, Positive emotions, Self esteem, Emotional coping, Emotional intelligence and Emotional creativity.                                           |                        |
| <b>3. Cognitive focused approaches:</b>                                                                                                                                                                     |                        |
| Creativity, Personal control, Well being, Optimism, Optimistic Explanatory style, Hope, Self-efficacy, problem-solving appraisal, Goals, Passion to know and Wisdom.                                        |                        |
| <b>4. Specific Coping Approaches:</b>                                                                                                                                                                       |                        |
| Sharing one's story writing or talking about emotional experience, Benefit finding and benefit reminding, Positive responses to Loss: perceiving benefits and growth, Meaningfulness, Humour, Spirituality. |                        |
| <b>5. Prosocial behaviour:</b>                                                                                                                                                                              |                        |
| Compassion, Forgiveness, Gratitude, Love, Empathy and Altruism.                                                                                                                                             |                        |
| <b>6. Special Populations and Settings:</b>                                                                                                                                                                 |                        |
| Positive Psychology at School, Aging Well, Physical disability, Multicultural context and at Work.                                                                                                          |                        |

### Books for Study

1. Compton, W. C, (2005). "2". *An Introduction to Positive Psychology*. Wadsworth Publishing
2. Snyder, C. R., & Lopez, S. J. (2007). *Positive psychology: The scientific and practical explorations of human strengths*. Thousand Oaks, CA, US: Sage Publications, Inc.
3. Linley, P. A., & Joseph, S. (2004). *Positive psychology in practice*. Hoboken, NJ: Wiley & Sons.
4. Snyder, C.R., and Lopez, Shane J. (2001) *Handbook of Positive Psychology*. Oxford University Press
7. Peterson, C. & Seligman, M.E. (2004). *Character strengths and virtues: A handbook and classification*. Washington, DC: American Psychological Association
8. Lopez, S. J., & Snyder, C. R. (2003). *Positive psychological assessment: A handbook of models and measures*. Washington, D.C.: American Psychological Association.

### Articles:

1. Linley, A. P., Joseph, S, Harrington, S, & Wood, A.M. (2006) Positive psychology: Past, present, and (possible) future. *The Journal of Positive Psychology*, 1(1): 3–16.
2. Buss, D.M. (2000). The evolution of happiness. *American Psychologist*, 55, 15-23.
- 3 Sheldon, K.M. & King, L.K. (2001). Why positive psychology is necessary. *American Psychologist*, 56, 216-217.
- 4 Seligman, M. E. P. & Csikszentmihalyi., M. (2000) Positive Psychology-an introduction. *American Psychologist*, Vol 55. No. 1. 5
- 5 Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60, 410-421.

| <b>Paper Code and Name</b> | <b>PHD109: Psychopathology and Clinical Psychology</b>                                                                   |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES</b>     |                                                                                                                          |
| CO-1                       | The students will understand the nature and scientific views about abnormal behaviors.                                   |
| CO-2                       | The students will understand the theoretical perspectives on maladaptive behaviour.                                      |
| CO-3                       | The students will able to conduct Cognitive-Behavioural approaches, integration and extension of psychological therapies |
| CO-4                       | The students will able to conduct different therapies.                                                                   |
| CO-5                       | The students will able o conduct research in clinical setup                                                              |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                 | <b>Teaching Hours (Max. )</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>1. Abnormal behaviour</b>                                                                                                                                                                                                                                                                                                                       |                               |
| Nature, scientific views about abnormal behaviour problems of classification; causes of abnormal behaviour.                                                                                                                                                                                                                                        |                               |
| <b>2. Theoretical perspectives on Maladaptive Behaviour-</b>                                                                                                                                                                                                                                                                                       |                               |
| The fole of theory in abnormal psychology, the biological perspective, The psychodynamic perspective, The Behavioural perspective, The cognitive perspective, The humanilisti-existential perspective, The community-cultural perspective, an interactional approach, our take-away message                                                        |                               |
| <b>3. The Therapeutic Enterprise :</b>                                                                                                                                                                                                                                                                                                             |                               |
| Choices, Techniques, Evaluation- Psychotherapy, Cognitive-Behavioural approaches, integration and extension of psychological therapies, Research on the psychological therapies, Integration of psychological therapies, Integration of psychologically based therapeutic Approaches, biological therapies, Hospitalization, our take-away message |                               |
| <b>4. Classification and assessment- classification :</b>                                                                                                                                                                                                                                                                                          |                               |
| Categories of Maladaptive Behaviour, Assessment: The Basis of classification, our take-away message                                                                                                                                                                                                                                                |                               |
| <b>5. Therapy and mental health :</b>                                                                                                                                                                                                                                                                                                              |                               |
| Somatic therapy – Drugs, BCT and Surgery, Psychoanalysis, Behaviour therapy, Humanistic Existential therapy – other forms of psychotherapy, prevention of mental disorders, programs for mental health programmes. Meditation and Yoga as therapy.                                                                                                 |                               |
| <b>Reference</b>                                                                                                                                                                                                                                                                                                                                   |                               |
| 1. Rasslnove Howard (ed.) (1995). Anger Disbrders: Definition, Diagnosis and Treatment Taylor & Francis, Ltd. 4 John Street, London, WCIN 2ET u.K., Tel: 071 4052237                                                                                                                                                                               |                               |
| 2. Palsane, M.N. ; Bhavsar, S.N.; Goswami, R.P. and Evans (G.w.) (1993). The concept of stress in the Indian Tradition. University of Poona, Pune, Publication No.5, Jan.                                                                                                                                                                          |                               |
| 3. Charlesworth, B.A. and Nathan, R.G. (1985) Stress Management:                                                                                                                                                                                                                                                                                   |                               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>Acomprehensive guide to wellness. Ballanfine Books. New York.</p> <ol style="list-style-type: none"> <li>4. Maxmen J.S. and Word, N.G. Essentila Psychopathology and its Treatment (2nded.) revised for DSM-VI). W. W. Norton &amp; Company, New York, London.</li> <li>5. Camer, Ronald, J. (1995) Abnormal psychology (2nd ed.) Freeman &amp; Company, New York.</li> <li>6. Kleinmiuntz, Benjamin (1980). Essentials of Abnormal Psychology (2nd ed.) Harper and Row.</li> <li>7. Davison, Gerald C and Neale, John M (2001). Abnormal psychology (8th ed.) John wiley &amp; sons, New York.</li> </ol> <p>Articles :</p> <ol style="list-style-type: none"> <li>1. Rochelle L. James &amp; Michael C. Roberts. (2009). Future directions in clinical child and adolescent psychology : a Delphi survey, Journal of Clinical psychology 65(10), 1009-1020.</li> <li>2. Crick NR, &amp; Zahn-Waxier C. (2003). The development of psychopathology in females and males: current progress and future challenges. Dev Psychopathology, 15(3): 719-742.</li> <li>3. Menting B, van Lier PA, Koot HM. (2011). Language skills, peer rejection, and the development of externalizing behaviour from kindergarten to fourth grade. J. Child psychol Psychiatry, 52(1): 7-9</li> </ol> |  |
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**KARNATAK UNIVERSITY, DHARWAD**  
**P. G. DEPARTMENT OF STUDIES IN SANSKRIT**



**M.A. IN SANSKRIT**



**Regulations and Syllabus  
for  
P.G. Department of Studies in  
SANSKRIT  
(I to IV Semesters)  
Under Choice Based Credit System  
(2020-21, 2021-22 and 2022-23 for three years)**

# KARNATAK UNIVERSITY, DHARWAD

## Arts Faculty of CBCS Regulations

With effect from the academic year 2020-21

### 1.0 Title

These Regulations shall be called “Regulations Governing the Post-Graduate Programmes in the Faculty of Arts under the Choice Based Credit System” in Karnatak University, Dharwad.

### 2.0 Commencement

These Regulations shall come into force with effect from the academic year 2008-09.

### 3.0 Definitions

a In these Regulations, unless otherwise provided:

“Academic Council” means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.

b “Board of Studies” means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.

c “Compulsory Course” means fundamental course, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.

d “Course Weightage” means number of credits assigned to a particular course.

e “Credit” means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.

f “Cumulative Grade Point Average (CGPA)” refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.

g “Degree” means Post-Graduate Degree.

h “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.

i “Grade Point Average (GPA)” refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.

j “Open Elective Course” means a course offered by a Department to the students of other Departments.

k “Post Graduate Programme” means semesterised Master’s Degree Programmes in the Faculty of Arts under CBCS excluding P.G. Diploma, Post Graduate International Diploma.

l “Specialization course” means advanced course offered by a Department that a student of that Department can opt as a special course.

m “Student” means the student admitted to programmes under (k).

n “University” means Karnatak University, Dharwad.

### 4.0 Minimum Eligibility for Admission

A candidate, who has successfully completed Bachelor’s Degree programme or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

### 5.0 Duration of the Programme

The duration of study for all the Post-Graduate Degree programmes shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with 90 working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

6.0. Medium of Instruction and Evaluation.

The medium of instruction for all programmes except languages shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

7.0 **Programme Structure**

7.1 The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.

7.2 There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.

7.3 Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme that a student must complete to get the concerned degree.

7.4 In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the Department.

7.5 Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University from time to time. P.G. Centers and affiliated colleges can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.

7.6 The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course 4; and for Open Elective Course, from 1 to 4. Wherever practical component/ project work/ field work/ dissertation/ orals is involved in the course, the total credits may extend to 6 or as otherwise provided.

7.7 A student shall register for a minimum of 72 credits during the whole duration of PG Programme.

7.8 The students shall undertake project/extension/field work/dissertation/ during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.

7.9 The ratio between Compulsory, Specialization and Open Elective may differ from department to department.

7.10 The detailed programme structure for Faculty of Arts shall be as prescribed and shown below:

| Semester | No.of Compulsor | Total no. of credits | Specialisation Courses | Total no. of credits | Open Elective | Total no. of credits of Open | Total no. of credits |
|----------|-----------------|----------------------|------------------------|----------------------|---------------|------------------------------|----------------------|
|----------|-----------------|----------------------|------------------------|----------------------|---------------|------------------------------|----------------------|

|                                | y courses<br>(credit per<br>course) | of<br>compulsor<br>y courses | (credit per<br>course) | for<br>Specialis<br>ation<br>courses | Course<br>(credit<br>per<br>course) | Elective Course<br>(OEC) | for the<br>semester |
|--------------------------------|-------------------------------------|------------------------------|------------------------|--------------------------------------|-------------------------------------|--------------------------|---------------------|
| Sem. I                         | 03 (04)                             | 12                           | 1-3 (4)                | 4                                    | 1-3 (2-4)                           | 2-4                      | 16+ OEC             |
| Sem.II                         | 03 (04)                             | 12                           | 1-3 (4)                | 4                                    | 1-3 (2-4)                           | 2-4                      | 16+OEC              |
| Sem.III                        | 03 (04)                             | 12                           | 1-3 (4)                | 4                                    | 1-3 (2-4)                           | 2-4                      | 16+OEC              |
| Sem.IV                         | 03 (04)                             | 12                           | 1-3 (4)                | 4                                    | 1-3 (2-4)                           | 2-4                      | 16+OEC              |
| For the<br>entire<br>Programme | 12                                  | 48                           | 4-12(4)                | 16                                   | 4-12<br>(2-4)                       | 8-16                     | 64 + 8<br>( = 72    |

7.11 The Open Elective Courses shall have oral component if so prescribed by the concerned Board of Studies. The number of students admitted to the course shall be commensurate with the availability of infrastructure.

8.0 Attendance

8.1 Each course shall be taken as a unit for the purpose of calculating the attendance.

8.2 Each student shall sign the attendance register maintained by the Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

8.3 Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.

8.4 A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours in that course.

8.5 There is no provision for condoning shortage of attendance.

8.6 The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.

8.7 Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.

9.0 Examination

9.1. There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G.Centres/ Colleges. The even semester examinations shall be conducted by the University.

9.1.1 There shall be semester-end examination of 3 hours duration for 75 marks; 2 hours for 50 marks, 1.5 hours for 35 marks and 1 hour for 25 marks course.

9.1.2 Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and

shall also pay the fees prescribed.

- 9.1.3 The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 9.1.4 The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5 The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6 Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.
- 9.1.7 Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

- 9.2.1 There shall be a Board of Examiners to set, scrutinise and approve question papers.
- 9.2.2 The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).
- 9.2.3 The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.
- 9.2.4 The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.
- 9.2.5 Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.
- 9.2.6 There shall be single valuation. The examiner (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.
- 9.2.7 The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar's (Evaluation) Office at the conclusion of the valuation at the respective centres.
- 9.2.8 The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

- 9.3.1 There shall be a Board of Examiners to set, scrutinise and approve question papers.

9.3.2 As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.

9.3.3 Each answer script of the semester-end examination (theory and project report/dissertation/practical) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

9.3.4 Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

9.3.5 In case of programmes with oral examination, details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

9.4. Evaluation

9.4.1 Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

9.4.2 The IA component in a course shall carry 25/25/15 marks and the Semester End Examination shall carry 75/50/35 marks respectively, as the case may be. Courses having 25 marks and 15 marks as IA component shall have a maximum of 3 marks allotted for attendance. However, in case of project work, the distribution marks for internal assessment and examination shall be left to discretion of the concerned BOS.

9.4.3 Marks for attendance shall be awarded to the students according to the following table. For courses carrying 25 /15 of marks for IA, the attendance marks shall be:

| Attendance (in percentage) | Marks    |
|----------------------------|----------|
| Above 90                   | 3        |
| Above 80 and up to 90      | 2        |
| Above 75 and up to 80      | 1        |
| 75                         | No marks |

9.4.4 Internal Assessment (IA) shall be based on written tests/ assignments/ seminars/orals and /or any other instructional activity as specified in the Faculty Regulations from time to time. However, the number of IA components per course per semester shall not be less than two.

9.4.5 The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

9.4.6 The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

9.4.7 There is no provision for seeking the improvement of Internal Assessment marks.

- 9.4.8 The IA records, pertaining to a Semester Examination, shall be preserved by the Departments/ Centres/ Colleges for a period of one year from the date of the semester Examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.
- 9.4.9 The Viva-voce shall be conducted by an internal and external examiner.
- 9.4.10 The marks distribution per course shall be as follows:

| Max. marks per course | IA marks               |                              |       | Semester-end examination | No. of teaching hours | No. of credits |
|-----------------------|------------------------|------------------------------|-------|--------------------------|-----------------------|----------------|
|                       | Test/Orals/Assignments | Maximum marks for Attendance | Total |                          |                       |                |
| 100                   | 22                     | 3                            | 25    | 75                       | 4                     | 4              |
| 75                    | 22                     | 3                            | 25    | 50                       | 3                     | 3              |
| 50                    | 12                     | 3                            | 15    | 35                       | 2                     | 2              |

- 10.0. Maximum duration for completion of the Programme
- 10.1 A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.
- 10.2 Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.
- 11.0. Declaration of Results
- 11.1 The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.
- 11.2 Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.
- 11.3 Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.
- 11.4 For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.
- 12.0** Marks, Credit Points, Grade Points, Grades and Grade Point Average
- 12.1 The grade points and the grade letters to candidates in each course shall be awarded as follows:

| Percentage of marks             | Grade Points                      | Grade Letter |
|---------------------------------|-----------------------------------|--------------|
| 75 and above, up to 100.00 %    | 7.50 to 10.00                     | A            |
| 60 and above but less than 75 % | 6.00 and above but less than 7.5  | B            |
| 50 and above but less than 60 % | 5.00 and above but less than 6.0  | C            |
| 40 and above but less than 50 % | 4.00 and above but less than 5.00 | D            |
| less than 40.00 %               | Less than 4.00                    | F            |

- 12.2 Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

12.3 The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

12.4 The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester ÷ Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Sem + Sum of the CP of II Sem. ÷ Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly

12.5 The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

12.6 Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

| Cumulative Grade Point Average (CGPA) | Class to be awarded          |
|---------------------------------------|------------------------------|
| 7.5 to 10.0                           | First class with Distinction |
| 6.0 and above but below 7.5           | First Class                  |
| 5.0 and above but below 6.0           | Second Class                 |

13.0 Miscellaneous:

- a Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- C The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- D The procedural details may be given by the University from time to time.
- E Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

Illustrative Model:

Grade Card

Programme:

Name of the candidate:

Semester: I

Seat No:

Month & Year:

| Course                | Course code no | Credits | Max Marks | Mark Obtained | Semester Grade Point | Credit Points |
|-----------------------|----------------|---------|-----------|---------------|----------------------|---------------|
| Compulsory Courses    |                |         |           |               |                      |               |
| • Course-I            |                | 04      | 100       | 60            | 6.00                 | 24.00         |
| • Course-II           |                | 04      | 100       | 74            | 7.40                 | 29.60         |
| • Course-III          |                | 04      | 100       | 43            | 4.30                 | 17.20         |
| ○ ----                |                |         |           |               |                      |               |
| ○ -----               |                |         |           |               |                      |               |
| Specialisation Course |                |         |           |               |                      |               |
| Course-I              |                | 04      | 100       | 52            | 5.20                 | 20.80         |
| Course –II            |                | 04      | 100       | 65            | 6.50                 | 26.00         |
| *                     |                |         |           |               |                      |               |
| *                     |                |         |           |               |                      |               |
| Open Elective Course  |                |         |           |               |                      |               |
| Course-I              |                | 02      | 50        | 40            | 8.00                 | 16.00         |
| Course-II             |                | 02      | 50        | 35            | 7.00                 | 14.00         |
| Total                 |                | 24.00   | 600       | 369           |                      | 147.60        |

GPA for I Semester = Total no. of CP ÷ Total no. of Credits = 147.60 / 24.00 = 6.15

CGPA for I Semester = GPA = 6.15

Calculation of CGPA for II, III and the Final Semester

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$$\text{CGPA for II Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)}}$$

$$\text{CGPA for III Sem} = \frac{\text{CP(I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)}}$$

$$\text{CGPA for the programme} = \frac{\text{CP (I Sem)} + \text{CP(II Sem)} + \text{CP(III Sem)} + \text{CP (IV Sem)}}{\text{Credits(I Sem)} + \text{Credits(II Sem)} + \text{Credits(III Sem)} + \text{Credits(IV Sem)}}$$

(\*CP: Credit Points)

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## **Program Outcomes**

1. As Sanskrit is the classical language and Mother of all Indian languages except Dravidian languages. All Indian languages are included in eighth schedule of the Indian Constitution. There is a Sanskrit language which is in number of 17<sup>th</sup>. Sanskrit belongs to the Indo-European family of languages. It is one of the three earliest ancient documented languages arose from common root language now referred to as Proto-Indo-European language. Most of the Indian Historical documents are available in Sanskrit language. Indian literature, culture, contribution of spiritual thoughts are documented in Sanskrit language also. The student will learn these things by the end of the programme.
2. The student will be aware of the fact that Sanskrit is the classical language of India.
3. He will realize that translation work is essential in education, more so, imparting of Sanskrit language skills and literature is essential for defining Indians in ancient days.
4. He will learn that Vedic literature, classical literature, and its Relevancy in modern days.
5. He will learn that Sanskrit language encourages conducting the Research and translation work. All that will be oriented towards empowering the students for employees.

## **Program Specific Outcomes**

1. Sanskrit language and literature is taught to run Sanskrit paathashaala, colleges, and universities also which institutions are having a Sanskrit subject as a MIL and optional. The students will be able to acquire proficiency in Sanskrit for employability.
2. Understand the Indian (Rishis) spiritual knowledge and worship of Nature.
3. MA Sanskrit graduates are getting opportunity to conduct Research regarding linguistic works and its Research in modern days. They are able to conduct research, teaching regarding languages and its importance for other Disciplinary.

**P.G. Department of Studies in Sanskrit  
Syllabus 2020-21 onwards**

Department : P.G. Department of Studies in Sanskrit  
Course : M.A. in Sanskrit

| I Semester | II Semester | III Semester | IV Semester |
|------------|-------------|--------------|-------------|
| PG52T101   | PG52T201    | PG52T301     | PG52T401    |
| PG52T102   | PG52T202    | PG52T302     | PG52T402    |
| PG52T103-A | PG52T203-A  | PG52T303-A   | PG52T403    |
| PG52T103-B | PG52T203-B  | PG52T303-B   | PG52T404-A  |
| PG52T104-A | PG52T204-A  | PG52T304-A   | PG52T404-B  |
| PG52T104-B | PG52T204-B  | PG52T304-B   | PG52T405    |
| PG52T105   | PG52T205    | PG52T305     |             |

(**Note:** Each paper is for 100 marks of which 75 marks are for the semester end theory exam; 22 marks are for one internal test and one assignment(each for 11 marks) and 3 marks are for attendance. 75 % of attendance is compulsory; if the student has 76 to 80 % he/she will get 1 mark; if he/she has 81 to 90% he/she will get 2 marks; and if he/she has 91 % and above he/she will get 3 marks)

**Course & Code: M. A. (27) in Sanskrit (52)**

**Semester : First Semester**

| Course Code | Courses Name                         | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|--------------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                    | IA         | Written Sem. Exam |             |               |           |
| PG52T101    | Sanskrit Champu                      | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T102    | Panini Grammar and Composition       | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T103-A  | Upanisad and Geeta                   | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                            |            |                   |             |               |           |
| PG52T103-B  | Kalidasa as a Poet                   | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>         |            |                   |             |               |           |
| PG52T104-A  | Vedanta Shastra – I                  | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                            |            |                   |             |               |           |
| PG52T104-B  | Alankara Shastra – I                 | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T105    | Patanjala Yoga Sutra (I-Samadhipada) | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>         | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Semester : Second Semester**

| Course Code | Courses Name                        | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|-------------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                   | IA         | Written Sem. Exam |             |               |           |
| PG52T201    | Sanskrit Poetry                     | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T202    | Vyakarana Mahabhashya & Linguistics | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T203-A  | Vedic Literature                    | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                           |            |                   |             |               |           |
| PG52T203-B  | Kalidasa as a Dramatist             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>        |            |                   |             |               |           |
| PG52T204-A  | Vedanta Shastra – II                | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                           |            |                   |             |               |           |
| PG52T204-B  | Alankara Shastra – II               | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Open Elective Course</b>         |            |                   |             |               |           |
| PG52T205    | Sanskrit Prose & Poetry             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>        | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Semester : Third Semester**

| Course Code | Courses Name                    | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|---------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course               | IA         | Written Sem. Exam |             |               |           |
| PG52T301    | Sanskrit Drama & Dramaturgy     | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T302    | Veda                            | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T303    | Yajnavalkya Smriti              | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>    |            |                   |             |               |           |
| PG52T304A   | Select Darshana - I             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                       |            |                   |             |               |           |
| PG52T304B   | History of Sanskrit Poetics – I | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Open Elective Course</b>     |            |                   |             |               |           |
| PG52T305    | Mahabharata Katha Sourabha      | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>    | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Semester : Fourth Semester**

| Course Code | Courses Name                     | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|----------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                | IA         | Written Sem. Exam |             |               |           |
| PG52T401    | Sanskrit Prose                   | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T402    | Yaska's Nirukta                  | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T403    | Kautilya's Arthashastra          | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>     |            |                   |             |               |           |
| PG52T404A   | Select Darshana - II             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | OR                               |            |                   |             |               |           |
|             | History of Sanskrit Poetics - II | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T405    | Dissertation                     | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>     | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Semester : First Semester**

| Course Code | Courses Name                         | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|--------------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                    | IA         | Written Sem. Exam |             |               |           |
| PG52T101    | Sanskrit Champu                      | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T102    | Panini Grammar and Composition       | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T103-A  | Upanishad and Geeta                  | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                            |            |                   |             |               |           |
| PG52T103-B  | Kalidasa as a Poet                   | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>         |            |                   |             |               |           |
| PG52T104-A  | Vedanta Shastra – I                  | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                            |            |                   |             |               |           |
| PG52T104-B  | Alankara Shastra – I                 | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T105    | Patanjala Yoga Sutra (I-Samadhipada) | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>         | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Compulsory Course****PG52T101- SANSKRIT CHAMPU****Course Outcomes:**

At the end of the course, the students will be able to-

1. Understand the Indian kavya literature.
2. Get the knowledge of comparative study between Valmiki Ramayana and Champu Ramayana.
3. Life of Rama and other characters ethical values.
4. Get acquainted with major writers and texts of different forms of this period.

**Text** – Champu Ramayana (Balakanda only)

**Books Recommended:**

1. Dr. Mahesh Adakoli -Champu Ramayana (Balakanda) (with Sanskrit text & Kannada. Translation), Abhijnana, Bangalore, 2007.
2. Sri. Ramachandra Mishra- Champu Ramayana (Balakanda) (With Sanskrit Text and Hindi Translation), Chawkhamba, Vidya Bhavan, Varanasi, 1989.
3. Dr. K.B. Archak-Champu Ramayana (Balakanda) (with Sanskrit text English. Translation and Explanation), Ramashraya Book Depot. and Prakashana, Dharwad, 2007.
4. कालूरि हनुमन्तरावः श्रीमद्वाल्मीकिरामायणम् (बालकाण्डम्-अयोध्याकाण्डम्)
5. Srimadvaalamiki Ramayanam (Balakanda and Ayodhyakanda) Author: Graphics, Baglingapally, Hyderabad-44, 1997

**Pattern of the Question Paper I**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Passage for Translation and Explanation from the Text (With internal choice)                          | 12 Marks |
| 3. Sentences for annotation from the text (any 5 out of 7)                                               | 20 Marks |
| 4. Essay type questions from the text prescribed (any 3 out of 5)                                        | 24 Marks |
| 5. Short notes from the text (any 3 out of 5)                                                            | 09 Marks |

|                |                 |
|----------------|-----------------|
| <b>Total :</b> | <b>75 Marks</b> |
|----------------|-----------------|

**PG52T102- PANINI GRAMMAR AND COMPOSITION (100 Marks)****Course Outcomes:**

1. Understand Sanskrit Grammar according to Maharshi Panini. In pre-historic period. The students will be aware of this by the end of the course.
2. The students will learn to write an essay in Sanskrit Language and in olden days also there is communication language it is. the literary merits of the great Indian grammarian like Katyayana, Vararuchi Patanjali Maharshi.
3. Will study the Laghusiddhanta Koumudi

**Text-** 1. Laghusiddhanta Kaumudi (Samjna and Sandhi only)  
2. Nibandha Navaneetam

**Books Recommended:**

1. Laghu Siddhanta Koumudi, (Tulasi Kannada Vyakhya)-R. Satyanarayanachar
2. Mahesh Simha Kushavaha-Laghusiddhanta Kaumudi (Hindi Edition), Chowkhamba Vidya Bhavan, Varanasi, 1984.
3. G. Vishnumurthy Bhat, Paniniya Pravesika, Part I (Kannada Edition), Bangalore, 1981.
4. V.V. Mirashi - Laghusiddhanta Kaumudi of Varadaraj (Eng. Edition), Motilal Banarasi Dass, New Delhi, 1989.
5. Dr. R. Satyanarayanan, Laghusiddhantakoumudi-Vol-I (Kan Ed.) Sacchidananda Advaitaashashrama Trust Bangaluru-10
6. Laghusiddhantakoumudi (Hindi)

**Pattern of the Question Paper II**

|                                                                                                          |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. Sutras for explanation (any 4 out of 6)                                                               | 16 Marks        |
| 3. Vartikas for explanation (any 4 out of 6)                                                             | 16 Marks        |
| 4. a) Splitting the examples from Sandhi Prakarana (any 3 out of 5)                                      | 09 Marks        |
| b) Short Notes (any 3 out of 5)                                                                          | 09 Marks        |
| 5. a) Passage for Translation into Sanskrit                                                              | 05 Marks        |
| b) Essay writing in Sanskrit                                                                             | 10 Marks        |
| <b>Total :</b>                                                                                           | <b>75 Marks</b> |

**PG52T103 (A)- UPANISHAD AND GEETA**

**Course Outcomes:**

1. This paper introduces the Upanishads to the students .student will get the knowledge of atmajnaana according to Kenopanishad and geeta. understanding trigunas and life style of saadhaka. The students will get by the end of the course, analyse jeevaatma and paramatma,
2. The students will study such great adi guru Sri Shankraachaarya and Advaita philosophy.

**Texts :-** 1) Kenopanishad

2) Bhagavadgeeta (14, 15 & 16 Adhayayas only) (20 Marks)

**Books Recommended:**

1. Chidbhavananda- Upanisadbhavadhare, Ramakrishna Ashrama, Bangalore.
2. Kenopanishad (Shankarabhashya), Adhyatma Prakash Karyalaya, Holenarasipur.
3. S. Radhakrishna – Bhagavadgita, Delhi.
4. B. G. Tilak – Gitarahasya, Pune.
5. R. D. Ranade – The Bhagavadgita as a Philosophy of God Realization, Bombay.
6. Aurobindo – Message of the Gita, Pondicherry.
7. Somanathananda- Gita Bhavadhare, Ramakrishna Ashrama, Bangalore.

**Pattern of the Question Paper III**

|                                                                                                                      |                 |
|----------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions from the texts Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. a) Verses/Passage from the Upanishad for Translation and Explanation (any 3 out of 5)                             | 09 Marks        |
| b) Verses from the Geeta for Translation and Explanation (any 3 out of 5)                                            | 09 Marks        |
| 3. Sentences for annotation from the Upanisad (any 4 out of 6)                                                       | 16 Marks        |
| 4. Essay type question from the Upanisad with internal choice                                                        | 15 Marks        |
| 5. Short notes from the Geeta (any 4 out of 6)                                                                       | 16 Marks        |
| <b>Total :</b>                                                                                                       | <b>75 Marks</b> |

OR

**PG52T103(B) KALIDASA AS A POET**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand various theories of comparing and criticizes the theme of Kavyas.
2. Understand the kavya literature of regional literature in Translation.
3. Kalidasa and his work will help to understand the ancient Indian culture.
4. Kalidasa's Imaginary and creative writings are more connecting the people for his Nature narration.

**Texts** – Raghuvarsha, Kumarasambhava, Meghaduta and Ritusamhara

**Books Recommended:**

1. V. V. Mirashi – Kalidasa
2. Dr. K. Krishnamurthy – Sanskrit Kavya, Prasanga, Mysore, 1978.
3. R. D. Karmarkar- Kalidasa, Karnatak University, Dharwad, 1982.
4. Adya Rangacharya – Kalidasa, Mysore, 1979.
5. Krishnamachariar – History of Sanskrit Literature, Motilal Banarasi Dass, Delhi, 1997.
6. Dr. M. Shivakumarswamy - Samkshipta Sanskrit Sahitya Itihasa, Bangalore University, Bangalore, 1996.
7. Dr. M.N. Joshi – Sanskrit Sahityaparichaya, Roopa Publications, Dharwad, 2004.
8. Prof. C.S. Naikar-Meghadoota, Megha Publishers, Dharwad-2018

**Pattern of the Question Paper III**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 15 Marks |
| 3. Essay type question (With internal choice)                                                            | 15 Marks |
| 4. Essay type question (With internal choice)                                                            | 15 Marks |
| 5. Short notes (any 4 out of 6)                                                                          | 20 Marks |

**Total : 75 Marks**

**Specialization Course**

**PG52T104(A)- VEDANTA SHASTRA-I**

**Course Outcomes:**

1. Students will get the knowledge of Upanishads according to Madhva philosophy.
2. It introduces Madhva Tradition.

**Text** - *Vishnutattvanirnaya of Madhva*

**Books Recommended:**

1. K.T. Pandurangi-Vishnutattvanirnaya of Madhva, Dwaita Vedanta Foundation, Bangalore.
2. S.S. Raghavacharya- Vishnutattvanirnaya of Madhva, Bangalore.

**Pattern of the Question Paper IV**

|                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Passage for Translation & Explanation (with internal choice)                                          | 10 Marks |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks |
| 4. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 6. Short notes (any 2 out of 4)                                                                          | 10 Marks |

**Total : 75 Marks**

**OR**

**PG52T104 (B)- ALANKARASHASTRA-I**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the meaning, nature and scope of Alankaras
2. This course introduces about Rajashekhara Sanskrit poet and dramatist.
3. Get acquainted the writing poems, poets lifestyle, methods of writing poems, Types of writing poems, types of kavvyas, introduces types of poets and their characters.

**Text - Kavyamimamsa of Rajashekhara (I to IX Chapters only)**

**Books Recommended:**

1. ರಾಜಶೇಖರ-ಕಾವ್ಯಮೀಮಾಂಸೆ, ಭಾಷಾಂತರ- ಡಾ.ಕೆ.ಬಿ. ಅರ್ಚಕ, ಧಾರವಾಡ.
2. Sadhana Paraskar - Kavyamimamsa of Rajashekhara, D.K. Printworld (P) Ltd, New Delhi, 2000.
3. Kedarnath Sharma- Kavyamimamsa (Hindi), Bihar Rashtrabhasha Parishat, Patna, 1965.
4. Dr. K. Krishnamurthy- Rajashekhara Kavyamimamsa (Kan.), Kavyalaya Publishers, Mysore, 1975.
5. Dr. Gangasagar Ray, Kavyamimamsa of Rajashekhara (Hin) Choukamba Vidyabhavan, Varanasi-2013
6. Dr. K.B. Archak-Kavyamimamsa of Rajashekhara Part-I, (Translation and Explanation with notes in Kannada)

**Pattern of the Question Paper IV**

|                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Passage for Translation & Explanation (with internal choice)                                          | 10 Marks |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks |
| 4. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 6. Short notes (any 2 out of 4)                                                                          | 10 Marks |

**Total : 75 Marks**

## PG52T105-PATANJALA YOGASUTRA

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the meaning and nature of Yoga and practices.
2. Get acquainted features of Yogi and his mindset.
3. Get acquainted Indriya Nigraha

### Text – Patanjala Yogasutra (Pratham Pad)

### Books Recommended:

1. ಪಾತಂಜಲ ಯೋಗಸೂತ್ರ, ವೇದಾಂತ ಕೇಸರಿ ಶ್ರೀ ಮಲ್ಲಿಕಾರ್ಜುನ ಮಹಾಸ್ವಾಮಿಗಳು, ಜ್ಞಾನಯೋಗ ಫೌಂಡೇಶನ್, ಜ್ಞಾನಯೋಗಾಶ್ರಮ, ವಿಜಾಪುರ, 2003.
2. R.S. Bhattacharya, “An introduction to the Yogasutra” New Bharatiya Book Corp.

### Pattern of the Question Paper IV

1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) 10 Marks
2. Passage for Translation & Explanation (with internal choice) 10 Marks
3. Sentences for annotation from the text (any 3 out of 5) 15 Marks
4. Essay type questions from the text prescribed (with internal choice) 15 Marks
5. Essay type questions from the text prescribed (with internal choice) 15 Marks
6. Short notes (any 2 out of 4) 10 Marks

**Total : 75 Marks**

## SECOND SEMESTER

**Course : M.A. in Sanskrit**

**Semester : Second**

| Course Code | Courses Name                        | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|-------------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                   | IA         | Written Sem. Exam |             |               |           |
| PG52T201    | Sanskrit Poetry                     | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T202    | Vyakarana Mahabhashya & Linguistics | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T203-A  | Kalidasa as a Dramatist             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                           |            |                   |             |               |           |
| PG52T203-B  | Vedic Literature                    | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>        |            |                   |             |               |           |
| PG52T204-A  | Vedanta Shastra – II                | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>OR</b>                           |            |                   |             |               |           |
| PG52T204-B  | Alankara Shastra – II               | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Open Elective Course</b>         |            |                   |             |               |           |
| PG52T205    | Sanskrit Prose & Poetry             | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>        | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

## Compulsory Course

### PG52T201-SANSKRIT POETRY

#### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the socio-cultural history of Indian mainly of dwaparayuga and shri Krishnas' Victory against shishupala.
2. Get acquainted with major writers and forms of literature of the period with their uniqueness. like Magha and his works
3. Get acquainted with major concerns of the writers of this period.

**Text** – Shishupalavadha of Magha (I & II Cantos)

#### Books Recommended:

1. Shree Pandit Haragovindashastri Mahakavi श्रीमाघप्रणीतम् शिशुपालवधम्, Choukhambha Vidya Bhavan-Ed.2013
2. Paul Dundas Shishupalavadham with English Notes-2017, Hindi Grantha Kaaryalaya, Mumbai-400004
3. Shishupalavadha of Magha Vallabhadeva Tika,
4. Author: Ramachandra Kak and Harabhattachastri, Ed.1935- Kashmir, Shrinagara
5. Author: Prof. S.V. Dixit, Sanskrit Text with English, Notes-1966 Nuton Prakashan, Belgaum.

#### Pattern of the Question Paper V

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Verses from the text for translation and explanation (any 4 out of 6)                                 | 16 Marks |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks |
| 4. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 12 Marks |
| 5. Short notes from the text (any 2 out of 4)                                                            | 10 Marks |

**Total : 75 Marks**

### PG52T202-VYAKARANA MAHABHASHYA AND LINGUISTICS

#### Course Outcomes:

1. The paper deals with grammar of Sanskrit according Patanjali Maharshi.
2. The students will study the linguistic methods for teaching as well as linguistic family of groups.

**Text** – 1) Patanjali's Vyakarana Mahabhashya (Pashpasha Ahnika)  
2) Sanskrit Bhasha Shastra

#### Books Recommended:

1. Charudev Shastri - *Vyakarana Mahabhashya*, Motilal Banarasidass, Delhi.
2. Chatterjee-Patanjali's *Vyakarana Mahabhashya* (Pashpasha Ahnika) (English Edition), New Delhi.
3. ಡಾ.ಕೆ.ಕೃಷ್ಣಮೂರ್ತಿ-ಸಂಸ್ಕೃತ ಭಾಷಾಶಾಸ್ತ್ರ ಮತ್ತು ಇತಿಹಾಸ (ಪುಟ. 1 ರಿಂದ 59) ಚಾಮರಾಜ ಸಂಸ್ಕೃತ ಮಹಾವಿದ್ಯಾಲಯ, ಬೆಂಗಳೂರು,
4. Dr. Rajkishor Singh – *Sanskrit Bhasha Vijnana*, Vinod Pustak Mandir, Agra, 2002.

### **Pattern of the Question Paper VI**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Pratikas from the text (any 3 out of 5)                                                               | 12 Marks |
| 3. Essay type question on the Mahabhashya (with internal choice)                                         | 12 Marks |
| 4. Essay type question on Sanskrit Linguistics (with internal choice)                                    | 12 Marks |
| 5. Essay type question on Sanskrit Linguistics (with internal choice)                                    | 12 Marks |
| 6. a) Short notes from the Mahabhashya (any 2 out of 4)                                                  | 08 Marks |
| b) Short notes from the Linguistics (any 3 out of 5)                                                     | 09 Marks |

**Total :** 

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**75 Marks**

### **Specialization Course**

### **PG52T203(A) - VEDIC LITERATURE**

#### **Course Outcomes:**

1. This paper aims at introducing Vedic literature in terms of Veda and Vedangas; and the students will be acquainted with Vedic knowledge and Vedic tradition.
2. The students will study Mantra drashtaras, (Rishis) and vedic practices in ancient India.

#### **Books Recommended:**

1. N. S. Anantarangacharya - Vaidika Sahitya Charitre (Kan.), D.V. K. Murthy, Mysore, 2001.
2. M. Winternitz – History of Indian Literature (Vol. I), Motilal Banarasidass, Delhi, 2001.
3. V. S. Ghatge – Lectures on the Rigveda, Popular Books Agency, Pune.
4. Max Muller– Ancient Sanskrit Literature, Motilal Banarasidass, New Delhi.
5. Macdonell–History of Sanskrit Literature, Motilal Banarasidass, New Delhi.
6. Dr. M.N.Joshi–Rgveda Sukta Manjari, Roopa Publications, Dharwad, 2007.

### **Pattern of the Question Paper VII**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 14 Marks |
| 3. Essay type question (With internal choice)                                                            | 14 Marks |
| 4. Essay type question (With internal choice)                                                            | 14 Marks |
| 5. Essay type question (With internal choice)                                                            | 14 Marks |
| 6. Short notes (any 3 out of 5)                                                                          | 09 Marks |

**Total :** 

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**75 Marks**

## PG52T203(B)- KALIDASA AS A DRAMATIST

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understand the socio-cultural history through ancient regional literature in Sanskrit Dramas.
2. Get acquainted with the major concerns of Indian Sanskrit Dramatist
3. Get acquainted with the prominent writers in classical language

**Texts** – *Abhijnanashankutalam*, *Vikramorvashiyam* and *Malavikagnimitram*.

### Books Recommended

1. A. R. Krishnashastry - *Sanskrit Nataka*, Prasaraanga, Mysore.
2. R. D. Karmarkar- *Kalidasa*, Karnatak University, Dharwad, 1982.
3. Adya Rangacharya – *Kalidasa*, Mysore, 1979.
4. Krishnamachariar – *History of Sanskrit Literature*, Motilal Banarasi Dass, Delhi, 1997.
5. Dr.M. Shivakumarswamy- *Samkshipta Sanskrit Sahitya Itihasa*, Bangalore University, Bangalore, 1996.
6. S. S. Janaki – *Sanskrit Drama in Theory and Practice*, R. S. S., Delhi, 1995.

### Pattern of the Question Paper VII

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 15 Marks |
| 3. Essay type question (With internal choice)                                                            | 15 Marks |
| 4. Essay type question (With internal choice)                                                            | 15 Marks |
| 5. Short notes (any 4 out of 6)                                                                          | 20 Marks |

**Total :** 

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 **75 Marks**

## PG52T204(A)- VEDANTA SHASTRA –II

### Course Outcomes:

1. This paper aims at providing comparison and analysis as tools of study. The students will acquire these insights for comparative study of Advaita, Dvaita and Vishishtadvaita siddhantas.
2. The students will have a comparative understanding of Jeevatma and paramatma concept.

**Texts-** *Yatindramata Deepika of Srinivasa*

### Books Recommended:

1. ರಾಮಾನುಜದರ್ಶನ- ಡಾ.ಎನ್.ಎಸ್. ಅನಂತರಂಗಾಚಾರ್ಯ, ಬೆಂಗಳೂರು.
2. Yatindra Mata Dipika of Srinivasadasa-Trstd by-Swami Adidevananda.
3. Yatindra Mata Dipika by- Srinivasa-Translation and Notes by-Govindacharya Swami.

### Pattern of the Question Paper VIII

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Passage for Translation & Explanation (with internal choice)                                          | 10 Marks |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks |
| 4. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 15 Marks |
| 6. Short notes (any 2 out of 4)                                                                          | 10 Marks |

**Total :** 

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 **75 Marks**

OR

**PG52T204(B) – ALANKARA SHASTRA-II**

**Course Outcomes:**

1. Introduces of Sanskrit poet -Anandavardhana author of Dhvanyaloka .The student will know this author and his works.
2. Anandavardhana's Dhvani siddhanta student will get the knowledge of this by studying this course.

**Texts** – *Dhvanyaloka of Anandavaardhana* (I & II Chapters)

**Books Recommended:**

1. K. Krishnamurthy – *Dhvanyaloka*, Karnatak University, Dharwad.
2. K. Krishnamurthy – *Dhvanyaloka and its Critics*, Mysore.
3. K. Krishnamurthy – *Kannada Dhvanyaloka Mattu Locanasara* (Kan.), Mysore.
4. H. Tipperudraswamy – *Taulanika Kavya Mimamsa* (Kan.).

**Pattern of the Question Paper VIII**

|                                                                                                          |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. Passage for Translation & Explanation (with internal choice)                                          | 10 Marks        |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks        |
| 4. Essay type questions from the text prescribed (with internal choice)                                  | 12 Marks        |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 12 Marks        |
| 6. Short notes (any 4 out of 6)                                                                          | 16 Marks        |
| <b>Total :</b>                                                                                           | <b>75 Marks</b> |

**Open Elective Course**

**PG52T205- SANSKRIT PROSE AND POETRY (OEC)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Understand the basic aspects of Sanskrit kavya
2. Get acquainted with the major literary movements in Sanskrit literature.
3. Get acquainted with the prominent forms and writers of Sanskrit literature.

**Text** – *Sanskrit Vangmaya Manjusha-* Ramashraya Publications, Dharwad

**Pattern of the Question Paper II**

|                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (08 out of 10) | 10 Marks |
| 2. Verses for Translation and Explanation from the Text (any 3 out of 5)                                 | 15 Marks |
| 3. Sentences for annotation from the text (any 4 out of 6)                                               | 20 Marks |
| 4. Essay type questions from the text prescribed (any 2 out of 4)                                        | 20 Marks |
| 5. Short notes from the text (any 2 out of 4)                                                            | 10 Marks |

**Total : 75 Marks**

**Course : M. A. in Sanskrit**

**Semester : Third**

| Course Code | Courses Name                     | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|----------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                | IA         | Written Sem. Exam |             |               |           |
| PG52T301    | Sanskrit Drama & Dramaturgy      | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T302    | Veda                             | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T303    | Yajnavalkya Smriti               | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>     |            |                   |             |               |           |
| PG52T304A   | Select Darshana - I<br><b>OR</b> | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T304B   | History of Sanskrit Poetics – I  | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Open Elective Course</b>      |            |                   |             |               |           |
| PG52T305    | Mahabharata Katha Sourabha       | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>     | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

### **Compulsory Course**

#### **PG52T301- SANSKRIT DRAMA AND DRAMATURGY**

##### **Course Outcomes:**

At the end of the course, Students will be able to-

1. In this course will be taught the students about Drama and its features, types of Rupaka and Uparupakas.
2. Student will get the knowledge about sanskrit Dramatists. One of the great poet Bhavabhooti and his works.
3. Dhananjaya is the author who is framed rupakas according to Bharatamuni. Student will learn end of this course.

**Text-** 1. Bhavabhuti's Uttararama Charitam

2. Dhananjaya's Dasarupaka ( I chapter only)

##### **Books Recommended:**

1. Dr. K. Krishnamurthy– Bhavabhutiya Uttararama Charita (Kan.) Karnatak University, Dharwad.
2. R. D. Karmakar - Bhavabhuti Uttararama Charita (Eng.) Belgaum.
3. S. V. Dixit – Bhavabhuti, Belgaum.
4. K.V. Subbanna, Dasarupaka (Kan. Edn.) Sagara, 1992.
5. H. H. Wilson, Dasarupaka, Motilal Banarasidass, Delhi.

#### **Pattern of the Question Paper IX**

- |    |                                                                                                       |          |
|----|-------------------------------------------------------------------------------------------------------|----------|
| 1. | Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2  | a) Verses for Translation and Explanation from the Uttararamacharita (any 3 out of 5)                 | 12 Marks |
|    | b) Verses for Translation from the Dasarupaka (any 3 out of 5)                                        | 09 Marks |
| 3. | Sentences for annotation from the Uttararamacharita (any 4 out of 6)                                  | 16 Marks |
| 4. | Essay type questions from the text Dasarupaka (with internal choice)                                  | 16 Marks |
| 5. | Short notes from the texts Uttarama Charite (any 3 out of 5)                                          | 12 Marks |

**Total :**

**75 Marks**

## PG52T302- VEDA

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understands the about Veda and Vedic Hymns.
2. Student will get the knowledge of Vedic Deities (Devadas)

**Texts** – Rigveda Sukta Manjari of Dr. M. N. Joshi (Selected Portion only)

(Suktas: Rubhava IV.37, Savitra (III.38), Agni-I, Brahaspati IV.50, Ushas IV.51, Manduka VII.103, Akshasukta X.34, Nadisukta X.75, Samvadasukta X.95, Danasukta X.117, Ratriksukta X.127, Nasadiyasukta X.129 Vishnu I.1)

### Books Recommended:

1. Dr. M.N. Joshi - *Rigveda Sukta Manjari*, Roopa Prakashana, Dharwad, 2007.
2. *Rigveda Samhita* with the commentary of Sayanacarya Ed. Sonatakkae and Kashikar Vol.I–V, Vaidika Samsodhana Mandala, Poona, Maharashtra, 1983.
3. *Rgvedasamhita*, (Sri Jayachamarajendra Vedaratnamala), Mysore, Vol I-XXX.
4. A.A. Macdonnel – *Vedic Reader for Students*, Motilal Banarasidass, New Delhi.
5. A. A. Macdonnel – *Vedic Grammar*, Motilal Banarasidass, New Delhi.

### Pattern of the Question Paper X

|                                                                                                          |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. Mantras for Translation and Explanation from the text (any 4 out of 6)                                | 16 Marks        |
| 3. Sentences for annotation from the text (any 4 out of 6)                                               | 16 Marks        |
| 4. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks        |
| 5. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks        |
| 6. Short notes from the texts (any 3 out of 5)                                                           | 09 Marks        |
| <b>Total :</b>                                                                                           | <b>75 Marks</b> |

## PG52303- YAJNAVALKYA SMRITI

### Course Outcomes:

At the end of the course, Students will be able to-

1. Understands the spritis, types of smritis.
2. Student will get an ability to apply the vyavahara in modern days.
3. Student will analyze the knowledge of Taxation, expenditure marketing modern days as well as modern days.

**Text** – Yajnavalkya Smriti (Vyavahara Adhyaya –

- I Prakarana (Sadharna Vyavahara)
- II Prakarana (Asadharana Vyavahara)
- V Prakarana (Sakshi)
- VI Prakarana (Lekhya)
- VII Prakarana (Divya)

### Books Recommended:

1. Yajnavalkya Smriti with Vijnana Bhikshu's Commentary, Chaukhambha Vidya Bhavan, Varanasi, 1988.
2. Nagesh Kulkarni - Yajnavalkya Smriti, Samaja Book Depot, Dharwad, 1980.
3. याज्ञवल्क्य स्मृति का समीक्षात्मक अध्ययन, ईस्टर्न बुक लिंकर्स, दिल्ली, 1998.
4. P.V. Kane–History of Dharmashastra (I to V Volumes), Motilal Banarasidass, Delhi.

### Pattern of the Question Paper XI

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Verses for Translation and Explanation from the Text (any 4 out of 6)                                 | 16 Marks |
| 3. Sentences for annotation from the text (any 3 out of 5)                                               | 15 Marks |
| 4. Essay type questions from the text prescribed (with internal choice)                                  | 12 Marks |
| 5. Essay type questions from the text prescribed (with internal choice)                                  | 12 Marks |
| 6. Short notes from the text (any 2 out of 4)                                                            | 10 Marks |

**Total :** 75 Marks

### **Specialization Course**

#### **PG52T304A SELECT DARSHANA – PART I**

##### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Darshana and its introduction will help the student to learn philosophical views of (Bharateya) Indian Tradition.
2. Charvaka, Bauddha, Jaina, Nyaya and Mimamsa these Darshana's will be taught by the students. According to Sayana Maadhava they will get this knowledge.
3. Students can develop their spiritual analytical thinking.

**Text**– Sayana Madhava's *Sarva-darshana-sangraha* (*Charvaka, Bauddha, Jaina, Nyaya and Mimamsa*)

##### **Books Recommended:**

1. Sayana Madhava–Sarvadarshanasangraha (relevant chapters only), Anand Ashram, Pune.
2. S. Radhakrishnan – Indian Philosophy, Vols I & II, New Delhi.
3. Datta & Chatterjee – An Introduction to Indian Philosophy, New Delhi.
4. Hiriyanna – Essentials of Indian Philosophy, New Delhi.
5. Max Muller – Six Systems of Indian Philosophy, New Delhi.
6. S.N. Dasgupta – History of Indian Philosophy, New Delhi.
7. S.N.Raghavendracharya–Bharatiya Tattvashastra Sangraha (Kan.) Mysore.

### Pattern of the Question Paper XII

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 14 Marks |
| 3. Essay type question (With internal choice)                                                            | 14 Marks |
| 4. Essay type question (With internal choice)                                                            | 14 Marks |
| 5. Essay type question (With internal choice)                                                            | 14 Marks |
| 6. Short notes (any 3 out of 5)                                                                          | 09 Marks |

**Total :** 75 Marks

OR

**PG52T304B- HISTORY OF SANSKRIT POETICS –I**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Students will get the ability to learn and analyse the Sanskrit Poetics as well as poets works.
2. Sanskrit poetics like Bharata, Bhamaha, Dandin etc. are very important poets because of their valuable contribution to the Sanskrit Aesthetic, Kavyaloka. Student will able to know about these poets.
3. Sanskrit Alankara's and its developments by the Sanskrit Poetics it will be the main them of this course. Student will know about this at the end of this course.

**Texts -**

- |                         |                            |
|-------------------------|----------------------------|
| 1. Bharata (300 AD)     | 2. Bhamaha (680 AD)        |
| 3. Dandin (700 AD)      | 4. Vamana (800 AD)         |
| 5. Rudrata (875 AD)     | 6. Anandavardhana (890 AD) |
| 7. Rajshekhara (910 AD) |                            |

**Books Recommended:**

1. P. V. Kane – *History of Sanskrit Poetics*, Motilal Banarasidass, Delhi, 2002.
2. T.N.Srinkanthayya - *Bharatiya Kavya Mimamsa* (Kan.) Mysore
3. H. Tipperudraswamy – *Taulanika Kavya Mimamsa* (Kan.).
4. Marulasiddaiah – *Bharata Natya Shastra*, Mysore
5. Krishna Chaitanya – *Sanskrit Poetics* (A critical and Comparative Study), Asia Publishing House, New Delhi.
6. S. Ramachandra Shastri – *Sanskrita Sahityada Itihasa* (Kan.), Prasaranga, Bangalore University, Bangalore

**Pattern of the Question Paper XII**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 14 Marks |
| 3. Essay type question (With internal choice)                                                            | 14 Marks |
| 4. Essay type question (With internal choice)                                                            | 14 Marks |
| 5. Essay type question (With internal choice)                                                            | 14 Marks |
| 6. Short notes (any 3 out of 5)                                                                          | 09 Marks |

**Total : 75 Marks**

**Open Elective Course**

**PG52T305 MAHABHARATA KATHA SOURABHA (OEC)**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Student will get the knowledge about Mahabharata and its selected stories.
2. At the end of this course student will get the knowledge moral values and life skills.
3. Students will get the knowledge by varies chapters like “उपमन्योः गुरुभक्तिः, कणिकनीति उपदेशः, त्रयोः मत्स्याः, etc.

**Text–** Mahabharata Katha Sourabha-Dr.K.B.Archak, Ramashraya Book Depot & Prakashana, Dharwad, 2006.

**Books Recommended:**

1. L. N. Rangarajan – *Kautilya is Arthashastra*, Penguin Books, New Delhi, 1992.
2. Prabhusing – *Prachina Bharat Me Arthashastra*, Chaukhambha Vidya Bhavan, Varanasi.

**Pattern of the Question Paper II**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (08 out of 10) | 10 Marks |
| 2. Verses for Translation and Explanation from the Text (any 3 out of 5)                                 | 15 Marks |
| 3. Sentences for annotation from the text (any 4 out of 6)                                               | 20 Marks |
| 4. Essay type questions from the text prescribed (any 2 out of 4)                                        | 20 Marks |
| 5. Short notes from the text (any 2 out of 4)                                                            | 10 Marks |

**Total : 75 Marks**

**Course : M. A. in Sanskrit**

**Semester : Fourth**

| Course Code | Courses Name                     | Max Marks  | Max Marks         | Total Marks | Hrs / Week    | Credits   |
|-------------|----------------------------------|------------|-------------------|-------------|---------------|-----------|
|             | Compulsory Course                | IA         | Written Sem. Exam |             |               |           |
| PG52T401    | Sanskrit Prose                   | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T402    | Yaska's Nirukta                  | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T403    | Kautilya's Arthashastra          | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Specialization Course</b>     |            |                   |             |               |           |
| PG52T404A   | History of Sanskrit Poetics - II | 25         | 75                | 100         | 4 hrs         | 04        |
|             | OR                               |            |                   |             |               |           |
| PG52T404B   | Select Darshana - II             | 25         | 75                | 100         | 4 hrs         | 04        |
| PG52T405    | Dissertation                     | 25         | 75                | 100         | 4 hrs         | 04        |
|             | <b>Total Marks / Credits</b>     | <b>125</b> | <b>375</b>        | <b>500</b>  | <b>20 hrs</b> | <b>20</b> |

**Compulsory Course**

**PG52T401 SANSKRIT PROSE**

**Course Outcomes:**

At the end of the course, Students will be able to-

1. Students will study about author Bana and his works.
2. Bana's Kadambari is one of the great text in Sanskrit Literature. It indicates the poets imaginary and wonderful narration of the nature of Indian ancient period. Students will get the knowledge about this and they will admire the nature.
3. Students will able to translate the Sanskrit works.

**Text–** Kadambari of Bana (Mahashveta Vrittantam)

**Books Recommended:**

1. Bana's Kadambari (महाश्वेतावृत्तान्तम्) (Hindi) Chaukhambha Vidya Bhavan, Varanasi.
2. M.R.Kale-Bana's Kadambari (Text with English Translation and notes), Motilal Banarasidass, New Delhi.
3. Neeta Sharma – Bana and His Works, Motilal Banarasidass, New Delhi.

**Pattern of the Question Paper XIII**

|                                                                                                          |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. Passage for Translation and Explanation from the Text (With internal choice)                          | 12 Marks        |
| 3. Sentences for annotation from the text (any 5 out of 7)                                               | 20 Marks        |
| 4. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks        |
| 5. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks        |
| 6. Short notes from the text (any 3 out of 5)                                                            | 09 Marks        |
| <b>Total :</b>                                                                                           | <b>75 Marks</b> |

**PG52T402 YASKA'S NIRUKTA****Course Outcomes:**

At the end of the course, Students will be able to-

1. Nirukta is a Yaska Maharshi's work which is related to Vedic words. Students will get the knowledge about Vedic words and its huge collection.
2. Describing and understanding of vedic words and its Nirvachana.

**Text – Yaska's Nirukta (I, II and VII Chapters only)**

**Books Recommended:**

1. Laxman Sarup – *The Nighantu and Nirukta*, Motilal Banarasidass, Delhi.
2. Narayan Bhat – *Niruktam* (Kan.), Mangalore.
3. निरुक्तपञ्चाध्यायी – (Hindi Edn.), Meharchand Lachmandas, New Delhi.

**Pattern of the Question Paper XIV**

|                                                                                                          |                 |
|----------------------------------------------------------------------------------------------------------|-----------------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks        |
| 2. Key sentences for explanation (any 4 out of 6)                                                        | 14 Marks        |
| 3. Verses for translation from the text (any 3 out of 5)                                                 | 14 Marks        |
| 4. Essay type question from the text prescribed (with internal choice)                                   | 14 Marks        |
| 5. Essay type question from the text prescribed (with internal choice)                                   | 14 Marks        |
| 6. Short notes from the text (any 3 out of 5)                                                            | 09 Marks        |
| <b>Total :</b>                                                                                           | <b>75 Marks</b> |

## PG52T403 KAUTALYA'S ARTHASHASTRA

### Course Outcomes:

At the end of the course, Students will be able to-

1. Student will get the knowledge about Koutilya's Rajaneeti and Arthneeti.
2. Administration

**Text** – Kautilya's Arthashastra (Selected Portions from the Vinayadhikarana)

### Books Recommended:

1. Sunil Sen Sarma– Kautily's Arthashastra in the light of Modern Science & Technology, D. K. Printworld (P) Ltd, New Delhi, 2001
2. Radhavallabha Tripathi – Kautilya's Arthashastra and Modern World, Pratibha Prakashan, Delhi, 1997.
3. L.N. Rangarajan– Kautilya, the Arthashastra, Penguin Books, New Delhi, 1992.
4. Dr. K. Krishna Bhat– Kautilya Arthashastra (Kan.), Samaja Book Depot, Dharwad, 2000.

### Pattern of the Question Paper XV

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Key sentences for explanation (any 4 out of 6)                                                        | 16 Marks |
| 3. Passage for translation and explanation from the text (with internal choice)                          | 10 Marks |
| 4. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks |
| 5. Essay type question from the text prescribed (with internal choice)                                   | 12 Marks |
| 6. Short notes from the text (any 3 out of 5)                                                            | 15 Marks |

**Total :** **75 Marks**

## Specialization Course

## PG52T404(A) SELECT DARSHAN-II

### Course Outcomes:

At the end of the course, Students will be able to-

1. Students will get the knowledge about Darshana's Indian philosophy, Sankya, Yoga.
2. By studying this course student will get the knowledge about the reasoning solving the problems, understands the situation. How to control the mind themselves in critical conditions.
3. Students are able to know about spiritual and traditional thoughts and views given by Acharya's.

**Text** – Sayana Madhava's *Sarva-darshana-sangraha*

(*Sankhya, Yoga, Advaita, Visistadvaita, Dvaita*)

### Books Recommended:

1. Sayana Madhava – Sarvadarshanasangraha (only relevant chapters), Pune.
2. S. Radhakrishnan – Indian Philosophy, Vols. I & II, New Delhi.
3. Datta & Chatterjee – An Introduction to Indian Philosophy, New Delhi.
4. M. Hiriyanna – Essentials of Indian Philosophy, New Delhi.
5. Max Muller – Six Systems of Indian Philosophy, New Delhi.
6. S.N.Dasgupta–History of Indian Philosophy, Vols. I–V, Motilal Banarasidass, New Delhi.
7. S.N. Raghavendracharya–Bharatiya Tatwashastra Sangraha (Kan.) Mysore.

### **Pattern of the Question Paper XVI**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 14 Marks |
| 3. Essay type question (With internal choice)                                                            | 14 Marks |
| 4. Essay type question (With internal choice)                                                            | 14 Marks |
| 5. Essay type question (With internal choice)                                                            | 14 Marks |
| 6. Short notes (any 3 out of 5)                                                                          | 09 Marks |

**Total : 75 Marks**

**Or**

### **PG52T404(B) HISTORY OF SANSKRIT POETICS –II**

#### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Students will learn about the Sanskrit Poetics by studying this course students will be able to define the Alankaras according to Sanskrit Poetics.
2. Types of Alankaras are introduced by the Sanskrit Poetics student will be able to read and define the Alankaras according to author.

#### **Texts :Alankarikas :**

- |                            |                          |
|----------------------------|--------------------------|
| 1. Kuntaka (975),          | 2. Dhananjaya (996 AD),  |
| 3. Mahimabhatta (1030 AD), | 4. Kshemendra (1060 AD), |
| 5. Mammata (1075 AD),      | 6. Vishvanatha (1375),   |
| 7. Appayyadiksita (1550)   |                          |

#### **Books Recommended:**

1. P. V. Kane – *History of Sanskrit Poetics*, Motilal Banarasidass, Delhi, 2002.
2. T.N.Srikanthayya - *Bharatiya Kavya Mimamsa* (Kan.) Mysore.
3. H. Tipperudraswamy – *Taulanika Kavya Mimamsa* (Kan.).
4. Marulasiddaiah – *Bharata Natya Shastra*, Mysore.
5. Krishna Chaitanya – *Sanskrit Poetics* (A critical and Comparative Study), Asia Publishing House, New Delhi.
6. S.Ramachandra Shastri – *Sanskrit Sahityada Itihasa* (Kan.), Prasaranga, Bangalore University, Bangalore.

### **Pattern of the Question Paper XII**

- |                                                                                                          |          |
|----------------------------------------------------------------------------------------------------------|----------|
| 1. Objective type questions in Sanskrit with three options in bracket below each question (10 out of 12) | 10 Marks |
| 2. Essay type question (With internal choice)                                                            | 14 Marks |
| 3. Essay type question (With internal choice)                                                            | 14 Marks |
| 4. Essay type question (With internal choice)                                                            | 14 Marks |
| 5. Essay type question (With internal choice)                                                            | 14 Marks |
| 6. Short notes (any 3 out of 5)                                                                          | 09 Marks |

**Total : 75 Marks**

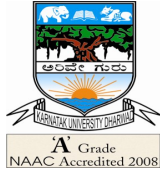
## **PG52T405 DISSERTATION**

### **Course Outcomes:**

At the end of the course, Students will be able to-

1. Student will able to know how to write a thesis
2. Ability to conduct the research, field work.
3. Research methodology will helps the students to do the research work systematically.

\* \* \* \* \*



**KARNATAK UNIVERSITY, DHARWAD**  
**A UNIVERSITY WITH POTENTIAL FOR EXCELLENCE**



**POST GRADUATE DEPARTMENT OF STUDIES AND  
RESEARCH IN SOCIAL WORK**

**Regulation & Syllabus**

**of**

**DOCTRINE OF PHILOSOPHY (PhD)**

**Revised For**

**PHD COURSE WORK**

**Under Choice Based Credit System (CBCS)**

**FROM THE ACEDMIC YEAR 2020 ONWARDS**

**KARNATAK UNIVERSITY, DHARWAD**

**POST GRADUATE DEPARTMENT OF STUDIES AND RESEARCH IN  
SOCIAL WORK**

The Department of Studies and Research in Social Work was started in the year 1962. Up to 1968, the department was part of the then Department of Anthropology. Further, from the year 1968 to 1973 was also under the Department of Sociology. Later, the Department gained its full-fledged status in the year 1973. The Department imparts training in the core subjects of Social Work along with specialized subjects like Human Resource Management and Industrial Relations, Women and Child Welfare, Criminology and Correctional Social Work, Medical and Psychiatric Social Work and Community Development etc.

Students aspiring to pursue the research leading to Ph.D. are provided with necessary facilities. Qualified Research Guides have been recognized by the University to guide such students. Apart from this, many other in-service training and academic research projects are undertaken from time to time.

**VISION:**

The Department envisions to provide to the society sustainable inclusive environmentally, non-offensive, non-discriminatory, competent and committed social work practitioners, who would devote themselves for the causes of promoting Social Justice and Empowerment of all and thus contribute to the fullest potential goal of the human race of making this place as worth living.

**MISSION:**

To impart value based scientific and quality education building strategic alliance with various stake holders to those desirous of making a career in the field of professional social work as effective social work practitioners, and educators, who envision challenging injustice and promoting an egalitarian / humane society.

To synchronize theoretical training with field exposure and enable the students in acquiring critically assessed knowledge and practice skills focused on working collaboratively and therapeutically with people. Besides, facilitate students to develop appropriate attitudes and attributes requisite for a professional social worker to work with their clientele.

To organize conference, symposia, seminars, etc. To disseminate the practice wisdom by involving students in the field of social work in this endeavor, so that the students could develop insights into complex social situations, endeavoring to set standards for quality social work education.

## **FACULTY MEMBERS**

**Dr. Sangeetha R. Mane**

M.A. (S.W), Ph.D.

Professor & Chairperson

**Dr. Ravindra. M**

M.A. (S.W), Ph.D.

Assistant Professor

**Dr. Renuka E. Asagi**

M.S.W., Ph.D.

Assistant Professor

**Dr. Prashanth H.Y**

M.S.W., Ph.D.

Assistant Professor

K.U. P.G. Centre, Haveri

## COURSE OUTLINES FOR PHD

**Department: Social Work**

**Course Title: Ph.D**

| Paper Code           | Details of Core Papers                                                                                     | Max Marks |       | Total | Hrs/per week | Credits   |
|----------------------|------------------------------------------------------------------------------------------------------------|-----------|-------|-------|--------------|-----------|
|                      |                                                                                                            | IA        | SEE   |       |              |           |
| Ph.D6801             | Paper I – Research Methodology                                                                             | 25        | 75    | 100   | 4            | 4         |
| Ph.D6802             | Paper II – Social Work Profession                                                                          | 25        | 75    | 100   | 4            | 4         |
| Ph.D6803A            | Paper III – Area of Specialization: Study of Social Work in Various Fields                                 | 25        | 75    | 100   | 4            | 4         |
| Ph.D6803B            | Paper III – Area of Specialization: Social Work Approaches for Social Development<br><br>Dr.Renuka.E.Asagi |           |       |       |              |           |
|                      |                                                                                                            |           |       |       |              |           |
|                      |                                                                                                            |           |       |       |              |           |
|                      |                                                                                                            |           |       |       |              |           |
|                      |                                                                                                            |           |       |       |              |           |
|                      |                                                                                                            | 25        | 75    | 100   | 4            | 4         |
|                      |                                                                                                            |           |       |       |              |           |
| PG68P106A            |                                                                                                            | 50        | 50+50 | 150   | 16           | 6         |
| PG68P106B            | Social Work Camp                                                                                           | --        | 25+25 | 50    | 7 Days       | 2         |
| <b>Total Credits</b> |                                                                                                            |           |       |       |              | <b>28</b> |

| Paper Code | Details of Specialization Papers                           | 25 | 75 | 100 | 4 | 4 |
|------------|------------------------------------------------------------|----|----|-----|---|---|
| Ph.D6803A  | Paper IIIA – Study of Social Work in Various Fields        |    |    |     |   |   |
| Ph.D6803B  | Paper IIIB – Social Work Approaches for Social Development |    |    |     |   |   |
|            |                                                            |    |    |     |   |   |

### Semester – II

| Paper Code           | Details of Core Papers                                                              | Max Marks |       | Total | Hrs/per week | Credits   |
|----------------------|-------------------------------------------------------------------------------------|-----------|-------|-------|--------------|-----------|
|                      |                                                                                     | IA        | SEE   |       |              |           |
| PG68T201             | Social Work Profession –II<br>Fields of Social Work                                 | 25        | 75    | 100   | 4            | 4         |
| PG68T202             | Social Work Research and<br>Statistics                                              | 25        | 75    | 100   | 4            | 4         |
| PG68T203             | Work with Communities and<br>Social Welfare<br>Administration                       | 25        | 75    | 100   | 4            | 4         |
| PG68T204             | Social Policy, Planning, and<br>Development                                         | 25        | 75    | 100   | 4            | 4         |
|                      | Social Work Practicum                                                               |           |       |       |              |           |
| PG68P205A            | Concurrent Field Work-<br>Individual Placement                                      | 50        | 50+50 | 150   | 16           | 6         |
| PG68P205B            | Summer Placement/<br>Internship                                                     | --        | 25+25 | 50    | 21<br>Days   | 2         |
| PG68O206             | Open Elective Course: Social<br>Justice and Empowerment for<br>Promotion of Welfare | 25        | 75    | 100   | 4            | 4         |
| <b>Total Credits</b> |                                                                                     |           |       |       |              | <b>28</b> |

### Semester – III

| Paper Code | Details of Core Papers                                          | Max Marks |       | Total | Hrs/per week | Credits |
|------------|-----------------------------------------------------------------|-----------|-------|-------|--------------|---------|
|            |                                                                 | IA        | SEE   |       |              |         |
| PG68T301   | Labour Legislation                                              | 25        | 75    | 100   | 4            | 4       |
| PG68T302   | Human Resource<br>Management                                    | 25        | 75    | 100   | 4            | 4       |
| PG68T303   | Correctional Social Work                                        | 25        | 75    | 100   | 4            | 4       |
| PG68T304   | Medical & Psychiatric<br>Social Work                            | 25        | 75    | 100   | 4            | 4       |
|            | Social Work Practicum                                           |           |       |       |              |         |
| PG68P305A  | Concurrent Field Work-<br>Individual Placement                  | 50        | 50+50 | 150   | 16           | 6       |
| PG68P305B  | Study Tour                                                      | --        | 25+25 | 50    | 7 Days       | 2       |
|            | Open Elective Course                                            |           |       |       |              |         |
| PG68O306   | Formation and<br>Management of Non-<br>Government Organizations | 25        | 75    | 100   | 4            | 4       |

|                      |           |
|----------------------|-----------|
| <b>Total Credits</b> | <b>28</b> |
|----------------------|-----------|

#### Semester – IV

| Paper Code           | Details of Core Papers                      | Max Marks |        | Total | Hrs/per week | Credits   |
|----------------------|---------------------------------------------|-----------|--------|-------|--------------|-----------|
|                      |                                             | IA        | SEE    |       |              |           |
| PG68T 401            | Legal System in India                       | 25        | 75     | 100   | 4            | 4         |
| PG68T 402            | Industrial Relations                        | 25        | 75     | 100   | 4            | 4         |
| PG68T 403            | Counselling Theory and Practice             | 25        | 75     | 100   | 4            | 4         |
| PG68T 404            | Public Health and Social Work               | 25        | 75     | 100   | 4            | 4         |
| PG68T 405            | Research Project/ Dissertation              | 50        | 100+50 | 200   | 8            | 8         |
|                      | Social Work Practicum                       |           |        |       |              |           |
| PG68P 406A           | Concurrent Field Work- Individual Placement | 50        | 50+50  | 150   | 16           | 6         |
| PG68P 406B           | Block Placement / Internship                | --        | 25+25  | 50    | 30 Days      | 2         |
| <b>Total Credits</b> |                                             |           |        |       |              | <b>32</b> |

The Total number of credits for M.S.W. Degree from I to III Semester is 28 for each Semester and 32 for IV Semester. Therefore, Grand Total of Credits for the whole course is **28 X 3 + 32 = 116**.

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**POST GRADUATE DEPARTMENT OF STUDIES AND  
RESEARCH IN SOCIAL WORK**

**Regulation & Syllabus (Revised)**

**For**

**Masters of Social Work**

**From Semester – I To Semester - IV**

**Under Choice Based Credit System (CBCS)**

**From 2020 onwards**

### SEMESTER – I: THEORY

|                                                               |                                                                                                                                                                                   |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                    | <b>PG68T101: SOCIAL WORK PROFESSION–I: HISTORY, PHILOSOPHY AND IDEOLOGIES</b>                                                                                                     |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                   |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                   |
| <b>CO 1</b>                                                   | To develop an understanding of the philosophic values, principles and goals of Professional Social Work.                                                                          |
| <b>CO 2</b>                                                   | To gain information about contemporary ideologies of Social Work.                                                                                                                 |
| <b>CO 3</b>                                                   | To acquire a critical awareness of the tradition of Social Service in Indian Society and place of current professional approach to social work in this tradition.                 |
| <b>CO 4</b>                                                   | To develop commitment to goals of humanism, human rights and social justice.                                                                                                      |
| <b>CO 5</b>                                                   | To understand the contemporary social reality, social approach, social change, intervention, values, skills necessary for culturally sensitivity generalist social work practice. |
| <b>PROGRAMME OUTCOMES (POs)</b>                               |                                                                                                                                                                                   |
| <b>PO 1</b>                                                   | This course aims at introducing the learners to a critical inquiry into the History, Philosophy, and Ideologies of social change and Professional Social Work.                    |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Introduction to Social Work</b>                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Definitions, Meaning, Nature, Objectives, Scope, Methods, Concepts, Ethics, Values and Principles. Social Work and Other Concepts: Social Service, Social Welfare, Social Policy, Social Development, Social Reform, Social Security                                                                                                                                                                              | <b>14 Hours</b>                        |
| <b>Unit – 2: History of Social Work Profession</b>                                                                                                                                                                                                                                                                                                                                                                |                                        |
| History of Social Work Profession in West - Medieval Period: Judeo-Christian Ideologies; Secular-Humanism and Protestantism; Modern Period – Rationalism and Welfarism, Liberalism and Democratism, Utilitarianism and Social Darwinism, Socialism and Resurgence of the Civil Society                                                                                                                            | <b>12 Hours</b>                        |
| <b>Unit – 3: Indian History of Ideologies for Social Change</b>                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Ancient period: Vedic, Vedantic and Non- Vedic ideologies, Spirituality; Medieval period: Zoroastrianism and Islamism in India. Mysticism of Bhakti and Sufi movements, Sikhism; Modern Period: Christianity in India, Hindu reform movements, Dalit Movements, Gandhian Ideology, Sarvodaya Movement, Ideology of the Indian Constitution, Ideology of Voluntary Organizations, and Non- Government Organization | <b>14 Hours</b>                        |

| <b>Unit – 4: Philosophy of Social Work</b>                                                                                                                                                                                             |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Traditional and Professional; Contemporary Ideologies for Social Change – Introduction, Neo-liberalism and Globalization, Multi-Culturism, Ideology of Action Groups and Social Movement: Ideology of Human Rights and Social Justice. | <b>12 Hours</b> |
| <b>Unit – 5: Development of Social Work Education in India</b>                                                                                                                                                                         |                 |
| Attributes of a Profession, Ethical Issues and Limitations. Professionalization of Social Work: Professional Associations National and International.                                                                                  | <b>12 Hours</b> |

| <b>REFERENCES</b>                                                 |                                                                                                                                     |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Agarwal, M.M. 1998                                                | Ethics and Spirituality, Shimla: Indian Institute of Advanced Study                                                                 |
| Alastair, Christie (Ed) 2001                                      | Men and Social Work: Theories and Practices, New York, Palgrave                                                                     |
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| Perspectives in Social Work, College of Social Work, Nirmal Niketan, Mumbai (Maharashtra)            |
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| <b>Paper Code and Name</b>                                    | <b>PG68T102: SOCIETY AND SOCIAL PATHOLOGY</b>                                                                                                         |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                       |
| After completion of this paper, the students will be able to: |                                                                                                                                                       |
| <b>CO 1</b>                                                   | To understand the concepts and to examine social phenomena                                                                                            |
| <b>CO 2</b>                                                   | To develop skills to analyze Indian society and Social change                                                                                         |
| <b>CO 3</b>                                                   | To gain knowledge the contributions of different sociological Thinkers                                                                                |
| <b>CO 4</b>                                                   | To develop awareness and understanding of different Social Problems                                                                                   |
| <b>CO 5</b>                                                   | To understand social phenomena, social problems, social change of Indian Society and the contribution of social thinkers for sociological ideologies. |

| <b>PARTICULARS</b>                                                                                                           | <b>Teaching Hours (Max.64 hrs)</b> |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Society</b>                                                                                                     |                                    |
| Meaning, Definition, Features, Theories of Origin and Evolution of Society, Individual and Society-Heredity and Environment, | <b>14 Hours</b>                    |

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| Socialization, Culture, Social control and deviance. Need for the Knowledge of sociology for social workers.                                                                                                                                                                                                                      |                 |
| <b>Unit – 2: Social Institutions</b>                                                                                                                                                                                                                                                                                              |                 |
| Family, Marriage, Religion, State and Law: their Structure, Characteristics, Types, Functions. Social Stratification: Caste, Class, Characteristic features of Caste in India and its impact on social and economic development. Social mobility, Status and Role of Women in Social life, Gender issues.                         | <b>14 Hours</b> |
| <b>Unit – 3: Sociological Theories</b>                                                                                                                                                                                                                                                                                            |                 |
| August Comte, Spencer, Webber, Durkeheim, Simmel, Karl Marx, Indian Social Thinkers – M. N. Srinivas and G. S. Ghurye.                                                                                                                                                                                                            | <b>10 Hours</b> |
| <b>Unit – 4: Social Change</b>                                                                                                                                                                                                                                                                                                    |                 |
| Meaning and Definition, Process of Social Change and Agents of Social Change; Nature and Characteristics of Social Change in India; Factors inducing Social Change in India.                                                                                                                                                      | <b>12 Hours</b> |
| <b>Unit – 5: Social Pathology and Issues:</b>                                                                                                                                                                                                                                                                                     |                 |
| Concept, meaning, and causes; Major Social Problems: Alcoholism, Drug Addiction, Unemployment, Commercial Sex Workers, Sexual minorities, Child labour, Problems of Aged and Disabled, Illiteracy, Poverty, Beggary, Housing and Slums, Urban, Rural and Tribal problems, Population and Consumerism. Current issues and debates. | <b>14 Hours</b> |

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| Contribution to Indian Sociology                                                       |                                                                                                          |
| Social change, Issues and Perspectives (Journal of the Council for Social Development) |                                                                                                          |

| <b>Paper Code and Name</b>                                    | <b>PG68T103: HUMAN GROWTH AND DEVELOPMENT</b>                                                                                                                                   |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                 |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                 |
| <b>CO 1</b>                                                   | To develop an understanding of the physical growth and development through life span of individuals their relevance and application to behavior at various stages of life span. |
| <b>CO 2</b>                                                   | To understand the contribution of various Socio-cultural conditions for                                                                                                         |

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|             | human development.                                                                                                    |
| <b>CO 3</b> | To orient students to various theories of human development.                                                          |
| <b>CO 4</b> | To develop sensitivity towards needs, developmental tasks and coping with stresses, and strains in their fulfillment. |
| <b>CO 5</b> | To develop sensitivity towards needs, developmental tasks and coping with stresses, and strains in their fulfillment. |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Foundation of Human Life Span</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Conception, Fetal Development; Prenatal and Postnatal Care and Development; Role of Heredity and Environment in the process of Human Growth and Development.                                                                                                                                                                                                                                                                                                                                     | <b>10 Hours</b>                        |
| <b>Unit – 2: Theories of Human Development</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Freud’s Psychosexual Theory, Erikson’s Psychosocial Theory, Social/Learning Theories of Cognitive Development - Jung’s concept of Personality, Adler’s Theory. Piagets Theory, Bandura Social Learning Theory.                                                                                                                                                                                                                                                                                   | <b>12 Hours</b>                        |
| <b>Unit – 3: Developmental Periods</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |
| Infancy, early child-hood, middle child hood, puberty, adolescence: Bio-psycho-social, growth and development; hazards in these stages.<br>Adulthood: Growth, Personal, Social, Health, Sexuality, Vocational and Marital Adjustment;<br>Old Age: Characteristics, health and adjustment problems;<br>Contributions of Family, Peer Group, Neighborhood and social agencies on the process of growth at different developmental stages of human beings with special reference to Indian culture. | <b>18 Hours</b>                        |
| <b>Unit – 4: Human Needs</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |
| Physical, Psychological and Individual needs, Stress coping and Social support; Motivation, Frustrations and Conflicts; Emotions and Emotional Behavior; personality– definition, nature and types. Intelligence: Concepts, levels of intelligence, assessment of intelligence.                                                                                                                                                                                                                  | <b>14 Hours</b>                        |
| <b>Unit – 5: Study of Knowledge of Psychology for Social Workers</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |
| Relevance of knowledge of Human lifespan Development Process: Understanding importance of social work practice in helping people with their needs/problems.                                                                                                                                                                                                                                                                                                                                      | <b>12 Hours</b>                        |

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| Paper Code and Name                                           | PG68T104: SOCIAL CASE WORK (WORK WITH INDIVIDUALS AND FAMILIES)                         |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                         |
| After completion of this paper, the students will be able to: |                                                                                         |
| <b>CO 1</b>                                                   | To understand casework as a method of social work practice.                             |
| <b>CO 2</b>                                                   | To understand values, concepts and principles of working with individuals and families. |
| <b>CO 3</b>                                                   | To learn different multi-dimensional approaches in social case work method.             |
| <b>CO 4</b>                                                   | To develop the understanding of various process of casework method.                     |
| <b>CO 5</b>                                                   | To orient the student towards various tools and techniques of casework practice.        |

| PARTICULARS                                                                                                                                                                                                                                                                                           | Teaching Hours<br>(Max.64 hrs) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Unit – 1: Social Case Work</b>                                                                                                                                                                                                                                                                     |                                |
| Definition, meaning, nature, Scope, significance and purpose of Case Work Background factors contributing for the development of social casework method. It's Relationship with other methods of Social Work. Types of problems faced by individuals and families.                                    | <b>12 Hours</b>                |
| <b>Unit – 2: Components of Case Work</b>                                                                                                                                                                                                                                                              |                                |
| Person, Problem, Place and Process; principles of Case Work: Acceptance, Individualization, Communication, Participation, Self-Awareness, Self-Determination and Confidentiality. Importance of casework-Client Relationship, professional relationship, empathy, transference, counter-transference. | <b>14 Hours</b>                |
| <b>Unit – 3: Social Case Work Process and Tools</b>                                                                                                                                                                                                                                                   |                                |
| Case study, Assessment, Treatment methods, Evaluation, Termination and Follow-up. Listening, Observation, Interviewing, Relationship, Home visits, and Recording. Development of various skills in the application of these techniques.                                                               | <b>14 Hours</b>                |
| <b>Unit – 4: Theories and Approaches in Social Case Work</b>                                                                                                                                                                                                                                          |                                |
| Psycho-Social, Problem solving, Behavior Modification, Functional, Crisis intervention, Family assessment in casework practice.                                                                                                                                                                       | <b>14 Hours</b>                |
| <b>Unit – 5: Application of casework methods in various settings</b>                                                                                                                                                                                                                                  |                                |
| Family, Women and Child Welfare, School Setting, Medical and Psychiatric Settings, Correctional Institutions and Industry                                                                                                                                                                             | <b>10 Hours</b>                |

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| <b>JOURNALS</b>                                                                                                                                                                                                                 |
| Indian Journal of Social Work, By-Annual, TISS, Deonar, Mumbai (Maharashtra).                                                                                                                                                   |
| Perspectives in Social Work, College of Social work, Nirmal Niketan, Mumbai (Maharashtra)                                                                                                                                       |
| Social Work Journal, Bi-Annual, Department of Social Work, Assam University, Silchar-788 011 (Assam).                                                                                                                           |
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|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                    | <b>PG68T105: SOCIAL GROUP WORK: (WORK WITH GROUPS)</b>                                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                   |
| After completion of this paper, the students will be able to: |                                                                                                                                   |
| <b>CO 1</b>                                                   | To understand of Group Work as a method of Professional Social Work.                                                              |
| <b>CO 2</b>                                                   | To learn theoretical approaches that informs Group Work Practice.                                                                 |
| <b>CO 3</b>                                                   | Develop awareness about the specific characteristics of group work and its contributions as a method of social work intervention. |
| <b>CO 4</b>                                                   | To understand the theoretical perspectives of Social Group Work to be used in the Group Situations.                               |
| <b>CO 5</b>                                                   | To understand the theoretical perspectives of Social Group Work to be used in the Group Situations.                               |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours (Max.64 hrs)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Social Group Work</b>                                                                                                                                                                                                                                                                                         |                                    |
| Understandings of Groups, Characteristics and significance of group, Types of groups Social Group Work: Meaning, Definition, Characteristics, Purposes, Scope, Functions of Social Group work. Values and Principles in Social Group Work and Historical Evaluation and Development of Social Group Work in West and India | <b>12 Hours</b>                    |
| <b>Unit – 2: Group Processes and Group Dynamics</b>                                                                                                                                                                                                                                                                        |                                    |
| Importance of group processes, Study and analysis process: Group Dynamics, Semantics and importance, Bond, Subgroups, Role, Leadership, Newcomer isolation, and Scapegoat, Decision making,                                                                                                                                | <b>14 Hours</b>                    |

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| Group control, Contagion, Hostility, Conflict and its resolution, Communication and Relationships.                                                                                                                                                                                                                                           |                 |
| <b>Unit – 3: Stages or Phases of Group Work</b>                                                                                                                                                                                                                                                                                              |                 |
| Pre-group formation, Initial Phase, Middle Phase, Termination Phase: Concept, Types, Principles, Programmes Planning, use of programme planning in the Personality Development. Evaluation, Follow Up, Facilitation Skills and Techniques Used in these phases.                                                                              | <b>14 Hours</b> |
| <b>Unit – 4: Theories and Models in Social Group Work</b>                                                                                                                                                                                                                                                                                    |                 |
| Theories of Working with Groups – Knowledge and use of different therapeutic approaches for effective work with groups; Transactional analysis, T-Groups, Gestalt, Role play, Brain storming.<br>Models of Social Group Work: -Social Goals, Remedial, Reciprocal Model.<br>Recording in group work: Principles, Types and Use of Recording. | <b>14 Hours</b> |
| <b>Unit – 5: Application of Group Work in Different Settings</b>                                                                                                                                                                                                                                                                             |                 |
| Application in Health settings, School settings, Women and Child Welfare setting, Industrial settings, Group Work Practice with SHG Groups. The knowledge and skills of a group worker: Group worker as an Enabler, Facilitator and Therapist.                                                                                               | <b>10 Hours</b> |

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## SEMESTER – I: SOCIAL WORK PRACTICUM

| Paper Code and Name                                                 | PG68P106A: FIELDWORK - ORIENTATION, LECTURES AND OBSERVATION VISITS                                                                                                                 |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                                     |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                     |
| <b>CO 1</b>                                                         | Develop the ability to observe and analyze social realities; Understand the characteristics of social system and their dynamics.                                                    |
| <b>CO 2</b>                                                         | Appreciate society's response to people's needs, problems and social issues; Develop critical understanding of the application of legislation, legal process, and social policy.    |
| <b>CO 3</b>                                                         | Understanding of organizational structure, resource management, and day-to-day administration of developmental and welfare programmes.                                              |
| <b>CO 4</b>                                                         | Develop the capacity to integrate knowledge and practice-theory by participating in intervention, develop the capacity for self-direction growth and change through self-awareness. |
| <b>CO 5</b>                                                         | Enhance writing skills to document practice appropriately, Recordings to be viewed as an expression of interest, motivation and involvement in                                      |

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|  | practice and as evidence of enrichment in the process of professional growth. |
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### A. Field Work Practicum

Supervised fieldwork practicum is an integral part of Social Work training. With its six learning opportunities, it is designed to assist trainees to develop and enhance professional practice skills. Learning is aided through observation, analysis of Social realities, and experience of participation in designing and providing Social Work intervention. The tasks are organized to help the learner acquire beginning skills and practice them to gain an expertise. Thus, the learner is encouraged during all the four semesters, to graduate from simple to complex skills and ultimately become an independent worker.

#### Social work practicum during first semester:

For the first semester the Social Work Practicum shall consist of concurrent Field Work and Social Work Camp. The marks allotted for the concurrent Field Work are 150 (6 credits) and Social Work Camp are 50 (2 credits). Both these components together form one unit.

Concurrent field work: This shall comprise of Orientation Lectures and Observation Visits as follows:

| PARTICULARS                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Orientation Lectures:</b>           | The new entrants are addressed and introduced to the nature, scope, importance and place of field work practicum in Social Work educational programme, through class room lectures. They are also to be acquainted with the purposes, functions and ethics of professional practice. The first 2 to 4 weeks, depending on the availability of total field work days during the first semester, the orientation lectures may be delivered.             |
| <b>Orientation/Observation Visits:</b> | The visits shall be arranged:<br>(i) to expose students to variety of professional situations of working with individual, group and community;<br>(ii) to provide an exposure to and understanding of the services provided in response to people's needs. The visits shall generally include all the fields of Social Work viz., health, education, community, correctional, industrial, social service, welfare and rehabilitation, etc., settings. |

| Paper Code and Name                                                 | PG68P106B: SOCIAL WORK CAMP                                                                                                                                                          |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COURSE OUTCOMES (Cos)                                               |                                                                                                                                                                                      |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                      |
| <b>CO 1</b>                                                         | Help the students in understanding the emerging trends community development.<br>Enrich technical competencies to assess and analyze community problems, needs and service delivery. |
| <b>CO 2</b>                                                         | Enhance the capacity to recognize the linkage between community                                                                                                                      |

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|             | development and the practices in the field in terms of policy and programmes.                                                                                   |
| <b>CO 3</b> | Understand the functioning of local government, Intervention for health issues and rural development.                                                           |
| <b>CO 4</b> | Examination through exposure to the rural/urban/tribal social systems, the existing resource systems                                                            |
| <b>CO 5</b> | To help the students to gain insight into the components of the rural/urban/tribal community and understand the dynamics, need and importance of the community. |

### **B. Social Work Camp:**

A camp shall be organized after the 1st semester end examination to expose the Social Work trainees to the rural/urban/tribal social systems, the existing resource systems in these, and interventions used by them, besides, enabling the student trainees to acquire skills in planning, organizing, coordinating, decision making directing, budgeting, conscious use of time, communication, team spirit, handling relationships, conflicts and difference of opinions, evaluation, etc.

The camp shall be directed by a member of the teaching staff (Permanent or Teaching Assistants) for a period of 7 days in any one of the above-mentioned social systems. The student trainees are required to submit individual reports of the camp work and their experiences on return from the camp, to the Department. These shall be assessed by a committee consisting of the Camp Director and the Chairperson of the Department for 25 marks and the student trainees have to appear for a Viva-Voce examination along with the Field Work Viva-Voce Examination of Semester – I for the rest of 25 marks. Thus, the total marks allotted to the Social Work Camp shall be 50 and credits shall be 2.

## SEMESTER – II - THEORY

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|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                    | <b>PG68T201: SOCIAL WORK PROFESSION - II: FIELDS OF SOCIAL WORK</b>                                                                                                                                                                           |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                                                                               |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                                                                               |
| <b>CO 1</b>                                                   | To provide an exposure to the fields of Social Work.                                                                                                                                                                                          |
| <b>CO 2</b>                                                   | To equip with the necessary information of the existing policies and services in the fields of social work.                                                                                                                                   |
| <b>CO 3</b>                                                   | To acquaint with the intervention methods and techniques in the fields of social work.                                                                                                                                                        |
| <b>CO 4</b>                                                   | to introduce the trainees to various settings where there is a scope for social work intervention. It helps the learner to view and assess the situation holistically and plan a process for change with necessary professional intervention. |
| <b>CO 5</b>                                                   | To acquaint with policies, programmes and services related to family, children, women, aged, differently abled, etc                                                                                                                           |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
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| <b>Unit – 1: Family Welfare and Child Welfare</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Family welfare: Changes in Family, Structure, functions and Characteristics. Marriage: concept, types and Changes in Marriage Patterns; Services and Programmes available for the Welfare of Family. Intervention of Social Work: Family Assessment, Family Counseling, Family Life Education, Family Casework, Family Therapy Techniques.<br>Women welfare: Status of Women in India; Crimes against Women; Rights of Women, Services for Women's Welfare; Gender: Issues, Concerns and Sensitization. Feminism – its place in Social Work Practice; Scope for Social Work Intervention in Mitigating Problems of Women.<br>Child Welfare: Development of Children's services, Legislation and schemes for Children's; Social Work Intervention for Child Development and Welfare. | <b>14 Hours</b>                        |
| <b>Unit – 2: Social Work with Persons in Conflict with Law</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Crime and Delinquency as Socio-Legal Problems; Juvenile Correction – concept, meaning and scope; Historical development of juvenile correction, Juvenile Justice System in India; Issues in juvenile correction. Adult Correction: concept, meaning and scope; Historical development of Adult correction, Criminal Justice System in India; Issues in Adult correction. Role and Intervention of Social Workers in the Criminal Justice system.                                                                                                                                                                                                                                                                                                                                    | <b>12 Hours</b>                        |
| <b>Unit – 3: Employee Welfare</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Employee Welfare: History of Social Work in the Workplace;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>14 Hours</b>                        |

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| employee wellness programme, Employee Assistance Model, Organizational service Model, Customer Assistance Model, Community Assistance Model, Work Related Public Policy Model. Changing trends in work place area.<br>Social Work intervention in cases of Alcoholism, Substance Abuse, Sexual Harassment, work place stress.                                                                                                                                                                                                                                                                                                                                                                   |                 |
| <b>Unit – 4: Health Care and Mental Health</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |
| Basic Health issues, Stigma and discrimination attached to various diseases. Health care policies and programmes in India;<br>Mental Health: Issues and Concerns, Mental Health care policies and programmes in India; Role and intervention of social workers in medical and psychiatric settings.<br>Differently Abled: Concept and types of disability contemporary policy and legislation pertaining to disability; Services and Programmes available for people with disabilities; Social work practice with differently-abled<br>Gerontology: Concept, Meaning, Problems, needs, extent of aged population, Legislation and Schemes for Older persons; scope for Social Work Intervention | <b>12 Hours</b> |
| <b>Unit – 5: Community welfare and Social Work:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |
| Types of community, contemporary issues and concerns, policies, programmes and schemes of community wellbeing.<br>Weaker Sections, marginalization, vulnerable, subaltern groups: Concept, issues, concerns, needs, inclusion and exclusion criteria.<br>Local Self government: rural and urban community wellbeing, Skill development, skill India mission, relevant legislations, Social Work intervention for promotion of Social Justice and empowerment.                                                                                                                                                                                                                                   | <b>12 Hours</b> |

| <b>REFERENCES</b>                                                                |                                                                                                                                                             |
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| Jainendra Kumar Jha.                                                             | Encyclopedia of Social Work Vol 2, 3 and 4, Institute for Sustainable Development, Lacknow and Anmol Publications Pvt., Ltd., New Delhi, India.             |
| Laxmi Devi (Ed in Chief)                                                         | Encyclopedia of Child and Family Welfare; Anmol                                                                                                             |

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|                                                                                                                                             | Publications Pvt., Ltd.                                                                                                   |
| O. William Farley, Larry Lorenzo Smith, and Scott W. Boyle, (9 <sup>th</sup> Ed) 2003                                                       | Introduction to Social Work, Allyn and Bacon Pearson Custom Publishing 75, Arlington Street, Suite 300, Boston, MA 02116. |
| Sanjay Bhattacharya (2008)                                                                                                                  | Social Work: Inventions and Management                                                                                    |
| Ramaswamy, B. (2013)                                                                                                                        | Modern International Encyclopedia of Social Work. New Delhi: Anmol Publication.                                           |
| B.S. Gujnal                                                                                                                                 | Fields of Social Work                                                                                                     |
| <b>JOURNALS</b>                                                                                                                             |                                                                                                                           |
| The Indian Journal of Social Work, Bi-annual, TISS, Mumbai (Maharashtra)                                                                    |                                                                                                                           |
| Perspectives in Social Work, College of Social Work, Nirmal Niketan, Mumbai (Maharashtra)                                                   |                                                                                                                           |
| Social Work Journal, Bi-Annual, Department of Social Work, Assam University, Silchar-788 011 (Assam)                                        |                                                                                                                           |
| <b>DIGITAL REFERENCES</b>                                                                                                                   |                                                                                                                           |
| British Journal of Social Work: <a href="https://academic.oup.com/journals">https://academic.oup.com/journals</a>                           |                                                                                                                           |
| The Prison Journal (Sage): <a href="http://journals.sagepub.com/toc/tpjd/0/0">http://journals.sagepub.com/toc/tpjd/0/0</a>                  |                                                                                                                           |
| Child Maltreatment: <a href="https://in.sagepub.com/en-in/sas/child-maltreatment/">https://in.sagepub.com/en-in/sas/child-maltreatment/</a> |                                                                                                                           |

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| <b>Paper Code and Name</b>                                    | <b>PG68T202: SOCIAL WORK RESEARCH AND STATISTICS</b>                                                                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                 |
| After completion of this paper, the students will be able to: |                                                                                                                                                                 |
| <b>CO 1</b>                                                   | Understand major research strategies, meaning, scope and importance of social work research.                                                                    |
| <b>CO 2</b>                                                   | Develop an ability to see the linkages between practice, research, theory and their role in enriching one another and also to conduct simple research projects. |
| <b>CO 3</b>                                                   | Understand use of Statistics in Social Work research.                                                                                                           |
| <b>CO 4</b>                                                   | Learn the basic use of computer and statistical application in social work research.                                                                            |
| <b>CO 5</b>                                                   | To develop theoretical perspectives, competencies, requisite skill to undertake social work research.                                                           |

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| <b>PARTICULARS</b>                                                                                                                                                                                                          | <b>Teaching Hours (Max.64 hrs)</b> |
| <b>Unit – 1: Research and Social Work Research</b>                                                                                                                                                                          |                                    |
| Introduction: Definition, Meaning, Objectives, Functions of Research and types and basic elements of research; Social Work Research: Definitions, Meaning, Goals and Scope; Research as an enabling process of Social Work. | <b>12 Hours</b>                    |
| <b>Unit – 2: Research Design</b>                                                                                                                                                                                            |                                    |
| Problem Identification and Formulation, Hypothesis, Census                                                                                                                                                                  | <b>14 Hours</b>                    |

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| Survey, Sample Survey;<br>Research Design: Definition and Importance, Types-Exploratory, Descriptive, Experimental, Analytical, Evaluative, Participatory Research and Case Study.<br>Sources of Data- Secondary and Primary; Tools and techniques of Data collection, Observation, Questionnaire, Interview Guide and Interview Schedule, Projective Techniques, Standardized Scales.                                                                            |                 |
| <b>Unit – 3: Knowledge of Statistics for Social Work</b>                                                                                                                                                                                                                                                                                                                                                                                                          |                 |
| Meaning, Definition, Scope, Functions, Limitations and Use of Statistics in Social Work Research;<br>Sampling: Meaning, use and types of sampling; Data Processing and Analysis: Editing, Coding, Tabulation- preparation of Uni-variate and Bi-variate frequency tables.                                                                                                                                                                                         | <b>12 Hours</b> |
| <b>Unit – 4: Descriptive Statistics</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |
| Measures of Central Tendency-Arithmetic Mean, Median, Mode; Measures of Dispersion: Range and Standard Deviation; Differential Statistics: Coefficient of Variation: uses of Linear Regression and Correlation; Statistical Tests: Chi-square, 'z' Test, 't' Test, Analysis of Variance.<br>Use of computer in Social Work Research: Introduction to Windows, M.S. Office & MS-Excel, and Statistical Package for Social Sciences and use of latest technologies. | <b>16 Hours</b> |
| <b>Unit – 5: Data Interpretation and Report Writing</b>                                                                                                                                                                                                                                                                                                                                                                                                           |                 |
| Data Analysis and Interpretation; Report Writing- Types of Reports, Parts of Report, Abstracts, Research Proposals.                                                                                                                                                                                                                                                                                                                                               | <b>10 Hours</b> |

| REFERENCES                             |                                                                                                                     |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------|
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| G.S.Bidarikopp N.Janardhana                                                                                                                                                                                           | Research Methods & Their applications<br>NIMHANS Publication                                   |
| C.R. Kothari 2004                                                                                                                                                                                                     | Research Methodology Methods and Techniques                                                    |
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| David Taylor (2017), How to Write a Literature Review in 30 Minutes or Less, Available at <a href="https://www.youtube.com/watch?v=TdJxY4w9XKY&amp;t=200s">https://www.youtube.com/watch?v=TdJxY4w9XKY&amp;t=200s</a> |                                                                                                |
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| Paper Code and Name                                           | PG68T203: WORK WITH COMMUNITIES AND SOCIAL WELFARE ADMINISTRATION                                                                                                           |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                             |
| After completion of this paper, the students will be able to: |                                                                                                                                                                             |
| <b>CO 1</b>                                                   | To understand the critical elements, models and strategies for community organization practice.                                                                             |
| <b>CO 2</b>                                                   | To understand the micro-macro connections between the range of complex issues in community and develop attitudes conducive to participatory activities for a civil society. |
| <b>CO 3</b>                                                   | To acquire knowledge of the basic process of managing and administering developmental and Welfare services in the context of Social Work profession.                        |
| <b>CO 4</b>                                                   | To acquire skills to participate in managerial and administrative process, and programme delivery.                                                                          |
| <b>CO 5</b>                                                   | To acquaint the students about various human service organization and                                                                                                       |

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|  | to acquire knowledge and skills about its working systems, to understand component of administration and strategies of good governance. |
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| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
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| <b>Unit – 1: Community</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |
| Meaning, Types, Characteristics and Problems of Urban, Rural and Tribal Communities; Community Organization: Semantics, Definitions, Principles and Values; Historical Development of Community Organization; Different phases of Community Organization- Social Study and Problem Analysis, Mobilization and Utilization of Community Resources, Evaluation and Follow-up. Recording in Community Organization.                                            | <b>10 Hours</b>                        |
| <b>Unit – 2: Models and Strategies of Community Organization</b>                                                                                                                                                                                                                                                                                                                                                                                            |                                        |
| Locality Development Model, Social Planning Model, Social Action Model; Strategies of Community Organization: Human Relation, Negotiation, Collaboration, Group Conference, Conflict Resolution; Methods of identifying community needs: Participatory Rural Appraisal (PRA).                                                                                                                                                                               | <b>12 Hours</b>                        |
| <b>Unit – 3: Community Organization intervention and Social Action</b>                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Community Organization intervention in different settings of Social Work; Health, Education, Correctional, Rural, Urban and Tribal Communities. Role of Community Organizer - Guide, Enabler, Therapist and Researcher, Advocacy in Community Organization. Current debates in Community Organization Practice.<br>Social Action: Concept, Objectives, Methods, Principles and Process. Role of Social Workers in Social Action and Community Empowerment.  | <b>14 Hours</b>                        |
| <b>Unit – 4: Social Welfare Administration</b>                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Meaning Definition, Functions and Principles; Social Welfare Administration & Personnel Administration; Government/Non-Government Organization: Concept, Functions, Role, Problems, Establishment of Organizations under the Society Registration Act, the Trust Act, The Foreign Contribution Regulation Act - Legal Status, Constitution, Rules, Procedure and Goals.<br>Role of Government and Non-Government Organizations in promoting Social Welfare. | <b>14 Hours</b>                        |
| <b>Unit – 5: Administration of Organizations</b>                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |
| Board & Committees: Functions and Responsibilities; Executive and Staff Functions and Responsibilities, Financial Resources: Budget, Source of Finance. Fund Raising Audit & Accountability; Project Formulation: Eligibility criteria Evaluation and Documentation, Public Relation: Need, Importance and Strategies.                                                                                                                                      | <b>14 Hours</b>                        |

| REFERENCES                     |                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
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| Kulkarni, P.D.                 | Central Social Welfare Board                                                                                                                 |
| PRIA b                         | Training of Trainers: A Manual for Participatory training Methodology in Development, New Delhi: Society for Participatory Research in Asia. |
| Rajeshwar Prasad               | Social Administration.                                                                                                                       |
| Ray Johns                      | Executive Board                                                                                                                              |
| Dr. Sachdeva, D.K.             | Social Welfare Administration in India                                                                                                       |
| Sharma, M.P.                   | Public Administration in Theory and Practice                                                                                                 |
| Siddiqui, H.Y. 1984            | Social Work and Social Action, New Delhi: Harnam Publications.                                                                               |
| Slavin, S. (Ed) 1978           | Social Administration, New York: The Haworth Press.                                                                                          |
| Street Elwood                  | Social Work Administration                                                                                                                   |
| Warham Joyce                   | An Introduction to Administration for Social Workers.                                                                                        |
| Gunjal .B.S (2013)(Ed)         | Community Organization and Social Action                                                                                                     |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                  | (Methods of social work) IBH Prakashana, 77 Hind main, BSK III rd stage, Bangalore. |
| <b>DIGITAL REFERENCES</b>                                                                                                                                                                                                                                                        |                                                                                     |
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| <b>Paper Code and Name</b>                                    | <b>PG68T204: SOCIAL POLICY, PLANNING AND DEVELOPMENT</b>                                                                                                                                                        |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                                                 |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                                                 |
| <b>CO 1</b>                                                   | To develop an understanding of social policies in the perspectives of national goals as per the Constitution                                                                                                    |
| <b>CO 2</b>                                                   | To appreciate the relevance of social policy and planning to social work practice                                                                                                                               |
| <b>CO 3</b>                                                   | To understand the indicators and process of social development                                                                                                                                                  |
| <b>CO 4</b>                                                   | To know policy implementation and developmental programs in various sectors                                                                                                                                     |
| <b>CO 5</b>                                                   | This course is offered to enable the students to understand the Government policies, programmes for social development and also to make them understand the Role of Social Workers in the field of development. |

| <b>PARTICULARS</b>                                                                                                                                                                                                                       | <b>Teaching Hours (Max.64 hrs)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Social Policy</b>                                                                                                                                                                                                           |                                    |
| Concept, Definition, Meaning, Objectives, and Scope. Different Models of Social Policy: Residual and Institutional, Redistributive Developmental Models and their applicability to the Indian situations, Process of policy formulation. | <b>12 Hours</b>                    |

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Unit – 2: Planning process and Social Change in India</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |
| Planning process in India: Historical perspective, its Structure & Functions at Centre and State, Five-year plans: An overview of Five-Year Plans, The changing trends in Planning Structure: NITIAYOG: its Structure, Functions and Role in National Development.<br>Social Change in India: Process of Modernization and Social Development, Economic Growth and Development. Indicators of Socio-Economic Development, Social Development as a unified approach to Development. | <b>14 Hours</b> |
| <b>Unit – 3: Developmental attempts in India</b>                                                                                                                                                                                                                                                                                                                                                                                                                                   |                 |
| Early Experiments and their approach to development. Gandhian movement, Bhoodan movement, Co-operative movement. Panchayat Raj – Pre and Post-Independence, Its bodies, Structure and functions; Its Interrelationship with other institutions.                                                                                                                                                                                                                                    | <b>12 Hours</b> |
| <b>Unit – 4: Social Policy Implementation for Development</b>                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
| Various Programmes of Centre and State Pertaining to Health, Housing, Sanitation, Water, Education, Socio-Economic Policies, (with an emphasis to Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), National Urban Livelihoods Mission (NULM), National Rural Livelihoods Mission (NRLM), National Skill Development Corporation (NSDC), food security, issues of unorganized sector, Social and Sustainable Development.                                           | <b>14 Hours</b> |
| <b>Unit – 5: Environment and Disaster Management</b>                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |
| Meaning Definition, Types Phases, Policy, Planning risk Assessment, Resource Analysis and Mobilization Rescue & Evacuation, Relief, Rehabilitation, Reconstruction and Green Social Work.<br>Role of Social Worker in Policy Making, Planning, Development of Environment and Disaster Management.                                                                                                                                                                                 | <b>12 Hours</b> |

| REFERENCES                            |                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------|
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| Rao, d. Bhaskar. 1998                                        | World Summit for Social Development, New Delhi: Discovery Publications.                                                      |
| Rao, v. Lakshmana. 1994:                                     | Essays on Indian Economy, New Delhi: Ashish Publishing House 8/81 Punjabi Bagh.                                              |
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| Rugman alan. 2000                                            | The End of Globalization, London: Random House.                                                                              |
| Seltz, john l. 1990                                          | The Political of Development, Bombay: Popular Prakashan.                                                                     |
| Sharma s.l (ed). 1986                                        | Sing c. Chew, Robert a. Denmark (ed.) 1996: The Under Development, New Delhi: Sage Publications.                             |
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## SEMESTER – II: SOCIAL WORK PRACTICUM

|                                                                     |                                                                                                                                                                      |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P206A: CONCURRENT FIELD WORK</b>                                                                                                                              |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                      |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                      |
| <b>CO 1</b>                                                         | Networking Social Welfare agencies, need/right based services with the individuals, groups and communities through concurrent field work                             |
| <b>CO 2</b>                                                         | Expose the students to apply the social work methods in working with the individuals and communities.                                                                |
| <b>CO 3</b>                                                         | Concurrent fieldwork will develop the techniques among students to working with therapeutic groups.                                                                  |
| <b>CO 4</b>                                                         | The basic and simple skills are to be developed among students                                                                                                       |
| <b>CO 5</b>                                                         | Students will get the knowledge about Administration, meetings, observe, discuss and interview members and assist them to achieve their desired objectives or goals. |

### A. Field Work Practicum

During Second semester, the student trainees shall be placed in various Social Welfare and Other agencies for the individual concurrent field work. This ongoing learning practice is an opportunity provided to the student trainees to develop intervention skills in reality situations. The learner may be encouraged to initiate and participate in direct service delivery through the programmes of the agency where he/she is placed for the field work/practicum. The basic and simple skills are to be developed by the student trainee through this closely supervised and guided field work placement.

|                                                                     |                                                                                                                                                                                                     |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P206B: SUMMER PLACEMENT / INTERNSHIP</b>                                                                                                                                                     |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                                                     |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                                     |
| <b>CO 1</b>                                                         | Active Participation in the visits through the observation, interaction and enquire about the organization and its functioning and recording all information pertaining to the organization         |
| <b>CO 2</b>                                                         | Outreaching the community development services through participatory rapid appraisal and mobilizing and effectively utilizing internal and external community resources for sustainable development |
| <b>CO 3</b>                                                         | Students will indicate the process of simultaneous, systematic, synchronized and cumulative acquisition of knowledge, skills and values for professional competence                                 |
| <b>CO 4</b>                                                         | Students focus on relevant and entry level experience that showcase their training descriptions and prepares for advanced social workers roles and responsibility.                                  |
| <b>CO 5</b>                                                         | Students will have a first-hand experience of filed about the social welfare institution and its many facets.                                                                                       |

## **B. Summer Placement / Internship:**

This component is meant to enable the student trainees to utilize their summer vacation fruitfully to integrate practice skills and techniques learnt. The main objectives of this component are to enable student trainees to experience direct practice and management operations, and to experience self in the role of the professional Social Worker.

The learner must volunteer to locate a setting (of own choice) about one to two months in advance and explore further possibilities of a three week practice learning placement. The learner is to record the learning and submit weekly reports to the Department. A summary report of the entire programme shall be submitted at the end of this programme.

The performance of the student in summer placement shall be assessed by a committee consisting of either the Chairperson of the Department or one Internal examiner and one External examiner on the basis of the reports submitted by them (25 marks) and on their performance in the Viva-Voce examination (25 marks) to be held along with the Field Work Viva-Voce examination of II Semester. The total marks allotted to the summer placement shall be 50 (2 credits)

| <b>Paper Code and Name</b>                                    | <b>PG68O206: OPEN ELECTIVE COURSE<br/>SOCIAL JUSTICE AND EMPOWERMENT FOR PROMOTION<br/>OF WELFARE</b>       |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                             |
| After completion of this paper, the students will be able to: |                                                                                                             |
| <b>CO 1</b>                                                   | Acquaint learners to the basic concepts of social justice and empowerment                                   |
| <b>CO 2</b>                                                   | Help learners to develop sensitivity to the issues and needs of subaltern groups                            |
| <b>CO 3</b>                                                   | Enable learners to identify the areas needing intervention, advocacy and activism                           |
| <b>CO 4</b>                                                   | Enable learners to understand the utility of Social Work methods in these areas                             |
| <b>CO 5</b>                                                   | To understand the basic rights and legislative remedies for the upliftment and promotion of weaker section. |

| <b>PARTICULARS</b>                                                                                                                                       | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Introduction: Social Justice</b>                                                                                                            |                                        |
| Meaning, Nature and Scope; Empowerment – Meaning, Nature and Scope, Rationale and need for social justice and empowerment in contemporary Indian society | <b>13 Hours</b>                        |
| <b>Unit – 2: Issues related to social justice and empowerment of subaltern groups</b>                                                                    |                                        |
| Deprivation, Subjugation, Marginalization, Exploitation, and Dehumanization (Discuss with Suitable examples).                                            | <b>10 Hours</b>                        |

| <b>Unit – 3: Concept of Rights</b>                                                                                                                                                                                                                                                                                                                                                                                    |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Meaning and emergence of the Human Rights, Civil and Political rights, Social-Economic and Cultural Rights; UN Organization – Its Declarations and Conventions; Constitutional Provisions in India.                                                                                                                                                                                                                   | <b>12 Hours</b> |
| <b>Unit – 4: Legislative Remedies</b>                                                                                                                                                                                                                                                                                                                                                                                 |                 |
| 73 <sup>rd</sup> Amendment of the Constitution of India; The Right to Information Act, 2005; National Human Rights Commission Act, 1993; National Commission for Women Act, 1990; The Protection of Civil Rights Act, 1976; The Consumer Protection Act, 1986.                                                                                                                                                        | <b>13 Hours</b> |
| <b>Unit – 5: Schemes for Socio-Economic Empowerment</b>                                                                                                                                                                                                                                                                                                                                                               |                 |
| Mahatma Ghandi National Rural Employment Guarantee Act, Ayushman Bharat Yojan, NITI Ayoga, One Stop Centre Scheme SHG Movement, Santwana; Voluntary Action for Persons with Disability, Integrated Programme for Older Persons, Schemes for Development of Scheduled Castes; Application of Social Work methods in empowering people; Role of Social Workers – As an Advocate, Activist, Educator, Guide and Enabler. | <b>12 Hours</b> |

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|---------------------------------------------------------------------------|--------------------------------------------------------------|
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| Dr. Hajira Kumar                                                          | Social Work, Social Development And Sustainable Development. |
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| Gore M.S.                                                                 | Social Development                                           |
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| Kulkarni P.D.                                                             | Social Policy in India.                                      |
| Murthy M.V.                                                               | Social Work – Philosophy, Methods and fields.                |
| Pyles M.V.                                                                | India's Constitution                                         |
| Sanjay Bhattacharya                                                       | Social Work An Integrated Approach                           |
| Uyer V.R.K.                                                               | Some half hidden aspects of Indian Social Justice            |

### SEMESTER – III - THEORY

|                                                               |                                                                                                                                                                                                                                               |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                    | <b>PG68T301: LABOUR LEGISLATION</b>                                                                                                                                                                                                           |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                                                                               |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                                                                               |
| <b>CO 1</b>                                                   | To acquire knowledge of statutory provisions pertaining to industrial workers.                                                                                                                                                                |
| <b>CO 2</b>                                                   | To develop a critical consciousness about welfare, needs and the relevant legal provisions for workers in the Organized and Unorganized Sectors.                                                                                              |
| <b>CO 3</b>                                                   | Students learn about labour welfare, regulation of conditions of work, industrial relations, social security measures, etc., and also creating critical consciousness about the gaps in the provision of pertinent facilities/legal remedies. |
| <b>CO 4</b>                                                   | To develop a critical Consciousness, Statutory provisions, welfare needs legal provisions of organized and unorganized sectors.                                                                                                               |
| <b>CO 5</b>                                                   | To provide students with an experimental learning opportunity that prepares them for their professional roles with employees and organizations.                                                                                               |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                          | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Labour Legislation and Administration</b>                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Labour Legislation – Concept, Meaning, Objectives, Scope, Principles and Evolution in India.<br>Labour Administration – Evolution of labour administration in India.<br>Ministry of Labour- Structure and Functions at the Centre and State.<br>Factory Inspectorate in Karnataka- Organization and functions.<br>Labour welfare officer -Duties and Functions                                              | <b>12 Hours</b>                        |
| <b>Unit – 2: Labour Welfare Legislations</b>                                                                                                                                                                                                                                                                                                                                                                |                                        |
| Labour Welfare Legislations: (Emphasis on regulation of condition of work, health, safety and welfare):<br>The Factories Act, 1948<br>The Plantation Labour Act, 1951<br>The Mines Act, 1952<br>The Contract Labour (Regulation and Abolition) Act, 1970<br>The Child and Labour (Prohibition and Regulation) Act, 1986<br>The Child and Adolescent Labour (Prohibition and Regulation) Amendment Act, 2016 | <b>14 Hours</b>                        |
| <b>Unit – 3: Legislations of Employment and Industrial Relations</b>                                                                                                                                                                                                                                                                                                                                        |                                        |
| Legislations of Employment and Industrial Relations (with a                                                                                                                                                                                                                                                                                                                                                 | <b>14 Hours</b>                        |

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| specific focus on the concerned chapters/sections only):<br>The Industrial Employment (Standing Orders) Act, 1946<br>The Industrial Disputes Act, 1947<br>The Trade Unions Act, 1926<br>The Karnataka Shops and Commercial Establishments Act, 1961.                                                              |                 |
| <b>Unit – 4: Legislations of Wages and Remuneration</b>                                                                                                                                                                                                                                                           |                 |
| Legislations of Wages and Remuneration:<br>The Payment of Wages Act, 1936<br>The Minimum Wages Act, 1948<br>The Equal Remuneration Act, 1976<br>The Payment of Bonus Act, 1965                                                                                                                                    | <b>12 Hours</b> |
| <b>Unit – 5: Legislation of Social Security and Terminal Benefits</b>                                                                                                                                                                                                                                             |                 |
| Legislation of Social Security and Terminal Benefits (with an emphasis on the benefits, eligibility criteria, etc):<br>The Employees’ State Insurance Act, 1948<br>The Maternity Benefit Act, 1961<br>The Employees’ Provident Funds and Miscellaneous Provisions Act, 1952<br>The Payment of Gratuity Act, 1972. | <b>12 Hours</b> |

|                                                        |                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>REFERENCES</b>                                      |                                                                                                 |
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| Malhotra O.P.                                          | The Law of Industrial Disputes.                                                                 |
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| Saxena R.C.                                            | Labour Problems and Labour Welfare.                                                             |
| Srivastava P.C.                                        | Social Security in India.                                                                       |
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| Joseph, T.M. 2009                                      | Industrial Law, Mumbai Himalaya Publication Pvt. Ltd.                                           |
| Somani Anjan & Mishra 2009                             | To Employment Laws Jaipur, Ramesh Book Depot                                                    |
| Bare Acts of all the legislation included in the paper |                                                                                                 |
| <b>DIGITAL REFERENCES</b>                              |                                                                                                 |
| International Labour Review                            | : <a href="http://bit.ly/2DZfYas">http://bit.ly/2DZfYas</a>                                     |
| International Journal of Labour Research               | : <a href="http://bit.ly/2EyMhtT">http://bit.ly/2EyMhtT</a>                                     |
| Ministry of Labour Employment                          | : <a href="https://labour.gov.in">https://labour.gov.in</a>                                     |
| Labour Law News                                        | : <a href="https://biblehr.com/">https://biblehr.com/</a>                                       |

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|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Practical Journal of Labour Law                                                                                          | : <a href="https://www.labourlawreporter.com/">https://www.labourlawreporter.com/</a>                                                                                                         |
| Chief Labour Commissioner                                                                                                | : <a href="http://clc.gov.in">http://clc.gov.in</a>                                                                                                                                           |
| Department of Labour (Govt. of Kar)                                                                                      | : <a href="http://labour.kar.nic.in/">http://labour.kar.nic.in/</a>                                                                                                                           |
| Department of Labour, (Govt. of Kar)                                                                                     | : <a href="http://www.ekarmika.com">http://www.ekarmika.com</a>                                                                                                                               |
| Labor Studies Journal, The Sage Publication                                                                              |                                                                                                                                                                                               |
| Journal of Labour Economics, Sole                                                                                        |                                                                                                                                                                                               |
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| <b>Paper Code and Name</b>                                    | <b>PG68T302: HUMAN RESOURCE MANAGEMENT</b>                                                                                                                                                    |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                                               |
| After completion of this paper, the students will be able to: |                                                                                                                                                                                               |
| <b>CO 1</b>                                                   | To develop knowledge for conceptual understanding of various concepts, nature and paradigms of Human Resource Management                                                                      |
| <b>CO 2</b>                                                   | To acquire knowledge and understanding about HRM Functions and issues of Human Resource Management.                                                                                           |
| <b>CO 3</b>                                                   | To Give insight about Industrial Communication and its application in HRM                                                                                                                     |
| <b>CO 4</b>                                                   | Students will understand the process of Human Resource Management, so that students understand the factors responsible for effective management of Human Resources in the industrial setting. |
| <b>CO 5</b>                                                   | To give insight to the students about conceptual understanding of Human Resource Management its functions and applications in Industrial setting.                                             |

| <b>PARTICULARS</b>                                                                                                                                                                                        | <b>Teaching Hours (Max.64 hrs)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Human Resource Management</b>                                                                                                                                                                |                                    |
| Meaning, definitions, scope, principles, components, historical development of HRM in abroad and in India. Personnel policies: HR Managers role and functions, soft skills and job skills for HR manager. | <b>12 Hours</b>                    |
| <b>Unit – 2: Human Resource Planning</b>                                                                                                                                                                  |                                    |
| Human Resource Management Functions: procurement, Human Resource Planning: concept and importance, Job Analysis and Job                                                                                   | <b>14 Hours</b>                    |

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| Evaluation; Recruitment; Sources and Methods of Selection, Induction, Placement and Confirmation.<br>Compensation: Determinants, components, incentives -financial and non-financial incentives<br>Performance Appraisal; need, purpose and methods, competency mapping<br>Personnel Promotion, Transfer, Demotion and Discharge<br>HRM practice in organization and recent trends. |                 |
| <b>Unit – 3: Development of Human Resources</b>                                                                                                                                                                                                                                                                                                                                     |                 |
| Importance of Human Factor, Human Resource Development: semantics, definitions, objective, development of HRD, HRD- Sub system, - Management by Objectives (MBO), HR. Outsourcing, employee/ job satisfaction.                                                                                                                                                                      | <b>12 Hours</b> |
| <b>Unit – 4: Human Resource Development</b>                                                                                                                                                                                                                                                                                                                                         |                 |
| Types, Training; semantics, training need analysis, training methods, training evaluation, Executive Development Programs: significance and methods Total Quality Management (TQM), Quality Circles, Corporate Social Responsibility, HR Audit, SWOT Analysis, Johari Window.                                                                                                       | <b>14 Hours</b> |
| <b>Unit – 5: Industrial Communication</b>                                                                                                                                                                                                                                                                                                                                           |                 |
| Meaning, types, barrier of Communication,<br>Management Information Services: concept, objectives, application of Management Information Service in HRM<br>Organizational Behavior; concept and importance in industry.<br>Organization Development Meaning, characteristics, and OD interventions.                                                                                 | <b>12 Hours</b> |

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| <b>Paper Code and Name</b>                                    | <b>PG68T303: CORRECTIONAL SOCIAL WORK</b>                                                            |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                      |
| After completion of this paper, the students will be able to: |                                                                                                      |
| <b>CO 1</b>                                                   | To study and understand theories, types and courses of crime.                                        |
| <b>CO 2</b>                                                   | To understand theories of punishment and correctional legislations in India.                         |
| <b>CO 3</b>                                                   | To have knowledge on concept and problems of victims                                                 |
| <b>CO 4</b>                                                   | To get familiarity with institutional and non-institutional services for juveniles.                  |
| <b>CO 5</b>                                                   | To gain insight into role of social worker in prevention, treatment and rehabilitation of offenders. |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Concept of Crime</b>                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |
| Definition, Meaning and Nature; Types of Crime: Organized crime, Habitual Crime, White Collar crime, Professional crime and Cyber crime.<br>Theories of Crime; Classical and Contemporary theories of crime: Economic, Social and Psychological.                                                                                                                                                                                         | <b>12 Hours</b>                        |
| <b>Unit – 2: Victimology – Penology and Correctional legislation in India</b>                                                                                                                                                                                                                                                                                                                                                            |                                        |
| Victimology: Definition, Meaning and Scope, Problems of Victims and their families.<br>Penology: Definition, Meaning and Theories of punishment.<br>Correctional legislation in India:<br>The Immoral Traffic (Prevention) Act, 1956<br>Probation of offenders Act, 1958<br>Narcotics and Psychotropic Substance Act, 1985<br>Juvenile Justice (Care and Protection) Act, 2000<br>Protection of Children from Sexual Offences Act, 2012. | <b>16 Hours</b>                        |
| <b>Unit – 3: Prison Administration</b>                                                                                                                                                                                                                                                                                                                                                                                                   |                                        |
| Prisons Act, 1962, Objectives, Organizational Structure and Functions, Prison Reforms, Prison Labour, Prison Panchayath System, Problems of Prison Administration, Rehabilitation and Release.<br>Probation and Parole: Meaning, Objectives and Services.                                                                                                                                                                                | <b>12 Hours</b>                        |
| <b>Unit – 4: Institutional and Non Institutional Services:</b>                                                                                                                                                                                                                                                                                                                                                                           |                                        |

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| Institutional Services; Observation Home, Children Home, Shelter home: Establishment, Objectives and Services.<br>Child Welfare Committee and Juvenile Justice Board: Establishment, Objectives and Services.<br>Non-institutional services: Adoption, Foster-Care, After care Services: Establishment, Objectives and Services. | <b>12 Hours</b> |
| <b>Unit – 5: Correctional Social Work</b>                                                                                                                                                                                                                                                                                        |                 |
| Meaning, objectives and scope.<br>Application of Social Work Methods in Correctional Institutions in implementing Institutional and Non-Institutional services.<br>Role of Social Worker in the Correctional Administration.<br>Role of Government and Non Government Organizations in Control and Prevention of Crime.          | <b>12 Hours</b> |

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| <b>Paper Code and Name</b>                                    | <b>PG68T304: MEDICAL AND PSYCHIATRIC SOCIAL WORK</b>                                                                                              |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                   |
| After completion of this paper, the students will be able to: |                                                                                                                                                   |
| <b>CO 1</b>                                                   | To understand the nature and scope of Medical and Psychiatric Social Work.                                                                        |
| <b>CO 2</b>                                                   | To provide basic understanding of various chronic and terminal illnesses to the students.                                                         |
| <b>CO 3</b>                                                   | To help the student to develop capacity to differentiate different types of mental illnesses based on signs and symptoms of the clients/patients. |

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| <b>CO 4</b> | This course is offered to the Social Work students to understand the nature of Medical and Psychiatric Social Work as a specialized field, and to impart basic knowledge and skills of working with Patients and caregivers. |
| <b>CO 5</b> | To develop capacity to differentiate different types of mental illness and physical illness, which enable them to use social work practices, knowledge and skills in the field of health                                     |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Introduction to Medical and Psychiatric Social Work</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |
| Meaning, Definition, Nature, Scope, and Functions of Medical and Psychiatric Social work. Historical development of Medical and Psychiatric Social Work in the West and in India. Changing trends in Medical and Psychiatric Social Work Practice                                                                                                                                                                                                                                                                                                                    | <b>12 Hours</b>                        |
| <b>Unit – 2: Medical Diseases and Disorders</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Etiology, Symptoms, Diagnosis, Treatment and Management<br>Childhood disorders: D.P.T., Measles, Cerebral Palsy, Polio.<br>Chronic and Terminal diseases: Tuberculosis, Diabetes, Hypertension, Thyroid, Coronary- Heart Diseases, Sexually Transmitted Diseases, Reproductive Tract Diseases, HIV/AIDS, Renal Dysfunction, and Cancer.<br>Old age Disorders- Arthritis and Physical Disabilities.<br>Psycho-Social aspects of Diseases and Disorders.                                                                                                               | <b>14 Hours</b>                        |
| <b>Unit – 3: Psychiatric and Neurological Disorders</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Causes, Symptoms, Diagnosis, Treatment and Management<br>Mental health problems in Childhood and Adolescence – Developmental Disorders, Learning Disabilities, Behavioural, Conduct and Psychological Disorders.<br>Mental health problems in Adults – Schizophrenia, Affective Disorder, Psychoneurotic Disorders , Personality Disorders, Sexual Disorders, Substance Abuse.<br>Mental health problems in Old age - Dementia/Alzheimer's Disease, Stroke, Parkinson.<br>Impact of Psychiatric and Neurological disorders on individuals, Care givers and families. | <b>16 Hours</b>                        |
| <b>Unit – 4: Roles of Social Worker</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| Roles of Social Worker in Medical and Psychiatric settings: Study, Diagnosis, Treatment, Therapeutic Interventions, Follow-up, Aftercare, Palliative care and Rehabilitation of patients/ and their family. Understanding the patient as a person.                                                                                                                                                                                                                                                                                                                   | <b>12 Hours</b>                        |
| <b>Unit – 5: Administrations of Social Service Departments</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                        |
| Formation and Administrations of social service departments in the hospital settings:<br>Team Work – Meaning, Definition, Importance. Role of social worker in multidisciplinary team approach in health setting.                                                                                                                                                                                                                                                                                                                                                    | <b>10 Hours</b>                        |

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| Delux Robert                                     | Mental Health and Social Welfare                                                                                                                                           |
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| Bhatt                                            | The Physically handicapped in India                                                                                                                                        |
| Mechanic                                         | Medical Sociology                                                                                                                                                          |
| Stanley King                                     | Social Perspective of Illness                                                                                                                                              |
| Zophia Butryam                                   | Social Work in Medical Care                                                                                                                                                |

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| John J.H.                                                                                                                                                                                                                                                          | Principles of Public Health Administration                                              |
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### SEMESTER – III: SOCIAL WORK PRACTICUM

|                                                                     |                                                                                                                                          |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P305A: CONCURRENT FIELD WORK-INDIVIDUAL PLACEMENT</b>                                                                             |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                          |
| After completion of this practical's, the students will be able to: |                                                                                                                                          |
| <b>CO 1</b>                                                         | Networking Social Welfare agencies, need/right based services with the individuals, groups and communities through concurrent field work |

|             |                                                                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CO 2</b> | Exposes students to methods of working with individuals and communities.                                                                                             |
| <b>CO 3</b> | Students will get the knowledge about Administration, meetings, observe, discuss and interview members and assist them to achieve their desired objectives or goals. |
| <b>CO 4</b> | To expose students to working with therapeutic groups and their treatment.                                                                                           |
| <b>CO 5</b> | Students will have good foundational experience before working with clients and communities.                                                                         |

#### **A. Concurrent Field Work – Individual Placement**

During this semester the field work programme shall commence with orientation lectures about various practice fields for about 2 to 4 weeks depending on the availability of total field work days for the academic term. Further, the student trainees, after counseling and assessing their aptitude, shall be placed in various practice fields of their choice under the supervision of faculty supervisors.

The student trainees are required to have first hand understanding of the problems / needs of the client system in their respective field of practice and develop skills of Social Work intervention in reality situations. This is an ongoing learning practice, which is meant to enable student trainees to develop their professional self by clarifying and imbibing values which sustain positive attitudes and professional ethics. This programme is also meant to develop capacity for self direction growth and change through self awareness.

|                                                                     |                                                                                                                                                                                 |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P305B: STUDY TOUR</b>                                                                                                                                                    |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                                 |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                 |
| <b>CO 1</b>                                                         | Acquire skills in planning, organizing, implementing the tour with effective time management and team work and students will learn to take responsibilities on behalf of others |
| <b>CO 2</b>                                                         | Enables the students for decision making, resources management, sharing of tasks, cooperation and coordination.                                                                 |
| <b>CO 3</b>                                                         | Expose the students to different lifestyles, places and eras to deepen present social phenomenon.                                                                               |
| <b>CO 4</b>                                                         | Students will acquire new or modifying existing knowledge, behaviours, skills, values and preferences.                                                                          |
| <b>CO 5</b>                                                         | Students by travelling to different geographies are exposed to ideas, customs and broaden their horizon and awareness through interaction with professional experts.            |

#### **B. Study Tour**

A study tour for a period of 7 days shall be conducted under the guidance of a faculty member (Permanent/ Teaching Assistants) after the semester end examination of III

Semester, to provide an experience to study and appreciate innovative efforts by individuals and groups towards meeting peoples' core needs and initiate development. Each student trainee is required to submit a report of his/her experience of tour including the preparations made for the same, on return from the tour to the Department. These shall be assessed by a committee consisting of the Tour Director and the Chairperson of the Department for 25 marks and the student trainees have to appear for a Viva-Voce Examination along with the Field Work Viva-Voce Examination of III Semester for the rest of 25 marks. Thus, the total marks allotted to the Study Tour shall be 50 and credits shall be 2.

| <b>Paper Code and Name</b>                                    | <b>PG68T306: OPEN ELECTIVE COURSE<br/>FORMATION AND MANAGEMENT OF NON-GOVERNMENT ORGANIZATION</b>                                                    |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                      |
| After completion of this paper, the students will be able to: |                                                                                                                                                      |
| <b>CO 1</b>                                                   | Develop knowledge and understanding about formulation and function of NGO's.                                                                         |
| <b>CO 2</b>                                                   | Gain knowledge about project formulation and implementation                                                                                          |
| <b>CO 3</b>                                                   | Provide understanding about NGO's Administration.                                                                                                    |
| <b>CO 4</b>                                                   | This course is offered to Non-Social Work students to have basic understanding of formation of NGOs and their role in Social Development Activities. |
| <b>CO 5</b>                                                   | To sensitize the students about the significance of Non-Government Organization in implementing the development and welfare programmes.              |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                    | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Non Government Organization</b>                                                                                                                                                                                                                                                                                                                          |                                        |
| Semantics, Objectives, Functions, and Problems, Role of NGOs in implementing development programmes, Approaches to identify the community needs Participatory Rural Appraisal Techniques (PRA) Methodology of working with people, People Participation, Forms of other organization, voluntary organization, Public trust, citizen forums, their Role and Functions. | <b>16 Hours</b>                        |
| <b>Unit – 2: Process of Organization Formulation</b>                                                                                                                                                                                                                                                                                                                  |                                        |
| Legal aspects: Provisions of The Societies' Registration Act, The Indian Trust Act, The Companies Act, The Income Tax Act, The Foreign Contribution Regulation Act.                                                                                                                                                                                                   | <b>12 Hours</b>                        |
| <b>Unit – 3: Non Government Organization Management</b>                                                                                                                                                                                                                                                                                                               |                                        |
| Personnel Administration, Personnel Policies and Development of its Human Resources; Resource mobilization and utilization for development work; Funding agencies; sources of funding.                                                                                                                                                                                | <b>12 Hours</b>                        |
| <b>Unit – 4: Project Planning</b>                                                                                                                                                                                                                                                                                                                                     |                                        |
| Project planning, formulation steps, eligibility criteria Evaluation,                                                                                                                                                                                                                                                                                                 | <b>12 Hours</b>                        |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Monitoring, Supervision and Documentation.                                                                                                          |                 |
| <b>Unit – 5: Management Programmes</b>                                                                                                              |                 |
| Management Information Service (MIS), Budgeting, Accounts Maintenance, Auditing, Reporting and Documentation, Public Relation: need and importance. | <b>12 Hours</b> |

| <b>REFERENCES</b>                                                                                                                                                                                                                                    |                                                                                                                          |
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| <b>DIGITAL REFERENCES</b>                                                                                                                                                                                                                            |                                                                                                                          |
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### SEMESTER – IV - THEORY

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|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                    | <b>PG68T401: LEGAL SYSTEMS IN INDIA</b>                                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                    |
| After completion of this paper, the students will be able to: |                                                                                                                    |
| <b>CO 1</b>                                                   | To get acquainted with the functioning of legal system in India;                                                   |
| <b>CO 2</b>                                                   | To gain an insight into the problems faced by people while interacting with this system;                           |
| <b>CO 3</b>                                                   | To develop an understanding of the processes of free legal aid to the marginalized and public interest litigation. |
| <b>CO 4</b>                                                   | To acquire knowledge about legal system function, process, remedies, various machineries and existing provisions.  |
| <b>CO 5</b>                                                   | To create awareness about the preventive and remedial services of government and Non government.                   |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Teaching Hours (Max.64 hrs)</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Law</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |                                    |
| Introduction, Definition, Meaning, Characteristics, Principles, Role. Types of Law: Substantive and Procedural, Civil and Criminal                                                                                                                                                                                                                                                                                                          | <b>12 Hours</b>                    |
| <b>Unit – 2: Rights</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |                                    |
| Concept, Meaning and Nature.<br>Legal Rights of People; Human Rights; Constitutional Rights; Rights of the Vulnerable viz., Children, Women and Weaker Sections.                                                                                                                                                                                                                                                                            | <b>12 Hours</b>                    |
| <b>Unit – 3: Remedies for Violation of Rights</b>                                                                                                                                                                                                                                                                                                                                                                                           |                                    |
| Remedies under the Constitution – Art 32 and Art 226;<br>Remedies under Civil Law – Hierarchy of Civil Courts;<br>Remedies under Criminal Law – Hierarchy of Criminal Courts;<br>Remedies under Special Laws – Consumer Forum, Family Courts, Special Courts under Protection of Civil Rights Act 1976 with new Amended Act and the Scheduled Caste and the Scheduled Tribes (Prevention of Atrocities) Act 1989.<br>Human Rights Act 1993. | <b>14 Hours</b>                    |
| <b>Unit – 4: Law Enforcement Machineries</b>                                                                                                                                                                                                                                                                                                                                                                                                |                                    |
| Police, Prosecution, Protection Officers, Probation Officers, Santwana, DCPU etc., under Women and Child Development Department; Human Rights enforcement Machinery – National and State Level; Machinery available under National and State Women's Commissions.                                                                                                                                                                           | <b>14 Hours</b>                    |
| <b>Unit – 5: Legal Aid in India</b>                                                                                                                                                                                                                                                                                                                                                                                                         |                                    |
| Right to Information Act, 2005; 73 <sup>rd</sup> Amendment of the Constitution; Free Legal Aid in India; Public Interest Litigation in India; Role of Social Workers at different levels of functioning of                                                                                                                                                                                                                                  | <b>12 Hours</b>                    |

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| judicial system and the related agencies. |  |
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| REFERENCES                                                                                                                                                                                                                         |                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
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| Government of India                                                                                                                                                                                                                | Report of the Legal Aid Committee, 1973.                                                                            |
| S.K. Agrwal                                                                                                                                                                                                                        | Public Interest Litigation.                                                                                         |
| Bare Acts of all the relevant Legislation included in the syllabus for this course.                                                                                                                                                |                                                                                                                     |
| Government of India                                                                                                                                                                                                                | Constitution of India                                                                                               |
| DIGITAL REFERENCES                                                                                                                                                                                                                 |                                                                                                                     |
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| Paper Code and Name                                           | PG68T402: INDUSTRIAL RELATIONS                                                     |
|---------------------------------------------------------------|------------------------------------------------------------------------------------|
| COURSE OUTCOMES (COs)                                         |                                                                                    |
| After completion of this paper, the students will be able to: |                                                                                    |
| CO 1                                                          | To Develop understanding about dynamics of labour management relations in industry |
| CO 2                                                          | To Impart knowledge about practices and programs of labour welfare                 |
| CO 3                                                          | To impact knowledge about dynamics of labour management and its practices.         |
| CO 4                                                          | To acquaint the students about industrial psychology and its application           |

|             |                                                                |
|-------------|----------------------------------------------------------------|
|             | in industrial setting                                          |
| <b>CO 5</b> | To Give insight about industrial psychology and its use in HRM |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Labour Welfare in India</b>                                                                                                                                                                                                                                                                             |                                        |
| Concept of labour, Labour problems: Absenteeism, Turnover, Alcoholism and Drug dependency, labour welfare; need and scope, Historical Development of labour welfare in India, agencies of labour welfare, labour welfare officer –role and functions. Social Security. Workers Education Scheme. Employee counseling | <b>14 Hours</b>                        |
| <b>Unit – 2: Industrial Relation</b>                                                                                                                                                                                                                                                                                 |                                        |
| Determinants and development of industrial relations. Industrial disputes; causes, resolution of industrial disputes, Collective Bargaining, Participative management: Gandian concept and philosophy on labour. Quality of Work Life: Meaning and importance.                                                       | <b>14 Hours</b>                        |
| <b>Unit – 3: Employee Safety and Health</b>                                                                                                                                                                                                                                                                          |                                        |
| Industrial Safety; concept; meaning, present trends, Role of Management.<br>Accidents: causes and preventive measures, industrial health and hygiene.<br>Industrial discipline : Grievance: type ; individual; and collective, causes and redressal of grievances, domestic enquiry                                  | <b>12 Hours</b>                        |
| <b>Unit – 4: Industrial Psychology</b>                                                                                                                                                                                                                                                                               |                                        |
| Definition, importance, application of industrial Psychology in HRM, Motivation; importance, and theories of motivation: Maslow, McGregor, Herzberg, Morale: concept and importance. Productivity: concept and factors, productivity movement in India. knowledge management and employee retention program          | <b>14 Hours</b>                        |
| <b>Unit – 5: Trade Unionism</b>                                                                                                                                                                                                                                                                                      |                                        |
| Concept, functions, History of Trade Union Movement in India. Trade union problems in India. Impact of Globalization on labour and trade union, India and ILO.                                                                                                                                                       | <b>10 Hours</b>                        |

| <b>REFERENCES</b>   |                                                                                             |
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|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
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| Agnihotri :                                      | Industrial Relations in India.                                                                                                                      |
| Devey                                            | Contemporary Collective Bargaining.                                                                                                                 |
| C.B.Kumar                                        | Development of Industrial Relations in India.                                                                                                       |
| Charlea Myers & Subbaiah Kannappan               | Industrial Relations in India.                                                                                                                      |
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| <b>Paper Code and Name</b>                                    | <b>PG68T403: COUNSELING THEORY AND PRACTICE</b>                                                                                                                |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                                                                |
| After completion of this paper, the students will be able to: |                                                                                                                                                                |
| <b>CO 1</b>                                                   | To develop a holistic understanding of counseling as a tool for helping process.                                                                               |
| <b>CO 2</b>                                                   | To familiarize learners with theoretical understanding regarding different theories and approaches under-pinnings for goals, values, processes and techniques. |
| <b>CO 3</b>                                                   | To develop skills, attitudes and competencies required to deal with human beings whenever in need of help in real life situations.                             |
| <b>CO 4</b>                                                   | To expertise as a effective counselor and enable to set up a counseling centres in indigenous settings.                                                        |
| <b>CO 5</b>                                                   | To gain insight about theoretical base and approaches underlying counseling practices.                                                                         |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Teaching Hours<br/>(Max.64 hrs)</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Unit – 1: Counselling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |
| Definitions, Elements, Nature, Characteristics, Goals and Scope. Evolution of counseling. Types of Counseling. Counselling in multi-cultural and pluralistic Society. Ethical nature of Counselling, Qualities of an effective Counsellor.                                                                                                                                                                                                                                                                                                                                                  | <b>10 Hours</b>                        |
| <b>Unit – 2: Foundations of Counseling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                        |
| Philosophical foundations: dignity of human person.<br>Sociological foundations: Influence of Social System.<br>Psychological foundations: concepts of self,<br>Developmental needs at different stages.                                                                                                                                                                                                                                                                                                                                                                                    | <b>12 Hours</b>                        |
| <b>Unit – 3: Theories and Approaches in Counseling</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| Client-centered Therapy<br>Transactional Analysis<br>Rational Emotive Therapy<br>Reality Therapy<br>Eclectic Approach.<br>Cognitive Behavioural Therapy<br>Family Counselling                                                                                                                                                                                                                                                                                                                                                                                                               | <b>15 Hours</b>                        |
| <b>Unit – 4: Counseling relationship and Process</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |
| Regard and respect, Accurate Empathy, Self disclosure, Transference-Counter transference, Termination of relationship (follow-up and referral).<br>Process: Problem Exploration and Clarification (skills – active listening, verbal and non-verbal messages and behaviour, Client’s Self-exploration), Self – Understanding. (Focusing, Summarizing, and probing, confrontation - Stress/Burn out - ways to cope with it, Facilitating Actions (developing a new perspective, help client to choose alternatives, formulate action plan, implement, evaluate, terminations and follow-up.) | <b>15 Hours</b>                        |
| <b>Unit – 5: Counseling in Indigenous Settings</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |
| Family (marital, parenting, Childhood issues), School (learning disorders), Industry (substance abuse, absenteeism), Correctional (personality/ behavior modification, rehabilitation), and Health (chronic and terminal illnesses).                                                                                                                                                                                                                                                                                                                                                        | <b>12 Hours</b>                        |

| <b>REFERENCES</b>                                                            |                                                                                                    |
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| <b>DIGITAL REFERENCES</b>                                                                                                                                                                                                            |                                                                                          |
| Counseling Tutor (2011), An introduction to counseling skills Available at <a href="https://www.youtube.com/watch?v=UgxeU-54ai8">https://www.youtube.com/watch?v=UgxeU-54ai8</a>                                                     |                                                                                          |
| Todd Grande (2016), Theories of Counseling - Psychoanalytic Therapy Available at <a href="https://www.youtube.com/watch?v=J3dF4gvK8wo">https://www.youtube.com/watch?v=J3dF4gvK8wo</a>                                               |                                                                                          |
| Rinitajain (2015), Student counselling session, Available at <a href="https://www.youtube.com/watch?v=X8mULr-pVIE">https://www.youtube.com/watch?v=X8mULr-pVIE</a> <a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a> |                                                                                          |

| <b>Paper Code and Name</b>                                    | <b>PG68T404: PUBLIC HEALTH AND SOCIAL WORK</b>                                                                  |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                  |                                                                                                                 |
| After completion of this paper, the students will be able to: |                                                                                                                 |
| <b>CO 1</b>                                                   | To provide clarity about the concept and components of Public health.                                           |
| <b>CO 2</b>                                                   | To understand application of social work methods in Public health.                                              |
| <b>CO 3</b>                                                   | To enable the students to realize their role in fulfilling goals of community health programmes                 |
| <b>CO 4</b>                                                   | To understand about the conceptual role of the students in development of community health.                     |
| <b>CO 5</b>                                                   | To assess the contribution of public health policies and programmes in developing public health system in India |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                        | <b>Teaching Hours (Max.64 hrs)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Unit – 1: Health</b>                                                                                                                                                                                                                                   |                                    |
| Concept, Meaning, Definition, Dimensions of Health, Concepts of Wellbeing, Determinants of Health. Changing perspective of health care: Traditional health care system of India Vs Modern health care system. Role of Heredity and Environment in Health. | <b>10 Hours</b>                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Unit – 2: Public Health</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |
| Rationale, Meaning, Definition and Scope of public health. Models of community health- Institutional and Non-institutional. Process and Practice, Principles of health care. Goals of Public health programmes – Preventive, Promotive, Curative and Rehabilitative.                                                                                                                                                                                                                                                                                                                                 | <b>12 Hours</b> |
| <b>Unit – 3: Public Health Policies and Programmes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |
| National health policies and programmes and its impact. National Mental Health Policy 1982, National Health Bill (NCBI) 2009, National Population Policy 2000, Mental Health Act, 1987, The persons with disabilities (Equal opportunities, protection of Rights and full participation) Act, 1995. National Mental Health Programme. Current Health Schemes in India.                                                                                                                                                                                                                               | <b>12 Hours</b> |
| <b>Unit – 4: Public Health System in India</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                 |
| Government in Central, State, District, Taluka and Village level. Health Education, Maternal and Child Health Services, Integrated Child Development Services (ICDS) Scheme, Health and Hygiene, Nutrition and Health. NRHM & NUHM.<br>Role of Social Worker in Planning and management of care and services at different healthcare centers (general hospitals, special clinics/hospitals, mental hospitals, community health centers, child guidance clinics, correctional institutions, industries and family welfare center). Communication theories and its application in the field of health. | <b>16 Hours</b> |
| <b>Unit – 5: Social Work Interventions in Public Health</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |
| Application of Social Work methods and techniques for achieving the community health needs in the country. Role of Social Workers in training the healthcare service providers (teachers, parents, NGOs, Local Volunteer and traditional healers with reference to their contribution to community health). Contributions of International and National Organizations towards achieving the goal of community health programmes. Social Action and Advocacy in the field of health.                                                                                                                  | <b>14 Hours</b> |

|                                 |                                                                           |
|---------------------------------|---------------------------------------------------------------------------|
| <b>REFERENCES</b>               |                                                                           |
| Stanley King                    | Social Perspective of Illness                                             |
| Zophia Butryam                  | Social Work in Medical Care                                               |
| Willian P. Shephard             | Essentials of Public Health                                               |
| John J.H.                       | Principles of Public Health Administration                                |
| Joshi.P.C.& Mahajan.A.(Eds)1990 | A text book of Medical Sociology; Reliance Publishing House, New Delhi-8. |
| Goldstine, Dora (Ed)            | Reading in the theory and practice of Medical Social Work                 |
| Banerjee, G.R.                  | Papers on Social Work.                                                    |
| Park, J.S. and Park E.          | Text Book of preventive and Social Medicine.                              |
| Wilson, G. Smithe               | Preventive Health and Social Medicine.                                    |
| Sentia Rao                      | A Hand book of Preventive Health and Social Medicine.                     |

|                                              |                                                                                          |
|----------------------------------------------|------------------------------------------------------------------------------------------|
| Delux Robert                                 | Mental Health and Social Welfare                                                         |
| Mane and Gandevia (Eds)1993                  | Mental Health in India. TISS, Bombay 400019                                              |
| Srinivas Murthy R. and Burns, B.J. (Eds)1984 | Community Mental Health- Proceeding of Indo-US symposium.                                |
| Bhave.V.N. Depdhar.N.S.& Bhave.S.V. 1995.    | “You and Your Health”, National Book Trust, India New Delhi-16.                          |
| Shrinivasmurthy.R. & Barbara.J.B.(Eds) 1992. | “Proceedings of the Indo-US Symposium on Community Mental Health”, NIMHANS Bangalore-29. |
| Chakaley.A.M. 1987                           | A text for Health Worker (ANM) Vol I&II,Wiley Eastern Ltd., Bangalore.                   |
| UNICEF                                       | Health and Basic Services, New Delhi, UNICEF South Central Asia Regional Office.         |
| Bajpai, P.K. (Ed) (1997)                     | Social Work Perspective on Health; Rawat Publications, New Delhi                         |

| <b>Paper Code and Name</b>                                          | <b>PG68T405: RESEARCH PROJECT/DISSERTATION</b>                                                                                                                                                           |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                                                          |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                                          |
| <b>CO 1</b>                                                         | It offers the opportunity to students in fascinate and passionate of research. It develops skills in planning the research, time management, writing and reporting, critical thinking and communication. |
| <b>CO 2</b>                                                         | Students have an opportunity and freedom to explore in-depth research into a topic of their interest.                                                                                                    |
| <b>CO 3</b>                                                         | Students bear responsibility for the quality of learning that place in the Research project and for the eventual written outcome.                                                                        |
| <b>CO 4</b>                                                         | Research can help students decide on a career path in connections to their own interests that may not ordinarily be made in passive learning environments.                                               |
| <b>CO 5</b>                                                         | Research offers students a concrete future career goals and further academic studies.                                                                                                                    |

Each candidate is required to carry out an empirical study during IV semester. He/she shall select a topic for project work at the beginning of IV semester and carry out the empirical study in consultation with the faculty supervisor to whom he/she has been assigned. On completion of the same, the report of his/her findings shall be bound and submitted along with the report of his/her supervisor about the work to the department, before the end of IV semester in which the candidate is permitted to take the final examination. The Faculty Supervisor/ Project guide is required to submit his/her assessment of the performance of each of the student assigned to him/her for 50 marks to the Chairperson of the Department. The same shall be subject to moderation by the Department Council.

The report shall be evaluated by either the Chairperson of the Department or an internal examiner and an External Examiner for 100 marks and a Viva-Voce examination shall be held by them for 50 marks. The candidate is required to defend oneself in the Viva-Voce examination.

#### **SEMESTER – IV: SOCIAL WORK PRACTICUM**

|                                                                     |                                                                                                                                                                        |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P406A: CONCURRENT FIELD WORK-INDIVIDUAL PLACEMENT</b>                                                                                                           |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                        |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                        |
| <b>CO 1</b>                                                         | Networking Social Welfare agencies, need/right based services with the individuals, groups and communities through concurrent field work                               |
| <b>CO 2</b>                                                         | Exposes students to methods of working with individuals and communities, the purpose of concurrent fieldwork is to expose students to working with therapeutic groups. |
| <b>CO 3</b>                                                         | Students will get the knowledge about Administration, meetings, observe, discuss and interview members and assist them to achieve their desired objectives or goals.   |
| <b>CO 4</b>                                                         | Multifaceted nature of learning in field settings helps the students to become competent and ethical professional social workers                                       |
| <b>CO 5</b>                                                         | Provides a unique opportunity to deepen the knowledge through active participation and develop sense of self in practice and build professional identity.              |

#### **A. Concurrent Field Work – Individual Placement**

For the Fourth Semester, the Social Work Practicum shall consist of Concurrent Field Work-Individual Placement and Block Placement. The marks allotted for the concurrent field work are 150 (6 credits) and Block Placement are 50 (2 credits). Both these components together are treated as one unit.

The Student trainee shall continue his/her practice learning in the same field from third semester and complete his/her intensive field work programme, acquiring the professional knowledge and skills. The total marks allotted and the mode of assessment shall be the same as in III semester.

|                                                                     |                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                          | <b>PG68P406B: BLOCK PLACEMENT / INTERNSHIP</b>                                                                                                                                                                                                                                                                                      |
| <b>COURSE OUTCOMES (COs)</b>                                        |                                                                                                                                                                                                                                                                                                                                     |
| After completion of this practical's, the students will be able to: |                                                                                                                                                                                                                                                                                                                                     |
| <b>CO 1</b>                                                         | Block Field work is to broaden the student's perspectives of development and welfare concerns, offer pre-employment work experiences and enable him/her to assume professional responsibilities after graduation                                                                                                                    |
| <b>CO 2</b>                                                         | The learner gets involved with direct practice with the client system and with the ongoing management operations of the setting. It also enables learners to integrate learning and generate newer learning by participating in the intervention processes over a period of 4 weeks (one month) continuously, in a specific agency. |
| <b>CO 3</b>                                                         | . It enhance the practical skills, greater understanding of reality situations, appreciation of other's efforts and develop sensitivity to gaps and enhance awareness of self in the role of a Professional Social Worker                                                                                                           |
| <b>CO 4</b>                                                         | Internship is one of the opportunities provided to the students to strengthen his/her skill and knowledge base in his/her area of interest. It aims to provide an opportunity to experience day-to-day work in a social work setting.                                                                                               |
| <b>CO 5</b>                                                         | Provides an on job training for students to refine their skills, techniques and methods before venturing out as professional social worker.                                                                                                                                                                                         |

### **B. Block Placement /Internship**

The student trainee is required to undertake block placement programme for 30 days after the completion of IV semester End Examination. He/she is required to submit a summary report at the end of the Block Placement, in addition to the submission of weekly reports to the department regularly.

The total marks allotted for this programme are 50 (2 credits). The performance of the students in this programme shall be assessed during the Field Work Viva Voce Examination of IV semester, by a committee consisting of either the Chairperson of the Department or an Internal examiner and an External examiner on the basis of the reports submitted by them (25 marks) and their performance in the Viva-Voce Examination (25 marks).

**KARNATAK UNIVERSITY**

**DHARWAD**



**CBCS**

***SYLLABUS***

**for**

**MASTER OF ARTS- M.A.**

**Sociology**

**DEPARTMENT OF SOCIOLOGY**  
**(Estd. 1957)**

Regulations Governing M.A. Degree Programme in Sociology Under the Choice Based Credit System

**I. Commencement**

These Regulations shall come into force from the academic year 2017-18.

**II. Definitions**

In these Regulations unless otherwise mentioned, provided.

- a) 'University' means Karnatak University, Dharwad.
- b) 'Board of Studies' means Board of Studies in Sociology (P.G) of the Karnatak University.
- c) 'Compulsory Paper' means the paper that is prescribed by the Department from time to time as compulsory.
- d) 'Specialization paper' means an optional paper prescribed by the Department from time to time.
- e) 'Open Elective' means, a paper offered by the Department of Sociology, for the students of other Departments in Karnatak University from time to time. However, the students of the Department of Sociology have freedom to choose from a number of open electives offered by other Departments to add to their credits required for the completion of their degree.
- f) 'Credit' means the unit by which the course work is measured. One credit means one hour of teaching work per week. As regards the marks for the papers, 1 Credit is equal to 25 marks, 2 Credits are equal to 50 marks, 3 credits are equal to 75 marks, 4 credits are equal to 100.
- g) 'Grade' is an index to indicate the performance of a student. These Grades are arrived at by converting marks scored in each paper by the candidate after completing his/her Internal Assessment and Semester End Examinations. These grades are awarded for each paper at the end of each semester.
- h) 'Grade Point Average' or GPA refers to an indicator of the performance of the student in a given semester. GPA is the weighted average of all Grades student gets in a given semester. The GPA depends on the number of papers a student takes and the grades awarded to him/her for each of the paper so chosen.
- i) 'Cumulative Grade Point Average' or CGPA refers to the Cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown in these regulations.

**III. Admission**

- a. The details of the admission rules are governed by the notifications issued by the University from time to time. However the applicant should have studied Sociology as one of the optionals for admission to the Department of Sociology.

**Total Intake Capacity:**

| <b>KUD campus (60)</b> |                     | <b>P.G Center Haveri campus (55)</b> |                     | <b>GFGC, Kumta campus (15)</b> | <b>GFGC, Honnavar campus (15)</b> | <b>KSS college Gadag campus (15)</b> |
|------------------------|---------------------|--------------------------------------|---------------------|--------------------------------|-----------------------------------|--------------------------------------|
| Under Normal fees      | Under Enhanced fees | Under Normal fees                    | Under Enhanced fees | Under Normal fees              | Under Normal fees                 | Under Normal fees                    |
| 35                     | 25                  | 35                                   | 20                  | 15                             | 15                                | 15                                   |

(Note: The University can allot more seats under enhanced fees category looking into situation).

**IV. Duration of the Programme**

The programme of study for M.A. Degree in Sociology shall normally extend over a period of two consecutive academic years, each academic 2-year comprising two semesters and each semester comprising 16 weeks of class work. However, the maximum period for completion of the Degree is four years from the date of his/her first admission. The normal calendar for the semester shall be as follows:

- a) I and III Semesters  
b) II and IV Semesters

: August to November  
: January to April

## V. Teaching Course

Each paper shall be taught for 4 hours per week during the period of 16 weeks in a given semester. However, the actual number of classes may not be 64 hours as per the above calculation. It may vary from paper to paper depending on the activities of the Department, general holidays and the calendar of events prescribed by the University from time to time.

## VI. Medium of Instruction

The medium of instruction shall normally be English. However, the students may write the examinations in Kannada also.

## VII. Scheme of Papers and Credits/Classes and Marks

- a) There shall be three categories of papers viz., Compulsory papers, Specialization papers and Open Electives. Compulsory and Specialization papers are meant for the students of Department of Sociology. The Open Electives are the papers offered by the Department for the students of other Departments. However, the students of the Department of Sociology can also offer the Open Electives offered by other Departments to add to their Credits depending on their interest.
- b) The Credits for each of the Compulsory paper and Specialization paper are 4. The Open Electives offered by the Department to the students of other Departments also carry 4 credits. However, the number of credits for the Open Electives chosen by the students of our Department from amongst the Open Electives offered by the other Departments may vary from one Department to the other Department depending on the offer they make. The project work in IV Semester also carry 4 credits.

### PROGRAMME: M.A SOCIOLOGY

| COURSES /PAPER                                       | Course Code | Credits per week | Total |
|------------------------------------------------------|-------------|------------------|-------|
| <b>SEMESTER- I<br/>CORE PAPERS</b>                   |             | 4                | 24    |
| Paper 1.1 Classical Sociology                        | PG53T101    | 4                |       |
| Paper 1.2 Social Structure and Social Change         | PG53T102    | 4                |       |
| Paper 1.3 Methodology and Methods of Social Research | PG53T103    | 4                |       |
| Paper 1.4 The Study of Indian Society                | PG53T104    | 4                |       |
| Paper 1.5 Sociology of Environment                   | PG53T105    | 4                |       |
| Paper 1.6 Social Demography                          | PG53T106    |                  |       |
| <b>SEMESTER- II<br/>CORE PAPERS</b>                  |             |                  |       |
| Paper 2.1 Modern Sociological Theories               | PG53T201    | 4                | 24    |
| Paper 2.2 Sociology of Urban Life                    | PG53T202    | 4                |       |
| Paper 2.3 Sociology of Rural Life                    | PG53T203    | 4                |       |
| Paper 2.4 Sociology of Health and Wellness           | PG53T204    | 4                |       |
| <b>Optionals</b>                                     |             | 4                |       |
| Paper 2.5 a. Sociology of Social Deviance            | PG53T205A   |                  |       |
| Paper 2.5 b. Sociology of Social Movements           | PG53T205B   |                  |       |
| Paper 2.5 c. Sociology of Tribes                     | PG53T205C   |                  |       |
| Paper 2.5 d. Sociology of Social Marketing           | PG53T205D   |                  |       |
| <b>Open Elective</b>                                 |             | 4                |       |
| Paper 2.6 Invitation to Sociology                    | PG53T206    |                  |       |
| <b>SEMESTER- III<br/>CORE PAPERS</b>                 |             |                  |       |
| Paper 3.1 Contemporary Sociological Theories         | PG53T301    | 4                | 24    |

|                                                                       |           |   |    |
|-----------------------------------------------------------------------|-----------|---|----|
| Paper 3.2 Principles of Social Statistics                             | PG53T302  | 4 |    |
| Paper 3.3 Sociology of Development                                    | PG53T303  | 4 |    |
| Paper 3.4 Sociology of Science and Technology                         | PG53T304  | 4 |    |
| <b>Optionals:</b>                                                     |           | 4 |    |
| Paper 3.5 a Industrial Sociology                                      | PG53T305A |   |    |
| Paper 3.5 b Sociology of Marginalized groups                          | PG53T305B |   |    |
| Paper 3.5 c Sociology of Leisure and Sport                            | PG53T305C |   |    |
| Paper 3.5 d Sociology of Education                                    | PG53T305D |   |    |
| <b>Open Elective</b>                                                  |           | 4 |    |
| Paper 3.6 Indian Society- Continuity and Change                       | PG53T306  |   |    |
| <b>SEMESTER- IV<br/>CORE PAPERS</b>                                   |           |   |    |
| Paper 4.1 Theories of Modernity and Post Modernity                    | PG53T401  | 4 | 24 |
| Paper 4.2 Sociology of Gender                                         | PG53T402  | 4 |    |
| Paper 4.3 Sociology of Ageing                                         | PG53T403  | 4 |    |
| Paper 4.4 Contemporary Society in Karnataka                           | PG53T404  | 4 |    |
| <b>Optionals:</b>                                                     |           | 4 |    |
| Paper 4.5a Political Sociology                                        | PG53T405A |   |    |
| Paper 4.5b Sociology of Law                                           | PG53T405B |   |    |
| Paper 4.5c Globalization and Society                                  | PG53T405C |   |    |
| Paper 4.5d Sociology of Information Society                           | PG53T405D |   |    |
| Paper 4.5e Social Psychology                                          | PG53T405E |   |    |
| <b>4.6 PROJECT WORK (Compulsory for M.A. Sociology students only)</b> | PG53T406  |   |    |
| a. Field based dissertation work 75 marks                             |           | 3 |    |
| b. Colloquium followed by viva voce- 25 marks                         |           | 1 |    |
| <b>TOTAL</b>                                                          |           |   | 96 |

The students of the Department shall offer 6 compulsory papers in I semester,  
 In II semester 4 compulsory courses and one specialization course.  
 In III Semester 4 compulsory and one specialization course.  
 In IV Semester, 4 compulsory courses, one specialization course and a project work.

**Program Outcomes:** Post graduates of Sociology programme will

- PO1.** Have broad knowledge of theoretical sociology and its application in various aspects of society
- PO2.** Will orient the students for comprehending, analyzing and critically assessing the social realities from sociological perspectives.
- PO3.** Will have research aptitude and relevant skills which are useful for their social and professional life.
- PO4.** Be able to conduct field based surveys and studies.
- PO5.** Equip the students with latest sociological knowledge pertaining to Ageing, Gender, Indian Society, Environment, Rural society, Urban society, Social Demography, Health and Wellness, Social Deviance, Tribes, Social Marketing, Social Statistics, Development, Science and Technology, Industrial Sociology, Marginalized groups, Leisure and Sports, Education, Indian Society-Continuity and Change, Society in Karnataka, Political Sociology, Law, Globalization and Society, Information Society, social Psychology.

**Programme Specific Outcome:**

After studying M.A Sociology programme students will be

- PSO1:** Able to comprehend societal issues from Sociological angle.
- PSO2:** Able to understand problems of the society with contextual manner.
- PSO3:** Able to observe the things empathetically and tried to procure solution.
- PSO4:** Able to understand problems of various segments of society.
- PSO5:** Able to grasp and understand problems women, tribal, aged, marginalized groups etc.

## Summary of Credits for the Degree of M.A. in Sociology

### I Semester:

Six Compulsory Papers : 24 Credits

### II Semester:

Four Compulsory Papers : 16 Credits

One Specialization Paper : 04 Credits

One Open Elective Paper : Credits vary from Department to Department depending on the choice of open elective by the student

### III Semester:

Four Compulsory Papers : 16 Credits

One Specialization Paper : 04 Credits

One Open Elective Paper : Credits vary

### IV Semester:

Four Compulsory Papers : 16 Credits

One Specialization Paper : 04 Credits

PROJECT WORK (Compulsory for M.A.Sociology students only) : 04 Credits

**Grand Total: 96 Credits**

### VIII. Attendance

- a) The student shall be considered to have satisfied the requirement of attendance if e/she has attended not less-than 75% of total number of classes held till the end of the semester inclusive of tutorials. Each paper shall be taken as a unit for calculating the attendance.
- b) Each student will have to sign his/her attendance for every hour of teaching in each paper. The Course Teacher shall submit monthly attendance report to the Chairman of the Department at the end of every month. The Chairman of the Department shall notify the attendance of every student on the Notice Board of the Department during the second week of the subsequent month. The Chairman of the Department shall send to the Registrar (Evaluation) and other Officers, as directed by the Registrar from time to time, at the end of every month and at the end of every semester, the detailed statement of attendance.
- c) In order to encourage regularity in attendance a maximum of three marks shall be awarded to the students as shown below:

### Marks for Attendance in Each Paper

| Percentage of Attendance | Internal Assessment Marks |
|--------------------------|---------------------------|
| Above 90                 | 3 Marks                   |
| Above 80 and up to 90    | 2 Marks                   |
| Above 75 and up to 80    | 1 Mark                    |
| 75                       | No Marks                  |

- d) However, if a student represents the Department/ University/ State/ Nation in sports, NCC, NSS or Cultural or any other officially sponsored activities he/she shall be eligible to claim the Attendance for the actual number of days utilized in such activities (including travel days) subject to the production of certificate from the relevant authority within two weeks after the event.
- f) A student who does not satisfy the requirement of attendance of 75% in each paper shall not be permitted to appear the semester end examination. Such candidates may seek admission afresh to the given semester.

### IX. Evaluation

- a) Evaluation of the papers will have two components-
  - i) Internal Assessment, and
  - ii) Semester End examination

Total marks for the Internal Assessment are 25. Maximum 3 marks for attendance as shown in the table above (VIII C), the internal assessment shall consist of three components-

- i. Two written Tests of 11 marks each : 22 marks
- ii. For courses 1.4, 2.3, 3.3, 4.2, 4.3, 4.4 one written test of Ten marks and one Book Review Essay for 12 marks.

The tests shall be written in separate designated answer booklet. The marks of all the two tests shall be notified on the notice board of the Department and submitted to the Registrar (Evaluation) at the end of every semester. The Internal Assessment marks shall be taken into account for compilation of grades. In case of candidates appearing for improvement examination the marks obtained in the Internal Assessment shall not be revised since there is no provision for improvement of Internal Assessment.

b) There shall be one Semester-End examination of 3 hours duration for every paper for 75 marks. The examination shall be conducted as per the rules, regulations, notifications, orders, instructions, procedures, formats and circulars issued by the University from time to time.

#### **X. Challenge Evaluation**

There shall be a provision for challenge valuation as per the rules and regulation of the University issued from time to time.

#### **XI. Completion of the Course**

- a) A candidate is expected to successfully complete the Degree programme within two years from the date of admission.
- b) Whenever the syllabus is revised, the candidate reappearing will have to write the examination as per the syllabi prevailing at that time.
- c) The CBCS scheme is a fully carry-over system. However, the four-semesters (two years course) should be completed by the student within a maximum period of 4 years.

#### **XII. Declaration of Results**

a) Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the Semester-End examination. However a candidate should obtain at-least 40% marks in the Semester-End examination. There is no minimum for the Internal Assessment marks. However after adding the IA marks and the semester end examination marks, the candidates should score a minimum of 40% of the maximum marks per paper. Candidate shall secure a minimum of 50 % in aggregate in all papers of a programme in each semester to successfully complete the programme.

b) The improvement of the performance is permitted as per the rules and regulations of the University.

#### **XIII. Marks and Grade Points**

The grading of successful candidate/s at the examination shall be as follows:

##### **Percentage of Marks**

| <b>Percentage of Marks</b>    | <b>GPA/CGPA</b> | <b>Grade Letter</b> | <b>Class Awarded</b>         |
|-------------------------------|-----------------|---------------------|------------------------------|
| 75 and above                  | 7.50 to 10.00   | A                   | First class with Distinction |
| 60 and above but less than    | 6.00 to 07.49   | B                   | First Class                  |
| 50 and above but less than 60 | 5.00 to 05.99   | C                   | Second Class                 |
| 40 and above but less than 50 | 4.00 to 4.99    | D                   |                              |
| Less than 40                  | Less than 4.00  | F                   |                              |

#### **XIV. Grading**

The Grade Point Average (GPA) shall be given to each candidate based on his/her performance during the semester which includes both the IA and the Semester-End examination. The GPA of each semester should be carried to next semester as Cumulative Grade Point Average CGPA. An illustration of the same is shown below.

#### **XV. Grade Points (Format)**

**M.A. Degree in Sociology**

**Semester:**

**Name of the Candidate:**

**Registration No:**

| <b>Number and Title of the Paper</b> | <b>Credit Hours</b> | <b>Max Marks</b> | <b>Marks obtd</b> | <b>Semester Grade Point</b> | <b>Credit Points</b> |
|--------------------------------------|---------------------|------------------|-------------------|-----------------------------|----------------------|
| Urban Sociology                      | 4                   | 100              | 70                | 07.00                       | 28.00                |

**Semester GPA = Total Credit Points in all papers**

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**Credit hours**

**XVI. The GPAs for various semesters is calculated as follows:**

| <b>Semester</b> | <b>Credits Hours</b> | <b>Credit Points</b> | <b>GPA</b>   |
|-----------------|----------------------|----------------------|--------------|
| First           | 24                   | 168                  | 7.00         |
| Second          | 24                   | 168                  | 7.00         |
| Third           | 24                   | 168                  | 7.00         |
| Fourth          | 24                   | 168                  | 7.00         |
| <b>Total</b>    | <b>96</b>            | <b>672</b>           | <b>28.00</b> |

**Cumulative Grade Point Average: (GPA of all Semesters)**

**Credits of All Semesters**

***CHAIRPERSON***

**M.A. (CBCS) IN SOCIOLOGY  
COURSES OF STUDY**

**SEMESTER-I**

**Paper - 1.1 CLASSICAL SOCIOLOGY**

**Course Code: PG53T101**

**Objectives:**

**This course will help the students to:**

- Learn about contributions of founding fathers of Sociology.
- To understand emergence of Sociology.
- Know the Classical Sociological theories.
- It helps the student's strong foundation for further understanding of Sociological theories.

**Learning outcomes**

1. It acquaint students various thought pattern of the founders of Sociology.
2. It helps the learners in studying different views and methods of founding fathers.
3. It helps to analyze methodological approach of various sociologists and its bearing on the respective theories.
4. It facilitates students to understand historical descriptive empirical investigation constructed by the classical rhetoricians.
5. It assists the students to know why they are called classical thinkers.

**UNIT-I: Introduction to Classical Sociology:**

- a. Transition from Social Philosophy to Sociology
- b. Enlightenment, Modernity and the Emergence of Sociology.
- c. Continental Sociological Traditions: French, German.

**UNIT-II: Emile Durkheim:**

- a. Division of labour
- b. Rules of Sociological Method
- c. Theory of Suicide
- d. Elementary forms of Religious life.

**UNIT – III: Vilfredo Pareto:**

- a. The Social System
- b. Logico Experimental Method
- c. Logical and Non Logical Actions
- d. Residues and Derivations
- e. Theory of Circulation of Elites

**UNIT-IV: Max Weber:**

- a. Theory of Social Action
- b. Methodological contributions: *Verstehen* Method
- c. Protestant Ethic and Spirit of Capitalism.
- d. Ideal Types

**UNIT-V: Georg Simmel:**

- a. Formal Sociology
- b. Philosophy of Money
- c. Social conflict.

**Essential Readings:**

- Abraham J.H. Origin and Growth of Sociology, Pelican books, London, 1974.
- Aron, Raymond, Main Currents in Sociological Thought (Two Volumes), Doubleday, Garden City, 1970.
- Barnes.H.E. An Introduction to the History of Sociology, University of Chicago Press, Chicago 1980.
- Bogardus, E. The Development of Social Thought, Vakils, Feffer and Simon's, Bombay, 1969.
- Coser, Lewis Masters of Sociological Thought, Harcourt & Brace, Chicago 1977

Emile Durkheim, Edited and Translated by Neil Gross, Robert Alun Jones, Foreword by Hans Joas (2004) Durkheim's Philosophy Lectures: Notes from the Lycee de Sens Course, 1883-1884.  
Emile Durkheim, Anthony Giddens (1972) Emile Durkheim: Selected Writings  
Jack Barbalet (2008) Weber, Passion and Profits: 'The Protestant Ethic and the Spirit of Capitalism' in Context.  
Ritzer George, Classical Sociological Theory, McGraw Hill, New York. 2000.  
Swingwood A. A Short History of Sociological Thought, Macmillan, Hong Kong, 1984.  
Turner, Jonathan H, 2007. The Structure of Sociological Theory (IV Edition) Rawat Publication, Jaipur.

**Paper- 1.2 SOCIAL STRUCTURE AND SOCIAL CHANGE**  
**Course Code: PG53T102**

**Objectives**

1. This course provides a broad overview of the different components of social structure, which act as bricks of social structure.
2. This course also familiarizes the various facets and factors responsible for the process of social change.
3. It provides conceptual and theoretical understanding of Social Structure and Social Change.
4. It gives detailed information about divisions in the society and culture of the society.

**Learning Outcomes**

1. At the end of the course the student will be able to understand the components of social structure and tries to understand his/her status and role in society and will start to behave accordingly.
2. The students will understand the patterns of social change and learn to adjust themselves with changing social atmosphere.
3. The students will be able to know the social layers existing in the society in the form of caste and class, their role in the society.
4. The course makes the students to understand the cultural facets of a given society and differentiate his culture and other cultures.

**UNIT-I: Social Structure and Function:**

- a. Conceptualizing Social structure
- b. Basis and Types of Social Structure
- c. Approaches to the study of Social Structure
- d. Concept of Function: Positivism and Functionalism

**UNIT-II: Components of Social Structure:**

- a. Status and Role
- b. Values
- c. Authority and Power
- d. Informal and Formal Groups
- e. Reference Groups

**UNIT-III: Social Change :**

- a. Concept and Patterns of Social Change
- b. Theories of Social Change: Cyclical Theories- Oswald Spangler, Arnold Toynbee; Immanent Theory: P.A. Sorokin.
- c. Factors of Social Change
- d. Social change and Globalization.

**UNIT -IV: Social Stratification and Social Mobility:**

- a. Meaning and systems of Social Stratification
- b. Functional Approach to the Study of Social Stratification – Kingsley Davis, Wilbert Moore, Talcott Parsons; Marxian Approach and Weberian approach.
- c. Social Mobility: Types and Determinants
- d. Theories of Social Mobility: P. Sorokin, Arsene Dumont.

**UNIT-V: Culture:**

- a. Meaning and Types of Culture.
- b. Perspectives of Culture: Functionalist, Marxian and Neo Marxist
- c. Mass culture
- d. Global culture

**Essential Readings:**

Anthony Giddens 2012: Sociology, Polity, London  
A.R. Radcliffe Brown: Structure and Function in Primitive Society, Cohen & West Ltd London, 1952.  
Murdock G.P: Social Structure, Free Press, New York 1965.  
Nadel, S.F. : Theory of Social Structure, Cohen & West Ltd, London. 1962.

Mac Iver and Page : Society : Macmillan, New Delhi 1957.  
 Merton.R.K. : Social Theory and Social Structure, Amrind Publishing, New Delhi, 1968.  
 Talcott Parsons : The Social System, Amrind Publishing, New Delhi 1972.  
 Mead.G.H. : Mind, Self and Society, The University of Chicago Press, New York, 1934.  
 Homans.G.C. : Human Group ,Kegan and Paul, London, 1975.  
 Simmel : Sociology Dunker and Humboldt , 1923.  
 Srinivas,M.N. Social Change in Modern India, Allied Publishers, Bombay, 1966.  
 Ralph Linton : The Study of Man. Appleton-Century, New York, 1936,  
 Samuel Koenig : Sociology: An Introduction to Science of Society, Barnes & Nobel Books, London. 1957.  
 Sarat. C. Joshi (2006) Fundamentals of Sociology Akansha publishing house, New Delhi, India.  
 Haralambos and Holborn –Sociology: Themes and Respectives.  
 Samir Dasgupta, Parelomi Shesaha ; An Introduction to sociology 2012 pearson, Delhi.  
 Sarat. C. Joshi; Fundamentals of Sociology  
 Jose Lopez and John Scott; Social Structure (2002) viva Books private limited, New Delhi.  
 K.L. Sharma, Social stratification and mobility, Rawat Publication, Jaipur 2010.

**PAPER 1.3 METHODOLOGY AND METHODS OF SOCIAL RESEARCH**  
**Course Code: PG53T103**

**Objectives:**

**This course will help the students to:**

- Comprehend the fundamental difference between methodology and methods of social research.
- Analyse the various methodological traditions of Sociology.
- Find out the contemporary trends in methodology

**Learning outcomes:**

1. It enables the learners to grasp the basic difference between methods/techniques and methodology of social research.
2. It helps the learners to study the major schools of thought in social research and also various methodological approaches/theories of sociology.
3. It also familiarizes the students the basic methodological concepts and makes difference between common sense and sociology.
4. It assists in enhancing the research interests and inculcates the spirit of inquiry among students who may be motivated to continue higher studies in research

**UNIT- I: Perspectives on Social Scientific Research:**

- a. Schools of Thought in social research: Rationalism, Empiricism, Realism, Idealism; Feminisms and Research: Challenging the Androcentric Methodology
- b. Methodology and Methods
- c. Theory; facts and social research
- d. Basic methodological concepts: Ontology, Epistemology,

**UNIT- II Methodological Traditions in Sociology:**

- a. Philosophy of social science: Enlightenment, reason and science
- b. Positivism – Auguste Comte and Emile Durkheim
- c. Hermeneutics – Wilhelm Dilthey and Max Weber
- d. Social Criticism: Karl Marx and C. Wright Mills

**UNIT- III Contemporary Trends in Sociology:**

- a. Constructivism
- b. Post-structuralism and Post-modernism
- c. Reflectivity in Sociology
- d. Feminist Methodology

**UNIT- IV Methods of Social Research and Tools of Data Collection:**

- a. Methods of research: Historical; Comparative; Research Design: Typology
- b. Elements of social research: concepts, constructs and variables; Propositions and hypotheses, theories and models
- c. Sampling; Survey and Case Study Method
- d. Observation, Interview and questionnaire methods

**UNIT-V: Recent Trends in Social Research and Report Writing:**

- a. Participatory research
- b. Online research
- c. Analysis of Data
- d. Report writing

**Essential Readings:**

Bailey, K.D (1978) Methods of Social Research, The Free Press, London.  
Anol Bhattacharjee (2012) Social science research: principles, methods, and practiceS, University of South Florida,  
Beteille, Andre (2002) Sociology: Essays on Approach and Method, Oxford University Press, New Delhi.  
Bourdieu, Pierre (1992) Invitation to a Reflexive Sociology, University of Chicago Press (Selected Chapters)

Bryman, Alan (1988) *Quantity and Quality in Social Research*, Unwin Hyman, London,

Goode, W.E and P.K. Hatt (1952) *Methods in Social Research*, McGraw Hill, New York, Chap. 5 and 6.

Gouldner, A. (1970) *The coming Crisis of Western Sociology*, Basic Books, New York Ch.13.  
[http://repository.out.ac.tz/504/1/Social\\_Science\\_Research-Principles\\_Methods\\_and\\_Practices.pdf](http://repository.out.ac.tz/504/1/Social_Science_Research-Principles_Methods_and_Practices.pdf).

Krishnaswami, O.R. (1983) *Methodology of Research in Social Sciences*, Himalaya, Bombay.

Merton, R.K (1972) *Social Theory and Social Structure*, Arvind Publishing House, Delhi, Chapters 4 & 5.

Mukherji, P.N (ed. 2000) *Methodology in Social Research: Dilemmas and perspectives*, Sage, New Delhi.

Myrdal, Gunnar (1970) *Objectivity in Social Research*, Gerald Duckworth, London.

Nadel, Ernest (1961) *The Structure of Science: Problems in the Logic of Scientific.*

Narayan, Deepa (1997) *Toward Participatory Research*, The World Bank, Washington..

Popper, K.R (1959) *the Logic of Scientific Inquiry*: Routledge, New York (Part 1, Ch 1 and 2).

Seltiz, C. (1959) *Research Methods in Social Relations*, Holt Rinehart and Winston, New York.

Shah, S.K. and Corley K.G (2006) "Building Better Theory and Bridging the Quantitative-Qualitative Divide, *Journal of Management studies* (48:3), pp 1821-1835.

Srinivas, M.N (1982) *The Field and Field worker*, Oxford University press, New Delhi.

Srinivas, M.N and Panini, M.N (2002) *Collected Essays*, Oxford University Press, (two chapters on Sociology and social anthropology)

Srivastava, V.K (2004), *Methodology and Fieldwork*, OUP, New Delhi.

Tim May (2001) *Social Research: Issues methods and process*, Rawat, Jaipur.

Tristram Hooley, Jane Wellness, John Marriott 2012, *what is Online Research?*

*Using the Internet for Social Science Research*, Bloomsbury Academic, London

Wacquant, L.J.D (1989) *Towards Reflexive Sociology: A Workshop with Pierre Bourdieu*, *Sociological Inquiry*, vol. 7, No.1, PP: 26-63.

Weber, Max (1949) *The Methodology of the Social Sciences* (Translated and edited by Edward A Shils and Henry A Finch), The Free Press, New York.

Weber, Max, (1978) *Economy and Society: An outline of Interpretive Sociology*, Vol. 1, University of California Press, pages 4-26.

## **Paper - 1.4 THE STUDY OF INDIAN SOCIETY**

### **Course Code: PG53T104**

#### **Objectives:**

This course will help the students to

- To understand and to know the past, civilization, traditional society etc.
- Various scholars speak on transformation of Indian Society to modern society.
- Identified the trends in Indian Society.

#### **Learning outcomes:**

1. To help the students to know the past and present caste system, various problems among caste, sub-caste people.
2. This paper helps the students to evaluate the merits and demerits in society.
3. It also helps the students to study the various approaches, theories of Indian Society.

#### **UNIT I: Introduction:**

- a. Nature and Importance of the study of Indian Society
- b. Geographical and Historical Features
- c. Unity in Diversity: Bases and Challenges

#### **UNIT-II: Theoretical Perspectives for study of Indian Society:**

- a. Indological perspective (Radhakamal Mukherjee, G.S. Ghurye, Louis Dumont)
- b. Structural – functionalism (M.N. Srinivas, S.C. Dube, McKim Marriot)
- c. Marxism– (D.P. Mukherjee, A.R. Desai, R.K. Mukherjee)
- d. Subaltern Perspective (B.R. Ambedkar, Ranjit Guha, David Hardiman)

#### **UNIT-III : Marriage, Family and Kinship:**

- a. Marriage and Family Among Hindus, Muslims, & Christians.
- b. Recent trends in Family, and Kinship and its Organization.
- c. Multiple Traditions, little tradition & Great tradition.
- d. Threats to Indian Society, Approaches to National Integration, Communalism, Linguism, Regionalism.

#### **UNIT - IV: Weaker Sections:**

- a. Meaning and typology of Weaker Sections: SCs, STs, OBCs & Women
- b. Socio-Economic Situation of Weaker Section in India.
- c. Constitutional Provisions for Weaker Sections

#### **UNIT -V: Methodological Debate on Indigenizing Sociology in India:**

- a. Indigenization
- b. Sociology for India
- c. Sociology of India

**Note. Of the maximum 100 marks this paper carries 75 for theory main exam and 25 for internal assessment. Of the 25 marks 3 for attendance(as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each of student separately.**

#### **Essential Readings:**

- B.K. Nagla (2014) Indian Sociological thought, Rawat, Jaipur.  
Atal, Yogesh(2003) Indian Sociology: From Where to Where, Rawat, Jaipur  
De Souza, P.R. (ed) (2000) Contemporary India Transitions, Sage, New Delhi.  
Dumont, Louis (1998), Homo Hierarchicus, OUP, London.  
Gould, Harold (1988) Caste Adaptation in Modernising Indian Society, Chankaya, New Delhi  
Kapadia, K.M. (1981), Marriage and Family in India, OUP, London.  
Mandelbaum, D.C. (1972) Society in India , Popular, Bombay.  
Prabhu, P.H (1963), Hindu Social Organization, Popular, Bombay.  
Singer, Milton & Cofer, Bernards, (1996), Structure and Change in Indian Society, Rawat, Jaipur  
Singh, Yogendra( 1998) Modernization of Indian Tradition, Rawat, Jaipur  
Karve Iravati (1968) Kinship organization in India.  
Kolenda, Pauline, kinship structure.

## **Paper - 1.5 SOCIOLOGY OF ENVIRONMENT**

### **Course Code: PG53T105**

#### **Objectives:**

**This Course will help the Students to;**

- Understand the relationship between Environment and Society.
- Analyse environmental issues and its problems.
- Find out the role of environmental movements, laws, state and other agencies for environmental conservation.

#### **Learning Outcomes:**

1. It enables the learners to understand how environmental issues related to society or social life.
2. It helps to the learners in studying the relationship between development projects, population growth and environmental problems.
3. It also assists the students to participate in environmental conservation.
4. It helps in enhancing the research interests in the field

#### **UNIT – I : Introduction:**

- a. Scope and Significance of Sociology of Environment
- b. Emergence of Environmental Sociology
- c. Approaches to the study of environment : Marxian, Gandhian, Eco- feminism
- d. Different types of Environmentalism: Deep Ecology, Social Ecology & Radical Ecology.
- e. The Concept of Eco-system

#### **UNIT -II: Environment and Environmental Problems:**

- a. Inter relation between Environment and Society
- b. Nature of Environmental Problems
- c. Types of Environmental Problems
- d. Causes of Environmental Problems

#### **UNIT – III: Contemporary Environmental issues in India:**

- a. Pollution and their effects
- b. Deforestation
- c. Developmental Projects- Displacement & Rehabilitation
- d. Population growth and Environmental Problems

#### **UNIT– IV: Toward Environmental Conservation in India:**

- a. Environment and Development
- b. Environmental Movements & The Politics of Development
- c. Chipko Movement and Narmada Bachavo Andholan (NBA)
- d. Save Western Ghats Movements

#### **UNIT-V: State Society and Environment:**

- a. Constitutional provision in India
- b. Environmental Laws
- c. The State and International Agencies
- d. Role of NGO's

#### **Essential Readings :**

Arnold David, & Guha R (eds) Nature, Culture & Imperialism, New Delhi, OUP 1955

Baviskar Anita , In the Belly of the River : Tribal Conflicts and Development in the Narmada Valley, New Delhi OUP 1997.

Tellegu egbert & Marken Wolsink, Society and Its Environment: An Introduction, GBSP Amsterdam, Nether lands. 1994.

Gadgil M. & Guha, R., Ecology & Equity: The Use & Abuse of Nature in Contemporary India, New Delhi, OUP, 1996.

Giddens, Anthony, The Consequences of Modernity, Cambridge, Polity press. 1990

Guha Ramachandra (ed) Social Ecology, New Delhi, Oxford University Press, 1998.  
 Hannigan, John A, Environmental Sociology: A Social Constructionist Perspective, London, RKP, 1995.  
 Hawley, A.H. Human Ecology : A Theory of Community Structure.  
 Martel Luke, Ecology & Society : An Introduction, Polity Press, 1999.  
 Madan Mohan, Ecology & Development : Rawat ,Jaipur, 2000  
 Merchant Carolyn, Ecology : Key Concepts in Critical Theory, Humanities press, New Jersey  
 Michal Redclift and Graham Woodgate, The International Hand book of Environmental Sociology,  
 Edward Edgar, Cheltenham U.K. 1997.  
 Munshi, Indira, "Environment in Sociological Theory" Sociological Bulletin, Vol. 49 No.2, 2000.  
 State of India's Environment, 1985, Report of Center for Science & Environment.  
 Patil, R.B. Natural Resources and Sustainability of Indian Society (ed), Shruti Publication, Jaipur,  
 2009.  
 Jaipal, H.R and Somashekharappa, C.A, Development, state and Environments, Prateeksha, Jaipur,  
 2014

## **Paper- 1.6 SOCIAL DEMOGRAPHY**

**Course Code: PG53T106**

### **Objectives:**

**This course will help the students to:**

- Understand the basic concepts and theories in Social Demography.
- Focuses on demographic processes such as Fertility, Mortality, Migration and their determinants.
- Analyses the demographic trends and its implications with social reference to India.

### **Learning Outcome:**

- It enables the learners to understand the origin and development of Social Demography as well as to comprehend the basic theories of population.
- It helps the learners in comprehending the significance of demographic processes in population change.
- It assists students in acquitting with the population Scenario of different countries to evolve suitable population policy setting.
- It helps the learners to appreciate the significance of demographic situation and its interrelated processes.

### **UNIT – I : Introduction:**

- a. Scope and Importance of Social Demography
- b. Historical Development of Social Demography
- c. Sources of Population Data
- d. World Population: Growth and Distribution.

### **UNIT – II : Theories of Population Growth:**

- a. Pre-Malthusian Theories
- b. Malthusian Theory
- c. Post-Malthusian Theories ,
- d. Optimum and Theories of Demographic Transition.

### **UNIT – III : Components of Population Change:**

- a. Fertility : Role of Fertility, Differential Fertility
- b. Mortality: Role of Mortality, Infant Mortality.
- c. Migration: Types and Models of Migration
- d. Recent trends in Population Changes

### **UNIT – IV: Population of India:**

- a. Size and Growth of population in India.
- b. Composition and Characteristics of Population of India
- c. Distribution of Population in India
- d. Recent trends in India's Population dynamics

### **UNIT – V: Population Policies and Programmes:**

- a. Importance of Population Policies and Programmes
- b. Implementation and Evaluation of Population Policy in India.
- c. Population Policy 2000.
- d. Recent Trends in Population Policy;

### **Essential Readings:**

Kingsley, Davis – Population of India and Pakistan, Princeton University Press, Princeton, 1951

Donald, J. Bogue – Principles of Demography, London, John Wiley and Sons, Inc. 1969.

W.S.Thompson and D.T.Lewis – Population Problems, New Delhi, TMH, 1976.

P.M.Houser and Duncan; Study of Population, Chicago: University of Chicago Press. 1973.

Peterson William – Population; London:Macmillan.1969.

Population

Reference Bureau – Latest world population data sheet.

Mascarenhas, Population Education, II Edition, Oxford and IBH, New Delhi. 1982.

S.Chandrashekar (ed): Infant Mortality, Population growth and family planning in India; London; George Allen & Unwin Ltd. 1974

Bose.Ashish: Demographic Diversity of India Delhi; B.R.Publishing Corporation 1991.

Aijazuddin, Ahmad, Daivel Noin, H.N.Sharma (eds); Demographic Transition; The Third World Scenario”, Rawat Publications, Japur.

O.S.Srivatsava ; Demography and Population Studies, Vikas Publishing House  
New Delhi, 1996

National Family Health Survey 1998-99 and 2005-06. International Institute of Population studies,  
Bombay

Asha Bhende & Tara Kanitkar: Principles of Population Studies. Mumbai, Himalaya Publishing  
House , 1999

## SEMESTER-II

### 2.1 MODERN SOCIOLOGICAL THEORIES

Course Code: PG53T201

#### Objectives:

This course will help the students to:

- To understand the development of Modern Sociological Theories.
- Learn about the contributions of various perspectives to understand social realities.
- To make students familiar with modern sociological theories in the light of previous course on classical sociology.
- It gives theoretical explanations of structural functional conflict, symbolic interactionism, phenomenology, ethno methodology.
- It helps the students to theorize society from sociological angle.

#### Learning outcomes

1. After studying this course students will understand various perspectives and apply the same in order to understand social realities of present society.
2. It helps the learners examine the theoretical relevance and analytical utility of the various perspectives.
3. This facilitates the students to understand diverse theoretical perspectives while studying social structure and change.
4. To understand the relationship between individual and society, action and system, also how to apply sociology in day to day life.

#### UNIT-I: Nature of Sociological Theorizing:

- a. Elements of Theory
- b. Levels of Theorization
- c. Relationship between Theory and Research.
- d. Structural approach of A.R. Brown, S.F. Nadel and Levi-Strauss.

#### UNIT-II: Structural Functional School:

- a. History of Development of Functionalism
- b. **Talcott Parsons:** Structure of Social Action, Theory of Social System, Pattern Variables, Functional Pre-requisites.
- c. **Robert K. Merton:** Theories of Middle Range, Postulates and Prepositions, Paradigm for Functional analysis, Social Structure and Anomie, Reference Group Theory.

#### UNIT-III: Conflict School:

- a. Development of conflict school
- b. Contributions of Karl Marx
- c. Contributions of Ralf Dahrendorf and L.A. Coser
- d. Contributions of C.W. Mills and Randall Collins

#### UNIT-IV: Symbolic Interactionism:

- a. Emergence of Symbolic Interactionism
- b. Contributions of G. H. Mead and C.H. Cooley
- c. Contributions of Herbert Blumer and Peter J. Burke

#### UNIT-V: Emergence of Phenomenology:

- a. Philosophical Phenomenology of Edmund Husserl
- b. Sociological Phenomenology of Alfred Schutz
- c. Social Construction of Reality: Berger and Luckmann

**Essential Readings:**

- Abraham, Francis & J.H. Morgan: Sociological Thought, Macmillan India Ltd, Delhi 1985.
- Anthony Giddens (1971) Capitalism and Modern Social Theory: An Analysis of the Writings of Marx, Durkheim and Max Weber.
- Aron, Raymond, Main Currents in Sociological Thought (Two Volumes), Doubleday, Garden City, 1970.
- Coser, Lewis: Masters of Sociological Thought, Harcourt & Brace, Chicago 1971.
- Gerth H. & C. Wright Mills: From Max Weber: Essays in Sociology, Oxford Univ. Press, New York. 1968.
- Merton. R.K. – Social Theory and Social Structure, Am rind Publishing, 1968.
- Ritzer George, Classical Sociological Theory, Migro Hill New York. 2000.
- Talcott Parsons the Social System, Am rind Publishing, New Delhi, 1972.
- Timasheff. N. & G.Theodorson: Sociological Theory, Random House, New York, 1976.
- Turner, Jonathan H, 2007. The Structure of Sociological Theory (IV Edition) Rawat Publication, Jaipur.

## **Paper - 2.2 SOCIOLOGY OF URBAN LIFE**

**Course Code: PG53T202**

### **Objectives:**

**This course will help the students to**

- Understand the fundamental concepts of Urban Sociology and ecological theories of urban growth.
- Examines the importance of urban institutions and their impact on society.
- Discusses problems of urban society in order to enhance policy implications with special reference to India.

### **Learning Out comes:**

- It enables the learners to understand the origin and development of Urban Sociology as well as to comprehend the ecological theories of urban growth.
- It helps the learners in acquainting with the urban processes and the importance of urban institutions.
- It assists the students in comprehending the urban problems and their consequences on society.
- It helps the learners to appreciate the significance of urban welfare and planning for development.

### **UNIT – I: Introduction:**

- a. Scope and importance of study of Urban Life
- b. Concepts: Urban, Urbanization, Urbanism as a way of life.
- c. Classification of Urban Categories
- d. Urban Growth in Ancient, Medieval and Modern times
- e. Pre-Industrial City.

### **UNIT – II: Functional Theories of Urban Growth:**

- a. Urban ecology & Ecological Processes.
- b. Concentric Zone Theory, Sector Theory, Multinuclei Theory.
- c. Land Use Pattern.

### **UNIT – III: Urban Social Institutions:**

- a. Urban Family
- b. Urban Religion
- c. Urban Government.
- d. Urban Education

### **UNIT – IV: Urbanization in India:**

- a. Emerging Trends in Urbanization
- b. Factors of Urbanization
- c. Problems of Urbanization
- d. Industrialization and Urbanization
- e. Over Urbanization

### **UNIT – V: Problems of Urban Life:**

- a. Ghettos and Slums
- b. Urban Crime
- c. Urban Poverty
- d. Urban Planning, Development and Management – Role of Govt. and NGOs

### **Essential Readings:**

Bergel.E.E. Urban Sociology, McGraw Hill, New York 1965.  
Geddes, P – Cities in Civilization, William Noregate, London, 1959.  
Hatt & Reiss (ed) Cities and Society, Glencoe Ill, 1961.  
Mumford, Lewis. The City in History, Secker & Warburg. 1961.  
J. John Palen – Urban World. McGraw Hill, New York, 1975.  
The American Journal of Sociology 1955. Vol. LX, March 1955, No.5, Pp. 427-520.  
Guttman and Popenoe (ed) The City, Metropolis and Neighbourhood.

## **Paper- 2.3 SOCIOLOGY OF RURAL LIFE**

### **Course Code: PG53T203**

#### **Objectives:**

This course will help the students to

- To know about origin and development of Rural Sociology in USA and India.
- To analyze the village social structure and changes in society
- To pinpoint the various rural problems and development in rural India.

#### **Learning outcomes**

1. The subject is vast; it is difficult to solve the various problems among rural people.
2. Students they can take current, past issues, problems and adopt a micro level action oriented study.
3. It helps the students to start NGO in their respective field.

#### **UNIT – I : Introduction:**

- a. Scope and Importance of Study of Rural Life
- b. Origin and development of Rural Sociology : USA and India
- c. Rural – Urban Relations and Contrasts
- d. Approaches to the Study of Rural Communities

#### **UNIT – II : Rural Social Institutions:**

- a. Settlement Patterns typology of villages
- b. Rural Stratification – Agricultural Ladder
- c. Rural Family
- d. Rural Religion

#### **UNIT – III : Rural Society in India:**

- a. Origin and Development of Village Communities in India.
- b. Village Studies in India.
- c. Village Social Structure
- d. Caste Dynamics in Rural Society
- e. Changing Rural Society

#### **UNIT – IV : Rural Problems:**

- a. Poverty and Indebtedness
- b. Illiteracy and Backwardness
- c. Health and Sanitation

#### **UNIT – V : Rural Development:**

- a. Land tenure and Land Reforms
- b. Green Revolution and White Revolution
- c. Panchayat Raj
- d. Rural Co-operatives and Self Help Groups
- e. Globalization and India's Village Society.
- f. Rural development Programmes: CDP.IRDP.NREG.PURA etc.

**Note. Of the 100 marks this paper carries 75 for theory main exam and 25 for internal assessment. Of the 25 marks 3 for attendance(as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each student separately.**

**Essential Readings:**

- Sorokin, P. and Others (Eds.) Systematic Source Book in Rural Sociology, New York , Russell and Russell 1965.
- Smith.T.Lynn The Sociology of Rural Life, Harper and Brothers, New York. 1947.
- Sanderson, Dwight Sociology and Rural Social Organization New York, John Wiley, London,1952.
- David Mandelbaum Society in India (Vol. 1 & 2 ) Bombay, Popular, 1972.
- A.R.Desai(Ed). Rural Sociology in India, Bombay, Popular, 1978.
- A.E.PUnit- Social Systems in Rural India Delhi, Sterling 1978.
- H.S.Maine – Village Communities in the East and West. New Delhi, B.R. Publishing Corporation, 1985.
- S.L.Doshi & P.C.Jain Rural Sociology, Jaipur, Rawat, 1999.
- Andre Beteille Caste, Class and Power, University of California Press, Berkeley, 1970
- Desai.A.R. Rural Sociology in India, Bombay, Popular, 1978
- .Srinivas, M.N Caste in Modern India and Other Essays, Asia Publishing House, Bombay, 1962
- Singh, Yogendra Social Stratification and Change in India , Manohar, New Delhi, 1977.
- Sharma K.L. Social Stratification in India, Sage, New Delhi, 1997.

## **PAPER – 2.4 SOCIOLOGY OF HEALTH AND WELLNESS**

**Course Code: PG53T204**

### **Objectives:**

**This Course will help the Students to;**

- Understand the relationship between Health and other Social institutions.
- Analyse the relationship between Physician-Patients-Nurse in Health and wellness of the people.
- Find out issues relating to community health, Medicare and health care services.

### **Learning Outcomes:**

1. It enables the learners to understand the concepts of Health, Wellness and Epidemiology.
2. It helps to the learners to know the issues relating to Physicians and Nurse in changing society.
3. It helps to know recent trends and patterns of diseases.
4. It also helps the students to gain the knowledge, skills, strategies for examine the complexities in relation with health and social institutions.

### **UNIT – I: Relation between Sociology and Health:**

- a. Sociology of Health: Scope and importance.
- b. Health and its Relationship with other Social Institutions.
- c. Concepts of Well-being and Quality of Life: Their Indicators
- d. Sociology of Medicine and Sociology in Medicine

### **UNIT – II: Social Epidemiology:**

- a. Vital and Public Health Concepts
- b. Epidemiology and Resources: Social Components in Therapy and Rehabilitation
- c. Recent Trends in Diseases with special reference to HIV/AIDS and Communicable Diseases.

### **UNIT –III: The Physician and the Patient:**

- a. The professionalization and socialization of the physician
- b. Doctor-Patient Relationship.
- c. Nursing as an Emerging Para Medical Profession
- d. Health seeking behaviour.
- e. The sick role and the patient role
- f. Labeling theory.

### **UNIT – IV: Hospital, Community and Wellness:**

- a. Types of Hospitals, Functions of Hospitals. Coordination and Supervision of Hospitals.
- b. Inter-personal Relationships in Hospitals and Medical Social Service in Hospitals
- c. Community Health, Concept of Integrated Health Services.
- d. Functioning of Primary Health Centers in India
- e. Health Care Delivery and Social Policy
- f. NGO and Health Care Implementation and Utilization of Care service.
- g. National Health Policy: A Critical Analysis
- h. Preventive Health Care - Yoga, Sports, food, living style, sanitation.

### **UNIT – V: Special Issues in Health in India:**

- a. Inequities in health and health care
- b. Special issues of Women, Children, Aged and Disabled
- c. Health among the marginalized: Scheduled Castes (SCs) Scheduled Tribes (STs)
- d. Health care disparities in Karnataka: North-South divide

**Essential Readings:**

- Albert, Gary. L., and R. Fitzpatrick, Quality of Life in Health Care: Advance in Medical Sociology, Mumbai, Jai Press, 1994.
- Bloom, Samuel W. The Doctor and His Patient, New York : Free Press, 1963.
- Coe Rodney M. Sociology of Medicine. New York: McGraw Hill, 1970.
- Chole Bird Peter Conrad and Alan Fremont, eds. Handbook of Medical Sociology, New York: Prentice Hall, 2000
- Cockerham E.C. Medical Sociology Prentice Hall, New Jersey 1978.
- Dingwali, R. Aspects of Illness, Martin Robertson, London 1976.
- Govt. of Karnataka: Health Development Reports, 1990 to 2005.
- National Family Health Services, I, II, III Vol. 1, 2, 3, 1992-93, 1998-99, 2002-03.
- Somashekharappa, C.A. Sociology of Health and Wellness ( in Kannada), Prasara, Karnatak University, 2013.

**OPTIONALS**  
**Paper - 2.5 (a) SOCIOLOGY OF SOCIAL DEVIANCE**  
**Course Code: PG53T205A**

**Objectives:**

**This Course will help the Students to;**

- Understand the relationship between Culture, Social Norms and Deviance.
- Analyse various approaches and perspectives to the study of different forms of deviant behaviour like crime and suicide.
- Find out the role of criminal law, police, prisons and social institutions for controlling crime or deviant behaviour.

**Learning Outcomes:**

1. It enables the learners to understand how deviant behaviour affects social life
2. It helps the learners in the relationship between social, economic and cultural values involved in deviant behaviour.
3. It assists to the students for solving remedies for deviant behavior.

**UNIT I: Introduction:**

- a. Meaning, Nature, Scope and Importance of Sociology of Deviance
- b. Deviance and Social norms
- c. Differentiation and sub- cultural norms
- d. Perspectives in the study of Deviance

**UNIT II: Approaches to the study of Deviance:**

- a. The functionalist Approach: Durkheim and G.H. Mead
- b. The Interactionist Approach: C.H. Cooley, Edwin M. Lemert, Howard S. Backer, Erving Goffman
- c. Anomie and Deviance: Durkheim, Merton, Parsons, Cohen
- d. Social and Cultural Approach : Edwin H. Sutherland, Richard, A. Cloward and Lloyd E. Ohlin, Gresham M. Sykes and David Matza

**UNIT III: Criminal Behaviour and its Types:**

- a. Nature of Crime
- b. Sources of Criminal attitudes
- c. Classification and Typology of Criminal Offenders
- d. Types of Criminal Behaviour
- e. Victimless Crime

**UNIT IV: Suicide:**

- a. Suicide as Deviant Behaviour
- b. Types of Suicide (Durkheim)
- c. Social Differentials in suicide
- d. Suicide and mental disorder

**UNIT V: Deviance and Social Control:**

- a. The Criminal Law
- b. The Police
- c. Prisons
- d. The Role of Family, the Peer group, Community and Civil Society

**Essential Readings:**

- Clinard, Marshall. B (1968): The Sociology of Deviant Behaviour, New York, Holt, Rinehart and Winston.
- Rubington and Weinberg (1977): The Study of Social Problems: Five Perspectives, Oxford University Press, Oxford.
- Parsons, Talcott (1972): The Social System (Ch 7) New Delhi, Amrind.
- Merton, Robert, K (1974): Social theory and Social Structure, New Delhi, Amrind.
- Cohen, Albert, K (1977): Deviance and Control, New Delhi, Prentice Hall.
- Shoham.S. Glora (1976): Social Deviance, New York, John Wiley and Sons Inc.
- Graeme, Newman (1976): Comparative Deviance, New York, Elsevier.
- Baligar, M.P and Somashekharappa C.A (2015) Juvenile Delinquency in India, Prateeksha Publication, Jaipur.

## **Paper - 2.5 (b) SOCIOLOGY OF SOCIAL MOVEMENTS**

Course Code: PG53T205B

### **Objectives**

1. This course helps to understand the conceptual, ideological, theoretical and methodological issues involved in the study of social movements, as well as the historical and descriptive analyses of collective action.
2. The course seeks to introduce students various reform movements which have direct bearing on the course of social, political, cultural and economic changes in the society.
3. The course will also equip students to visualize the transition from traditional to contemporary social movements.
4. The course envisages that studying Dalit, Peasant and Tribal movements would ultimately foster an understanding of the dynamics of power, justice and human agency in transforming societies and cultures.

### **Learning Outcomes**

1. At the end of the course, students should be able to distinguish the central principles of different perspectives in the sociology of social movements and relate them to specific historical and empirical contexts.
2. The students will learn the necessity of Social reform movements introduced by great humanitarian leaders in India.
3. Students should be able to distinguish a phenomenon as social movement from other cognate political phenomena.
4. Understand the dynamics and motivations of individuals and groups participating in social movements and identify reasons for success or failure of social movements.

### **UNIT – I : Introduction:**

- a. Scope and Significance of Sociology of Social Movements
- b. Genesis of Social Movements
- c. Ideology and Social Movements
- d. Types of Social Movements
- e. Social Movement and Social Change

### **UNIT – II: Reform Movements:**

- a. Arya Samaj, Brahma Samaj, Prarthana Samaj
- b. Basaveshwara: Lingayath Movement
- c. Sri Narayan Guru Dharma Paripalanasabha(SNDP)
- d. Ramakrishna Mission

### **UNIT – III: Dalit and Backward Classes Movements:**

- a. Emergence of Dalit Movement in India
- b. Role of Phule and Ambedkar
- c. Dalit Movement in Karnataka (DSS)
- d. Backward Classes Movement in Karnataka

### **UNIT – IV: Peasant Movements:**

- a. Characteristics and Trends
- b. Peasant Movement in India
- c. Peasant Movement in Karnataka

### **UNIT – V: Tribal Movements:**

- a. Santal Movement
- b. Jharkhand Movement
- c. Political Awakening among the Tribals

**Essential Readings:**

- J.A.Banks : The Sociology of Social Movements, London, Mac Millan, 1972  
W.R.Cameron : Modern Social Movements, New York Random House, 1966  
Rudolf : Social Movements New York, A.C.C. 1955  
M.S.A Rao (ed) : Social Movements and Social Transformation ,Delhi : Mac Millan, 1979  
M.S.A. Rao (ed) : Social Movements in India Delhi, Macmillan, 1979  
S.Chawdhary : Peasants and workers Movements in India.  
Sunanda Patwardhan : Social change among Harijans.  
S.C.Malik: Dissent, Protest and Reform in Indian civilization  
Hardgraue .R.C. : The Dravidian Movement.  
Shah, Ganshyam Social Movements & the State, New Delhi, Sage, 2002.  
Ishwaran, K; Society and Religion among Lingayaths

## **PAPER 2.5 (c) SOCIOLOGY OF TRIBES**

### **Course Code: PG53T205C**

#### **Objectives:**

This course will help the students to

- To study the Tribal problems in Indian Society.
- To help to know the ethnographic profiles of selected Indian Tribes.
- To study the problems and prospects of Tribals in India.

#### **Learning outcomes**

1. It enables the students to understand the origin and development of various tribes in India.
2. To help to students about Tribal family, Economy, education, Religion and Welfare.
3. It helps to students to acquire the knowledge how to solve etc various, problems of Tribes in Indian Society.
4. It also helps the students how Tribal people are separated from non Tribals.

#### **UNIT I: Introduction:**

- a. The rationale of studying tribal society
- b. Meaning, Nature, scope and significance of Sociology of Tribes
- c. Origin and development of tribal Sociology
- d. Sociology of Tribes in India: a perspective

#### **UNIT II: Tribes in India: their classification:**

- a. Geographical distribution
- b. Linguistic composition
- c. Racial diversities
- d. Economic differences
- e. Cultural Organization of tribes in India

#### **UNIT III: Ethnographic Profiles of Selected Indian Tribes:**

- a. The Todas (Pastoralists)
- b. The Bedas (Hunter-ruling)
- c. The Khasi (Matrilineal & Matriarchal)
- d. The Siddis of Karnataka (Forest)
- e. The Koragas of Karnataka (Primitive)

#### **UNIT IV: Tribal family, Economy, Education, Religion and Welfare measures:**

- a. Tribal family and marriage
- b. Tribal economy
- c. Tribal education
- d. Tribal religion
- e. Tribal Unrest.
- f. Constitutional provisions.
- g. Tribal Development: policies and programs

#### **UNIT V: Problems and Prospects of Tribals in India:**

- a. Social, economic, educational, and health problems
- b. Social Change among tribal's of India
- c. Hinduization of tribes
- d. Modernization of Tribal's: Industrialization, Urbanization,
- e. Political Participation of tribal's in India.

**Essential Readings:**

- Nadeem Hasnain, 2011, Tribal India, Palaka Prakashana, New Delhi.
- Ghurye G.S., 1963. The Scheduled Tribes, Popular Prakashan, Bombay.
- Kuppuswamy (2010) Social Change in India, Konark publishers Pvt. Ltd, New Delhi.
- Smelser N.J (Ed.) 1970, Sociology, Wiley Eastern, New Delhi.
- Srinivas M.N (1952), Religion and Society among Coorgs, Oxford University Press and 1962, Caste in Modern India, Asia Publishing House, Bombay.
- Majumdar R.C, The History and Culture of the Indian people, Bharatiya, Vidya Bhavan, Vol. III 1962.
- Pant, S.C. Indian labour problems, Chaitanya Allahabad 1965.
- Damble, Y.B, Communication of modern ideas and knowledge in Indian villages, Cambridge 1955.
- Natarajan, S. History of press in India, Asia, 1962
- Ahuja R (2001) Society in India, Rawal Publication, New Delhi.
- Vidyathri. L.P and B.K. Rai (1985), The Tribal Culture of India, concept publishing company, New Delhi.
- Bose, N.K. (1941), Hindu mode of Tribal absorption, Science and Culture vol. VII
- Forde, G.D. (1979) (original 1934) Habitant, Economy, and Society, London, Methnen & co. Ltd.
- Toynbee A. J. (1947), A study of History (Abridgement of vol. I-VI) New York, Oxford University, Press.
- Enthoven, Tribes and Castes of Mysore.

## Paper - 2.5 (d) SOCIOLOGY OF SOCIAL MARKETING

Course Code: PG53T205D

### Objectives:

This course will help the students to:

- Comprehend the relationship between market and society.
- Analyse the relevance of social marketing.
- Find out the social structure of market in India.

### Learning outcomes

1. It enables the learners to understand social relevance of market.
2. It helps the learners in studying the social values and social responsibilities of marketing
3. It also helps the students know the issues and problems of modern marketing strategies and their impact on the social and cultural life of people of India.
4. It helps the students to examine the impact of rising consumerism and ethical issues of marketing in modern society

### UNIT – I: Introduction:

- a. Meaning and Definition of Market
- b. Functions and Role of Market
- c. Market as a Social Institution
- d. Social Marketing – Meaning, Elements
- e. Approaches to Social marketing

### UNIT – II: Processes of Social Marketing:

- a. Segmentation (Social differentiation) Target Audiences.  
Positioning (STP)
- b. 4 Cs in Social Marketing-. Cause, Cost, Channel and Communication

### UNIT – III: Agencies of Social Marketing:

- a. State, Corporate agencies
- b. International donor agencies,
- c. NGOs.

### UNIT – IV: Social Responsibilities of Marketing:

- a. Social Values of Marketing
- b. Social Criticisms of Marketing
- c. Impact of Marketing on Society

### UNIT – V: Marketing in India:

- a. Health Care Marketing
- b. Marketing of Family Planning Services in India
- c. Consumerism in India
- d. Role of Media in Social Marketing
- e. Role of Government in regulating social Marketing

### Essential Readings:

Philip Kotler and Roberto L Eduardo(1989) Social Marketing: Strategies for Changing Public Behaviour , Prentice-Hall, New Delhi

Philip Kotler and Gerald Zaltman (1971) ‘Social Marketing: An Approach to Planned Social Change’, Journal of Marketing, July 3-12

S. Neelamegham(1987) Marketing in India: Cases and Readings, Vikas, New Delhi

Conard Berenson and Henry Eilbirt(1973) The Social Dynamics of Marketing, Random House, New York

P.K. Sinha and S.C.Sahoo(1994) Services Marketing: Text and Reading, Himalaya, Bombay

David J. Racchman(1990) Marketing: Strategy and Structure, Prentice Hall, New Delhi

**Paper 2.6 OPEN ELECTIVE  
INVITATION TO SOCIOLOGY  
(for students from other departments)  
Course Code: PG53T206**

**Objectives:**

**This Course will help the Students to;**

- To understand fundamental concepts of sociology.
- It aims at helping students to understand social institutions.
- It aims to know the regulative mechanisms of society.
- It provides an out plan exposure to other non sociology students regarding social mechanisms, social change and development.

**Learning Outcomes:**

- It enables the learners to understand emergence of sociology and basic concepts in sociology.
- To orient students to study society from sociological angle.
- It helps the learners in understanding the relationship between individual and society and the role of individual in social institutions.

**UNIT – I Introduction:**

- a. Emergence of Sociology
- b. The Sociological Perspectives
- c. The Development of Sociological thinking
- d. Asking and answering the sociological questions – Methods of sociology
- e. Sociology in every day life

**UNIT – II Basic Concepts of Sociology:**

- a. Society and Community
- b. Culture and Socialization
- c. Social values and norms
- d. Association and Institutions
- e. Structure and Function

**UNIT - III Social Processes:**

- a. Social Processes – Meaning, Characteristics
- b. Major Social Processes – Cooperation, Competition, Conflict, Accommodation and Assimilation

**UNIT – IV Social Groups:**

- a. Meaning and importance of groups
- b. Typology of social groups
- c. Sociology of small groups

**UNIT – V Social Control and Change:**

- a. Meaning and Means of Social Control
- b. Meaning and Factors of Social Change
- c. The Environment and health as Sociological issue

**Essential Readings:**

Giddens, Antony, 5<sup>th</sup> and 6<sup>th</sup> ed. Sociology, 2006, Politi Press, Malden.2009  
MacIver, R.M and C.H.Page, Society - Introduction to Sociology, Macmilan, New Delhi  
Samuel Koenig : Sociology: An Introduction to Science of Society, Barnes & Nobel Books, London. 1957  
Davis Kingsley, Human Society, Macmilan, New Delhi.  
Berger, Peter L. An Invitation to Sociology, Allen and Unwin, London.1978  
Inkles, Alex. What is Sociology, Prentice Hall India, New Delhi. 2002.  
Jayaram, N, 1990, Introductory Sociology, Macmilan, New Delhi.

**SEMESTER-III**  
**3.1 CONTEMPORARY SOCIOLOGICAL THEORIES**  
**Course Code: PG53T301**

**Objectives:**

**This course will help the students to:**

- Learn about various new perspectives in Sociology.
- To understand Sociology from a critical stand point on the basis of the learning of theories from previous semester.
- Know the Contemporary Sociological theories.

**Learning outcomes**

1. It acquaint the students various contemporary Sociological theories.
2. It helps the students to understand sociology from exchange theoretical perspective and apply the same to modern contemporary issues of society.
3. It provides sociological insights.
4. It facilitates students to understand empirical investigations constructed by the contemporary sociological thetorticians.

**UNIT-I: Neo-Functionalism And Neo-Marxism:**

- a. Jeffrey Alexander
- b. Althusser-Structuralism
- c. Gramsci- Ideological Hegemony
- d. Analytic Marxism of Erik Olin Wright

**UNIT-II: Frankfurt School:**

- a. Emergence of Frankfurt school
- b. Max Horkheimer
- c. Theodor Adorno
- d. Jurgen Habermass

**UNIT-III: Ethnomethodology:**

- a. Emergence of ethno methodology
- b. Harold Garfinkel Reflective Action and Interaction.
- c. Harvey Sacks contributions.

**UNIT-IV: Exchange Theories:**

- a. Emergence of Exchange Theories- Frazer, Malinowski, Levi-Strauss, Marcel Mauss.
- b. George C. Homan's Behaviourlist approach.
- c. Peter Blau's dialectical Theory of Exchange.
- d. Georg Simmel's Exchange Principles.

**UNIT-V: Dramaturgical Theories:**

- a. Erving Goffman on "The Interaction Order"
- b. The Presentation of Self
- c. Focused and unfocused interaction.
- d. Frames and Fabrications.
- e. Emotional labour of Arlie Hochschild.

**Essential Readings:**

- Alexander, Jeffrey C: Neofunctionalism and After, Malden, MA Basiel Blackwell, 1998.
- Berger L & Thomas Lukmann. The Social Construction of Reality, Doubleday, Garden City 1966.
- Charles Lemert, Social Theory: The Multicultural and Classical Readings, Rawat, Jaipur, 2004
- Dipankar Gupta, My Favourite Levi-Strauss 'A Hero of Our time' Susan Sontag, Cambridge University press. 1964-1971
- Eliot Gregory, 'Althusser: A Critical Reader', Blackwell Publications, London, 1994.
- E.C. Cuff et al, *Perspectives in Sociology*, Routledge, London, 2009.
- Giddens, Anthony and Jonathan H. Turner (eds.): *Social theory today*. Stanford: Stanford University Press, 1987.
- Haralambos and Holborn, Sociology (7<sup>th</sup> edition), Collins, London, 2007.
- Habermas, Jurgen: *The philosophical discourses of modernity: Twelve lectures*. Mass.: MIT Press, 1987.
- Habermas, Jurgen: *The theory of communicative action, Vol.2: Life world and system: A critique of functionalist reason*, Boston: Beacon Press, 1987
- Jonathan H. Turner- Contemporary Sociological theory, SAGE publications 2013.
- Layder, Derek: *Understanding social theory*. London: Sage, 1994.
- Linda Nicholson, Steven Seidman, Social Postmodernism: Beyond Identify Politics 1995.
- Mouzelis Nicos, 'Sociological Theory what went wrong' Routledge Publicatons, London, 1995.
- Martindale, Don, The Nature and Types of Sociological Theory, Routledge & Kegan Paul, London 1960.
- Ritzer, George Modern Sociological Theories, Rawat publication, Jaipur, 2005.
- Sharan, Raka A Handbook of Sociology, Anmol Publication, New Delhi. 1997
- Swingwood . A.: A Short History of Sociological Thought, Mac Millan, Hong Kong, 1984.
- Sorokin.P Contemporary Sociological Theories. Kalyani Publisher, New Delhi, 1978.
- Steven Seidman and Jeffrey C. Alexander, *The New Social Theory Reader*, Routledge, New York. 2010.
- Turner, Jonathan .H: The Structure of Sociological Theory, Rawat Publications Fourth ed, Jaipur, 1987,
- Wells, Alan (ed.) Contemporary Sociological Theories. Goodyear Publishing Co, California.

## **Paper – 3.2 PRINCIPLES OF SOCIAL STATISTICS**

### **Course Code: PG53T302**

#### **Objectives:**

This course will help the students to

- To know the meaning, definition about statistics, central and tendency, Q.D M.D, Range etc.
- To explain and understand the various Tools and Test like T, F, Z “ANOVA”.
- To study the scope and importance of the social statistics.

#### **Learning outcomes**

1. It helps the students how to make the graphs and diagrammatic in study.
2. Measures of central tendency, dispersion helps the students, to draw the good conclusion in dissertation, thesis work etc.
3. Various tests in social statistics helps the students, researcher to understand the real problems, scales, and draw backs in the field work.

#### **UNIT - I: Introduction:**

- a. Social Statistics: Scope and Importance
- b. Collection of Data- Types and Sources of Statistical Data,
- c. Classification and Tabulation of data
- d. Diagrammatic and Graphical Representation of Data

#### **UNIT – II: Measures of Central Tendency and Dispersion:**

- a. Mean, Median and Mode
- b. Range, Quartile Deviation, Mean Deviation, Standard Deviation
- c. Coefficient of Variation.

#### **UNIT – III: Correlation and Regression:**

- a. Theory of Correlation and Regression; Types of Correlation and methods.
- b. Types of Regression lines, Properties of Correlation Co-efficient.
- c. Regression Co-efficient.

#### **UNIT – IV: Large Sample Test:**

- a. Sampling of Attributes
- b. Chi-square test
- c. Tests of significance bases on t, F and Z distributions.
- d. Analysis of variance (ANOVA)

#### **UNIT – V: Computer Languages (Practical):**

- a. Basics
- b. Computer Languages
- c. SPSS package

#### **Essential Readings:**

- S.P. Gupta (1985) Statistical Methods, S. Chand & Sons, New Delhi.  
S.C. Gupta (1990) Fundamentals of Statistics, Himalaya Publishing, Mumbai.  
Y.P. Agarwal (1995) Statistical Methods: Concepts, Applications and Computation, Sterling Publishers, New Delhi.  
R. Mark Sirkin(1995): Statistics for the Social Sciences, Sage, London.  
K.K. Sharma (1998) A to Z Elementary Statistics, Krishna Prakashan, Meerut.  
Peter Norton (2000) Introduction to Computers, Tata McGraw Hill, New Delhi  
V. Rajaraman: Fundamentals of Computers, Prentice-Hall, New Delhi.  
Ram Ahuja : (2000) Research Methods, Jaipur, Rawat.  
John Galtung, 1980: Theory and Methods of Social Research, Social Statistics, New Delhi. S. Chand

## **Paper - 3.3 SOCIOLOGY OF DEVELOPMENT**

**Course Code: PG53T303**

### **Objectives:**

**This Course will help the Students to;**

- Understand the Sociological dimensions of Development.
- Analyse changing conceptions of Development and its indices.
- Find out the recent trends and patterns of development in theoretical framework.

### **Learning Outcomes:**

1. It enables the learners to understand the concepts related to social structure and development process.
2. It helps the learners in studying the relationship between social and economic aspects.
3. It also familiarizes the students to know various approaches and methods for study on the process of development.
4. It assists the students enhancing their interests in research on developmental studies.

### **UNIT – I : Introduction:**

- a. Rationale for Studying Development Sociologically
- b. Scope and Importance of Sociology of Development
- c. Historical Development of Economic Sociology
- d. Components of Development
- e. Sociological Dimensions of Development
- f. Development approaches and methods (PRA, PPM Etc.)

### **UNIT – II : Conceptual Perspectives on Development:**

- a. Changing Conceptions of Development- Economic Growth, Human Development, Social Development, Sustainable Development, Post Developmentalism.
- b. Liberal and Marxist Perspectives
- c. Strategies and indices
- d. Transforming communities: Maps and Models
- e. Hindrances of Development

### **UNIT - III: Theories of Development:**

- a. Structural Functional Theory
- b. Socio-Psychological Theory (D. MacIlelland)
- c. Stages of Growth Model (W.W. Rostow)
- d. Vicious Circle Model
- e. Theory of Social Change(Spengler)

### **UNIT – IV: Theories of Under Development:**

- a. Dependency Theory
- b. Unequal Development (Samir Amin)
- c. The World System and Multinational Corporations (WallerStein)
- d. Development of under Development (A.G.Frank)
- e. Trends in Development Theory (J.N. Pieterse)

### **UNIT – V: Social Structure and Development (with special reference to India):**

- a. Education, Culture and Development
- b. Gender ,Youth and Development
- c. Agriculture, Ecology and Development
- d. Technology, Liberalization, Globalization and Development
- e. Development Disparities and its Policies

**Note. Of the 100 marks this paper carries 75 for theory main exam and 25 for internal assessment. Of the 25 marks 3 for attendance(as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each student separately**

**Essential Readings:**

- Alexander K.C. and Kumaran. K.P. (1992) Culture and Development , New Delhi, Sage.
- Haq, Mahabub ul. (1990) Reflections on Human Development, Karachi, Oxford.
- Hoogvelt, Ankie M. (1996) The Sociology of Developing Societies, Delhi. MacMillan.
- Hoselitz, Bert F. (1996) Sociological Aspects of Economic Growth, New Delhi, Amerind Publishers.
- Pandey, Rajendra (1985) Sociology of Development, New Delhi, Mittal.
- Pandey, Rajendra (1986) Sociology of Underdevelopment, New Delhi, Mittal.
- Rostow, W.W. (1960) The Stages of Economic Growth, London.
- Sharma, S.L. (1986) Development: Socio-cultural Dimensions. Jaipur, Rawat.
- Smelser, Neil. J. (1988) The Sociology of Economic life, New Delhi, Prentice Hall.
- Webster, Andrew (1988) Introduction to the Sociology and Development, New Delhi, Macmillan.
- Zimmerman, Carle C. & Richard E. Duwords (eds) (1976) Sociology of Underdevelopment, Jaipur, Rawat.
- Ian Roxborough (1979) Theories of Underdevelopment, Macmillan, London

## **PAPER 3.4: SOCIOLOGY OF SCIENCE AND TECHNOLOGY**

### **Course Code: PG53T304**

#### **Objectives:**

**This course will help the students to:**

- Know the relationship between science and society and vice versa
- Identify the relationship between social organization of Science
- Find out the contemporary trends in science and technology and their sociological consequences

#### **Learning outcomes**

1. It enables the learners to understand how science and technology related to social life of people.
2. It helps the learners in studying science and technology as a social activity deals with the social conditions and effects of science and technology.
3. It also familiarizes the students how modern science based technologies have been posing risk to people and environment.
4. The assist students to examine how social, political and cultural values affect scientific and technological processes of research and innovation and how these affect, in turn, society, economy, politics, culture and environment.

#### **UNIT I: Introduction:**

- a. Science and Goals of Science.
- b. The Emergence, Scope and Importance of Sociology of Science and Technology.
- c. Science as a Social System, Norms of Science.
- d. Values and Science.

#### **UNIT II: Emergence of Science and Technology:**

- a. Origin and Development.
- b. Pure and applied Science.
- c. Society, Science and Technology.
- d. Role of Science and Technology.

#### **UNIT III: Social Organization of Science:**

- a. The Science Policy in India
- b. Social organization of Science in India
- c. R and D Culture in India
- d. Social Background of Indian Scientists

#### **UNIT IV: Science Education and Research in India Today:**

- a. Science education in India
- b. Role of Universities in Development of Science and Technology
- c. Relationship between Science and Industry
- d. The problems of Science education in India

#### **UNIT V: Indian Science and Technology in Global Situation:**

- a. Impact of LPG on Indian Science and Technology
- b. WTO and IPR and Indian Science and Technology
- c. MNCs and Indian Industry
- d. Political Economy of Science and Technology in India

**Essential Readings:**

Binay Kumar Pattnaik (ed) (2014) Sociology of Science and Technology in India (Vol. 6), Indian Sociological Society, New Delhi.

Storer Norman W (1966) Social System of Science, Newyork, Holt

Goldsmith, Maurice(ed)(1975) Science and Social Responsibility, London, Macmillan

Barber, B (1953) Science and Social order, London, Allen. G

Barber, B and Walter Hirsch, Walter (1962) Sociology and Science, Glencoe, Ill. Free Press

Baliga, AV (1972) Science and Society, Bombay, Lalvam Pub. House

Kothari A.N; and others (1986) Science, Technology and Social Change. New Delhi: Wiley Eastern

Sprott. WJH (1954) Science and Social Action London . Watts

Motwani, Kewal (1945) Science and Society in India: Foundations of Planning Bombay: Hind

Uberoi, JPS (1978) Science and Culture, Delhi, Oxford University Press

Barnes (Barry) Ed. Sociology of Science, Hamands worth: Pengvin

Williams R and Edge. D (1966) "The Social Shaping of Technology" Research Policy Vol. 25 pp 856-899(2)

Jasanoff, S. Markle

G. Pinch and Petersen J (Eds) (2002) Handbook of Science, Technology and Society London, Sage

Merton R.K. (1973) The Sociology of Science: Theoretical and Empirical Investigations

Chicago: University of Chicago Press

Gillard, J (1991) Scientists in the Third World, Lexington: Kentucky University Press.

**Optional**  
**3.5 (a) INDUSTRIAL SOCIOLOGY**  
**Course Code: PG53T305A**

**Objectives:**

**This course will help the students to:**

- Understand the Industrial Society and importance of industry in the development of nation.
- Examines the importance of Social and human relations in Industrial organization.
- Discusses different industrial processes, problems with special reference to Indian Industry.

**Learning Out comes:**

- It enables the learners to understand the origin and development of Industrial Sociology and as well as to comprehend the impact of industrial institutions on society.
- It helps the learners in acquainting with the social organization of Industry and the significance of human approach to industry.
- It assists the students in comprehending the significance of industrial processes and labour relations in industry.
- It helps the learners to appreciate the significance of labour welfare in the present industrial society.

**UNIT – I: Introduction:**

- a. Scope and significance of Industrial Sociology.
- b. The Rise of Industrial Sociology: Hawthorne Experiment
- c. Development of Industrial Sociology in India
- d. Impact of Industrial Institutions on Society.

**UNIT – II: Rise and Development of Industry:**

- a. Early Industrialism in Western Society: The Manorial System, Guild System, The Putting out System
- b. The Factory System: Its Characteristics

**UNIT – III: Organizational Structure of Industry:**

- a. Formal Organization: Line and Staff.
- b. Informal Organization.
- c. Industrial Bureaucracy

**UNIT – IV: Industrialism and Indian Society:**

- a. Industrial Development in India.
- b. Characteristics of Indian labour and labour problems: Changing Profile
- c. Absenteeism in Indian industries.
- d. Social Consequences of Industrialism in India.

**UNIT -V: Industrial Relations:**

- a. Trade Union Movement in India.
- b. Industrial Disputes, Collective bargaining
- c. Industrial democracy- workers' participation in management
- d. Labour Welfare

**Essential Readings:**

Miller and Form: Industrial Sociology, London, Hurper and Row Publishers 1964.  
Schneider Eugene. V.: Industrial Sociology, London, McGraw Hill, 1971  
Moore, W.E.: Industrial Relations and Social Order, New York: MacMillan, 1974.  
Eldridge: Industrial Disputes, London Routledge and Kegan Paul.  
Parker, S.R. et. al.: The Sociology of Industry, London George Allen and Unwin, 1967.  
Etzioni, Amitai: Modern Organizations, New Delhi. Prentice Hall of India. 1976.  
Sexena, R.C. : Labour Problems and Social Welfare, Jai Prakash Nath & Co. Meerat, 1955.  
Agrawal, R.D. : Dynamics of Labour Relations in India : A book Readings ; Tata MacGraw Hill.

Pascual Gisbert, S.J. : Fundamentals of Industrial Sociology, Tata McGraw Hill Publishing Company Ltd., New Delhi 1972..

N.R.Sheth (ed) : Industrial Sociology in India. : A Book of Readings Allied Publishers Pvt Ltd., New Delhi 1982.

Memoria, C.B. and Mamoria: Dynamics of Industrial Relations in India. Himalaya Publishing House, Mumbai 1992.

Ramaswamy, E.A. Industrial Relations in India; New Delhi, 1978.

Deepak Mathur (2010): Industrial Sociology, Text & Practice, Biztantra.

Narendar Singh (2012): Industrial Sociology, Tata McGraw Hill Education Private Limited, New Delhi.

G. Subrahmanya (2006) Principles of Industrial Sociology, Sapna, Gandhinagar, Bangalore.

Somashekharappa. C.A (1992) Sociology of an Industrial Complex, Reliance, New Delhi.

## **Paper- 3.5 (b) SOCIOLOGY OF MARGINALIZED GROUPS**

**Course Code: PG53T305B**

### **Objectives**

1. This course sensitizes the learners about the significance of the study of marginalized communities from Sociological Perspective.
2. This course creates awareness of various groups and communities which have been suffering from extreme poverty, deprivation and discrimination since a long period.
3. This course also throws light on welfare measures adopted by the government for their upliftment.

### **Learning Outcomes**

1. At the end of the course the student comes to know the various socio-economic indices of marginalization.
2. The students will be able to understand the views of great humanists regarding the concept of marginalization and can show their sympathy towards marginalized people and communities.
3. The students come to know the welfare measures adopted by the government for their improvement and make evaluation of working nature of these provisions.

### **UNIT – I: Introduction:**

- a. Meaning and Process of Marginalization
- b. Scope and Importance of Studying Marginalization
- c. Marginalization and its Socio-Economic Indices: Poverty, Relative deprivation, Exploitation, Discrimination, Backwardness, and Inequality.

### **UNIT – II: Perspectives on Marginalization:**

- a. Role of Ideology in Marginalization
- b. Views of Phule, Periyar, Ambedkar, Lohiya
- c. Subaltern perspective

### **UNIT – III: Marginalized Groups in India:**

- a. Schedule Castes
- b. Scheduled Tribes
- c. Nomadic and seminomadic
- d. Neo Buddhists, Christians and Muslims
- e. Women

### **UNIT – IV: Marginalization and Affirmative Actions:**

- a. Constitutional Provisions
- b. Governmental Policies and Programmes
- c. Role of N.G.Os.

### **Essential Readings:**

Ambedkar, B.R. : Who Were the Shudras, Thacker and Co. Ltd., Bombay, 1946.

Ambedkar, B.R. : The Untouchables : Who are They and Why They Became Untouchables, Amrit Book, New Delhi. 1948

Chalawadi M.C and Somashekharappa, C.A, Dalit Women in Panchayat Raj System, Prateeksha, Jaipur, 2014

Khan, Mumtaz Ali : Scheduled Caste and Their Status in India, New Delhi, Uppal Publishing House, 1980.

Praksh Nirupama, Scheduled Castes and Socio-Economic Changes, Allahabad: Chugh Publications, 1989.

Kananakel Joshi Scheduled Caste and the Struggle against Inequality, New Delhi, Indian Social Institute, 1963

Kamble. M.D. Deprived Caste and Their Struggle for Equality New Delhi, Ashish Publishing House. Vasant Moon: Dr. Babasaheb Ambedkar, Writings and Speeches Vol. 1-14, Government of Maharashtra Publication.

Patnaik, N Tribes and Their Development, Hyderabad, Hyderabad Institute of Community Development, 1972.

Ghurye, G.S. Caste, Race and Occupation in India, New Delhi, 1969

Elwin, Verier, A New Deal for Tribal India, 1963.

Ranjeet Guha: Subaltern's Studies 2 Vol.s, Oxford, OUP.

## **Paper 3.5 (c) SOCIOLOGY OF LEISURE and SPORT**

### **Course Code: PG53T305C**

#### **Objectives:**

##### **This course will help the students to:**

- Understand the relationship between leisure sport and society.
- Identify the social organizations of Sport.
- Find out the role of social institutions in the development of sport.

#### **Learning outcomes**

1. It facilitates the learners to understand how leisure and sport in the social life of people.
2. It helps the learners in studying social and cultural values involved in leisure and sport.
3. It also assist the students know how sport as a social institution.
4. It prepares the students to examine the interface of sport and economic, political and religious institutions.

#### **UNIT – I: Introduction:**

- a. Scope and importance of Sociology of Leisure Sport
- b. Origin and Development of Sociology of Leisure Sport
- c. Sport as a Social Phenomenon – Nature of Sport
- d. Sport and Socialization of the Individual

#### **UNIT – II: Theoretical Approaches:**

- a. Structural Functional Approach
- b. Conflict Approach
- c. Ethno- Methodological Approach
- d. Leisure Sport and Society: Sport as leisure time activity

#### **UNIT – III: Cultural Bases of Sport:**

- a. Relationship of Sports with the elements of Culture
- b. Sport, Leisure and Culture
- c. Sport as a reflection and transmitter of values
- d. Cross Cultural Differences in Sport

#### **UNIT – IV: Social Institutions and Sport:**

- a. Sport as a Social Institution
- b. Sport and Economic, Political and Religious Institutions- interface
- c. Emergence of Spectator Sport
- d. Violence in Sport

#### **UNIT – V: Social Stratification and Sport:**

- a. Sport and Social Stratification
- b. Sport and Social Mobility
- c. Gender Inequality- Participation of Women in Sport
- d. Sport and the State: Policies and Programmes.

#### **Essential Readings:**

Dharam.V.R. (1989) Sports & Society : Readings in Sociology of Sports, New Delhi classical.

Hylton, Kelvin, et al ( 2001) Sports Development : Policy Process & Practice, London : RKP

Laker Anthony (ed) ( 2002) The Sociology of Sport and Physical Education, London, RKP.

Loy John W et al(1978): Sports and Social System A Guide to the Analysis, Problems and Literature ,Wesley : London,.

Synder, E.E. & Elenor Spreitzer(1983), Social Aspects of Sports, Englewood Cliffs. N.J.

Oglesby Carde(1978) Women & Sport : From Myth to Reality, Orient Long man, London,.

Pachauri,S.K. (1999) Women & Children in Sports, Commonwealth Pub, New Delhi.

Sharma.V.K. & Rajeev Sareen (ed) (1992) Perspectives in Sports Education Commonwealth Publishing, New Delhi,

## PAPER 3.5 (d) SOCIOLOGY OF EDUCATION

Course Code: PG53T305D

### Objectives:

This course will help the students to:

- Understand the relationship between education and society.
- Analyse the social and cultural values of education.
- Find out the social role of teachers and the social system of education in India.

### Learning outcomes

1. It enables the learners to understand social relevance of education.
2. It helps the learners in studying the social structure of education
3. It also helps the students know the issues and problems of the equality of educational opportunity.
4. It helps the students to examine socio-economic and political issues involved in the development of education

### UNIT I : Introduction to Sociology of Education:

- a. Nature, scope and importance of Sociology of Education-
- b. Interrelation between Education and Society
- c. Theoretical Perspectives in Sociology of Education- Structural, Functional, Conflict and Radical Perspectives

### UNIT II: Education and Socialization:

- a. Agencies of Socialization; Family, School .Peer Group and Media
- b. Changing Dimensions

### UNIT III: Education and Social Stratification:

- a. Education and Social Mobility
- b. Equality of Educational Opportunity, Universalization of Education,
- c. Right to Education
- d. Problems of Primary Education – Dropout and Wastage

### UNIT IV: Higher Education in India:

- a. Growth of Higher Education in India
- b. Problems and Prospectus of Higher Education in India
- c. Professionalization of Teaching in India –
- d. Higher Education in Karnataka

### UNIT V: Education and Society in India:

- a. A Brief Socio- Historical View: Colonial and Independent India
- b. School and Higher Education: Diversities, Disparities
- c. Challenges of Women's education in India.

### Essential Readings:

- Banks, Olive, (1976), Sociology and Education, London: Batsford.
- Blackledge, D. and B. Hunt, (1985), Sociological Interpretations of Education, London: Croom Helm.
- Boudon, Raymond, (1973), Education Opportunity and Social Inequality, New York: John Wiley & Sons.
- Brint, Steven, (1988), School and Societies, Thousand Oaks, California: Pine Forge Press.
- Durkheim, Emile, (1956), Education and Sociology, New York: Free Press.
- Gore, M. S., I. P. Desai and Suma Chitins (ed), 1967, Papers in the Sociology of Education in India, New Delhi: NCERT.
- Indira R. (ed), (2011), Themes in Sociology of Education (Volume 5), Studies in Indian Sociology, New Delhi: Sage Publication.
- Jayaram, N. (1990) Sociology of Education in India, Jaipur: Rawat Publications.
- Somashekharappa C A and Maranoor R M(2015) Dropout problem in India, Prateeksha publishers, Jaipur
- Shah, B.V. and Shah, K. V. (1998) Sociology of Education, Rawat, Jaipur.

## Paper 3.6 Open Elective

### INDIAN SOCIETY - CONTINUITY AND CHANGE (for students from other Departments) Course Code: PG53T306

#### Objectives:

This course will help the students to

- To understand and to know the past, human behaviour, traditional values in the society etc.
- Various scholars speak on transformation of Indian Society
- Identified the various issues in Indian Society.

#### Learning outcomes

1. To help the students to know the past and present caste system, various problems among caste, sub-caste.
2. This paper helps the students to evaluate the merits and demerits in society.
3. It also enables the students to study the various approaches, theories, thoughts of Indian Society.

#### UNIT: I Introduction:

- a. Characteristics of Indian Society
- b. Unity in Diversity: Sources and Challenges
- c. Emerging challenges to Indian Society

#### UNIT: II Changes in Indian Society:

- a. Nature and direction of Social Change
- b. Social Institutions and Change : Family, Caste, Education, Economy and Politics.

#### UNIT: III Rural Society in India:

- a. Changing Profile of rural society
- b. Rural Problems: Poverty, Health and sanitation
- c. Rural Development: Panchayat Raj, Rural Development Programmes.

#### UNIT: IV Urban Society in India:

- a. Urbanization in India : Trends and Patterns
- b. Problems of Urbanization, Over Urbanization in India
- c. Urban Problems: Slum, Poverty.
- d. Urban Development : Policies and Programmes

#### UNIT: V Marginalized groups and Minorities:

- a. SC & ST's : Problems and Policies
- b. Other Backward Classes-OBCs
- c. Women: Problems and empowerment
- d. Minorities : Identification and problems

#### Essential Readings:

Ahuja, Ram (1993) Indian Social System, Rawat, Jaipur  
Ahuja, Ram (1999) Society in India, Rawat, Jaipur.  
Atal, Yogesh (2003) Indian Sociology: From Where to Where, Rawat, Jaipur  
De Souza, P.R. (ed) (2000) Contemporary India Transitions, Sage, New Delhi.  
Dumont, Louis (1998), Homo Hierarchicus, OUP, London.  
Gould, Harold (1988) Caste Adaptation in Modernising Indian Society, Chankaya, New Delhi  
Kapadia, K.M. (1981), Marriage and Family in India, OUP, London.  
Mandelbaum, D.C. (1972) Society in India, Popular, Bombay.  
Prabhu, P.H. (1963), Hindu Social Organization, Popular, Bombay.  
Singer, Milton & Cofer, Bernards, (1996), Structure and Change in Indian Society, Rawat, Jaipur  
Singh, Yogendra (1998) Modernization of Indian Tradition, Rawat, Jaipur

## SEMESTER-IV

### 4.1. THEORIES OF MODERNITY AND POSTMODERNITY

Course Code: PG53T401

#### Objectives:

This course will help the students to:

- Be acquainted with the growth of postmodern theories.
- Know the Contemporary theories of Modernity
- Find out various theories of Global society.

#### Learning outcomes

1. It enables the learners to understand the modern and post-modern social theories.
2. It helps the learners in studying the views of post-modern sociologists on modern society.
3. It also helps the students examine the socio-economic, cultural issues of global society.
4. It helps the students to gain the unique skills to examine the complexities of modernism of individual life.

#### UNIT- I Introduction:

- a. Modernity: Meaning and Emergence
- b. Classical theorists on Modernity
- c. Classification of concepts: Modernity, Hyper modernity, modernism, hyper-modernism, postmodernism and post modernity
- d. Post-modern social theories

#### UNIT- II Bridging Gaps In Theorising The Social:

- a. Pierre Boudieu's Theory of Practice
- b. Anthony Giddens' structuration theory
- c. Ulrich Beck: Risk Society, Second Modernity, The Cosmopolitan perspective

#### UNIT- III Contemporary Theories Of Modernity:

- a. Anthony Giddens: Juggernaut of modernity
- b. George Ritzer: McDonaldization; Americanization,
- c. Zygmunt Bauman: Modernity and the Holocaust, Liquid Modernism, Modernity's unfinished project.
- d. Manuel Castells: Informationalism and The Network society

#### UNIT- IV Post Structuralism And Post Modernism:

- a. Sociology of post modernism
- b. Jacques Derrida: Deconstruction
- c. Michael Foucault on knowledge and power relationship
- d. Jean Baudrillard: Hyperreality and Simulacra and simulations

#### UNIT- V The Global Society:

- a. George Ritzer: Rethinking Globalization: Glocalization/Globalization and /Something/Nothing
- b. Edward Said: Orientalism
- c. Joseph E. Stiglitz: Globalism's Discontents
- d. Thomas L. Friedman: The World is Flat

#### Essential Readings:

Anthony Elliott(2010) *Contemporary Social Theory*: An introduction, Routledge, London.  
Bourdieu, Pierre: *Outline of a theory of practice*. London: Cambridge University Press, 1977.  
Charles Lemert(2004) *Social Theory: The Multicultural and Classical Readings*, Rawat, Japur.  
David Harvey(1989) *The Condition of Post-modernity*, Blackwell, London.  
E.C. Cuff et al (2009) *Perspectives in Sociology*, Routledge, London  
George Ritzer: *Sociological theory*. New York: McGraw-Hill Companies, 1996.  
Gerald Delanty(2000) *Modernity and Post-modernity: Knowledge, Power and Self*, Sage, New Delhi.  
Giddens, Anthony and Jonathan H. Turner (eds.): *Social theory today*. Stanford: Stanford University Press, 1987.  
Giddens, Anthony: *The constitution of society: Outline of the theory of structuration*. Berkeley: University of California Press, 1984

Habermas, Jurgen: *The philosophical discourses of modernity: Twelve lectures*. Mass.: MIT Press, 1987

Habermas, Jurgen: *The theory of communicative action, Vol.2: Life world and system: A critique of functionalist reason*, Boston: Beacon Press, 1987

Haralambos and Holborn (2007) *Sociology* (7<sup>th</sup> edition), Collins, London.

James Farganis (2013) *Readings in Social Theory, The Classic Tradition to Post Modernism*, McGraw Hill, New Delhi.

Layder, Derek: *Understanding social theory*. London: Sage, 1994.

Owen, David (ed.): *Introduction in sociology after postmodernism*. London: Sage, 1997.

Scott A. Appelouth and Laura Desfor Edles(2012) *Classical and Contemporary Sociological Theory*, Sage, New Delhi.

Scott, Lash: *Sociology of postmodernism*. London: Routledge, 1990.

Smart, Barry: *Michel Foucault*. London, Routledge, 1985.

Steven Seidman and Jeffrey C. Alexander(2010) *The New Social Theory Reader*, Routledge, New York.

Thomas L. Friedman (2007) *World is Flat: The Globalized World in the Twenty First Century*, Penguin, U.K.

## **Paper - 4.2 SOCIOLOGY OF GENDER**

**Course Code: PG53T402**

### **Objectives:**

**This course helps the students to**

- Understand the concept of Gender as a social construct and its implications on society.
- Encourages responsiveness to the diversified issues such as gender inequality, gender stratification, gender socialization, and gender justice and gender empowerment.
- Discusses various strands of feminist thought and their relevance in different cultural settings.
- Examines the status and role of women in India with focus on their problems and policy implications.

### **Learning Out Comes:**

- It enables the learners to understand the development of Sociology of Gender and the feminist perspective of understanding the concept of gender.
- It helps the learners in acquainting with the important gender issues and their implications on society.
- It assists students in comprehending the role and contribution of women in society.
- It helps the learners to appreciate the significance of gender empowerment and sensitization in society.

### **UNIT – I: Introduction:**

- a. Emergence of Sociology of Gender: Gendering Sociology.
- b. Relevance of Sociology of Gender
- c. Methodological and Theoretical Perspectives for the study of Gender: Feminism.
- d. Indigenous Roots of Feminism.

### **UNIT – II: Basic Concepts:**

- a. Sex and Gender: Gender Roles.
- b. Patriarchy and Gender: Gender Stratification in Historical Perspective
- c. Gender Socialization and Discrimination
- d. Gender Inequality and Gender Justice

### **UNIT – III: Status of Women in India: Changing Profile:**

- a. Status of Women through the Ages
- b. Social Economic and Demographic Profile
- c. Problems of Women in Modern India
- d. Contemporary Trends.

### **UNIT – IV: Women in Indian Society:**

- a. Economic Participation of Women.
- b. Women and Polity.
- c. Women and Education.
- d. Women and Health.

### **UNIT – V: Empowerment of Women in India:**

- a. Empowerment – Meaning and Importance
- b. Role of Government; Policies and Strategies for Empowerment
- c. Role of NGOs in Women's Development
- d. Status of Women in Karnataka- Empirical Evidences.

**Note. Of the 100 marks this paper carries 75 for theory main exam and 25 for internal assessment. Of the 25 marks 3 for attendance(as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each student separately**

**Essential Readings:**

- Suvarna Sen (2012): Gender & Development, Icfai, Tripura.
- Maithreyi Krishna Raj (Ed) (1986) Women's Studies in India: Some Perspectives Popular Prakashan, Bombay.
- Jasbir Jain: Indigegous roots of Feminism (2011) Jasbir Jain, Sage Publication, New Delhi.
- Gloria Bowles and Renate, D, Klein (Eds) (1983) Theories of Women's Studies Rout ledge and Kegan Paul : London & New York..
- Alfred De Souza (1980). Women in Contemporary India and South Asia, Manohar Publications, New Delhi,
- I.M Laksmi Pathi Raju: Women Empowerment Challenges & Strategies. Regal Publications, New Delhi.
- Neera Desai & Maithreyi Krishna Raj (1987) Women & Society in India: Ajanta Publication, New Delhi,
- Ann Oakley (1972).Sex Gender and Society, Hyper and Raw, New York,
- Anju Vyas (1993) Women's Studies in India: Information Sources, Services and Programmes. Sage Publications, New Delhi,.
- Sangeetha Purushotham(1998) Empowerment of Women at the Grassroots, Sage, New Delhi,
- Karuna Channa (ed) (1988) Socialization, Education and Women: Explorations in Gender Identity, Orient Long man, New Delhi.
- P. S. Kawtra (2003), "Women Empowerment: Some Issues" Indian Journal of Population. Education March PP.45- 68.
- Amita Sahaya, Sumita kaistha: Women work and Health the Women press, New Delhi. 2010.
- Shamila Rege(ed) ( 2003) Sociology of Gender, Sage Publications. New Delhi.
- Boserup E. (1979) Women's Role in Economic Development New York. St. Martins Press.
- Hagedorn, Rokert (1990) Sociology, Holt Rinehart & Winston of Canada, PP-97-125.
- Sumit Dutta (2013) Gender Sociology, Wisdom press, New Delhi.
- Linda L. Kindsey (2011) Gender Roles, A Sociological Perspective: PHI learning private limited, New Delhi.
- Horlambos & Holborn: Sociology, Themes & Perspectives othedn Collins. Books private limited New Delhi 2013.
- Jose Lopez and John Scott: Social Structure viva,
- Azim, Shaukath (1996) Muslim Women, Rawat, Jaipur, Somashekharappa, C.A (2015) Rural Women, Energy Sources, and Household chores, Prateeksha, Jaipur.

## **Paper – 4.3 SOCIOLOGY OF AGEING**

### **Course Code: PG53T403**

#### **Objectives:**

##### **This course helps the students to**

- Understand the outcome of demographic transition in the form of Ageing of society.
- It enables students to understand the basic concepts pertaining to sociology of Ageing.
- It focuses on the Sociological issues and concerns of ageing individuals and ageing society.
- It helps to understand global ageing as well as ageing scenario in India.
- It is helpful to make career in care sectors of society.

#### **Learning Out Comes:**

- It enables the learners to understand trends and patterns of ageing in India as well as global level.
- It helps the learners to understand changing role of family, social aspects of leaving conditions and care giving scenario.
- It assists students to address policies and programmes pertaining to aged as well as sensitize about aged individuals.

#### **UNIT – I: Introduction:**

- a. Scope & Significance of Sociology of Ageing
- b. Emergence of Sociology of Ageing as a Sub-discipline
- c. Trends and Patterns of Ageing –Global.
- d. Indian Scenario of ageing.

#### **UNIT – II: Some Aspects of Ageing:**

- a. Factors of Ageing
- b. Problems of Ageing
- c. Changing Family and Ageing
- d. Gerentophobia and Ageism
- e. Elder Abuse

#### **UNIT – III: Theories pertaining to Ageing:**

- a. Disengagement theory
- b. Continuity theory
- c. Role theory
- d. Activity theory

#### **UNIT –IV: Adjustments in Later Life:**

- a. The Informal Support system and Its Relevance in Later Life.
- b. Elderly and the Caregivers
- c. Living Arrangements of Elderly
- d. Disease pattern of Elderly - Dementia and Alzheimer's diseases.
- e. Ageing and Disability
- f. ADL and IADL, HALE. (Healthy Active Life Expectancy)

#### **UNIT – V: The State and the Elderly:**

- a. Ageing & Retirement
- b. Active Ageing and U3A.
- c. Role of State – Policies and Programmes for the Aged in India.
- d. National Policy on Aged.

**Note. Of the 100 marks this paper carries 75 for theory main exam and 25 for internal assessment. Of the 25 marks 3 for attendance(as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each student separately.**

#### **Essential Readings:**

Atechley., Social Process in Later life. Belmont California, Wadsworth 1972.  
Ajay Kumar Sahoo (Eds) Sociology of Ageing- A Reader Rawat Publications 2009.  
Barbara F. Turner (Eds) Women growing older SAGE publications, 1994.

Bond John Coleman Peter and Sheila Peace., *An Introduction to Social Gerontology*. Sage Publications, New Delhi. 1993

Borgalta. E F., *Ageing and Society*. Sage Publications, New Delhi 1980.

Cox, *Later Life :The Realities of Ageing*. Prentice Hall. Inc. New Jersey, 1984.

Dandekar K., *The Elderly in India*, Sage Publications, 1986.

Dey A. Wilson, W & Goel, A *Ageing in India: Health and health care issues*. Pp. 40-53. In Sharma R & Thomas, C.J. (Ed) *Ageism. Problems and prospects*. New Delhi. Akanksha Publishing House. 2010.

Dimatteo, M. Robin and Ron Hays “Social support and serious illness” pp. 117-148 in B.H. Gottlieb (ed.) *Social Network and Social Support*. Beverly Hills, CA: Sage. 1981

Jamuna, D, *Elderly care in India. Conflicting tradition and Modernization*. Proceedings of 3<sup>rd</sup> International Conference of IAHS: Ageing societies in a New Millennium, Honolulu, Hawaii, 33-35, 1999a.

Jayashree “ADL and IADL among older people and its impact on Longevity: Gender dimensions”. *Quarterly Journal of the International institute on ageing (United Nations-Malta)* ISSN: 1016-5177. Vol. 23. No.2 February 2013 pp 18-23.

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Lopata, H.Z, *Women as Widows: Support systems*. New York: Elsevier North Holland. 1979.

Marshall. V. W, *Later, Life : The Social Psychology of Ageing*, 1986.

Mishra. S. *Social Adjustment in Old Ages*. B.R. Publishing Corporations, New Delhi, 1987.

P.K. B. Nayar (Eds) *Older Women in India: The context issues and concerns*, The women Press, New Delhi- 2013.

Peace, W.M., *Researching Social Gerontology: Concepts, Methods and Issues*, Sage Publications, London. 1990.

Quadagno, Jill, *Aging and the Life Course* (5<sup>th</sup> ed.), Boston: McGraw-Hill, 2011.

Scott M. Hofer and D.F. Alwin, (Eds) *Handbook of Cognitive Ageing* Sage publication, 2008.

S. Irudaya Rajan (Eds) *Social Security for the elderly* Routledge. 2008.

S.T. Janetius, *Human Rights Abuse on Elderly people*, Discovery publishing house P. Ltd. 2012.

S. Irudaya Rajan and Gayatri Balagopal (Eds), *Elderly Care in India Societal and State Response*, Springer 2017.

Sharma. M.L. & T.M. Dak (Eds) *Ageing in India*, Ajantha Publications New Delhi, 1987.

Shanas, Ethel “Social Myth as Hypothesis: the case of the family relations of old age”. *The Gerontologist* 19, 1:3-9. 1979a

Sunita Chopra Chatterjee et al, *Discourses on Aging and Dying*, SAGE, 2008

Yadav J.P, *Aged in India: The Struggle of Survive*, Anmol Publication, New Delhi. 2007.

Vishweswara Rao. K. *Ageing in Rural India*, Associated publishers, 2007.

## **Paper 4.4 Contemporary Society in Karnataka**

### **Course Code: PG53T404**

#### **Objectives**

1. To Enhance Sociological knowledge about the Local and Regional context of Karnataka.
2. Acquaint students with the changing Trends in Karnataka with special reference to Development processes and Caste Politics.
3. Learn about the unique Cultures in Karnataka.

#### **Learning Outcomes**

1. The students will understand the historical existence of Karnataka and features and cultural variations of Karnataka in general and North Karnataka in particular.
2. The students will know the disparities in Karnataka based on caste, religion, tribes and language.
3. The students will come to know the historical development backward class movements, caste based movements and some burning unsolved problems of Karnataka state.
4. The students will be able to understand the process of urbanization and globalization and their impact over Karnataka state.
5. Further the students will be motivated by the study of some of the great Sociologists from Karnataka.

#### **UNIT I: Introduction:**

- a. Emergence and formation of statehood- Historical, social and Political
- b. Special features of Karnataka
- c. Socio-economic, Demographic characteristics of Karnataka Sources of data- census, NSS, survey, Reports etc.
- d. North Karnataka and its special features

#### **UNIT – II: Social Organization:**

- a. Castes in Karnataka
- b. Religions in Karnataka
- c. Tribes in Karnataka
- d. Language, Arts and culture of Karnataka

#### **UNIT – III: Development Scenario of Karnataka:**

- a. Development Prior to Independence and after Independence
- b. Human Development indicators of Karnataka
- c. Regional imbalance in development (education, gender, employment, health)
- d. Regional disparities – North-South divide

#### **UNIT – IV: Movements in Karnataka:**

- a. Backward Classes and Dalit movement
- b. Religious movements, Lingayath movement, Dasa Movement
- c. Progressive movements – literary, farmers’ and environmental movements
- d. Contemporary social issues and contestations (Border, water, language, and communal)

#### **UNIT – V: Urbanization and Globalization in Karnataka:**

- a. Industrization and Urbanization: Trends patterns, impact
- b. Globalization: Influences
- c. Development of Corporate sector, formation of Silicon city, etc.
- d. Urban-Rural linkages in Karnataka: Recent developments.

#### **UNIT – VI: Sociologists of Karnataka and their contributions:**

- a. M.N. Srinivas
- b. C. Parvathamma
- c. K. Ishwaran
- d. Major sociological studies on Karnataka

**Note: Of the 100 marks this paper carries, 75 for theory main exam and 25 for internal assessment. Of the 25 marks maximum 3 for attendance (as per the Univ. guidelines), 10 for one internal test and 12 marks for review essay on a standard book in the subject area as prescribed by course teacher for each student separately**

**Essential Readings:**

- Government of Karnataka. 2006. *Karnataka Human Development Report 2005*, Planning and Statistics Department, Bangalore.
- Jai Prabhakar S C, *Socio-Cultural Dimensions of Development in North Karnataka*, CMDR Monograph Series No. – 63. Karnataka Human Development Reports.
- Malini Adiga. 2006. *The Making of Southern Karnataka: Society, Polity and Culture in the early medieval period, AD 400–1030*, Orient Longman, Chennai.
- Narasimhacharya, R. 1988. *History of Kannada Literature*, 1988, Asian Educational Services, New Delhi.
- Nilakanta Sastri, K.A. 1955. *A History of South India, From Prehistoric times to fall of Vijayanagar*, OUP, New Delhi.
- Panchamukhi P R. 2001. *North-South Divide: Karnataka's Development Scenario*, CMDR Monograph, Series No.21, pp.1-10, Centre for Multi-Disciplinary Development (CMDR), Dharwad, Karnataka.
- Srikanta Sastri, S. 1940. *Sources of Karnataka History*, Vol I (1940) - University of Mysore Historical Series, University of Mysore, Mysore.
- Suryanath U. Kamat. 2001. *Concise history of Karnataka*. MCC, B
- Seminal works of Dr. M.N. Srinivas, Dr. C. Parvathamma and Dr. K. Ishwaran IIPS, National Family Helath Survery- 1,2,3,4, IIPS, Mumbai.
- ಟಿ. ಆರ್. ಚಂದ್ರಶೇಖರ, ಕರ್ನಾಟಕ ಜನಗಣತಿ 2011, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ.
- ಹೆಚ್.ಡಿ. ಪ್ರಶಾಂತ (ಸಂ) ಜನಸಮುದಾಯ ಸಂಪುಟ, ಪ್ರಸಾರಾಂಗ, ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಹಂಪಿ.
- ಹಿ.ಜಿ. ಬೋರಲಿಂಗಯ್ಯ: ಕರ್ನಾಟಕ ಆದಿವಾಸಿ ಸಮುದಾಯಗಳ ಕನ್ನಡ ಅಭಿವೃದ್ಧಿ ಪ್ರಾಧಿಕಾರ, ಬೆಂಗಳೂರು.
- Govt. of Karnataka: Reports of Backward classes/ committees, GOK, Bangalore.
- Pais, Richard (ed.) 2016; *Society and Culture in Karnataka*, MSA, Mangaluru.

## **Paper - 4.5(a) POLITICAL SOCIOLOGY**

### **Course Code: PG53T405A**

#### **Objectives:**

This course will help the students to

- Understand the scope, importance of Politics and their administration in Nation/society
- To analyse and helps to understand the power in political system.
- To know the election process and problems in local-state-National level.

#### **Learning outcomes**

1. To help the students to know how politics and administration process in day today life.
2. To enable students how to socialize the various agencies to build up good governance.
3. It helps to know, social, political, religious aspects of political leaders in our nation.
4. It also helps to know how Indian states are functioning.

#### **UNIT – I: Introduction:**

- a. Scope and Importance of Political Sociology.
- b. Emergence of Political Sociology as a sub-discipline.
- c. Perspectives in Political Sociology.

#### **UNIT – II: Location of Power in the Political System:**

- a. People and Sovereignty (Hobbes, and Rousseau)
- b. Ruling class (Marx & Mosca ).
- c. Elite Oligarchy
- d. Power Elite (C.W.Mills)

#### **UNIT – III: Political and Non-Political Systems:**

- a. Characteristics of Political Systems.
- b. Types of Political Systems.
- c. Political System as a social system.
- d. Political Systems and Non-Political Systems interrelationship.

#### **UNIT – IV: Political Socialization and Participation:**

- a. Politicalisation and Politicization
- b. Political Socialization and its agencies.
- c. Political Participation and its Pattern.
- d. Political Mobilization and Political Culture.
- e. Political Communication and its Pattern.

#### **UNIT – V: Election and Voting Behaviour in India.:**

- a. The Electoral Process in India.
- b. Local level elections
- c. Municipal Corporations and Municipalities.
- d. Panchayat Raj Institutions.

**Essential Readings:**

- Ashraf Ali & Sharma C.N. (1983) Political Sociology –A New Grammar of Politics, University Press, Madras.
- Bendix, Reinard(1968) State and Society, Little Brown, Boston.
- Dipankar Gupta (1996) Political Sociology in India :Contemporary Trends, Orient Longman, Hyderabad.
- Dahl, Robert (1983) Modern Political Analysis, Prentice Hall, New Delhi.
- Dowse, Robert and Hughes, John A(1972) Political Sociology, John Wiley, London.
- Eisenstdt. S.N. (1989) Political Sociology – A Reader (2 Vols).Rawat, Jaipur.
- Hyman. H.H.(1972) Political Socialization : A Study in the Psychology of Political Behaviour, Glencoe, Free Press.
- Kothari Rajani (1982) Politics in India Orient Long man, New Delhi.
- Lipset. S.M. (1960) Political Man, Feffer and Simons, New York.
- Mukhopadhyay. A.K.(1977) Political Sociology – An Introduction, Bagchi, Calcutta.
- Oram. A.M. (1970) Introduction to Political Sociology, Prentice Hall, Englewood Cliffs N. J.
- Desai. A.R. (1980) Social Background to Indian Nationalism, Popular, Bombay

## PAPER 4.5 (b) SOCIOLOGY OF LAW

Course Code: PG53T405B

### Objectives:

This course will help the students to

- Understand the basic meaning, importance of Sociology of Law.
- To critically helps to understand the natural Law and legal system.
- To known the human rights, law and civil liberties movement in India.

### Learning outcomes

1. To enable the students to known the basic law and their rights in the society.
2. It helps the students to know legal system and conceptional clarity.
3. To understand the caste, religion, gender and legal system in society.
4. Overall this paper understand the legal awareness to the people

### UNIT I: Perspectives on Law:

- a. Scope and importance of sociology of Law and Nature sources of Law
- b. Emergence of Sociology of Law.
- c. Theories of Natural Law, Legal Positivism, Historical School, Jurisprudence and legal realism.
- d. Anthropological and Sociological Perspectives

### UNIT II: Law and Society:

- a. Contributions of Durkheim, Marx, Weber, Ehrlich and Pound
- b. A review of critical legal studies

### UNIT III: Law in Indian Society:

- a. Colonialism and the modern legal system in India
- b. The organization of the legal system in India

### UNIT IV: Community, Identities and Law in India:

- a. Cultural/ community rights and the individual conceptual issues
- b. Religion, Caste, Gender and jurisprudence

### UNIT V: Human Rights in India:

- a. Human Rights Law — National and International Instruments
- b. Critique of Human Rights Situation - Human Rights/ Civil Liberties Movement in India

### Essential Readings:

Cotterrell, Roger. (1984) *The Sociology of Law: An Introduction*, London: Buttersworth,  
Baxi, Upendra (1988) *Sociology of law*, Oxford University Press.  
Baxi, Upendra. (1982) *The Crisis of Indian Legal System* New Delhi: Vikas, Hunt, Alan. (1978) *The Sociological Movement in Law* London: Macmillan,  
Roberts, Roger. (1979) *Order and Dispute: An Introduction to Legal Anthropology*, Harmondsworth: Penguin,  
Tornasic, Roman. (1985) *Trend Report in Sociology of Law* Current Sociology, No.1, Vol.33,  
Galanter, Marc. *Law and Society in Modern India* New Delhi: Oxford University Press, 1989  
Arnold, David. "The Colonial Prison: Power, Knowledge and Penology in Nineteenth-Century India", In Arnold, David and David Hardiman (eds.) (1994) *Subaltern Studies VIII - Essays in Honour of Ranajit Guha* New Delhi: Oxford University Press.  
Agnes, Flavia. (1999) *Law and Gender Inequality — The Politics of Women's Rights in India*, New Delhi: Oxford University Press,  
Cohn, Bernard (1987) "Some Notes on Law and Change in North India" in *an Anthropologist among the Historians and Other Essays*. New Delhi: Oxford University Press,  
Cohn, Bernard (1987) "Notes on Disputes and Law in India" in *an Anthropologist among the Historians and Other Essays*. New Delhi: Oxford University Press,  
Das, Veena. *Cultural Rights and the Definition of Community in Mendelsohn, Oliver and Upendra Baxi (eds.) (1994) The Rights of Subordinated Peoples*. New Delhi: Oxford University Press,  
Uberoi, Patricia. "Hindu Marriage Law and the Judicial Construction of Sexuality", in Kapur, Ratna (1996). *Feminist Terrains in Legal Domains — Interdisciplinary Essays on Women and Law in India*. New Delhi: Kali for Women.  
Timashett, Nicholar, S (2001) *an Introduction to Sociology of Law*, Transaction publishes.

## **Paper 4.5 (c) GLOBALIZATION AND SOCIETY**

### **Course Code: PG53T405C**

#### **Objectives:**

##### **This Course will help the Students to;**

- Understand the relationship with modernization, globalization and society.
- Analyse the globalization process in relation with culture, information, technology and society.

##### **Learning Outcomes:**

1. It enables the learners to understand various factors in relation with globalization and society.
2. It assists to the learners in studying the relationship between globalization and social aspects involved.
3. It also helps the students know consequences of globalization process on society.
4. It assists the students enhancing their interests in research on globalization and society.

#### **UNIT I: Introduction:**

- a. The nature, Characteristics of globalization
- b. The historical and contemporary context of globalization
- c. World capitalism, modernization and globalization
- d. The role of information and communication technology
- e. The needs and utilities of globalization.

#### **UNIT II: Agencies of globalization:**

- a. Political economy of globalization
- b. Agencies of globalization: Multinational corporations (MNCs),
- c. The State, media, market,
- d. Nongovernmental organizations (NGOs)
- e. International agencies (IMF, W B, etc.).

#### **UNIT III: Globalization, society and culture:**

- a. The ethos of globalization (unbridled freedom, individualism, and consumerism)
- b. Diffusion and projection of American value system and cultural patterns through the media
- c. Cultural homogenization, hegemony and dominance
- d. Globalization and the resurgence of ethnic consciousness:
- e. Global tourism, diasporic communities,
- f. Transnational, ethnic and religious movements,
- g. 3.7 Religious fundamentalism.

#### **UNIT IV: Social Consequences of Globalization:**

- a. Inequality within and among nation states
- b. Differential perception of globalization among nations and their populations
- c. Socio-economic impact of globalization
- d. Impact of globalization on individual and group identities.

#### **UNIT V: Globalization and the Indian experience:**

- a. Globalization and public policy
- b. Debate on globalization
- c. Globalization: Problems and prospects.

#### **ESSENTIAL READINGS:**

- Appadurai, Arjun. 1997. Modernity at large: Cultural dimensions of globalization. New Delhi: Oxford University Press. Sociology 71
- Drezem Jean and Amartya Sen. 1996. Indian economic development and social opportunity. Delhi: Oxford University Press.
- Escobar, Arturo. 1995. Encountering development: The making and unmaking of the third world. Princeton: Princeton University Press.
- Hoogvelt, Ankie. 1997. Globalization and the post-colonial world - The new political economy of development. London: Macmillan.
- Hoogvelt, Ankie. 1998. The sociology of development. London: Macmillan.
- Kiely, Ray and Phil Marfleet (eds.). 1998. Globalization and the third world. London: Routledge.
- Preston, P.W. 1996. Development theory - An introduction. Oxford Blackwell.
- Waters, Malcolm. 1996. Globalization. London: Routledge.

## **Paper 4.5 (d) SOCIOLOGY OF INFORMATION SOCIETY (SIS)**

**Course Code: PG53T405D**

### **Objectives**

1. In this course, the students will be enabled to explore the rapid and profound social, economic cultural and political changes that we have witnessed over the past decades due to the advent of information technology revolution.
2. To enable the student to understand the relationship between information science and changing aspects of the Society.
3. To understand the issues relating to science, information technology and society in India both in the Historical and Globalization contexts.
4. The primary focus being drawn to the internet and related computer technology, the course will be addressing the role of technology in shaping social structures and institutions, social life and relationships and understanding of self and others.

### **Learning Outcomes**

1. At the end of the course the student will be capable of understanding the influence of information technology on the society in the background of the era of globalization.
2. This course makes the students understand the developments in information technology and use of it in their daily life.
3. It also brings awareness regarding the issues of information technology, which paves the way for unemployment, underemployment and existing new occupational structure based on skill and knowledge.
4. The students will come to know the role of media in society.

### **UNIT I : Introduction:**

- a. Scope and Importance of SIS
- b. Emergence of Cybermatic Society
- c. Informationalism, Industrialism, Capitalism
- d. Community and the self in the informational society.

### **UNIT II: Information technology paradigm:**

- a. The historical sequence of the information technology revolution, models, actors
- b. Sites of the information technology revolution.
- c. Introduction revolution and Globalization.

### **UNIT III: IT Revolution Enterprise:**

- a. The IT culture,
- b. Institutions and organizations of the informational economy
- c. Transition from industrialism to informationalism from mass production to flexible production.

### **UNIT IV: The transformation of work and employment:**

- a. Networkers, jobless and flexi timers.
- b. Post industrialism- the service economy and the information society.
- c. Emergence of New occupational structures.
- d. The work process in the informational paradigm.

### **UNIT V: Media Culture:**

- a. Technology revolution and the rise of media culture
- b. The new media and the diversification of mass audience.
- c. Computer mediated communication- role of institutional control
- d. Social networking- emergence of Virtual communities.

**Essential Readings:**

- Manuel, castells, (1996), The Rise of Network Society, Blackwell, Publishers.
- Mark Taylor and Esa Saariner (1994) Imagologies, Routledge, London.
- The World Wide Web- Unleashed, Macmillan Computer Publishing.
- Mischael H (1993) The Metaphysics of Virtual Society, OUP, London. Sociology 79
- Verena A Conley (1993) Rethinking Technology, Minneapolis university of Minnasota press.
- P Zrkoczy, N Heap Information Technology, Pitman.
- Arvind Singhal and Rogers Everett : India's Communication Revolution From Bullok Carts to Cyber Mart, Sage Publications.
- Bhatnagar Subhash (2000) : Information and Communication: Technology in Development, Sage Publication
- Melkote Shrinivas (2001) The Information Society Leslies H Steves
- Barrie Axford and Richard Huggin, (ed) (2001) : New Media and Politics, Sage, India.
- P.Preston, (2001) : Reshaping Communications – Technology Information and social Change, Sage Publications : New Delhi.
- Joann Yates and John Van, Mannen, (2001) : Information Technology and Organizational Transformation. Sage, India.

## **Paper – 4.5 (e) SOCIAL PSYCHOLOGY**

### **Course Code: PG53T405E**

#### **Objectives:**

##### **This Course will help the Students to;**

- Understand the relationship between Social Psychology and other social sciences.
- Analyse the basic concepts like learning, social motivation, perception, attitude, prejudice, discrimination, personality and development influencing on social life.
- Find out the contemporary trends in social psychology.

#### **Learning Outcomes:**

1. It enables the learners to understand various factors in relation with social life.
2. It assists to the learners in studying the relationship between social and psychological aspects involved in personality development.
3. It also helps the students know various scales and techniques for analysis collective behaviour.
4. It assists the students enhancing their interests in research on social psychology.

#### **UNIT - I: Introduction:**

- a. Scope and importance of social psychology
- b. Relationship with social sciences – sociology and anthropology.
- c. Relevance of social psychology in India
- d. Psychological methods- Rating Scale, Sociometry, tests and Projective Techniques, Simulation techniques, content analysis.

#### **UNIT - II: Basic Concepts:**

- a. Social Motivation: Sources of motivation
- b. Perception and learning
- c. Personality and development

#### **UNIT - III: Major Theories in Social Psychology:**

- a. Role theory - Merton
- b. Symbolic interaction – Blumer
- c. Theory of prejudice - Allport

#### **UNIT – IV: Social Beliefs and Attitudes:**

- a. Formation and change of attitudes, theories of attitude formation, measurement of attitudes.
- b. Stereotypes and prejudices : kinds and formation
- c. Discrimination and deprivation of social groups
- d. Personality and culture.

#### **UNIT - V: Collective Behaviour:**

- a. Leader and followers
- b. Rumour and crowd behaviour
- c. Propaganda and public opinion

**Essential Readings:**

- Allpoort, G.W. (1954) *The Nature of Prejudice*, Cambridge Mass.
- Baros, Robert A. and Donn Byrne. (1988) *Social Psychology*, Prentice Hall of India, New Delhi.
- David G Myers. (1988) *Social Psychology*, McGraw Hill Book Company, New Delhi.
- Evans, Robert R. (1975) *Readings in Collective Behaviour*, Chicago : Rand Monally College Publishing Co.
- Krech D. and Crutchifield R.S. (1975) *Theory and Problems of Social Psychology*, McGraw Hill, New York.
- Krech D. Crutchifield R.S and Bellachy (1976) *Social Psychology*, McGraw Hill, New York.
- Kuppuswamy. B. (1980) *Introduction to Social Psychology*, Medial Promoter & Publishers, Bombay.
- Lindzey, Gardner and Elliot Aronson (ed.). (1964) *Handbook of Social Psychology*, Vol.I & II, Wiley Publishing Co. London.
- Maltzer, B.N., W. John, et al (1945) *Symbolic Interactionism*, Routledge and Kegan Paul Ltd., New Jersey.
- Mannheim, Karl. (1966). *Essays on Sociology and Social Psychology*, Routledge and Kegan Paul Ltd., London.
- Newcomb T.M. (1950) *Social Psychology*, Drvdon Press, New York.
- Paliwal, Suprithy. (2002) *Social Psychology*, RBSA Publishers, Jaipur.
- Sharon s. Brehm and Saul M. Kassim. (1996) *Social Psychology*, Houghton Miffinco, Boston.
- Sprott, W.J.H. (1952) *Social Psychology*, Methuen and Co. London.
- Young, Kimball. (1963) *a Hand Book of Social Psychology*. Routledge and Kegan Paul Ltd., London.

## 4.6 PROJECT WORK

### Course Code: PG53T406

(Compulsory for M.A. IV<sup>th</sup> Sem. Sociology students)

- Field Based Dissertation work -75 marks.
- Colloquium followed by viva voce - 25 marks

**Note:** Allocation of students for project work under each teacher guide should be by lottery method.

### KARNATAK UNIVERSITY, DHARWAD DEPARTMENT OF SOCIOLOGY PROCEEDINGS

A Meeting of the Board of Studies in Sociology (PG) was held today 24.09.2016 at 11.00 a.m. in the Chamber of the Chairman, Department of Sociology, Karnatak University, Dharwad to discuss and resolve the items in the agenda. The following members were present.

#### Members Present

|                                     |                   |     |   |
|-------------------------------------|-------------------|-----|---|
| 1. Dr. C.A. Somashekharappa<br>-Sd- | Chairman (BOS PG) | ... |   |
| 2. Dr. (Smt).S.C. Shettar,<br>Sd-   | Member            | ... | - |
| 3. Dr. (Smt) Jayashree,<br>Sd-      | Member            | ... | - |
| 4. Dr. Shaukath Azim,<br>Sd-        | Member            | ... | - |

#### Member absent:

|                                                      |                   |
|------------------------------------------------------|-------------------|
| 1. Dr. R. Rajesh,<br>Bangalore University, Bangalore | External Member   |
| 2. Dr. Dhruva B. Jyothi                              | Member (internal) |

Following is the agenda and Resolutions:

**Item No.1:** Confirmation of the minutes of BOS in P.G Sociology meeting held on 16.09.2015.

**Resolution:** Resolved to confirm the minutes of earlier meeting held on 16.09.2015.

**Item No. 2:** Consideration of the list of examiners for 2016-17.

**Resolution:** Resolved to update the list of examiners for M.A Sociology both Semester and Non Semester, Regular and External for 2016-17 academic year and send the same to the Register Evaluation, K.U. Dharwad.

**Item No.3: Consideration of the revision of M.A (Regular) Sociology syllabus.**

**Resolution:** Resolved to accept the M.A Sociology (Regular) revised in the recently held syllabus revision workshop for its implementation from 2017-18 and onward send the same to the concerned for further processing of it.

**Item No.4:** Consideration of M.A Sociology (External) syllabus.

**Resolution:** Resolved to accept the M.A Sociology (External) syllabus revised in the recently held syllabus revision workshop for its implementation for 2017-18 and send the same to the concerned for further processing of it. Further resolved to inform the University to initiate writing of study material by the experts and keep it ready by the time registration for M.A external programme commence for 2017-18 academic year.

- Item No.5:** Consideration of providing approval for starting Diploma etc courses of Career Oriented nature in the Department
- Resolution:** Resolved to inform the University that the Department cannot introduce any diploma programme of any nature.
- Item No.6:** Consideration of contents of the letter of the Principal Secretary, Higher Education GOK to introduce an optional course on National Service Scheme as part of degree programme in Karnatak University.
- Resolution:** Resolved to request the authorities in the Department to kindly inform the Secretary Higher Education GOK several issues of National Service Scheme are covered in different subject areas of M.A Sociology and hence there is no need of exclusive optional paper on NSS in M.A Sociology curricula of Karnatak University. However, the Department would advise and inspire the students to join NSS.
- Item No.7:** Consideration of contents of the letter of Principal Secretary, Higher Education, GOK with regard to implementation of Environmental Information system.
- Resolution:** Resolved to request the authorities of the University to kindly inform that M.A Sociology curricular include a full length program on environment and hence there is no scope and need of putting anything that the Principal Secretary Higher Education, GOK expects us to do regarding ENIS.
- Item No.8:** Consideration of contents of the letter of Principal Secretary, Higher Education, GOK to introduce Cyber Security Courses in University curricula.
- Resolution:** Resolved to request the authorities of the Karnatak University to kindly inform the Principal Secretary Higher Education GOK that M.A Sociology curricula does not find any scope for introduction of a full length program on cyber security course. However, the students would be instructed to take lessons about it from the ICT section in the University.
- Item No.9:** Consideration of contents of letter of secretary, UGC for evolving contents on urban planning to introduce in syllabus.
- Resolution:** Resolved to request the University authorities to inform the UGC secretary that M.A Sociology syllabus of Karnatak University continue one full length program on student Urban Society in which urban planning is an essential unit of urban development issues.
- Item No.10:** Consideration of contents of letter of the secretary UGC New Delhi for introduction of CBCS in MA degree Sociology of Program from 2017-2018.
- Resolution:** Resolved to consider the content of the letter of UGC secretary that readoption of MOOC (Massive Open Online Course) positively and however the board feels the need of the University providing inputs of all types required in this connection.
- Item No. 11:** Any other items with the permission of the chair.
- Resolution:** No items

**CHAIRMAN**  
**BOS IN SOCIOLOGY (UG/PG)**  
**KARNATAK UNIVERSITY DHARWAD.**

Copy to:

1. Dr. C.A. Somashekharappa, BOS Chairman, K.U.D.
2. Dr. (Smt) S.C. Shettar, Member, Dept. of Sociology, K.U.D.
3. Dr. (Smt) Jayashree, Member, Dept. of Sociology, K.U.D.
4. Dr. Shaukath Azim, Member, Dept. of Sociology, K.U.D.
5. Dr. Dhruva B. Jyothi., Member, Dept. of Sociology, K.U.D.
6. Dr. S.C. Natikar, Member, Dept. Of Sociology, KUD

7. Dr. Hanamagouda Co-opt Member, Dept. Of Sociology, KUD
8. Dr. R. Rajesh, External Member, Bangalore University, Bangalore.

Copy for information to:

1. P.S. to the Vice Chancellor, K.U. Dharwad
2. P.A. to the Registrar, K.U. Dharwad for information and necessary action.
3. P.A. to the Registrar(Evaluation) K.U. Dharwad
4. O.S. Exam (Confl.) K.U. Dharwad
5. Dean, Faculty of Social Sciences, K.U. Dharwad.
6. O.S. P.G.CRT, Academic section, K.U. Dharwad.

# KARNATAK UNIVERSITY, DHARWAD

## DEPARTMENT OF SOCIOLOGY

### PROGRAMME: M.Phil in SOCIOLOGY

| COURSES /PAPER                    | Course Code |
|-----------------------------------|-------------|
| RESEARCH METHODS AND TECHNIQUES   | MP5301      |
| SOCIOLOGY OF AGEING AND HEALTH    | MP5302      |
| SOCIOLOGY OF MARGINALIZED GROUPS  | MP5303      |
| SOCIAL CHANGE AND SOCIAL MOBILITY | MP5304      |
| SOCIOLOGY OF DEVIANCE             | MP5305      |
| SOCIOLOGY OF HEALTH AND WELLBEING | MP5306      |
| SOCIETY AND EDUCATION             | MP5307      |

**Program Outcomes:** M.Phil in Sociology programme will

**PO1.** Have broad knowledge of Research Techniques and methodological guidelines

**PO2.** Will orient the students for comprehending, analyzing and critically assessing the social realities of life

**PO3:** To will help the students to gain knowledge about social problems

**PO4.** Be able to conduct field based surveys and studies.

**PO5.** Equip the students with latest sociological knowledge pertaining to Gender, Ageing, Indian Society, Urban society, Social Demography, Health and Wellness, Social Deviance, Tribes, Development, Industrial Sociology, Marginalized groups, Leisure and Sports, Education, Indian Society, Society in Karnataka, Sociology of Education, Social change and Mobility, Sociology of Social Problems.

### COURSE OUTCOMES

| Paper                         | Course Name                     | Course Code | Course Out comes (MPHIL in Sociology)                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|---------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P-1                           | RESEARCH METHODS AND TECHNIQUES | MP53        | <ul style="list-style-type: none"><li>• It trains the learners to grasp the basic difference between methods/techniques and methodology of social research</li><li>• It helps the M.Phil students to study the major schools of thought in social research and also various methodological approaches/theories of sociology</li><li>• It assists in enhancing the research interests and inculcates the spirit of inquiry among students who may be motivated to continue higher studies in research</li></ul> |
| P-2<br>(specialization paper) | THE STUDY OF INDIAN SOCIETY     | MP53        | <ul style="list-style-type: none"><li>• To helps the Mphil students to critically understand the various perspectives of Indian Social system.</li><li>• It prepares the students to understand social stratification among various castes and groups of India. .</li></ul>                                                                                                                                                                                                                                    |

|                               |                                  |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|----------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               |                                  |      | <ul style="list-style-type: none"> <li>It also helps the students to study the various values, norms of Indian society.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| P-2<br>(specialization paper) | MODERN SOCIOLOGICAL THEORIES     | MP53 | <ul style="list-style-type: none"> <li>It helps the learners examine the theoretical relevance and analytical utility of the various perspectives.</li> <li>This facilitates the students to understand diverse theoretical perspectives while studying social structure and change.</li> <li>It helps the students to understand sociology from exchange theoretical perspective and apply the same to modern contemporary issues of society.</li> <li>To understand the relationship between individual and society, action and system, also how to apply sociology in day to day life</li> </ul> |
| P-2<br>(specialization paper) | SOCIOLOGY OF HEALTH AND WELLNESS | MP53 | <ul style="list-style-type: none"> <li>It enables the learners to understand the concepts of Health, Wellness.</li> <li>It helps to the learners to know the issues relating to Physicians and Nurse in changing society.</li> <li>It helps to know recent trends and patterns of diseases.</li> </ul>                                                                                                                                                                                                                                                                                              |
| P-2<br>(specialization paper) | SOCIOLOGY OF SOCIAL DEVIANCE     | MP53 | <ul style="list-style-type: none"> <li>It enables the learners to understand the socio economic aspects of deviant behaviour.</li> <li>It helps the learners in understanding the relationship between social and society.</li> <li>It assists to the students for solving remedies for deviant behaviour.</li> </ul>                                                                                                                                                                                                                                                                               |
| P-2<br>(specialization paper) | SOCIOLOGY OF DEVELOPMENT         | MP53 | <ul style="list-style-type: none"> <li>It helps the learners in studying the relationship between social and economic aspects.</li> <li>It also familiarizes the students to know various approaches and methods for study on the process of development.</li> <li>It assists the students enhancing their interests in research on developmental studies.</li> </ul>                                                                                                                                                                                                                               |
| P-2<br>(specialization paper) | SOCIOLOGY OF MARGINALIZED GROUPS | MP53 | <ul style="list-style-type: none"> <li>At the end of the course the student comes to know the various socio-economic indices of marginalization.</li> <li>The students will be able to understand the views of great humanists regarding the concept of marginalization and can show their sympathy towards marginalized people and communities.</li> <li>The students come to know the welfare measures adopted by the government for their improvement and make evaluation of working nature of these provisions</li> </ul>                                                                       |
| P-2<br>(specialization paper) | SOCIOLOGY OF EDUCATION           | MP53 | <ul style="list-style-type: none"> <li>It helps the learners in studying the social structure of education.</li> <li>It also helps the students know the issues and problems of the equality of educational opportunity</li> <li>It helps the students to examine socio-economic and political issues involved in the development of education</li> </ul>                                                                                                                                                                                                                                           |

|                                  |                     |      |                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------|---------------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P-2<br>(specialization<br>paper) | SOCIOLOGY OF GENDER | MP53 | <ul style="list-style-type: none"> <li>• It enables the learners to understand the development of Sociology of Gender and the feminist perspective of understanding the concept of gender.</li> <li>• It helps the learners in acquainting with the important gender issues and their implications on society.</li> <li>• It helps the learners to appreciate the significance of gender empowerment and sensitization in society.</li> </ul> |
| P-2<br>(specialization<br>paper) | SOCIOLOGY OF AGEING | MP53 | <ul style="list-style-type: none"> <li>• It enables the learners to understand trends and patterns of ageing in India as well as global level.</li> <li>• It helps the learners to understand changing role of family, social aspects of leaving conditions and care giving scenario.</li> <li>• It assists students to address policies and programmes pertaining to aged as well as sensitize about aged individuals</li> </ul>             |

### Number of teaching hours M. Phil

| COURSES /PAPER                    | Course Code | Credits per week | Total     |
|-----------------------------------|-------------|------------------|-----------|
| RESEARCH METHODS AND TECHNIQUES   | MP5301      |                  | 350 marks |
| SOCIOLOGY OF AGEING AND HEALTH    | MP5302      |                  |           |
| SOCIOLOGY OF MARGINALIZED GROUPS  | MP5303      | Annual Scheme    |           |
| SOCIAL CHANGE AND SOCIAL MOBILITY | MP5304      |                  |           |
| SOCIOLOGY OF DEVIANCE             | MP5305      |                  |           |
| SOCIOLOGY OF HEALTH AND WELLBEING | MP5306      |                  |           |
| SOCIETY AND EDUCATION             | MP5307      |                  |           |

**M.PHIL SYLLABUS IN SOCIOLOGY**  
**PAPER-I**  
**RESEARCH METHODS AND TECHNIQUES**

**Chapter I**

Scientific Research: Sociology as a science, Nature of Social Research, Relation between theory and Research.

**Chapter II**

Research Design: Purpose and Significance of Research Design, Problems of Research Design, typology of Research Design.

**Chapter III**

Survey and Sampling

**Chapter IV**

Problems of Values in Research: Value free and Value oriented research, Problems of objectivity, Prejudices and Bias

**Chapter V**

Techniques of Social Research:  
Concept Formation, Formulation of Hypothesis

**Chapter VI**

Research Method: Historical, Case study, Comparative Method

**Chapter VII**

Techniques of Data Collection and Field Work, Questionnaire, Schedule, Interview

**Chapter VIII**

Techniques of Data Collection and Field Work: Observation and Problems of Field

**Chapter IX:**

Report Writing: Techniques and guidelines, Format, Quotation, foot-notes, Tables and Bibliographical References.

**REFERENCES:**

1. Goode, William J and Hatt, Paul K.(1952) Methods in Social Research
2. Young, P.V (1972) Scientific Social Surveys and Research
3. Philips-Social Research
4. Madge J: Tools of Social Science
5. Lazeres Fold and Rosenberg: The language of Social Research
6. Winton: Theory and Measurement in Sociology
7. Gopal M.H. Social Research
8. C.F. Nachmias and David Nachmias: Research Methods in Social Sciences
9. Fred N. Kerlinger: Foundations of Behavioral Research
10. Black & Dean A champion: Methods and Issues in Social Research
11. John M. Johnson-Doing field Research.

Karnatak University, Dharwad  
P.G. Department of Sociology  
**M.Phil Course Syllabus 2016-17**  
**Paper II “SOCIOLOGY OF AGEING AND HEALTH”**

**Chapter-I Concepts of Ageing**

- a) Population of Ageing
- b) Indian Ageing
- c) Global Ageing
- d) Prediction on Ageing

**Chapter-II Determinants of Ageing**

- a) Demographic determinants.
- b) Social Determinants.
- c) Biological determinants.

**Chapter-III Problems of the Ageing**

- a) Specific problems of aged men.
- b) Specific problems of aged women.

**Chapter-IV Theories of Ageing**

- a) Disengagement theory
- b) Conflict perspective
- c) Role theory

**Chapter-V Health & wellbeing of elderly**

- a) The Meaning of Health
- b) Common ailments among Elderly
- c) Aged and changing life-style
- d) Life style related diseases.

**Chapter-VI Policy and Reforms:**

- a) National policy on Aged.
- b) Programs for the recruitment of Elderly.

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P.G. Department of Sociology  
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**Paper II “SOCIOLOGY OF MARGINALIZED GROUPS”**

**UNIT – I : Introduction:**

1. Meaning and Process of Marginalization
2. Scope and Importance of Studying Marginalization
3. Marginalization and its Socio-Economic Indices: Poverty, Relative deprivation, Exploitation, Discrimination, Backwardness, and Inequality.

**UNIT – II : Perspectives on Marginalization:**

1. Role of Ideology in Marginalization
2. Views of Phule, Periyar, Ambedkar, Lohiya
3. Subaltern perspective

**UNIT – III : Marginalized Groups in India:**

1. Schedule Castes
2. Scheduled Tribes
3. Neo Buddhists
4. Women

**UNIT – IV : Marginalization and Affirmative Actions:**

1. Constitutional Provisions
2. Governmental Policies and Programmes
3. Role of N.G.Os.

**References:**

- Ambedkar, B.R. : Who Were the Shudras, Thacker and Co. Ltd., Bombay, 1946.
- Ambedkar, B.R. : The Untouchables : Who are They and Why They Became Untouchables, Amrit Book, New Delhi. 1948
- Khan, Mumtaz Ali : Scheduled Caste and Their Status in India, New Delhi, Uppal Publishing House, 1980.
- Praksh Nirupama, Scheduled Castes and Socio-Economic Changes, Allahabad : Chugh Publications, 1989.
- Kananakel Joshi : Scheduled Caste and The Struggle Against Inequality, New Delhi, Indian Social Institute, 1963
- Kamble, M.D. : Deprived Caste and Their Struggle for Equality New Delhi, Ashish Publishing House.
- Vasant Moon: Dr. Babasaheb Ambedkar, Writings and Speeches Vol. 1-14, Government of Maharashtra Publication.
- Patnaik, N : Tribes and Their Development, Hyderabad, Hyderabad Institute of Community Development, 1972.
- Ghurye, G.S. : Caste, Race and Occupation in India, New Delhi, 1969
- Elwin, Verrier, A New Deal for Tribal India, 1963.
- Ranjeet Guha: Subaltern's Studies 2 Vols, Oxford, OUP.

Karnatak University, Dharwad  
P.G. Department of Sociology  
**M.Phil Course Syllabus 2016-17**  
**Paper II “SOCIAL CHANGE AND SOCIAL MOBILITY”**

**UNIT-I: Social Change:**

1. Concept of Social Change
2. Patterns of Social Change
3. Factors of Social Change:

**UNIT -II: Theories of Social Change.**

1. Social Change : Cyclical Theories- Oswald Spangler, Arnold Toynbee and Immanent Theory: P.A. Sorokin, Conflict theory, Evolution Theory,
2. Social Change and Cultural Change
3. Source of Social Change- Resistant to Social Change.

**UNIT-III: Social Mobility**

1. Concept of Social Mobility
2. Determinants of Social Mobility
3. Amount of Social Mobility
4. Types of Social Mobility

**UNIT-III: Theories of Social Mobility**

1. Functional Theories: P. A. Sorokin
2. Demographic theories- H. Dumont

**UNIT-IV: Social Change and Modernization.**

1. Social change in India, Urbanization, Industrialization & Globalization.
2. Modernization: concepts, Indicators, Nature and Problems.

**References:**

- A.R. Radcliffe Brown : Structure and Function in Primitive Society, Cohen & West Ltd London, 1952.
2. Murdock G.P : Social Structure, Free Press, New York 1965.
- Nadel,S.F. : Theory of Social Structure, Cohen & West Ltd, London. 1962.
- Mac Iver and Page : Society : Macmillan, New Delhi 1957.
- Merton.R.K. : Social Theory and Social Structure, Amrind Publishing, New Delhi, 1968.
- Talcott Parsons : The Social System, Amrind Publishing, New Delhi 1972.
- Mead.G.H. : Mind, Self and Society, The University of Chicago Press, New York, 1934.
- Homans.G.C. : Human Group ,Kegan and Paul, London, 1975.
- Simmel : Sociology Dunker and Humboldt , 1923.
- Srinivas,M.N. Social Change in Modern India, Allied Publishers, Bombay, 1966.
- Ralph Linton : The Study of Man. Appleton-Century, New York, 1936,
- Samuel Koenig : Sociology: An Introduction to Science of Society, Barnes & Nobel Books, London. 1957

**KARNATAKA UNIVERSITY DHARWAD**  
**DEPARTMENT OF SOCIOLOGY**  
**M.Phil Course Syllabus 2016-17**  
**Paper II : SOCIOLOGY OF DEVIANCE**

**UNIT-1: Introduction:**

- a. Nature and importance of sociology of deviance
- b. Deviance and social norms
- c. Differentiation and sub cultural norms
- d. Perspective in the study of deviance

**UNIT-II: Approaches to the study of Deviance:**

- a. . The functionalist approach ; Durkheim,G.H.Mead
- b. The internationalist approach; C.H. Cooley, Edwin M. Lemert, Howard S. Backer, Erving Goffan.
- c. Anomie and Deviance; Durkheim, Merton, Parson, Cohen.
- d. Social and Cultural approach; Edwin H. Sutherland,Richard A. Cloward and Lioyed E.Ohlin,Grasham M. Sykes and David Matza.

**UNIT-III: Beggary:**

- a. Concept, Meaning, and definitions of Beggary
- b. Beggary in History
- c. Nature of Beggary
- d. Types of Beggary
- e. Causes and its effects of Beggary

**UNIT-IV: Beggary and its Scenario:**

- a. Scenario of Beggary;
- b. International scenario
- c. Indian scenario

**UNIT-V: Policy and Programmes for Beggary:**

- a. Strategies for combating Beggary
- b. The Role of NGO's & CBO's for controlling (combating) Beggary
- c. Developmental policies and Programmes in India

**References:**

- **Clinard Marshall.B. (1968)-** Sociology of Deviance Richard and Wintson New York
- **Rubington and Weinberg (1977)-**The study of Social Problems, Five Perspectives, Oxford University Press, Oxford.
- **Parsons, Talkot (1972)-**The Social System (Ch .7) New Delhi
- **Merton, Robert K (1974)-**Social Theory and Social Structure, New Delhi
- **Cohen, Albert (1977)-** Deviance and Control, New Delhi, Prentice Hall.
- **Shoham.S.Glora (1976) -**Social Deviance New York John Wiley and Sons Inc.
- **Graeme, Newman (1976)-**Comparative Deviance New York, Elsevier.
- **Prasad B.K. (2004) -**Social Problems in India ,Anmol Publication Pvt Ltd.New Delhi
- **Moorthy M.V. (1959)-**Beggar problem in greater Bombay: A research study .Bombay Indian Conference of Social work.
- **Maxwell .C (2003) -**Beggars can becho chosen Xulon press

- **Lynch. P. (2005)**-Understanding and Responding to Begging (Austrelia) Mellbourne University Law
- **UNIAP (2006)** The Nature and scope of the foreign child Beggars issue
- **Raffiuddin .m.(2008)** Beggars in Hyderabad : A study on understanding the Economics of Beggary in Hyderabad .An Insight of into Rehabilitation, possibilities Of Andra Pradesh : Hyderabad Council of Human welfare .
- **Mukherjee. K.R. (2008)** -Laws for Beggars justice for whom: A critical Review of the Bombay Prevention of begging act 1959 International of Human Rights.
- **Saeed.S .(2011)** Beggars of Lahore, Brimingam University
- **Dr.Menka and Others (2003):** A socio-economic status of Beggars in Urban Areas: A case Study.
- **Dr.Jabir Hasan Khan.Menka,Nisar Ahmed (July 2013)** :Availability of Household Facilities among beggars households regional analysis ,international refereed journal Research World Journal of Arts Science Commerce Vo.l-IV PP no. 139
- **Goyal O.P. (2005)** Anti –social pattern of Begging and beggars, Gyan Publishing House
- **Kumarappa J.M. (1945)** Our Beggar Problem, how tackle it? Padma Publications Ltd .Bombay
- **Wardhaugh J (2007)** Regulating social space Begging in two south cities .paper Presented at the annual meeting of the ammerican society of criminology .Royal York and Toranto.

**KARNATAKA UNIVERSITY DHARWAD**  
**DEPARTMENT OF SOCIOLOGY**  
**M.Phil Course Syllabus 2016-17**

**Paper II: SOCIOLOGY OF HEALTH AND WELLBEING**

**UNIT – I: Relation between Sociology and Health**

1. Sociology of Health: Its Aims and Scope.
1. Health and its Relationship with other Social Institutions.
2. Concepts of Well-being and Quality of Life: Their Indicators
3. Sociology of Medicine and Sociology in Medicine

**UNIT – II: Social Epidemiology**

1. Vital and Public Health Concepts
2. Epidemiology and Resources: Social Components in Therapy and Rehabilitation
3. Recent Trends in Diseases with special reference to HIV/AIDS and Communicable Diseases.

**UNIT –III: The Physician and the Patient**

1. The professionalization and socialization of the physician
2. Doctor-Patient Relationship.
3. Nursing as an Emerging Para Medical Profession
4. Health seeking behaviour.
5. The sick role and the patient role
6. Labeling theory.

**UNIT – IV: Hospital, Community and Well-being**

1. Types of Hospitals, Functions of Hospitals. Coordination and Supervision of Hospitals.
2. Inter-personal Relationships in Hospitals and Medical Social Service in Hospitals
3. Community Health, Concept of Integrated Health Services.
4. Functioning of Primary Health Centers in India
4. Health Care Delivery and Social Policy
5. NGO and Health Care Implementation and Utilization of Care service.
6. National Health Policy: A Critical Analysis

**UNIT – V: Special Issues in Health in India**

1. Inequities in health and health care
2. Special issues of women, children, Aged and disabled
3. Health among the marginalized scheduled castes (SCs) Scheduled Tribes (STs)
4. Health care disparities in Karnataka: North South divide

**References:**

- Albert, Gary. L., and R. Fitzpatrick, Quality of Life in Health Care: Advance in Medical Sociology, Mumbai, Jai Press, 1994.
- Bloom, Samuel W. The Doctor and His Patient, New York : Free Press, 1963.
- Coe Rodney M. Sociology of Medicine. New York: McGraw Hill, 1970.
- Chole Bird Peter Conrad and Alan Fremont, eds. Handbook of Medical Sociology, New York: Prentice Hall, 2000
- Cockerham E.C. Medical Sociology Prentice Hall, New Jersey 1978.
- Dingwali, R. Aspects of Illness, Martin Robertson, London 1976.
- Govt. of Karnataka: Health Development Reports, 1990 to 2005.
- National Family Health Services, I, II, III Vol. 1,2,3, 1992-93, 1998-99, 2002-03.

**KARNATAKA UNIVERSITY DHARWAD**  
**DEPARTMENT OF SOCIOLOGY**  
**M.Phil Course Syllabus 2016-17**

**SOCIETY AND EDUCATION**

**UNIT I : Introduction:**

- a. Nature, scope and importance of Sociology of Education-
- b. Interrelation between Education and Society

**UNIT II: Education and Socialization:**

- a. Agencies of Socialization; Family, School .Peer Group and Media
- b. Changing Dimensions

**UNIT III: Education and Social Stratification:**

- a. Education and Social Mobility
- b. Equality of Educational Opportunity, Universalization of Education,
- c. Problems of Primary Education – Dropout and Wastage

**UNIT IV: Higher Education in India:**

- a. Problems and Prospectus of Higher Education in India
- b. Professionalization of Teaching in India –
- c. Higher Education in Karnataka

**UNIT V: Education and Society in India:**

- a. A Brief Socio- Historical View: Colonial and Independent India
- b. School and Higher Education: Diversities, Disparities
- c. Challenges of Women's education in India.

**Essential Readings:**

- Banks, Olive, (1976), Sociology and Education, London: Batsford.
- Blackledge, D. and B. Hunt, (1985), Sociological Interpretations of Education, London: Croom Helm.
- Boudon, Raymond, (1973), Education Opportunity and Social Inequality, New York: John Wiley & Sons.
- Brint, Steven, (1988), School and Societies, Thousand Oaks, California: Pine Forge Press.
- Durkheim, Emile, (1956), Education and Sociology, New York: Free Press.
- Gore, M. S., I. P. Desai and Suma Chitins (ed), 1967, Papers in the Sociology of Education in India, New Delhi: NCERT.
- Indira R. (ed), (2011), Themes in Sociology of Education (Volume 5), Studies in Indian Sociology, New Delhi: Sage Publication.
- Jayaram, N. (1990) Sociology of Education in India, Jaipur: Rawat Publications.
- Somashekharappa C A and Maranoor R M(2015) Dropout problem in India, Prateeksha publishers, Jaipur
- Shah, B.V. and Shah, K. V. (1998) Sociology of Education, Rawat, Jaipur.

**KARNATAK UNIVERSITY DHARWAD**  
**DARTMENT OF SOCIOLOGY**  
**Ph.D COURSE WORK SYLLABUS 2016-17**

| <b>COURSES /PAPER</b>                                        | <b>Course Code</b> |
|--------------------------------------------------------------|--------------------|
| <b>PH.D PROGRAMME</b>                                        |                    |
| <b>Title of the Paper/course</b>                             | <b>Codes</b>       |
| Advanced Social Research Methods and Statistics in Sociology | PH5301             |
| Modern Sociological Theories and Post Modern Social Theories | PH5302             |
| Area of Specialization                                       | PH5303             |

**Program Outcomes:** Ph.D in Sociology programme will

**PO1.** Have critical knowledge of theoretical sociology and its application in various aspects of social aspects of life.

**PO2.** Will orient the students for comprehending, analyzing and critically assessing the social realities from sociological perspectives

**PO3.** Will have research aptitude and relevant skills which are useful for their social and professional life.

**PO4.** Be able to understand methodological guidelines of conducting social research.

**PO5.** Equip the students with latest sociological knowledge pertaining to Ageing, Gender, Indian Society, Environment, Rural society, Urban society, Health and Wellness, Social Deviance, Tribes, Social Marketing, Social Statistics, Development, Science and Technology, Industrial Sociology, Marginalized groups, Leisure and Sports, Education, Indian Society-Continuity and Change,, Law, Contemporary social problems in India.

**Course Outcomes (PH.D)**

| <b>Paper</b>      | <b>Course Name</b>                                           | <b>Course Code</b> | <b>Course Out comes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|--------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>I SEMESTER</b> |                                                              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1.1               | ADVANCED SOCIAL RESEARCH METHODS AND Statistics in Sociology | <b>PH5301</b>      | <ul style="list-style-type: none"> <li>• It helps the learners to study the major schools of thought in social research and also various methodological approaches/theories of sociology</li> <li>• It also familiarizes the students the basic methodological concepts and makes difference between common sense and sociology</li> <li>• It assists in enhancing the research interests and inculcates the spirit of inquiry among students who may be motivated to continue higher studies in</li> </ul> |

|     |                                                                                                                                                                                                                                                                                                                                                                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                                                                                                                                                                                                                                                                                                                                   |               | research                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 1.2 | Modern Sociological Theories and Post Modern Social Theories                                                                                                                                                                                                                                                                                                      | <b>PH5302</b> | <ul style="list-style-type: none"> <li>• After studying this course students will understand various perspectives and apply the same in order to understand social realities of present society.</li> <li>• It helps the learners examine the theoretical relevance and analytical utility of the various perspectives.</li> <li>• This facilitates the students to understand diverse theoretical perspectives while studying social structure and change.</li> <li>• To understand the relationship between individual and society, action and system, also how to apply sociology in day to day life</li> </ul> |
| 1.3 | Area of Specialization<br>Sociology of Development<br><b>CONTEMPORARY SOCIETY IN KARNATAKA</b><br>Sociology of Religion<br>Sociology of Marginalization<br>Sociology of Education<br>Sociology of Health and Wellness<br>Women and Child Development<br>Sociology of Tribe<br>Contemporary social Problems in India<br>Sociology of Gender<br>Sociology of Ageing | <b>PH5303</b> | <ul style="list-style-type: none"> <li>• Through the specialization papers the Ph.D students able to grasp, evaluate and critically examine various aspects of socio-economic, politico-cultural life of India and also global level. Through specialization papers students elaborately study the Ph.D research problem.</li> </ul>                                                                                                                                                                                                                                                                               |

### Number of teaching hours Ph.D

| Title of the Paper/course                                    | Codes  |                  |
|--------------------------------------------------------------|--------|------------------|
| Advanced Social Research Methods and Statistics in Sociology | PH5301 | Per week 3 hours |
| Modern Sociological Theories and Post Modern Social Theories | PH5302 | Per week 3 hours |
| Area of Specialization                                       | PH5303 | Per week 3 hours |

**KARNATAK UNIVERSITY DHARWAD**  
**DEPARTMENT OF SOCIOLOGY**  
**Ph.D COURSE WORK SYLLABUS-2014**  

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**ADVANCED SOCIAL RESEARCH METHODS AND  
STATISTICS IN SOCIOLOGY  
COURSE-I**

**CHAPTER- I: Issues in Social Research**

**1. Perspectives on Social Research**

Schools of Thought in Social Research, Objectivity, Positivism, Empiricism, Realism, Subjectivity, Idealism, Postmodernism

**CHAPTER- II: Methods of Social Research:**

1. Types and Methods of Social Research: Pure & Applied Research.
2. Social Surveys and Case Study Method .
3. Comparative and Historical Method.

**CHAPTER- III: Social Research Procedure:**

1. Selection of Research problem
2. Hypotheses :Meaning, Characteristics Types and Importance;
3. Research Design :Meaning and Types
4. Sampling: Role and Types

**CHAPTER-IV: Methods of Data Collection:**

1. Primary Data: a. Observation b. Questionnaire c. Interview
2. Secondary Data

**CHAPTER –V: Analysis of Data & Report Writing:**

1. Processing of Data
2. Analysis and Interpretation of Data
3. Research Report : Types and Qualities of a Good Research Report
4. Participatory Research

## **PART 2:**

### **CHAPTER – VI: Diagrammatic and Graphical Representation of Data:**

1. Bar Diagram, Multiple Bar Diagram, Component Bar Diagram, Subdivided Bar Diagram, Pie-Chart, Line Chart, Histogram, Frequency Polygon and Curve, O-give curves

### **CHAPTER – VII: Measures of Central Tendency:**

1. Mean, Median and Mode

### **CHAPTER – VIII: Measures of Dispersion:**

1. Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.
2. Chi square test, t-test
3. Correlation and Regression

## **REFERENCES**

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## **COURSE II**

### **Modern Sociological Theories and Post Modern Social Theories**

**Unit-I: Introduction**

1. The Origin of Sociological Theories
2. Meaning & Nature of Sociological Theories
3. Theorization and Levels of Theorization

**Unit-II: Major Sociological Perspectives**

- 1) Functionalism and its limitations
- 2) Conflict perspectives
- 3) Symbolic Interactionism
- 4) Phenomenology
- 5) Ethno methodology
- 6) Exchange theory.

**Unit-III: Systems, Structuralism , & Modernity Neo Sociological Theories**

- 1) Luhmann
- 2) Anthony Giddens-Structuralism to post structuralism.
- 3) Neo-marxist theories
- 4) Habermas and Althuser
- 5) Future of Sociological Theory

**Unit-IV: Sociological Theories and Emergence of Social Theory**

- 1) From industrialism to post industrialism & Beyond Modernity
- 2) Post modernity and social pluralism
- 3) Post modern social theories
- 4) Post modern social theories-The Indian Experience

**Unit-V: Indian Sociological Perspectives-I**

Marxists and Subaltern Perspectives.

- 1) D.P Mukharjee
- 2) A.R. Desai
- 3) B.R Ambedkar
- 4) David Hardiman

**Unit-VI Indian Sociological Perspectives-II**

- 1) Cultural Perspective of Yogindra Singh
- 2) Use of Native Categories in the Analysis of Indian Society.
- 3) Sociology for India: An Issue for Indian Sociology.

**Unit-VII Theoretical Applicability**

- 1) Theories/theory pertaining to your research proposal.
- 2) Justification of its application.
- 3) Constraints of its theoretical applicability.

**References:**

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**KARNATAK UNIVERSITY, DHARWAD  
DEPARTMENT OF STUDIES IN SOCIOLOGY**

**Ph.D. SYALLABUS**

**PAPER-III Area specialization: Sociology of Development  
(Displacement, Rehabilitation, Neighborhood Formation and Development)**

**Research Guide: Dr. Hanamagouda C.**

**Researcher: Mallayya S.**

**I: Introduction:**

- a. Meaning, scope and Importance of Sociology of Development
- b. Dimensions of Development
- c. Conceptual Perspectives—Human Development, Social Development and Sustainable development
- d. Theories of development –Structural- functional, Socio-Psychological , Stages of Growth Model (Rostow), Unequal Development ( Samir Amin),The World System (Waller Stein), Development of under Development (A.G.Frank) and Trends in Development Theory (J.N.Pieterse)

**II: Displacement:**

- a. Displacement --Meaning, nature and its extent
- b. Displacement in history
- c. Scenario of Displacement-International and Indian context
- d. Causes and effects of Displacement

**III : Rehabilitation and Resettlement:**

- a. Rehabilitation and Resettlement—Meaning and its
- b. process
- c. International and national scenario of Rehabilitation and Resettlement
- d. Strategies for Rehabilitation
- e. Rehabilitation and Resettlement

**IV: Neighborhood Formation:**

- a. Meaning, nature, elements and importance of neighborhood formation
- b. Neighborhood in rural and urban settings
- c. Socio-Economic and Cultural aspects of neighborhood formation
- d. Changing trends and patterns in neighborhood formation

**V: Policy and Programmes:**

- a. The role of NGO's, CBO's, W.A. for Rehabilitation and Resettlement
- b. Developmental policies in India
- c. Political economy of Development
- d. Survey of Displacement, Rehabilitation ,Resettlement and Neighborhood studies

## References:

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**KARNATAK UNIVERSITY, DHARWAD  
DEPARTMENT OF STUDIES IN SOCIOLOGY**

**Ph.D. SYALLABUS**

**PAPER-III Area specialization: Sociology of Religion**

**Research Guide: Dr. S.C. Natikar**

**Researcher: Bhavani Revanakar**

**I : Introduction:**

1. Concept of religion
2. Characteristics of religion
3. Relationship with religion and philosophy, morality
4. Representations of world religion
5. Evolution and development of religion

**II : Approaches to the study of religion**

1. Classical Approach Durkheim, Max-Weber Mauss
2. Contemporary approach phenomenological, Neomarxist, Freudian, New functional, Anthropological.

**III : Major Indian religions**

1. Hindu
2. Muslim
3. Neo-Buddhist
4. Christianity
5. Jainalism

**IV : Religious movement in India**

1. Mann
2. Gouthama Buddha
3. Mahatma Gandhiji
4. Basavanna
5. Dr. B.R. Ambedkar

**REFERENCES**

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**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2017**  
**Background PAPER-III (Area of Specialization)/ SOCIOLOGY OF**  
**MARGINALIZATION**

**Prof. C.A. Somashekharappa**  
**Research Guide,**

**Prabhulinga Doddamani**  
**Research Student.**

**UNIT – I : Introduction:**

1. Meaning and Process of Marginalization
2. Scope and Importance of Studying Marginalization
3. Marginalization and its Social exclusion, Disenfranchisement, Poverty, Relative deprivation, Exploitation, Discrimination, Backwardness, and Inequality.
4. Marginalization –its causes, types, effects and prevention.

**UNIT – II : Perspectives on Marginalization:**

1. Role of Ideology in Marginalization
2. Views of Phule, Periyar, Ambedkar, Lohiya
3. Subaltern perspective

**UNIT – III : Marginalized Groups in India:**

6. Schedule Castes
7. Scheduled Tribes
8. Neo Buddhists
9. Women and Children
10. Muslims and Christians.

**UNIT – IV : Marginalization and Affirmative Actions:**

6. Constitutional Provisions
7. Governmental Policies and Programmes
8. Role of N.G.Os.

**UNIT – IV : Pijaras in India and Karnataka**

1. Demographic aspects
2. Socio-economic aspects of India's Pinjars
3. Pinjars as a marginalized group.
4. Problems and prospects of Pinjars in India and Karnataka.

**References:**

Ambedkar, B.R. : Who Were the Shudras, Thacker and Co. Ltd., Bombay, (1946)  
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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF POST GRADUATE STUDIES AND RESEARCH IN SOCIOLOGY**  
**Ph.D. SYALLABUS-2016-17**  
**PAPER-III Area Specialization: Contemporary Social Problems**  
**Research Guide: Dr. Hanamagouda C.      Researcher: Hanumanth N.Bandiwaddar**

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**UNIT I: Introduction:**

- a. Meaning and Nature of Social Problem
- b. Causes and Consequences of Social Problems
- c. Social Problems and Social Disorganization.
- d. Social problems and Social Deviance

**UNIT II: Approaches to the study of Social Problems:**

- a. Structural approaches
- b. Functional approach-Merton, Parsons
- c. Structural-functional approach-Durkheim
- d. Recent trends

**UNIT-III: The Beggary:**

- a. Concept, nature and types of Beggary
- b. Beggary in History
- c. Causes and consequences of Beggary
- d. Beggary Scenario-Global, Indian and Karnataka

**UNIT-IV: Society, State and Beggary**

- a. The relationship and contrast among the State, Society and Beggary.
- b. Rehabilitation measures of Beggary-An overview
- c. Legal frame work for Rehabilitation of Beggars and its strategies
- d. Effects of Beggary on state and society.

**UNIT-V: Policy and Programmes for Beggary:**

- a. Developmental Policies and Programmes to Beggary.
- b. The role of state for formulating various measures for rehabilitation of beggary
- c. The Role of NGO's and CBO's for controlling Beggary
- d. Survey the review of literature on State, Society and Beggary: A Critical analysis of Rehabilitation measures (Programmes).

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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF POST GRADUATE STUDIES AND RESEARCH IN SOCIOLOGY**  
**Ph.D. SYALLABUS-2016-17**

**PAPER-III Area specialization: Sociology of Education**  
**Research Guide: Dr. Hanamagouda C.                      Researcher: Miss. Savithri K. Hiremath**

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**CHAPTER – I: Introduction:**

- a. Emergence, Scope and importance of Sociology of Education.
- b. Interrelation between Education and Society
- c. Socialization and Education: Agencies of Socialization, Family, Peer Group, School, Mass Communication and media.
- d. Approaches to the study of Sociology of Education.

**CHAPTER –II: Theories of Sociology of Education:**

- a. Theoretical Perspectives in Sociology of Education
- b. Structural and Functional Perspectives
- c. Conflict Perspectives
- d. Radical Perspectives

**CHAPTER –III: School-Student –Teacher and Social Development:**

- a. Concept of School- Student-Teacher
- b. Nature and types of Schools, Students and Teachers.
- c. Facilities and Challenges in Schools
- d. Relation with few Concepts-Social Progress, Social Change Social Development

**CHAPTER –IV: School, Student and Scholastic Achievements**

- a. Indicator measures of Students with Scholastic achievements
- b. The role of Stake-holders in Scholastic achievements
- c. Private and Public Scholastic achievements: Diversities and Disparities
- d. Recent trends in Scholastic achievements

**CHAPTER –V: Policies and Programmes for Scholastic Achievements**

- a. National and State Educational Programmes
- b. National and State Educational Policies
- c. Reports for Scholastic Achievements
- d. Survey the literature on The School, Student and Scholastic Achievements: A Comparative Study of Private and Public School Students.

## References:

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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF POST GRADUATE STUDIES AND RESEARCH IN SOCIOLOGY**  
**Ph.D. SYALLABUS-2016-17**

**PAPER-III Area specialization: Sociology of Health and Wellness**  
**Research Guide: Dr. Hanamagouda C. Researcher: Satish Ishwaragond**

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**UNIT – I: Introduction:**

- a. Sociology of Health: Its Aims, Scope and importance.
- b. Health and its Relationship with other Social Institutions.
- c. Sociology of Medicine and Sociology in Medicine
- d. Approaches to the study of Sociology of Health

**UNIT – II: Social Epidemiology:**

- a. Concepts of Well-being and Quality of Life: Their indicators
- b. Vital and Public Health Concepts
- c. Epidemiology and Resources: Social Components in Therapy and Rehabilitation
- d. Recent Trends in Diseases - Water Borne, Chronic, and Communicable and Infectious diseases.

**UNIT – III: Socio-Cultural issues on Health and Wellness:**

- a. Socio-Cultural factors of Health and Wellness
- b. Health seeking behavior.
- c. Labeling theory.
- d. The sick role and the patient role

**UNIT – IV: Health and Health Care Services:**

- a. Concepts-Community Health and Integrated Health Services.
- b. Historical background of Health care services
- c. Types of Health Care Services- Hospitals, Primary Health Centers, Community Health Center, Co-operative Health Centre and its Functions.
- d. Inequalities in Health needs and Health Care Services and its factors
- e. Health care disparities in Karnataka (North, South, Middle and Coastal areas)

**UNIT – V: Utilization Patterns and Health Care Services:**

- a. Recent trends in Health care services.
- b. Utilization Patterns of Health care services in Scheduled Castes (SCs) Scheduled Tribes (STs), Women, Children, Aged and Disabled.
- c. Role of NGO s and National Health Policy in implementation and Utilization of Health Care services.
- d. Survey the literature on utilization pattern in health care services.

**References:**

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PhD course work in Sociology  
Paper II -Specialization  
**WOMEN AND HEALTH**

**UNIT – I INTRODUCTION**

Concept of health  
Socio-cultural determinants of health  
Significance of women Health

**UNIT – II REPRODUCTIVE HEALTH**

Meaning and Definition  
Socio-economic and biological determinants of Reproductive Health  
Reproductive Rights and choice  
Problems of women beyond reproductive age

**UNIT III HEALTH STATUS OF WOMEN IN INDIA**

Women and Morbidity Pattern  
Maternal and child health  
Work and Women's Health; Women and Psychological Health

**UNIT IV HEALTH STATUS OF MARGINALIZED WOMEN**

Health status of Scheduled Castes women  
Health status of Scheduled tribe women

**UNIT V HEALTH SEEKING BEHAVIOUR AMONG WOMEN**

Availability, Accessibility and Affordability of Health facilities  
Socio-cultural issues of Health seeking behaviour

**UNIT VI THE MEDICALIZATION OF WOMEN'S HEALTH**

The politics of "women's health"  
The medicalization of female sexuality  
Women and medicalization  
The corporatization of women's health

**References:**

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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES AND RESEARCH IN SOCIOLOGY**

**Ph.D. SYALLABUS**  
**PAPER-III Area specialization: Sociology of Development**  
**(With Special Reference to Women Empowerment)**

**Research Guide: Dr. Hanamagouda C.**

**Researcher: Miss. Malini Revanakar**

**I: Introduction:**

- a. Historical development of sociology of development
- b. Meaning, scope and importance of sociology of development
- c. Concept-Human development, Social Development and sustainable development
- d. Approaches to the study of sociology of development and its methods

**II: Theories of development:**

- a. Structural- functional theories
- b. Socio-Psychological theories (MacLelland)
- c. The Stages of Growth Model (W.W.Rostow) and Unequal Development ( Samir Amin)
- d. The World System (Waller Stein), Development of under Development (A.G.Frank) and Trends in Development Theory (J.N.Pieterse)

**III: Women in India:**

- a. Status of women through the ages
- b. Demographic profile
- c. Education, Polity and Economic participation of women
- d. Contemporary trends

**IV: Women Empowerment:**

- f. Concept, nature, and its importance
- g. Theoretical perspectives on women empowerment
- h. Indicators and Scenario of women empowerment
- i. Hindrance factors of women empowerment

**V: Policy and Programmes in India:**

- e. Women Developmental policies in India and Karnataka
- f. Women Development Programmes in India and Karnataka
- g. The role of Government, NGO's, CBO's, SHG's for women empowerment
- h. Survey of literature on women empowerment

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**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2019**  
**PAPER-III (Area of Specialization): Sociology of Stratification**

**Prof. Shuakath Azim**  
**Research Guide,**

**Shrishail Hallur**  
**Research Scholar**

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**Chapter I Introduction:**

- a. Meaning and Characteristics of social stratification
- b. Processes of Social Stratification.
- c. Forms of social stratification – caste, class, estate and race

**Chapter II : Approaches to Social Stratification:**

- a. Functionalist approach
- b. Conflict approach
- c. Weber's approach to stratification

**Chapter III: Caste System in India**

- a. Features and Functions
- b. Changes in Caste system
- c. Gender and Stratification

**Chapter IV Dominant Caste and groups in Karnataka**

- a. Lingayats, Vokkaligas, Kurubas
- b. Non-dominant castes
- c. Scheduled castes and tribes in Karnataka

**Chapter V: Mali castes in India**

- a. History of Mali caste
- b. Forms of Mali Groups
- c. Changes in Mali Caste

**Suggested Readings**

- Tumin, M. M. 1987. Social Stratification: the forms and functions of inequality. New Delhi: Prentice-Hall of India.
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**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2019**  
**PAPER-III (Area of Specialization): Medical Sociology**

**Prof. Shuakath Azim**  
**Research Guide,**

**Suparna B.T.**  
**Research Stud**

**Chapter I: Introduction**

- a) Meaning, nature and importance
- b) Social Determinants of Health
- c) Development of Medical Sociology
- d) Sociology in Medicine and Sociology of Medicine

**Chapter II: Sociological Perspective on Health and Medicine**

- a) Functionalist Approach
- b) Conflict Approach
- c) Interactionist
- d) Feminist Perspectives

**Chapter III: Sociology and Organ Donation**

- a) Organ Donation: Meaning, and Significance
- b) History of Organ Donations
- c) Types of Organ Donation
- d) Advantages and Disadvantages of Organ Donation

**Chapter IV: Socio-cultural Dimensions of Organ Donation**

- a) Religion
- b) Class
- c) Region
- d) Women and Organ Donation

**Chapter V: Trends and Patterns of Organ Donation**

- a) Organ Donation in Different Countries
- b) Organ Donation in India
- c) Legal and ethical issues
- d) Role of NGO's

**Suggested Readings:**

Arun Anand (2016) **Body-Organ Donation: Towards a Healthy Society**, Prabhat Books, Nagpur  
 Government of India. **Transplantation of Human Organs Act, 1994**. 1994. Central Act 42 of  
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K. Park(2010) **Preventive and Social Medicine**, Banarasidas, Delhi

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 and the meaning of Altruism**, Rowman and Little Fields, London.

M. Tamilrasan(2016) **Medical Sociology**, Rawat, Jaipur.

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T. Randolph Beard (2013) **The Global Organ Shortage: Economic Causes, Human  
 Consequences, Policy Responses**, Stanford Economics finance, Stanford California

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**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2019**

**PAPER-III (Area of Specialization): Sociology of Ageing**

**Prof. Jayashree. S.**  
**Research Guide,**

**G.N. Prashant**  
**Research Student**

- I. Introduction**
  - A) Scope & Significance of Sociology of Ageing
  - B) Emergence of Sociology of Ageing
  - C) Trends and Patterns of Ageing
  - D) Factors of Ageing
- II. Social institutions**
  - A) Family
  - B) Political Economy & Ageing
  - C) Religion
  - D) Problems of Ageing
- III. Theories Pertaining to Ageing**
  - A) Disengagement theory
  - B) Role theory
  - C) Activity theory
  - D) Phenomenological approach
- IV. Elder Abuse**
  - A) Types of Elder Abuse
  - B) Causes and Consequences of Elder Abuse
  - C) Elderly and the Caregivers
  - D) Living arrangements of Elderly
- V. Issues of growing old**
  - A) Ageing and Wellness
  - B) Active Ageing and Productive Ageing
  - C) HALE (Healthy Active Life Expectancy)
  - D) Ageing and Spirituality
- VI. Policies of Ageing**
  - A) Ageing Retirement and its Challenges
  - B) Policies and Programmers for the Aged in India
  - C) National Policy on Aged

**Essential Readings:**

Atechley., Social Process in Later life. Belmont California, Wadsworth 1972.  
 Ajay Kumar Sahoo (Eds) Sociology of Ageing- A Reader Rawat Publications 2009.  
 Barbara F. Turner (Eds) Women growing older SAGE publications, 1994.  
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**KARNATAK UNIVERSITY DHARWAD****DEPT OF SOCIOLOGY****Ph.D Course Work Syllabus in Sociology 2019****PAPER-III (Area of Specialization): SOCIAL STRATIFICATION AND MOBILITY**

**Prof. Dhruva B. Jyothi**  
**Research Guide,**

**Babu Pirangi**  
**Research Student.**

**Chapter I: Introduction**

- 1.1 Meaning and Characteristics and process of Social stratification
- 1.2 Importance of Social Stratification
- 1.3 Development of Class
- 1.4 The criteria of Class Distinction

**Chapter II: Approaches to Study of Social Stratification**

- 2.1 Functionalist Approach – Kingsley Davis, Wilbert Moore, Talcott Parsons and Melvin tummine
- 2.2 Marxian Approach
- 2.3 Webrian Approach

**Chapter III: Stratification in Indian Society**

- 3.1 The meaning of Caste, Class, Tribe.
- 3.2 The origin of the Caste System; Features and Changing patterns.
- 3.3 Theories of origin of Caste (Three Perspective)
  - i) Indo-religious perspective
  - ii) The cultural perspective
  - iii) Sociological perspective
- 1.4 Relation between Caste and Class
- 1.5 Definition and distribution of Schedule Tribes
- 1.6 Tribal problems, Policy, and welfare

**Chapter IV: Social Mobility**

- 4.1 Concept of Social Mobility
- 4.2 Types of Social Mobility
- 4.3 Amount of Mobility
- 4.4 Determinates and Factors A Social Mobility

**Chapter V: Theories of Social Mobility**

- 5.1 Functional Theories: P Sorkin
- 5.2 Demographic -Theories - H. Dumont

### REFERENCES

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2. Murdock G.P: Social Structure, Free Press, New York 1965.
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4. Mac Iver and Page: Society: Macmillan, New Delhi 1957.
5. Merton. R. K.: Social Theory and Social Structure, Amrind Publishing, New Delhi, 1968.
6. Talcott Parsons: The Social System, Amrind Publishing, New Delhi 1972.
7. Mead. G.H.: Mind, Self and Society, the University of Chicago Press, New York, 1934.
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9. Simmel: Sociology Dunker and Humboldt, 1923.
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12. Samuel Koenig: Sociology: An Introduction to Science of Society, Barnes & Nobel Books, London. 1957

**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2019**  
**PAPER-III (Area of Specialization): SOCIOLOGY OF RURAL LIFE**

**Prof. Dhruva B. Jyothi**  
**Research Guide,**

**Sadashivappa Haigar**  
**Research Student.**

**Chapter I: Introduction**

- Scope and importance of study of rural life
- Origin and development of rural sociology
- Rural –urban relations
- Approaches to the study of rural communities

**Chapter II: Rural-Social institutions**

- Settlement patterns typology of villages
- Rural stratification
- Rural family
- Rural religion

**Chapter III: Landless agriculture laborers**

- Agriculture laborers in India
- Problems of agriculture laborers
- Health of Agriculture laborers
- Economy of agriculture laborers

**Chapter IV: Rural problems**

- Lack of adequate laborers for agriculture cultivation
- Insecurity of laborers life
- Illiteracy and backwardness
- Poverty and indebtedness

**Chapter V: Rural development**

- Land tenure and land reforms
- Green revolution and white revolution
- Rural co-operative associations
- Rural development programs

**REFERENCES**

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- H. S. Maine - Village Communities in East and West.
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- Srinivas. M. N –Caste in Modern India and Other Essays
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- Sharma. K. L – Social Stratification in India

**KARNATAK UNIVERSITY DHARWAD  
DEPT OF SOCIOLOGY**

**Ph.D Course Work Syllabus in Sociology 2017**

**Background PAPER-III (Area of Specialization)/ SOCIOLOGY OF HEALTH AND WELL-BEING**

**Prof. C.A. Somashekharappa**  
**Research Guide,**

**Vinay K.U**  
**Research Student.**

**UNIT – I: Relation between Sociology and Health**

1. Sociology of Health: Its Aims and Scope and Significance.
2. Health and its Relationship with other Social Institutions.
3. Concepts of Well-being and Quality of Life: Indicators
4. Sociology of Medicine and Sociology in Medicine: An Appraisal.

**UNIT – II: Social Epidemiology**

- a. Vital and Public Health Concepts
- b. Epidemiology and Resources: Social Components in Therapy and Rehabilitation
- c. Recent Trends in Diseases with special reference to Communicable and Diseases.
- d. Recent Health and Disease trends in Karnataka
- e. Non communicable Health surveillance.

**UNIT –III: The Physician and the Patient**

1. The professionalization and socialization of the physician
2. Doctor-Patient Relationship.
3. Nursing as an Emerging Para Medical Profession
4. Health seeking behaviour.
5. The sick role and the patient role
6. Labeling theory.

**UNIT – IV: Hospital, Community and Well-being**

1. Types of Hospitals, Functions of Hospitals. Coordination and Supervision of Hospitals.
2. Inter-personal Relationships in Hospitals, Medical Social Service in Hospitals.
3. Community Health, Concept of Integrated Health Services.
5. Functioning of Primary Health Centers in India.
6. Health Care Delivery and Social Policy.
7. NGO and Health Care Implementation and Utilization of Care service.
8. National Health Policy: A Critical Analysis.
9. Private Health care,
10. Alternative medicine: Indigenous.

**UNIT – V: Special Issues in Health in India**

1. Inequities in health and health care
2. Special issues of women, children, Aged and disabled
3. Health among the marginalized scheduled castes (SCs) Scheduled Tribes (STs)
4. Health care disparities in Karnataka: North South divide

**References:**

- Albert, Gary. L., and R. Fitzpatrick, Quality of Life in Health Care: Advance in Medical Sociology, Mumbai, Jai Press, 1994.
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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN SOCIOLOGY**

**Ph.D. SYALLABUS**

**PAPER-III Area specialization : Sociology of Marginalized Groups**

**Research Guide: Dr. S.C. Natikar**

**Researcher: M.H. Hebbal & S.R. Jadav**

**I : Introduction:**

1. Meaning and Process of Marginalization
2. Scope and Importance of Studying Marginalization
3. Marginalization and its Socio-Economic Indices: Poverty, Relative deprivation, Exploitation, Discrimination, Backwardness, and Inequality.

**II : Perspectives on Marginalization:**

- Role of Ideology in Marginalization
- Views of Phule, Periyar, Ambedkar, Lohiya
- Subaltern perspective

**III : Marginalized Groups in India:**

11. Schedule Castes
12. Scheduled Tribes
13. Neo Buddhists
14. Women

**IV : Marginalization and Affirmative Actions:**

9. Constitutional Provisions
10. Governmental Policies and Programmes
11. Role of N.G.Os.

**REFERENCES**

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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN SOCIOLOGY**  
**Ph.D. SYALLABUS**

**PAPER-III Area Specialization: Contemporary Social Problems in India**

**Research Guide: Dr.Hanamagouda C.**

**Researcher:Miss Puspa Agadi**

**I: Introduction:**

- a. Meaning and Nature of Social Problem
- b. Causes and Consequences of Social Problems
- c. Social Problems and Social Disorganization

**II: Approaches to the study of social problems:**

- a. Structural approach-
- b. Functional approach-Merton, Parsons
- c. Structural-functional approach-Durkhiem

**III : Domestic workers:**

- a. Meaning, Nature and Types of Domestic workers
- b. Domestic workers in history
- c. Socio-Economic and Cultural background of Domestic workers
- d. Domestic workers -Relationship with family and employer

**IV: Domestic Workers Scenario:**

- a. Domestic workers scenario- Global and India
- b. Causes and effects of Domestic workers
- c. Problems and prospectus of Domestic workers

**V: Policy and programmes for Domestic Workers:**

- i. The role of NGO's,CBO's
- j. Policies in India
- k. Political economy of Domestic workers

**References:**

- **Ahuja Ram (1998):** Social Problems in India. Jaipur: Rawat Publications
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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN SOCIOLOGY**

**Ph.D. SYALLABUS**

**PAPER-III Area specialization: Sociology of Development (Displacement, Rehabilitation, Neighborhood Formation and Development)**

**Research Guide: Dr. Hanamagouda C.**

**Researcher: Mallayya S.**

**I: Introduction:**

- a. Meaning, scope and Importance of Sociology of Development
- b. Dimensions of Development
- c. Conceptual Perspectives—Human Development, Social Development and Sustainable development
- d. Theories of development –Structural- functional, Socio-Psychological and The World System

**II: Displacement:**

- e. Displacement --Meaning, nature and its extent
- f. Displacement in history
- g. Scenario of Displacement-International and Indian context
- h. Causes and effects of Displacement

**III : Rehabilitation and Resettlement:**

- j. Rehabilitation and Resettlement—Meaning and its
- k. process
- l. International and national scenario of Rehabilitation and Resettlement
- m. Strategies for Rehabilitation
- n. Rehabilitation and Resettlement

**IV: Neighborhood Formation:**

- e. Meaning, nature, elements and importance of neighborhood formation
- f. Neighborhood in rural and urban settings
- g. Socio-Economic and Cultural aspects of neighborhood formation
- h. Changing trends and patterns in neighborhood formation

**V: Policy and Programmes:**

- l. The role of NGO's, CBO's, W.A. for Rehabilitation and Resettlement
- m. Developmental policies in India
- n. Political economy of Development
- o. Survey of Displacement, Rehabilitation, Resettlement and Neighborhood studies

References:

**Ph.D Course Work 2015**  
**SYLLABUS**  
**Optional paper: Sociology of Gender**

**Research Scholar: Ms. Vijayalakshmi Choukimah**

**Guide: Dr. (Smt.) S.C. Shettar**

**Chapter I : Introduction**

- 1) Nature and Scope of Sociology of Gender
- 2) Emergence of Sociology of Gender : Feminism
- 3) Types of Feminism: Liberal, Radical, Socialistic, Marxist
- 4) Importance of Sociology of Gender

**Chapter II: Conceptual Framework**

- 1) Sex and Gender: Role of Gender
- 2) Gender in historical perspective
- 3) Gender Socialization
- 4) Gender Inequality and Gender Justice.

**Chapter III : Women in India**

- 1) Status of women in India: Ancient, Medieval and Modern period.
- 2) Socio-economic and demographical profile
- 3) Problem of women in modern India
- 4) Women and development: Role of Government for women development

**Chapter IV : Working women in India**

- 1) Socio-economic profile of working women in India.
- 2) Problems of working women: Household division of labour, Role of conflict, Dual role Health.
- 3) Emerging Trends: Day care centers, changing life styles, food habits.

**References:**

1. Boserup E. (1979) Women's Role in Economic Development, New York, St. Martins Press.
2. Gloria Bowles and Renate D. Klein eds 1983. Theories of Women's studies Roulledge and Kegan Paul: London and New York.
3. Ann Oakley (1972) Sex Gender and Society. Hyper and Raw, New York
4. Sharmila Rege (ed) (2003) Sociology of Gender, SAGE publications, New Delhi.
5. Maithreyi Raj (ed) (1986) Women's studies in India: Some Perspectives popular prakashan, Bombay.
6. Devaki Jain & C.P. Sujaya Publication Division Indian Women- Revisited (2014) Ministry of Information Broadcasting, Govt. of India.
7. Sista Rama Devi Pani (ed) (2014) Social Security for women, New Delhi.
8. Linda L. Lindsey (ed) 2011, Gender Roles : A Sociological perspective fifth edition, Margville University of St. Louis.
9. Sumit Datta (ed) (2013) Gender Sociology, Wisdom Press 4378/4 –B Murarilal Street, Ansari Road, Daryaganj, New Delhi.
10. Sarita Kaushal (ed) 2011, India Women: Health, Education and Poverty, OPS publishing House, New Delhi (India).
11. Geraldine Forbes Women in Modern India, Cambridge University Press.
12. M. Lakhmipathi Raju (ed) (2007) Women Empowerment: Challenges and Strategies. Regal Publications, New Delhi.
13. Statistics on Women in India 2014. National Institute of Public cooperation and child Development
14. Rathindra Nath Pramnik and Ashmi kumar Adhikary (2006), Gender Inequality and Women's Empowerment Abhijeet Publications, Delhi.
15. Amita Sahaya & Sumita Kaistha (2010) women work and Health, The women press, New Delhi.

**OPTIONAL PAPER: SOCIOLOGY OF LAW  
PH.D COURSE WORK 2015  
SYLLABUS**

**Research Scholar: Mr. Mada Naik**

**Guide: Dr. C.A. Somashekharappa**

**Chapter I - Introduction**

- 1.1 Meaning and Nature of Sociology of Law
- 1.2 Scope and importance of Sociology of Law
- 1.3 Origin and development of Sociology of Law
- 1.4 Sociology of Law in India

**Chapter II - Law and Society**

- 2.1 Source of Law (Origin of Law), Types of Law
- 2.2 Nature and Development of Law
- 2.3 Law and social conflict
- 2.4 Law and Social transformation
- 2.5 Judicial Activism

**Chapter III - Sociological Approaches to the study of Law.**

- 3.1 Contribution of Max Weber and Emile Durkheim.
- 3.2 R.K. Merton and Talcott parsons views on law and society.
- 3.3 Marxian perspective of Law.
- 3.4 Feminist perspective.
- 3.5 Legal Pluralism, Legal Culture, Social Law, Living Law, Legal realism.

**Chapter IV - Law and Society in India**

- 4.1 Social Jurisprudence in India.
- 4.2 Protection of Human Rights.
- 4.3 Evolution, Legal, judicial and administrative provisions of Human Rights.
- 4.4 Measure for women and child rights protection in India.
- 4.5 Constitutional, Legal and administrative provisions of women and child rights protection.

**Note: Candidate should read the relevant literature, make notes and discuss the same with the research supervisor consistently.**

**References**

1. Aubert, Vilhelm ed, (1969) Sociology of Law, London, Penguin,
2. Aubert Vilhelm (1994) Continuity and Development in Law and Society, OSLO Norwegian University press.
3. Baxi, Upendra (1986) Towards a Sociology of Indian Law, New Delhi, Stavahan
4. Cottrell, Roger (2006) Law, Culture and Society: Legal Ideas in the mirror of social theory, Aldershot: Ashgate
5. Cottrell, Roger (2007) The Sociology of Law: An Introduction Oxford University press
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15. Rheinstein, M (1954) *MaxWeber on Law and Economy in society*, Harvard University press.
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17. Trevino A. Javier (1990) *The Sociology of Law, classical and contemporary perspectives* New York St. Martin's press.
18. Triveno A. Javier ed. (2008) *Talcott Parsons on law and Legal system*, New castle, Cambridge Scholars Publishing.
19. Ishwara Bhat. P (2009) *Law and Social Transformation*, Lucknow: Eastern Book company.
20. Sarat, A (ed) 2004 *The Blackwell companion to Law and Society*, Me Iden, MA: Blackwell.
21. Ballantine, Jeanne H & Keith A. Roberts (2011) *Our Social World: Introduction to Sociology*.
22. Banakar R. and Traversm (2007) *an introduction to Law and Social theory* Oxford: Hart Publishing.
23. Calavita, Kitty (2010) *An Invitation to Law and Society: An introduction to the study of real law*, University of Chicago press.
24. Black and Meleski (eds) 1973. *The social organization of law*, New York: Seminar press.
25. Bomiller, Kristin (1988) *The civil rights society*.
26. Edwin M Schur 1968, *Law and Society*, Random house,
27. William M. Evan 1962, *Law and Sociology –Exploratory Essays*, Free press of Glance.

**OPTIONAL PAPER: Women and Child Development**  
**PH.D COURSE WORK 2015**  
**SYLLABUS**

**Research Scholar: Sapna P**

**Guide: Dr. Jayashree**

**Unit – I Introduction**

- Basic concepts of Development.
- Basic Concepts of Women Studies.
- Basic Concepts of Child and Development.

**Unit – II Women in India**

- Women through the Ages : Ancient, Medieval & Modern
- Status of Women.
- Actual Positions.

**Unit – III Problems of Women**

- Gender Inequality, atrocities and violence against the women, women problems: health, education, women and media, women's role and responsibilities.

**Unit- IV Child Development**

- Child Care and Adoption, Safe Motherhood, Child Health, Child Education, Child Rights, Child and Human Rights
- Child problems
- Atrocities, Sexual Abuse, Child Marriage, Juvenile Delinquency, Child Abuse, Child Labour, Child Welfare Services-ICDS

**Unit –V Policies and Programmes pertaining to Women and Child**

- Programmes for Upliftment of Women
- Programmes for Upliftment of Child
- Role of Government and NGO's.

**References:**

- 1) Kapur Premila: 1970 Marriage and Working Women in India, Vikas Publications, New Delhi.
- 2) Kapur Premila: 1982 Conflict between Adolescent Girls and Parents, New Delhi.
- 3) Benerji D: 1989 Poverty class and Health Care in India, A.K. Das Publication, New Delhi
- 4) Mukharji S.K: 1986 Prostitution in India, Inter India publication, New Delhi.
- 5) Forman A. (1977) Family as Alienation Women and Family in Marxian and Psychoanalysis London
- 6) Naik J.P (1978) Equality and Quality and Quality the Elusive Triangle in India Education, Allied Publication, New Delhi.
- 7) Desai N and Krishnaraj (1987) : Women and Society
- 8) Prithvi Nath Tikoo (2005) Indian Women: A Brief Social Cultural.
- 9) Saxena S. (2005): Crimes against Women and Protective Laws: Deep and Deep Publications Pvt. Ltd, New Delhi.
- 10) Goel Aruna (2005): Education and Socio Economic perspectives of Women Development and Empowerment
- 11) Samanta R.K (2005): Empowering Rural Women: Issues opportunities and Approaches B.R . World of books.

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES AND RESEARCH IN SOCIOLOGY**

**Ph.D. SYALLABUS**  
**PAPER-III Area specialization: Sociology of Development**  
**(With Special Reference to Youth Development)**

**Research Guide: Dr. Hanamagouda C.**

**Researcher: Kallappa Handigund**

**I. Introduction:**

- a. Historical development of sociology of development
- b. Meaning, scope and importance of sociology of development
- c. Concept-Human development, Social Development and sustainable development
- d. Approaches to the study of sociology of development and its methods

**II. Theories of development:**

- e. Structural- functional theories
- f. Socio-Psychological theories (MacLelland)
- g. The Stages of Growth Model (Rostow) and Unequal Development ( Samir Amin)
- h. The World System (Waller Stein), Development of under Development (A.G.Frank ) and Trends in Development Theory (J.N.Pieterse)

**III. Family, Youth and society:**

- a. Approaches of youth development-social, cognitive, physical and Cultural Development
- b. Demographic profile and aspects of demographic dividend
- c. The role of family and society in socialization of youth
- d. Contemporary trends in youth

**IV. Youth Development:**

- a. Meaning, Nature and its out look
- b. Youth development in history
- c. Indicators of youth development
- d. Hindrances of youth development

**V. Policy and Programmes (With special reference to Karnataka):**

- a. Policies and Programs for youth development
- b. Vocational training programmes
- c. The role of Government, NGO's, CBO's, for youth development
- d. Survey of youth development studies

**References:**

- **Alexander K.C. AND Kumaran,K.P. (1992)** -Culture and Development ,New Delhi, Sage.
- **Conger,John Janeway (1977)**-Adolecence and youth , Harper and row.
- **Desai, B.G. (1967)**- The Emerging Youth, Bombay: popular prakashana.
- **Gomez(LS) and Ribero(L) (1976)**-Youth participation in the development progress,Unesco,Paris
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- **Haq,Mahabubul.(1990)**- Reflections on Human Development, Karachi, Oxford.
- **Hoogvelt, Ankie M. (1996)** -The Sociology of Developing Societies, Delhi. MacMillan.
- **Hoselitz, Bert F. (1996)** -Sociological Aspects of Economic Growth, New Delhi, Amerind Publishers.
- **Ian Roxborough (1979)** -Theories of Underdevelopment, Macmillan, London.

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- **Klausmeier, Herbert (1978)**- Cognitive development of children, Academic publisher, New York.
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- **Pandey, Rajendra (1985)** - Sociology of Development, New Delhi, Mittal.
- **Pandey, Rajendra (1986)**- Sociology of Underdevelopment, New Delhi, Mittal.
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- **Webster, Andrew (1988)**- Introduction to the Sociology and Development, New Delhi, Macmillan.
- **WB, Author (2007)**- Caribbean youth development, WB, Washington.
- **Zimmerman, Carle C. & Richard E. Duwords (eds) (1976)**- Sociology of Underdevelopment, Jaipur, Rawat.

- 5.1 Legal provisions of family Transition
- 5.2 Rural and Urban Development Programmes
- 5.3 The role of NGO's,CBO's and Institutions in family transition
- 5.4 Family related Programmes
- 5.5 Survey of literature on Family transition

## REFERENCES

- Augustine, J.S., 1982 **"Indian Family in Transition"**; (ed) New Delhi; Vikas Publication.
- Ahuja, Ram. 1993 **"Indian Social System"**; Rawat Publication; New Delhi.
- A.R.Desai(Ed) [1978.]. **"Rural Sociology in India"**, Bombay, Popular.
- A.E.PUnit[-1978.] **"Social Systems in Rural India"**, Delhi, Sterling.
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- Ramu, G.N., 1977 **"Family and Caste in Urban India"**; Delhi, Vikas Publications.
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- S.L.Doshi & P.C.Jain[ 1999] **"Rural Sociology"**, Jaipur, Rawat.
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**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN SOCIOLOGY**  
**Ph.D. SYALLABUS**

**PAPER-III Area specialization: Sociology of Development**  
**(Society, Entrepreneurship and Development)**

**Research Guide: Dr. Hanamagouda C.**

**Researcher: C. S. Toti**

**I: Introduction:**

- a. Meaning, scope and Importance of Sociology of Development
- b. Dimensions of Development
- c. Conceptual Perspectives—Human Development, Social Development and Sustainable development
- d. Theories of development –Structural- functional, Socio-Psychological , Stages of Growth Model (Rostow), Unequal Development ( Samir Amin),The World System (Waller Stein), Development of under Development (A.G.Frank) and Trends in Development Theory (J.N.Pieterse)

**II: Entrepreneurship Development:**

- a. Meaning ,nature and importance of Entrepreneurship Development
- b. Factors—Socio-Economic, Cultural and Technological
- c. Historical process of Entrepreneurship Development
- d. Indices

**III: Socio-Economic Growth:**

- a. Concept ,nature and factors of Growth
- b. Forms of Entrepreneurship
- c. Scenario of Economic Growth-Global and Indian context
- d. Socio –economic growth and Entrepreneurship Development

**IV: Social dynamics of Entrepreneurship:**

- a. Indices of Social dynamics of Entrepreneurship
- b. Recent trends and patterns of Social dynamics of Entrepreneurship
- c. Survey of Entrepreneur development and Social dynamics of Entrepreneurship studies

**V: Policy and Programmes:**

- p. The role of NGO's, CBO's, W.A. for Entrepreneur development
- q. Developmental policies in India
- r. Political economy of Development

**References:**

- **Alexander K.C. AND Kumaran,K.P. (1992)** -Culture and Development ,New Delhi, Sage.
- **Haq,Mahabub ul.(1990)**- Reflections on Human Development, Karachi, Oxford.
- **Hoogvelt, Ankie M. (1996)** -The Sociology of Developing Societies, Delhi. MacMillan.
- **Hoselitz, Bert F. (1996)** -Sociological Aspects of Economic Growth, New Delhi, Amerind Publishers.
- **Ian Roxborough (1979)** -Theories of Underdevelopment, Macmillan, London.
- **Pandey, Rajendra (1985)** - Sociology of Development, New Delhi, Mittal.
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- **Rostow,W,W, (1960)** -The Stages of Economic Growth, London.
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**KARNATAK UNIVERSITY DHARWAD**  
**Department of Sociology, Dharwad**  
**PhD programme-2015**  
**Course work syllabus**

**Subject: sociology of culture and change**

Research Guide: Dr.Shakuntala. C.Shettar

Research Student: Latha S M

**Module-1: Introduction**

- Culture- meaning, Definitions
- Elements of Culture
- Characteristics of culture
- Role of Culture in society

**Module-2: Aspects of Culture**

- Explicit and implicit culture
- Ethnocentrism
- Xenocentrism
- Acculturation
- Cultural lag
- Cultural diffusion
- Culture conflict and cultural shock
- sub cultures and counter cultures

**Module-3: Theoretical approaches of culture and change**

- P. Sarokin
- Immanuel Kant
- M N Srinivas
- Yogendra Singh

**Module-4: Culture and change in India**

- Historical background
- Culture, tradition and modernity
- Cultural changes in modern India
- Cultural diffusion in India
- Education and Culture
- Immigration and Culture.

**References:**

1. Harry.M.Johnson-sociology, allied publishers limited. New Delhi.
2. Massood Ali Khan (2006) cultural sociology of India. Neha publishers and Distributers.
3. Baris Erasov and Yogendra Sing (2006)- "The sociology of Culture' Rawat Publication .New Delhi.
4. Green A.W, (1964) 4th edition - sociology -Analysis of life in modern society.
5. Ogburn and Nimkoff (1964)- A handbook of sociology, Eurasia publishing of house pvt. Ltd New Delhi.
6. Ram Ahuja - Indian social system - Danika publishing company newDehli
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8. Petrim Sarokin (1962) social and cultural Dynamics., transaction publishers.

**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2016**  
**PAPER-III (Area of Specialization): SOCIAL STRATIFICATION AND MOBILITY**

**Prof. Dhruva B. Jyothi**  
**Research Guide,**

**Murali Naganavi**  
**Research Student.**

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**Chapter I: Introduction**

- 1.5 Meaning and Characteristics and process of Social stratification
- 1.6 Importance of Social Stratification
- 1.7 Development of Class
- 1.8 The criteria of Class Distinction

**Chapter II: Approaches to Study of Social Stratification**

- 2.1 Functionalist Approach – Kingsley Davis, Wilbert Moore, Talcott Parsons and Melvin tummine
- 2.2 Marxian Approach
- 2.3 Webrian Approach

**Chapter III: Stratification in Indian Society**

- 3.1 The meaning of Caste, Class, Tribe.
- 3.2 The origin of the Caste System; Features and Changing patterns.
- 3.3 Theories of origin of Caste (Three Perspective)
  - i) Indo-religious perspective
  - ii) The cultural perspective
  - iii) Sociological perspective
- 1.7 Relation between Caste and Class
- 1.8 Definition and distribution of Schedule Tribes
- 1.9 Tribal problems, Policy, and welfare

**Chapter IV: Social Mobility**

- 4.1 Concept of Social Mobility
- 4.2 Types of Social Mobility
- 4.3 Amount of Mobility
- 4.4 Determinates and Factors A Social Mobility

**Chapter V: Theories of Social Mobility**

- 5.1 Functional Theories: P Sorkin
- 5.2 Demographic -Theories - H. Dumont

### REFERENCES

13. A.R. Radcliffe Brown: Structure and Function in Primitive Society, Cohen & West Ltd London, 1952.
14. Murdock G.P: Social Structure, Free Press, New York 1965.
15. Nadel, S.F. : Theory of Social Structure, Cohen & West Ltd, London. 1962.
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17. Merton. R. K.: Social Theory and Social Structure, Amrind Publishing, New Delhi, 1968.
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19. Mead. G.H.: Mind, Self and Society, the University of Chicago Press, New York, 1934.
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22. Srinivas, M. N.: Social Change in Modern India, Allied Publishers, Bombay, 1966.
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**KARNATAK UNIVERSITY DHARWAD**  
**DEPT OF SOCIOLOGY**  
**Ph.D Course Work Syllabus in Sociology 2020**

**PAPER-III (Area of Specialization): SOCIOLOGY OF TRIBE (Jenukuruba)**

**Dr. Subhashchandra C. Natikar**  
**Research Guide,**

**Ramesh Karamudi**  
**Research Student.**

**Unit I. Introduction**

- a. The rationale of studying tribal society.
- b. Meaning, nature, scope and significance of sociology of tribes.
- c. Origin and development of tribal sociology.
- d. Sociology of tribes in India: a perspective.

**Unit II. Tribes in India: their classification**

- a. Geographical distribution.
- b. Linguistic composition.
- c. Racial diversities.
- d. Economic differences.
- e. Cultural organization of tribes in India.

**Unit III. Ethnographic profiles of selected Indian tribes**

- a. The Todas (Pastoralists).
- b. The Bedas (Hunter-ruling).
- c. The Khasi (Matrilineal and Matriarchal).
- d. The Koragas of Karnataka (Primitive).

**Unit IV. JenuKuruba of Karnataka**

- a. Family and marriage of JenuKuruba.
- b. Socio-economic conditions of JenuKuruba.
- c. Education and political awareness of JenuKuruba.
- d. Government policies and programs of JenuKuruba.

***Essential References:***

- Nadema Hasnain, 2011, Tribes India, PalakaPrakashana, New Delhi
- Ghurye G.S., 1963. The scheduled Tribes, Popular Prakashan, Bombay.
- Kuppaswamy (2010) Social change in India, Konark Publishers Pvt. Ltd, New Delhi.
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**KARNATAK UNIVERSITY,**

**DHARWAD**



# **Regulations and Syllabus**

**Department of Studies in**

**STATISTICS**

**(I to IV Semester)**

**CHOICE BASED CREDIT**

**SYSTEM**

**With effect from 2013 – 14**

## **PREAMBLE**

The Post Graduate Department of Statistics is one of the earliest Department established in Karnatak University, Dharwad. It was established in the year 1951. To begin with, this Department was started with a modest faculty and over the last seven decades, the Department has grown into a major center of Teaching and Research in Statistics. The Department had special assistance Programs for Theoretical Research in Statistics viz., COSIST Phase I & II, DRS Phase I, II & III sanctioned by UGC and FIST Programme by DST.

The Computer Laboratory and well established Statistical Library bear ample testimony to the growing strength of the Department. The department supports various academic activities of the University. At present the Department offers the following Courses:

1. **M.A/ M. Sc. in Statistics (Two years: Four Semesters)**
2. **M.Phil. in Statistics (Minimum One Year)**
3. **Ph. D in Statistics (Minimum Three Years)**

**The Department offers two Open Elective Courses for Post Graduate Students across faculty.**

- i) **Statistical Methods (for II<sup>nd</sup> Semester)**
- ii) **Applied Statistics (for III<sup>rd</sup> Semester)**

### **c) Specialization Papers:**

#### **Semester-II**

STCT: 2.3: Demography

STCT: 2.4: Actuarial Statistics

#### **Semester-III**

STCT: 3.4: Operations Research

STCT: 3.5: Econometrics

## **PG86: M.A/M. Sc. in Statistics**

### **PROGRAMME OUTCOMES**

Post graduates of Statistics programme will:

1. Have broad knowledge of theoretical statistics and its applications in various study disciplines.
2. Have in depth knowledge about different branches of statistics offered by the department.
3. Acquire computational skills.
4. Develop the abilities to analyse the data of econometric, biological, social science, actuarial, demographic, epidemic, financial etc.
5. Be able to conduct field surveys.
6. Have professional outlook and attitude as academicians, data analysts, researchers.

### **Course Codes for M.A/M.Sc. in Statistics**

| <b>I –SEMESTER</b> | <b>II –SEMESTER</b> | <b>III –SEMESTER</b> | <b>IV –SEMESTER</b> |
|--------------------|---------------------|----------------------|---------------------|
| PG86T101           | PG86T201            | PG86T301             | PG86T401            |
| PG86T102           | PG86T202            | PG86T302             | PG86T402            |
| PG86T103           | PG86T203A           | PG86T303             | PG86T403            |
| PG86T104           | PG86T203B           | PG86T304A            | PG86T404            |
| PG86P101           | PG86T203C           | PG86T304B            | PG86P401            |
| PG86P102           | PG86P201            | PG86T304C            | PG86P402            |
| PG86P103           | PG86P202            | PG86P301             | PG86P403            |
| PG86P104           | PG86P203A           | PG86P302             |                     |
|                    | PG86P203B           | PG86P303             |                     |
|                    |                     | PG86P303A            |                     |
|                    |                     | PG86P303B            |                     |

**COURSE STRUCTURE AND SCHEME OF EXAMINATION FOR SEMESTER I, II, III AND IV**  
**SEMESTER – I      THEORY**

| Sl. No.           | Paper Code No. and Title |                                 | Credits | No. of Hrs/ Theory/ | Duration of Exam in Hrs Theory/ Practical | Internal Assessment Marks Theory/ Practical | Marks at the Exams | Total Marks |
|-------------------|--------------------------|---------------------------------|---------|---------------------|-------------------------------------------|---------------------------------------------|--------------------|-------------|
| 1                 | PG86T101                 | Liner Algebra                   | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 2                 | PG86T102                 | Probability Theory              | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 3                 | PG86T103                 | Theory of Sampling              | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 4                 | PG86T104                 | Programming in C and Simulation | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| <b>PRACTICALS</b> |                          |                                 |         |                     |                                           |                                             |                    |             |
| 1                 | PG86P101                 | (Based on PG86T101)             | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 2                 | PG86P102                 | (Based on PG86T102)             | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 3                 | PG86P103                 | (Based on PG86T103)             | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 4                 | PG86P104                 | (Based on PG86T104)             | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |

**SEMESTER – II**

| Sl. No.                                                       | Paper Code No. and Title |                            | Credits | No. of Hrs/ Theory/ | Duration of Exam in Hrs Theory/ Practical | Internal Assessment Marks Theory/ Practical | Marks at the Exams | Total Marks |
|---------------------------------------------------------------|--------------------------|----------------------------|---------|---------------------|-------------------------------------------|---------------------------------------------|--------------------|-------------|
| 1                                                             | PG86T201                 | Probability Distributions  | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 2                                                             | PG86T202                 | Theory of Point Estimation | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| <b>Any one of the Specialization</b>                          |                          |                            |         |                     |                                           |                                             |                    |             |
| 3                                                             | PG86T203A                | Demography                 | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 4                                                             | PG86T203B                | Actuarial Statistics       | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 5                                                             | PG86T203C                | Statistical Methods        | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| <b>PRACTICALS</b>                                             |                          |                            |         |                     |                                           |                                             |                    |             |
| 1                                                             | PG86P201                 | (Based PG86T201)           | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 2                                                             | PG86P202                 | (Based PG86T202)           | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| <b>Any one (Corresponding to Specialization Theory Paper)</b> |                          |                            |         |                     |                                           |                                             |                    |             |
| 3                                                             | PG86P203A                | (Based PG86T203A)          | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 4                                                             | PG86P203B                | (Based PG86T203B)          | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |

### SEMESTER – III

| Sl. No.                                                       | Paper Code No. and Title |                                     | Credits | No. of Hrs/ Theory/ | Duration of Exam in Hrs Theory/ Practical | Internal Assessment Marks Theory/ Practical | Marks at the Exams | Total Marks |
|---------------------------------------------------------------|--------------------------|-------------------------------------|---------|---------------------|-------------------------------------------|---------------------------------------------|--------------------|-------------|
| 1                                                             | PG86T301                 | Elementary Stochastic Processes     | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 2                                                             | PG86T302                 | Testing Hypotheses                  | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 3                                                             | PG86T303                 | Statistical Oriented R- Programming | 2       | 2                   | 2                                         | 10                                          | 10                 | 50          |
| <b>Any one of the Specialization</b>                          |                          |                                     |         |                     |                                           |                                             |                    |             |
| 4                                                             | PG86T304A                | Operations Research                 | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 5                                                             | PG86T304B                | Econometrics                        | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 6                                                             | PG86T304C                | Applied Statistics                  | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| <b>PRACTICALS</b>                                             |                          |                                     |         |                     |                                           |                                             |                    |             |
| 1                                                             | PG86P301                 | (Based on PG86T301                  | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 2                                                             | PG86P302                 | (Based on PG86T302)                 | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 3                                                             | PG86P303                 | (Based on PG86T303)                 |         |                     |                                           |                                             |                    |             |
| <b>Any one (Corresponding to Specialization Theory Paper)</b> |                          |                                     |         |                     |                                           |                                             |                    |             |
| 3                                                             | PG86P303A                | (Based on PG86T304A)                | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 4                                                             | PG86P303B                | (Based on PG86T304B)                | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |

### SEMESTER – IV

| Sl. No. | Paper Code No. and Title |                          | Credits | No. of Hrs/ Theory/ | Duration of Exam in Hrs Theory/ Practical | Internal Assessment Marks Theory/ Practical | Marks at the Exams | Total Marks |
|---------|--------------------------|--------------------------|---------|---------------------|-------------------------------------------|---------------------------------------------|--------------------|-------------|
| 1       | PG86T401                 | Multivariate Analysis    | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 2       | PG86T402                 | Linear Models            | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 3       | PG86T403                 | SQC & Reliability Theory | 4       | 4                   | 3                                         | 25                                          | 75                 | 100         |
| 4       | PG86T404                 | Project                  | 6       | 8                   | Presentation<br>50 Marks                  | 25                                          | 75                 | 150         |
| 5       | PG86P401                 | (Based on PG86T401)      | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 6       | PG86P402                 | (Based on PG86T402)      | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |
| 7       | PG86P403                 | (Based on PG86T403)      | 2       | 4                   | 4                                         | 10                                          | 40                 | 50          |

**SYLLABUS**  
**M.A / M.Sc PROGRAMME IN STATISTICS UNDER SEMESTER WISE**  
**CHOICE BASED CREDIT SYSTEM (CBCS) FROM THE ACADEMIC YEAR**  
**2013-2014**

**SEMESTER- I**  
**PG86T101: LINEAR ALGEBRA**

**PG86T101: Linear Algebra-Course Outcomes**

After completion of the course, the candidate will:

1. have a thorough knowledge in various aspects of linear algebra
2. have in depth knowledge in basics of vector algebra
3. have ability to use important tools such as determinants, rank, inverse and generalized inverse in statistics.
4. Acquire the knowledge of linear transformations, orthogonal bases and projections
5. Study the importance and methodologies of calculating eigen values and eigen vectors
6. have ability to understand and solve emerging research problems using the tools studied in linear algebra

**UNIT – 1:**

Vector spaces, subspaces, linear dependence and independence, basis and dimension of a vector space, finite dimensional vector spaces, completion theorem, examples of vector spaces over real and complex fields, linear equations.

10T + 12P

**UNIT – 2:**

Vector spaces with an inner product, Gram- Schmidt orthogonalisation process, orthonormal basis and orthogonal projection of a vector, linear transformations.

10T + 8P

**UNIT – 3:**

Algebra of matrices, row and column spaces of a matrix, elementary matrices, determinants, rank and inverse of a matrix, null space and nullity, partitioned matrices, Kronecker product.

Hermite canonical form, generalized inverse, Moore - Penrose inverse, idempotent matrices, solution of matrix equations.

10T + 12P

**UNIT – 4:**

Characteristics roots and Vectors, Cayley - Hamilton theorem, minimal polynomial, similar matrices algebraic and geometric multiplicity of characteristics roots, spectral

decomposition of a real symmetric matrix, simultaneous reduction of a pair of real symmetric matrices, Hermitian matrices, singular values and singular decomposition, Jordan decomposition.

10T + 8P

#### **UNIT – 5:**

Real quadratic forms, reduction and classification of quadratic forms, index and signature, triangular reduction of a positive definite matrix. extrema of quadratic forms, vector and matrix differentiation.

8T + 8P

**(50 Lectures)**

#### **REFERENCES:**

1. Biswas, S (1984) Topics in Algebra of matrices
2. Graybill, F. A (1983) Matrices with applications in statistics, 2<sup>nd</sup> edition, Wadsworth.
3. Hadley, G (1987) Linear Algebra, Narosa
4. Rao, A. R and Bhimasankaram P (1992) Linear Algebra, Tata McGraw Hill .
5. Rao, C.R (1973) Linear statistical Inference and its applications, 2nd ed. Wiley.
6. Rao, C.R and Mitra, S.K (1971) Generalised inverse of matrices and its applications, Wiley
7. Searle, S. R. (1982) Matrix Algebra Useful in Statistics, Wiley.
8. Raghava Rao (1972) Matrix Theory, Oxford and IBH Publishing Company.

#### **Practical : PG86P101: Linear Algebra-Course Outcomes**

Gains understanding of the tools of linear equations, generalized inverse, eigen values and eigen vectors, various quadratic forms, diagonalization of a real symmetric and also simultaneous diagonalization of real matrices using statistical softwares.

#### **PG86T102: PROBABILITY THEORY**

#### **PG86T102 : Probability Theory-Course Outcomes**

On completion of this course students will:

- Understand the concepts of random variables, sigma-fields generated by random variables, probability distributions and independence of random variables related to measurable functions.
- have knowledge about measurable functions, Lebesgue measure, Lebesgue – Stieltjes measure.
- Analyze modes of convergence, knowledge about convergence in probability, convergence in distribution function and almost sure convergence.

- Understand weak and strong laws of large numbers, prove Borel-Cantelli lemmas and central limit theorem.

#### **UNIT – 1:**

Classes of sets, fields, sigma field, minimal sigma field, Borel sigma field in  $\mathbb{R}^k$ , sequence of sets, limit infimum and limit supremum of a sequence of sets.

8T + 8P

#### **UNIT – 2:**

Measure, probability measure, properties of measure, Cartheodary extension theorem (Statement only), monotone class theorem (statement only), Lebesgue and Lebegue Stieltje's measures on  $\mathbb{R}^k$ .

8T + 12P

#### **UNIT – 3:**

Measurable functions, random variables, sequence of random variables;, convergence in probability (and in measure) almost sure convergence, convergence in moments, convergence in distribution. Monotone convergence theorem, Fatou's Lemma, dominated convergence theorem.

12T + 12P

#### **UNIT – 4:**

Characteristic functions, uniqueness theorem, Levy continuity theorem (statement only). Independence, weak law of large numbers, Borel – Cantelli lemma, strong law of large numbers for a sequence of random variables,

14T + 8P

#### **UNIT – 5:**

Central limit theorem for a sequence of independent random variables under Lindberg's condition and for a sequence of i i d random variables.

8T + 8P

(50 Lectures)

#### **REFERENCES:**

1. Bhat, B.R. (1981), Modern Probability Theory, Wiley Eastern
2. Billingsley, S (1979), Probability and Measure, Wiley
3. Chow, Y.S. and Teicher, H (1979) Probability theory, Narosa
4. Dudley R.M. (1989) Real Analysis and Probability, Wadsworth & Brooks/Cole.
5. Kingman, J.F.C. and Taylore S.J. (1966), Introduction to measure and probability, Cambridge University Press.
6. A.K. Basu (1999), Measure Theory and Probability, PHI

### **Practical : PG86P102 Probability Theory-Course Outcomes**

Based on theory knowledge students are able to solve practical problems independently.

### **PG86T103: THEORY OF SAMPLING**

#### **PG86T103 : Theory of Sampling-Course Outcomes**

After studying this course, the candidate will be:

- Able to take up a project to collect primary data.
- Able to prepare questionnaires, plan the scheme of the survey, train investigators, tabulate and disseminate data.
- Able to identify the nature of population sampling methodology to be adopted and recognize right tool for analysis.
- Able to handle various kinds of non sampling errors to collect non erroneous data.
- Able to carry out sampling surveys on sensitive issues.

#### **UNIT – 1:**

Concept of Random Sampling, Sampling Design, Sampling Scheme and Sampling Strategy. Review of SRSWR, SRSWOR, Stratified and Systematic Sampling Procedures.

12T & 12P

#### **UNIT – 2:**

Sampling with varying probabilities: Procedures of selecting sample, PPSWR, PPSWOR, Desraj's Ordered Estimates, Murty's unordered Estimates. I P P S: Horvitz – Thompson Estimator and its properties, Midzuno – Sen scheme of sampling, Rao – Hartly – Cochran procedure.

13T + 12P

#### **UNIT – 3:**

Ratio and Regression Estimators with their properties. Cluster sampling, Sub sampling with units of equal and unequal sizes. Double sampling procedures used in Ratio, Regression estimators and in stratification and PPS sampling.

13T + 16P

#### **UNIT – 4:**

Non Sampling Errors: Errors in Surveys, Model for measurement of observational error. Nonresponse error: Hansen – Hurwitz, Deming's, Politz - Simons Techniques. RRT: Warner's Model.

12T & 8P

**(50 Lectures)**

**REFERENCE:**

1. Cochran W.G. (1984) Sampling Techniques. Wiley Eastern, New Delhi.
2. Desraj (1976) Sampling Theory. Tata Mc. Graw Hill.
3. Mukhyopadhyay. P (1998) Theory and Methods of Survey Sampling. Prentice Hall of India Pvt. Ltd.
4. Murthy M.N. (1977) Sampling Theory and Methods. Statistical Publishing Society, Calcutta.
5. Singh and Chaudhary F.S. (1986) Theory and Analysis of Sample Survey Designs. Wiley Eastern New Delhi.
6. Sukhatme P.V. Sukhatme B.V. Sukhatme S. and Ashok C (1984) Sampling Theory of Surveys with Applications. Indian Society of Agricultural Statistics, New Delhi.

**Practical : PG86P103 : Theory of Sampling-Course Outcomes**

The candidate will acquire knowledge on selecting random samples under sampling scheme like SRS and PPS. Calculating various estimators and their precisions.

**PG86T104: PROGRAMMING IN C AND SIMULATION****PG86T104 : Programming in C and Simulation-Course Outcomes**

After studying this course, the candidate will:

- be able to develop logic of problem solving.
- Develop C-Programs for problems of different branches of statistics.
- Acquire knowledge of higher/advanced features C-Programming.
- Artificially simulate various environments.

**UNIT – 1:**

Programming in C: Structure of C Programme, Variables, Data types, Operations and Expressions. Input – Output functions and Format specification.

10T &12P

**UNIT – 2:**

Control statements: do, do-while and for loops. if, if-else and switch statements. Arrays, Functions, Pointers, Structures, Unions, File handling, C – Processors, C – Standard, Library and Header files.

25T & 20P

**UNIT – 3:**

Simulation: Generation of Binomial, Beta, Geometric Exponential, Poisson, Normal Random Variables. Statistical Applications- using C-Programming Language.

15T & 16P

(50 Lectures)

**REFERENCE:**

1. Kerighan and Ritchie (1997). The C-Programming Language. PHI
2. E-Balaguruswamy (1990) Programming in C McGraw- Hill.
3. J. Jayasri (1992) The C-Language Trainer with C-Graphic and C++ Sage India Ltd.

**Practical : PG86P104 : C-Programming Practical-Course Outcomes**

Demonstrates understanding of logic, syntax and working of C-programs on various aspects of statistical Analysis and simulation of statistical Models.

**Semester – II**

**PG86T201: PROBABILITY DISTRIBUTIONS**

**PG86T201 : Probability Distributions- Course Outcomes**

On completion of this course students will be able to:

- Understand the most common discrete and continuous probability distributions and their real life applications.
- Compute marginal and conditional distributions from joint distributions.
- Get familiar with transformation of univariate and multivariate densities. Understanding of distribution helps to understand the nature of data and to perform appropriate analysis.
- Acquire the application knowledge of compound, Truncated, mixture and non-central probability.

**UNIT – 1:**

Standard discrete distributions: Bernoulli, Binomial, Poisson, Geometric, Hypergeometric, Negative binomial, Logarithmic series, Rectangular and Multinomial distributions.

12T & 12P

**UNIT – 2:**

Standard continuous distributions: Normal, Lognormal, Cauchy, Uniform, Exponential, Logistic, Weibull, Double exponential, Gamma, Bivariate normal, Bivariate exponential distributions.

12T & 12P

### **UNIT – 3:**

Conditional, Compound, Truncated and Mixture of distributions. Functions of random variables and their distributions.

6T & 8P

### **UNIT – 4:**

Sampling Distributions: Central and Non-central chi-square, t and F distributions and their properties. Distribution of quadratic forms under normality.

12T & 8P

### **UNIT – 5:**

Order Statistics: Distributions of order statistics and their properties with applications. Joint and Marginal distributions of order statistics. Distributions of range and median.

8T & 8P

**(50 Lectures)**

### **REFERENCE:**

1. Dudewicz E.J and Mishra S.N. (1988) Modern Mathematical Statistics. Wiley
2. Johnson and Kotz (1972) Distributions in Statistics, Vol I, II and III, Houghton and Mifflin
3. Rohatgi, V.K. (1984) An Introduction to Probability Theory and Mathematical Statistics, Wiley Eastern
4. Rao, C.R. (1973) Linear Statistical Inference and its applications, 2<sup>nd</sup> Edn. Wiley Eastern.

### **Practical: PG86P201 Probability Distributions-Course Outcomes**

Course Outcomes : Based on theory knowledge students are able to do practical problems independently.

### **PG86T202: THEORY OF POINT ESTIMATION**

### **PG86T202 : Theory of Point Estimation-Course Outcomes**

On completion of this course, the candidate will:

- Learn various aspects of estimation including characteristics of an estimator.
- Have knowledge on various families of distributions and their advantages in obtaining estimators.
- Learn different methods of estimation and their advantages.
- Develop a logic to analyse the situation and apply appropriate statistics tools.

### **UNIT – 1:**

Likelihood Function, Group Families, Exponential class of densities and its properties, Fisher Information, Sufficiency, Neyman – Fisher factorization Theorem, Minimal sufficient statistics and their construction, Completeness, bounded completeness and relation with minimal sufficiency, ancillary statistics, Basu's Theorem and its Applications.

20T & 20P

### **UNIT – 2:**

Unbiased Estimators, Characterization of UMVUE, Rao – Blackwell and Lehmann – Scheffe Theorem and their uses.

8T & 8P

### **UNIT – 3:**

Cramer- Rao inequality for single parameter case, Chapman - Robbins bounds and Bhattacharya bounds.

7T & 8P

### **UNIT – 4:**

Methods of Estimation: Method of moments, method of minimum chi-square, method of maximum likelihood and its properties, Method of scoring and its applications. Asymptotic efficiency of MLE, CAN and BAN estimators.

15T & 12P

**(50 Lectures)**

### **REFERENCES:**

1. Kale B.K (1999) A first course on parametric inference. Narosa.
2. Lehmann E. L (1988) Theory of point estimation. John Wiley & Sons
3. Rohatgi V.K (1984) An introduction to probability theory mathematical Statistics. Wiley eastern, New Delhi.
4. Zacks, S (1971) Theory of Statistical Inference. Wiley, Newyork.

### **Practical : PG86P202 : Theory of Point Estimation –Course Outcomes**

On completion of this course, the candidate learns the technique of:

- 1) Computing various estimators under different situations.
- 2) Will learn different approaches to obtain estimators using various methods.

### **Any one of the Optional PG86T203: DEMOGRAPHY – Special Paper**

### **PG86T203A: Demography-Course Outcomes**

On completion of this course, the candidate will:

- have information regarding sources and methods of demographic data.
- acquire in depth knowledge of various measures of mortality and fertility.

- have ability to conduct socio-economic survey using tools such as sample survey and vital statistics registration system.
- Acquire the knowledge of construction of life tables for various categories of demography.
- Study the importance and methodologies of population growth and projections.
- Develop the ability to understand and solve emerging research problems.

#### **UNIT – 1:**

Demography and its interdisciplinary nature, sources of demographic data, Coverage and Content errors. The use of balancing equation, Chandrasekaran and Deming formula to check completeness of registration data. Use of Whipple's, Myers's and UN Indices.

12T & 12P

#### **UNIT – 2:**

Measures of Mortality: Various measures of mortality, infant mortality rate, cause specific death rates and standardized death rates. Measures of Fertility: Period and cohort fertility measures, use of birth order statistics, child – women ratio, Brass P/F ratio to estimate current levels of fertility, Measures of reproduction and replacement. Sheps and Perrin stochastic human reproductive process.

15T & 16P

#### **UNIT – 3:**

Life Tables: Types of life tables, inter – relationships between life table functions, construction of life tables using Reed – merrel and Greville's Method. Probability distribution of life table functions and their optimum properties. Population estimation and Projections: Mathematical, Statistical and Demographic Methods, Component method.

15T & 12P

#### **UNIT – 4:**

Stable and Quasi – stable population: Derivation of Lotka's stable population model and its properties, Intrinsic growth rate and its derivation, age structure and birth rate of a stable population, mean length of generation, momentum of population growth, Quasi – stable population under changing fertility and mortality situations.

10T & 4P

**(50 Lectures)**

#### **REFERENCES:**

1. Shryock, Henry S, Jacob S, Siegel and Associates (1964) Methods and materials of demography (condensed edition) Academic press, London.
2. Barclay, George W. (1968) Techniques of population analysis, John Wiley and sons, New York.

3. Keyfitz N. (1968), Introduction to the Mathematics of Population. Addison-Wesley Publishing Co, Reading, Massachusetts.
4. Chiang C.L. (1968), Introduction to stochastic processes in Biostatistics, John Wiley and sons, New York.
5. R. Ramkumar (1986), Technical Demography, Wiley Eastern, New Delhi.
6. Sudhendu Biswas (1988), Stochastic Processes in Demography and Applications, Wiley Eastern, New Delhi.

### **Practical : PG86P203A: Demography-Course Outcomes**

Provides framework of different sources and methods of demographic data and facilitates, the knowledge of various measures for data on births and deaths, also the applications of these measures in finding life expectancy, population projections, calculation growth rates etc.

### **PG86T205: ACTUARIAL STATISTICS – Special Paper**

#### **PG86T203B : Actuarial Statistics-Course Outcomes**

On completion of this course, the candidate will:

- Learn various aspects of insurance and utility functions.
- Have knowledge on various insurance policies and calculation of their premiums.
- Have in-depth knowledge in computing life annuities, benefits premiums and benefit reserves.
- Help insurance companies to develop new advantageous policies.

#### **UNIT – 1:**

The Economics of insurance: Utility theory, insurance and utility, elements of insurance, optimal insurance. Individual risk models for a short term; Models for individual claim random variables, sums of independent random variables, approximations for the distribution of the sum, application to insurance.

10T & 12P

#### **UNIT – 2:**

Survival distributions and Life tables: Probability for the age at death, the survival function, time until death for a person age  $x$ , Curtate-Future-Life times, force of mortality, relation of life table functions to the survival function. The deterministic survivorship group, other life table characteristics recursion formulae, assumptions for fractional ages, some analytical laws of mortality, select and ultimate tables.

10T & 12P

#### **UNIT – 3:**

Life Insurance: Insurance payable at the moment of death, level benefit insurance, Endowment insurance, Deferred insurance, Varying benefit insurance, insurance payable at the end of the year of death, Relationship between insurance payable at the moment of death and at the end of the year of death, Differential equations for insurance payable at the moment of death.

10T & 12P

**UNIT – 4:**

Life Annuities: Continuous Life annuities, discrete life annuities, life annuities with monthly payment.

Benefit Premiums: Fully continuous premium, fully discrete premiums, true monthly payment premiums.

Benefit Reserves: Fully continuous benefit reserves, other formulas for fully continuous benefit reserves.

10T & 8P

**UNIT – 5:**

Multiple Life Functions: Joint distribution of future Life times, the joint life status, the last- survivor status, copulas, special mortality assumptions, Gompertz and Makeham Laws.

Multiple Decrement Models: Two random variables, random survivorship groups, deterministic survivorship group. Basic relationships inform distribution assumption for multiple decrements.

Collective Risk Models for a Single Period: The distribution of aggregate plans, selection of basic distributions the distribution of N, the individual claim amount distribution.

10T & 4P

**(50 Lectures)**

**REFERENCES:**

1. Newton L Bowers, Jr; Gerber Hans, U; Hickman James, C; Jones Donald A; Nesbitt Cecil, J. (2000) – Actuarial Mathematics – The Society of Actuaries, Schaumburg, Illinois, U.S.A.

**Practical : PG86P205 : Actuarial Statistic**

The candidate will acquire skills :

1. of calculating increment, decrement, enmities, premiums and benefit reserves for various policies.
2. Of recognizing various actuarial models.

**STET: 2.1: STATISTICAL METHODS**  
**(OPEN ELECTIVE)**

**PG86T203C : Statistical Methods-Course Outcomes**

On completion of this course, the candidate will learn:

- Various methods of collecting and organizing data
- Various statistical measures such as population mean and variance.

- Measures of association between two variables.
- Different tests which are applicable to other disciplines.

#### **UNIT – 1:**

Data: Introduction, collection of data, kinds of data, tabulation of data, diagrammatic and graphical representation of data with examples. Measures of central tendency: Introduction, arithmetic mean geometric mean, harmonic mean, median, mode, for grouped and ungrouped data with examples.

10 Hrs

#### **UNIT – 2:**

Measure of dispersion: Introduction, range, quartiles, interquartile range, mean deviation, variance, coefficient of variation for grouped and ungrouped data with examples. Skewness and Kurtosis: Introduction, measures of Skewness and Kurtosis with examples.

10 Hrs

#### **UNIT – 3:**

Concept of Probability: Introduction, different approaches to definition of probability, probability of composite event, addition rule, multiplication rule, Bayes formula. Theoretical probability distributions: Binomial, Geometric, Poisson, Normal, Exponential.

10 Hrs

#### **UNIT – 4:**

Correlation and regression: Scatter diagram, coefficient of correlation, fitting of linear regression, method of least squares, coefficient squares, coefficient of variation, relation between regression and correlation.

10 Hrs

#### **UNIT – 5:**

Testing of Hypothesis: Introduction, parametric tests, one sample and two sample z, t tests, paired t test, F test,  $X^2$  test, test for correlation. Nonparametric tests: Run test, Sign test, Signed rank test, Wilcoxon's rank sum test, and Spearman's test for rank correlation.

10 Hrs

**(50 Lectures)**

**REFERENCE:**

1. Das, M.N. (1993) Statistical Methods and concepts, Wiley Eastern Ltd.
2. Medhi, J (1992) Statistical Methods, New Age International Ltd.
3. Miller, I, Freund J.E. and Johnson R.A. (1992) Probability and Statistics for Engineers. Prentice Hall of India Private Ltd.

**Semester – III****PG86T301: ELEMENTARY STOCHASTIC PROCESSES****PG86T301: Elementary Stochastic Processes-Course Outcomes**

After studying this course,

- The candidate will acquire knowledge of stochastic processes, modeling real life situations through stochastic processes.
- Study stochastic processes like Poisson, pure birth, Yule-Fuly, Birth and Death, Weiner, Branching processes.
- Know how better modeling can be made using stochastic processes.
- Develop critical Analysis capacity through stochastic processes.

**UNIT – 1:**

Introduction to stochastic processes (SP), classification of SP according to state space and time domain. Finite and countable state Markov chains (MC), Chapman – Kolmogorov's equations, calculation of n-step transition probabilities and their limits, stationary distribution, classification of states, transient MC, random walk and gambler's ruin problems.

16T & 16P

**UNIT – 2:**

Continuous time Markov processes: Kolomgorov-Feller differential equation, Poisson process, pure birth process, Yule – Furry process, birth and death processes, Weiner process as a limit of random walks, first passage time and other problems, diffusion process.

14T & 16P

**UNIT – 3:**

Renewal Theory: Elementary renewal theorem and applications, key renewal theorem and its uses, study of residual life time process, discrete time renewal theory.

Stationary process: weakly stationary and strongly stationary processes, spectral decomposition, moving average and auto regressive processes.

14T & 12P

**UNIT – 4:**

Branching process: Galton-Watson branching process, probability of ultimate extinction, distribution of population size, and statistical inference in MC and Markov process.

6T & 4P

**(50 Lectures)**

**REFERENCES:**

1. Medhi J (1994), Stochastic Processes, 2<sup>nd</sup> edn., Wiley Eastern Ltd., New Delhi.
2. Bhat U.N. (1984), Elements of Applied Stochastic processes, 2<sup>nd</sup> edn., Wiley, New York.
3. Basawa I.V. and Prakash Rao B.L.S. (1980) Statistical Inference for stochastic processes, Academic press, New York.
4. Karlin S and Taylor H.M. (1975), A first course in stochastic processes, 2<sup>nd</sup> edn., Academic press, New York.

**Practical : PG86P301 : Elementary Stochastic Processes-Course Outcomes**

Acquaint with use of stochastic Models in different areas of applications of statistics.

**PG86T302: TESTING OF HYPOTHESES****PG86T302: Testing of Hypotheses-Course Outcomes**

After studying this course, the candidate:

- Increases confidence in their ability to formulate different research problems
- Develops ideas and research skills
- Gets in-depth knowledge of various research tools in the form of parametric and non-parametric methods.
- Learns to construct UMA and UMAU confidence intervals, likelihood ratio tests, etc.
- Study the importance of sequential analysis using Wald's SPRT and its functions, OC and ASN.

**UNIT – 1:**

Introduction to testing of hypotheses: size and power of a test. Neyman-Pearson lemma, MP test, MLR Property and UMP test.

10T & 12P

**UNIT – 2:**

Generalization of NP-lemma, UMPU tests, Bounded completeness, Similar regions. Tests with Neyman structure, UMPU test for multi-parameter exponential families. Comparison of two binomial and Poisson populations.

10T & 8P

**UNIT – 3:**

Confidence intervals and their connection with the tests of hypotheses. UMA, UMAU confidence intervals, shortest length confidence intervals.

Likelihood ratio tests, large sample properties. Chi-square goodness-of-fit tests for simple and composite hypothesis.

10T & 12P

#### **UNIT – 4:**

Nonparametric methods-run test, sign test, signed-rank test, median test, Wilcoxon-Mann-Whitney test, Kolmogorov – Smirnov tests, Tests involving rank correlation, Linear rank statistics, Large sample properties and applications.

10T & 8P

#### **UNIT – 5:**

Sequential analysis, need for sequential tests, SPRT and its properties, termination property, fundamental identity and Wald's equation, OC and ASN functions. SPRT for testing hypothesis in binomial, Poisson, normal and exponential distribution-computation of OC and ASN functions.

10T & 8P

**(50 Lectures)**

#### **REFERENCES:**

1. Lehmann E.L. (1986) Testing Statistical Hypothesis, Wiley, New York.
2. Rohatgi V.K. (1984). An Introduction to Probability Theory and Mathematical Statistics. Wiley Eastern, New Delhi.
3. Dudewicz E.J. and Mishra S.N. (1988) Modern Mathematical Statistics, Wiley and Sons, New York.
4. Ferguson T.S. (1967), Mathematical Statistics- Decision Theoretic Approach. Academic Press, New York.
5. Kendall M.G. and Stuart A (1968) Advanced Theory of Statistics, Vol II, Charles Griffin and Co., London.
6. Rao C.R (1973). Linear Statistical inference. Wiley Eastern, New Delhi.
7. Wald A (1947) Sequential Analysis, Wiley New York.
8. Gibbons J.D. (1985). Non Parametric Statistical inference. Marcel Dekkar, New York.
9. Randles R.H. and Wolfe D.A. (1979) Introduction to Theory of Non-Parametric Statistics. Wiley, New York.
10. Cramer H. (1957) Mathematical Methods of Statistics. Princeton University Press, New Jersey.

#### **Practical : PG86P302 : Testing of Hypotheses-Course Outcomes**

It improves their ability to handle and address the research problems in Statistics, Biology, Economics, Sociology, Anthropology etc. Learn applications of parametric and non-parametric methods.

## **PG86T303 : STATISTICAL ORIENTED R – PROGRAMMING**

### **PG86T303 : Statistical Oriented R-Programing-Course Outcomes**

After completion of this course, the candidate will be able to:

- Know various aspect of R-Programming language.
- Write R-Programs for various statistical concepts.
- Carry out simulation to complex statistical problems.
- Use and interpret inbuilt tests in R-programming.

#### **UNIT – 1:**

Introduction to R: R as a Statistical software and language, R preliminaries, methods of data input, data accessing or indexing, built – in functions. Graphics with R, getting help, saving storing and retrieving data.

12T & 16P

#### **UNIT – 2:**

Analysis using R: problems based on descriptive statistics, probability distributions, statistical inference, correlation and regression, linear models and time series analysis.

13T & 32

**(25 Lectures)**

#### **REFERENCES:**

1. Goran Brostrom, Statistical Programming in R, Umea Universitet, Statistiska institutionen, Mandatory Reading instructions: Tillhandahalls elektroniskt.
2. D.M. Smith, W.N. Venables, The R Development Core Team, An Introduction to R.
3. John Braun, Duncan James Murdoch, A First Course in Statistical Programming with R, Cambridge, N.Y: Cambridge University Press: 2007:163s: ISBN: 978-0-521-87265-2 (inb.)
4. Brian D. Ripley, W.N.q (William N.) Venables, S Programming, New York: Springer: cop.2000:x,264s:ISBN: 0-387-98966-8(alk.paper).
5. John M. Chambers, Software for Data Analysis: Programming with R, New York, N.Y: Springer: cop. 2008: 498p: ISBN:978-0387-75935-7(hbk).
6. Sudha G. Purohit, Sharad D. Gore and Shailaja R. Deshmukh (2008) Statistics Using R, Narosa Publishing House.

### **Practical : PG86P303 : Statistical Oriented R-Programing-Course Outcomes**

The candidate will be able to

1. Feed the data and carry out the analysis.
2. Import data from other sources.

**Optional (any one)**

**PG86T304: OPERATIONS RESEARCH– Special Paper**

**PG86T304A : Operations Research-Course Outcomes**

After completion of this course, the candidate will be able to:

- about linear programming and various methods to solve linear programming problem.
- About transportation problem and assignment problem and calculating minimum cost.
- About analyzing various kinds of queues and their waiting times.
- About various inventory models and obtaining economic order quantity under these models.
- To be helpful in various sectors like marketing research, industries, etc to detect the problems and give optimum solutions.

**UNIT – 1:**

Linear programming, Graphical methods, basic theorems, simplex method and simplex algorithm & two phase method, Charne's M –technique, revised simplex method, duality in LPP, duality theorems, dual simplex method, economic interpretation, sensitivity analysis.

15T & 16P

**UNIT – 2:**

Transportation and assignment algorithms, balanced and unbalanced transportation problems, degeneracy, Hungarian method of assignment.

10T & 8P

**UNIT – 3:**

Queuing Models chief characteristics. Analysis of M/M/1, M/M/C queues with steady state probabilities.

10T & 12P

**UNIT – 4:**

Inventory Models: Deterministic EOQ Models (without shortage costs), probabilistic single period model with instantaneous demand (No Set up cost Model), models with price breaks (one & two price breaks), (s, S) policy.

10T & 12P

**(50 Lectures)**

**REFERENCES:**

1. Ackoff R. L. & Sasieni M. W. (1991) Fundamentals of operations Research. Wiley Eastern.

2. Bazarre M.S.& Zarvis J.J. (1977) Linear Programming & Network flows. John Wiley.
3. Gross D and Harris C.M (1974) Fundamentals of Queueing Theory. Wiley, New York
4. Gupta R.K. (1993) Operations Research Krishna Prakashan Mandir, Meerut.
5. Kantiswarup Gupta P.K and Man mohan (1977) Operations Research. S. Chand and Sons, New Delhi.
6. Mittal K.V. (1990) Optimization Methods. Wiley eastern Ltd. New Delhi.
7. Murty K.G. (1983) Linear Programming, John Wiley & Sons.
8. Taha H .A (1998) Operations Research. Prentice-Hall of India.

### **Practical : PG86P304A : Operation Research-Course Outcomes**

The candidate will learn the skills of

1. Practically solve various problems of linear programming, transportation problem and assignment problem.
2. To solve problem on queuing to analyze average queue, waiting time and inventory problems to calculate economic order quantity.

### **PG86T304B : ECONOMETRICS – Special Paper**

#### **PG86T304B : Econometrics-Course Outcomes**

On completion of this course, the candidate will:

- develop professional competence in analysis of economic and time series data.
- be able to understand the evolutionary practices of Linear/Multiple linear regression models, assumptions and consequences of violations of the requirements of the model.
- be able to achieve professional competency in the field of analysis of econometric models through simultaneous equation models.
- Acquint with contemporary trends in estimation of econometrics models.

#### **UNIT – 1:**

**Introduction:** Origin, definition, methodology, scope and limitations of econometrics.

**The two – variable linear regression model:** Relationships between economic variables, two variable linear regression model, least squares estimators.

**Multiple linear regression models:** Model descriptions and assumptions, least squares estimators, selection of variables in multiple regression model.

10T & 12P

#### **UNIT – 2:**

**Analysis of residuals:** Presence of outliers, omitted variables, nonlinear relationship, correlated disturbances heteroscedasticity.

**Multicollinearity:** The plausibility of the assumption of non-multicollinear regressors, consequences of multicollinearity, tests for detecting multicollinearity, solutions for multicollinearity.

10T & 8P

### UNIT – 3:

**Autocorrelation:** Introduction and plausibility of serial dependence, sources of autocorrelation, tests for autocorrelation, solutions for autocorrelation, methods for estimating the parameters of autocorrelation, serial correlation.

**Autoregressive and Distributed Lag Models:** Autoregressive model, distributed lag model, methods of estimation of lagged models.

10T & 12P

### UNIT – 4:

**Errors in variables:** Introduction, solution for single equation models, reverse regression, instrumental variable method, proxy variables. Stochastic regressions: Introduction, bivariate normal distribution.

10T & 4P

### UNIT – 5:

**Simultaneous equation models:** The problem of identification.

**Single equation methods of estimation:** reduced form method or indirect least squares (ILS), the method of instrumental variables (IV), two-stage least squares (2SLS), limited information maximum likelihood (LIML), k-class estimators.

**System methods of estimation:** Three-stage least squares (3SLS), full information maximum likelihood (FIML).

10T & 12P

**50 Lectures**

### Reference:

1. Baltagi B.H. (2000) Econometrics, Springer.
2. Gujarati D.N. (2003) Basic Conometrics, McGraw-Hill.
3. Maddala G.S. (2002) Introduction to Econometrics, John Wiley.

### **Practical : PG86P304B : Econometrics-Course Outcomes**

Able to understand practices in applications of Econometric Models in various economic problems.

### **PG86T304C: APPLIED STATISTICS**

#### **(OPEN ELECTIVE)**

### **PG86T304C : Applied Statistics (OEC)- Course Outcomes**

: On completion of this course students will be able to :

- Explain the concepts of Statistical Quality Control and associated techniques.

- Construct appropriate Quality Control Charts and Forecasting models useful in monitoring a process.
- Apply various samplings inspection plants to real world problems for both theoretical and applied research.
- Assess the ability of a particular process to meet customer expectations.
- Develop an appropriate quality assurance plan to assess the ability of the service to meet requisite national and international quality standards.
- Understand to identify whether a process is in statistical control or not.
- Understand to estimate Trend, Seasonal and Cyclic components of time series.
- Understand past and future behavior of phenomena under study.
- Understand how a product quality can be improved and elimination of assignable causes of variations.

#### **UNIT – 1:**

Time Series: Introduction, components of time series, measurement of trend, measurement of seasonal variations. Index Numbers: Introduction, price index numbers, quantity index numbers, chain index numbers, cost of living index number, time reversal test, factor reversal test.

8 Hrs

#### **UNIT – 2:**

Vital Statistics: Introduction, methods of obtaining vital statistics, mortality rates, fertility rates, measurement of population growth.

6 Hrs

#### **UNIT – 3:**

Analysis of Experiments: Introduction, principles of experimental design, ANOVA, completely randomized design, randomized block design, factorial experiments.

10 Hrs

#### **UNIT – 4:**

Sampling Theory: Introduction, simple random sampling, stratified random sampling, systematic sampling, sampling and non-sampling errors.

10 Hrs

#### **UNIT – 5:**

Control Charts (Process Control): Introduction, control charts for variables ( $\bar{x}$  and R charts), control charts for attributes (P-chart), Control charts for number of defects per unit (C-chart), demerit control charts. Acceptance Sampling Plans (Product control): Basic terminologies: AQL, LTPD, AOQ, AOQL, ASN, OC curve, producer's risk, and consumer's risk. Single sampling plan, double sampling plan.

16 Hrs

**REFERENCES:**

1. R. Ramkumar (1986) Technical Demography, Wiley Eastern, New Delhi.
2. J. Medhi (1992) Statistical Methods. New Age International (P) Ltd. New Delhi.
3. M.N. Das (1993) Statistical Methods and Concepts. Wiley Eastern Ltd.
4. Irwin Miller, John E Fread and Richard A Johnson (1992) Probability and Statistics for Engineers. Prentice Hall of India New Delhi.
5. D.C. Montgomery (1991) Design and Analysis of Experiment. John Wiley and sons.
6. D.C. Montgomery (1996) Introduction to Statistical Quality Control.

**Semester – IV**

**ST PG86T401: MULTIVARIATE ANALYSIS**

**PG86T401 : Multivariate Analysis-Course Outcomes**

Course Outcomes: On completion of this course students will be able to:

- Understand the concept of Multivariate analysis and its usefulness.
- Understand data requirements for Multivariate analysis.
- Perform exploratory analysis of multivariate data, such as plot multivariate data, calculating descriptive statistics, testing for multivariate normality.
- Conduct statistical inference about multivariate means including hypothesis testing and different types of confidence intervals estimation.
- Undertake statistical analyses using appropriate multivariate techniques, which include principal component, factor analysis and discriminant analysis.

**UNIT – 1:**

Random sampling from multivariate normal distribution, maximum likelihood estimators of parameters, distribution of sample mean vector. Wishart distribution and its properties, distribution of sample generalised variance. Null distribution of sample correlation coefficients, distribution of regression coefficients. Application in testing and interval estimation.

14T & 16P

**UNIT – 2:**

Hotelling's  $T^2$ , Null distribution of Hotelling's  $T^2$  - statistic. Applications in tests on mean vector for single and several multivariate normal populations.

6T & 4P

### **UNIT – 3:**

Multivariate linear regression model, estimation of parameters, testing linear hypothesis about regression co-efficients. Likelihood ratio criterion. Multivariate analysis of variance of one - way and two-way classified data.

8T & 8P

### **UNIT – 4:**

Classification and discrimination procedures for discrimination into one of two multivariate normal populations. Sample discriminant function, tests associated with discriminant function, probabilities of misclassification and their estimation, classification into more than two multivariate normal populations. Penrose size and shape factors.

12T & 18P

### **UNIT – 5:**

Introduction to Principle component analysis, Factor analysis, Cluster analysis, Canonical Correlations and Multi dimensional scaling.

10T & 12P

**(50 Lectures)**

### **REFERENCES:**

1. Anderson, T.W. (1983) An Introduction to Multivariate statistical Analysis. Wiley.
2. Johnson and Wichern (1986) Applied multivariate Analysis. Wiley
3. Kshirsagar, A.M. (1972) Multivariate Analysis, Marcel – Dekker.
4. Morrison, D.F. (1976) Multivariate Statistical Methods. McGraw Hill.
5. Muirhead, R.J. (1982) Aspects of multivariate statistical theory. Wiley.
6. Srivastava, M.S. and Khatri C.G. (1979) An introduction to Multivariate Statistics. Worth Holland
7. Mardia, K.V., Kent J.T. and Bibby J.M. (1979) Multivariate Analysis. Academic Press.

## **PG86T402: LINEAR MODELS**

### **PG86T402: Linear Models-Course Outcomes**

The course provides a thorough knowledge in various aspects of Linear Models

- Gain knowledge in basics of linear estimation
- Ability to understand important tools of linear estimation in Gauss-Markov set-up.
- Acquire the knowledge of application of multiple linear regression in various fields.
- Study the importance of analysis of variance (ANOVA) technique and its different methodologies.

- Ability to understand and solve different experimental designs such as RCBD, BIBD, PBIBD and Symmetric BIBD in emerging research problems.

### **UNIT – 1:**

Gauss-Markov setup, estimability of linear parametric functions, normal equations and least squares estimation. Error and estimation spaces, variance and covariance of least square estimates. Estimation of Error variance, Linear Estimation in the correlated setup. Least squares Estimates with restriction on the parameters, simultaneous estimates of linear parametric functions.

10T & 12P

### **UNIT – 2:**

Distribution of Quadratic Forms for normal variables, related theorem (without proof), Tests of hypotheses in general linear models, Tests of hypotheses for one and more than one linear parametric functions. ANOVA table, power of F – Test. confidence intervals and regions. multiple comparison procedures of, simultaneous confidence intervals.

8T & 8P

### **UNIT – 3:**

Application of Gauss – Markov theory to the analysis of one-way, two – way classification without and with interaction with equal number of observations per cell. Estimation and related tests of hypotheses. Posthoc tests: Tukey, Scheffe and Bonferroni

12T & 8P

### **UNIT – 4:**

General block designs: Two-way classification with unequal number of observations per cell without interaction. Concept of connectedness, balancedness and orthogonality and related tests of hypotheses.

Balanced Incomplete block designs (BIBD): Definition, parametric relationship, inter and intra-block analysis and Symmetric BIBD.

10T & 8P

### **UNIT – 5:**

Missing Plot techniques and its application to RBD and LSD

Analysis of Covariance for one-way and two-way classification models, estimation of parameters and related tests of hypotheses and applications. Introduction to random effects models.

10T & 12P

**(50 Lectures)**

## REFERENCES:

1. Chakravorthy M.C. (1971) Mathematics of Design and Analysis of Experiments. Asia Publishing House.
2. Joshi, D.D. (1987) Linear Estimation and Design of experiments. Wiley Eastern.
3. Kshirsagar, A.M. (1983) Linear Models, Marcel Dekker.
4. Das M.N. and Giri, N.C. (1988) Design and Analysis of experiments. Wiley Eastern. Ltd.
5. Montgomery D.C. (1991) Design and Analysis of experiments, John Wiley and sons.
6. Ogawa, J (1974) Statistical Theory of the analysis of the experimental design. Marcel Dekker.
7. Rao C.R. (1985) Linear Statistical Inference and its applications. Wiley Eastern.
8. Searle S.R. (1971) Linear Models. John Wiley & Sons.

### **Practical : PG86P402: Linear Models-Course Outcomes**

Provides an idea of formulation of linear models and estimation of parameters. It facilitates the practical knowledge of ANOVA models and designs of experiments. Also gives the applications these tools in laboratory and agricultural experiments.

### **PG86T403: SQC AND RELIABILITY THEORY**

#### **PG86T403 : SQC & Reliability Theory-Course Outcomes**

After completion of this course, the candidate

- will develop professional competence in applications of statistical tools in Industry.
- Will be able to develop control charts in various situations of quality improvement programs in industry.
- Will be able model and assess reliabilities of components/systems under different setups and configuration of components.
- Will be able to use these tools in finance, insurance, health science, etc.

#### **UNIT – 1:**

Process Control: Control charts for  $\bar{x}$  and s, demerits, extreme values. Moving average control charts, geometric moving average control charts, group control charts, multivariate quality control charts, sloping control lines.

Use of sequential runs in constructing control limits, CUSUM charts and its relation with SPRT. Control charts versus ANOVA and Chi-square tests.

12T & 12P

## **UNIT – 2:**

Product Control: single, double and multiple sampling plans for attributes, curtailed sampling plans. OC, AOQ, ASN and ATI functions for these plans. Designing single and double sampling plans. Chain sampling plans. Sampling plans by variables, Continuous sampling plans CSP1, CSP2, CSP3 and multilevel sampling plans.

10T & 12P

## **UNIT – 3:**

Reliability Theory: Life distributions, survival functions, failure rate, Integrated hazard function, residual life time, mean residual life time. Common Life Distributions: binomial, negative binomial, Poisson, exponential, Weibull, gamma, Pareto and log-distributions. Notion of aging: IFR, IFRA, DMRL, NBU, NBUE classes of life distributions and their dual.

10T & 8P

## **UNIT – 4:**

System reliabilities: Series, parallel, k-out-of-n, standby redundant systems and their reliabilities.

Maintenance policies: Age replacement policy and Block replacement policies and their characteristics. Reliability modeling: Introduction to shock models, stress-strength models and proportional hazard models.

8T & 8P

## **UNIT – 5:**

Inference in Reliability: Type I and Type II Censoring schemes, likelihood functions based on these sampling schemes for exponential distribution. Reliability estimation (complete and censored samples) for exponential distribution, testing reliability hypotheses (exponential distribution).

12T & 8P

**(50 Lectures)**

## **REFERENCES:**

1. Montgomery D.C. (1996) Introduction to Statistical Quality Control, Wiley, New York.
2. Grant E.L. (1980) Statistical Quality Control McGraw Hill, New York.
3. Weetherhill G.B. and Brow D.W. (1991) Statistical Process Control. Chapman and Hall, London.
4. Barlow R.E. and Proschan F (1975) Statistical Theory of Reliability and Life Testing. Holt-Rinhart and Winston, New York.
5. Sinha S.K. and Kale B.K. (1990) Life Testing and Reliability Estimation. Wiley Eastern, New Delhi.
6. Mann N.R, Schaffer R.F and Singpurwalla N.D. (1974) Methods for Statistical Analysis of Reliability and Life Data. Wiley New York.
7. Zacks S (1992) Introduction to Reliability Analysis. Springer - Verlag, New York.
8. J.V. Deshpande and Sudha G. Purohit (2005) Life time data: Statistical Models and Methods. World Scientific.

**Practical : PG86P403 : SQC & Reliability Theory-Course Outcomes**

Demonstrates the practices and working of control charts in different situations. Use of Professional knowledge of Acceptance sampling Plans and Reliability Theory in Industry and Health Science.

**PG86P404 Project Work: Course outcomes**

After completing the project work, the candidate will learn;

- Work in team, develop leadership quality, skill of information collection.
- Present the collected information with graphs, analyze and interpret the data, draw conclusions thereby helping administrators in framing policies.

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN STATISTICS**  
**SYLLABUS FOR**  
**M.PHIL. IN STATISTICS**

**M.Phil Syllabus**

**M.Phil (Statistics)**

The Course is of one term and 3 hours per week with one compulsory and one optional paper. Question paper shall have 6 questions of which 5 are to be attempted. Course emphasizes solving of-problem and critical thinking rather than routine derivation.

| <b>Codes</b> | <b>Title</b>                      |
|--------------|-----------------------------------|
| MPHIL8601    | Research and Teaching Methodology |
| MPHIL8602A   | Nonparametric Inference           |
| MPHIL8602B   | Stochastic Models in Epidemiology |
| MPHIL8602C   | Reliability Theory                |

Programme Outcomes:

The candidate will be prepared to

1. Know the foundations of research and research methodology.
2. Have rigorous review of literature in the area of specialization.
3. Understand writing of dissertation.
4. Prepare for further research.

**Paper I: MPHIL8601**

**(Compulsory)**

**Paper – I : Research and Teaching Methodology :**

**Course Outcomes:**

After studying this course, the candidate acquires knowledge of:

- Collecting data, literature review and dissertation writing.
- Some statistical softwares.
- Probability and its applications.
- Various sampling techniques and test procedures.

Collection of data from primary and secondary sources. Familiarity with RBI bulletin. Annual reports, statistical abstracts etc. Errors in the data types (sampling & non-sampling errors), detection and corrections. Fitting of curves goodness of fit, interpretation of empirical data. Uses and abuses of statistics. Writing of reports, research papers and theses.

Probability models of convergence, laws of large numbers central limit theorem. Markov chains and Martingales. Modelling analysis. Problem of validations. Estimates MLE and its properties, limitations, method of least squares.

Important principles of test procedure UMP, UMPU, LMP & UMP invariant tests. Some non-parametric tests, ARE, Bayes and minimax procedures, Sequential tests.

### **References:**

- 1) B. K. Kale A First Course In Parametric Inference, Narosa Publishing House, 1999.
- 2) N. Balakrishnan And A Clifford Cohen Order Statistics And Inference: Estimation Methods, Academic Press, 1991.
- 3) E. L. Lahmann Testing Statistical Hypotheses, Wiley, 1986.
- 4) M. N. Murthy Sampling Theory And Methods, Statistical Publishing Society, 1977.
- 5) N.L. Johnson, S. Kotz And N. Balakrishnan Continuous Univariate Distributions, Vol. 1 And 2, John Wiley And Sons, 1994.

### **Paper – II: MPHIL02A (Optional) Nonparametric Inference :**

After studying this course, the candidate will understand:

- Preliminaries of non-parametric inference.
- U-statistics and its applications
- Various non-parametric for different types of problems.
- Measure of performance of tests.

Introduction to nonparametric Inference. Empirical Distribution Function, Glivenko Cantell theorems. Kolmogorov Goodness of fit test, Cramer Von-Mises test and Anderson – Darling test.

One sample U – Statistics, Kernel and Symmetric Kernel, two – sample U – Statistics, Asymptotic Distribution of U-Statistics, UMVUE property of U-Statistics, Asymptotic Distribution of linear function of order statistics.

Exchangeable almost surely distinct random variables and their rank vector. Joint and marginal distribution of ranks. Rank tests, locally most powerful rank test, linear rank statistics and their distributional properties under the null hypothesis.

One sample location problem, sign test, Wilcoxon signed rank test, two sample Kolmogorov – Smirnov tests. Two sample location and scale problems, Wilcoxon - Mann – Whitney test, normal score test, median test.

Pitman's Asymptotic Relative Efficiency (ARE). ARE of various tests based on linear rank statistics.

Kruskal – Wallis K – sample test. Jonkheere – Terpestra test, Friedman's test and Pages test.

### **References :**

1. Gibbons. J. D. (1985) : Nonparametric Statistical Inference, 2<sup>nd</sup> Edition, Marcel Dekker.
2. Hajek J and Sidak (1967): Theory of Rank Tests, Academic Press.
3. Fraser. D. A. S (1957) : Nonparametric Methods in Statistics, John Willey.
4. Randles R. H. And Wolfe D. A. (1979) : Introduction to the theory of Nonparametric Statistic, Wiley.
5. Hettmansperger T. P. (1984) Statistical Inference Based on Ranks, John Wiley and Sons.

### **Paper – II: MPHIL8602B (Optional) Stochastic Models in Epidemiology:**

After studying this course, the candidate will be able to:

- Formulate of the model of epidemics.
- Learn stochastic control measures.
- Learn various simulation techniques.
- Estimate basic reproduction rates.

### **Unit – 1 : Introduction to Stochastic Dynamics and Stochastic Process :**

Stochastic Dynamics, Stochastic Control : Covariance Control, PDF Control, Time Delayed Systems, FPK based Design, Optional Control.

Stochastic process : Definitions, Expectations, Vector process, Gaussian process; Stationary process; Scalar process, Vector process, Correlation Length ; Poisson process ; Compound Poisson process ; Markov process.

12 hrs

**Unit – 2 : Stochastic Calculus :**

Modes of convergence ; Stochastic Differentiation ; Statistical Properties of derivative process ; Stochastic Integration ; Statistical properties of Stochastic Integrals.

08 hrs

**Unit – 3 Monte Carlo Simulation :**

Introduction to Monte Carlo Simulation

Random to Monte Carlo Simulation; Linear Congruential methods, Transformation of uniform random numbers, Gaussian random numbers, Vector of random numbers.

Random Process; Gaussian white noise. Stochastic Differential Equation; Second order equations, State equation, Range-Kutta algorithm

10 hrs

**Unit – 4: Introduction to Mathematical Epidemiology**

History of Mathematical Epidemiology, Types of Epidemic models, Statistical significance of the infectious disease modelling.

05 hrs

**Unit – 5 : Formulation of Epidemic Models and Parameterization**

Introduction of Epidemic Model, Formulation of deterministic SIR model. The SIR model without demography, The Threshold phenomenon, Epidemic burnout, The SIR model with Demography, The equilibrium state, Stability properties, Oscillatory Dynamics, Mean age at infection, Infection induced mortality and SI models, Mortality throughout infection, density dependent transmission, Frequency dependent transmission, Mortality late in infection Fatal infection, Without immunity the SIS model, waning Immunity The SIRS Model, Addition of latent period. The SEIR model, Discrete time models.

Parameterization, Estimation of Basic Reproduction number, Instantaneous reproduction number from reported case and surveillance data.

15 hrs

Total = 50 hrs

**References :**

1. Stochastic Dynamics and Control Jian-Qiao-Sun Volume-4, a monograph Series on Nonlinear Science and Complexity; Elsevier 2006.

2. Mathematical Approaches for emerging and re-emerging infectious diseases; The IMA volumes in Mathematics and its Application; Volume-126, Springer 2002.
3. Matt J. Keeling and P Rohani, Modeling Infectious diseases in Humans and Animals, Princeton University Press, 2008.
4. R. M. Anderson and R. M. May, Infectious Disease of Humans Dynamics and Control Oxford University Press, 2010.
5. Bailey N. J. T. (1975); The Mathematical Theory of Infectious Diseases and its Application, Griffin London.
6. Ross Sheldon M (2009), Simulation; Statistical Modeling and Decision Sciences, Academic Press.

### **Paper – III : MPHIL8602C (Optional) Reliability Theory:**

#### **Course Outcomes:**

The candidate after completion of this course will be able to:

- Learn various failure models.
- Learn different life time distributions.
- Analyze and assess reliabilities of various systems.
- Know estimation procedures.

Reliability, Availability, Models of failure, IFR, IFRA, NBU, NBUE, DMRL, classes of life distributions. Their properties. Dual classes of these classes and their properties. Properties of Exponential, Gamma, Weibull, Lognormal, Pareto, Truncated normal, Linear Failure rate, Makeham, Binomial families of life distributions.

Partial Ordering : Convex and Star-shaped orderings.

System Reliability: Coherent system, Series parallel, k-out-of-n, Standby systems. Application to uniform and exponential life distributions.

Replacement Policies; Ordinary, age and block replacement policies, their comparisons.

Reliability Models; Repair models, stress strength models, shock models, proportional hazard models, competing risks models.

Reliability Estimation; MLE, UMVUE, Bayes estimators of reliability. Non parametric estimation of reliability. Type I, II censoring, accelerated life testing.

Testing Reliability Hypotheses: Parametric and Non parametric tests for mean life and Reliability Hypotheses.

50 hrs

**References :**

1. Deshpande J. V. Purohit Sudha G. (2005) Life Time Data : Statistical Models and Methods World Scientific.
2. Klein J. P. And Moeschberger M. L. (1999) Survival Analysis – Springer.
3. Baslow R. E. And Proschan P. F. (1975) Statistical Theory of Reliability – Holt Rinehart.
4. Nelson W. B. (2004) Accelerated Testing Wiley Series in Probability and Statistics

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF STUDIES IN STATISTICS**  
**SYLLABUS FOR**  
**PH. D. COURSE WORK**

**Program Outcomes:**

The candidate will be prepared to

1. Find a specific problem to take up research.
2. Study previous research problems related to his/her area.
3. Write research papers and communicate the same for publication.
4. Organize and write thesis.

| <b>Codes</b>                  | <b>Title</b>                                                     |
|-------------------------------|------------------------------------------------------------------|
| PH8601                        | Research Methodology                                             |
| PH8602                        | Cognate/ Core Subject: Statistics                                |
| <b>AREA OF SPECIALIZATION</b> |                                                                  |
| PH8603A                       | Reliability Theory                                               |
| PH8603B                       | Survival Models                                                  |
| PH8603C                       | Inferential Procedures And Applications                          |
| PH8603D                       | Applied Stochastic Models                                        |
| PH8603E                       | Epidemic Models And Stochastic Modelling Of Epidemics            |
| PH8603F                       | Stochastic Methods In Actuarial Science And Spatial Econometrics |
| PH8603G                       | Extreme Value Theory                                             |
| PH8603H                       | Technical Demography                                             |
| PH8603I                       | Stochastic Modeling And Optimal Control                          |

**Program Specific outcomes:**

Candidate will be

1. Eligible to take up teaching and research.
2. Confident to work in private sectors.
3. Prepared to be a lifelong learner.
4. An asset to the society.

**COURSE - I / PAPER - I**  
**PH8601: RESEARCH METHODOLOGY**

**Course Objectives:**

To equip the students with necessary statistical theory to undertake research in any area of statistics

**Course Outcomes:**

After studying this course, the candidate acquires knowledge of:

- How to select the problem, carryout review of literature, abstract and thesis writing.
- Finite sampling to collect data and some statistical software.
- Various distributions, estimation methods and test procedures, and their applications.

**Unit – I**

Concepts of Research: Review of literature, Problem selection, Reference work, writing abstract, Identifying key words, Thesis writing.

Sources of data, collection of data and data analysis with statistical softwares. Concepts of sampling: Stratified sampling, cluster sampling, multi – stage sampling. Randomized response techniques. 12hrs

**Unit – II**

Univariate distributions- Uniform, exponential, gamma, Weibull, logistic, extreme value, lognormal distributions. Distributions of order statistics from these distributions. Bivariate distributions- Exponential and normal, Multivariate normal distribution

Sampling Distributions: Central and Non – Central Chi – Square, t and F Distributions. 12 hrs

**Unit – III**

Consistency, unbiasedness, sufficiency and efficiency of estimators, completeness property, moment estimators, maximum likelihood estimators and their properties.

Shortest expected length, large sample and unbiased confidence intervals. Bayesian and fiducial intervals. 12 hrs

**Unit – IV**

NP lemma, MP test, MLR property, UMP, UMPU,  $\alpha$  similar tests and tests with Neyman structure, LMP and UMP Invariant tests.

Wilcoxon signed rank test, Wilcoxon rank-sum test, Noether's Theorem and Pitman ARE.

12 hrs

**References:**

- 6) B. K. Kale A first course in parametric inference, Narosa Publishing House, 1999.
- 7) N. Balakrishnan and A Clifford Cohen Order statistics and inference: estimation methods, Academic press, 1991.
- 8) E. L. Lahmann Testing statistical hypotheses, Wiley, 1986.
- 9) M. N. Murthy Sampling Theory and methods, Statistical publishing society, 1977.
- 10) N.L. Johnson, S. Kotz and N. Balakrishnan Continuous univariate distributions, Vol. 1 and 2, John Wiley and sons, 1994.

**COURSE - II / PAPER - II**

**PH8602: COGNATE /CORE SUBJECT: STATISTICS**

**Course Objectives:**

To equip the students with probability concepts, stochastic process with their properties, aspects of multivariate analysis and linear models which are useful in modeling and analysis.

**Course Outcomes:**

In this Course the candidate will learn

- Various probability concepts.
- Various aspects of stochastic processes.
- Multivariate techniques and concepts of linear models.

**Unit – I**

Concepts of probability: Modes of convergence; characteristic functions, laws of large numbers, central limit theorem. Martingales.

12hrs

**Unit – II**

Finite and countable state Markov chains (MC), Chapman – Kolmogorov's equations, calculation of n-step transition probabilities and their limits, stationary distribution, classification of states.

Continuous time Markov processes: Kolmogorov-Feller differential equations, Poisson process, birth and death processes, Weiner process.

12 hrs

### **Unit – III**

Principal component analysis (PCA), Factor analysis (FA), Canonical correlation analysis (CCA), Discriminant analysis and Cluster analysis. 12 hrs

### **Unit – IV**

Gauss-Markov theorem, estimability of linear parametric functions, error and estimation spaces, application of Gauss-Markov setup to one- way, two-way (with one observation per cell and with interaction). Testing of general linear hypothesis.

12 hrs

### **References:**

- 1) B. R. Bhat. Modern Probability Theory, Wiley eastern, 1981.
- 2) K. Basu. Measure theory and probability, PHI, 1999.
- 3) S. Karlin and H. M. Taylor. A first course in stochastic process, academic press, 1975.
- 4) K. V. Mardia, J. T. Kent and J. M. Bibby. Multivariate Analysis, Academic press, 2000.
- 5) C. R. Rao. Linear statistical inference and its applications, Wiley eastern, 1985.

**COURSE - III / PAPER - III**  
**AREA OF RESEARCH**  
**PH8603A: RELIABILITY THEORY**

**Course Objectives:**

To know various reliability models, to assess reliabilities of these models and explore the applications of reliability models.

**Course Outcomes:**

The candidate after completion of this course will be able to:

Analyze and assess reliabilities of various systems. Can explore new applications of existing tools.

**Unit-I**

Reliability, availability, modes of failure, IFR, IFRA, NBU, NBUE, DMRL, classes of life distributions. Dual classes of these classes. Properties of Exponential, Gamma, Weibull, Lognormal, Pareto, Truncated normal, Linear failure rate, Makeham, Binomial families of life distributions. Bivariate life distributions. 12 hrs

**Unit-II**

Structure functions, minimal path and minimal cut sets, reliability of systems of independent components, bounds on reliability functions – methods of inclusion and exclusion. System life as a function of component lives, expected system lifetime, upper bound on expected life of parallel System. Series models, repair models, stress strength models, shock models, proportional hazards models, competing risks models. 12 hrs

**Unit-III**

Truncation, convolution and mixture of life distributions. Poisson process, inter-arrival and waiting time distributions, conditional distribution of arrival times, estimating software reliability, non-homogeneous Poisson process, compound Poisson process, conditional and mixed Poisson process.

Simulation techniques for continuous random variables, discrete random variables, stochastic processes, non-homogeneous Poisson process, two dimensional Poisson processes. 12 hrs

#### **Unit-IV**

Reliability estimation: life testing experiments, Type I, II censoring, progressive censoring, accelerated life testing. MLE, UMVUE, Bayes estimators of reliability, non parametric estimation of reliability.

Testing Reliability Hypotheses: Parametric & Non parametric tests for mean life and Reliability Hypotheses. 12 hrs

#### **References:**

- 1) Cox, D. R. And Oakes, D (1990). Analysis of Survival Data. Chapman and Hall.
- 2) Deshpande J. V. Purohit Sudha G. (2005) Life Time Data: Statistical Models and Methods World Scientific
- 3) Johnson, N L, Kotz, S and Balakrishnan, N (1994). Continuous Univariate Distributions, Volumes 1 and 2. John Wiley and Sons.
- 4) Klein J. P. and Moeschberger M.L. (1999) Survival Analysis - Springer
- 5) Baslow R. E. and Proschan P. F. (1975) Statistical Theory of Reliability - Holt Rinhalt.
- 6) Nelson W. B. (2004) Accelerated Testing Willy Series in Probability and Statistic.
- 7) Ross, S. M. (2010) Introduction to Probability Models. 9th Edn. Academic Press.

### **PH8603B: SURVIVAL MODELS**

#### **Course Objectives:**

To equip students with materials and techniques developed in several applied disciplines: vital statistics, epidemiology, demography, actuarial science, reliability theory, survival analysis, statistical methods, among others.

#### **Course Outcomes:**

After studying the course, students will have the knowledge of modeling survival data, its analysis and know its applications in different fields.

#### **Unit-I**

Survival Data: Sources of data, types of variables, exposure to risk, collection of survival data.

Ratios and Proportions: Rates of continuous processes - absolute rate, relative rate, average (central) rate, rates for repetitive events.

Mortality Measures: Concept of population exposed to risk, crude death rate, age specific death rates, cause specific mortality, standardized mortality ratio (SMR) - indirect standardization, direct standardization. Evaluation of person-years of exposed to risk in long-term studies.

Disease Risk and Ratio: Prevalence and incidence of a disease, association between disease and risk factor, relative risk and odds ratio. 12 hrs

## Unit-II

Life Table: Basic definition and notations, force of mortality, mathematical relationships among life table functions, central death rates, interpolation for life table functions, approximate relationships between  ${}_nq_x$  and  ${}_nm_x$ , expected fraction of the last  $n$  years of life, exponential approximation, approximations to  $\mu_x$ .

Concepts of Stationary and Stable Populations: Stationary population, stable population.

Construction of Life Tables: Construction of an abridged life table from mortality experience of a current population, estimation of  ${}_nm_x$ ,  ${}_nf_x$ ,  ${}_nq_x$ , evaluation of the life table functions, construction of a complete life table from an abridged life table, selection, select life tables, construction of select tables. 12 hrs

## Unit-III

Survival Distribution Functions: Hazard function (force of mortality), conditional probabilities of death (failure), central rate, truncated distributions, expectation and variance of future lifetime, median of future lifetime, transformations of random variables, location-scale families of distributions, some survival distributions, some models of failure, series and parallel systems.

Empirical Survival Function: Estimation of survival function from grouped mortality data, joint distribution of the numbers of deaths, Greenwood's formula for the (conditional) variance of survival function, estimation of curve of deaths, estimation of central death rate and force of mortality. 12 hrs

## Unit-IV

Theory of Competing Causes: Causes of death, basic assumptions, "Times Due to Die", overall and crude survival functions, crude and net hazard rates, crude probability distribution for cause, equivalence and non-identifiability theorems in competing risks, equivalent models of survival distribution, proportional hazard rates, heterogeneous populations: mixture of survival functions.

Multiple Decrement Life Tables (MDLT): Definitions of MDLT functions, relationships among functions of MDLT, crude forces of mortality, construction of MDLT from population (cross-sectional) mortality data, evaluation of  ${}_naq_x$  and  ${}_naq_{ax}$ .

Simulation techniques for continuous random variables, discrete random variables, stochastic processes, non-homogeneous Poisson process, two dimensional Poisson processes.

12 hrs

**References:**

- 1) Basu, A. P. and Ghosh, J. K. (1978). Identifiability of the multinormal and other distributions under competing risk model. *J. Mult. Anal.* 8,413-429.
- 2) Chiang, C. L. (1968). *Introduction to Stochastic Processes*, Wiley, New York.
- 3) Cox, D. R. And Oakes, D (1990). *Analysis of Survival Data*. Chapman and Hall.
- 4) Deshpande, J V and Purohit, Sudha (2005) *Life Time Data: Statistical Models and Methods*. World Scientific
- 5) Eland Johnson and Johnson, N L (1999), *Survival Models and Data Analysis*, JOHN WILEY & SONS, INC. New York.
- 6) Gehan, E. A. (1969). Estimating survival functions from the life table. *J. Chron, Dis.* 21, 629-644.
- 7) Johnson, N L, Kotz, S and Balakrishnan, N (1994). *Continuous Univariate Distributions*, Volumes 1 and 2. John Wiley and Sons.
- 8) Ross, S. M. (2010) *Introduction to Probability Models*. 9<sup>th</sup> Edn. Academic Press.
- 9) Shryock, H., Siegel, J. S., and Associates (1973). *The Methods and Materials in Demography*, Chapter 14. U. S. Department of Commerce. Washington. D.C.

**PH8603C: INFERENCE PROCEDURES AND APPLICATIONS**

**Course objectives:**

To enable students with different tools in Bayesian inference, nonparametric inference, regression analysis and statistical quality control.

**Course Outcomes:**

In this course the candidate learns:

- Use of prior information to solve problems using Bayesian approach.
- Various concepts and procedures of nonparametric inference.
- Order statistics and their applications.
- Concepts and applications of regression analysis.
- Basics of statistical quality control.
- Various control charts for monitoring process characteristics.

**Unit – I**

Preliminaries of Bayes' principle, Types of loss functions, various priors, Bayes estimators under different loss functions, Bayesian interval estimation, Evaluation of estimate in terms of Bayes'

risk, Prior odds, posterior odds, Bayes factor, Bayesian calculations, MCMC methods and other computer simulation methods. 12 hrs

### **Unit – II**

Order statistics – distribution theory, Moments of order statistics, Recurrence relations between moments of order statistics, Probability integral transformation, Equal in distribution technique, Distribution – free statistics over a class, Counting statistics, Ranking statistics, Statistics utilizing counting and ranking. U – Statistics and its limiting distribution, Linear rank statistics, distributional properties, asymptotic normality under the null hypothesis. Tests for one and two – sample location and scale problems, Pitman ARE. 12 hrs

### **Unit – III**

Simple linear regression model, Least square estimation, hypothesis testing on slope and intercept, multiple regression model, Estimation of model parameters, Polynomial regression in one variable, nonparametric regression, kernel density estimator, robust regression, M-estimators, properties of robust estimators. 12 hrs

### **Unit – IV**

Basics of statistical process control. Parametric, nonparametric and Bayesian control charts for process average and process variance, Synthetic control charts, use of sequential runs in constructing control charts, CUSUM charts, ARL, ATS, and measures of process capability ratio. 12 hrs

### **References:**

- 1) Berger J.O. (1986) Statistical decision theory and Bayesian analysis. Springer – Verlag.
- 2) Ferguson T.S. (1967) Mathematical Statistics Decision Theoretic approach. Academic press, New York.
- 3) Gibbons J.D. (1971) Nonparametric Statistical Inference, McGraw Hill.
- 4) Grant E.L. (1980) Statistical Quality Control, Mc GrawHill.
- 5) Montgomery D.C. (1996) Introduction to Statistical Quality Control, Wiley, New York.
- 6) Montgomery D.C, Peck E.A and Vining C.G (2003) Introduction to Linear regression analysis, John Wiley and Sons.
- 7) Randles R.H. and Wolfe D.A. (1979) Introduction to theory on Nonparametric Statistics, John Wiley and Sons.

## **PH8603D : APPLIED STOCHASTIC MODELS**

### **Objectives of the Course:**

Objectives of the course is study the stochastic models and their developments.

### **Course Outcomes:**

The course gives

- comprehensive knowledge about various stochastic population growth models.
- ability to understand research problems in stochastic demography.
- knowledge on some basic epidemic and competitive risks models.
- idea of stochastic optimal control, stochastic mortality models.
- ability of formation of research problems in their area of research.

### **Unit – I: Stochastic Population Models**

Poisson process, birth and death process and Chiang's illness death process Deterministic and stochastic population growth model, deterministic and stochastic logistic growth models , deterministic and stochastic generalized logistic growth models, deterministic and stochastic gompertz growth models, deterministic and stochastic negative exponential growth models, deterministic and stochastic linear growth models.

Waiting Times and Their Statistical Estimation: General Waiting Time, Childbearing as a Repeatable Event, Poisson Process Model of Childbearing, Effect of Parity on Pure Period Measures, Multiple Births and Effect of Pregnancy on Exposure Time, Poisson Character of Demographic Events and Simulation of Waiting Times and Counts. Singh's waiting time distribution on the first birth and modification to the Singh's model. 12 hrs

### **Unit – II: Competing Risks and Life Tables**

Measurement of competing risks and their inter-relationships. Independent and dependent risks, analysis of censored data: type – I and type – II censoring, progressive censoring.

Mortality in a cohort with competing risks of death, models of competing risks based on latent life spans, simple parametric models of competing risks, equivalent models of competing risks, eliminating causes of death and nonidentifiability.

Estimating a multiple decrement life table from period data, estimating single decrement life tables from multiple decrement life tables. 12 hrs

### **Unit – III: Stochastic Models with Optimal Control Theory**

Stochastic Integration: The Itô Integral and One-Dimensional Itô Formula. Brownian Motion, Standard Brownian Motion, BM as a Markov Process, Constructing BM, BM Constructed from  $N(0, 1)$  Random Variables, BM as the Limit of Symmetric Random Walks and White Noise Process.

Continuous time maximum principle: model, constraints, objective function and optimal control problem. Dynamic programming: HJB equation, adjoint equation and economic interpretation.

Discrete time maximum principle. Models of optimal economic growth and stochastic optimal control of consumption-investment problem. Deterministic and stochastic epidemic models (SI and SIR), model of optimal epidemic control and solution by Green's theorem.

12 hrs

### **Unit – IV: Stochastic mortality models and estimation**

Mortality models: Lee-Carter model, Lee-Carter model under a Poisson setting, Lee-Carter with cohort effects, age-period-cohort (APC) model, general APC model, model fitting and goodness of fit. Forecasting and simulation with stochastic mortality models

Estimation: Bayesian and Markov Chain Monte Carlo methods, Bayesian computations, Monte – Carlo simulation. Gibbs sampler, Metropolis – Hastings algorithm and hybrid approach.

12 hrs

### **REFERENCE:**

- 1) Byron J.T. Morgan, Applied Stochastic Modeling, Arnold Publishers, London, 2000.
- 2) B.R. Bhat, Stochastic Models : Analysis and Applications, New Age International Publishers, New Delhi, 2000
- 3) S.M. Ross, Introduction to Probability Models, Sixth Edition, Academic Press, New York, 1997.
- 4) Taylor, H. M., Karlin, S.: An Introduction to Stochastic Modeling, 3rd edn. Academic, San Diego (1998)
- 5) Panik, M. J. Stochastic Differential Equations, John Wiley and Sons, 2017.

## **PH8603E: EPIDEMIC MODELS AND STOCHASTIC MODELLING OF EPIDEMICS**

### **Objectives of the Course:**

The purpose of the course is to get detailed knowledge of various epidemic models and their deterministic and stochastic formulations, solutions and estimation.

### **Outcome of the course are:**

- learn different forms of epidemic models.
- acquire the knowledge of age-structured epidemics
- able to develop the epidemic models for vector-borne diseases
- learn discrete and continuous markov chain epidemic models
- develop the knowledge of deriving solutions for models of epidemic and endemic diseases.

### **Unit I: Epidemic Modelling**

the early Kermack–Mckendrick model: basic model, threshold theorem and the final size equation. Applications- transmission by environmental contamination, virus dynamics, asymptomatic transmission model

Infection-age-dependent model: linear invasion phase and  $r_0$ , asymptotic behavior, the intensity of epidemic and its lower bound, pandemic threshold theorem, the initial value problem, the final size equation of the limiting epidemic, traveling wave solutions, endemic threshold phenomena.

The SIS model without demography, the SIR model with demography, vaccination and reinfection model. vector-transmitted diseases, basic model and invasion threshold, backward bifurcation of endemic steady states.

Some aspects of epidemiology in temporal and spatiotemporal domains.

12 hrs

### **Unit II: Age-Structured Epidemic Models**

The SIR epidemic model with age structure, epidemic in a demographic steady state, horizontal transmission and its  $R_0$ , local stability of endemic steady state, epidemic in a stable population, threshold condition for invasion and endemicity, local stability of steady states, threshold principle and  $R_0$ , horizontal transmission, vertical transmission, threshold number in the normalized system, endemic threshold condition, infection-age dependency, the basic reproduction number and integral equation approach. Numerical methods for age-structured models: numerical method for the Mckendrick–Von Foerster model, numerical method for the age-structured sir model.

12 hrs

### **Unit III: Models in Vector-Borne Diseases**

The vectors, the pathogen, epidemiology of vector-borne diseases, simple models of vector-borne diseases, deriving a model of vector-borne disease, reproduction numbers, equilibria, and their stability. Delay-differential equation models of vector-borne diseases: reducing the delay model to a single equation, oscillations in delay-differential equations, the reproduction number of the model with two delays and a vector-borne disease model with temporary immunity.

12 hrs

### **Unit IV: Stochastic Epidemic Models**

Formulation of stochastic SIS and SIR epidemic models, numerical examples and properties of stochastic SIS and SIR epidemic models. probability of an outbreak, quasistationary probability distribution, final size of an epidemic, expected duration of an epidemic. Epidemic models with variable population size and numerical example. Other types of DTMC epidemic models, chain binomial epidemic models and epidemic branching processes.

Time series models: time domain: ACF and ARMA, frequency domain and wavelets. time series SIR model (TSIR): Stochastic variability, estimating parameters in dynamic models, estimation using the TSIR.

12 hrs

### **References:**

- 1) Allen, L. J. S.: An Introduction to Stochastic Processes with Applications to Biology. Prentice Hall, Upper Saddle River, NJ (2003)
- 2) Brauer, F., Castillo-Chavez, C.: Mathematical Models in Population Biology and Epidemiology. Springer, Berlin Heidelberg New York (2001)
- 3) Diekmann, O., Heesterbeek, J. A. P.: Mathematical Epidemiology of Infectious Diseases: Model Building, Analysis and Interpretation. Wiley, New York (2000)
- 4) Hethcote, H. W.: The mathematics of infectious diseases. SIAM Rev., 42, 599–653 (2000).
- 5) Inaba, H. Age-structured population dynamics in demography and epidemiology, Springer, 2017.
- 6) Bailey, N.T. The Mathematical Theory of Infectious Diseases and its Applications (Charles Griffin & Co. Ltd, London, 1975).

## **PH8603F: STOCHASTIC METHODS IN ACTUARIAL SCIENCE AND SPATIAL ECONOMETRICS**

### **Objectives of the Course:**

Objective of the course is to acquire the detail knowledge of various stochastic methods in actuarial science and spatial econometrics.

### **Course Outcomes:**

Outcomes the course includes

- detailed information about risks models and ruin theory.
- ability to understand competing risks models and formulation in research problems.
- basic knowledge on spatial econometrics.
- learning of spatial econometric models and their estimation.
- acquire knowledge of proposing research problems in their area of research.

### **Unit -I : Risk Models and Ruin Theory**

On the distribution of surplus immediately after ruin under interest force, the risk model, on the distribution of surplus immediately before ruin under interest force, exponential claim size. Lundberg bound, asymptotic estimates of the low and upper bounds for the distribution of the surplus immediately after ruin under sub-exponential claims.

On the ruin probability under a class of risk processes - the risk model, the laplace transform of the ruin probability with finite time. 12 hrs

### **Unit -II: Compound Risk Models and Copula Decomposition**

Individual risk model and compound risk model: the link between the compound risk model and the individual risk model, one theorem on excess-of-loss reinsurance, recursive calculation of compound distributions, one-dimensional recursive equations and bivariate recursive equations.

The compound Poisson random variable's approximation to the individual risk model: the existence of the optimal Poisson random variable, the joint distribution and evaluating the approximation error, the approximation to functions of the total loss, the uniqueness of the Poisson parameter.

Bi-variate copula decomposition: copula decomposition and application of the copula decomposition. 12 hrs

### **Unit -III: Spatial Econometrics**

Characteristics of spatial data: spatial autocorrelation and spatial heterogeneity, the classical linear regression model and violation of typical assumptions, endogeneity, spatial autocorrelation of error term and heteroskedastic variance. The generalized linear model, the additive model, the basics of Bayesian statistics, Bayes' theorem, the markov chain monte carlo method, bayesian estimation of the classical linear regression model

Spatial weight matrix : specification of the spatial weight matrix, standardization of the spatial weight matrix.

Testing for global spatial autocorrelation, local spatial autocorrelation and spatial heterogeneity.

12 hrs

### **Unit -IV: Spatial econometric models**

Spatial lag model and spatial error model, spatial durbin model and generalized spatial model, impact measures, models for spatial heterogeneity: varying coefficient models in space, parameter estimation of the spatial econometric models: ordinary least squares method, maximum likelihood method, bayesian method, conditional autoregressive model, spatial discrete choice models, spatial panel models. spatiotemporal autoregressive model.

Geographically weighted regression models. extended geographically weighted regression models, fast geographically weighted regression modelling and fast eigenvector spatial filtering modelling.

12 hrs

### **References:**

- 1) Boland, P. J.: Statistical and probabilistic Methods in Actuarial Science, CRC Press, 2007.
- 2) Yamagata, Y. and Seya, H. Spatial Analysis Using Big Data, Academic Press, 2020.
- 3) Anselin, L. Spatial Econometrics: Methods and Models, Kluwer Academic Publishers, 1988.
- 4) Haining, R. Spatial Data Analysis: Theory and Practice, Cambridge University Press, 2003.
- 5) Dikson, D.C.M., Hardy, M. R. and Waters, H. R. Actuarial Mathematics for Life Contingent Risks, Cambridge University Press, 2009.

## **PH8603G: EXTREME VALUE THEORY**

### **Objectives of the Course:**

The candidates will have

- an introduction to the basics of modern extreme value theory and extreme value statistics.

- different methods of estimation including graphical methods of tail index.
- ability to model extremes in the various fields such as insurance, finances, meteorology, hydrology etc.

### **Course Outcomes:**

Candidate will have

- Knowledge of order statistics
- Knowledge of extreme value theory for applying various fields such as insurance, finance, hydrology, meteorology etc.

Knowledge of estimation techniques for estimating parameters of extreme value models.

### **Unit-I: Order Statistics**

Introduction, Joint distribution of order statistics, Marginal distribution of a single order statistics, Joint distribution of two order statistics, Distribution of range and other measures, Conditional distributions of order statistics. 12 hrs

### **Unit- II: Univariate Extreme Value Theory**

Fluctuations of univariate maxima, Fluctuations of univariate upper order statistics, Some statistical models for univariate maxima, Limit distributions and domain of attraction. Limit distributions for the maximum ( Frechet, Weibull, and Gumbel), Generalized Extreme Value (GEV ) distributions. 14 hrs

### **Unit- III : Statistical Methods for Extremal Events;**

Introduction, exploratory data analysis for extremes, Probability and quantile plots, The mean excess function, The Gumbel's method of exceedences, The return period, The parameter estimation of GEV Distribution; maximum likelihood estimation, Tail and quantile estimation. 14 hrs

### **Unit -IV : Applications of Extreme Value Theory:**

Applications of extreme value theory in Insurance, Finance, Meteorology and Hydrology.

8 hrs

### **References:**

- 1) Arnold B.C., Balakrishnan N. and Nagaraja, H. N.(1992). A First Course in Order Statistics. John Wiley, New York.

- 2) Cols, S.(2001). An Introduction to Statistical Modeling of Extreme Values. Springer Verlag, London.
- 3) Galambos, j.,(1987). The asymptotic theory of extreme order statistics. John Wiley, New York.
- 4) Samuel Kotz and Sarala Nadaraja (1999). Extreme Value Distributions. Imperial College Press, London.
- 5) Embrechts P., Kluppelberg C., and Mikosch T.(1997)Modelling extremal events for insurance and finance, Springer, Newyork.

### **PH8603H: TECHNICAL DEMOGRAPHY**

#### **Course Objectives:**

The purpose of this course is to provide advance knowledge in the area of Fertility and Mortality, Urbanization, Migration and estimation & projection of these concepts. Students will get acquitted with new and advanced method of Demographic characteristics. An emphasis is also given on existing theories and their critical review.

#### **Course Outcomes:**

On completion of this course the student is able handle research problems on Fertility, Mortality, Migration and Urbanization and also students are trained to different method of Estimation and Forecasting.

#### **Unit I : Population Dynamics**

Definitions and concepts used in demography-rates ratios population growth population structure and composition. Population pyramid, Sources of Demographic data in India. Census, Sample registration System (SRS), Sample surveys, Vital registration, Fertility Surveys, National Family Health Surveys, Trends in Fertility, Mortality, Migration and Urbanization in India, Demographic Transition Policy Implications. 6 hrs

#### **Unit II: Indirect Estimation of Fertility, Mortality and Life Table**

Coale's fertility indices; Coale's-Trussel model of natural fertility; Singulate Mean Age at Marriage (SMAM), Parturition / Fertility (P/F) Method to estimate fertility; Decomposition of fertility; Age-pattern of Fertility, Estimating fertility through Parity Progression Ratio (PPRs), Calculation of Bongaarts' Indices, Rele's method of estimating fertility, Reverse survival method of estimating fertility. **Estimation of Mortality** – Estimation of infant and Child mortality from information on children ever born and children surviving (Brass, Sullivan, Trussel and Pathak). Estimation of Adult Survivorship probabilities from information on Orphanhood and

widowhood, estimation of adult mortality using successive census age distribution. **Life Table - Concepts, Assumptions, Construction of Life tables- Complete and Abridged -Various types – Force of Mortality, Uses of Life Tables. Single Decrement Associated Life tables, Multiple Decrement Life table – Multi State Life table, Applications Nuptiality Tables, Contraceptive Effectiveness. Working Life Tables.** 18 hrs

### **Unit III : Migration and Urbanization**

Introduction and Concepts, Measures of urbanization Level trend of Urbanization, problems associated with policies and programme affecting urbanization, Migration, Measures of Urbanization : Degree, Tempo and Concentration, Population and Distribution. Centrality and Hierarchy. Basic concepts, definitions, types of migration – Internal and International migration, Theories of Migration, Indirect method of estimating the Migration : Growth Rate method, Vital Statistics method, Life table and Census survival methods. 12 hrs

### **Unit IV : Population Estimation and Projections :**

Methods of Population estimation and Projection – Mathematical and Cohort Component methods, Assumptions, on fertility, Mortality and Migration, Sub-National Population Projections – Various Methods, Urban Rural Growth Difference (URGD), Auto Regressive Integrated Moving Average (ARIMA) model, probabilistic projection model – Bayesian hierarchical model, Projection based on Artificial Neural Network and Fuzzy logic. Test for accuracy – Akaike's Information Criteria (AIC), Bayesian Information Criterion (BIC), Mean Absolute percentage error and Mean Algebraic Percentage Error. 12 hrs

### **References:**

- 1) Asis Kumar Chattopadhyay and Anuj Kumar Saha (2012), Vinod Vasishtha, Books, Pvt. Ltd, New Delhi
- 2) Bogue, Donald J., Eduardo E. Arriaga, and Douglas L. Anderson, eds. (publication editor George W. Rumsey) (1993) Readings in Population Research Methodology. Chicago: United Nations Population Fund. Volume 3: Fertility Research, (All three chapters but selected pages).
- 3) Chiang C L (1993), The Life Table and its Applications, Krieger Pub Co.,
- 4) Coale A J & Trussell (1979), Model Fertility Schedule Variations in the Age Structure of Child Bearing in Human Population, Population Index, vol.40 Keyfitz N, Introduction to Mathematics of Population
- 5) Coale AJ and P Demeny (1983), Regional Model Life Tables and Stable Populations,

- Academic Press, New York
- 6) K. Srinivasan, Analytical Models for the Study of Closed and Open Intervals United Nations, Manual IV
  - 7) Keyfitz N (2005), Applied Mathematical Demography, DOI <https://doi.org/10.1007/b139042>
  - 8) Palmore, James A. and Gardner, Robert W. (1983) Measuring Mortality, Fertility and Natural Increase: a Self-Teaching Guide to Elementary Measures. Honolulu: East-West Population Institute, East-West Center.
  - 9) Pathak K B & Ram F (2016), Techniques of Demographic Analysis, Himalaya Publishing House, New Delhi.
  - 10) Pollard, A.H., Yusuf, Farhat and Pollard, G.N. (1990) Demographic Techniques (third edition). Sydney: Pergamon Press.
  - 11) Ramakumar R (1986), Technical Demography, John Wiley, New Delhi
  - 12) Rogers, A (1975), Introduction to Multiregional Demography, Wiley and Sons, New York.
  - 13) Rowland, Donald T. (2006), Demographic Methods and Concepts. New York: Oxford University Press.
  - 14) Shryock, H. S., Siegel J S and Associates (1976), The Methods and Materials of Demography, ACADEMIC PRESS, INC. 1250 Sixth Avenue San Diego, California 92101

### **PH8603I: STOCHASTIC MODELING AND OPTIMAL CONTROL**

#### **Course Objectives:**

The main objective of the course is to

- Critically read and analyze research articles featuring mathematical modeling-based epidemiological studies.
- Understand the concepts of Brownian motion and white noise.
- Manipulate and solve simple SDEs and understand the relationship between SDEs and PDEs.
- Demonstrates knowledge about the more complex simulation skills used for mathematical modelling in epidemiology.

#### **Course Outcomes:**

At the end of the course, the scholars should be able to:

- Describe the philosophy of model-building and the relationships between modeling and other forms of scientific investigation.

- Describe the defining features of infectious diseases, including incubation and latent periods, virulence, communicability, the “basic reproductive number”, serial intervals, and concepts relevant to immunity.
- Provide the general ideas for constructing and analyzing stochastic models of epidemic spread and control.
- Interpret models outputs as information that help guide public health decision making.

### **Unit – I: Introduction to Stochastic Models and Stochastic Differential Equations**

The basic theory and applications of stochastic models. Specification of Stochastic Processes. Markov chains: Classification of states and chains. Markov processes with discrete state space: Poisson process, Compound Poisson process, Renewal process. Branching processes. Markov processes with continuous state space: Wiener process, Ornstein-Uhlenbeck process. Ito Integrals, Stochastic Integrals and the Ito Formula, Stochastic Differential Equations, Existence and uniqueness theorem for stochastic differential equations, Weak and strong solutions.

18 hrs

### **Unit – II: Optimal Control Theory**

Controllability, bang-bang principle, Linear time-optimal control, The Pontryagin Maximum Principle, Dynamic programming. Introduction to stochastic control theory, Optimal Control of Stochastic Partial Differential Equations: The Hamilton-Jacobi-Bellman (HJB) equation.

10 hrs

### **Unit -III: Stochastic Analysis of Epidemic models**

History of Mathematical Epidemiology, Types of Epidemic models, Statistical significance of the infectious disease modeling. Formulation and analysis of deterministic epidemic models. Formulation and analysis of stochastic epidemic models.

10 hrs

### **Unit – IV: Simulation**

Introduction to Monte Carlo Simulation, Markov Chain Monte Carlo Simulation, Gibbs sampler, Metropolis – Hastings algorithm. Bayesian computations through Markov Chain Monte Carlo Simulation.

10 hrs

### **References:**

- 1) R M Anderson and R M May, Infectious Disease of Humans Dynamics and Control; Oxford University Press, 2010.
- 2) Bailey N J T The Mathematical Theory of Infectious Diseases and its Application, Griffin London, 1975.

- 3) Bernt Øksendal, Stochastic Differential Equations: An Introduction with Applications, Third Edition, Springer-Verlag Berlin Heidelberg GmbH, New York, 1992.
- 4) Bernt Øksendal , Optimal Control of Stochastic Partial Differential Equations, Stochastic Analysis and Applications Pages 165-179, 2006, doi.org/10.1081/SAP-200044467
- 5) B. R. Bhat, Stochastic Models: Analysis and Applications, New Age International Publishers, New Delhi, 2000.
- 6) Fleming,W.H. and Rishel,R.W., Deterministic and Stochastic optimal control, Springer Verlag, New York, 1975.
- 7) Gani J., Epidemic modelling and simulation, *Mathematics and Computers in Simulation* 32(1-2): 3-12, 1990.
- 8) Byron J.T. Morgan, Elements of Simulation, Chapman and Hall/CRC Press, 1984.
- 9) J. Medhi, Stochastic Process, New Age International Publishers, New Delhi, 2009.
- 10) B. D. Ripley, Stochastic simulation, J. Wiley, New York, 1987.
- 11) Ross Sheldon M, Simulation: Statistical Modeling and Decision Sciences, Academic Press, 2009.

## Course Outline for the OEC –Swami Vivekanand Studies Centre

KARNATAK UNIVERSITY, DHARWAD.

Department of Swami Vivekanand Studies Centre

Course outline of OEC for Semester Courses as per CBCS pattern.

2020-2021 onwards

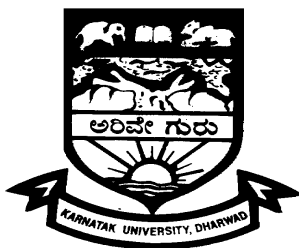
### II) Semester-II

| Sl. No. | Details (Course Type/ Name)               | Main Marks | Internal Marks (Including Attendance) | Total Marks | Credits | Teaching Hrs |
|---------|-------------------------------------------|------------|---------------------------------------|-------------|---------|--------------|
|         | <b>Open Elective:</b>                     |            |                                       |             |         |              |
| 1       | Dimensions of Swami Vivekananda's Thought | 75         | 25                                    | 100         | 4       | 4 hrs/week   |

### III) Semester-III

| Sl. No. | Details (Course Type/ Name)                                      | Main Marks | Internal Marks (Including Attendance) | Total Marks | Credits | Teaching Hrs |
|---------|------------------------------------------------------------------|------------|---------------------------------------|-------------|---------|--------------|
|         | <b>Open Elective:</b>                                            |            |                                       |             |         |              |
| 1       | Human Resource Development and Professional Skills (CODE No.I51) | 75         | 25                                    | 100         | 4       | 4 hrs/week   |

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**CHOICE BASED CREDIT SYSTEM  
(OEC – CBCS)**

**II Semester:**

|                                                                       |                                                                                                                     |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                            | <b>H103: Dimensions of Swami Vivekananda's Thought</b>                                                              |
| <b>COURSE OUTCOMES (COs)</b>                                          |                                                                                                                     |
| After completing this paper, the students will be able to understand: |                                                                                                                     |
| CO 1                                                                  | the diverse thoughts of Swami Vivekananda – National integration, human character, Modern problems, education, etc. |
| CO 2                                                                  | and can incorporate the messages of Swami Vivekananda in their own life.                                            |
| CO 3                                                                  | and know the importance of spirituality and Universal Religion according to Swami Vivekananda.                      |
| CO 4                                                                  | and practise the teachings of Swami Vivekananda                                                                     |
| CO 5                                                                  | The eternal values of Indian Culture as lived and propagated by Swami Vivekananda                                   |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Teaching Hours (Max. 60)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Unit 1:</b> Swami Vivekananda as a spiritual leader: nature of spirituality, concept of Moksha, Dharma, God, Soul, World, means to: Karma, Jnana, Bhakti and Raja Yoga.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12 Hours                        |
| <b>Unit 2:</b> Swami Vivekananda's Message to youth: "What you think that you will be", self-confidence, self-respect, "strength is life", "weakness is death", aims and means, "man is maker of his destiny", "work for work sake".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12 Hours                        |
| <b>Unit 3:</b> Swami Vivekananda's views on National integration, serve man as God, love your nation, renunciation, unity in diversity, faith and strength. Organised struggle for liberation. Universal Religion, Character building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12 Hours                        |
| <b>Unit 4:</b> Swami Vivekananda and Modern Problems: crime and public morality, family breakdown, healthcare, environmental pollution and denigration, male dominance and woman's status, lack of religious identity,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12 Hours                        |
| <b>Unit 5:</b> Swami Vivekananda's thoughts about Education: Concept of education, aim of education, Methods of teaching learning, the qualities of a student, the qualities of a teacher, curriculum, mass education, Women education.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 12 Hours                        |
| <b>REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |
| <ol style="list-style-type: none"> <li>1. Chakrabarti Mohit - Swami Vivekananda - Excellence in Education, Kalpaz Publication, New Delhi, 2008.</li> <li>2. Nair.V.S. Sukamaram – Swami Vivekananda – The Educator, Sterling Publisher (P) Ltd, 1987.</li> <li>3. Diswan A &amp; Aggraval J.C.: Seven Indian Educators, National Solidarity (Publication) Press, New Delhi, 1977.</li> <li>4. Chakrabarti Mohit: Pioneers in Philosophy of Education, National Solidarity Press, New Delhi, 1977.</li> <li>5. Dr.S.C. Chatterjee: Swami Vivekananda Centenary Memorial Volume, Swami Vivekananda's Centenary Committee, 1963.</li> <li>6. The Gospel of Sri Ramakrishna, Sri Ramakrishna Math, Madras, 1985.</li> <li>7. The Complete Works of Swami Vivekananda, Advaita Ashrama, Kolkata, 1989.</li> <li>8. Swami Abhedananda: Swami Vivekanadna and his Work, Advaita Ashrama, Kolkata.</li> </ol> |                                 |

**III Semester:**

|                                                                       |                                                                                                                                                                                |
|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                            | <b>I51:Human Resource Development and Professional Skills</b>                                                                                                                  |
| <b>COURSE OUTCOMES (COs)</b>                                          |                                                                                                                                                                                |
| After completing this paper, the students will be able to understand: |                                                                                                                                                                                |
| CO 1                                                                  | and develop the professional skills                                                                                                                                            |
| CO 2                                                                  | As to what is the meaning of personality and how to develop their own personality.                                                                                             |
| CO 3                                                                  | the psychological development of personality                                                                                                                                   |
| CO 4                                                                  | the values of service, sacrifice self-control, selflessness and moral courage and highlight the significance of character building and spirituality in their self-development. |
| CO 5                                                                  | The concept of positive self-development and undertake critical appraisal of their conceptual understanding and polish their original thinking and writing skills.             |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                      | <b>Teaching Hours (Max. 60)</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Unit 1: Swami Vivekananda. <ul style="list-style-type: none"> <li>➤ Vivekananda: A Spiritual leader</li> <li>➤ Vivekananda's Message to youths</li> <li>➤ Vivekananda's views on National Integration</li> <li>➤ Vivekananda's Vision for development of personality.</li> </ul>                        | 12 Hours                        |
| Unit 2:General Principles and aspects of Integrated Human Development <ul style="list-style-type: none"> <li>➤ Physical development</li> <li>➤ Psychological development</li> <li>➤ Social development</li> <li>➤ Spiritual awareness and development</li> </ul>                                        | 12 Hours                        |
| Unit 3: Self Development <ul style="list-style-type: none"> <li>➤ Harnessing positive thinking and attitude</li> <li>➤ Character Building</li> <li>➤ Will power development</li> <li>➤ Unfolding empathetic and compassionate qualities</li> </ul>                                                      | 12 Hours                        |
| Unit 4: Brain, Mind and Behavior <ul style="list-style-type: none"> <li>➤ Overview of functions of the brain</li> <li>➤ General principles of functioning of mind</li> <li>➤ Effect of positive thinking, meditation</li> <li>➤ Empathetic quality of functioning of brain and body</li> </ul>          | 12 Hours                        |
| Unit 5: Professional skill and Leadership quality development <ul style="list-style-type: none"> <li>➤ Language and communication skill development</li> <li>➤ Analytical skill development</li> <li>➤ Group Discussion</li> <li>➤ Presentation skills</li> <li>➤ Interpersonal relationship</li> </ul> | 12 Hours                        |

| REFERENCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ol style="list-style-type: none"> <li>1. Fan, A: <i>Introduction to personality development</i>. (1983)</li> <li>2. Advaita: <i>Will power and character development</i>. (1997)</li> <li>3. Swami Vivekananda: <i>His call to the nation</i>.</li> <li>4. Swami Chinmayananda: <i>The Art of man making</i>.</li> <li>5. <i>Swami Vivekananda's Kruti Shreni</i>: 1 to 9 Volumes by Shri Ramakrishna Ashram, Yadavgi, Mysore. (2008)</li> <li>6. David. G. Myers (Fourth Ed): <i>Psychology</i>, Worth Publishers New York, 10003.(1995)</li> <li>7. Dennis Coon.: <i>Essentials of Psychology</i>, (8<sup>th</sup> Ed) Wadsworth, USA, (2000).</li> <li>8. Elizabeth B. Hurlock (fifth Ed): <i>Developmental Psychology A Life Span Approach</i> , Tata McGraw- Hill Publishing Co. Ltd New Delhi. (1994)</li> <li>9. Krech, Crutchfield, and Ballachey: <i>Individual in Society</i>, McGraw-Hill Kogakusha Ltd, New Delhi. (1962)</li> <li>10. James C. Coleman (third Ed): <i>Abnormal Psychology and Modern Life</i>, D.B. Taraporevala sons &amp; Co Pvt. Ltd Bombay-1. (1970).</li> </ol> |  |

# **KARNATAK UNIVERSITY, DHARWAD**



**A** Grade  
NAAC Accredited 2014

## **Regulations and Syllabus for PG Department of Studies in URDU AND PERSIAN**

**( I to IV Semester )**

**Under Choice Based Credit System**

**From 2018-19 & onwards**

# KARNATAK UNIVERSITY, DHARWAD

## Arts Faculty of CBCS Regulations

With effect from the academic year 2018-19

### 1.0 Title

These Regulations shall be called "Regulations Governing the Post-Graduate Programmes in the Faculty of Arts under the Choice Based Credit System" in Karnatak University, Dharwad.

### 2.0. Commencement

These Regulations shall come into force with effect from the academic year 2014-15.

### 3.0. Definitions

- a** In these Regulations, unless otherwise provided:  
"Academic Council" means Academic Council of the University constituted according to the *Karnataka State Universities Act, 2000*.
- b** "Board of Studies" means P.G. Board of Studies of the University, Adhoc/ Combined and Steering Committees of International Diploma Programmes in the discipline/subjects concerned.
- c** "Compulsory Course" means fundamental course, which the student admitted to a particular Post-Graduate Programme, should successfully complete to receive the Post Graduate Degree in the concerned subject.
- d** "Course Weightage" means number of credits assigned to a particular course.
- e** "Credit" means the unit by which the course work is measured. One Credit means one hour of teaching work or two hours of practical work per week. As regards the marks for the courses, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f** "Cumulative Grade Point Average (CGPA)" refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward from first semester to subsequent semesters.
- g** "Degree" means Post-Graduate Degree.
- h** "Grade" is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each course by the candidate in both Internal Assessment and Semester-end Examinations.
- i** "Grade Point Average (GPA)" refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester.
- j** "Open Elective Course" means a course offered by a Department to the students of other Departments.

- k** "Post Graduate Programme" means semesterised Master's Degree Programmes in the Faculty of Arts under CBCS excluding P.G. Diploma, Post Graduate International Diploma.
- l** "Specialization course" means advanced course offered by a Department that a student of that Department can opt as a special course.
- m** "Student" means the student admitted to programmes under (k).
- n** "University" means Karnatak University, Dharwad.

#### **4.0. Minimum Eligibility for Admission**

A candidate, who has successfully completed Bachelor's Degree programme or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

#### **5.0. Duration of the Programme**

The duration of study for all the Post-Graduate Degree programmes shall extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with 90 working days.

However, the students, who discontinue the programme after one or more semesters due to extraordinary circumstances, are allowed to continue and complete the programme with due approval from the Registrar. Candidates shall not register for any other regular course other than Diploma and Certificate courses being offered on the campus during the duration of P.G. Programme.

#### **6.0. Medium of Instruction and Evaluation.**

The medium of instruction for all programmes except languages shall be English. However, the students may write the examinations in Kannada if so provided by the concerned Board of Studies.

#### **7.0 Programme Structure**

- 7.1** The students of Post-Graduate Programme shall study the courses as may be approved by the concerned Board of Studies, Faculty and the Academic Council of the University from time to time subject to minimum and maximum credits as outlined in these regulations.
- 7.2** There shall be three categories of courses namely, Compulsory Courses, Specialization Courses and Open Elective Courses.
- 7.3** Each programme shall have a set of Compulsory Courses, as stipulated in the regulations governing the concerned programme, that a student must complete to get the concerned degree.
- 7.4** In those programmes that offer specialization courses, the students shall choose the prescribed number of Specialization Courses offered within the

Department.

- 7.5** Each Department shall offer Open Elective courses for students of other Departments. The students of a Department shall choose Open Elective courses from among those prescribed by the University from time to time. P.G. Centers and affiliated colleges can offer those Open Elective Courses which are approved or prescribed by their Parent Department of the University. Such Open Elective courses shall be taught by qualified teachers approved by the University.
- 7.6** The credits for each of the Compulsory Courses may vary from 2 to 4; for Specialization Course 4; and for Open Elective Course, from 1 to 4. Wherever practical component/ project work/ field work/ dissertation/ orals is involved in the course, the total credits may extend to 6 or as otherwise provided.
- 7.7** A student shall register for a minimum of 72 credits during the whole duration of PG Programme.
- 7.8** The students shall undertake project/extension/field work/dissertation/ during the programme as a compulsory course or in lieu of Specialization Course or Open Elective Course if so specified by the concerned Board of Studies.
- 7.9** The ratio between Compulsory, Specialization and Open Elective may differ from department to department.
- 7.10** The detailed programme structure for Faculty of Arts shall be as prescribed and shown below:

| Semester                 | No. of Compulsory courses (credit per course) | Total no. of credits of compulsory courses | Specialisation Courses (credit per course) | Total no. of credits for Specialisation courses | Open Elective Course (credit per course) | Total no. of credits of Open Elective Course (OEC) | Total no. of credits for the semester |
|--------------------------|-----------------------------------------------|--------------------------------------------|--------------------------------------------|-------------------------------------------------|------------------------------------------|----------------------------------------------------|---------------------------------------|
| Sem. I                   | 03 (04)                                       | 12                                         | 1-3 (4)                                    | 4                                               | 1-3 (2-4)                                | 2-4                                                | 20                                    |
| Sem. II                  | 03 (04)                                       | 12                                         | 1-3 (4)                                    | 4                                               | 1-3 (2-4)                                | 2-4                                                | 16+OEC                                |
| Sem. III                 | 03 (04)                                       | 12                                         | 1-3 (4)                                    | 4                                               | 1-3 (2-4)                                | 2-4                                                | 16+OEC                                |
| Sem. IV                  | 03 (04)                                       | 12                                         | 1-3 (4)                                    | 4                                               | 1-3 (2-4)                                | 2-4                                                | 20                                    |
| For the entire Programme | 12                                            | 48                                         | 4-12 (4)                                   | 16                                              | 4-12 (2-4)                               | 8-16                                               | 64 + 8 (= 72)                         |

- 7.11** The Open Elective Courses shall have oral component if so prescribed by the concerned Board of Studies. The number of students admitted to the course shall be commensurate with the availability of infrastructure.
- 8.0 Attendance**
- 8.1** Each course shall be taken as a unit for the purpose of calculating the attendance.
- 8.2** Each student shall sign the attendance register maintained by the

Department for each course for every hour/unit of teaching/practical. The course teachers shall submit the monthly attendance report to the Chairperson of the Department who shall notify the same on the notice board of the Department during the second week of the subsequent month.

- 8.3** Marks shall be awarded to the student for attendance as specified in the regulations concerning evaluation.
- 8.4** A student shall be considered to have satisfied the required attendance for each course if he/she has attended not less than 75 % of the total number of instructional hours in that course.
- 8.5** There is no provision for condoning shortage of attendance.
- 8.6** The students who do not satisfy the prescribed requirement of attendance shall not be eligible for the ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.7** Such of the candidates who have participated in State/National level Sports, NSS, NCC, Cultural activities and other related activities as stipulated under the existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authorities within two weeks after the event.
- 9.0 Examination**
- 9.1.** There shall be an examination at the end of each semester. The odd semester examinations shall be conducted by the respective Departments/ P.G.Centres/ Colleges. The even semester examinations shall be conducted by the University.
- 9.1.1.** There shall be semester-end examination of 3 hours duration for 75 marks; 2 hours for 50 marks, 1.5 hours for 35 marks and 1 hour for 25 marks course.
- 9.1.2** Every student shall register for each semester-end examination as per the University Notification by submitting duly completed application form through the proper channel and shall also pay the fees prescribed.
- 9.1.3** The Office of the Registrar (Evaluation) shall allot the Register Number to the candidate at the 1st semester-end examination. That will be the Register Number of the candidate for all subsequent appearances and semester-end examinations.
- 9.1.4** The Answer scripts shall be in the safe custody of the University for a period of six months from the date of announcement of results. These shall be disposed off after six months.
- 9.1.5** The programme under CBCS is a fully carry-over system. A candidate reappearing for either the odd or even semester examinations shall be permitted to take examinations as and when they are conducted (even semester examination in even semester and odd semester examination in odd semester).
- 9.1.6** Candidates who have failed, remained absent or opted for improvement in any course/ courses shall appear for such course/ courses in the two immediate successive examinations that are conducted. However, in the case of the candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained, if the same is higher.

**9.1.7** Candidates who desire to challenge the marks awarded to them, in the even semester-end examinations, may do so by submitting an application along with the prescribed fee to the Registrar (Evaluation) within 15 days from the announcement of results.

## **9.2 Odd Semester Examination**

**9.2.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.

**9.2.2** The BOE shall scrutinise the question papers submitted in two sets by the paper setters and submit the same to the office of the Registrar (Evaluation).

**9.2.3** The office of the Registrar Evaluation shall dispatch the question papers to the Departments/ P.G.Centres/ Colleges who shall conduct the Examinations according to the Schedule announced by the University.

**9.2.4** The Chairperson of the Department/ Administrator of the P.G.Centre/ Principal of the College shall appoint one of their full time course teachers as Post Graduate Programme (PGP) Coordinator who shall conduct the examinations and arrange for evaluation of answer scripts.

**9.2.5** Answer scripts shall be valued by the examiners appointed by the University. However, in those centers where an examiner for a particular course is not available, then the answer scripts of that course shall be dispatched to the office of the Registrar (Evaluation) who shall arrange for valuation of the same.

**9.2.6** There shall be single valuation. The examiner (Internal or External) shall value the answer scripts and shall indicate the marks awarded to each question on the answer script.

**9.2.7** The Marks List, a copy of the Examination Attendance Sheet and the sealed bundles of the answer scripts shall be dispatched by the PGP Coordinator to the Registrar's (Evaluation) Office at the conclusion of the valuation at the respective centres.

**9.2.8** The Office of the Registrar Evaluation shall process and announce the results.

## **9.3 Even Semester**

**9.3.1** There shall be a Board of Examiners to set, scrutinise and approve question papers.

**9.3.2** As far as practicable, it will be ensured that 50% of the paper setters and examiners are from other Universities/ Research Institutes.

**9.3.3** Each answer script of the semester-end examination (theory and project report/dissertation/practical) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks, such a script shall be assessed by a third examiner. The marks allotted by the third examiner shall be averaged with nearer award of the two evaluations.

Provided that in case the number of answer scripts to be referred to the

third examiner in a course exceeds minimum of 5 or 20% of the total number of scripts, at the even semester-end examinations, such answer scripts shall be valued by the Board of Examiners on the date to be notified by the Chairperson of the Board of Examiners and the marks awarded by the Board shall be final.

**9.3.4** Wherever dissertation/ project work is prescribed in the even semesters of a programme, the same shall be evaluated by both internal and external examiners. The evaluation shall be as prescribed by the concerned Board of Studies.

**9.3.5** In case of programmes with oral examination, details of maximum marks, credits or duration may vary from Department to Department as specified by the concerned Board of Studies.

#### **9.4. Evaluation**

**9.4.1** Each Course shall have two evaluation components - Internal Assessment (IA) and the Semester End Exams.

**9.4.2** The IA component in a course shall carry 25/25/15 marks and the Semester End Examination shall carry 75/50/35 marks respectively, as the case may be. Courses having 25 marks and 15 marks as IA component shall have a maximum of 3 marks allotted for attendance. However, in case of project work, the distribution marks for internal assessment and examination shall be left to discretion of the concerned BOS.

**9.4.3** Marks for attendance shall be awarded to the students according to the following table. For courses carrying 25 / 15 of marks for IA, the attendance marks shall be:

| Attendance (in percentage) | Marks    |
|----------------------------|----------|
| Above 90                   | 3        |
| Above 80 and up to 90      | 2        |
| Above 75 and up to 80      | 1        |
| 75                         | No marks |

**9.4.4** Internal Assessment (IA) shall be based on written tests/ assignments/ seminars/orals and /or any other instructional activity as specified in the Faculty Regulations from time to time. However, the number of IA components per course per semester shall not be less than two.

**9.4.5** The IA marks list shall be notified on the Department Notice Board as and when the individual IA components are completed and the consolidated list shall be submitted to the Office of the Registrar Evaluation before the commencement of semester-end examination, or as directed by the University.

**9.4.6** The tests shall be written in a separately designated book supplied by the University which shall be open for inspection by the students after evaluation.

**9.4.7** There is no provision for seeking the improvement of Internal Assessment marks.

**9.4.8** The IA records, pertaining to a Semester Examination, shall be preserved by the Departments/ Centres/ Colleges for a period of one year from

the date of the semester Examination. These records may be called by the University or a body constituted by the University as and when deemed necessary.

**9.4.9** The Viva-voce shall be conducted by an internal and external examiner.

**9.4.1** The marks distribution per course shall be as follows:

0

| Max. marks per course | IA marks               |                              |       | Semester-end examination | No. of teaching hours | No. of credits |
|-----------------------|------------------------|------------------------------|-------|--------------------------|-----------------------|----------------|
|                       | Test/Orals/Assignments | Maximum marks for Attendance | Total |                          |                       |                |
| 100                   | 22                     | 3                            | 25    | 75                       | 4                     | 4              |
| 75                    | 22                     | 3                            | 25    | 50                       | 3                     | 3              |
| 50                    | 12                     | 3                            | 15    | 35                       | 2                     | 2              |

#### **10.0. Maximum duration for completion of the Programme**

**10.1** A candidate admitted to a post graduate programme shall complete it within a period, which is double the duration of the programme from the date of admission.

**10.2** Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to the new syllabus.

#### **11.0. Declaration of Results**

**11.1** The minimum for a pass in each course shall be 40% of the total marks including both the IA and the semester-end examinations. Further, the candidate shall obtain at least 40% of the marks in the semester-end examination. There is no minimum for the IA marks.

**11.2** Candidates shall secure a minimum of 50% in aggregate in all courses of a programme in each semester to successfully complete the programme.

**11.3** Candidates shall earn the prescribed number of credits for the programme to qualify for the PG Degree.

**11.4** For the purpose of announcing the results, the aggregate of the marks secured by a candidate in all the semester examinations shall be taken into account. However, Ranks shall not be awarded in case the candidate has not successfully completed each of the semesters in first attempt or has not completed the programme in the stipulated time (vide Regulation 5) or had applied for improvement of results.

#### **12.0 Marks, Credit Points, Grade Points, Grades and Grade Point Average**

**12.1** The grade points and the grade letters to candidates in each course shall be awarded as follows:

| Percentage of marks             | Grade Points                     | Grade Letter |
|---------------------------------|----------------------------------|--------------|
| 75 and above, up to 100.00 %    | 7.50 to 10.00                    | A            |
| 60 and above but less than 75 % | 6.00 and above but less than 7.5 | B            |
| 50 and above but less than      | 5.00 and above but less than     | C            |

|                                 |                                    |   |
|---------------------------------|------------------------------------|---|
| 60 %                            | 6.0                                |   |
| 40 and above but less than 50 % | 4.00 and above but less than 05.00 | D |
| less than 40.00 %               | Less than 4.00                     | F |

**12.2** Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

**12.3** The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned by the student in all the courses by the total number of credits of those courses of the semester.

**12.4** The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA to date shall be calculated by dividing the total number of credit points in all the semesters to date by the total number of credits in all the semesters to date.

CGPA for the I Semester = Sum of the CP of the I Semester  $\div$  Sum of the credits of the I Semester

CGPA for the II Semester = Sum of the CP of the I Sem + Sum of the CP of II Sem.  $\div$  Sum of the credits of the I Semester + II Semester

CGPA for the III and IV Semesters shall be computed accordingly

**12.5** The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit points obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.

**12.6** Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

| Cumulative Grade Point Average (CGPA) | Class to be awarded          |
|---------------------------------------|------------------------------|
| 7.5 to 10.0                           | First class with Distinction |
| 6.0 and above but below 7.5           | First Class                  |
| 5.0 and above but below 6.0           | Second Class                 |

### 13.0 Miscellaneous:

- a Notwithstanding anything contained in these regulations, the semester system at Post-Graduate level is hereby repealed.
- b The provisions of any order, Rules or Regulations in force shall be inapplicable to the extent of its inconsistency with these Regulations.
- c The University shall issue such orders, instructions, procedures and prescribe such format as it may deem fit to implement the provisions of this Regulations.
- d The procedural details may be given by the University from time to time.
- e Any unforeseen problems/ difficulties may be resolved by the Vice Chancellor, whose decision in the matter shall be final.

Illustrative Model:

Grade Card

Programme:

Name of the candidate:

Semester: I

Seat No:

Month & Year:

| Course                       | Course code no | Credits | Max Marks | Mark Obtained | Semester Grade Point | Credit Points |
|------------------------------|----------------|---------|-----------|---------------|----------------------|---------------|
| <b>Compulsory Courses</b>    |                |         |           |               |                      |               |
| • Course-I                   |                | 04      | 100       | 60            |                      | 24.00         |
| • Course-II                  |                | 04      | 100       | 74            | 6.00                 | 29.60         |
| • Course-III                 |                | 04      | 100       | 43            | 7.40                 | 17.20         |
| ○ ----                       |                |         |           |               | 4.30                 |               |
| ○ -----                      |                |         |           |               |                      |               |
| <b>Specialisation Course</b> |                |         |           |               |                      |               |
| Course-I                     |                | 04      | 100       | 52            | 5.20                 | 20.80         |
| Course -II                   |                | 04      | 100       | 65            | 6.50                 | 26.00         |
| *                            |                |         |           |               |                      |               |
| *                            |                |         |           |               |                      |               |
| <b>Open Elective Course</b>  |                |         |           |               |                      |               |
| Course-I                     |                | 02      | 50        | 40            | 8.00                 | 16.00         |
| Course-II                    |                | 02      | 50        | 35            | 7.00                 | 14.00         |
| Total                        |                | 24.00   | 600       | 369           |                      | 147.60        |

GPA for I Semester = Total no. of CP ÷ Total no. of Credits = 147.60 / 24.00 = 6.15

CGPA for I Semester = GPA = 6.15

Calculation of CGPA for II, III and the Final Semester

$$\begin{aligned}
 \text{CGPA for II Sem} &= \frac{\text{CP (ISem)} + \text{CP (II Sem)}}{\text{Credits (ISem)} + \text{Credits (IISem)}} \\
 &= \frac{\text{CP (ISem)} + \text{CP (II Sem)} + \text{CP (III Sem)}}{\text{Credits (ISem)} + \text{Credits (IISem)} + \text{Credits (IIISem)}}
 \end{aligned}$$

CGPA for III Sem = -----

-----

Credits(I Sem) + Credits(II Sem) + Credits(III Sem)

CP (I Sem) + CP(II Sem) + CP(III Sem) + CP (IV Sem)

CGPA for the programme = -----

-----

Credits(I Sem) + Credits(II Sem) + Credits(III Sem) + Credits(IV Sem)

(\*CP: Credit Points)

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# **KARNATAK UNIVERSITY, DHARWAD**



**A** Grade  
NAAC Accredited 2014

## **Syllabus for PG Department of Studies in URDU AND PERSIAN**

**( I to IV Semester )**

**Under Choice Based Credit System**

**From 2018-19 & onwards**

## Course Outline for the M.A.URDU

### SEMESTER - I

| Paper Code | Title of the Paper                                          | Max. Marks | Internal Assessment | Total Marks | Credits | Teaching Hrs. |
|------------|-------------------------------------------------------------|------------|---------------------|-------------|---------|---------------|
|            | <b>Compulsory Papers</b>                                    |            |                     |             |         |               |
| PG54T101   | Classical Urdu Poetry                                       | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T102   | Study of Form of Literature Afsana                          | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T103   | History of Urdu Literature Liguistic (Bigning to till 1857) | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T104   | Study of Author Allama Shibli Numani.                       | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T105   | Study of Urdu Qaseeda                                       | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
|            |                                                             |            |                     |             |         |               |

### SEMESTER - II

| Paper Code | Title of the Paper                                                                                        | Max. Marks | Internal Assessment | Total Marks | Credits | Teaching Hrs. |
|------------|-----------------------------------------------------------------------------------------------------------|------------|---------------------|-------------|---------|---------------|
|            | <b>Compulsory Papers</b>                                                                                  |            |                     |             |         |               |
| PG54T201   | Modern Poetry                                                                                             | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T202   | Principles of Criticism and Urdu Literary Criticism                                                       | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T203   | History of Modern Urdu Literature After -1857                                                             | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T204   | * <b>Specialisation</b><br>A-Biography & Sketch<br>OR<br>B- Study of Inshaiya                             | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
|            | <b>Open Elective Paper</b>                                                                                | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T205A  | URDU FOR BEGINNERS-I<br>(Study of urdu Langauge & Simple Grammer)<br><b>For non urdu Students</b>         | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T205B  | URDU FOR KNOWING-I-<br>POETRY(GHAZLIYAT) & SHORT STORY<br><i>Students who <u>know</u> the Urdu Script</i> | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T205C  | OEC PERSIAN FOR BEGINNERS<br>(Study of Persian Langauge & Simple Grammer, Translation)                    | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
|            |                                                                                                           |            |                     |             |         |               |

### SEMESTER - III

| Paper Code | Title of the Paper                                                                                     | Max. Marks | Internal Assessment | Total Marks | Credits | Teaching Hrs. |
|------------|--------------------------------------------------------------------------------------------------------|------------|---------------------|-------------|---------|---------------|
|            | <b>Compulsory Papers</b>                                                                               |            |                     |             |         |               |
| PG54T301   | Study of Prose                                                                                         | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T302   | Urdu Journalism & Mass Communication                                                                   | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T303   | Gazal Ka Mutaliya                                                                                      | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T304   | Study of Drama                                                                                         | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
|            | <b>Open Elective Paper</b>                                                                             | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T305A  | URDU FOR BEGINNERS-II – Introduction to Introduction to the Form of Urdu Literature and Simple Grammar | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T305B  | URDU FOR KNOWING-II- POETRY (NAZM)& PROSE (ESSAYS)                                                     | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T305C  | PERSIAN KNOWING – STUDY OF PERSIAN LITERATUR                                                           | 75         | 25                  | 100         | 4       | 4 Hrs / week  |

### SEMESTER – IV

| Paper Code | Title of the Paper                                                                                     | Max. Marks | Internal Assessment | Total Marks | Credits | Teaching Hrs. |
|------------|--------------------------------------------------------------------------------------------------------|------------|---------------------|-------------|---------|---------------|
|            | <b>Compulsory Papers</b>                                                                               |            |                     |             |         |               |
| PG54T201   | Literary Movements & Modern Trends.                                                                    | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T202   | Translation, Prosody & Rhetoric                                                                        | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T203   | Study of Novel And Novelet                                                                             | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T204   | * Specialisation<br>Study of Special Author/<br>Poet<br>A-Dr. Mohammed Iqbal<br>Or<br>B - Mirza Ghalib | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG54T205   | Dissertation                                                                                           | 100        | 25                  | 100         | 4       | 4 Hrs / week  |

- Internal Assessment The various components of IA for 25 Marks are as follows :

- (i) Attendance 3 marks
- (ii) Tests ( announced) 1 Nos 11 Marks
- (iii) Tests ( surprise ) 1 Nos 11 marks

Total = 25

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

1. Urdu language and literature is taught to prepare the student to teach and facilitate Urdu language in society which can pave his way towards his bread earning and employability in global scenario.
2. The course of Urdu M.A. is skill based program ,which can creat a professional specialty the Film Industry which is pillared by its music and songs, which needs Urdu language for its base.
3. It not only leads to professionalism but also leads towards self employment of the learner.
4. MA Urdu graduates are getting jobs in public and private sectors.  
Urdu is accepted as the 6<sup>th</sup> global language, and language of UNO .  
Many T.V.channels are run in Urdu language.
- 5 . The students will be facilitated for doing research, getting teaching jobs  
The M.A Urdu course is skill based professional course which can open many doors of employment, in Mass Media,Drama, Theater, Film Industry as script writer, and a Journalist in many dailies ,weaklies and monthly magazines and editorialship of specific website or a webwords.

|                                                                   |                                                                                                                                             |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T101: CLASSICAL URDU POETRY</b>                                                                                                      |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                             |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                             |
| <b>CO 1</b>                                                       | To Understand the socio-cultural history of the era of India, which has influenced the literature of the time.                              |
| <b>CO 2</b>                                                       | To Understand the socio-cultural history of the era of Persia and other part of the world, which has influenced the literature of the time. |
| <b>CO 3</b>                                                       | To Get acquainted with major forms of poetry written in the era like, marsiya, Masnavi, Rubaiyat.                                           |
| <b>CO 4</b>                                                       | To Get acquainted with major poets, their life, sketch, important historical events and their poetry.                                       |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours (Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I : Urdu Shairi ki khadeem Asnaf ka Taaruf.</b>                                                                                                                                                                                                                                                                                                      |                                 |
| Urdu Shairi ki khadeem Asnaf ka Taaruf, Haiyyat, Agaaz-o-Irtiqa.<br><b>Masnavi</b> : Masnavi ki Tareef Ajzaye-tarkibi, Masnavi ki ahamiyat, Aagaz-o-Irtiqa, Gulzar-e-Naseem ka Matani Mutaliya Aur Iss Ka Tanqeedi Jayeza. Daya Shankar Naseem Ke Halat-e-Zindagi Aur Unki Masnavi Nigari.                                                                   |                                 |
| <b>UNIT II : Marsiya</b>                                                                                                                                                                                                                                                                                                                                     |                                 |
| <b>Marsiya</b> : Marsiye ki Tareef Ajzaye Tarkibi, Marsiye ki Haiyyat Tahezibi Anasir, Pus Manzar, Kirdar Nigari, Manzar Nigari Adabi Mahasin Aur Aham Shora, Anees, Dabeer, Hali Aur Iqbal Ki Marsiya Nigari Ka Khususi Mutaliya. Anis-o-Dabeer ke Marsiyaon ka Matani-o-Taqaaboli Mutaliya Aur Moulana Hali Aur Mohd. Iqbal Ke Marsiye Ka Matani Mutaliya. |                                 |
| <b>UNIT III : Rubai</b>                                                                                                                                                                                                                                                                                                                                      |                                 |
| <b>Rubai</b> : Rubai Ki Tareef, Fun, iss ki Bahreen, Rubai Ka Irtiqa, Mauzoat, Hali, Akbar Aur Amjad Hyderabad Ki Rubayee Goyi Aur Rubaiyat ka Matani Mutala                                                                                                                                                                                                 |                                 |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                             |                                 |
| <b>Recommended Books :</b>                                                                                                                                                                                                                                                                                                                                   |                                 |
| 1. <b>Gulzar-e-Naseem</b> – By : Daya Shankar Naseem- Edited By: Qamarul Huda Fareedi<br>Pub By : Educational Book House Aligarh                                                                                                                                                                                                                             |                                 |
| 2. <b>Marasiy-e-Anees-o-Dabir</b> – Ed By : Rasheed Hasan Khan<br>Pub By : Maktab-e-Jamia New Delhi.                                                                                                                                                                                                                                                         |                                 |
| <b>The Following Marsiyas only :</b>                                                                                                                                                                                                                                                                                                                         |                                 |
| i) Namake Khwan-e-Takallum Hai Fasahat Meri (Meer Anis)                                                                                                                                                                                                                                                                                                      | ( P-171)                        |
| ii) Dast-e-Khuda ka Quwate Bazoo Hussain Hai (Mirza Dabeer)                                                                                                                                                                                                                                                                                                  | ( P-267)                        |

- iii) Marsiya-e- Galib - By : Altaf Hussain Hali (From Deewan-e-Hali) ( P-156)  
Pub by : Urdu Academy Delhi
- iv) Marsiya-e-Daag– By Mohd Iqbal - From Kulyat-e- Iqbal– (Bang-e-Dira) (P-98)  
Pub by : Educational Book House Aligarh

#### UNIT V :

**Urdu Rubayee Mey Tasawwuf ki Riwayat** – By : Dr.Salma Kubra

Pub By- Abbas Publications Kolkata

( The following Rubayeeyat only)

#### **Rubayeeyat-e-Hali**

- |                                           |                                             |
|-------------------------------------------|---------------------------------------------|
| 1. Hindu ne sanam mein jalwa paya tera    | 2. Miti se hawa se aatishe-o-aab se ya      |
| 3. Kanta hai her zigar mein atka tera     | 4. Hasti hai teri rang-o-bu sub ke liye     |
| 5. Kya hogi dalil tujhpe aur is se jiyada | 6. A manzil hai bayeed bandh lo jad-e-safar |
| 7. Yan rahene ki muhalat koi kab pata hai | 8. Tufan mein jab zahaj chakker khata hai.  |

#### **Rubayeeyat-e-Akbar**

- |                                          |                                                |
|------------------------------------------|------------------------------------------------|
| 1. Hasil karo ilm Taba ko tez karo       | 2. Duniya karti hai aadmi ko barbad            |
| 3. Tasbih-o-duwa mein jis ne lazat payee | 4. Dunya-e-dani ki ye hawas jane do            |
| 5. Khatir majbut dil tawana rakho        | 6. Kahene ko tu shah sub hain maheraj hain sub |
| 7. Kholi hai jaban khush bayani ke liye  | 8. rakho jo mukabil iss ke saara aalam.        |

#### **Rubayeeyat-e-Amjad**

- |                                          |                                             |
|------------------------------------------|---------------------------------------------|
| 1. Taqdeer se kya gila khuda ki marzi    | 2. Dast-e-sarsar mein bahere mawaj hun main |
| 3. Tan ki rag rag se jue khun jari hai   | 4. Har rang mein berang ki surat dekhi      |
| 5. Ankhon se nikal ke ashk tham jata hai | 6. Jare jare mein hai khudai dekho          |
| 7. Darya-e-mohabat hai safina mera       | 8. Jholi bande ki Banda parwar bhar de      |

#### Reference Books :

- |                                         |                              |
|-----------------------------------------|------------------------------|
| 1) Urdu Masnavi Ka Irtiqat              | -By : Abdul Khadeer Sarvari  |
| 2) Urdu Masnavi Shimali Hind Mey        | -By : GyanChand Jain         |
| 3) Urdu Ki Teen Masnaviyan              | -By : Khan Rashid.           |
| 4) Anees Shanasi                        | -By : Fazal Imam.            |
| 5) Mowazina-e- Anees-o-Dabir            | - By : Shibli Numani         |
| 6) Urdu Rubaiyan                        | - By : Dr.Salam Dasnavi      |
| 7) Yadgar-e-Hali                        | - By : Saleha Abid Hussian . |
| 8) Iqbal Ka Funn by Gopi Chand Narang . |                              |
| 9) Iqbal Dana-e-Raaz                    | - By Abdul Lateef Azmi.      |
| 10) Daneeshwa-e-Iqbal                   | - By Al-Ahmed Surur.         |

#### Pattern of Question Paper

- |                                                                                                        |           |
|--------------------------------------------------------------------------------------------------------|-----------|
| 1. There are four main Questions on Form of Masnavi, Marsiya, Rubayi/Poets/Texts with Internal Choice. | 4X 15 =60 |
| 2. One Question (A) on Summarisation of Band from Marsiya (2 out of 3)                                 | 2 X 5 =10 |

|                                                |                  |
|------------------------------------------------|------------------|
| (B) on Summarisation of Rubaiyaat (2 out of 3) | 2 X2 ½ =05       |
|                                                | Total Marks = 75 |

|                                                                   |                                                                                                                                                                  |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T102 : STUDY OF URDU AFSANA (SHORT STORY)</b>                                                                                                             |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                                                  |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                                                  |
| <b>CO 1</b>                                                       | 1.Short story is the form taken from English literature, students get awared of the form of literature its base and comparative literature .                     |
| <b>CO 2</b>                                                       | 2 .Understand the movements of lieterature and history of the time which affected short stories in Urdu.                                                         |
| <b>CO 3</b>                                                       | 3.Knows the majorwriters such as Premchand, Krishn Chandr, Rajendra Singh Bedi, etc, and their style of writing , life sketch and important work of the writers. |
| <b>CO 4</b>                                                       | 1. . Knows their style of writing , life sketch and important work of the writers.                                                                               |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                           | <b>Teaching Hours (Max. 64)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                              |                                 |
| Afsane Ki Tareef, Ajzaye Tarkibi, Urdu Mey Afsane Ki Riwayat, Ahem Afsana Nigar                                                                                                                                                                                              |                                 |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                             |                                 |
| Urdu Afsane Per Taraqi Pasand Tahreeq ke Asrat aur Jadeed Afsane Ke Khud-o-Khal                                                                                                                                                                                              |                                 |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                            |                                 |
| Nisaab Mey Shamil Afsana Nigaron ki Afsana Nigari                                                                                                                                                                                                                            |                                 |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                             |                                 |
| Afsana nigaron ke Muntaqab Afsanaon ka Tanqidi Mutala                                                                                                                                                                                                                        |                                 |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                              |                                 |
| <b>Recommended Books</b><br><b>1.Urdu Ke Tera Afsane-</b> Etd by :Athar Parvez<br>Pub By :Education Book House Aligarh (U.P)<br><br><b>2.Manto Ke Numayenda Afsane-</b> Etd By : Athar Parvez<br>Pub By ; Educational Book House Aligarh<br><br>The following Afsanas only : |                                 |

- |                         |                          |
|-------------------------|--------------------------|
| 1) Kafan                | : by Premchand           |
| 2) Mahalaxmi Ka Pull    | : by Krishn Chandr       |
| 3) Babu Gopinath        | : by Manto               |
| 4) Apne Dukh Mujhe Dedo | : by Rajendar Singh Bedi |
| 5) Chouthi Ka Joda      | : by Ismath Chughtai     |
| 6) Nazara Darmiyan Hai  | : by Qurratul-Ain Hyder  |
| 7) Aakhari Aadmi        | : by Intezar Hussain.    |

### Reference Books :

- |                                    |                         |
|------------------------------------|-------------------------|
| 1) Fun-e-Afsana Nigari-            | By : Waqar Azim         |
| 2) Naya Afsana –                   | By : Waqar Azim         |
| 3) Taraqqi Pasand Tahreeq Se Qabl- | By : Dr.Sagir Afrahim   |
| 4) Afsana Riwayat Aur Masail-      | By : Gopi Chand Narang. |

### Pattern of Question Paper

- |                                                                                       |             |
|---------------------------------------------------------------------------------------|-------------|
| 1. There are four main Questions on Form of Afsana/Writer/Texts with Internal Choice. | 4 X 15 = 60 |
| 2. One Short Note Question on Text/ Author /Characters (2 out of 4) .                 | 2X7 ½ = 15  |
| Total Marks = 75                                                                      |             |

|                                                                   |                                                                                                                                                                         |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T103 : HISTORY OF URDU LITERATURE &amp;LNUISTICS (Beginning to till 1857)</b>                                                                                    |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                                                         |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                                                         |
| <b>CO 1</b>                                                       | To understand the meaning and nature of language                                                                                                                        |
| <b>CO 2</b>                                                       | And linguistics,history and roots of Urdu linguistics and birth of Urdu Language.                                                                                       |
| <b>CO 3</b>                                                       | Gets awared of the historical movements of the time and the progress of Urdu Language andLiterature.                                                                    |
| <b>CO 4</b>                                                       | Gets acquainted with the poets of the age,history of the times, role of kings of the time to pave the way to language as court language specially Adil Shahi of Deccan. |

| <b>PARTICULARS</b>                                                                                                                                                            | <b>Teaching Hours<br/>(Max. 64)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                               |                                     |
| Ilme Lisaniyat, Zubanu ke Khandan , Hind Ariyai Zabane, Magribi Aur Uski boliyan Prakreet , Apabharansh, Brij, Khadi Boli, Aur Pushatu ,etc                                   |                                     |
| <b>UNIT II :</b>                                                                                                                                                              |                                     |
| Urdu Zuban ke Mutaliq Mukhatalif Nazriyat,Md Hussain Azad,Naseeruddin Hashami, Sayed Suleman Nadavi, Mahamood Shirani, Shoukat Sabzwari Aur Masood Hussain Khan, ke hawale se |                                     |
| <b>UNIT III :</b>                                                                                                                                                             |                                     |
| Dakhani Adab ka Mutala, Adil Shahi-o-Qutub Shai Daur ki Khidmat,Wali Aur Siraj ka Khusosi Mutalah-                                                                            |                                     |
| <b>UNIT IV :</b>                                                                                                                                                              |                                     |
| Fort William College ki khidmat Urdu Ke Hawale Se,                                                                                                                            |                                     |
| <b>UNIT V :</b>                                                                                                                                                               |                                     |
| Dabistan-e-Lucknow ke Shora ,Meer-o-Sauda ka Daur, Insha-o-Musahafi ka Daur, Atish-o-Nasikh ka Daur-Delhi Dabestan ke Shora- Ghalib ,Zauque-o-Momin ka Daur.                  |                                     |

| <b>Recommended Books :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>Urdu ki Lisani Tashkeel– By : Dr.Mirza Khaleel Ahmad Baig<br/>Pub By : Educational Book House Aligarh.</li> <li>Dakhani Adab ki Tarikh- By : Dr.Mohiyuddin Qadri Zor<br/>Pub By : Idara-e-Adbiyat-e-Urdu Hyderabad.</li> <li>Deccan Mey Urdu - By : Naseeruddin Hashmi<br/>Pub By : National Council for Promotion of Urdu Language, New Delhi</li> <li>Tareekh-e-Adabe Urdu –By : Ram Babu Saxena<br/>Pub By : Idara-e-Kitabush Shifa, New Delhi</li> </ol> |

| <b>Pattern of Question Paper</b>                                                                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>One Question on Urdu Language &amp; Linguistics with Internal Choice. 1X15 =15</li> <li>Three Questions based on Area of Study with Internal Choice. 3X15 = 45</li> <li>One Question on Short Notes (2 out of 4) 2X7 ½ =15</li> </ol> <p style="text-align: right;">Total Marks = 75</p> |

|                            |                                                               |
|----------------------------|---------------------------------------------------------------|
| <b>Paper Code and Name</b> | <b>PG54T104: STUDY OF SPECIAL AUTHOR ALLAMA SHIBLI NUMANI</b> |
|----------------------------|---------------------------------------------------------------|

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|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
|                                                                   |                                                                                           |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                           |
| <b>After completing this paper, the students will be able to:</b> |                                                                                           |
| <b>CO 1</b>                                                       | After studying this paper the student will be aware of Allama Shibli Numani, personality, |
| <b>CO 2</b>                                                       | his writings, and the socio-political situation of Allama Shibli Numani Age.              |
| <b>CO 3</b>                                                       | Know the struggles of the time during the time of Independence.                           |
| <b>CO 4</b>                                                       | Get acquainted with his writings, and the historical events of the time and the message.  |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours<br/>(Max. 64)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| Shibli ki Hayat Aur Shakshiyat, Ilmi-o-Adabi Karname                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| Shibli Ki Sawaneh Nigari Ka Jayez Al-Farooque ke Hawale Se,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
| Shibli ki Sirat Nigari, Siratun Nabi, ( Jild Awal ) ka Khususi Mutala-                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| Shibli Ki Tanqeed Nigari-o-Tareeq Nigari, Shibli Ke Miqalat..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <b>Books :</b><br>1. <b>Sirtun Nabi</b> ( Vol-I ) – By : Moulana Shibli Numani<br>Pub By : Maktaba Madina Urdu Bazar Lahore.<br>2. <b>Al-Farooque</b> – By : Moulana Shibli Numani<br>Pub By : Farid Book Depot Delhi<br>3. <b>Mawazina Anees-o-Dabir</b> – By : Moulana Shibli Numani<br>Pub By : Jamia Masjid Mitiya Mahal Delhi<br>4. <b>Intiqab-e-Mazamin-e-Shibli</b> – By : Moulana Shibli Numani<br>Pub By : Maktaba Jamia New Delhi<br>5. <b>Shair-ul-Ajam</b> – By : Moulana Shibli Numani (Vol-I)<br>Pub By : Marib Azamgarh (UP). |                                     |

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| <b>Reference Books :</b>                        |                                         |
| 1. Hayat-e-Shibli –                             | By : Sayed Suleman Nadvi                |
| 2. Moulana Shibli Eak Tanqeedi Mutala –         | By : Dr. Nayya Jahan                    |
| 3. Shibli ka Martaba Urdu Adab Mein –           | By : Abdul Latif Azami                  |
| 4. Urdu May Fun-e-Sawaneh Nigari Ka Irteqa –    | By : Dr Mumtaz Faqira                   |
| 5. Fiqr-o-Nazar Ka Shibli Number(Sahe Mahi)-Etd | By : Muslim Aligarh University Aligarh. |

|                                                                     |                   |
|---------------------------------------------------------------------|-------------------|
| 6. Shibli ki Ilmi-o-Adabi Khidmat –                                 | By : Khaliq Amjum |
| 7. Shibli Maanidana-Tanqeed Ki Rushani Mey –By : Sayed Sahabuddin . |                   |

| Pattern of Question Paper                                                                |             |
|------------------------------------------------------------------------------------------|-------------|
| 1. There are Four main Questions on Texts Author and Area of Study with Internal Choice. | 4X15 =60    |
| 2. . One Short Note Question on Text And Author (2 out of 4)                             | . 2X7 ½ =15 |
| Total Marks = 75                                                                         |             |

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|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T105 :STUDY OF URDU QASEEDA</b>                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                   |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                   |
| <b>CO 1</b>                                                       | Know about the form of Urdu poetry Qaseeda.Its features etc.                                      |
| <b>CO 2</b>                                                       | Understand the history of the time when Qaseeda was written.                                      |
| <b>CO 3</b>                                                       | Know about the important poets of Urdu Qaseeda, like, Mirza Souds, Insha, Zauq Ghalib, Mohsin etc |
| <b>CO 4</b>                                                       | And their remarkable works.                                                                       |

| <b>PARTICULARS</b>                                                                            | <b>Teaching Hours (Max. 64)</b> |
|-----------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                               |                                 |
| Urdu Qaseede Ka Mutaliya , Qaseede Ki Tareef, Ajzay-e-Tarqeebi, Haiyyat                       |                                 |
| <b>UNIT II :</b>                                                                              |                                 |
| Tahzeebi Anasir, Pasmanzar, Adabi Mahasin                                                     |                                 |
| <b>UNIT III :</b>                                                                             |                                 |
| Nisab Mey Shamil Qasayed Ka Matani Mutala                                                     |                                 |
| <b>UNIT IV :</b>                                                                              |                                 |
| Qaseeda Nigaron Ki Qaseeda Nigari.                                                            |                                 |
| <b>UNIT V :</b>                                                                               |                                 |
| INTIKHB-E-QASAIID-E-URDU : Edited by Dr.Abu Mohammed Saher.<br>Pub By: MAKTABA-E-ADAB,BHOPAL. |                                 |
| <b>The Following Qaseedas only :</b>                                                          |                                 |

|                                                                           |  |
|---------------------------------------------------------------------------|--|
| 1) Ootth Gaya Bahman Wadye Ka Chamanastan Se Amal - By- Souda (P-39)      |  |
| 2) Fajr Hote Jo Gayi Meri Aankh Jhapak By- Souda (P-46)                   |  |
| 3) Ay Khuda Wande Mah-o-Mehar-o-Surayya-o-Shafaq By- Insha (P-62)         |  |
| 4) Jab Se Sartaan Mey Huwa Nayyar-e-Aazam Ka Amal By- Musahafi (P-77)     |  |
| 5) Shab Ko Maiy Apne Sare Bistare Khwabe Rahat By- Zauq (P-87)            |  |
| 6) Zahe Nishaat Agar Kijiye Ise Tahreer By-Zauq (P-95)                    |  |
| 7) Haan Mahe Naw Sune Ham Us Ka Naam By- Galib (P-113)                    |  |
| 8) Simt-e-Kashi Se Chala Janib-e-Mathura Baadal By-Mohsin Kakorvi (P-163) |  |

| Reference Books :                                                                                  |                                                                |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1. Tareeq-e- Qasayed-e-Urdu –                                                                      | By- Jalaluddin Ahmed Jafari                                    |
| 2. Urdu Qaseeda Nigari.                                                                            | By: Umme Hani Ashraf – Pub By: Educational Book House, Aligarh |
| 3. Qaseede Ka Fun Aur Qaseeda Nigari- By- Dr. M. Kamaluddin, Darbhanga. Book House, Darbhanga      |                                                                |
| 4. Urdu Qaseede Ka Samaji Mutaliya- By- Umme Hani Ashraf- Pub By: Educational Book House, Aligarh. |                                                                |
| 5. Urdu Qaseeda Nigari Ka Tanqeedi Jayeza : By- Dr. Mehmood Ilahi.                                 |                                                                |
| 6. Mutalya-e-Souda :                                                                               | By- Dr. Mohammed Hasan.                                        |

| Pattern of Question Paper                                                              |             |
|----------------------------------------------------------------------------------------|-------------|
| 1. There are Four main Questions on Texts/ Poets/Form of Qaseeda with Internal Choice. | 4X15 =60    |
| 2. . One Short Note Question on Text And Poets (2 out of 4)                            | . 2X7 ½ =15 |
| Total Marks = 75                                                                       |             |

| Paper Code and Name                                        | PG54T201 : MODERN POETRY (NAZM)                                                                                     |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| COURSE OUTCOMES (COs)                                      |                                                                                                                     |
| After completing this paper, the students will be able to: |                                                                                                                     |
| CO 1                                                       | The Era of Modern Poetry, and get acquainted with form of Poetry (Nazm.)                                            |
| CO 2                                                       | The students will be aware of creative achievements of modern poets.                                                |
| CO 3                                                       | And their Style and art of modern poetry..                                                                          |
| CO 4                                                       | The Students will study such great poets and poets like Faiz Ahmed Faiz, Sahir Ludhyanvi, Kaifi and Akhtarul Imaan. |

| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Teaching Hours<br>(Max. 64) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |
| Nazam Ki Tareef, Riwayate Nazam Ke Mouzoat, Nai Nazam ka Aagaz-o-Irtiqa,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |
| Hayet Ke Tajrube, Paband Nazm, Aazad Nazm, Moara Nazm, Nasri Nazm, Etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |
| Taraqi Pasand Tahreeq Ke Nazam Nigari Per Asrat, Halqa-e-Arbab-e-Zoaq ki Nazam Nigari, Jadeed Nazam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |
| Faiz, Sahir, Akhtar-ul-Iman Aur Kaifi Ki Nazam Nigari Nisab Mey Shamil Nazmaon Ka Matani-o-Tanqeedi Mutala.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |
| <p><b>1. Kalam-e-Faiz</b> –By : Faiz Ahmed Faiz<br/>Pub by: Educational Book House Aligarh (UP)</p> <p><b>Following Poems Only.</b></p> <ol style="list-style-type: none"> <li>1. Subh-e-Azadi</li> <li>2. Mere Humdun Mere Dost</li> <li>3. Shishon Ka Masiha Koi Nahi</li> </ol> <p><b>2. PARCHAIYAN AUR TALKHIYAAN</b> –By : Sahir Ludhiyanvi<br/>Pub By : Star Book Center Delhi</p> <p><b>Following Poems Only :</b></p> <ol style="list-style-type: none"> <li>1. Taj Mahal</li> <li>2. Tulue Ishtrakiyat</li> <li>3. Jashan-e-Ghalib</li> </ol> <p><b>3. Sar-o-Saman</b> – By : Akhtarul Iman<br/>Pub By : Darkshandah Kitab Ghar Bombay</p> <p><b>Following Poems Only :</b></p> <ol style="list-style-type: none"> <li>1. Masjid</li> <li>2. Eak Ladka</li> <li>3. Umar-e-Guziran ke Naam</li> </ol> <p><b>4. KAIFIYAT</b> – By : Kaifi Azami<br/>Pub By : Educational Book House Delhi</p> <p><b>Following Poems Only :</b></p> <ol style="list-style-type: none"> <li>1. Bewa Ki Khud Kashi</li> <li>2. Pahera</li> <li>3. Nao Jawan</li> </ol> |                             |
| <b>Reference Books :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |
| <ol style="list-style-type: none"> <li>1. Fun-o-Shaksiyat- Faiz Number- Etd by : Sabir Dutt</li> <li>2. Kaifi Fun aur Shakshiyat – By : Shahid Mahali</li> <li>3. Sahir Ludhyanaovi Hayat aur Karname –By : Dr.Anwar Zakir Ansari</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |

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|-------------------------------------|-------------------------------|
| 4. Teen Tarqi Pasand Shora –        | By : Ali Ahmed fathimi        |
| 5. Akhter-ul-Iman-Tafeem-o-Shakhs – | By : Dr.Khaja Naseem Akhter . |

| Pattern of Question Paper                                      |                   |
|----------------------------------------------------------------|-------------------|
| 1. One Question on Form of Poetry (Nazm)with Internal Choice.  | 15X1 =15          |
| 2 Three main Questions on Text with Internal Choice.           | 15X3 =45          |
| 3. One Short Note Question on Text /Poet with Internal Choice. | <u>7 ½ X2 =15</u> |
| Total Marks = 75                                               |                   |

| Paper Code and Name                                        | PG54T202: PRINCIPLES OF CRITICISM AND URDU LITERARY CRITICISM                                                                                                    |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COURSE OUTCOMES (COs)                                      |                                                                                                                                                                  |
| After completing this paper, the students will be able to: |                                                                                                                                                                  |
| CO 1                                                       | Know the meaning of criticism.And its importance.stuents learn that criticism provides insights, methods and conventions as to how to appreciate good literature |
| CO 2                                                       | As well as in human life,co relation with literary writings.these all things students learn by this study.                                                       |
| CO 3                                                       | Able to know about the Responsibilites of being a critc                                                                                                          |
| CO 4                                                       | Principles of literary criticism and different thoughts of schools of criticism(Tanqeed ke Mukhtalif Dabistan)                                                   |

| PARTICULARS                                                                            | Teaching Hours (Max. 64) |
|----------------------------------------------------------------------------------------|--------------------------|
| UNIT I :                                                                               |                          |
| Tanqeed Ki Tareef , Ahmiyat-o-Ifadiyat,iss Ke Usool, Naqad Ka Tariqa-e-kaar aur Faraiz |                          |
| UNIT II :                                                                              |                          |
| Tanqeed Ke Ibtidayi Nakush,Tazkiraun Ki Tanqeedi Ahmiyat,                              |                          |

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| <b>UNIT III :</b>                                                                                                                                                                              |
| Tanqeed Ke Dabistan, Tasaurati, Jamaliyati, Marksi Nafsiyati, Scientific, Usloobiyati, Tanqeed,                                                                                                |
| <b>UNIT IV :</b>                                                                                                                                                                               |
| Tanqeed Aur Taqleekh Ka Rishta, Tehqeeq Aur Tanqeed Ka Rishta,                                                                                                                                 |
| <b>UNIT V :</b>                                                                                                                                                                                |
| Hali ki Tanqeed Nigari aur uski Ahmiyat, Tarqee Pasand Tehreek aur uss ke Ahem Naqad, Kaleemuddin Ahmed, Ahetsham Hussian Al-Ahmed Suroor, Aur Gopi Chand Narang ki Tanqeed Ka Khususi Mutala. |

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| <b>Reference Books :</b>                                                                                                                                                                                                                                                                                                               |
| <p>1. <b>Mukhaddam-e-Shair-o-Shairi</b> - By : Altaf Hussain Hali<br/>Pub by : Maktaba Jamia Delhi.</p> <p>2. <b>Jadeed Urdu Tanqeed Usloob-o-Nazriyat</b> –By : Sharib Rudulvi<br/>Pub by : UP Academy Lucknow.</p> <p>3. <b>Fun-e-Tanqeed aur Tanqeed Nigari</b> – By : Noorul Hasan Naqvi<br/>Pub By : Educational Books Aligar</p> |

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| <b>Pattern of Question Paper</b>                                                                                                                                                                   |
| <p>1. Four main Questions on Text &amp; covering the Area of Study with Internal Choice. 15X4 =60</p> <p>2. One Short Note Question ( 2 out of 4). <u>7 ½ X 2 = 15</u></p> <p>Total Marks = 75</p> |

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|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T203 : HISTORY OF MODERN URDU LITERATURE (After 1857 )</b>                                      |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                        |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                        |
| <b>CO 1</b>                                                       | To Get acquainted with the historical events, trnds, and movements which affected the Urdu Literature. |
| <b>CO 2</b>                                                       | Aware of progressive writers of the time, their life, writings, and their influence on other writers.  |
| <b>CO 3</b>                                                       | To know about the movements and establishments of different school of thoughts,                        |
| <b>CO 4</b>                                                       | To know about the modern Urdu prose and poetry.                                                        |

| <b>PARTICULARS</b>                                                                                                                                            | <b>Teaching Hours<br/>(Max. 64)</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                               |                                     |
| Sir Sayed Aur unke Maasereen Ki Adabi Khidmat , Md Hussain Azad, Hali Shibli, Akber Ilhabadi ka Khususi Mutala,                                               |                                     |
| <b>UNIT II :</b>                                                                                                                                              |                                     |
| Jadeed Nasar Ka Aagaz, Galib ki Nasar Nigari Khutut Ke Hawale Se, Rumani Nasar ki Riwayat, Drama Nigari Ka Aagaz, Anar Kali Ka Khususi Mutala,                |                                     |
| <b>UNIT III :</b>                                                                                                                                             |                                     |
| Taraqqi Pasand Tehreek ka Aagaz, iss ke Asrat, Faiz-o-Firaq ki Shairi, Halq-e-Arbabe Zauk, Aur Iske Ahem Shora-Meeraji Aur Meem-Noon Rasheed ki Nazam Nigari, |                                     |
| <b>UNIT IV :</b>                                                                                                                                              |                                     |
| Urdu Mey Tanz-o-Mizah ki Riwayat,                                                                                                                             |                                     |
| <b>UNIT V :</b>                                                                                                                                               |                                     |
| Jadeed Shairi-o-Nasar Nigari ke Hawaley se Nasir Kazmi Aur Qurtul ain Hyder Ka Khususi Mutala.                                                                |                                     |

| <b>Reference Books :</b>                  |                                                                |
|-------------------------------------------|----------------------------------------------------------------|
| 1. Tahreek-e-Adab-e-Urdu -                | By : Noorul Hassan Naqvi<br>Pub by : Educational Books Aligarh |
| 2. Aaj ka Urdu Adab -                     | By : Abulais Siddiqui<br>Pub by : Educational Books Aligarh.   |
| 3. Adab Ka Mutala –                       | By : Ather Parveez<br>Pub by: Maktaba Jamia New Delhi.         |
| 4. Urdu Mey Taraqqi Pasand Adabi Tehreek- | By : Khaleel-ul-Raheman<br>Pub By : Educational Books Aligarh. |

| <b>Pattern of Question Paper</b>                                                  |                     |
|-----------------------------------------------------------------------------------|---------------------|
| 1. Four main Questions on Text & covering the Area of Study with Internal Choice. | 15X4 =60            |
| 2. One Short Note Question ( 2 out of 4).                                         | <u>7 ½ X 2 = 15</u> |
| Total Marks = 75                                                                  |                     |

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|-------------------------------------------------------------------|------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T204A : BIOGRAPHY AND SKETCH</b>                    |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                            |
| <b>After completing this paper, the students will be able to:</b> |                                                            |
| <b>CO 1</b>                                                       | Understand the meaning of Biography , and form of writing. |

|             |                                                                                                                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CO 2</b> | Understand the meaning of auto biography, and Sketch, and form of writing.                                                                                                                    |
| <b>CO 3</b> | The student will know the era, historical events and the trends of the time which are recommended for the study.                                                                              |
| <b>CO 4</b> | The student will get to know about the personality, qualities and art of writing of a biography and sketch. And the remarkable biography of an eminent scholar ,reformer, Sir Syed Ahmed Khan |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours<br/>(Max. 64)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
| Sawaneh ki Tareef, Funni Lawazimat ,Sawaneh-o-Khake Aur Khud Navisht mey Farq,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |
| Sawaneh ka Agaz-o- Irtiqa. Khake ki Tareef, Funni Lawazimat ,Agaz-o-Irtiqa.,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |
| Hali Ki Sawaneh Nigari Ka Jayeza, (Hayate Javeed Ke Hawale Se), Akhtarul - Imaan Ki Khud Navisht Ka Mutala.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |
| Moulavi Abdul Haq, Rashid Ahmed Siddiqui, Wahab Andaleeb Aur Fouziya Choudhri Ki Khaka Nigari                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
| <p>1. <b>Hayate Javeed – (Sawaneh)</b> - By : Altaf Hussian Hali<br/>Pub By : National Council for Promotion of Urdu Language New Delhi</p> <p>2. <b>Iss Aabad Kharabe Mey (Khud Navisht ):</b> – By : Akhtarul Imaan<br/>Pub By : Urdu Academy Delhi.</p> <p><b>3. Khake :</b></p> <p>1.Namdev Mali –by Moulvi Abdul Haq- (From Chand Ham Asar). –<br/>Pub by : Anjuman Taraqqi-e- Urdu (Hind) New Delhi</p> <p>2. Goudadi Ka Lal –by Moulvi Abdul Haq- (Chand Ham Asar)- Pub by : “ “ “ “</p> <p>3. Moulana Mohammed Ali by Rasheed Ahmed Siddiqui (Ganj-haye-Giran-Maya).<br/>Pub By : Maktaba Jamia New Delhi</p> <p>4.Syed Sajjad Hyder Yaldaram -by Rasheed Ahmed Siddiqui “ “ “ “</p> <p>5.Suleman Khateeb –By Wahab Andaleeb (Qamat-o-Qeemat) P-No.23-<br/>Pub: Sulaeman Khateeb Yaadgar Trust,Sitara Offset- Gulbarga.</p> <p>6.Aijaz Timmapuri -By :Dr.Fouziya Choudhari (Maherban Kaise Kaise)P.No-14<br/>Pub:National Printers T.C.M Rayen Road Bangalore.</p> |                                     |

| Reference Books :                                         |   |                             |
|-----------------------------------------------------------|---|-----------------------------|
| 1. Urdu May Fun-e-Savaneh Nigari Ka Irtika                | – | By : Aansa Altaf Fatima     |
| 2. Urdu May Fun-e-Sawaneh Nigari Ka Irtika                | – | By : Mumtaz Fakira          |
| 3. Urdu May Fun-e-Khaka Nigari                            | - | By : Sabira Sayeed          |
| 4. Rasheed Ahamed Siddique Ke Usloob ka Tajziati Mutalai- |   | By : Khaja Md.Ikramuddin    |
| 5. Malik Ram-Ek Mutlia                                    | - | By : Ali Javaad Zaidi.      |
| 6. Daroon Been                                            | – | By : Dr.Fouziya Choudhari . |

| Pattern of Question Paper                                                   |  |                   |
|-----------------------------------------------------------------------------|--|-------------------|
| 1.One Question on Form of Literature Biography/Sketch with Internal Choice. |  | 15X1 =15          |
| 2. Three main Questions on Text with Internal Choice.                       |  | 15X3 =45          |
| 3. One Short Note Question on Text / Author with Internal Choice.           |  | <u>7 ½ X2 =15</u> |
|                                                                             |  | Total Marks = 75  |

|                                                                   |                                                                                                                                                           |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T204B :STUDY OF INSHAYIA</b>                                                                                                                       |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                                           |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                                           |
| <b>CO 1</b>                                                       | Inshaiya ( light essay) is a very interesting genre of Urdu literature. They Know that Inshaiya (Light Essays) is the form taken from English literature, |
| <b>CO 2</b>                                                       | the definition of Inshaiya. What is the meaning of Inshaiya, how it is different from short story, novel and other genres of Urdu literature.             |
| <b>CO 3</b>                                                       | Student get acquainted with the beginning and development of Inshaiya in Urdu Literature.                                                                 |
| <b>CO 4</b>                                                       | Knows the major Inshaiya nigars and their style of writing , life sketch and important work of the writers.                                               |

| <b>PARTICULARS</b>               | <b>Teaching Hours (Max. 64)</b> |
|----------------------------------|---------------------------------|
| <b>UNIT I :</b>                  |                                 |
| Urdu Inshaiya – Tareef-o-Taiyun, |                                 |
| <b>UNIT II :</b>                 |                                 |

| Inshaiya Aur Mazmoon, Inshaiya aur Miqala, Inshaiya Aur Sahafat, Inshaiya aur Qissa,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|----------------------------|------------------------|-----|----------------------|-------------|------------------------|-------------------|---------------------------|-------|-----------------------------|-------|----------------|-----------|---------------------------|----------------|-----------------------|-----------------------------|--------------------|-----------------------------|--------------------|-------|
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| Inshaiya-o-Zarafat Ka khususi Mutaliya, Inshaiya ki Tareeq-o-Tanqed, Aagaz-o-Irtiqah                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| Aham Inshaiya Nigaron Ka Mutaliya Jo Nisab may Shamil Hain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| <p><b>1. Inshaiya Aur Inshaiye - By : Syed Md Hussian</b><br/> Pub by : Educational Books Aligarh.<br/> Study of following Author's Inshaiyas only :</p> <table> <thead> <tr> <th><b>Name of Authors</b></th><th><b>Inshaiyas ( Title )</b></th></tr> </thead> <tbody> <tr> <td>1. Abdul Haleem Sharer</td><td>Hum</td></tr> <tr> <td>2. Ahmed Jamal Pasha</td><td>Be Tarteebi</td></tr> <tr> <td>3. Khaja Hassan Nizami</td><td>Zhinger Ka Janaza</td></tr> <tr> <td>4. Mirza Farhatullah Baig</td><td>Pitna</td></tr> <tr> <td>5. Ahmed Sha Bhukari Patras</td><td>Kutte</td></tr> <tr> <td>6. Yusuf Nazim</td><td>Aaine May</td></tr> <tr> <td>7. Rasheed ahmed Siddique</td><td>Arhar Ka Khyet</td></tr> <tr> <td>8. Kanaiya Lal Kapoor</td><td>Apne Watan Mey Sub Kuch Hai</td></tr> <tr> <td>9. Mujatba Hussain</td><td>Chini Ash Tray Ki Yaad May.</td></tr> <tr> <td>10. Safequa Farhat</td><td>Kursi</td></tr> </tbody> </table> |                             | <b>Name of Authors</b> | <b>Inshaiyas ( Title )</b> | 1. Abdul Haleem Sharer | Hum | 2. Ahmed Jamal Pasha | Be Tarteebi | 3. Khaja Hassan Nizami | Zhinger Ka Janaza | 4. Mirza Farhatullah Baig | Pitna | 5. Ahmed Sha Bhukari Patras | Kutte | 6. Yusuf Nazim | Aaine May | 7. Rasheed ahmed Siddique | Arhar Ka Khyet | 8. Kanaiya Lal Kapoor | Apne Watan Mey Sub Kuch Hai | 9. Mujatba Hussain | Chini Ash Tray Ki Yaad May. | 10. Safequa Farhat | Kursi |
| <b>Name of Authors</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Inshaiyas ( Title )</b>  |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 1. Abdul Haleem Sharer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Hum                         |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 2. Ahmed Jamal Pasha                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Be Tarteebi                 |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 3. Khaja Hassan Nizami                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Zhinger Ka Janaza           |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 4. Mirza Farhatullah Baig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pitna                       |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 5. Ahmed Sha Bhukari Patras                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Kutte                       |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 6. Yusuf Nazim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Aaine May                   |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 7. Rasheed ahmed Siddique                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Arhar Ka Khyet              |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 8. Kanaiya Lal Kapoor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Apne Watan Mey Sub Kuch Hai |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 9. Mujatba Hussain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Chini Ash Tray Ki Yaad May. |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |
| 10. Safequa Farhat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Kursi                       |                        |                            |                        |     |                      |             |                        |                   |                           |       |                             |       |                |           |                           |                |                       |                             |                    |                             |                    |       |

|                                    |                      |
|------------------------------------|----------------------|
| <b>Reference Books :</b>           |                      |
| 1. Inshaiya Ke Khad-o-Khal -       | By: Wazeer Aaga      |
| 2. Urdu Mazmoon Nigari Ka Irtiqah- | By : Dr.Syeda Jaffer |
| 3. Inshaiya ki Bunyad -            | By : Saleem Akhtar.  |

|                                                                      |                   |
|----------------------------------------------------------------------|-------------------|
| <b>Pattern of Question Paper</b>                                     |                   |
| 1. One Question on Form of Literature Inshaiya with Internal Choice. | 15X1 =15          |
| 2. Three main Questions on Text with Internal Choice.                | 15X3 =45          |
| 3. One Short Note Question on Text / Author with Internal Choice.    | <u>7 ½ X2 =15</u> |
| Total Marks = 75                                                     |                   |

|                                                            |                                                                                                           |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                 | <b>PG54T205A :URDU BEGINNERS -I</b><br>(Study of Urdu Language & Simple Grammar)<br>For non Urdu Students |
| <b>COURSE OUTCOMES (COs)</b>                               |                                                                                                           |
| After completing this paper, the students will be able to: |                                                                                                           |

|             |                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------|
| <b>CO 1</b> | Understand the origin & birth of the Urdu language and its relevance with other Indian Languages. |
| <b>CO 2</b> | Acquired the knowledge of basic concept of Urdu script writing phonology etc.                     |
| <b>CO 3</b> | Writing the things in Urdu Language and develop their translation skill                           |
| <b>CO 4</b> | and able to translate from English to Urdu and also learn the basic Urdu grammar.                 |

| <b>PARTICULARS</b>                                                                                                                                                                         | <b>Teaching Hours<br/>(Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                            |                                     |
| Teacher should give orally introduction of Urdu as an Indian Language.<br>Origin of the Urdu Language ,Background and birth of the Language and its relevance with other Indian Languages. |                                     |
| <b>UNIT II :</b>                                                                                                                                                                           |                                     |
| Writing Alphabets of Urdu<br>Assembling the Letters to make Words.<br>Separate the Letters of Words.                                                                                       |                                     |
| <b>UNIT III :</b>                                                                                                                                                                          |                                     |
| Singular / Plurals.<br>Genders (Masculine / Feminine).<br>Opposites.                                                                                                                       |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                           |                                     |
| Translation Words from Urdu to English / English to Urdu.                                                                                                                                  |                                     |
| <b>UNIT V :</b>                                                                                                                                                                            |                                     |
| Gintee , Mushaba Alfaz Ism Ki Tareef aur Qismey, Zameer Ki Tareef, Sifat Ki Tareef<br>Sabiqe Aur Lahiqe (Misalaun Ke Saath) Make Sentences with given Words.                               |                                     |

| <b>Reference Books :</b>                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Aasaan Urdu Nisab (Hissa Awwal) -- Edited By : Mohd Abu Sawleh<br>Pub By : Educational Book House-Aligarh).<br>2. Urdu Shikshak – By Azimul Haq Junedi<br>Pub By : Educational Book House Aligarh.<br>3. Aaiye Urdu Sikhen – By : Dr. Mirza Khaleel Baig<br>Pub By : Education Book House Aligarh.<br>4. Urdu Surf - By : Mohd.Ansarullah<br>Pub By : Educational Book House Aligarh |

| Pattern of Question Paper |                        |          |
|---------------------------|------------------------|----------|
| Q.No.1                    | Writing Alphabets      | 06 Marks |
| Q.No.2                    | Assembling the Letters | 06 Marks |

|         |                                                                                       |                  |
|---------|---------------------------------------------------------------------------------------|------------------|
| Q.No3   | Separate the Letters of words.                                                        | 06 Marks         |
| Q.No.4  | Singular/Plurals. ( 6 out of 8)                                                       | 06 Marks         |
| Q.No.5  | Genders(Masculine/Feminine)<br>( 6 out of 8)                                          | 06 Marks         |
| Q.No.6  | Opposites. ( 6 out of 8)                                                              | 06 Marks         |
| Q.No.7  | Ginthee/Name of<br>Things/Seasons/Color/Fruits<br>Etc (with Internal Choice).         | 06 Marks         |
| Q.No.8  | Mushaba Alfaz ( 6 out of 8)                                                           | 06 Marks         |
| Q.No.9  | Make Sentences                                                                        | 05Marks          |
| Q.No.10 | Translation Words from Urdu<br>to English ( 5 out of 7)                               | 05 Marks         |
| Q.No.11 | English to Urdu ( 5 out of 7)                                                         | 05 Marks         |
| Q.No.12 | Definitions of Ism Zameer,<br>Sifath Sabiqe Aur Lahiqe etc<br>(with Internal Choice). | 02X6=<br>12Marks |

|                                                                   |                                                                                                                                              |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T205B : URDU FOR KNOWING-I-POETRY (GHAZLIYAT) &amp; SHORT STORY</b>                                                                   |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                              |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                              |
| <b>CO 1</b>                                                       | After studying this paper the Students will be able to know about the specific form of Urdu Ghazal.Its popularity,                           |
| <b>CO 2</b>                                                       | Able to know its beginning and growth in India.                                                                                              |
| <b>CO 3</b>                                                       | Short story is the form taken from English literature, students get awared of the form of literature its base and comparative literature .   |
| <b>CO 4</b>                                                       | Get acquainted with the famous poets of Urdu Ghazal and Knows the major writers of Short story, and their style of writing , life sketch etc |

| <b>PARTICULARS</b>                                                                                                                                                                                                             | <b>Teaching Hours (Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                |                                 |
| Gazal Ka Mafahum, Haiyat, Gazal Ka Fun, Gazal Ka Aagaz-o-Irteqa, Mouzuat, Galib Ki Hayat-o-Shakhsyat, Hasrat Mohani Ki Sawaneh , Galib Aur Hasrat Ki Shairi Ka Khususi Mutala Aur Nisab Mein Shamil Gazliyat Ka Matani Mutala. |                                 |
| <b>UNIT II :</b>                                                                                                                                                                                                               |                                 |

Afsane Ki Tareef, Ajzaye Tarqeebi, Urdu Mein Afsane Ki Riwayat, Urdu Ke Ahem Afsana Nigar, Urdu Afsane par Taraqqi Pasand Tehreek Ke Asarat.

### UNIT III :

Prem Chand , Saadat Hasan Manto,  
Krishna Chandra, Rajendra Singh Bedi, Ishmat Chughtayi, Aur Surendra Prakash Ki Afsana Nigari Ka  
Khususi Mutaliya Aur Inke Muntakhab Afsano Ka Tanqeedi Mutaliya.

### UNIT IV :

1. **Deewane Ghalib** – By : Mirza Ghalib  
Pub By : Educational Books Aligarh  
The Following Gazals Only

#### Gazals from Radeef Alif

1. Bas Ke Dushwar Hai Her Kam Ka Asan Huna ( P-60 )  
2. Ye Na thi hamari Kismat Ke wisal-e-yar hota (P-63 )

#### From Radeef Noon

3. Ki wafa hum se tu gair uss ko jafa kahete hain ( P-113 )  
4. Jahan tera naqsh-e-qadam Dekhate hain. ( P-120 )

#### From Radeef –E

5. Koi Umeed Ber Naheen aati ( P-173 )  
6 . Ibne-Mariam Howa Kare Koyi ( P- 217 )

2. **Kuliyat-e-Hasrat Mohani** – By : Hasrat Mohani  
Pub By : Kitabi Duniya, New Delhi-06

#### Following Gazals only :

1. Roshan Jamal-e- Yaar Se hai Anjuman Tamaam  
2. Nigah-e-Yaar Jise Aashna-e-Raaz Kare .  
3 Bhulata Lakh Houn Lekin Barabar Yaad Aate Hain.  
4.Chaahat Meri Chaahat Hi Nahin Aap Ke Nazdeek .

### UNIT V :

- Hamare Pasandida Afsane** – By : Athar Parveez  
Pub By : Educational Books Aligarh

#### The Following Afsanas Only :

1. Amawas Ki Raat - By : Prem Chand  
2. Naya Kanoon - By : Sadat Hasan Manto  
3. Kaloo Bhangi - By : Krishan Chander  
4. Lajwanti - By : Rajender Singh Bedi  
5. Nahni Ki Nani - By : Ishmat Chughtai  
6. Bajuka - By : Surrender Prakash

### Reference Books :

1. Ghalib Shaks-o-Shairi- By : Majnu Gorakhpuri  
2. Ghalib Ek Mutalia - By :Mamta Hussain  
3. Ghalib Shair Aur Maktoob Nigar -By : Noor-ul-Hasan Hashmi.  
4. Hasrat Ki Shairi : By: Dr.Yusuf Hussain.  
5. Urdu Gazal Ke Anasir-e-Araba : By : Prof.Ayesha Sayeed.-Kitabi Duniya New Delhi.  
6. Fun-e-Afsana Nigari- By : Waqar Azim  
7. Naya Afsana – By : Waqar Azim

8. Taraqqi Pasand Tahreeq Se Qabl -By : Dr.Sagir Afrahim  
 9. Afsana Riwayat Aur Masail- By : Gopi Chand Narang.  
 10. Urdu Afsane Mein Haqeeqat Nigari : By-Dr.Rounaq Jahan Begum

### Pattern of Question Paper

- |                                                                                                  |                                      |
|--------------------------------------------------------------------------------------------------|--------------------------------------|
| 1. Two Questions on Form of Gazal / Poet/ Text with Internal Choice.                             | 15 X 2 =30                           |
| 2. One Question on Summarisation of Couplets with sufficient Choice                              | 2 ½ X 4=10                           |
| 3. One main Question on Form of Afsana/Author/Text with Internal Choice.                         | 15 X1 =15                            |
| 4. One Question on Short Note on Prose Part/Author /Characters etc -<br>with sufficient Choice . | <u>10 X2= 20</u><br>Total Marks = 75 |

|                                                                   |                                                                                                                                                                    |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T205C :OEC- PERSIAN FOR BEGINNERS</b><br><b>(Study of Persian Language &amp; Simple Grammar, Translation)</b>                                               |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                                                    |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                                                    |
| <b>CO 1</b>                                                       | Know about farsi also known as Persian Language,                                                                                                                   |
| <b>CO 2</b>                                                       | Acquired the knowledge of farsi which is the most widely spoken Member of the Iranian branch of the Indo-Iranian languages                                         |
| <b>CO 3</b>                                                       | .Acquired the knowledge of basic concept of Persian script writing ,phonology etc.                                                                                 |
| <b>CO 4</b>                                                       | Writing the things in Persian Language.and develop their translation skill and able to translate from English to Persian and also learn the basic Persian grammar. |

| <b>PARTICULARS</b>                                                                                               | <b>Teaching Hours (Max. 64)</b> |
|------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                  |                                 |
| Zamayer-e-Shakshi, unki Alamateyn, Masadir, Awamir, Zamane (Maazi, Haal, Mustaqbil)                              |                                 |
| <b>UNIT II :</b>                                                                                                 |                                 |
| Gardaney, Azdad, Wahid Jama, Muzkhar, Moannas etc.                                                               |                                 |
| <b>UNIT III :</b>                                                                                                |                                 |
| Farsi mey Janwer, Parinde, Phal phul, Mousam etc Ke Naam.<br>Khanapuri Aur Alfaz Ko Jumlaun mey Istemaal Karna . |                                 |
| <b>UNIT IV :</b>                                                                                                 |                                 |
| Tarjuma :Farsi Se Angrezi/ Kannada/ Urdu may aur Angrezi Se Farsi mey Tarjuma.                                   |                                 |
| <b>UNIT V :</b>                                                                                                  |                                 |
| Nisab Mey Shamil Jadeed Kitab-e-Farsi Part-I and Part- II Ka Khususi Mutaliya.                                   |                                 |

### Reference Books :

- 1) Jadeed Kitab-e-Farsi Part-I - By : Afaq Ahmed Irfani  
Pub: by : Educational Book House Aligarh.
- 2) Jadeed Kitab-e-Farsi Part-II - By : Afaq Ahmed Irfani  
Pub : by : Educational Book House Aligarh.
- 3) A Grammer of the Persian Language : By : Dr. Fobes  
Pub : by : Rani Kapoor (Mrs) Com Publication.

### Pattern of Question Paper

There are 12 Questions (with sufficient choice) covering the Area of Study.

|                                                                                                                               |                   |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------|
| From Q.No 1 to Q.No.8 carrying (06 Marks each)                                                                                | 6 X 8 = 48 Marks  |
| Q.No. 9 is of 05 Marks                                                                                                        | 1 X 5 = 05 Marks  |
| Q.No. 10 and 11 is on Translation Persian into Urdu/English and English/Urdu into Persian (05 Marks each )                    | 5 X 2 = 10 Marks  |
| Last Question No.12 is based on Persian Grammer (Forming the Tenses by given infinities) Gardaney, Zamaney etc. (with Choice) | 6 X 2 = 12 Marks. |
| Total =                                                                                                                       | 75 Marks          |

|                                                                   |                                                                                                                    |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T301 : STUDY OF PROSE</b>                                                                                   |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                    |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                    |
| <b>CO 1</b>                                                       | Get acquainted with the begining and growth of Prose Writing in Deccani Urdu literature. As well in North India.   |
| <b>CO 2</b>                                                       | Get to know about the establishment of Fort William College Kolkatta.                                              |
| <b>CO 3</b>                                                       | and also the student will acquainted with Fort William College mportant role in promoting Urdu Prose in literature |
| <b>CO 4</b>                                                       | Understand the style of prose writers of this period                                                               |

| <b>PARTICULARS</b>                                                                                                             | <b>Teaching Hours<br/>(Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                |                                     |
| Urdu Nasar ke Awaleen Aasar, Daccani Nasar Ki Khususiyat,                                                                      |                                     |
| <b>UNIT II :</b>                                                                                                               |                                     |
| Sabras Ki Zuban Usloob, Mauzoon, Sabras Bahaisiyat-e-Tamseel, Sabras Ki Adabi-o-Tahzibi Ahmiyat, Lisani Mutaliya.              |                                     |
| <b>UNIT III :</b>                                                                                                              |                                     |
| Rajab Ali Baig Surur Ki Nasar Ki Khususiyath, Shumali-Hind Mey Urdu Nasar Ke Awaleen Aasar,                                    |                                     |
| <b>UNIT IV :</b>                                                                                                               |                                     |
| Fort William College Ki Nasar Nigari, Nasar Ke Badalte Asaleeb, Meer Aman Ki Adabi Khidmat Usloob, Zaban, Nasar Ki Khususiyat, |                                     |
| <b>UNIT V :</b>                                                                                                                |                                     |
| Fasana-e-Ajaib, Baag-o-Bahar ka Khususi Mutala.Aur Abul Kalam Aazad Ki Maktub Nigari Ka Khususi Mutala.                        |                                     |

| <b>Reference Books :</b>                                               |                                              |
|------------------------------------------------------------------------|----------------------------------------------|
| 1. <b>Sabras ki Tahqeeqi-o-Tanqeedi Tadween</b> –By : Dr.Humera Jaleel | Pub By : Dr.Humera Jaleel                    |
| 2. <b>Fasana-e-Ajaib</b> –                                             | By : Rajab Ali Baig Suroor                   |
| 3. <b>Baag-o-Bahar</b> (Sair Dusare Darvesh Ki) -                      | Pub By : Anjuman-e-Taraqqi-e-Urdu New Delhi. |
| 4. <b>Gubbar-e-Khatir</b> –                                            | By : Meer Aman Dehelvi                       |
| ( First 10 Letters Only )                                              | Pub by : Maktaba Jamia Limited New Delhi     |
|                                                                        | By : Abul Kalam Azad                         |
|                                                                        | Pub By : Sahitya Academy New Delhi           |

| <b>Pattern of Question Paper</b>                                                |                   |
|---------------------------------------------------------------------------------|-------------------|
| 1.One Question on Form of Literature Dastan/Maktub Nigari with Internal Choice. | 15X1 =15          |
| 2. Three main Questions on Text with Internal Choice.                           | 15X3 =45          |
| 3. One Short Note Question on Text / Author with Internal Choice.               | <u>7 ½ X2 =15</u> |
| Total Marks = 75                                                                |                   |

|                                                                   |                                                                                                                                            |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T302 :URDU JOURNALISM &amp; MASS COMMUNICATION</b>                                                                                  |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                            |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                            |
| <b>CO 1</b>                                                       | The meaning and importance of Mass communication and its features , Skills to be adopted.                                                  |
| <b>CO 2</b>                                                       | Understand the history and growth of Urdu Mass Communication in India.                                                                     |
| <b>CO 3</b>                                                       | Able to know the importance of editing, being an editor. Soft skills and language skills to be adopted to a professional mass communicator |
| <b>CO 4</b>                                                       | And also able to know about Electronic Media and Internet etc.                                                                             |

| <b>PARTICULARS</b>                                                                                                                                                                                   | <b>Teaching Hours (Max. 64)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                      |                                 |
| Tarseel Ki Tareef-o-Ahmiyat, Sahafat ki Tareef,Ahmiyat, Samaj May Sahafiyun Ka Makam, Hindustan May Urdu Sahafat Ka Aagaz-o-Irtiqa,                                                                  |                                 |
| <b>UNIT II :</b>                                                                                                                                                                                     |                                 |
| Hindustan May Press Ki Ibtada, Khaber Ki Mukhtaleef Tareefain, Qismey, Khaber Hasil Kerne Ke Mukhtalif Tariqe, Khabroun Ki Tarteef, Surkhyaan , Idaria, Aur Us Ki Ahemiyat,                          |                                 |
| <b>UNIT III :</b>                                                                                                                                                                                    |                                 |
| Nama Nigari Ka Fun, Dahi Riyasati, Qaumi Aur Bainul Aqwami Nama Nigari, Siyasat Sports Karobar, Aur Tafrihi Reporting Ka Tareeqa-e-Kaar, Qismey,                                                     |                                 |
| <b>UNIT IV :</b>                                                                                                                                                                                     |                                 |
| Kwalam Nigari, Kwalam Ki Ahmiyet.Ahem Akhbarat Rasail aur Sahafi, Sir Sayed Ahmed Khan, Hasrat Mohani, Md Ali Johar, Zafar Ali Khan, aur Moulana Abul Kalam Azad Ki Sahafat Nigari Ka Khususi Mutala |                                 |
| <b>UNIT V :</b>                                                                                                                                                                                      |                                 |
| Electronic Media, Internet Etc Ka Mutala.                                                                                                                                                            |                                 |

| <b>Reference Books :</b>                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. <b>Rahebar-e- Akhbar Navesi-</b> By: Sayed Iqbal Qadri.<br>Pub By : Qaumi Concil Baraye Faroogay Urdu, Delhi<br>2. <b>Ablagiyat –</b> By : Dr Md Shahid Hussian<br>Pub By : Educational Published Home Delhi |

| <b>Pattern of Question Paper</b>                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.Four main Questions Covering the Area of Study with Internal Choice. 15X4 =60<br>2. One Question on Short Note (2 out of 4) . <u>7 ½ X2 =15</u><br>Total Marks = 75 |

|                                                                   |                                                                                                                                                        |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T303 : URDU GAZAL KA MUTALA</b>                                                                                                                 |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                                        |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                                        |
| <b>CO 1</b>                                                       | Know about Ghazal is a very famous form of Urdu Poetry, influenced by Persian poetry.                                                                  |
| <b>CO 2</b>                                                       | After studying this paper the Students will be able to know about the specific form of Urdu Ghazal. Its popularity, its beginning and growth in India. |
| <b>CO 3</b>                                                       | Understand the Types and Trends of Urdu Ghazal.                                                                                                        |
| <b>CO 4</b>                                                       | Get acquainted with the famous poets of Urdu Ghazal of all ages.                                                                                       |

| <b>PARTICULARS</b>                                                                                                          | <b>Teaching Hours (Max. 64)</b> |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                             |                                 |
| Gazal Ka Mafhoom, Hiyat, Gazal Ka Fun, Gazal Ke Anaseer Dakhliyat Aur Kharjiyat, Mahasene Shairi ,Gazal Ka Aagaz-o-Irtiqat, |                                 |
| <b>UNIT II :</b>                                                                                                            |                                 |
| Dabistan Dehli-o-Lucknow ki Shairi Khususiyat, Tarqee Pasand Gazal Ki Khususiyat,                                           |                                 |
| <b>UNIT III :</b>                                                                                                           |                                 |
| Gazal Ke Khadeem-o-Jadeed Mauzuaat, Gazal Ki Mukhalifat-o-Muwafiqat,                                                        |                                 |
| <b>UNIT IV :</b>                                                                                                            |                                 |
| Jadeed Gazal Ke Khad –o-Khal, Gazal Ke Jadeed Rujhanat, Gazal Mein Alamat Nigari,                                           |                                 |
| <b>UNIT V :</b>                                                                                                             |                                 |
| Nisab Mein Shamil Gazalaon Ka Matani Mutala.                                                                                |                                 |
| <b>The following Gazals only :</b>                                                                                          |                                 |
| 1. Wali – Tuj Lab Ki Sifat lale Badakshan su Kahunga-----                                                                   | 16                              |
| 2. Siraj- Khabeer-e-tahayure Ishaqu sun -----                                                                               | 20                              |
| 3. Sauda- Her Sung may Sharar Hai -----                                                                                     | 26                              |
| 4. Meer Taqee Meer- Jis Sir Ku Gurur aaj Hai -----                                                                          | 31                              |
| 5. Meer Taqee Meer- Hasti apni Habab Ki Si Hai -----                                                                        | 35                              |
| 6. Nasique – Mera seena Hai Mashreeq -----                                                                                  | 43                              |
| 7. Aatish – Sun Tu Sahee Jahan May Hai -----                                                                                | 50                              |
| 8. Momin : Asar Us Ko Jara Nahee Hota -----                                                                                 | 52                              |
| 9. Momin : Jo Hum May Tum may -----                                                                                         | 54                              |
| 10. Mirza Ghalib : Nukta Chee Hai Game Dil -----                                                                            | 64                              |
| 11. Mirza Ghalib : Sab Kahan Kuch Lala-o-Gul -----                                                                          | 61                              |
| 12. Daag : Katir-e-Se Ye Lihaj Man To gaya -----                                                                            | 68                              |
| 13. Fani : Khalque Khati Hai Jise Dil -----                                                                                 | 90                              |
| 14. Hasarat : Niga-e-Yar Jise Aashana -----                                                                                 | 92                              |

|                                                               |     |
|---------------------------------------------------------------|-----|
| 15. Jigar : Ye Zarre jin Ko Hum Khak -----                    | 95  |
| 16. Firaque : Nigha-e-Naz Ne Parde -----                      | 98  |
| 17. Faiz : Gulaon Mey Rang Bhare Bade-e- Nou Bhar Chale-      | 105 |
| 18. Faiz : Dil May Ab Youn Tere Bhoole Hoyee -----            | 107 |
| 19. Nasir Kazimi : Kuch Yadgar-e-Shaher sitamya-----          | 526 |
| 20. Parveen Shakir : (Khushboo) Khuli Ankhoun mey Sapna-      | 35  |
| 21. Iftaqar Aarif : (Maher-e- Do Neem) Mere Khuda Mujhe Itna- | 57  |

| Reference Books :            |                                                                       |
|------------------------------|-----------------------------------------------------------------------|
| 1. Urdu Gazal-               | By : Dr.Yusuf Hussain Khan<br>Pub by : Maarif Press Azamgarh (UP)     |
| 2. Gazal Ke Jadeed Rujhanat- | By : Khalid Alavi<br>Pub by : Educational Published Home Delhi        |
| 3. Jadeed Gazal –            | By : Rasheed Ahmed Siddique<br>Pub by : Sir Syed Book Depot Alligarh. |
| 4. Gazal Ki Sirguzist –      | By: Akhtar Ansari<br>Pub by : Educational Book house Aligarh          |
| 5.Mata-e-Sukhan-             | By Abdul Haq<br>Pub by : Educational Book house Aligarh               |

| Pattern of Question Paper                                                                        |                  |
|--------------------------------------------------------------------------------------------------|------------------|
| 1. Two main Questions on Form of Gazal covering the area of study with Internal Choice -15X2 =30 |                  |
| 2. Two Questions on Gazal Poets (mentioned in the Syllabus) with Internal Choice.                | 15X2 =30         |
| 3. One Question on Summarization of Couplets from Gazals (05 out of 07)                          | <u>03 X5 =15</u> |
| Total Marks = 75                                                                                 |                  |

|                                                                   |                                                                                      |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T304 : STUDY OF URDU DRAMA,</b>                                               |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                      |
| <b>After completing this paper, the students will be able to:</b> |                                                                                      |
| <b>CO 1</b>                                                       | Understand the Drama as a form of Urdu literature and its features.                  |
| <b>CO 2</b>                                                       | And also able to know about the technique of Radio Drama.stage Drama.                |
| <b>CO 3</b>                                                       | Get acquainted with the Important Dramas, and major Drama Writers of Urdu literature |
| <b>CO 4</b>                                                       | And also know about the relevance of Drama to Day to day life.                       |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours<br/>(Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| Drama- Ki –Tareef Ajzaye Tarkeebi, Urdu Drame Ka Aagaz-o-Irtiqā                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| Urdu Ke Aham Drama Nigar, Amanat Lucknowi, Aaga Hashar Kashmiri, Imtiyaz Ali Taj Ka Umumi Jaiza                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
| Aur Krishna Chandr, Habeeb Tanveer, Shameem Hanfi Aur Anil Thakkar ki Drama Nigari ka Khususi Mutala                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |
| Nisab Mey Shamil Dramoun Ke Hawale Se. Radio Drama Ki Khususiyat Anasir-e-Tarkibi Aur Technique                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |
| <ol style="list-style-type: none"> <li><b>Darwaze Kholdo</b> - By : Krishn Chandr<br/>Pub by : Maktaba Jamiya Ltd. Dehli.</li> <li><b>Aagra Bazar</b> – By : Habeeb Tanveer<br/>Distributer : Rayee Book Depot Alahabad (UP)</li> <li><b>Chouthi Deewar</b> – By : Anil Thakkar<br/>Pub by : Bookware No.85-JC Nagar Bangalore</li> <li><b>Mitti-Ka-Bulava</b> – By : Shameem Hanfi - Pub by : NCPUL New Delhi.<br/>( The following Dramas only) : <ol style="list-style-type: none"> <li>Mitti Ka Bulava</li> <li>Khoya Huwa Lamaha.</li> </ol> </li> </ol> |                                     |

| <b>Reference Books :</b>                                                                                                                                                                                                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <ol style="list-style-type: none"> <li>Urdu Drama Ka Irtiqā- By : Isharat Rahmani</li> <li>Radio Drama ka fun- By : Aqlaq Asar</li> <li>AzadiKeBaadUrduDrama- By : Dr.Shamimunnisa–Pubby-EducationalBookHouse<br/>Aligarh</li> <li>Urdu Drama Fun Aur Manzil – By : Sayed Waqar Azim</li> <li>Urdu Drama Tareekh-o-Tanqeed-By : Isharat Rahmani.</li> </ol> |  |

| <b>Pattern of Question Paper</b>                                   |  |                   |
|--------------------------------------------------------------------|--|-------------------|
| 1. One Question on Form of Literature (Drama) with Internal Choice |  | 15X1 =15          |
| 2. There are three main Questions on Text with Internal Choice.    |  | 15X3 =45          |
| 3. One Short Note Question on Text /Author with Internal Choice.   |  | <u>7 ½ X2 =15</u> |
|                                                                    |  | Total Marks = 75  |

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|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T305A : OEC.URDU FOR BEGINNERS-II –<br/>(Introduction to the Form of Urdu Literature and Simple Grammar)</b> |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                     |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                     |
| <b>CO 1</b>                                                       | Get acquainted with important forms of Urdu literature, prose, poetry, letter writing, sketches etc.                |
| <b>CO 2</b>                                                       | They knew about the structure of language and its analyzation.                                                      |
| <b>CO 3</b>                                                       | Get aquired the skill of reading with comprehension, and creative writings                                          |
| <b>CO 4</b>                                                       | Understand the basic aspects of Urdu grammar                                                                        |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                    | <b>Teaching Hours<br/>(Max. 64)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                       |                                     |
| <b>Poetry :</b> Hamd Naat, Gazal, Rubai, Qaseeda, Masnavi, Marsiya, Nazm.                                                                                                                                                                             |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                                      |                                     |
| <b>Prose :</b> Dastaan , Novel, Afsana (Short Story), Khaka , Sawaneh, Mazmoon Nigari.                                                                                                                                                                |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                                     |                                     |
| <b>Simple Grammer :</b> Mahavire, Ism, Zameer, Sifat, Fael, Fayel, Mafuol,                                                                                                                                                                            |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                      |                                     |
| Zamane, (Tenses) & Letter Writing, Translation.                                                                                                                                                                                                       |                                     |
| <b>UNIT V :</b>                                                                                                                                                                                                                                       |                                     |
| 1. Asaan Urdu Nisab (Part-II) – Pub. by- Educational Book House-Aligarh.<br>Aawo Urdu Mazameen Likhen Aur Grammer Seekhen. By- Dr. Mohammed Abu Saleh-Pasbaan-e- Taleem Publications, Karwari Mahal, Walipeer Road, Kalyan (West)-421301, Dist-Thane. |                                     |

|                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reference Books :</b>                                                                                                                                 |
| 1. Aawo Urdu Mazameen Likhen Aur Grammer Seekhen. ( <b>Bara-e-Panchvi ta Satvi Jamat</b> )<br>By - Dr. Mohammed Abu Saleh-Pasbaan-e-Taleem Publications. |
| 2. Aawo Urdu Mazameen Likhen Aur Grammer Seekhen. ( <b>Bara-e-Athvi ta Dasvi Jamat</b> )<br>By - Dr. Mohammed Abu Saleh-Pasbaan-e-Taleem Publications.   |

| Pattern of Question Paper                   |           |
|---------------------------------------------|-----------|
| 1. One Question of Objective type           | 1X10 = 10 |
| 2. One Question on Poetry Part (4 out of 6) | 5 X 4 =20 |

|                                                                  |                  |
|------------------------------------------------------------------|------------------|
| 3. One Question on Prose Part (4 out of 6)                       | 5 X 4 =20        |
| 4. Two Questions on Simple Urdu Grammer (with sufficient Choice) | 5 X 2 = 10       |
| 5. One Quesstin on Letter Writing                                | 5 X 1 =05        |
| 6. One Question on Translation Urdu to English & English to Urdu | <u>5 X 2 =10</u> |
| Total Marks = 75                                                 |                  |

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|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T305B :OEC- URDU FOR KNOWING-II-POETRY(NAZM) &amp; PROSE (ESSAYS)</b>                                     |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                  |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                  |
| <b>CO 1</b>                                                       | know about the form of Urdu Nazm .Its meaning , biginning and growth in India.                                   |
| <b>CO 2</b>                                                       | students get awared of an important form of Urdu prose (Essays) its base and technique of essay writing in Urdu. |
| <b>CO 3</b>                                                       | Get acquainted with the famous poets of Urdu Nazm                                                                |
| <b>CO 4</b>                                                       | and Knows the major Essays writers and their style of writing , life sketch etc                                  |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours (Max. 64)</b> |                |                           |                   |           |                 |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|---------------------------|-------------------|-----------|-----------------|--------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                              |                                 |                |                           |                   |           |                 |                          |
| Nazm Ki Tareef, Nazm Ki Haiyat –O- Aqsam, Urdu Nazm Ka Agaz-o- Irteqa, Nazm Ke Mouzuat, Taraqqi Pasand Tehreek Ke Nazm Nigari Par Asarat, Iqbal Aur Faiz Ki Sawaneh Hayat, Iqbal Aur Faiz Ki Shairi (Nazm Nigari Ke Havale Se) , Nisab Mey Shamil Nazmoun Ka Matani -o- Tanqeedi Mutala.                                                                     |                                 |                |                           |                   |           |                 |                          |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                             |                                 |                |                           |                   |           |                 |                          |
| Urdu Mey Essays(Mazmun Nigari) Ki Riwayat, Sir Sayed Ahmed Khan, Hali, Khawja Hasan Nizami, Syed Sajjad Hyder Yelderam , Sultan Hyder Josh Ke Fun-o-Usaloob Aur Unki Mazmun Nigari Ka Khususi Mutala. Aur Nisab Mey Shamil Mazameen Ka Tanqeedi Mutala.                                                                                                      |                                 |                |                           |                   |           |                 |                          |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                            |                                 |                |                           |                   |           |                 |                          |
| <p>1. <b>Urdu Essays</b> – Ed By : Sayed Zahiruddin Madani<br/>Pub By : Maktaba Jamia New Delhi</p> <p><b>The Following Essays Only.</b></p> <table> <tr> <td>1. Khushamad –</td><td>By : Sir Sayed Ahmed Khan</td></tr> <tr> <td>2. Zaban-e-Goya –</td><td>By : Hali</td></tr> <tr> <td>3. Diya Salai –</td><td>By : Khawza Hasan Nizami</td></tr> </table> |                                 | 1. Khushamad – | By : Sir Sayed Ahmed Khan | 2. Zaban-e-Goya – | By : Hali | 3. Diya Salai – | By : Khawza Hasan Nizami |
| 1. Khushamad –                                                                                                                                                                                                                                                                                                                                               | By : Sir Sayed Ahmed Khan       |                |                           |                   |           |                 |                          |
| 2. Zaban-e-Goya –                                                                                                                                                                                                                                                                                                                                            | By : Hali                       |                |                           |                   |           |                 |                          |
| 3. Diya Salai –                                                                                                                                                                                                                                                                                                                                              | By : Khawza Hasan Nizami        |                |                           |                   |           |                 |                          |

|                                                                                          |
|------------------------------------------------------------------------------------------|
| 4. Hazrat-e-dil Ki Sawaneh Umari-By : Sajjad Hyder Yeldaram                              |
| 5. Leader – By : Sultan Hyder Josh                                                       |
| <b>UNIT IV :</b>                                                                         |
| 2. <b>Kulyat-e-Iqbal</b> –By : Md Iqbal<br>Pub By : Educational Book House Aligarh       |
| <b>The Following poems only</b>                                                          |
| 1. Khizer-e-Rah                                                                          |
| 2. Faristoon ka Geet-o- Farmane Khuda                                                    |
| 3. Shoua-e-Umeed                                                                         |
| 4. Masjide Kurtaba                                                                       |
| <b>UNIT V :</b>                                                                          |
| 3. <b>Dast-e-Saba</b> -- by : Faiz Ahmed Faiz<br>Pub By : Educational Book House Aligarh |
| <b>The Following Poems only</b>                                                          |
| 1. Subh-e-Azadi                                                                          |
| 2. Nisar Main Teri Galiyoun Ke                                                           |
| 3. Mere Hamdam Mere Dost                                                                 |
| 4. Yaad.                                                                                 |

|                                                                   |
|-------------------------------------------------------------------|
| <b>Reference Books :</b>                                          |
| 1. Iqbal Ka fun – By : Gopichand Narang                           |
| 2. Fikr-e-Iqbal – By : Khalifa Abdul Haqem                        |
| 3. Iqbal Ahwal-o-Asar – By : Hanif Naqvi                          |
| 4. Iqbal Ka Nazriye Khudi – By : Abdul Mogani                     |
| 5. Danishwar Iqbal – By : Al Ahmed Suroor                         |
| 6. Iqbal Ki Nazamaon Ka Tajziyati Mutala – By : Fakrul Islam Azmi |
| 7. Iqbal Dana-e- Raaz – By : Abdul Latif Azami.                   |
| 8. Faiz Ki Shayri Main Ishtaraqee Rujhanaat.- By-Dr.Aziza Banu.   |
| 9. Fun-0- Shakhsyat – Faiz Number- Ed by : Sabir Dutt.            |
| 10. Faiz Ahmed Faiz – Aqs Aur Jahten – By- Shaheed Mahili.        |
| 11. Faiz Ahmed Faiz Aur Jadeed Sheri Zahren- By-Nusrat Choudhri.  |
| 12. Urdu Mazamun Nigari Ka Irteqa : By- Dr.Sayeda Jafar.          |
| 13. Inshaiya ki buniyaad : By- Salim Akhtar.                      |
| 14. Inshaiya Ke Khad-o-Khal : By-Wazeer Aaga.                     |

|                                                                                                          |
|----------------------------------------------------------------------------------------------------------|
| <b>Pattern of Question Paper</b>                                                                         |
| 1. Two Questions on Form of Nazm/Poet with Internal Choice. 15 X 2 = 30                                  |
| 2. One Question on Summary of Poem with sufficient Choice. 15 X1 = 15                                    |
| 3. One Question on Form of Prose /Author/Text with Internal Choice - 15 X 1 = 15                         |
| 4. One Question on Short Note on Prose Part/Author/Characters with Internal Choice . <u>7 ½ X 2 = 15</u> |
| Total Marks = 75                                                                                         |

|                                                                   |                                                                                                                                   |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T305C : OEC- PERSIAN KNOWING – STUDY OF PERSIA LITERATUR<br/>(Prose &amp; Poetry)</b>                                      |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                   |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                   |
| <b>CO 1</b>                                                       | This course serves as an intensive introduction to classical and modern Persian Philology,                                        |
| <b>CO 2</b>                                                       | Get acquainted with the Textual analysis of works , and with this method ,students gain a strong grounding in Persian Literature. |
| <b>CO 3</b>                                                       | To develop their proficiency in reading and comprehension through communicative methods.                                          |
| <b>CO 4</b>                                                       | Student acquire an understanding of grammar that is well integrated into their language usage.                                    |

| <b>PARTICULARS</b>                                                                                                                                                                                                                        | <b>Teaching Hours<br/>(Max. 64)</b> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                           |                                     |
| Dr.Md.Iqbal, Hafiz, Saadi Shirazi Aur Jaami Ki Sawaneh-o-Shakhsyat Ka Tarruf. Farsi Nasar Ka Aagaz-o-Irteqa. Farsi Nasar Ke Havale Se Sadi Aur Jaami Ka Khususi Mutala.                                                                   |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                          |                                     |
| Hind Aur Irani Shairy Ka Umumi Aur Farsi Rubayi Aur Gazal Ka Khususi Mutala.<br>Nisab May Shamil Dr.Md.Iqbal Ki Rubaiyyat Ka Matni Mutala, Hafiz Shirazi Ki Gazaloun Ka Matni Mutala Aur Shaikh Saadi-o-Jaami Ki Hikayath Ka Matni Mutala |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                         |                                     |
| Tarjuma- Angrezi/Urdu Iqtebaas Ka Farsi Mey Tarjuma Aur Farsi Iqtebaas Ka Angrezi/Urdu Mey Tarjuma.                                                                                                                                       |                                     |
| <b>Note : No Book is prescribed for Translation of Passage, the Teacher has to decide and select the passage.</b>                                                                                                                         |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                          |                                     |
|                                                                                                                                                                                                                                           |                                     |

**A. Poetry : Form of Rubayi****Recommended Books :****1. Payam-e-Mashriq : By Dr.Md.Iqbal**

Pub. By : Aitiquad Publishing House –New Delhi.

**Rubaiyat (From 5 to 14)**

- |                                           |        |
|-------------------------------------------|--------|
| 1) Ba barge lala Rang Aamizi Ishq-        | P-57 - |
| 2) Na har kas Az Mohabbat Maya Daar Asth. | P-58 - |
| 3)Dareen Gulshan Pareshaan Misl-e-Boyem.- | P-59 - |
| 4)Jahan Mushth-e-Gil-o-DilHasil-e- Uosth. | P-60 - |
| 5) Sahri Guftu Bulbul-e-Bagabaan Ra.-     | P-66 - |
| 6) Jahaan-e- Ma ke Nabood Asth Bodash -   | P-67 - |
| 7) Nawa-e-Ishq ra saaz Asth Aadam. ---    | P-68 - |
| 8) Na Mann Anjaam-o-Ne Asgaaz Juyem -     | P-70 - |
| 9) Dila Na raayi per Daana Ta ke. ---     | P-72 - |
| 10) Tane Paida Kun Az Musht-e-Gubare. -   | P-73 - |

**2. Diwan-e-Hafiz : By Hafiz Shirazi : Pub. By : Sabrang Kitab Ghar- Delhi-6****The following Gazals only from Radeef-Saa, Jeem, Cheem,Hai Aur Khai.**

- |                                                   |       |
|---------------------------------------------------|-------|
| 1) Al –Gayaas Ai Mayaye Jaan Al -Gayaas. –        | P-105 |
| 2) Sazad k Az hama-e-dilbaran sataani Baaj.       | P-108 |
| 3) Az Man-e-Sukhta Aan Yaar Namipar sadh Heech.   | P-108 |
| 4) Agar B. Mazhab-e-Tu Khoon-e-Aashiq sath Mubah. | P-109 |
| 5) Dil-e-Man dar Hawaye Roye Farrukh. -           | P-110 |

**UNIT V :****A. Classical Prose: (Hikayat)****1. Shahkar-e-Farsi .-( Hissa-e-Nasar)**

By : Hafiz Abdul Aleem Khan (The Following prescribed Portion only )

“ Dar-Bab-e-Suwamm “ –

from Gulistan-e-Saadi, By : Shaikh Saadi Shirazi

- |                               |               |          |
|-------------------------------|---------------|----------|
| a) Hikayath do Ameerzada      | -----         | page -8  |
| b) Hikayath, Ek-e-Az Malooke  | Ajam-Tabibe – | page -9  |
| c) Hikayath Tawangar-e-Bakhil | -----         | page-14. |

**From Baharistan-e-Jaami**

- |                                           |          |
|-------------------------------------------|----------|
| d) Hikayath- Gunhegaare Ra Pesh Khalifa - | page -32 |
| e) Mutayeba-e-Nabina-e-Darshab -          | page -34 |
| f) Mutayeba-e-Khalifa-Ba Airabi -         | page-35  |

**Reference Books :**

1. A Literary History of Persian - By : E.G.Brown
2. Tareekh-e- Adbiyat-e-Iran - By : Sayed .M.Raffat.
3. Tareekh-e- Adbiyat-e- Iran - By ; Dr.Razazada Shafeeq.  
Pub by :Qutub Khana Khurshi, Urdu Bazar Lahore.
4. Shairul Ajam -- By : Shibli Numani.  
Pub by :Darul Musannafin, Shibli Academy Azam Garh
5. Jadeed Farsi Adab Ka Mutala - By : Prof.Md.Istalami  
Pub. by : Maktaba Jamia Ltd- Delhi.

**Pattern of Question Paper**

|    |                                                                                                      |            |
|----|------------------------------------------------------------------------------------------------------|------------|
| 1. | Objective Type Questions                                                                             | 1X10= 10   |
| 2. | A Critical Question on Life Sketch, Personality & Style of Prose Writers/Poets with Internal Choice. | 1X15= 15   |
| 3. | One Question on Form of Literature (Prose & Poetry with Internal Choice.)                            | 1X10= 10   |
| 4. | Explanation of Couplets (from Gazals) (Four out of Six)                                              | 4X2 ½ =10  |
| 5. | One Question on RC from Prose ( Two out of Three)                                                    | 2 X 5 = 10 |
| 6. | Summarisation of Rubayi (Two out of Four)                                                            | 2 X 5 = 10 |
| 7. | Translation the Persian Passage in to English /Urdu                                                  | 1 X5 = 5   |

|    |                                                             |          |
|----|-------------------------------------------------------------|----------|
| 8. | Translation of an unseen English /Urdu Passage into Persian | 1 X5 = 5 |
|----|-------------------------------------------------------------|----------|

|                                                                   |                                                                                                                                     |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T401 : LITERARY MOVEMENTS &amp; MODERN TRENDS</b>                                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                                     |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                                     |
| <b>CO 1</b>                                                       | Acquired the knowledge of major literary movements in Urdu literature, its features and influence on Urdu Literature.               |
| <b>CO 2</b>                                                       | Understand the Modern Trends of Urdu Literature.                                                                                    |
| <b>CO 3</b>                                                       | And to know about exemplary writers of the modern trends                                                                            |
| <b>CO 4</b>                                                       | Get acquainted with the knowledge of shaping the Urdu literature and identifying it through the trends and style of the writer/poet |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Teaching Hours (Max. 64)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |
| Tehreek Kya Hai, Tehreek ke Takaze, Urdu Ki Awaleen Tehreek Ahem Goyi Ki Khususiyat, Ahem Shair, Tehreek Sayed Ahmed Bareilvi Ke Asarat, Delhi College Ka Asar.<br>Rumani Tehreek , Rumani Tehreek kya Hai, Us Ke Asarat, Rumani Tehreek Ka Tankeedi Jayeza                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                 |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |
| Aligarh Tehreek Ka Pus Manzer, Sir Sayed Ka Siyasi Maukoof, Risalat-e-Asababe Bagawate Hind, Sir Sayed Ki Ilmi-o-Tahezibi Tasurat, Scientific Society, Aligarh Institute Gazette, Risala Tahezib-ul-Aqalaq, Aligarh Tehreek Ka Maqsad, Siyasi Tehzibi Aur Ilmi Aligarh Tahreek Ke Urdu Adab Per Asrat, sir Sayed Ke Namuwer Rufka, ( Nasar ka Naya Asloob) anjuman-e-Panjab Ki Tehreek , Delhi College Ke Adeebaun Ki Lahore Mey Amad, Anjuman-e-Panjab Ka Qiyam, Agraz-o-Maqasid, Haftwar Mubhahisay, Aur Mauzuwati Nazam Ke Awaleen Tajrubay, Urdu Nazam Ki Muktaleef Suratain, Md Hasan Azad Nai Nazam Ka Bani, Hali Ki Nazam Nigari, Hali Ki Tankeed, Anjuman Panjab Ke Asarat, Ismail Meerthi Aur Dosaray Nazam Nigar. |                                 |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Taraqqi Pasand Tehreek Siyasi Samaji Aur Ikhtisadi Pasamanzer, Hakeekat Nigari, Taraki Pasand Tehreek Ka Daure Awal, Taraki Pasand Tehreek Ka Manshoor, Uss Ka Siyasi Maqsad, Zuban Aur Haiyat Ke Bare-e-Me Taraqqi Pasand Nazriyat. Aur Tarakki Pasand Tehreek Ke Numainda Adeeb-o-Shair Aur Naqqad.                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |
| Halqaye Arbab-e-Zauk Ka Qiyam, Maqsad, Halqay Ke Shairi, Afsana Aur Tanqeed, Aur Us Ke Numayenda Fankar, Meeranji, Noon Meem Rashid, Majeed Amjad, Aur Akhtar-ul-Iman.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |

Jadeediyat, Jadeediyat Kya Hai, Mafhoom, Numainda Adeeb-o-Shair Ki Khidmat, Jadeed Gazal, Nazam Afsana, Drama, aur Tanqeed Ka Khususi Mutaliya.,

Maroof Shora, Nasir Kazimi, Ahmed Faraz, Khateel Shifae, Bani, Khurshid Ahmed Jami, Shaher Yar, etc. Ahem Novel Nigar, Aziz Ahmed, Khuteja Mastur, aur Abdul Samad, Ahem Afsana Nigar, Surender Parkash, Gyas Ahmed Gaddi, Hussianul Haq, Anwer Khan, Salam Bin Razaq etc.

Ahem Drama Nigar, Ibrahim Yusuf, Shameem Hanfi, Parkash Pandit, Dr.Md Hussain, Habeeb Tanveer. Ahem Naqad Shamsur Raheman Farooqi, Gopi Chand Narang, Mugani Tabassum, Mahemood Ayaz, Waris Alavi.

### Reference Books :

1. Urdu Mey Taraqqi Pasand Adabi Tahreek- By- Khaleel-ul- Rahman Azami  
Pub By: Education Book House Aligarh.
2. Jadeediyat Aur Adab- By –Al Ahmed Suroor  
Pub By: Education Book House Aligarh
3. Jadeed Adabi Tahereekat –o-Tabeerat- By : Hameed Hasan  
Pub By : Maktaba Jamia Delhi
4. Sir Sayed Aur Tahreek-e-Aligarh- By : Noor-ul-Hasan Naqvi  
Pub By : Education Book House Aligarh
5. Jadeed Urdu Nazam Nazariya-o-Amal – By : Aqeel Ahmed Siddique  
Pub By : Education Book House Aligarh

### Pattern of Question Paper

1. Four main Questions covering the Area of Study with Internal Choice. 15X54 =60
  2. One Short Note Question on Text And Author /Poet with Internal Choice.  $7\frac{1}{2} \times 2 = 15$
- Total Marks = 75

|                                                                   |                                                                                                                  |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T402 : TRANSLATION, PROSODY &amp; RHETORIC</b>                                                            |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                                  |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                                  |
| <b>CO 1</b>                                                       | Learn about the Translation skills, and its importance ,                                                         |
| <b>CO 2</b>                                                       | knowing phrases, idioms and phrasal verbs of a language, while translating.                                      |
| <b>CO 3</b>                                                       | Know about the problem solving of translation/usage of recent technology, and usage of internet for translation, |
| <b>CO 4</b>                                                       | Understand the Meters, Understanding of Urdu, Persian and Arabic                                                 |

|  |                                                                                                          |
|--|----------------------------------------------------------------------------------------------------------|
|  | <p>meters of poetry.</p> <p>This paper helps to students to understand the works of other languages.</p> |
|--|----------------------------------------------------------------------------------------------------------|

| <b>PARTICULARS</b>                                                                                                                                                                   | <b>Teaching Hours<br/>(Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                      |                                     |
| Tarjume Ki Zarurat Aur ahemiyat, Tarjume ki Bunyadi Usool, Tarjume Ki Kismaye, Lafzi Ba Mahaveera aur Azad Tarjuma Manzoo Tarjuma,                                                   |                                     |
| <b>UNIT II :</b>                                                                                                                                                                     |                                     |
| Masail, Istalah Saazi, Adbiyat Ka Tarjuma Sahafali, Sciensi, Technique aur Samaji Uloom, aur Dusrey Mauzuwat Ka Tarjuma                                                              |                                     |
| <b>UNIT III :</b>                                                                                                                                                                    |                                     |
| Urdu May Tarjume Ki Riwayat, Ahem Tarjuma Nigar , Angrezi Se Urdu , Aur Urdu Se Angrezi Mey Tarjume Ki Amali Mashq,<br>( No Book is prescribed. The Teacher may be decide Exercise ) |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                     |                                     |
| Baher Mafered Aur Murkkab Bahrien Baher Mutaqarib, Baher-e-Mutadarike, Bhare Ramal, Bahere Hazaz, Taqtee ka Usloob aur Taqtee Ki Mashaqu                                             |                                     |
| <b>UNIT V :</b>                                                                                                                                                                      |                                     |
| Elam-e-Bayan-o-Badi, Sanat-e-Tajnees Ki Tareef-o-Ahemiyat, Tazad, Husan-e-Taleel, Muratal Nazeer, Luf-o-Nasher, Talmih, Tasbhi, Ishtiyara, Ramaz-o-kinaya, aur Alamath.              |                                     |

| <b>Reference Books :</b>          |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| 1. Fan-e-Tarjuma Nigari-          | By : Khaliq Anjum<br>Pub- By : Anjuman Tarqee Urdu Delhi.                  |
| 2. Tarjume Ki Riwayat Aur Masail- | By Qamar Rayees<br>Pub- By : Anjuman Tarqee Urdu Delhi.                    |
| 3. Arooz-                         | By : Prof. Kaleemulla Hussaini<br>Pub By : Idara-e-Adabiyat Urdu Hyderabad |
| 4. Balagat-                       | By : Prof. Kaleemulla Hussaini<br>Pub By : Idara-e-Adabiyat Urdu Hyderabad |

| <b>Pattern of Question Paper</b>                                         |                 |                |
|--------------------------------------------------------------------------|-----------------|----------------|
| 1. Two main Questions on Text and on Area of Study with Internal Choice  | 15X2 =30        |                |
| 2. One Question on Grammar with Internal Choice.                         | 05 X3=15        |                |
| 3. Two Questions on Passage Translation Urdu to English and Eng to Urdu. | 10X2= 20        |                |
| 4. One Question on Prosody with Internal Choice.                         | <u>05X2= 10</u> |                |
|                                                                          |                 | Total Marks=75 |

|                                                                   |                                                                                                        |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T403 : STUDY OF URDU NOVEL&amp; NOVELT</b>                                                      |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                                        |
| <b>After completing this paper, the students will be able to:</b> |                                                                                                        |
| <b>CO 1</b>                                                       | Get acquainted with the major form of Urdu fiction, Novel and its features.                            |
| <b>CO 2</b>                                                       | Get acquainted with the major form of Urdu fiction, Novelette.and its features.                        |
| <b>CO 3</b>                                                       | And also able to know about the beginning and growth of Novel and Novelette in Urdu literature.        |
| <b>CO 4</b>                                                       | Get acquainted with the Important Novel, and Novelette, and major fiction writers of Urdu lieterature. |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours<br/>(Max. 64)</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                                                                                                                                                                                                            |                                     |
| Novel ka Mafhoom, Ajzaye Tarkibi, Urdu Novel Ki Ibteda-o-Irtiqua, Dastan,Novel,Afsana aur Dramein mey Farq-o-Imtiyaz,                                                                                                                                                                                                                                                      |                                     |
| <b>UNIT II :</b>                                                                                                                                                                                                                                                                                                                                                           |                                     |
| Saghir Rehmani Aur Jeelani Bano Ki Novel Nigari Aur Thukm-e-Khoon Aur Aiwan-e-Gazal Ka Tanqeedi Mutala.                                                                                                                                                                                                                                                                    |                                     |
| <b>UNIT III :</b>                                                                                                                                                                                                                                                                                                                                                          |                                     |
| Novelet ki Tareef,iss ke Ajzaye Tarkibi, Novelet ka Fun, Urdu Novelet Ka Aagaz-o-Irtiqua. Ahem Novelet Nigar,                                                                                                                                                                                                                                                              |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                                                                                                                                                                                                           |                                     |
| Urdu Novelet Per Tarqee Pasand Tahreek Ke Asrat, Jadeed Novelet Nigari,                                                                                                                                                                                                                                                                                                    |                                     |
| <b>UNIT V :</b>                                                                                                                                                                                                                                                                                                                                                            |                                     |
| Sajjad Zahir aur Qurat-ul-Ain Hyder ke Novelets ka Khususi Mutala.                                                                                                                                                                                                                                                                                                         |                                     |
| 1. Thukm-e-Khoon – By : Saghir Rehmani<br>Pub By : Educational Publishing House Delhi.<br>2. Aiwan-e-Gazal – By : Jeelani Bano<br>Pub By : Educational Publishing House Delhi<br>3. London ki Eak Raat – By : Sajjad Zahir<br>Disributer; Maktaba Jamia New Delhi<br>4. Agale Janam Muhe Bitya Na Kijio –By : Quratul Ain Hyder<br>Pub By : Educational Book House Aligarh |                                     |

### Reference Books :

- |                                                                       |                            |
|-----------------------------------------------------------------------|----------------------------|
| 1. Urdu Novel Ki Tareeq-o-Tanqeed -                                   | By Ali Abas Hussiani       |
| 2. Jeelani Bano Ki Novel Nigari -                                     | By : Musharraf Ali         |
| 3. Urdu Ke Khwateen Novel Nigar -                                     | By : Neelam Farzana        |
| 4. Hind-o-Pak Mey Urdu Novel-                                         | By : Anwar Pasha           |
| 5. Urdu Novelet Ka Tahqeeqi-o-Tanqeedi Mutala-                        | By : Sayed Wajahat Hussian |
| 6. Quratul-Ain Hyder Eak Mutala –                                     | By : Dr Irtaza Kareem      |
| 7. Hindustani Adab Ke Meamar : Sajjad Zaheer-Hayath Aur Adabi Qidmat- | By :Qamar Rayees           |

### Pattern of Question Paper

- |                                                                              |                   |
|------------------------------------------------------------------------------|-------------------|
| 1. One Question on Form of Literature (Novel & Novelet) with Internal Choice | 15X1 =15          |
| 2. Three main Questions on Text with Internal Choice.                        | 15X3 =45          |
| 3. One Short Note Question on Text /Author with Internal Choice.             | <u>7 ½ X2 =15</u> |
| Total Marks = 75                                                             |                   |



| <b>Reference Books :</b>                   |                          |
|--------------------------------------------|--------------------------|
| 1. Iqbal Ka fun –                          | By : Gopichand Narang    |
| 2. Fikr-e-Iqbal –                          | By : Khalifa Abdul Haqem |
| 3. Iqbal Ahwal-o-Asar –                    | By : Hanif Naqvi         |
| 4. Iqbal Ka Nazriye Khudi –                | By : Abdul Mogani        |
| 5. Danishwar Iqbal –                       | By : Al Ahmed Suroor     |
| 6. Iqbal Ki Nazamaon Ka Tajziyati Mutala – | By : Fakrul Islam Azmi   |
| 7. Iqbal Dana-e- Raaz –                    | By : Abdul Latif Azami.  |

| <b>Pattern of Question Paper</b>                                  |                 |
|-------------------------------------------------------------------|-----------------|
| 1. Three main Questions on Text/Author/Poet with Internal Choice. | 15X3 =45        |
| 2. One Question on Summary of Poem ( 1 out of 2)                  | 15X1 =15        |
| 3. One Question on Summarisation of Verses. (5 out of 7)          | <u>03X5 =15</u> |
| Total Marks = 75                                                  |                 |

| <b>Paper Code and Name</b>                                        | <b>PG54T404B : STUDY OF AN SPECIAL AUTHOUR/ POET: MIRZA GHALIB</b>               |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                  |
| <b>After completing this paper, the students will be able to:</b> |                                                                                  |
| <b>CO 1</b>                                                       | Know about the age, era and life, Personality of great poet Ghalib.              |
| <b>CO 2</b>                                                       | Know about the contemporaries of Mirza Ghalib.                                   |
| <b>CO 3</b>                                                       | Understand the Style of Ghalib's Urdu Poetry, Persian Poetry.And Prose writings. |
| <b>CO 4</b>                                                       | Understand the Ghalib's influence on Urdu Poetry                                 |

| <b>PARTICULARS</b>                                                                                                  | <b>Teaching Hours (Max. 64)</b> |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>UNIT I :</b>                                                                                                     |                                 |
| Ghalib ki Hayat-o-Shakhsyat, Ghalib ki Shairi, Shairi ki Khususiyat Ghalib ka Usloob-o-Fun,                         |                                 |
| <b>UNIT II :</b>                                                                                                    |                                 |
| Ghalib ke Muntakhab Gazliyat ka Matani Mutaliya, khutoot – e –Ghalib ka mutalia, Khutut-e-Ghalib ki funni Khubiyen. |                                 |
| <b>UNIT III :</b>                                                                                                   |                                 |
| <b>1.Deewan-e-Ghalib-</b> By : Mirza Asadulla khan Ghalib - Pub by : Educational Book House Aligarh (UP)            |                                 |
| ( Selected 20 Gazals Only )                                                                                         |                                 |
| <b>Following Gazals from Radeef Alif :</b>                                                                          |                                 |

|                                                                                                |            |
|------------------------------------------------------------------------------------------------|------------|
| 1. Naqsh Faryadi hai kis ki shoqi-e-Tahreer ka                                                 | ( P-45 )   |
| 2. Showq Her Rang Raqeebe-sar-o-Sama Nikla                                                     | ( P-49 )   |
| 3. Bas Ke Dushwar Hai Har Kam Ka Asan Hona                                                     | ( P-60 )   |
| 4. Ye Na thi Hamari Kismat Ke Wisal-e-yar hota                                                 | ( P-63 )   |
| 5. Dard Minnat kash-e-Dawa Na Huwa                                                             | ( P-68 )   |
| <b>UNIT IV :</b>                                                                               |            |
| <b>From Radeef Noon :</b>                                                                      |            |
| 1. Ki wafa hum se to gair uss ko jafa kehte hain                                               | ( P-113 )  |
| 2. Jahan Tera Naqsh-e-Qadam Dekhate hain.                                                      | ( P-120 )  |
| 3. Kal Ke Liye Na Aaj kar Khissat Sharab Mey                                                   | ( P-122 )  |
| 4. Dayem Pada Huwa Tere Dar par Nahin hun Mein                                                 | ( P-131 )  |
| 5. Sub kahan kuch Lala-o-Gul Mey Numaya Ho Gayin                                               | ( P-132 )  |
| <b>From Radeef –E :</b>                                                                        |            |
| 1. Ishq mujh ko Naheen, waheshat Hi Sahi                                                       | ( P-163 )  |
| 2. Dekhana Kismat ke Aap Apne pe rashk Ajaye Hai                                               | ( P-173 )  |
| 3. Sadagi Per Uski Marjane ki Hasrat Dil Mey Hai                                               | ( P-169 )  |
| 4. Dil Se Teri Nigah Jigar Tak Uttar gayee                                                     | ( P-170 )  |
| 5. Koi Umeed Bar Naheen Aati                                                                   | ( P-173 )  |
| 6. Dil-e-Nadan Tuje Huwa Kya Hai                                                               | ( P-174 )  |
| 7. Na-Ho Gar Mere Marne Se Tasalli Na Sahi                                                     | ( P-187 )  |
| 8. Bazichaye Atfal hai Duniya Mere Aage                                                        | ( P-212 )  |
| 9. Ibne-Mariam Huwa Kare Koyi                                                                  | ( P- 217 ) |
| 10. Hazaroun Khwaishen Aisee ke har khwaish pe dam Nikle                                       | ( P-219 )  |
| <b>UNIT V :</b>                                                                                |            |
| 2. <b>Wood-e-Hindi :</b> By- Asadulla Khan Ghalib<br>Pub by : Tej Kumar, Naval Kishore Lucknow |            |

|                              |                            |
|------------------------------|----------------------------|
| <b>Reference Books :</b>     |                            |
| 1. Ghalib Shaks-o-Shairi-    | By : Majnu Gorakhpuri      |
| 2. Ghalib Ek Mutaliya-       | By :Mamtaz Hussian         |
| 3. Ghalib Shair Aur Maktoob- | By : Noor-ul-Hasan Hashmi. |

|                                                                   |                 |
|-------------------------------------------------------------------|-----------------|
| <b>Pattern of Question Paper</b>                                  |                 |
| 1. Three main Questions on Text/Author/Poet with Internal Choice. | 15X3 =45        |
| 2. One Question on Short Notes ( 2 out of 4 )                     | 7 ½ X2 =15      |
| 3. One Question on Summarisation of Verses. (5 out of 7)          | <u>03X5 =15</u> |
| Total Marks = 75                                                  |                 |

|                                                                   |                                                                                     |
|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Paper Code and Name</b>                                        | <b>PG54T405 : DISSERTATION</b>                                                      |
| <b>COURSE OUTCOMES (COs)</b>                                      |                                                                                     |
| <b>After completing this paper, the students will be able to:</b> |                                                                                     |
| <b>CO 1</b>                                                       | Understand the aims and objectives of Research.                                     |
| <b>CO 2</b>                                                       | To get acquainted with the process of undertaking research work                     |
| <b>CO 3</b>                                                       | To get acquainted with the mechanics of writing research articles and dissertation. |
| <b>CO 4</b>                                                       | To get acquainted with the research methodology and research ethics.                |

| <b>PARTICULARS</b>                                                                                                                                                                   | <b>Teaching Hours<br/>(Max. 64)</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>UNIT I :</b>                                                                                                                                                                      |                                     |
| Oblectives of research: Selection of topic, Relevance, and Preparation of Synopsis                                                                                                   |                                     |
| <b>UNIT II :</b>                                                                                                                                                                     |                                     |
| Collection of Data: Source texts, reference books, ionterview, field work, the use of library and electronic cources.                                                                |                                     |
| <b>UNIT III :</b>                                                                                                                                                                    |                                     |
| Critical Analysis: A Study of primary, secondary cources, note making and division of chapters.                                                                                      |                                     |
| <b>UNIT IV :</b>                                                                                                                                                                     |                                     |
| Formate of the thesis: the use of quotations, references, endnotes, illustrations, bibliography, punctuation marks, abbreviations, and editing.                                      |                                     |
| <b>UNIT V :</b>                                                                                                                                                                      |                                     |
| Drafting the Thesis: Presentation, argument, analysis, survey of literature, and key terms like investigation, exploration,hypothesis, methods and techniques, results and findings. |                                     |
| <b>Reference Books :</b>                                                                                                                                                             |                                     |
| Tehqeeq ka Fan By: Prof. Gyanchand Jain.<br>Pub By: Educational Book Hourse, New Delhi.                                                                                              |                                     |



# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

**For**

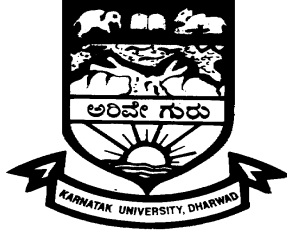
**MASTER OF VISUAL ART**

**CHOICE BASED CREDIT SYSTEM (M.V.A. – CBCS)**



**2021-2022 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



## **REGULATIONS**

**For**

## **MASTER OF VISUAL ART**

**CHOICE BASED CREDIT SYSTEM (M.V.A. – CBCS)**

**From**

**2021-2022 & Onwards**

**Department of Visual Art**

**Karnatak University, Dharwad**

**ELIGIBILITY CRITERIA FOR ADMISSION TO MVA**

The Students seeking admission for MVA degree in different specializations should have minimum of 50% aggregate marks for general candidates Under Graduate Degree. In case of students belonged to SC/ST- 45% aggregate.

- **Students seeking admissions to MVA degree should have completed BVA/BFA or any equivalent degree in respected specializations with regular Degree from recognized College/University.**
- The candidates with BVA/BFA Applied Art are eligible for MVA Applied Art
- For admission in Art History, candidates from any disciplines in Visual Art are eligible.
- **Entrance Test for Admissions;**
- **Admissions are made through a formal entrance examination:**
- **There shall be practical and Theory as well as Viva Voce test for entrance test.**
- **Reservation in admissions may be followed as per the university criteria.**

**Examination/Marks**

- For I, II & III semesters, the marks in practical subjects will be awarded on the basis of their performance throughout the semester, as reflected in their portfolios and sessional marks.
- The marks for sessional work in practical subjects in each of the semester examination shall be awarded by the subject teacher and one subject expert nominated by the Principal/ Controller of Examination.
- *There shall be only final submission in practical subjects for I, II & III semesters in both major and minor subjects. Only, theory exams will be conducted at the end of every semester.*
- Examination will be conducted only in the 4<sup>th</sup> semester for all practical subjects and there shall be display of all works of the students along with exam works. The dissertation and viva-voce is must to fulfill the course criteria.

The minimum marks required to pass each examination to be held at the end of each semester shall be separately be 35 % in each Theory paper and 40 % in practical paper consisting of sessional and examination marks taken independently.

**Theory 35%**

**Practical 40% Aggregate 40%**

**Conditions under which candidates are permitted to keep term:**

If a student is absent from the final submission or does not submit the practical works on said date, will not be considered for the next semester. If a student fails in Art History or absent, or wants to improve the marks, can withdraw and re-appear (appropriately) for a second exam in **even semester** conducted by the college. In case of the theory students (Art History) they must pass minimum 3 subjects to keep the next semester and should complete all the subjects before appearing to IV Semester.

*A candidate who does not clear the Final Examinations within a period of 4 years of his/her admission to the First Semester, shall not be allowed to continue his/her studies.*

***The medium of examination shall be in English or Kannada.***

**Attendance**

*Students must have **75% attendance** in each practical and theory classes to appear for examination or for final submission.*

**Declaration of Class**

- A. Those who obtain **75%** or more shall be placed in the First division with Distinction.
- B. Those who obtain **60% or** more but less than **75%** shall be placed in the First Division.
- C. Those who obtain **50%** or more but less than **60%** shall be placed in the Second Division.
- D. Those who obtain less than **50%** shall be placed in Pass Division.

**Class and Distinction shall be awarded to only those students who have cleared all subjects in first attempt in all the semesters.**

**NOTE:**

*The Karnatak University rules and regulations are applicable for candidates who are physically challenged.*

**PG 36/1: M.V.A in PAINTING**

**Programme Structure**

**I SEMESTER**

| Sl. No. | Subject Code   | Subject Description                                                  | Instruction Hrs / week | IA Marks | Exam Hours | Final Examination |         |       | Total Marks | Credits |
|---------|----------------|----------------------------------------------------------------------|------------------------|----------|------------|-------------------|---------|-------|-------------|---------|
|         |                |                                                                      |                        |          |            | 225 marks         |         |       |             |         |
|         |                | Major: Practical                                                     |                        |          |            | Viva              | Journal | Exam  |             |         |
| 1       | PG36/1<br>P101 | Creative Painting                                                    | 20                     | 75       | 5+5+5      | 25                | 50      | 150   | 300         | 12      |
|         |                | Minor: Practical                                                     |                        |          |            |                   |         |       |             |         |
| 2       | PG36/1<br>P102 | <b>Opted by the Students</b><br><b>(Sculpture/Computer Graphics)</b> | 4                      | 25       | 5          | --                | ----    | 75    | 100         | 04      |
|         |                | Theory:                                                              |                        |          |            |                   |         |       |             |         |
| 3       | PG36/1<br>T103 | <b>Indian Art-1800-1945</b>                                          | 4                      | 25       | 3          | ---               | ----    | 75    | 100         | 04      |
| 4       | PG36/1<br>T104 | <b>Western Art- 1800-1945</b>                                        | 4                      | 25       | 3          | ---               | -----   | 75    | 100         | 04      |
|         |                |                                                                      | 32                     |          |            |                   |         | Total | 600         | 24      |

## II SEMESTER

| Sl. No. | Subject Code    | Subject Description                                    | Instruction Hrs / week | IA Marks | Exam Hours | Final submission |         |      | Total Marks | Credits |
|---------|-----------------|--------------------------------------------------------|------------------------|----------|------------|------------------|---------|------|-------------|---------|
|         |                 |                                                        |                        |          |            | Viva             | Journal | Exam |             |         |
|         |                 | Major: Practical                                       |                        |          |            | 150 marks        |         |      |             |         |
| 1       | PG36 /1<br>P201 | Creative Painting                                      | 20                     | 50       | 5+5+5      | 25               | -----   | 125  | 200         | 08      |
|         |                 | Minor: Practical                                       |                        |          |            |                  |         |      |             |         |
| 2       | PG36 /1<br>P202 | Opted by the Students<br>(Sculpture/Computer Graphics) | 4                      | 25       | 5          | -                | ---     | 75   | 100         | 04      |
|         |                 | Theory:                                                |                        |          |            |                  |         |      |             |         |
| 3       | PG36 /1<br>T203 | Indian Art-1945 to Present Day                         | 4                      | 25       | 3          | --               | ---     | 75   | 100         | 04      |
| 4       | PG36 /1<br>T204 | Western Art-1945 to Present Day                        | 4                      | 25       | 3          | --               |         | 75   | 100         | 04      |
| 5       | PG36 /1<br>T205 | OEC Drawing (Object)                                   | 4                      | 25       | 3          | -                | -----   | 75   | 100         | 04      |
|         |                 |                                                        | 36                     | Total    |            |                  |         |      | 600         | 24      |

## II SEMESTER

| Sl. No. | Subject Code       | Subject Description                                    | Instruction Hrs / week | IA Marks | Exam Hours | Final submission |         |      | Total Marks | Credits |
|---------|--------------------|--------------------------------------------------------|------------------------|----------|------------|------------------|---------|------|-------------|---------|
|         |                    |                                                        |                        |          |            | Viva             | Journal | Exam |             |         |
|         |                    | Major:Practical                                        |                        |          |            | 150 marks        |         |      |             |         |
| 1       | PG36/<br>1<br>P201 | Creative Painting                                      | 20                     | 50       | 5+5+5      | 25               | -----   | 125  | 200         | 08      |
|         |                    | Minor: Practical                                       |                        |          |            |                  |         |      |             |         |
| 2       | PG36/<br>1 P202    | Opted by the Students<br>(Sculpture/Computer Graphics) | 4                      | 25       | 5          | -                | ---     | 75   | 100         | 04      |
|         |                    | Theory:                                                |                        |          |            |                  |         |      |             |         |
| 3       | PG36/<br>1 T203    | Indian Art-1945 to Present Day                         | 4                      | 25       | 3          | --               | ---     | 75   | 100         | 04      |
| 4       | PG36/<br>1<br>T204 | Western Art-1945 to Present Day                        | 4                      | 25       | 3          | --               |         | 75   | 100         | 04      |
| 5       | PG36/<br>1<br>T205 | OEC Drawing (Object)                                   | 4                      | 25       | 3          | -                | -----   | 75   | 100         | 04      |
|         |                    |                                                        | 36                     | Total    |            |                  |         |      | 600         | 24      |

### III SEMESTER

| Sl. No. | Subject Code | Subject Description                                    | Instruction Hrs / week | I A Marks | Exam Hrs | Final submission |      | Total Marks | Credits |
|---------|--------------|--------------------------------------------------------|------------------------|-----------|----------|------------------|------|-------------|---------|
|         |              | Major: Practical                                       |                        |           |          | Viva             | Exam |             |         |
| 1       | PG36/1 P301  | Creative Painting                                      | 20                     | 75        | 5+5+5    | 25               | 200  | 300         | 12      |
|         |              | Minor: Practical                                       |                        |           |          |                  |      |             |         |
| 2       | PG36/1 P302  | Opted by the Students<br>(Sculpture/Computer Graphics) | 4                      | 25        | 5        | -                | 75   | 100         | 04      |
|         |              | Theory                                                 |                        |           |          |                  |      |             |         |
| 3       | PG36/1 T303  | Research Methodology                                   | 4                      | 50        | 1.5      | --               | 50   | 100         | 04      |
| 4       | PG36/1T304   | OEC-Drawing (Still Life)                               | 4                      | 25        | 3        | -                | 75   | 100         | 04      |
|         |              |                                                        | 32                     |           |          |                  |      | 600         | 24      |

**Note :: 22 marks are for two internal tests (each for 11 marks) and 3 marks are for attendance. 75% of attendance is compulsory. If the student has 76 to 80% she/he will get 1mark; if she/he has 81 to 90% she/he will get two marks and if she/he has 91% and above she/he will get 3 marks.**

#### IV SEMESTER

| Sl. No. | Subject Code | Subject Description                                 | Instruction Hrs / week | I A Marks | Exam Hours | Viva/final submission |         |      | Total Marks | Credits |
|---------|--------------|-----------------------------------------------------|------------------------|-----------|------------|-----------------------|---------|------|-------------|---------|
|         |              | Major: Practical                                    |                        |           |            | Viva                  | Journal | Exam |             |         |
| 1       | PG36/2 P401  | <b>Creative Painting</b>                            | 20                     | 75        | 5+5+5      | 25                    | 50      | 150  | 300         | 12      |
|         |              | Minor: Practical                                    |                        |           |            |                       |         |      |             |         |
| 2       | PG36/2 P402  | Opted by the Students (Sculpture/Computer Graphics) | 4                      | 25        | 5          | .....                 |         | 75   | 100         | 4       |
| 3       | PG36/2 P403  | Dissertation                                        | 8                      | .....     | 5          | .....                 |         | 100  | 100         | 8       |
| 4       | PG36/2 P403  | Display and Submission                              | ....                   | ....      | 5          | 25                    |         | 75   | 100         | ....    |
|         |              |                                                     | 32                     | Total     |            |                       |         |      | 600         | 24      |



**KARNATAK UNIVERSITY, DHARWAD**

**DEPT. OF MASTER OF VISUAL ARTS**

**SYLLABUS FOR**

**MASTER OF VISUAL ARTS IN PAINTING (PG 36/1)**

**I TO IV SEMESTERS**

**UNDER CBCS PROGRAMME**

**WITH EFFECT FROM 2021-22 ONWARDS for 3 Years**

## **Program Outcomes**

1. As Visual Art is the global language, national communication, higher education, technical education, and international relationship. The student will learn these things by the end of the programme.
2. The student will be aware of the fact that Visual Art is the culture of India.
3. He will realize that Visual Art Indian and western common education, more so, imparting of Visual Art skills is essential for defining Indian culture and Art.
4. He will learn that MVA Visual Art has been transforming the education in India. He will have an understanding of such thrust areas like British Art, Indian Art, Criticism, Postcolonial Art and culture studies.
5. He will learn that Visual Art is to be taught using Visual Art. All that will be oriented towards empowering the students for employability.

## **Program Specific Outcomes**

1. Visual Art is taught to run all schools, colleges, and universities. The students will be able to acquire proficiency in Visual Art for employability.
2. Since it is a skill oriented program MVA Visual Art is creating an excellent job market. The students will get the required skills for professionalism.
3. MVA Visual Art graduates are getting jobs in public and private sectors. They are getting into Art Lecturers, Artists, Film Industry, Animation Industry, Art Teachers in Schools, journalism, mass media, information technology and other global markets. The students will be facilitated for doing research, getting teaching jobs and even entering into private sectors.

## **I SEMESTER – M.V.A. in PAINTING**

### **PG36/1 P101 CREATIVE PAINTING ( 300 MARKS )**

#### **Course Outcomes**

**Creative Painting :** The subjects help the students to shape his/her future in the field of Painting Artist, Art Lecturer, Art Director and Story Board Writer in Film Industry, Creative Head, Animation Industry, Media like News Paper, Magazines, Artist, Cartoonist Jobs and so on.

#### **Major**

The Post Graduate program in painting must focus on the building up of Paintings as a personal language. To arrive at this the learning must include the process of arriving at concepts, images, uses of materials etc. This can be done by understanding various other artists from different periods (their times and their art) in art history that is the relevance of the imagery in accordance to the times. The studies can be in drawings, scribbles etc. all motivating the students to understand the process of analyzing Visual Arts in the context of the world that they belong.

This process can begin by referring to Art History from around the Impressionists to Pop of the West, and Indian/Mughal miniatures and Pre-independent India of the contemporary art. Studies on the folk and traditional arts of the district would be proving very beneficial.

The personal works executed can /must reflect the studies that are initiated.

**Journal:** It is to be used as a Visual Diary. Recording and documenting the process of learning to build paintings. It needs to be documented in both words and graphic format. It needs to be presented at each display, discussion of practical works. Plenty scribbles drawings, pictures etc can be included.

## **PG36/1 P102 OPTED BY STUDENTS OF COMPUTER**

### **GRAPHICS/SCULPTURE ( 100 MARKS )**

#### **Course Outcomes**

**Computer Graphics :** The subject helps the students to shape up his/her future in the field of Advertising Designer, Creative Designer, Visualizer, Graphic Designer, Photo Editor, Logo Designer, App Designer, Digital Artist, various jobs in Advertising agency, Web industries and Animation Industry and so on.

#### **Minor**

MVA Painting students need to select one minor subject from other discipline such as Computer Graphic/sculpture, and the same subject will continue from through II Semester. This must have 10 – 15 days allotted in each semester. This will help in building a better understanding of other languages.

#### **Theory**

### **PG36/1 T103 WESTERN ART-I: 1800 – 1945 ( 100 MARKS )**

#### **Course Outcomes**

**Western Art 1800 – 1945 :** This subject helps the students to know the past history of Western Artists life, their works and their contribution to Art World. It helps to he/her to develop their work in own style.

#### **Western Art 1800 – 1945**

Importance should be laid on the formal, post-formal, aesthetics, post-aesthetic understanding of the visual images from the beginning of European Modern Art (1860s) onwards till the present day. History of art should be more about the changing, altering and evolving history of forms of art and the newer experiences and meanings they acquire over a period of time. Chronology and facts should be employed more as a necessity to aid such artistic understanding of historiography of art.

The reasons behind the end of the age of reason and the birth of a democratic outlook in governance and how it paved way to modernity is to be taught. The essence of Modernism between 1860s and 1970s should be introduced and elaborated. The aesthetic and socio-political reasons behind the birth and sustenance of Modernism, the notion of Avant Garde, the interdisciplinary interactions between visual arts, literature and moving images to be explored and elaborated. The essence of each ISMS and their uniqueness is to be elaborated. Important texts like “Modernist Painting” (Clement Greenberg) and “Work of Art in the age of Mechanical Reproduction” (Walter Benjamin) and the discourse around them is to be studied, as part of studying Modernism and Modernity in Arts.

The evolution of the history of art writing and how it complemented the artistic practices, during the same period, is to be introduced. Various theories related to visual culture is to be explained and the writing by artists themselves is to be considered valid, that should be available to students both as references as well as a way of artistic modernity. Towards this, the writings on visual arts and visual culture by artists, curators, art critics and art historians are to be used as resources, in order to interpret and experience the essence of the visual arts and visual culture, in the European context. Also, the way in which European art was itself affected by its own influence on other countries and continents is to be take note of (Homi Bhabha: the Mimic Man concept).

Modern art to be considered through three main aspects of criticism: psychoanalysis, gender study and socialistic theories.

**NOTE:** students are required to prepare presentations/assignments time to time on various art forms and art schools/theories, as assigned by the concerned teacher. It is mandatory to submit a minimum of TWO assignments

for general students and FOUR assignments for Art History students in each paper.

## **Theory**

### **PG36/1 T104 INDIAN ART 1800 – 1945 ( 100 MARKS )**

#### **Course Outcomes**

**Indian Art 1800 – 1945 :** This subject helps the students to know the past history of Indian Artists life, their works and their contribution to Art World. It helps to he/her to develop their work in own style.

#### **Indian Art-I: 1800 – 1945**

The various factors that influenced, framed and formulated visual arts and culture in India, like the impact of cultural Colonization, the Bazaar paintings, Company Paintings, the European influence that led to Eclecticism in image making and visual culture in the Indian context (like the Miniatures, Kalighat Paintings, traditional paintings, leather puppetry, Dokra bronzes, Worli paintings, Madhubani paintings) during the prevalence of European power in India, is to be studied. The initiation and impact of formal British art schools at Madras, Bombay and Calcutta is to be analyzed. The provincial impact of such urban art schools are to be taken note of.

The idea, implications and the results of multiple Modernity of Raj Ravi Varma, Amrita Shergil, the Art Movements (pre and post Indian Independence) like Bengal Renaissance (Kala Bhavana, Santiniketan), Progressive Art Group (Bombay) is to be probed into. The way in which the writings on India art by both Indian and European writers is to be looked into (like Mildred Archer, Ananda Coomaraswamy, Rabindranath Tagore, Abanindranath Tagore).

The notions of Orientalism and Occidental is to be addressed.

NOTE: students are required to prepare presentations/assignments time to time on various art forms and art schools/theories, as assigned by the concerned teacher. It is mandatory to submit a minimum of TWO assignments for general students and FOUR assignments for Art History students in each paper.

## **II SEMESTER – M.V.A. in PAINTING**

### **PG36/1 P201 CREATIVE PAINTING ( 200 MARKS )**

#### **Course Outcomes**

**Creative Painting** : The subjects helps the students to shape up his/her future in the field of Painting Artist, Art Lecturer, Art Director and Story Board Writer in Film Industry, Creative Head, Animation Industry, Media like News Paper, Magazines, Artist, Cartoonist Jobs and so on.

#### **Major**

#### **Creative Painting**

Continuing the process initiated in the previous semester there must be focused on individual approaches. Broader understanding of materials and its relation to concepts and images must be of importance now.

Exploring and experimenting of materials and media can be the major part of the working process

Now a study of arts specially the visual language and culture of the Post POP, Neo-POP to Conceptual in the west; Modern arts movements of India and the revival of folk and tribal, traditional arts in India(especially after Independence) will be beneficial.

**Journal:** The visual record continues with more focus on the growth of personal approach to visual language. It needs to exhibit the learning process. Journal working as a source book is appreciated. It continues as a mandatory part of practical submission

### **PG36/1 P202 OPTED BY STUDENTS OF COMPUTER GRAPHICS/SCULPTURE ( 100 MARKS )**

#### **Course Outcomes**

**Computer Graphics** : The subject helps the students to shape up his/her future in the field of Advertising Designer, Creative Designer, Visualizer,

Graphic Designer, Photo Editor, Logo Designer, App Designer, Digital Artist, various jobs in Advertising agency, Web industries and Animation Industry and so on.

**The same subject opted in the I Semester will continue through IV Semester.**

## **Theory**

### **PG36/1 T203 WESTERN ART. 1945 TO THE PRESENT ( 100 MARKS ) COURSE OUTCOMES**

**Western Art. 1945 to the Present:** This subject helps the students to know the past and present history of Western Artists life, their works and their contribution to Art World. Present activities, developments and experiments in Art field. It helps to he/her to develop their work in own style.

#### **Western Art 1945 to the Present**

- The end of Modern Art and the beginning of Postmodernism, Conceptual Art, Contemporary Curatorial practices, the nature of and relation between Art and Activism is to be elaborated.
- The changing nature of art institutions, circulation of images and the way they affected the visual arts, from Modern Museums to Contemporary Museums is to be studied. The philosophy and theory behind shows like the Biennale, Art Fairs and Documenta shows (Kassel, Germany) is to be explained.
- The changing nature of cutting edge art, artist residencies, new media and the advent of film and moving images (like Video Art, Video Performance, Photo Performance), the sophistication involved in the display, catalogue and archiving of visual culture in general and visual arts in particular is to be elaborated. The continental drift of artistic practices, the Diaspora and exiledom to be specifically addressed. Theories related to visual culture from cultural study, the dialogue between art history and cultural theory is to be introduced.

•**NOTE:** students are required to prepare presentations/assignments time to time on various art forms and art schools/theories, as assigned by the concerned teacher. It is mandatory to submit a minimum of TWO assignments for general students and FOUR assignments for Art History students in each paper.

## **PG36/1 T204 INDIAN ART.1945 TO THE PRESENT ( 100 MARKS )**

### **Course Outcomes**

**Indian Art.1945 to the Present :** This subject helps the students to know the past and present history of Indian Artists life, their works and their contribution to Art World. Present activities, developments and experiments in Art field. It helps to he/her to develop their work in own style.

### **Indian Art.1945 to the Present**

Study the art movements of India post-independence like Chalamandal (Madras), Shilpi Chakra (New Delhi), Radical Group (Kerala) are to be studied with all its intricacies. The contribution of individual stalwarts is to be studied in relation to the group and school activities.

The impact of the nature of Modern Museums (like NGMA), gallery traditions and art writing practice on artistic practice is to be grasped. The influence of pedagogy, art education and its practitioners upon the making of modernism in Indian art is to be studied, with an introduction to important texts by practitioners of art (like K.G. Subramanyan's "Living Tradition", Geeta Kapoor's "When was Modernism?").

The relation between administrative and creative discourses is to be brought in, in relation to the activities of Lalitkala Akademies, art schools, art fairs (like Nandan Mela, Baroda Art Fair, Kala Goda festival, Delhi Art Fair).

The notion of Diaspora, the way postcolonial, subaltern discourses and the activities of artistic initiatives and art residencies like KHOJ (New Delhi) have affected the artistic practice is to be studied.

**NOTE:** students are required to prepare presentations/assignments time to time on various art forms and art schools/theories, as assigned by the concerned teacher. It is mandatory to submit a minimum of TWO assignments for general students and FOUR assignments for Art History students in each paper.

**OEC**

### **PG36/1 P205 DRAWING OBJECT ( 100 MARKS )**

#### **Course Outcomes**

**Drawing Object:** The subject helps the students to shape up his/her future in the field of Drawing to know shape study, perspective of various objects, light and shade.

#### **Drawing :**

Man made objects geometrical – solid objects, utensils, plaster casts, (parts of the human body, simple relief of design etc..) use variety of Drawing tools understand light and shade of the objects.

### **III SEMESTER – M.V.A. in PAINTING**

#### **PG36/1 P301 CREATIVE PAINTING ( 300 MARKS )**

##### **Course Outcomes**

**Creative Painting** : The subjects helps the students to shape up his/her future in the field of Painting Artist, Art Lecturer, Art Director and Story Board Writer in Film Industry, Creative Head, Animation Industry, Media like News Paper, Magazines, Artist, Cartoonist Jobs and so on.

##### **Major**

##### **Creative Painting**

Having arrived at their individual process concepts, language there must be plenty of practice of their works. This means plenty of complete painting/work of art. Written support to the works done is mandatory.

References to art history must be a continuous process.

##### **Minor (Opted by the Students)**

#### **PG36/1 P302 OPTED BY STUDENTS OF COMPUTER GRAPHICS/SCULPTURE ( 100 MARKS )**

##### **Course Outcomes**

**Computer Graphics** : The subject helps the students to shape up his/her future in the field of Advertising Designer, Creative Designer, Visualizer, Graphic Designer, Photo Editor, Logo Designer, App Designer, Digital Artist, various jobs in Advertising agency, Web industries and Animation Industry and so on.

MVA Painting students need to select one minor subject from other discipline such as graphics/applied art/sculpture, and the same subject will continue through IV Semester.

#### **PG36/1 T303 RESEARCH METHODOLOGY ( 100 MARKS )**

##### **Course Outcomes**

**Research Methodology :** This subject will help the students to understand the research methodology in further higher studies and how to choose subject, field work about practical or theory.

**Objective:** To motivate the students to conduct research on specified area or selected topic and to prepare a research proposal.

**Introduction To Research:** Meaning – Objectives – Types of Research – Scope of Research – Research Approaches – Research Process — Research Methods Vs Research Methodology - Steps in Research – Problem Formulation – Statement of Research Objective – Exploratory – Descriptive – Experimental Research

**Data Collection And Measurement:** Types data: Primary & Secondary, Data collection techniques, Scales of Measurement, Classification of Scales - Single Item v/s Multi Item Scales, Comparative v/s Non-Comparative scales, Continuous Rating Scales; Criteria for Good Criteria for Questionnaire Designing; Types of Questionnaire; Questionnaire Design Procedure, Pilot test, validity and reliability of Questionnaire, Cranach's alpha, interview schedule  
Assignment:

Students should submit a synopsis on current issues of advertising or marketing in the prescribed below format.

- a. Introduction (Theoretical Background)
- b. Review of literature (as cited in synopsis)
- c. Statement of the problem/Need for the study
- d. Objectives of the study
- e. Scope of the study
- f. Hypothesis(if any)
- g. Operational definition of the concepts
- h. Methodology
- i. Sampling
- j. Data collection
- k. Plan of analysis
- l. Limitations of the study
- m. Chapter Scheme:

Assignment: Student should prepare a research proposal/synopsis issue of proposed topic

**OEC**

**PG36/1 P304 DRAWING OBJECT ( 100 MARKS )**

**Course Outcomes**

**Drawing (Still Life)** : The subject helps the students to shape up his/her future in the field of Drawing to know shape study, perspective of various objects, Art materials, colours, light and shade.

**Drawing (Still Life):**

Man made Objects geometrical – solid objects, utensils, plaster casts, natural materials (Fruits, Vegetables, Flowers etc...) use variety of Colours Like Indian Ink, Poster Colour, Water Colours, Acrylic Colours etc.. to understand light and shade of the objects.

## **IV SEMESTER – M.V.A. in PAINTING**

### **Major**

#### **PG36/1 P401 CREATIVE PAINTING ( 300 MARKS )**

##### **Course Outcomes**

**Creative Painting** : The subjects helps the students to shape up his/her future in the field of Painting Artist, Art Lecturer, Art Director and Story Board Writer in Film Industry, Creative Head, Animation Industry, Media like News Paper, Magazines, Artist, Cartoonist Jobs and so on.

Painting/work of art is at an advanced stage exhibiting individuality. Continuing the previous semesters focus on completing the works like presentation display writing on their works must be practiced. Regular discussions by internal and external experts must be part of the class.

#### **PG36/1 P402 OPTED BY STUDENTS OF COMPUTER GRAPHICS/SCULPTURE ( 100 MARKS )**

##### **Course Outcomes**

**Computer Graphics** : The subject helps the students to shape up his/her future in the field of Advertising Designer, Creative Designer, Visualizer, Graphic Designer, Photo Editor, Logo Designer, App Designer, Digital Artist, various jobs in Advertising agency, Web industries and Animation Industry and so on.

The same subject opted in the III Semester will continue through IV Semester.

#### **PG36/1 T403 DISSERTATION ( 100 MARKS )**

##### **Course Outcomes**

**Dissertation** : This subject will help the students to develops research, writing skill in develop documentation in Literature.

The Post-Graduate candidates continue the research based on the synopsis submitted in the previous semester. The guide too continues.

**Submission:** The dissertations should be prepared in the prescribed manner and handed over to the Principal, through the Head of the Department positively before the commencement of the theory examinations.

The Dissertations should be neat type written/computer/DTP/ in double line space, 12 font in New Roman, Bookman, Arial, Helvetica. The Dissertation should contain a minimum of 30 pages of type written text along with appropriate visuals. It should have the requisite bibliography and references. No web Materials allowed in downloaded form (or else this would be rejected as it would mount up to plagiarism)

Viva-Voce examination will be conducted by a panel nominated by the Chairman comprising the Head of the Department, Guide and external experts.

### **PG36/1 P 404 DISPLAY**

**Notice :-**At the end of 3<sup>rd</sup> and 4<sup>th</sup> Semester each student should display their works compulsory.

**Note :-**

- Passing Marks – 35 in each paper. Total aggregate of Passing is 40%, Pass Class : 40-49% , II Class 50-59%, I Class 60% and above Distinction: Above 75%
- Any ONE of the TWO subsidiary subjects should be opted at the beginning of even semester. It is compulsory to have one subsidiary subject for at least two semesters. Subsidiary can be changed ONLY during EVEN semester.

### **Minor Subjects available in PG Painting Dept.**

| <b>I &amp; II Semester</b> | <b>III &amp; IV Semester</b> |
|----------------------------|------------------------------|
| Creative Painting          | Creative Painting            |

|  |  |
|--|--|
|  |  |
|--|--|

## **Creative Painting**

Students are expected to use critical analysis research, visual experimentation and exploration to arrive at a concept or thought, subject for their painting. Extensive research (practical) and studies in different media (applications) is to be done.

## **Reference Books :**

1. Arts of Mankind by Van gough
2. The Story of Indian Art by S.K. Bhattacharya
3. Indian Contemporary Art
4. Indian Artists
5. History of Aesthetics by Bosanquest
6. Art Now by Herbert Read
7. History of the Art in India and West
8. Styles,Schools and Moments by Amy Dempsey
9. Women art & Society
- 10.New Media in Late 20<sup>th</sup> Centaury Art Thames & Hudson World of Art
- 11.Art of the Twentieth Centaury by Loredana Parmesani
- 12.ಕಲಾಪ್ರಪಂಚ - ಶ್ರೀ ಶಿವರಾಮ ಕಾರಂತ
- 13.ಭಾರತೀಯ ಚಿತ್ರಕಲೆ - ಶ್ರೀ ಎನ್. ಮರಿಶಾಮಾಚಾರ್
- 14.ಭಾರತೀಯ ಚಿತ್ರಕಲಾ ದರ್ಪಣ - ಶ್ರೀ ವಿ. ಟಿ. ಕಾಳೆ
- 15.ಭಾರತೀಯ ಚಿತ್ರಕಲೆ - ಶ್ರೀ ಬಿ. ಪಿ. ಬಾಯರಿ
- 16.ನವ್ಯಕಲೆ ಹಾಗೂ ಕಲೆಗಾರರು - ಶ್ರೀ ಬಿ. ಪಿ. ಬಾಯರಿ

KARNATAK UNIVERSITY. DHARWAD



**'A' Grade  
NAAC Accredited 2014**



***2019-2020***

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF WOMEN'S STUDIES**



'A' Grade  
NAAC Accredited 2014

*Regulations and Syllabus*  
*For*  
*M. A. Programme*  
*in*  
***WOMEN'S STUDIES***  
**(I to IV Semesters)**

*Under*  
*Choice Based Credit System*

***2019-2020***

# **Regulations Governing MA Degree Programme in Women's Studies under the Choice Based Credit System**

*(Framed under Section 44(1) (c) of the K. S.U. Act, 2000)*

## **I. Commencement**

These Regulations shall come into force on the date on which they are approved by the Chancellor or on such other dates as directed by the Chancellor.

## **II. Definitions**

In these Regulations, unless otherwise provided:

- a. 'University' means Karnatak University, Dharwad
- b. 'Board of Studies' means P.G. Board of Studies in Women's Studies (P.G) of the Karnatak University
- c. 'Compulsory Paper' means the paper, which is prescribed by the department from time to time as compulsory.
- d. 'Specialization paper' means an optional paper prescribed by the Department from time to time
- e. 'Open Elective' means a paper offered by the Dept. of Women's Studies for the Students of other Dept in Karnatak University by time to time. However, the students of Department have freedom to choose from a number of open electives offered by the other departments to add to their credits required for the completion of their degree.
- f. 'Credit' means the unit by which the course-work is measured. One Credit means one hour of teaching work or two hours of practical/field-work per week. As regards the marks for the papers, 1 Credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks
- g. 'Grade' is an index to indicate the performance of a student. These Grades are arrived at by converting marks scored in each paper by the candidate after completing his/her in both Internal Assessment and Semester-end Examinations. These grades are awarded for each paper at the end of each semester.
- h. 'Grade Point Average' or GPA refers to an indicator of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. GPA depends on the number of papers students takes and the grades awarded him/her.
- i. 'Cumulative Grade Point Average' (CGPA) refers to the cumulative Grade Point Average weighted across all the semesters and is carried forward from first semester to subsequent semesters.

### **III. Admission**

A candidate, who has successfully completed Bachelor's Degree programme or any other Degree programme of this University or of any other University recognized as equivalent thereto by this University, shall be eligible for admission to the Post Graduate Programmes provided the candidate also satisfies the conditions like the minimum percentage of marks and other eligibility conditions as prescribed by the University from time to time.

Admissions shall be as per Government of Karnataka reservation policy and the directions issued in this regard from time to time.

### **IV. Duration of the Programme**

The duration of study for the Post-Graduate Degree Programme in Women's Studies shall normally extend over a period of two consecutive academic years, each academic year comprising two semesters, and each semester comprising sixteen weeks with a minimum of ninety working days.

However, the maximum period for completion of the degree is four years from the date of his/her first admission. The normal calendar for the semester shall be as follows:

- a) I and III Semesters : August to November
- b) II and IV Semesters : January to April

### **V: Teaching Course**

Each paper shall be taught for 4 hours per week during the period of 16 weeks in a given semester. However, the actual number of classes may not be 64 hours as per the above calculation. It may vary from paper to paper depending on the activities of the Department, general holidays and the calendar of events prescribed by the University from time to time.

### **VI. Medium of Instruction and Evaluation**

The medium of instruction should be in English.

However, the students may write the examinations in Kannada.

### **VII. Programme Structure:**

- a) There shall be three categories of courses namely, Compulsory Papers, Specialization Papers and Open Elective Papers.
- b) Compulsory and Specialization papers are meant for the students of Women's Studies. The Department of Women's Studies shall offer Open Elective Courses for students of other Departments at M.A II<sup>nd</sup> semester. However, the students of Women's Studies Department shall choose Open Elective courses from among those prescribed by the University and selected by the Department from time to time.
- c) The credits for each of the Compulsory and Specialization papers are 4; However the credits for the open elective chosen by the student of our department from amongst the open elective offered by other departments, may vary from one department to the another department depending offer they make. The project work/ fieldwork/ dissertation/ viva-voce at fourth semester the total credits extended to 8.

**d) The Detailed Programme Structure for M. A. in Women's Studies Shall be as Prescribed and shown in**

**Annexure-I  
I -Semester**

| <i>Paper No</i>                                 | <i>Title of the Paper</i>                 | <i>Internal Assessment Marks</i> | <i>Marks for Semester End Examination</i> | <i>Total Marks</i> | <i>Hours Per week</i> | <i>Credits</i> |
|-------------------------------------------------|-------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>Compulsory Papers</b>                        |                                           |                                  |                                           |                    |                       |                |
| PG56T101                                        | Fundamentals of Women's Studies           | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T102                                        | Gender, Society and Culture               | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T103                                        | Research Methodology                      | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T104                                        | Women in India: Perspectives and Problems | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T105                                        | Women and Education                       | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Specialisation Papers (one to be chosen)</b> |                                           |                                  |                                           |                    |                       |                |
| PG56T106A                                       | Women and work                            | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T106B                                       | Feminist Literary Studies                 | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Total</b>                                    |                                           | <b>150</b>                       | <b>450</b>                                | <b>600</b>         | <b>24</b>             | <b>24</b>      |

## II –Semester

| <i>Paper No</i>                                 | <i>Title of the Paper</i>                   | <i>Internal Assessment Marks</i> | <i>Marks for Semester End Examination</i> | <i>Total Marks</i> | <i>Hours Per week</i> | <i>Credits</i> |
|-------------------------------------------------|---------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>Compulsory Papers</b>                        |                                             |                                  |                                           |                    |                       |                |
| PG56T201                                        | Feminism and Feminist Theories              | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T202                                        | Feminist Jurisprudence                      | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T203                                        | Statistical Applications in Women's Studies | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T204                                        | Women and Health                            | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Specialisation Papers (one to be chosen)</b> |                                             |                                  |                                           |                    |                       |                |
| PG56T205A                                       | Women and Human Resource Management         | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T205B                                       | Women and Religion                          | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T206C                                       | OEC<br>Women in Contemporary India          | 25                               | 75                                        | 100                | 4                     | 4              |
| <b>Total</b>                                    |                                             | <b>150</b>                       | <b>450</b>                                | <b>600</b>         | <b>24</b>             | <b>24</b>      |

### III –Semester

| <i>Paper No</i>                           | <i>Title of the Paper</i>                   | <i>Internal Assessment Marks</i>              | <i>Mark for Semester End Examination</i>   |  | <i>Total Marks</i> | <i>Hours per week</i> | <i>Credits</i> |
|-------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------------------------------------|--|--------------------|-----------------------|----------------|
| Compulsory Papers                         |                                             |                                               |                                            |  |                    |                       |                |
| PG56T301                                  | Women’s Movement and Social Change          | 25                                            | 75                                         |  | 100                | 4                     | 4              |
|                                           | Women and Environment                       | 25                                            | 75                                         |  | 100                | 4                     | 4              |
| PG56T302                                  | Environment                                 |                                               |                                            |  |                    |                       |                |
| PG56T303                                  | Marginalized Women: Issues and Perspectives | 25                                            | 75                                         |  | 100                | 4                     | 4              |
| PG56T304                                  | Book Review and Internship                  | Book Review 50<br>(25 Report + 25 viva –voce) | Internship 50<br>(30 Report +20 Viva-voce) |  | 100                | 4                     | 4              |
| Specialization papers (One to be Chosen ) |                                             |                                               |                                            |  |                    |                       |                |
| PG56T305A                                 | Governance and Leadership                   | 25                                            | 75                                         |  | 100                | 4                     | 4              |
|                                           | Women, Science and Technology               |                                               |                                            |  |                    |                       |                |
| PG56T305B                                 |                                             | 25                                            | 75                                         |  | 100                | 4                     | 4              |
|                                           |                                             |                                               |                                            |  |                    |                       |                |
| PG56T306C                                 | Women’s Laws and Empowerment                | 25                                            | 75                                         |  | 100                | 4                     | 4              |
| Total                                     |                                             | 150                                           | 450                                        |  | 600                | 24                    | 24             |

#### IV- Semester

| <i>Paper No</i>          | <i>Title of the Paper</i>                                                              | <i>Internal Assessment Marks</i> | <i>Marks for Semester End Examination</i> | <i>Total Marks</i> | <i>Hours Per week</i> | <i>Credits</i> |
|--------------------------|----------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------|--------------------|-----------------------|----------------|
| <b>Compulsory Papers</b> |                                                                                        |                                  |                                           |                    |                       |                |
| PG56T401                 | Women and Development                                                                  | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T402                 | Feminist Approaches to Psychology                                                      | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T403                 | Women and Entrepreneurship                                                             | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T404                 | Women and NGO's                                                                        | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T405                 | Women and Media                                                                        | 25                               | 75                                        | 100                | 4                     | 4              |
| PG56T406                 | Research Project and Dissertation<br>(75 theory & 25 Colloquium followed by viva-voce) |                                  |                                           | 100                | 4                     | 4              |
| <b>Total</b>             |                                                                                        | <b>150</b>                       | <b>450</b>                                | <b>600</b>         | <b>24</b>             | <b>24</b>      |
| <b>Total Credits</b>     |                                                                                        |                                  |                                           |                    |                       | <b>96</b>      |

- e) The student of the department shall offer four compulsory papers and shall choose one Specialization paper as Optional in I, II and III Semesters.
- f) The Student shall work in an organization for 15 days and prepare the Report in paper 3.4 as part of their Internship.
- g) The Student have to review standard empirical book in the subject area and prepare the report in paper 3.4 as part of their Book Review.
- h) Summary of Credits for the Degree of M. A. in Women's Studies.

#### **I Semester:**

**Five Compulsory papers : 20 Credits**

**One Specialization Papers : 04 Credits**

#### **II Semester:**

**Four Compulsory Papers : 16 Credits**

**One Specialization Papers : 04 Credits**

**One Open Elective Paper : 04 Credits**

**III Semester:****Four Compulsory Papers : 16 Credits****One Specialization Papers : 04 Credits****One Open Elective Paper : 04 Credits****IV Semester:****Five Theory Papers : 20 Credits****Dissertation : 04 Credits****VIII. Attendance**

- a) A student shall be considered to have satisfied the required attendance if he/she has attended not less than 75 % of the total number of classes held till the end of the semester inclusive of tutorials. Each paper shall be taken as a unit for calculating the attendance.
- b) Each student will have to sign his/her attendance for every hour of teaching in each paper. The Course Teacher shall submit monthly attendance for report to the Chairperson of the Department at the end of every month. The Chairperson of the Department shall notify the attendance of every student on the Notice Board of the Department during the second week of the subsequent month. The chairman of the Department shall send to the Registrar (Evaluation) and other Officers, as directed by the Registrar from time to time, at the end of every month and at the end of every semester, the detailed statement of attendance.
- c) In order to encourage regularity in attendance a maximum of three marks shall be awarded to the students as shown below:

**Marks for Attendance in Each Paper**

| <b>Percentage of Attendance</b> | <b>Internal Assessment Marks</b> |
|---------------------------------|----------------------------------|
| Above 90                        | 3 Marks                          |
| Above 80 and up to 90           | 2 Marks                          |
| 75 and up to 80                 | 1 Mark                           |

**Note:** if the fraction is more than 50, the percentage of attendance shall be rounded off to the next high number

- d) However, if a student represent the Department/ University/ State/National level Sports, NSS, NCC, or Cultural activities or any other officially sponsored activities she/he shall be eligible to claim the Attendance for the actual number of days utilized in such activities (including travel days) subject to the production of certificates from the relevant authority within two weeks after the event.
- e) A students who do not satisfy the requirement of attendance of 75% in each paper shall not be permitted to appear the semester end examination. Such candidates may seek admission afresh to the given semester.

**IX. Evaluation**

- a) Evaluation of the papers will have two components-
  - i) Internal Assessment, and
  - ii) Semester End examination

Total marks for the Internal Assessment are 25 in addition to 3 marks for attendance as shown in the table above (VIII C). The internal assessment shall consist of:

- i) Two Written Tests : 11 Marks each

The tests shall be written in separate designated answer booklet. Award of marks should be brought to the notice of the students. The marks of written tests shall be notified on the notice board of the Department and submitted to the Registrar (Evaluation) at end of every semester. The Internal Assessment marks shall be taken into account for compilation of grades. In case of candidates appearing for improvement examination, the marks obtained in the Internal Assessment shall not be revised since there is no provision for improvement of Internal Assessment.

- b) There shall be one Semester - End examination of 3 hours duration for every paper for 75 marks. The examination shall be conducted as per the rules, regulations, notifications, orders, instructions, procedures, formats and circulars issued by the University from time to time.

#### **X. Challenge Evaluation**

There shall be a provision for challenge valuation as per the rules and regulation of the University issued from time to time.

#### **XI. Completion of the Course**

- a) A candidate is expected to successfully complete the Degree Programme within two years from the date of admission.
- b) Whenever the syllabus is revised, the candidate reappearing will have to write the examination as per the syllabi prevailing at that time.
- c) The CBCS scheme is a fully carry over system. However, the four semesters (two years course) should be completed by the student within a maximum period of 4 years.

#### **XII. Declaration of Results**

- a) Minimum for a pass in each paper shall be 40% of the total 100 marks including both the Internal Assessment and the Semester-End examinations. However a candidate should obtain at least 40% marks in the Semester-End examination. There is no minimum for the Internal Assessment marks. However after adding the IA marks and the semester end examination marks, the candidates should score a minimum of 40% of the maximum marks per paper. Candidate shall secure a minimum of 50% in aggregate in all papers of a programme in each semester to successfully complete the programme.
- b) The improvement of the performance is permitted as per the rules and regulations of the University.

#### **XIII. Marks and Grade Points**

**The grading of successful candidate/s at the examination shall be as follows:**

| <b>Percentage of Marks</b>    | <b>GPA/CGPA</b> | <b>Grade Letter</b> | <b>Class Awarded</b>         |
|-------------------------------|-----------------|---------------------|------------------------------|
| 75 and above                  | 7.50 to 10.00   | A                   | First class with Distinction |
| 60 and above but less than 75 | 6.00 to 07.49   | B                   | First Class                  |
| 50 and above but less than 60 | 5.00 to 05.99   | C                   | Second Class                 |
| 40 and above but less than 50 | 4.00 to 4.99    | D                   |                              |
| Less than 40                  | Less than 4.00  | F                   |                              |

#### **XIV. Grading**

The Grade Point Average (GPA) shall be given to each candidate based on her/his performance during the semester, which includes both the Internal Assessment and the Semester-End examination. The GPA of each semester should be carried to next semester as Cumulative Grade Point Average CGPA. An illustration of the same is shown below.

**XV. Grade Points (Format)****M.A. Degree in Women's Studies**

Semester :  
Name of the Candidate :  
Registration  
No :

| Number and Title of the Paper   | Credit Hours | Max Marks Each Papers | Marks obtained | Semester Grade Point | Credit Points |
|---------------------------------|--------------|-----------------------|----------------|----------------------|---------------|
| Fundamentals of Women's Studies | 4            | 100                   | 70             | 07.00                | 28.00         |

**Semester GPA = Total Credit Points in all papers**

**Credit Hours**

**XVI. The GPAs for various semesters is calculated as follows:**

| Semester | Credits Hours | Credit Points | GPA   |
|----------|---------------|---------------|-------|
| First    | 24            | 168           | 7.00  |
| Second   | 24            | 168           | 7.00  |
| Third    | 24            | 168           | 7.00  |
| Fourth   | 24            | 168           | 7.00  |
| Total    | 96            | 672           | 28.00 |

**Cumulative Grade Point Average: (GPA of all Semesters)**

**Credits of all Semesters**

**Chairperson**

**KARNATAK UNIVERSITY, DHARWAD**  
**DEPARTMENT OF WOMEN'S STUDIES**



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***2019-2020***

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Programme Specific Outcomes (Pos) M.A in Women's Studies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <ol style="list-style-type: none"><li>1. To equip the students to critically understand about the importance of gender equality and equity in present Context with feminist perspective</li><li>2. To generate in students a distinctly gender perspective on social-cultural, economic, political and health issues.</li><li>3. To enhance the social sensitivity, sensibility and responsibility thereby instilling the life skills among students.</li><li>4. To upgrade knowledge and comprehension of gender issues for attitudinal and behavioural change among men, women and transgender etc to claim the right to life with dignity and equality</li><li>5. To bring social, economic, political and cultural empowerment and gender equality in personal as well Professional life.</li><li>6. To crystallize the teaching of Women's Studies in term of teaching, research and extension in order to create more gender equality and equity world by education, sensitization and empowerment.</li></ol> |

**MA, (CBCS) in Women's Studies**  
**Courses and Syllabus**  
**SEMESTER- I**

**PG56T101– FUNDAMENTALS OF WOMEN'S STUDIES**

**Course Outcome:**

- The paper focuses on the Women's Studies as an academic discipline, basic concepts in Women's Studies.
- making students aware of the welfare organizations, committees, commissions at the National and International level.
- Availability of avenues in the field of Women's Studies.
- Identifying the gender differences/discriminations, self-consciousness rising.

**Unit 1: Introduction to Women's Studies:**

- 1) Definition, Nature and scope - Genesis and Growth of Women's Studies.
- 2) Mainstreaming Women's Studies in Academia: possibilities, perspectives and challenges.
- 3) Development of Women's Studies in India.

**Unit 2: Gender and Biology:**

- 1) Sexuality, Equality and Difference
- 2) Social Construction of Gender
- 3) Issues of Equality and Equity
- 4) Race, Class and Gender Issues
- 5) Gender Identity and Self Image

**Unit 3: Basic Concepts in Women's Studies:**

- 1) Sex and Gender (Gender Relations)
- 2) Patriarchy Matriarchy: Ideology and Practices
- 3) Feminism: Concept and Relevance
- 4) Andocentric and Gynocentrism
- 5) Gender Roles
- 6) Division of Labour
- 7) Gender Stratification

**Unit 4: Women's Studies as profession (with reference to India):**

- 1) A Practice & Employment Avenues
- 2) Need for imparting value Education Strategies
- 3) Limitations of Global Parameters
- 4) Curriculum Development
- 5) Women's Studies Centre

**Unit 5: Women Welfare and Institutional Arrangement:**

- 1) National and State Commissions
- 2) National and State Committees
- 3) Governmental and Non-Governmental Organisations (Ministry of HRD's Mahila Samakhya, Women and Child Development, Tribal Research Institute, UNICEF, AWAKE, VIKALP, JAGRUTI, BREAKTHROUGH)

**Reference:**

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## **PG56T102– GENDER, SOCIETY AND CULTURE**

### **Course Outcome:**

- The paper aims to understand the key concepts of Gender, Society and Culture
- It seeks to understand various social institution, social factors, images which shapes the identity of women
- It focuses the reasons for suppression of women, and the impact of social evils against women, practices and realities.
- Identifying roles/role play within the family and society, adopting change in socialization process within and for the future generations.

### **Unit I: Basic Concepts:**

- 1) Meaning and Defining Concepts: Society, Culture and Gender
- 2) Social Construction of Gender
- 3) Gender Stereotyping
- 4) Gender Roles
- 5) The Suppression of Women's Freedom through Cultural Policing: Religious Fundamentalism And Women's Oppression

### **Unit II: Women and Social Institution:**

- 1) Meaning and Stages, Agencies of Socialization
- 2) Family: Concept, Definitions, Joint, Nuclear-Patriarchal and Matriarchal families
- 3) Marriage: Concept and Definitions; Monogamy, Polygamy, Polyandry
- 4) Multiple Roles of Women, Role conflict, Role change, Institution and Norms
- 5) Gender Shaping Institutions-Culture, Media, Body politics, Sexuality, Diversity and Difference.

### **Unit III: Women and Culture:**

- 1) Religion as an Agency of Cultural Transmission
- 2) Role of Religion in Creating and Enforcing Gender Stereotypes
- 3) Religious Fundamentalism and Women Oppression
- 4) Cultural Feminism

### **Unit IV: Images of Women in Major World Religions:**

- 1) Hinduism
- 2) Islam
- 3) Christianity
- 4) Jainism
- 5) Buddhism

### **Unit V: Women and Social Evils:**

- 1) Female Infanticide, Foeticide
- 2) Child Marriage and Girl-Child Labour
- 3) Dowry and Domestic Violence
- 4) Widowhood, Prostitution and changing Scenario

### **References:**

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## **PG56T103– RESEARCH METHODOLOGY**

### **Paper 1.3** Research Methodology

#### **Course Outcome:**

- The paper introduces the students to basic research methodology in Social Science.
- The course gives a new knowledge and introduces students about the Feminist and gender view perspectives. Feminist critique, analysis and interpretation.
- Gaining knowledge of research and perspective of Women's Studies.

#### **Unit I: Research**

- 1) Meaning, Nature and Types of Research. Applied, Basic
- 2) Relationship between Theory & Research
- 3) Social Science Research: Scope, Objectives, uses, Ethics
- 4) Problems of Objectivity and Subjectivity.

#### **Unit II: Research Design:**

- 1) Meaning & typology (descriptive, exploratory, experimental,diagnostic)
- 2) Process of Research Design
- 3) Review of Literature and searching the research problem,
- 4) Research Question, Objectives, Hypotheses: Null and Alternative and Statistical Error, Theoretical Framework
- 5) Sampling - Significance and limitations of Sampling, Types of Sampling (Probability and Non-Probability).

#### **Unit III: Sources of Data Collection and Limitations:**

- 1) Primary Data and Techniques ofData Collection: Observation, Questionnaire, Interview-Schedule, Focus group Discussion, Case-study, ethnography Key Informant Technique,
- 2) Secondary Data use and limitations.

**Unit-IV: Analysis and writing:** Use of statistics, Interpretations and report writing.

**Unit-V: Feminist Methodology and Recent Trends in Feminist Research:**

- 1) Problems of Research in Women's Studies: significance, gender as an analytical variable and problem.
- 2) Feminist critique of conventional concept of research (Andocentric, Over generalization/Over specificity, gender insensitivity).
- 3) Types: Interactive methodology, Ethno methodology, Experimental and Content analysis.
- 4) Inter disciplinary research in women's Studies: Qualitative and Quantitative research, Action Research, Cross cultural.
- 5) Recent Trends in Feminist Research: Participatory Research.

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## **PG56T104 - WOMEN IN INDIA: PERSPECTIVES AND PROBLEMS**

### **Course Outcome:**

- The paper concentrates and gives the students a historical perspective.
- It introduces the students to the concepts of development.
- It emphasizes on issues related to marginalized women and different kinds of problems related to violence against women with special reference to India.
- Exclusive knowledge of problems of marginalized women in India.

### **Unit I: Introduction:**

- 1) Status of Women in India: Ancient, Medieval and Modern India
- 2) Changing trends in Social, Economic, Political fields
- 3) Educational status of women.

### **Unit II: Women and Demographic Profile: Age and Sex composition**

- 1) Declining Sex ratio: causes and consequences
- 2) Health status and problems
- 3) Policies and Programmes

### **Unit III: Problems of Women in Contemporary India:**

- 1) Violence Against Women: Domestic Violence, Sexual Harassment, Eve-teasing
- 2) Dowry: history and extent
- 3) Women Living with HIV/AIDS: problems and rehabilitation
- 4) Recent trends: Honour killing, Gang-rapes, Cyber crime, Problems of rural women.

### **Unit IV: Women and Empowerment:**

- 1) Concept of Empowerment, Strategies of empowerment
- 2) Social, Political and economic empowerment of women in India
- 3) Government policies and Programmes for women empowerment
- 4) NGO's and Women Empowerment

### **Unit V: Women and Globalization:**

- 1) Meaning, and Scope of Globalization
- 2) The impact of globalization on women in the fields of Education
- 3) Health and Work: Women in Organized and Unorganized sectors.

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## **PG56T105 – WOMEN AND EDUCATION**

### **Course Outcome**

- The paper deals with the importance of women's education, history, development, empowerment in India.
- It focuses on the Governmental Initiatives, Plans, Commissions, National Policies and barriers for women's education.
- Students seek to know the status and value of girls/women's education in the past and present scenario.

### **Unit I: Introduction:**

- 1) Introduction, Definition, Aims and Objectives of Education
- 2) History and Development of Education in India
- 3) Education System in India
- 4) Problem and perspectives of Education.

### **Unit II: Women Education in India:**

- 1) Women Education: Historical perspectives, Present Scenario, Problem of Equality of Education
- 2) Female Literacy Vs Male Literacy
- 3) Enrolment ratio, Drop-out rates, Primary Education, Higher Education
- 4) Self Employment, Non-formal Education, Adult Education Programmes and Women in various professional courses.

### **Unit III: Women Education and Five Year Plans:**

- 1) I to XI five year plans
- 2) National Education Policy
- 3) Mudaliar Commission(1952-53), Kothari Commission(1964-66)
- 4) National Perspective plan for Women's Education
- 5) National Policy for Women Empowerment(1986).

### **Unit IV: Problems of Women's Education:**

- 1) Social and cultural problems: Child abuse and Violence on girl-child, social taboos, Image of Women, Sex stereotyping at home and outside
- 2) Problem of Dropout: causes consequences and remedies.
- 3) Economic problem: Poverty, lack of infrastructure: policies and programmes

### **Unit V: Education and Women Empowerment:**

- 1) Women in Higher Education
- 2) Education as a tool of Women Empowerment
- 3) Changing values and attitudes
- 4) Concept of Gender equality
- 5) Awareness of Women's position: Role, Rights and Responsibilities
- 6) Role of Government in women empowerment.

### **References:**

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## **PG56T106A – WOMEN AND WORK (Specialization)**

### **Course Outcome**

- The paper highlights on the concept of work.
- It introduces to the feminist approaches to economic theories.
- It concentrates on women's organizations and networking, policies, legislative implementations and practice.
- Identifying the working women, role, conflicts and special provisions availing through judiciary.

### **Unit 1. Introduction:**

- 1) Meaning, Concept of Work
- 2) Concept of work with reference to women,
- 3) Definition and valuation of productive/unproductive work, visible/invisible work, paid/unpaid work, socially productive work,
- 4) Measurement of Women's work: problem of valuation .

### **UNIT II. Feminist approaches to Economic Theories:**

- 1) Pfaff Model of Household with transfers between member
- 2) Gary Becker's Model of Maximizing Utility and Katz Model of Intra allocation and Inter allocation
- 3) Amartya Sen's Capability and entitlement approach
- 4) Gender in different forms of government, Theories of Development, Empowerment, Alternative Approaches.

### **Unit III: Women and Work:**

- 1) Women and Work: Patriarchy and Gender division of Work,
- 2) Issue of Productive and Non-Productive work,
- 3) Changing Gender and Work Relations: Role Conflict and Role Strain
- 4) Origin and growth of professionalism among women; Women, work and family; decision-making; Role of women in economic development
- 5) Gender Development Index, Human Development Index, Gender Empowerment Measure, Work force participation ratio, Gender Budgeting, Gender Audit

### **Unit IV: Women and Organization:**

- 1) Origin and Growth of Women Organisations in India with special reference to SEWA
- 2) Impact of Liberalization, Privatization and Globalization on Women
- 3) Women organization and social networks
- 4) Development of women in rural areas

### **Unit V: Government Policies for Working Women:**

- 1) Background, Equal Remuneration Act - 1976,
- 2) Minimum wage act-1948,
- 3) Juvenile Justice Act 2000
- 4) Maternity Benefit Act 1961,
- 5) Factories Act 1948 relating to welfare of women (Creche, Working hours, Prohibition on employment of

- women in dangerous hazardous tasks, Special provision for rest rooms & Water closet)
- 6) Sexual Harassment of women at Workplace (Prevention, Prohibition and Redressal) act 2013(Vishakha Adesh Case)
  - 7) Support services to Women Employment: Self wage employment schemes, Micro finance Revolution, SHGs and Economic Empowerment , Recent Developments.

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### **PG56T106B – FEMINIST LITERARY STUDIES (Specialization)**

#### **Course Outcome:**

- The paper aims to explore new women's writings with a feminist perspective.
- It introduces the students for the feminist literary thinkers, feminist writings, criticism, analysis and experiences. It gives exposure to the Western, Indian and Regional feminist writings.
- The students learn the in-depth writing and exposure to feminist issues of concerns.

#### **Unit I: Feminist Literary Theory:**

- 1) Introduction, Sexual/textual politics
- 2) Language and revolution
- 3) Feminist linguistics theories
- 4) Feminist challenges to the literary canon

#### **Unit II: Feminist Criticism:**

- 1) Feminist poetics
- 2) Black feminist and Lesbian feminist criticism
- 3) Are women novels feminist novels?
- 4) Feminism and literary critic
- 5) feminism and the definition of cultural politics

**Unit III: Women's Writings:**

- 1) Writing the body-towards an understanding of Ecriturefeminine
- 2) Literary women: Literature of their own
- 3) Issue of female creativity
- 4) Women read romance: the interaction of text and content
- 5) Female sexuality and class, Women's sexuality today
- 6) Women and the Novel

**Unit IV: Feminist Literary Thinkers:**

- 1) Simon-De-Beaouvoir,
- 2) Helene Cixous,
- 3) Betty Freidan
- 4) Elenne Showaiter,
- 5) Barbara Smith,
- 6) Vijaya Dabe,
- 7) B.S Sumithra Bai

**Unit V: Text: Feminist Analysis:**

- 1) M K Indira (Panniyama)
- 2) Shashi Despande (The Dark Holds No Terrors)
- 3) Masti Venkatesh Iyengar (Mosarinna Mangamma; English version: Raja Gopalchari)

**Reference**

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2. Feminism and Post Feminism-Sarah Gamble.
3. Feminist Literary Theory A Reader-Mary Eagle ton Basil Blackwell-Oxford
4. Feminist Theorizing –Steve Jackson and Jackie Jones
5. Gender and Narrative –Jasbir Jain. Supriya Agarwal
6. Men, Women and Language -Jennifer Coats
7. *Plain, Gill; Sellers, Susan (2007). A History of Feminist Literary Criticism. Cambridge University Press.*

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10. Women's Writing- Text and content – Jasbir Jain

## **PG56T201– FEMINISM AND FEMINIST THEORIES**

### **Course Outcome:**

- The paper intends the students to understand Feminism with different forms of feminist thought and providing them a feminist perspective to understand women's experience.
- It explains the Indian feminism and the trends in feminist theory.
- It gives in-depth knowledge of contributions of Feminist and the Social Reformers.

### **Unit I: Feminism:**

- 1) Concept, Objectives - History of Feminism: First wave feminism, Second wave feminism, Third wave feminism
- 2) Theory and Practice
- 3) Feminist Critique of Social Sciences
- 4) Feminist Epistemology,
- 5) Global and Grass-root context feminism

### **Unit II: Typologies of Feminism:**

- 1) **Liberal Feminism:** Civil rights and economic rights (MaryWoolstone Craft, J. S. Mill, Harriet Taylor, Betty Freidan.
- 2) **Radical Feminism:** Motherhood, Sisterhood, Gender, Patriarchy, Dialectic logic of sex and Sexuality, Androgyny, Misogyny, Reproductive Technology (Simone de Beauvoir, Kate Millet, Shulamith Firestone, Mary Daly, Adrienne Rich).
- 3) **Marxist Feminism:** Production, Reproduction, Class, Alienation, Marriage, Family and house hold under capitalism (Friedrich Engels, Margaret Benston, Lennin and Maria Mies, Karl Marx,Zaretsky).
- 4) **Socialist Feminism:** Class and Gender Division of Labor, Utopianism, Femininity and Masculinity, Separation, Socialization, Unified theory and Dual System, Exploitation, (Iris Young, Juliet Mitchell, Alison Jaggier, Nancy Chodorov, Sheila Robotham, Gayle Rubin)

### **Unit III: Trends in Feminist Theory:**

- 1) Black Feminism
- 2) Cultural Feminism
- 3) Psychoanalytic Feminism (Freudian feminism)
- 4) Postmodernism and Feminism (Judith Butler, Christina Hoff)
- 5) Eco-feminism – Countertrends
- 6) Backlash to feminism

### **Unit IV: Indian Feminism:**

- 1) Feminist Construction: Family, Caste, Class, Culture, Religion, Social System
- 2) Feminist thought under Colonialism
- 3) Feminism in Post-Colonial India
- 4) Relationship between feminism and social movements
- 5) Dalit Feminism
- 6) Eco Feminism.

### **Unit V: Feminist Thinkers and Activists in Contemporary India:Social Reformers:-**

- 1) RajaRam Mohan Roy 2) Easwar Chandra VidyaSagar, 3) Sarojini Naidu, 4) Durga Bai Deshmukh, 5) Satyawati Devi, 6) Muthulakshmi Reddy 7) Gandhiji's views for women's emancipation 8)

JothiRaoPhule, 9) Kamala Devi Chattopadhyaya, 10) Pandit Rama Bai, 11) Rukma Bai, 12) Bharathiyar, Bharathidasan, 13) E.V. Ramasamy, 14) TarabaiShinde, 15) JyothiBai, 16) B.S. Ambedkar 17) Annie Besant.

## **References;**

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## **PG56T202– FEMINIST JURISPRUDENCE**

### **Objectives:**

### **Course Outcome:**

- This paper aims to explore and understand the students about constitutional, legal rights and amendments in India.
- It highlights the special women's rights, personal laws and laws relating to crimes against women.
- Gaining knowledge of laws, special concern to women, creating awareness and bringing into practice in their own life situation.

### **Unit I: Feminist Jurisprudence:**

- 1) Meaning, Concept and scope of Feminist Jurisprudence
- 2) Universal Declaration of Human Rights
- 3) Enforcement of Human Rights for Women and Children
- 4) Understanding Human Rights in Indian context
- 5) UN Conventions; Universal debate on Human Rights for Women
- 6) Women equality and the Constitution-Contemporary Consensus
- 7) Law as an agent for social Transformation
- 8) The Constitution of India and the Gender Question (Fundamental Rights, Directive Principles of State Policy)

### **Unit II; Women's Rights in India:**

- 1) Indian Constitution relating to women
- 2) Constitutional rights -Article 14, Article 15, Article 16, and Article 21, 23, 24, 29 & 30, 32
- 3) Judicial approaches to sex discrimination: The relevance of gender, employment, education

- 4) Directive Principles of State Policy – 39(a), A 39(d), A 39(e), a 42
- 5) Human Rights and Women, Obstacles
- 6) Need for Uniform Civil Code
- 7) Persisting Violation
- 8) Measures of Enforcement of Human Rights
- 9) Women's Rights in Contemporary India

**Unit III: Political and Personal Laws: (Marriage, Maintenance, Property):**

- 1) Special Marriage Act - Hindu law
- 2) Age at marriage (Legal and Customary)
- 3) Void marriages, Voidable marriage; Bigamy
- 4) Muslim laws
- 5) Christians Laws
- 6) Panchayat Raj and 73 and 74 Constitutional Amendment.

**Unit IV: Crimes Against Women and Laws in India:**

- 1) Rape Laws (Reference to Sec 375 IPC)
- 2) Dowry Prohibition Act, 1961 (As amended in 1984 and 1986)
- 3) Domestic Violence Act, 2005
- 4) Medical Termination of Pregnancy Act, 1971
- 5) Pre-Natal Diagnostic Techniques (Regulation and Prevention) Act, 1994 as amended in 2004
- 6) Recent Trends.

**Unit V: Special Rights of Women:**

- 1) Kinds of offences, Awareness regarding access to legal and judicial machinery
- 2) Rights at the time of filing FIR, Rights in police stations; Rights in custody; Rights at the time of arrest
- 3) Public Interest Litigation and Legal Aid for Women in India
- 4) Family Courts, Role of Cells and Counselling Centres, Legal AID cells, Help line, State and National level Commission

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## **PG56T203– STATISTICAL APPLICATIONS IN WOMEN'S STUDIES**

### **Course Outcome:**

- This paper aims to explain statistical techniques, soft skills, computer languages.
- It makes students to understand and learn effective use of statistics and computer for research objectives.
- Gaining knowledge of effective usage of computer and its applications.

### **Unit I. Introduction:**

- 1) Social Statistic: Scope and Importance
- 2) Collection of Data
- 3) Types and Sources of Statistical Data
- 4) Classification and Tabulation of Data.

### **Unit 2: Diagrammatic and Graphical Representation of Data:**

- 1) Bar Diagram, Multiple Bar Diagram, Subdivided Bar Diagram
- 2) Pie-Chart, Line Chart, Histogram, Frequency Polygon
- 3) Curve, O-give curves.

### **Unit III: Measures of Central Tendency and Dispersion:**

- 1) Mean, Median and Mode
- 2) Range, Quartile Deviation
- 3) Mean Deviation and Standard Deviation
- 4) Coefficient of Variation.

### **Unit IV: Correlation and Regression:**

- 1) Theory of Correlation and Regression;
- 2) Types of Correlation and Methods,
- 3) Types of Regression lines
- 4) Properties of Correlation Co-efficient
- 5) Regression Co-efficient.

### **Unit V: Use of Computer: Soft Skills, Basics, Introduction to SPSS Software**

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## **PG56T204– WOMEN AND HEALTH**

### **Course Outcome:**

- The paper attempts to create awareness among the students about the importance of women's health and condition in India.
- It studies various determinants of population dynamics and the changing scenario and initiatives taken at national and international forums.
- It gives overall Knowledge of women's health, gender differences, dilemmas and access to it.

### **Unit I: Introduction:**

- 1) Conceptualizing Health,
- 2) Definition, Public Health, and Women's Health.
- 3) Health as a human right of women.
- 4) Status of women's health in India: Definition of Nutrition and Health
- 5) Interrelationship between health and nutrition (Understanding health and nutrition from women's perspective and changing demographic profile of women's health status in India).

### **Unit II: Concepts, Indicators and determinants of Population Dynamics:**

- 1) Ratio, Sex-ratio, Mortality,
- 2) Morbidity, Maternal Mortality Rate (MMR)
- 3) Infant Mortality Rate (IMR)
- 4) Neonatal-Mortality Rate (NMR)
- 5) Prenatal Mortality Rate, Birth Rate (Crude)
- 6) Death Rate (Crude)
- 7) Fertility, Nupitality, Still Birth, Life expectancy, Abortion.
- 8) Migration: Social-Economic and Cultural factors influencing health
- 9) Health from Gender Perspective
- 10) Gerontology of Women.

### **Unit III: Reproductive Health:**

- 1) Definition and concepts of reproductive health.
- 2) Reproductive Rights and Choice
- 3) Socio-Cultural and Biological determinants of Reproductive Health (Rights of Passage)
- 4) Unwanted Pregnancy, Abortion, and Acts (PNDT, MTP)
- 5) Issues and Gender Dimensions of Infertility
- 6) Problems of women beyond reproductive age.

### **Unit IV: Health Status of Women in India:**

- 1) Cultural impediments to access and utilization of health care services
- 2) (A) Cultural impact on adolescent girl's health: hygiene, food intake, practices, menstruation, sexual abuse and mental health, privacy; (B) Cultural impact on women: menstruation, pregnancy, lactation, menopause, old age, health and nutrition and hygiene
- 3) Small Family Norm, Family Planning targeting of women (Permanent, Temporary Methods of family planning)
- 4) Gender Differences in Contraceptive Practices and Marginalized Women and Risk of HIV/AIDS.

### **Unit V: Initiatives and Perspectives on Health (National and International):**

- 1) Health as a Critical Area of concern in the Beijing Platform for Action - Alma-Ata Declaration,
- 2) International Conference on Population and Development (ICPD, Cairo)

- 3) Millennium Development Goals (MDGs)
- 4) National Population Policy (NPP), Children Centred and Organized Initiatives for Women's Health
- 5) National Health Policies and Programs (RCH 1, NRHM, NUHM),
- 6) PNDT Act, MTP Act
- 7) Issues of Adolescent Girls
- 8) MCH to Reproductive and Child Health approaches
- 9) Role of International Organizations – WHO, UNICEF, UNESCO, CARE and Others
- 10) Health for all Programme.

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#### **PG56T205A: WOMEN AND HUMAN RESOURCE DEVELOPMENT (Specialization)**

##### **Course Outcome:**

- The paper intends to address the significance and the need of Human resource at various levels.
- It exposes the students for practical exercises, molding them to learn management skills, effective communication, and enhancing their leadership quality for the career development.
- It focuses on overall developmental and managerial skills of students.

##### **Unit 1: Introduction:**

- 1) Scope and Significance of Study of HRD
- 2) Origin and Development of HRD System
- 3) HRD Practices in Informal Society and Formal Organizations: Goals, Levels of Management.

##### **Unit 2: HRD System:**

- 1) The need for HRD

- 2) HRD Mechanism
- 3) Designing HRD System
- 4) HRD as a tool System.

### **Unit 3: Managing Human Resource:**

- 1) Personnel Management (HRM) External Environment for Personnel
- 2) Manpower Planning
- 3) Employee Selection
- 4) Recruitment Process
- 5) Training and orientation.

### **Unit 4: Training for Women Development:**

- 1) Determining Training Needs in Society
- 2) Management Development in Workplace
- 3) Career Planning – What, Why and How
- 4) Motivation and Job Enrichment (Practical): Skill development programmes in India.

### **Unit 5: Exercises (Practical):**

- 1) Brain Storming
- 2) Communication Skills
- 3) Developing Leadership Qualities
- 4) Public Speaking and Group Discussion.

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## **PG56T205B WOMEN AND RELIGION (Specialisation)**

### **Course Outcome:**

- The paper aims to expose the students about the religion and its significance.
- It studies on the cultural implications of religion on women in the form of blind beliefs & practices in India.
- It focuses on the consequences of women's mental and physical health conditions.
- Knowledge, awareness, within the students the implications of social factors in real life situations.

### **Unit I: Religion:**

- 1) Definition, Meaning and concept of religion
- 2) Origin of religion and forms
- 3) Magic, religion and science, natural and supernatural
- 4) Theories of religion

### **Unit II Religious Groups (A Global Perspective)and Minorities:**

- 1) Hindu
- 2) Muslim
- 3) Christianity
- 4) Buddhism

### **Unit III: Impact of Religious Perspectives for Women's Development:**

- 1) Cultural constructions of religion, religious beliefs and behaviour and their impact on people's physical and mental health;
- 2) Fanatical violence, mortifying asceticism, and oppressive traditionalism
- 3) Mediation of religion between the social and individual dimensions of well-being

### **Unit IV: Roles of Religious Practices:**

- 1) Religious practices in personal health
- 2) Impact of social ministries on community health
- 3) Complementarity of religious ideas of salvation with medical conceptions of health in contemporary conceptions of human well-being

### **Unit V: Pluralism, Religion and Development of Women:**

- 1) Difference between religious communities, pluralism and religious landscape
- 2) Empirical pluralism
- 3) Correlation between religious belief and practice and mental and physical health and longevity

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### **PG56T206C OEC Women in Contemporary India**

#### **Course Outcome:**

- The paper aims to provide the students an overview of the status of women from ancient period to the contemporary era relating to health, education, subordination and suppression of women, political representation of women.
- It studies the problems and challenges and strategies to empower them.
- It gives an overall changing perspectives and aspects to empower women.

#### **Unit -1 Status of Women in India**

- 1) Status of Women in Ancient Period and Medieval Period
- 2) Status of Women in Modern / Contemporary period

#### **Unit – 2 Women and Health**

- 1) Sex Ratio – Sex determination tests & termination of Pregnancy.
- 2) Maternal Mortality Rate & Reproductive Health
- 3) Problems of Adolescent girls, health & Nutrition of Women.
- 4) National Health Policy of India, MCH Programmes.

#### **Unit – 3 Problems of women in Modern India**

- 1) Domestic Violence & Dowry
- 2) Rape & Prostitution
- 3) Honour Killing
- 4) Eve Teasing

#### **Unit – 4 Women and Politics**

- 1) Participation of Women in Politics – Reservation for women in politics – 73<sup>rd</sup> & 74<sup>th</sup> Amendments.
- 2) Women Politicians – Problems and Challenges.
- 3) Women Participation in Karnataka.

#### **Unit – 5 Development and Empowerment of Women in India**

- 1) Meaning and Strategies of Women
- 2) Role of Govt in the Women's Empowerment
- 3) Role of NGO's in the Women's Empowerment

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## **PG56T301– WOMEN'S MOVEMENTS AND SOCIAL CHANGE**

### **Course Outcome:**

- The paper sensitizes students on various social movements to bring social change at international, national and at the state levels.
- It studies the social issues based on the gender differences or gender inequalities from the time of pre-independence era to the contemporary era are given importance.
- It gives the knowledge of historical movements contributed to bring the drastic social change within the society.

### **Unit I: Introduction:**

- 1) Concept, Characteristics, types of Social Movements
- 2) Social Movements and Social Change
- 3) Women Movement: Perspectives and Goals
- 4) Need for Women Movement and Social Change.

### **Unit II: Women's Movements in India:**

- 1) Women's Movement as a Social Movement
- 2) Women's Issues taken up by Social Reformers
- 3) Women's Movement in Pre-Independence period: With a special focus on Women in the Suffrage Movement
- 4) Women's Participation in the National Movement (Civil Disobedience Movement,
- 5) Quit India Movement and Women's revolutionary activities).

- 6) Women's Questions in the Nationalist, Anti-Caste, Working Class and Peasant Movements.

**Unit III: Women's Movement in 20<sup>th</sup> Century:**

- 1) Environmental Movements: Chipko movement, Narmada Bachao Andolan
- 2) Dalit Women's Issues, Controversy around Uniform Civil Code and Its Impact on Women's Movement
- 3) Movements against, dowry, rape, sati, Anti-Arrack Movement
- 4) Women in other movements: Labour, Tribal, Peasant and Human Rights
- 5) Autonomous Women's Movement (with special focus on the conferences of the Autonomous Women's Movement, IAWS).

**Unit IV: Women's Movements in Karnataka:**

- 1) History and Growth of Women's Movements in Karnataka
- 2) Vachana Movements
- 3) Autonomous Women's Organizations; Vimochana, Manasa, Samatha, Manani, MahilaSangahtane
- 4) Women's movement and Social change.

**Unit V: Contemporary Issues taken up by Women's Movement in India:**

- 1) Trafficking in Women
- 2) Honour Killings and Khap Panchayats
- 3) Fundamentalism, Casteism
- 4) Violence against women.

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**PG56T302 WOMEN AND ENVIRONMENT**

**Course Outcome:**

- The paper aims to explore about the inter-linkage between the women and environment.
- It throws light on the indigenous knowledge of women, highlighting the changing ecosystem past, present and future, policy frameworks at state, national and International.

- It gives the Knowledge of relation between the environment and women through Eco-Feminist perspective.

#### **Unit I: Concept and Issues of Environment:**

- 1) The Natural Environment (Atmosphere, Hydrosphere, Biosphere, Ecosystem, Global cycle, Renewable and non-renewable sources)
- 2) Ecological Imbalance & Environmental Issues: environmental degradation, climate change, ozone depletion and Green
- 3) House effect, deforestation, pollution, air, water, energy crisis, Mining and quarrying.

#### **Unit II: Eco-feminism:**

- 1) Concept and growth of Eco-feminism and interrelationship between Women-nature, Theory and Practice of Eco-feminism in India
- 2) Nature as the feminine principle (humanity and exclusion), Nature and women as producers of life (new ecology of reproduction Unit): Gender ideology vs. the recovery of the feminine principle.

#### **Unit III: Women and Environmental Management:**

- 1) Joint Forest Management, Resistance from Coastal Waves, Water Management, Industrial Aqua Culture and Soil Erosion.
- 2) Ecological Movements initiated by women: Chipko, Green Belt, Navdaya, Kenya land takeover, and NoDAPL movement.
- 3) Women and in environmental movements: Amruta Devi, Saralaben, Bimalaben, Gouridevi, Gangadevi, Bichidevi, Itawaridevi, Kusuma Sourab, Arundati Roy and others.
- 4) Women environmentalists: Vandana Shiva, Wangari Muta Maathai, Maria Cherkasova, Rachel Carson and other.

#### **Unit IV: Women, Indigenous knowledge and Environmental Economy:**

- 1) Basic Needs in Rural and Urban Environments
- 2) Medicinal Plants, Water Resources, Livestock, Food Security, Non-timber Forest Produce, Impact of Indoor and outdoor Pollution, Awareness on Drainage, Sanitation, Protected Urban Environment, Solid and Liquid Waste, Methods of Recycling of Waste
- 3) Vanishing waters: dams as violence to the river, women as water experts; Diversity as women's expertise; Women; custodians of biodiversity; Biotechnology and the destruction of biodiversity
- 4) Women's Dependency on Eco system, Fodder, Fuel wood, Minor Forest Produce
- 5) The wood-fuel crisis in the Third World

#### **Unit V: State, National and International Perspectives and mandates on Women, Environment and empowerment:**

- 1) Environmental Policy of India and its impact on women
- 2) Women's Environment and Development Organization (WEDO)
- 3) Role of NGOs in protecting the Environment and Rights of Women (CEDAW)
- 4) National Policy on Protecting Environment
- 5) Role of Pollution Control Boards
- 6) International Conferences on Environment: Focus on Agenda 21 of Rio Conference.

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### **PG56T303– MARGINALISED WOMEN: ISSUES AND PERSPECTIVES**

#### **Course Outcome:**

- This paper aims to understand the group of marginalized people in the Indian context.
- It focuses on issues and challenges bounded, myths, realities and initiatives taken for the welfare of women from the International and National agencies.
- In-depth knowledge of problems and challenges of marginalized women.

#### **Unit I. Introduction:**

- 1) Concept of marginalization, Features of Marginalization:Poverty, Deprivation, Exploitation, Discrimination, Inequality
- 2) Women and Marginalisation: Global and Indian Perspective.

#### **Unit II: Marginalized Women in India:**

- 1) History and problems of marginalised groups in India
- 2) Tribal Women, Dalit Women, Prostitutes, Devadasis, Adolescent girls, Rural women, Slum
- 3) Dwellers, Religious Minorities.

**Unit III: Issues of Marginalised Women:**

- 1) Religion/Caste System: Restrictions on rights of adolescent girls, Widowhood, Widow Remarriage, and Single Women, code of conduct in dress, Religious rituals, rites and restrictions, purity and pollution, Differentials in Status of women
- 2) Marriage, Age at Marriage, Marital Choice, Dowry, Divorce, Sati and Domestic Violence.
- 3) Family: Authority, Inheritance.
- 4) Discrimination Female feticide, Infanticide, Sex-selective abortion, Gender Discrimination, Stereotypes, Dual roles and Role conflict, Support Systems and Coping Mechanisms.

**Unit IV: Challenges of Marginalized Women:**

- 1) Education, Employment and Political Participation: Literacy, Educational Opportunities, Sex differentials in Literacy levels, Drop-outs.
- 2) Opportunities and Challenges: Reservations for women in political sector, Women and Unemployment, Equal remuneration, Discrimination at place of work, Exploitation. Eve-teasing, Sexual harassment and Violence against women
- 3) Social and Cultural restrictions on women participation in political system Portrayal of Women in Media.

**Unit V. Women Welfare Initiatives:**

- 1) Global Initiatives: World Organizations and Its Impact on Women in Indian Society (UN, WHO, UNICEF, UNFPA, UNIFEM)
- 2) Central and State Government Measures, National and State Commission for Women, Economic Initiatives for the promotion of Self Help Groups, DRDA, Social Welfare Department, Role of Civil societies
- 3) Voluntary Organizations: NGO's, Women's Agencies: Approaches, Organizations and Movements, Special Legislations.

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### **PG56T304: Review of Related Book and Internship**

#### **Course Outcome:**

- This paper aims to introduce the students to new writers especially to the feminist writings, thinkers, critical analysis and evaluation of the book.
- The expected outcome of the students will be the effective usage of words, language, writing skills and in depth knowledge in Women's Studies.
- In-depth knowledge of selected book, better writing skills, strong analytical skills, the expansion of vocabulary and it mentally stimulates.

### **PG56T305A WOMEN, GOVERNANCE AND LEADERSHIP (Specialization)**

#### **Course Outcome:**

- The paper aims in understanding the overview of the politics and evolutionary changes.
- It focuses on women's representation, participation.
- It makes the students to understand the feminist politics and effective measures for the empowerment of women politically.
- It gives the clear picture of politics with special reference to women and the gender gaps in governance as well as in building the leadership qualities.

#### **Unit I: Introduction:**

- 1) Meaning, Nature and Scope of Governance and Leadership
- 2) Types of Governance and Leadership
- 3) Foucault's conception of Resistance and limitations of his analysis of Power relationships
- 4) Giddens's Structuration theory: Power as Dependency and Domination, Fraser's "Rethinking the Public Sphere"
- 5) Chantal Mouffe-Feminist Alternative vision of Citizenship: Criticisms.

#### **Unit II: Understanding Feminist Politics:**

- 1) Feminist concepts of power. Citizenship, Rights and Transformative Politics
- 2) Women's Political Participation: Need Public vs Private Dichotomy
- 3) Beijing Platform for Action
- 4) Women share in Politics
- 5) Women's Movements for Political Participation
- 6) Constitutional Rights and Human Rights.

#### **Unit III: Women and Governance in the Indian Context:**

- 1) Women's Share in Politics: Evolutionary changes during Pre-independence, and Post-Independence
- 2) Women in local government: Panchayati Raj and Urban governance; Women in State Assemblies; Women in Parliament
- 3) Women's Movement for Political participation; Struggle and agitations by women leaders
- 4) Problems and remedial measures for their effective participation in governance.

#### **Unit IV: Women and Election:**

- 1) Women as voters: Types of voters, Voters' turnout and elections
- 2) Women as Candidates: Types, contestants in the elections
- 3) Women and Political Parties: National and Regional Parties
- 4) Women's approach in top decision
- 5) Making bodies of the political Parties Manifestos, Election Campaigns.
- 6) Present Scenario in India and Karnataka

#### **Unit V: Political Career and Women Empowerment:**

- 1) Party ideologies and women's issues, Barriers: Internal and External Socio-Cultural stigma and Challenges
- 2) Case Studies: Indira Gandhi, Sushma Swaraj, Sonia Gandhi, Leelavathi R Prasad Ang San Suu Ki, Heena Rabani

### 3) Role of NGO'S in Women Political Empowerment.

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#### **PG56T305B WOMEN, SCIENCE AND TECHNOLOGY, (Specialization)**

##### **Course Outcome:**

- The paper introduces the students about the concept of women, science and technology and the myths, historical perspective,
- It studies the impact and threats of technology on women and on her health in a feminist perspective.
- The students Gains the knowledge of application of Science and Technology in the society and how its adverse impact on women.

##### **Unit I Women and Science:**

- 1) Concepts of Gender and Science; Androcentric Science; Pipeline Theory
- 2) Science Question in Feminism
- 3) Women in Science: Myths about women in science, Characteristics of Women
- 4) Career in Science, Exclusion of Women from scientific research

##### **Unit II Gender in the Substance of Science:**

- 1) Medicine
- 2) Archaeology
- 3) Biology
- 4) Physics,
- 5) Chemistry and Mathematics

**Unit III Women and Technology:**

- 1) A Historical perspective: Technology as Masculine Culture
- 2) Technology for women: contribution of women to technology, Household technologies, Medical Technologies: Reproductive Technologies
- 3) Policies of technology, Science and technology in India, Educational technology, Biotechnology, Science technology
- 4) Impact on women's education, economy, employment, health, and domestic work

**Unit IV Impact of Technology on Women;**

- 1) The Digital Divide: Unequal Access, Unequal Effects
- 2) ICT's Policies and Projects for Women: Implementation Issues and opportunities for women
- 3) Threat of ICTs for Women: Cyber crime
- 4) Concept, low and high technology
- 5) Internet services
- 6) Role of women

**Unit IV Women's health and technology:**

- 1) Concept, definition, women's health and well-being
- 2) Reproductive technologies
- 3) New perceptions: women as subjects, alternative health, quantum model of body

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**PG56T306C OEC (Open Elective Paper) WOMEN'S LAWS AND EMPOWERMENT****Course Outcome:**

- The paper aims to explain the availability of constitutional laws and government programmes specifying women centric.
- It Creates awareness within the students about the, personal laws, special Acts to empower women in India.
- It gives the knowledge of laws, special concern to women, creating awareness and bringing into practice in their own life situation.

### **Unit I: Women's Rights in India:**

- 1) Fundamental Rights for Women
- 2) Directive Principles of State Policy
- 3) Human Rights and Women
- 4) Need for Uniform Civil Code
- 5) Measures of Enforcement of Human Rights and Women's Rights in Contemporary India.

### **Unit II: Personal and Special Laws:**

- 1) Hindu, Muslim, Christian Personal Laws & Special Marriage Act (Marriage, Maintenance
- 2) Custody of Children, Property, Legal and Customary, Void marriages, Bigamy, Divorce)
- 3) Special Rights of Women: Awareness regarding access to Legal and Judicial Machinery, Legal Aid for Women in India, Family Courts, Legal AID cells, Help line.

### **Unit III: Crime Against Women and Law in India:**

- 1) Rape Laws, Dowry Prohibition Act, Domestic Violence Act, 2005
- 2) Medical Termination of Pregnancy Act, 1971
- 3) Pre-Natal Diagnostic Techniques Regulation and Prevention Act 1994.
- 4) Prevention of Immoral Traffic Act: 1986.

### **Unit IV: Empowerment:**

- 1) Meaning, Need and Importance of Women's Empowerment.
- 2) Process of Women's Empowerment.
- 3) Models & Strategy for Women's Empowerment.
- 4) Determinants of Women Empowerment: Women's Empowerment through Political Participation, Education, Health & Economy.

### **UNIT V: Institutional Framework for Women's Empowerment:**

- 1) International and National Bodies for Women's Empowerment
- 2) Role of Government
- 3) University Grant Commission, National Commission for Women, and State Women's Commission for Women,
- 4) Karnataka State Women's Development Corporation and NGO's.

### **References:**

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## **PG56T401:WOMEN AND DEVELOPMENT**

### **Course Outcome:**

- This paper aims to provide an understanding of development through mainstreaming women, various developmental initiatives taken by the National and International bodies.
- It Creates awareness among the students about welfare, development and its differences and the concept of beneficiaries from a gender perspective.
- It gives in-depth knowledge of adopting the gender sensitization and inclusiveness welfare, development and empowerment.

### **Unit I Development:**

- 1) Understanding Development: Concept and components, Feminist Critique of Development
- 2) Feminist Theories of Development: Women and Development (WAD); Gender and Development (GAD), Sustainable Development
- 3) Gender Development Index and Gender Empowerment Index,
- 4) Growth and Human development measures for empowerment: Human Development Index v/s Gender Development Index.

### **Unit II: Growth and Development:**

- 1) Concept, difference, Gender as a Development issue
- 2) Development Strategies: Trickle-down theory, Basic needs strategy, Structural Adjustment Strategy, Sustainable Human Development Strategy
- 3) Alternative Development Strategies from Women's Studies Perspective: Bina Aggarwal, Gabriele Dietrich, Maria Mies, Vandana Shiva
- 4) Socio-Economic determinants of Women's development

### **Unit III Women's Development in India:**

- 1) Perspectives under Five Year Plans: Welfare (I-V plan)
- 2) Development perspective (VI-VII plan)
- 3) Equity efficiency, Anti poverty, Empowerment perspective (VIII Plan onwards)
- 4) Recent trends: Gender Responsive Planning
- 5) Gender Analysis and Gender Budgeting.

### **Unit IV Policies and Programmes for Women's Developments:**

- 1) New Economic Policy and its impact on women
- 2) National Policy for the Empowerment of women-2000
- 3) Women in Information and Communication Technology Policy
- 4) The impact of Globalisation and Structural Adjustment Policies (SAP) on women with special reference to India
- 5) State Policies, Reports and Programmes for Women: Community Development Programme, Integrated Rural Development Programme, TRYSEM, STEP
- 6) Integrated Child Development Programme, Swarna Jayanti Swarojgar Yojna, Programme of State Governments.

### **Unit V International Commitments:**

- 1) International Women's Conferences: Mexico, Copenhagen, Nairobi, Beijing.
  - 2) Women Development Decade, International Women's Day.
- CEDAW, Women Development NGO's, Role of UNO, WHO, UNESCO

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### **PG56T402 FEMINIST APPROACH TO PSYCHOLOGY**

#### **Course Outcome:**

- The paper aims to explore the students about various psychological issues, the status of mental health.
- It sensitizes the students regarding the importance of counselling.
- It creates in-depth knowledge of feminist psychology.
- It gives the understanding of the theoretical framework of psychology and mental set up of women in the society.

#### **Unit I Psychology Concepts:**

- 1) Nature, methods of study-sex-gender-myths and facts
- 2) Sex role identity, gender stereotyping
- 3) Gender Differences, Similarities, feminization of psychology, Consciousness: female, feminine and feminist

#### **Unit II Theories on Women's Psychology:**

- 1) Feminist perspective of theories
- 2) Theories: Psychodynamic Theory, Social Learning theory, Reinforcement and Imitation theory, Cognitive Development theory, Gender schema theory

- 3) Feminist Perspective: Psychoanalytic feminism.

### **Unit III Psychological Issues in Life Span:**

- 1) Childhood: development of gender identity
- 2) Adolescence and Adulthood: menarche and sexuality, development of feminine identity, marriage and motherhood
- 3) Transitional period and Old age: menopause, emptiness syndrome, old age bereavement

### **Unit IV Women and Mental Health:**

- 1) Models of normality and abnormality
- 2) Understanding the nature of common psychological problems of women: Mental health
- 3) Gender Bias in Diagnosis, Anxiety Disorders, Hysteria, Depression, stress disorders
- 4) Psychological Effect during Menarche, Menstruation and Mood, Pregnancy, Child Birth, Post partum depression after Motherhood and Menopause.

### **Unit V Feminist Psychological Intervention and Counseling :**

- 1) Victims of Rape, Domestic violence, Trafficking and Kidnapping, Forced prostitution, Girl child labour, Girl child Sexual abuse
- 2) Gender Sensitization Training
- 3) Counselling skills, counselling for personal and professional balance and women victims
- 4) Feminist therapy and counselling: Women's sexuality, marriage
- 5) Premarital education, marriage, child raising and family life, Sex education
- 6) Planning for parenthood, parent, single parenthood, adoption
- 7) Rehabilitation
- 8) Constitutional Measure.

### **References:**

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## **PG56T403 WOMEN AND ENTREPRENEURSHIP**

### **Course Outcome:**

- The paper aims to introduce to the concept of entrepreneurship.
- It promotes women to managerial activities, problems and challenges involved in the growth of women entrepreneurs in India as role models.
- It studies the initiatives by the funding agencies to start up as entrepreneurs.
- Knowledge of supporting to start up as a self-entrepreneur with individual skills, motivates and sensitizes about the problems, challenges involved in it.

### **Unit I : Entrepreneurship: A Prologue**

- 1) Concept, Characteristics, Distinction between Manager and Entrepreneur
- 2) Theories of Entrepreneurship: Maslow's Theory of Hierarchy of needs, Motivational Theories, Equity Model and Complimentary Contribution Model
- 3) Micro Entrepreneurship and Macro entrepreneurship as a career for women
- 4) Relationship between Entrepreneurship and Women Empowerment

### **Unit II : Women Entrepreneurship:**

- 1) Concept, Growth and Rationale
- 2) Promoting factors for women entrepreneurship: Internal and External barriers
- 3) Motivation and Training for Women entrepreneurship
- 4) Initiatives for the development of Women

### **Unit III : Growth of Women Entrepreneurship in India:**

- 1) Trends and Patterns of Women Entrepreneurship: Non-Stereotyping
- 2) Women Entrepreneurship Activities: Women in Rural Industrialization, Commercial Poultry, Household industries
- 3) Problems in enterprise set-up and Management
- 4) Non-farm Biotechnology and Information Technology

### **Unit IV : State and Women Entrepreneurship:**

- 1) New Economic Policy: Globalization, Liberalization and Privatization (LPG) and its impact on women.
- 2) Entrepreneurship Development Programme (EDP): Concept, strategies and components, agencies;
- 3) EDP for Women and its effectiveness: Micro-credit and Micro-finance for Women's Self employment opportunities
- 4) Institution, Schemes and funding agencies for Women Entrepreneurs: NIESBED, EDIT, SIDCO, NABARD, DIC, DRDA, WDC Banks, STEP, IAY, PMRY, KVIC, IMY, NORAD, DRIP, MUM, SGSY, SHG (Issues in different SHG models), Nationalised Banks, and Rural Banks, SSI, SISI (Small Service Institute), IIC - (Industrial Investment Corporation), DIC - (District Industries Centre), Income Generating Programme, IRDP

### **Unit V: NGOs and Women Entrepreneurship:**

- 1) Functions, Importance, Formation of SHGs, Microfinance
- 2) Case-studies of Successful Women Entrepreneurs (Sudha Murthy, Lijjat Papad, Shahnaz Hussain, Kiran Majumdar Shah)

### **Reference:**

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  15. <https://startupnation.com/infographic/facts-state-female-entrepreneurship/>
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- <https://www.mbatuts.com/growth-of-women-entrepreneurs-in-india/>

#### **PG56T404: Women and NGO's**

##### **Course Outcome:**

- The paper introduces student to the concept of NGO and its formation and management.
- The paper focuses on the significance of working as a voluntaries and management.
- It Creates awareness about raising the issues of women and the social responsibility.
- It studies the involvement of National and International NGO's for the benefit of women.
- It gives the knowledge of supporting to start up as a self-entrepreneur by forming the NGO's working for the underprivileged people in the society.

##### **Unit: 1 Introduction:**

- 1) Concept of volunteerism, Welfare and development , functions
- 2) Approaches and Types of NGO's, Role of NGO's in community development
- 3) History of NGO's, NGO's and women development

##### **Unit: 2 NGO's Establishment**

- 1) Legal Frame work: Registration of NGO's : Trust, Society and voluntary Act,
- 2) Foreign Contributions and Regulation Act (FCRA)
- 3) Income Tax Exemption (80-G, 12 – A, 35 AC) Statutory obligation (Rules and Regulation).
- 4) Resource Mobilization: methods and Techniques of Fund Raising
- 5) International, National and Local levels
- 6) Basics of Accounting
- 7) Budgeting.

##### **Unit: 3 NGO's Managements**

- 1) Programme Planning
- 2) Programme documentation, Working with Stakeholders:( Government, Media and Private)
- 3) Corporate social Responsibility- Monitoring – Evaluation – SWOT Analysis, Project Management.

##### **Unit: 4 NGO's India**

- 1) Historical Perspective of NGO's, Social issues and NGO's: Gender, Health, Education, Poverty
- 2) Problems of NGO's : Finance, Management, Media, Social support, Politicization

### **Unit: 5 NGO's Working for Women: National and International**

- 1) SEWA, Child Rights and YOU(CRY), LEPR, Help Age India, SWAYAM, Vrindavan, AWAKE, Vidyananya.
- 2) International: CARE, Women's Global Empowerment Fund, UNESCO, Amnesty, Cure Violence.

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## **PG56T405 WOMEN AND MEDIA (Specialisation)**

### **Course Outcome:**

- The paper explains the students about the crucial role of media in a public domain.
- It focuses and depicts women in media and critically analysis the gender aspect in media and throws a light on the media ethics and laws.
- The paper reflects of media and its impact on women, in the society is the knowledge inculcated through this paper.

### **Unit 1: Introduction:**

- 1) Meaning and Role of Media
- 2) Different Types of Mass Media and their characteristics; Print, Visual, Mass Media, Alternative media
- 3) Communication as a Process
- 4) Intra and Inter group Communication
- 5) Mass communication, Role of communication in information Technology

### **Unit II: Feminist Media Communication:**

- 1) Communication and exchange, difference, voice, representation
- 2) Understanding femininity, subversion and trivializing of women's question
- 3) Women's magazines, advertisements, Television. Serials, Newspapers
- 4) Women's movement and the feminist media: A view for better representation
- 5) Indecent representation of women's Act.

### **Unit III: Portrayal of Women in Mass Media:**

- 1) Print Media: Newspapers and Magazines
- 2) Audio-Visual Media: Radio, TV, Films, Songs, Advertisements
- 3) Images of women in the Media: Body Consciousness
- 4) Alternate Media: Folk Art, Street Play, Theatre
- 5) Critical Analysis of Films: Lajja, Matrubhoomi, Water and Fire

### **Unit IV: Media and Empowerment of Women:**

- 1) Alternate Efforts in Print, Running Magazines
- 2) Alternate Literature, Community Radio, Participatory Video
- 3) Creating Alternate Space within existing Media and New initiatives in Media
- 4) Print Electronic and Cinema
- 5) Women's Participation in Censor Board
- 6) Project to make a film on Women, Reviewing Films

### **Unit V: Media Ethics, Law and Gender:**

- 1) Press Council of India
- 2) Advertising Standards Council of India
- 3) The Broadcasting Bill, 2006-10-27 Law of Obscenity
- 4) Cable Television Networks (Regulation) Act, 1995

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### **PG56T406: Research Project and Dissertation**

#### **Course Outcome:**

- The paper focuses on research, the students are initiated by the specific titles or topics related to women.
- The students learn to do the research, full hand field experience, acquires the knowledge of reporting and documentation and so forth.
- The knowledge gained in the field of reporting, documenting and more than anything the gender sensitization is the outcome of each and every Women's Studies research involves.

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

**For**

**MASTER OF YOGA STUDIES**

**CHOICE BASED CREDIT SYSTEM (MYS CBCS)**



**2017-2018 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



**REGULATIONS**

**For**

**MASTER OF YOGA STUDIES**

**CHOICE BASED CREDIT SYSTEM (MYS – CBCS)**

**From**

**2017-2018 & Onwards**

## **Karnatak University, Dharwad.**

### **P.G. Department of Yoga Studies**

#### **Rules governing M.A in Yoga Studies for semester course as per GBCS pattern and Ph.D. programmes in Karnatak University.**

In exercise of the powers conferred under Sec.44 of the Karnataka State Universities Act, 2000, the Academic Council of Karnatak University frames the following Rules in consonance with Regulations of Faculty of Social Science.

#### **Title:**

These Rules shall be called - Karnatak University Rules governing Post-Graduate Programmes under Choice-Based Credit System for M.A. and Ph.D. Programmes in Yoga Studies under Faculty of Social Science.

#### **Commencement:**

These Rules shall come into force from the academic year 2017-18.

#### **Definitions:**

In these Rules, unless otherwise mentioned:

- a) "University" means Karnatak University; Dharwad.
- b) "Post-Graduate Programmes" means Semesterized Master Degree Programmes under CBCS.
- c) This "Compulsory professional Course" means a fundamental course which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) "Open elective" means a course offered by the Department for students of other Departments. Such Open Elective Courses shall be taught by qualified teachers approved by the University.
- e) "Credit" means the unit by which the course work is measured. For this Rule, one Credit means one hour of Theory or practical Teaching work week. Normally a Semester, is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits are equal to 50 marks, 3 credits are equal to 75 marks and 4 credits are equal to 100 marks.
- f) "Course Weightage" means number of credits assigned to a particular course.
- g) "Grade" is an index to indicate the performance of a student in the selected course. These Grades are worked out by converting marks scored in each subject by the candidates in both Internal Assessment and Semester end Examinations.

- h) "Grade Point Average" or GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grade points obtained by a student in a given semester.'
- i) "Cumulative Grade Point Average" or CGPA refers to the Cumulative Grade Point Average weighted across all the semesters and carried forward from 1st semester to subsequent semesters.

## **I. Rules Pertaining to M.A. in Yoga Studies Semesterised CBCS Programme 2017-18**

### **Preamble:**

Yoga is an integral part of Indian Cultural, Spiritio-Philosophical heritage. The Science of Yoga promotes Physical Mental and Spiritual Health of an individual in particular and entire human society at large. Yoga has been and is Promoting and fastering global Peace and harmony in the humankind. Now a days, Yoga is being utilized for Personality development, Stress management, Eradication of worries, Moralization of desires, and Neutralization of anger. For the Systematic and Scientific Study and Research of Yoga, UGC is encouraging the Universities.

Karnatak University is the first University in Karnataka State and second to entire India (after Sagar University) which has started the Dept. of Yoga Studies and running P.G. Diploma in Yoga Studies, Certificate Course in Yoga Studies and introduced Yoga as Optional Subjects of three equal importance at UG Level (i.e. at B.A/B.Sc). Karnatak University is also the first University to receive Rs.10 Lacks in the entire Country to start Master and Research degrees in the Department to train the Students to undertake higher training and research in various aspects of Yogic Science. Hence, as per the wishes of the UGC and as per the directions of the Vice-Chancellor and Registrar of our University Special Board of studies in Yoga Studies met on 05-06-2017 under the Dean and Chair person of P.G: Dept. of Yoga Studies, KUD and has resolved to introduce Master of Arts in Yoga Studies and Ph.D. Courses in the Dept. of Yoga Studies, Karnatak University, Dharwad.

### **R-1. Title:**

The Course shall be called "**Master of Arts" in Yoga Studies (M.Y.S)**

### **R-2. Duration:**

- 2.1 This shall be full time **professional course** and is extended over a period of Two academic years comprising of Four Semesters from the date of admission; failing which candidate shall be allowed to complete it within a maximum period of another two years
- 2.2 Whenever the syllabus is revised, the candidate reappearing shall be allowed for the examinations only according to new syllabus.

### **R-3. Objectives:**

#### **The Programme is designed:**

- 3.1 To impart Yoga education and Psycho- Socio-Spiritio-and Naturo-therapies training |or promotion of positive health and perfect personality of an individual in particular and Entire humankind in general.
- 3.2 To impart scientific training in Yogic Science and allied areas to the students desirous of making a career in the field of Yogic Science and develop them to become Yoga professionals to teach Yoga, to create Yogic awareness in the society and to cure Physico- Social diseases.
- 3.3 To introduce the fundamentals of Yogic techniques-therapies and to provide newer avenues to the students to learn, practice and propagate the philosophy of this ancient science to herald peace and harmony in the society.

- 3.4 To provide intensive training in fundamental Yogic texts, spiritualism of world's major religions and philosophy of peace to establish unity in diversity which is one of the mottos of yoga philosophy
- 3.5 To train the students to create yogic culture for shaping a holistic personality so as to become global and noble citizens and to shape future mankind which enjoy peace and tranquility.
- 3.6 To Train the students to undertake higher training and research in various aspects of Yogic Science.

**R-4. Minimum Eligibility for Admission:**

- 4.1. A Candidate who has passed bachelors degree examination in any subject from any University in the state or from any other University recognized as equivalent there to and comply with other eligibility requirements as prescribed by the University is eligible for admission to M.A. Degree Course in Yoga Studies. Weightage for admission will be given to those who have passed in P.G.D.Y.S. and / or studied Yoga as optional paper at Degree level.
- 4.2. A candidate should be medically fit. A medical fitness certificate in this regard issued from the Health Centre, Karnatak University campus must be produced at the time of admission. Candidate suffering from any chronic disease are strictly advised not to seek admission to this course.

**R-5. Medium of Instruction:**

English / Kannada

**R-6. Hours of Instruction:**

There shall be 4 hours of teaching work per week for every theory/practical paper of 100 marks and 4 hours of teaching /demonstration/ treatment for every therapy paper of 100 marks. **7.**

**Intake Capacity:**

Maximum 25 candidates of which 5 should be under the category of enhanced fee structure (30+10) or as prescribed by the university from time to time.

**R-8. Attendance:**

- 8.1 A student shall attend minimum of 75% of the total instruction hours in a paper (theory/practical) in each term or as prescribed by the University from time to time.
- 8.2 There is no provision for condoning shortage of attendance.
- 8.3 Students who do not satisfy prescribed requirement of attendance shall not be eligible for ensuing examination. Such candidates may seek admission afresh to the given semester.
- 8.4 Students who have participated in the State/National/International Level sports, NSS, Cultural activities and other related activities as stipulated under existing regulations shall be considered for giving attendance for actual number of days utilized in such activities (including travel days) subject to the production of participation certificates from the relevant authorities within two weeks after the event.

**R-9: For Women:**

- 9.1 The practical training classes for women will be arranged as far as possible separately and conducted by lady Yoga teachers. However, under odd situations, they must be ready to undertake training from male Yoga teachers.
- 9.2 In case of Natural Problems (Such as periods, Pre-& Post Pregnancy) they have exemption of not practicing but they have to attend the classes.

**R-10. Scheme of Examination:**

- 10.1 There shall be University Examination at the end of each semester both in theory and practical papers.
- 10.2 Candidates are allowed to write the said exam, either in English or in Kannada
- 10.3 The duration of theory paper examination shall be of 3 hours
- 10.4 Each theory paper of 100 marks (75+25) shall comprises of 5 questions of 16 marks each from \ 5 units with internal choices covering entire syllabus.
- 10.5 The duration of practical paper examination shall be of 4 hours and each practical batch shall contain a maximum of 9 candidates.
- 10.6 Each candidate of 4th semester shall submit (i) Educational Tour Report and (ii) Camp/Project Report to the Department for examination before commencement of theory examination.
- 10.7 Each candidate of 4th semester shall write a Dissertation on any selected topic (in consultation with the course teacher and the Chairman) of not less than 60 pages and submit it to the Department for examination before commencement of the theory examination.
- 10.8 There shall be Viva-Voce examination for 4th semester students which shall be conducted after the examination of both theory and practical
- 10.9 For Lady candidates: in case of Natural Problems such as periods, Pre & Post-Pregnancy they are allowed to appear for the Practical Exam, in the odd and even Semester end examinations & when conducted by the University. There is no exemption in appearing for the Practical Examination.
- 10.10 The programme under CBCS is a fully carry-over system. A candidate reappearing for either odd or even semester examinations shall be permitted to take examinations as and when they are conducted i.e., even semester examination in even semester and odd semester examination in odd semester.
- 10.11 Candidates who have failed, remained absent or opted for improvement in any course/courses shall appear for such course/courses in two immediate successive examinations that are conducted. However, in case of candidates appearing for improvement of their marks, the marks secured in the previous examination shall be retained if the same is higher.

**R-II. Internal Assessment:**

- 11.1 For all theory & practical papers comprising of 100 marks there shall be 20 Internal Assessment and it will be divided into Mid-Semester Test (05 marks), Lecture cum demonstration (05 marks) & Seminar presentation (10 marks)
- 11.2 The Dept. shall notify the scheme of Internal Assessment in the first week of each semester.
- 11.3 Marks for attendance shall be awarded to the students according to the following table

| Attendance (in percentage) | Marks |
|----------------------------|-------|
| Above 95                   | 5     |

|                       |          |
|-----------------------|----------|
| Above 90 and up to 95 | 4        |
| Above 85 and up to 90 | 3        |
| Above 80 and up to 85 | 2        |
| Above 75 and up to 80 | 1        |
| 75                    | No Marks |

11.4 The IA Tests shall be written in a designated book supplied by the University.

11.5 Students are not permitted to improve Internal Assessment marks.

#### **R-12. Dissertation:**

12.1 All those enrolled in the M.A. Programme shall write a Dissertation under the guidance of a course teacher during their Fourth Semester.

12.2 The Department council shall meet after the commencement of the Fourth Semester and determine who shall guide the student in dissertation writing. The Dissertation shall be completed and submitted to the Department before the commencement of IV Semester theory Examination.

12.3 Dissertation shall carry 80 marks

12.3 Viva-voce: There shall be Dissertation Viva-Voce examination for 20 Marks at the end of theory and practical examination of IV Semester.

#### **R-13. Board of Examiners and Valuation:**

13.1 There shall be a Board of Examiners to set, scrutinize and approve the Question Papers

13.2 There shall be double valuation for all Theory Papers and Dissertation. The average jbf marks awarded by the Internal and External Examiners shall be taken as the final award. Provided that in case the difference between the marks awarded by the Internal and the External Examiners in respect of any Theory paper or Dissertation be more than 20%, then, such Theory answer scripts or Dissertation shall be referred to a third valuer and the nearest scores shall be averaged and declared as the final award.

#### **R-14. Marks, Credit Points, Grade Points and Grade Point Average:**

14.1. The grade points and the grade letters to candidates in each course shall be awarded as follows:

| Percentage of marks            | Grade Points                           | Grade Letter |
|--------------------------------|----------------------------------------|--------------|
| 75 and above, up to 100%       | 7.50 to 10.00                          | A            |
| 60 and above but less than 75% | 6.00 and above but less than 7.5       | B            |
| 50 and above but less than 60% | 1.0 and above<br>1.1 but less than 6.0 | C            |
| 40 and above but less than 50% | 1.0 and above<br>1.1 but less than 5.0 | D            |
| Less than 40.00%               | Less than 4.00                         | F            |

14.2 Credit Point (CP): The Credit Point for each course shall be calculated by multiplying the grade point obtained by the credit of the course.

14.3 The award of Grade Point Average (GPA) for any student is based on the performance in the whole semester. The student is awarded Grade Point Average for each semester based on the Total Credit Points obtained and the total number of credits opted for. The GPA is calculated by dividing the total credit points earned the student in all the courses by the total number of credits of those courses of the semester.

- 14.4 The Cumulative Grade Point Average (CGPA) shall be calculated by dividing the total number of credit points in all the semesters by the total number of credits in all the semesters. The CGPA up to date shall be calculated by dividing the total number of credit points in all the semesters up to date by the total number of credits in all the semesters up to date.

$$\text{CGPA for the I Semester} = \frac{\text{Sum of the CP of the I Semester}}{\text{Sum of the credits of the I Semester}}$$

$$\text{CGPA for the II Semester} = \frac{\text{Sum of the CP of the I Sem} + \text{Sum of the CP of II Sem}}{\text{Sum of the credits of the I Semester} + \text{II Semester}}$$

CGPA for the III and IV Semesters shall be computed accordingly.

- 14.5 The Grade Card at each semester examination shall indicate the courses opted by the student, the credit for the course chosen by the student, the credit point obtained in each course, the grade letter and the grade point average. No class shall be awarded for each semester and the same would only be awarded at the end of all the semesters based on Cumulative Grade Point Average.
- 14.6 Class shall be awarded to the successful candidates based on the Cumulative Grade Point Average (CGPA) as specified below:

| Cumulative Grade Point Average (CGPA) | Class to be awarded          |
|---------------------------------------|------------------------------|
| 7.5 to 10.0                           | First class with Distinction |
| 6.0 and above but below 7.5           | First Class                  |
| 5.0 and above but below 6.0           | Second Class                 |

#### **R-15. Declaration of Results:**

- 15.1 Minimum marks required for passing in each course shall be 40% of the total marks including both IA and semester-end examinations. Further, candidate shall obtain at least 40% of marks in semester-end examination. There is no minimum marks for I A.
- 15.2 Candidate shall secure a minimum marks of 50% in aggregate in all courses of a programme in each semester including IA marks.
- 15.3 For the purpose of declaring Ranks/Classes, the aggregate of the marks in all semesters shall be taken into account. However, Ranks shall not be declared in case the candidate has not successfully completed each of the semesters in first attempt.
- 15.4 For the purpose of announcing results, the aggregate of marks secured by a candidate in all semester examinations shall be taken into account.

#### **R-16. Miscellaneous:**

- 16.1 The General Regulations, the Regulations of Faculty of Social Science, Directions, | Orders, Notifications issued by the University Authorities in the respect of matter not covered by these Rules shall be final provided they are in conformity with the provisions of the Karnataka State Universities Act, 2000 and the Ordinances, Statutes, Regulation and the Rules made thereunder.
- 16.2 However, the Vice-Chancellor is empowered to take such kind of decisions, matter related to the academic interest, in consultation with the Chairman and Dean & Place it for ratification at appropriate bodies within the scope & limits of the Act & Regulations.

**Course outline of M.A. in Yoga Studies for Semester Course as per**

**Choice Based Credit System Pattern (From 2017-18) onwards**

**Semester-I**

| <b>Paper Code</b> | <b>Title of the Paper</b>   | <b>Max. Marks</b> | <b>Internal Assesment Marks</b> | <b>Total Marks</b> | <b>Credits</b> | <b>Teaching Hrs. Per Week.</b> |
|-------------------|-----------------------------|-------------------|---------------------------------|--------------------|----------------|--------------------------------|
|                   | <b>Compulsory Papers</b>    |                   |                                 |                    |                |                                |
| A01               | Philosophy of Yoga          | 75                | 25                              | 100                | 4              | 4 Hrs.                         |
| A02               | Anatomy and Physiology      | 75                | 25                              | 100                | 4              | 4 Hrs.                         |
| A03               | Patanjal Yoga Sutra         | 75                | 25                              | 100                | 4              | 4 Hrs.                         |
| A04               | Elementary Sanskrit in Yoga | 75                | 25                              | 100                | 4              | 4 Hrs.                         |
| A05               | Yoga Practicals (Pract-I)   | 75                | 25                              | 100                | 4              | Men-Women<br>4 Hrs - 4 Hrs.    |
|                   | <b>Core Paper</b>           |                   |                                 |                    |                |                                |
| A06               | Dhoshoponishads             | 75                | 25                              | 100                | 4              | 4 Hrs.                         |
|                   | <b>Core paper Total</b>     | <b>450</b>        | <b>150</b>                      | <b>600</b>         | <b>24</b>      | <b>24</b>                      |

**Semester-II**

| <b>Paper Code</b> | <b>Title of the Paper</b>               | <b>Max. Marks</b> | <b>Internal Asst. Marks</b> | <b>Total Marks</b> | <b>Credits</b> | <b>Teaching Hrs. Per Week.</b> |
|-------------------|-----------------------------------------|-------------------|-----------------------------|--------------------|----------------|--------------------------------|
|                   | <b>Compulsory Papers</b>                |                   |                             |                    |                |                                |
| B01               | Human Consciousness                     | 75                | 25                          | 100                | 4              | 4 Hrs.                         |
| B02               | Yoga Psychology                         | 75                | 25                          | 100                | 4              | 4 Hrs.                         |
| B03               | Hatayoga Pradipika and Gheranda Samhita | 75                | 25                          | 100                | 4              | 4 Hrs.                         |
| B04               | Yoga Vashista                           | 75                | 25                          | 100                | 4              | 4 Hrs.                         |
| B05               | Yoga Practicals (Pract-II)              | 75                | 25                          | 100                | 4              | Men-Women<br>4 Hrs - 4 Hrs.    |
|                   | <b>Open Elective Paper</b>              |                   |                             |                    |                |                                |
| H93               | Yoga and Holistic Health                | 75                | 25                          | 100                | 4              | 4 Hrs.                         |
|                   | <b>Total</b>                            | <b>450</b>        | <b>150</b>                  | <b>600</b>         | <b>24</b>      | <b>24</b>                      |

### Semester-III

| Paper Code | Title of the Paper                     | Max. Marks | Internal Asst. Marks | Total Marks | Credits   | Teaching Hrs. Per Week.     |
|------------|----------------------------------------|------------|----------------------|-------------|-----------|-----------------------------|
|            | <b>Compulsory Papers</b>               |            |                      |             |           |                             |
| C01        | Research Methodology for Yogic Science | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
| C02        | Yoga, Spiritualism and Global peace    | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
| C03        | Shivasamhita                           | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
| C04        | Yoga Practicals (Pract-III)            | 75         | 25                   | 100         | 4         | Men-Women<br>4 Hrs - 4 Hrs. |
| C05        | Yoga Therapy (Diagnosis)               | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
|            | <b>Open Elective Paper</b>             |            |                      |             |           |                             |
| I88        | Yoga and Spiritualism                  | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
|            | <b>Total</b>                           | <b>450</b> | <b>150</b>           | <b>600</b>  | <b>24</b> | <b>24</b>                   |

### Semester-IV

| Paper Code | Title of the Paper         | Max. Marks | Internal Asst. Marks | Total Marks | Credits   | Teaching Hrs. Per Week.     |
|------------|----------------------------|------------|----------------------|-------------|-----------|-----------------------------|
|            | <b>Compulsory Papers</b>   |            |                      |             |           |                             |
| D01        | Bhagavdgeeta               | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
| D02        | Yoga Therapy (Treatment)   | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
| D03        | Yoga Practicals (Pract-IV) | 75         | 25                   | 100         | 4         | Men-Women<br>4 Hrs - 4 Hrs. |
| D04        | i) Educational Tour Report | 50         | 00                   | 50          | 2         | 2 Hrs.                      |
| D05        | ii) Yoga Camp Report       | 50         | 00                   | 50          | 2         | 2 Hrs.                      |
| D06        | i) Project Dissertation    | 80         | 00                   | 80          | 4         | 4 Hrs.                      |
| D07        | ii) Viva-Voce              | 20         | 00                   | 20          | 00        | 00                          |
|            | <b>Core Paper</b>          |            |                      |             |           |                             |
| D08        | Yoga and World Peace       | 75         | 25                   | 100         | 4         | 4 Hrs.                      |
|            | <b>Total</b>               | <b>500</b> | <b>100</b>           | <b>600</b>  | <b>24</b> | <b>24</b>                   |

## **I Semester**

- A01 Philosophy of Yoga
- A02 Anatomy and Physiology
- A03 Patanjali Yoga Sutra
- A04 Elements of Sanskrit for Yoga
- A05 Yoga Practicals (Pract-I)

### **Core Paper**

- A06 Dhoshoponishads

## **Detailed Syllabus for the Papers**

### **A01 Philosophy of Yoga**

#### **Unit -I: Introduction**

1. Meaning, Definitions, Objectives and Scope of Yoga
2. Definition , Nature, Scope, Objectives of Philosophy
3. Indian Philosophy Versus Western Philosophy
4. Relationship between:
  - a. Yoga and Indian Philosophy
  - b. Yoga and Religion
  - c. Yoga and Ethics
  - d. Yoga and Science

#### **Unit -II: The Origin and development of Yoga Philosophy**

1. Various Theories of the origin of Yoga
2. History and development of the concept of Yoga from ancient to modern period
3. Yoga, Aparokhsanubhava & Mysticism

#### **Unit - III: Methods of Yoga**

1. Bhakti-Yoga
2. Karma-Yoga
3. Raja-Yoga
4. Hatha-Yoga
5. Kundalini-Yoga
6. Jnana-Yoga
7. Nirgunastanga-Yoga
8. Shiva-Yoga (Shatstala-Shivayoga)
9. Purna-Yoga

#### Unit - IV: Metaphysics of Yoga

1. Prakriti, Purusha & Evolution
2. Svarodaya, Nadis, Vaayus & Chakras
3. Prakriti Parinamavada, Brahmaparinamavada and Brahma Vivarthavada
4. Self and God (Brahman) in Theistic and Absolutistic Vedanta Schools.
5. Metaphysics of Meditation and Samadhi

#### Unit - V: Axiology of Yoga

1. Yoga and Values-Yogic, Spiritual & Social values
2. Bondage and Liberation in Samkhya Yoga
3. Bondage and Liberation in Theistic & Absolutistic Vedanta Schools (Dvaita, Visistadvaita and Advaita)
4. Yoga and Social Concern:
  - a. Siddha and Social Concern
  - b. Jivanmukta and Social Concern
  - c. Bodhisattva and Social Concern
  - d. Sthitaprajna and Lokasangraha

#### Unit - VI: The Benefits of Yoga in Modern Society

1. Yoga and Stress Management
2. Yoga and Personality Development
3. Yoga, Moralization of desire, Neutralization of anger and Eradication of worries

#### Books for Study:

|                                         |                                                                       |                                                           |
|-----------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------|
| Karela Werner                           | Yoga and Indian Philosophy                                            | Motilal Banarsidas, Delhi, 1979.                          |
| Swami Prabhavananda                     | Spiritual Heritage of India                                           | Sri. Ramkrishna Math, Madras, 2004.                       |
| -----”-----                             | Bharatiy Adhyatmika Parampare                                         | -----”-----                                               |
| Dasgupta S.N.                           | Yoga as Philosophy and Religion                                       | Kegan Pub, London, 1924.                                  |
| -----”-----                             | Yoga Philosophy ;n Relation to other Systemsof Indian thought         | -----”-----                                               |
| Kunhan Raja                             | Some Fundamental Problems in Indian Philosophy.                       | Motilal Banarsidas, Delhi, 1974.                          |
| Stace W.T.                              | Mysticism and Philosophy                                              | Macmillan and Co. London, 1961.                           |
| Dasgupta S.N.                           | Hindu Mysticism                                                       | Motilal Banarsidas, Delhi, 1927.                          |
| Swami Jnanananda                        | Philosophy of Yoga                                                    | Sri. Ramakrishnanshrama, Mysore.                          |
| Fensterstein George                     | The Yoga Tradition: Its History, Literature, Philosophy and Practice, | Bhavana Books and Prints, 2002                            |
| Swami Vivekananda                       | Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga.                       | Advaita Ashrama, Culcutta, 2000:                          |
| Vethathiri Maharshi                     | Kaya Kalpa Yoga                                                       | Vethathiri Publication Erode-638001                       |
| -----”-----                             | Karma Yoga                                                            | -----”-----                                               |
| -----”-----                             | Yoga for Modern age                                                   | -----”-----                                               |
| Dr.D.L.Patil                            | Knowledge and Human Values                                            | Viveka Prakashana, Mysore.                                |
| R.D.Ranade                              | Vedanta the Culmination of Indian Thought                             | Bharatiya Vidya Bhavan, Bombay                            |
| Dr. I.C.Mulagund & Dr.R.N.Kechappanavar | Personality Development and Communication Skills                      | Shruti Prakashan, Dharwad.                                |
| Dr.B .P. Siddhashrama                   | The Metaphysics and the Mysticism ofShri.Nijaguna Shivayogi           | Siddhaprakashana, Siddharoodhanagar, Srinagar, Dharwad-3. |
| -----”-----                             | ಶ್ರೀ ವಿದ್ಯಾರಣ್ಯ ಜೀವನುಕ್ತಿ ವಿವೇಕದ ತತ್ವಸಿದ್ಧಾಂತ                         | -----”-----                                               |
| -----”----- (Ed)                        | Journal of Indian Philosophical                                       | -----”-----                                               |

|                     |                                                    |                                                                                           |
|---------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------|
| Dr. C.D.Sharma      | Congress<br>A Critical Survey of Indian Philosophy | Motilal Banarasdas Publication New Delhi.                                                 |
| Dr. G.Srinivasan    | Essentials of Vedanta                              | Bopco Publication Bangalore                                                               |
| R.D.Ranade          | A Constrictive Survey of Upanishadic Philosophy    | Bharatiya Vidya Bhavan Mumbai-7                                                           |
| Prof.M.Hiriyanna    | The Quest After Perfection                         | Kavyalaya Publication Mysore.                                                             |
| Gopi Krishna        | Kundalini- The Secret of Yoga                      | U.B.S. Publisher's Nw Delhi                                                               |
| Swami Krishnananda  | The Philosophy of life                             | The Divine life Society P.O.Shivanand Nagar, U.P-India..                                  |
| Phil Nuernberger    | Freedom from Stress                                | Himalaya International Institute New Delhi                                                |
| Sri Swami Rama      | Choosing a Path                                    | Himalaya International Institute of Yoga Science & Philosophy of the U.S.A. Pennsylvania. |
| Sri. Aurobindo      | The Synthesis of Yoga                              | Sri Aurobindo Ashram, Ponclicherry                                                        |
| Blawyn and Jones    | Chakra worked out                                  | Pustak Mahal, Bangalore.                                                                  |
| Sir. John Woodroffe | The Serpent Power                                  | By Ganesh & Co. 35, Thanikachafam Road, Madras-600017.                                    |
| Prof. R.D.Ranade    | Studies in Indian Philosophy                       | Mrs. Sunanda Shintre and Ashwirti jog 114/8 Murarjipeth Solapur-413001                    |
| S.N.Dasgupta        | Hindu Mysticism                                    | Motilal Banarsidas Publishers Private Limited Bungalow road Delhi-110007                  |
| Ganesh Shankar      | Classical and Modern Approaches to Yoga            | Pratibha Prakashna (Unient Publishers & Book sellers) 29/5 Shakti Nagar, Delhi-7.         |

## **A02 : Anatomy and physiology**

### **Unit-I. Basics of Anatomy and Physiology**

1. Structure of human cell
2. Functions of Human cell & transport mechanism of cells.
3. Types of cells
4. Tissue-anatomy, its classification & functions.
5. Meaning of Homeostasis.

### **Unit-II. Concept of Health, Diseases:**

1. Health, Meaning & Definitions
2. Concept of disease, definitions and types of diseases

### **Unit-III. Ten Systems of the Body:**

#### **First 5 systems**

- 1. The Digestive System:**  
The Digestive system: Structure and Functions.
- 2. Cardiovascular system:**  
The Cardiovascular: Structure and Functions.
- 3. Respiratory system:**  
The Respiratory system: Structure and Functions.
- 4. Skeletal system:**  
The Skeletal system: Structure and Functions.
- 5. Muscular system:**

The Muscular system: Structure and Functions.

#### **Unit-IV. Other 5 systems of the body:**

##### **1. Urinary System:**

The Urinary System: Structure and Functions.

##### **2. Endocrine system:**

Endocrine system: Structure and Functions.

##### **3. Immune system:**

The Immune system: Structure and Functions.

##### **4. Nervous system:**

The Nervous system: Structure and Functions.

##### **5. Reproductive system:**

The Reproductive system: Structure and Functions.

#### **Unit-V. Senses of the Body:**

Vision, Hearing, Smell, Taste, Touch : Structure and Functions.

#### **Books for Study:**

|                            |                                                                |                                                                                       |
|----------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Dr. Anand Nadgir           | Sharrera Rachana Shastra Mattu Shareera Shastra                | Mallasajjan Prakashan. MVAS Shri K.G. Nadgir College of Education, Dharwad-580008.    |
| Tony Smith                 | The Human body                                                 | Dorling Kindersley Limited-1995.                                                      |
| K.G. Nadagir               | Arogya & Arogya Shikshana                                      | Mallasajjan Prakashan, Dharwad.                                                       |
| Yadav                      | Human Anatomy and Physiology                                   | Nirali Publication                                                                    |
| Chatterjee                 | Human Physiology                                               | Medical Aliened Agency Calcutta-1985                                                  |
| Guyton                     | Text book of Medical Physiology                                | Philadelphia- Saccades-1969                                                           |
| Chaurasia                  | Human Anatomy Vol-1 -3                                         | Delhi CBS                                                                             |
| Pearce                     | Anatomy & Physiology for Nurses including clinical application | Calcutta, OUP-1982                                                                    |
| Shambhuling R.L. Bijlani   | Human Physiology<br>The Human Machine                          | Madras<br>The Director National Book Trust. India<br>A-5 Green Park, New-Delhi-110016 |
| Swamy Satyananda Saraswati | Common Diseases                                                | Sri G.K. Kejriwal, Honorary Secretary, Bihar School of Yoga.                          |

### A03 : Patanjali Yoga Sutra

| 1. Samadhi pada                                      | 2. Sadhana pada                                       | 3. Vibhuti pada                                                                   | 4. Kaivalya pada |
|------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|
| ಪತಂಜಲಿ ಮಹರ್ಷಿಗಳು                                     | ಯೋಗಸೂತ್ರ-ಟಿಕಾ ಷಟ್ಪಯುಕ್ತ                               | ಚೌಖಂಬಾ ಸಂಸ್ಕೃತ ಸಿರೀಜ, ವಾರಣಾಸಿ, 1972                                               |                  |
| ಪತಂಜಲಿ ಮಹರ್ಷಿಗಳು                                     | ಪಾತಂಜಲ ಯೋಗದರ್ಶನಮ್                                     | ಚೌಖಂಬಾ ಸಂಸ್ಕೃತ, ಸಿರೀಜ ವಾರಣಾಸಿ, 1970.                                              |                  |
| Swami Vivekananda<br>R.M. Umesh                      | Raj-Yoga (Kannada-English)<br>Science of Mind Control | Ramkrishna Ashram, Bangalore.<br>Shri. Sharada Trust Bharathi<br>Street Sringeri. |                  |
| ಶ್ರೀ ಮಲ್ಲಿಕಾರ್ಜುನ<br>ಮಹಾಸ್ವಾಮಿಗಳು<br>ಸ್ವಾಮಿ ಹರ್ಷಾನಂದ | ಪಾತಂಜಲಿ ಯೋಗದರ್ಶನ<br>ಮಹರ್ಷಿ ಪಾತಂಜಲಿಯ ಯೋಗ<br>ಸೂತ್ರಗಳು   | ಜ್ಞಾನಯೋಗಾಶ್ರಮ, ಬಿಜಾಪೂರು<br>ರಾಮಕೃಷ್ಣ ಆಶ್ರಮ, ಬೆಂಗಳೂರು.                              |                  |

### A04: Elementary Sanskrit in Yoga

#### Unit -I. Elementary Grammar:

1. Importants Nouns and Pronouns
2. Svava, Vyanjana & Visarga
3. Kaarakas: Important Rules of Six Kaarakas
4. Samaasas: Simple Compounds of Six Samaasas
5. Lakaaras :Lat, Lang Lrita & Lot
6. Avyayas Tvaanta, Tumanta, Lyabanta etc

#### Unit - II.Shabdarupa, Dhaturupa

#### Unit - III. Vedantic texts:

1. 1. Bhagavadgeeta-16 Chapter
2. Jeevanmukti-Viveka of Vidyananya (Manonaasha-Prakaranam)

#### Unit - IV. Aayurvedeeya Subhaashitas 13th Chapter (Vaidyakeeya Subhashita Saahitya)

#### Books for Study:

|                        |                                |                                      |
|------------------------|--------------------------------|--------------------------------------|
| Dr. D.N Shanabhadg     | Subodha-Sanskrita- Vyaakarana  | Bhaarat Book-Depot, Dharwad          |
| Vetaaia Panchavimshati | Chaukhambha                    | Sanskrit Series,Varanasi             |
| Swami Abhedananda      | Bhagavatgita                   | RamakrishnaVedanta Math, Culcutta.   |
| Dr. D.N.Shanbag        | Hitopdesh (Kan)                | Prasaranga Karnatak University, Dwd. |
| Dr.Basavaraj           | Shree Vedyaananyara Jivanmukti | Siddha prakash No.31 Siddharudha     |
| Siddhashrama           | Vivekade Tatva Siddhanth (Kan) | Nagar, Shri Nagar, Dharwad-3         |
| Subramanya Shastri     | Jivanmukti Viveka of           | The Adyar Library & Research         |
| (Engl. Trans)          | Vidyananya                     | Centre, Chennai.                     |
| Dr. Ghanekar B.G       | Vaidyakeeya Subhaashita        | Chaukhambha Sanskrit                 |
|                        | Saahitya                       | Samsthana,:Varanasi                  |

### A05: Yoga Practicals (Pract-I)

#### a) Practical -I

The following Yogic practices with brief theoretical knowledge about their importance of name, the technique, benefits, salient features, precautions to be taken and advantages of each of the following Yogic practices, e.g. Kriyas, Asanas, Pranayama, Bhandha Mudra and Meditation will be taught along with record writing:

#### I. Kriyas: Kapalbhata, Jalaneeti & Sutraneeti

**II. Asanas:** Sukhasana, Padmasana, Vajrasana, Makarasana, Vishramasana, Tadasana, Urdhva Hastasana, Ardha Chakrasana, Padahastasana, Trikonasana, Shashankasana, Badhrasana, Ustrasana, Vakrasana, Bhujangasana, Janushirasana, Sarvangasana, Shalabhasana, Pavana Maktasana, Saral Mutsysana, Baddha Padmasana & Savasana.

## **B) Practical**

### **I. Pranayama:**

- Mechanism of correct breathing.
- Yogic deep breathing.
- Concept of Puraka, Rechaka and Kumbhaka
- Anuloma Viloma Pranayama.
  - Suryaanuloma
  - Chandraanuloma

### **II. Mudra: Viparitkarani & Mahamudra**

### **III. Meditation : Pranava- Antar-mouna**

#### **Books for Study:**

|                            |                                                         |                                                 |
|----------------------------|---------------------------------------------------------|-------------------------------------------------|
| Swami Kuvulyananda         | Asanas                                                  | Kaivalyadhama, Lonavala, 1982.                  |
| Tiwari, O.P                | Asana: Why and How                                      | Kaivalyadhama, Lonavala, 1991.                  |
| Swami Satyananda Saraswati | Asana, Pranayama, Mudra, Bandha                         | Bihar Schools of Yoga, Manger, 1989.            |
| Iyengar B.K.S              | Yoga Deepika (Kannada)                                  | V.K. Yogas, Bangalore, 1989.                    |
| Prakash Yogi               | Yogamrutadeepika (Kannada)                              | Patanjali YogaShrama Trust, Bangalore, 2002.    |
| Vethathiri Maharshi        | Simplified Physical Exercises                           | Vetharthin Publ., Erode-638001.                 |
| ಸಿ. ಸಿತಾರಾಂ                | ಸಾಮಾನ್ಯ ರೋಗಗಳಿಗೆ ಯೋಗ ಚಿಕಿತ್ಸೆ                           | ವಾಸನ್ ಬುಕ್ ಡಿಪೋ, ಬೆಂಗಳೂರು, 1998                 |
| Dr. M.L.Gharote            | Yogic Techniques                                        | The Lonaval Yoga Institute India, Lonaval, 1999 |
| Geeta S.Iyengar            | Yoga-a gem for Women                                    | Allied Publishers Limited, ISBN, 2000           |
| Swami Satyananda           | Pranayama                                               | Kaivalyadhama, Lonavala, 1983.                  |
| Nagendra H.R.              | The Art & Science of Pranayama                          | V.K.Yogas, Bangalore, 1993.                     |
| Swami Yateeshwarananda     | Dhyana Jeevan Deepika (Kannada)                         | Ramakrishnashrama Bangalore, 1984.              |
| Nimbalkar S.P              | Yoga for Health & Peace                                 | Yoga Vidya Niketan, Bombay, 1992.               |
| Iyengar B.K.S              | Yoga (Asanagalu, Pranayama, Mudregalu, Kriyegalu)(Kan.) | V.K.Yogas, Bangalore-1998.                      |
| Lajapat Rai and Others     | Meditation: Techniques and there Scientific Evaluation  | Anubhava Rai Publication, Gurgaon, 1999.        |

**Core Paper****A06: Dhashopanishads**

1. Katopanishads
2. Ishavashyopanishads
3. Kenopanishads
4. Prashnopanishads
5. Mundukopanishads
6. Mandukyapanishads
7. Thaithariopanishads
8. Iathareyapanishads
9. Shwetashwatarpanishads
10. Brahadharkpanishads

## **II Semester**

### **Title of the Paper**

#### **Compulsory Papers**

- B01 Human Consciousness
- B02 Yoga Psychology
- B03 Hata Pradipika and Gheranda Samhita
- B04 Yoga Vashista
- B05 Yoga Practicals (Pract-II)

#### **Open Elective Paper**

- H93 Yoga and Holistic Health

### **Detailed Syllabus for the Papers**

#### **B01: Human Consciousness:**

##### **Unit-I: Introduction:**

- 1 Mind, Matter and Energy
- 2 Magnetism, Genetic Centre, Gravity & Stock-Force
- 3 Psychological theories of Consciousness
- 4 Pancha Koshas
- 5 Jagrat-Swapna, Sushupti & Turiya

##### **Unit-II: Relational theory of Consciousness:**

- 1 Shankara's classification of Consciousness
- 2 Sakshi, Kutastha & Pratyagatma
- 3 Madhyamika's concept of Consciousness
- 4 Consciousness and extreme presentationism and agnosticism

##### **Unit-III: Consciousness as Quality:**

- 1 Consciousness and Materialism
- 2 The doctrine of Soul-Substance
- 3 Ramanuja and Locke on Consciousness
- 4 William James on Consciousness
- 5 Doctrine of Soul-Substance and Changing Self

##### **Unit-IV: Consciousness and Self-Consciousness:**

- 1 Personal Identity - Problems & Perspectives
- 2 Discursive Intellect - Shankara & Kant
- 3 Sankara on Personal Identity
- 4 Self as aparoksa and Svaprakasa
- 5 Deep Sleep and Samadhi

##### **Unit-V: Absolute Consciousness:**

- 1 Nagarjuna on Infinity
- 2 Shankara on Being

- 3 Bradley on Immediate Experience
- 4 Gantile on Infinite unity
- 5 Upanisadic concept of Sat-Cit-Ananda

### Books for Study:

|                        |                              |                                 |
|------------------------|------------------------------|---------------------------------|
| A.C.Mukerji            | The Nature of Self           | The Indian Press Allahabad      |
| Vethathiri Maharshi    | Journey of Consciousness     | Brain Trust-Publ. Aliyr-642101  |
| -----”-----            | Genetic Centre               | -----”-----                     |
| -----”-----            | History of the Universe and  | -----”-----                     |
|                        | Living Beings                |                                 |
| -----”-----            | Unified Force                | -----”-----                     |
| -----”-----            | The Gravity of Gravity &     | -----”-----                     |
|                        | Consciousness.               |                                 |
| -----”-----            | Mind                         | -----”-----                     |
| -----”-----            | Bio-Magnetism                | -----”-----                     |
| Dr.Basavaraj           | The Metaphysics and the      | Siddha Prakashana No.31.        |
| Siddhashrama           | Mysticism of Sri.Nijaguna    | Siddharoodha Nagar Srinagar,    |
|                        | Shivayogi                    | Dharwad.                        |
| Dr.B.P.Siddhashrama    | Global Spiritualism          | -----”-----                     |
| (Ed)                   |                              |                                 |
| Swami Aadi Devananda   | Goudapad Karika A Study of   | Ramkrishnashrama, Mysore.       |
| Janneswar Ghosh        | Yoga                         | Motilal Banarsidas, Delhi.      |
| Glen Peter Kezwar      | Mediation, Oneness and       | Sterling Paperbacks, An Imprint |
|                        | Physics                      | of L-10 Green Park, Extension,  |
|                        |                              | New Delhi                       |
| Sri Aurobindo          | The Life Divine              | Sri Aurobindo Ashram            |
|                        |                              | Pondicherry                     |
| Ramakrishna Puligandla | Jnana-Yoga -The way of       | D.K.Print world, New Delhi-     |
|                        | knowledge                    | 110015                          |
| Saraswati              | Concept of Mind in Indian    | Motilal Banarsidass Pub. Delhi. |
| Chennakesavan          | Philosophy                   |                                 |
| Sankarachary           | Atmabodha                    | Ramakrishnashrama, Mysore.      |
| Nikhilananda Swamy     | Self Knowledge of Sri        | Ramakrishnamath, Madras.        |
| (Trans.)               | Sankaracharya                |                                 |
| Osho                   | Enlightenment-The only       | The Rebel Pub. Pune.            |
|                        | Revolution                   |                                 |
| Dr.B.P.Siddhashrama    | Problems & Perspectives of   | Siddha Prakashana No.31.        |
| (Ed)                   | Social Philosophy Vol 1 to 4 | Siddharoodha Nagar Srinagar,    |
|                        |                              | Dharwad.                        |

## **B02: Yoga Psychology**

### **Unit-I: Elements of affective connective**

Definitions, Scope of Psychology, Applications of Psychology, Methods in Psychology, Behavior and Consciousness, Current Development in Yoga Psychology.

### **Unit-II: Biological Basis of Behavior:**

Nervous System, Neurotransmitters Processes.

### **Unit-III: Basic Psychological Processes**

Sensation, Attention, Perception, Memory, States of Consciousness, Intelligence Emotional Intelligence.

### **Unit-IV: Personality:**

Self Concept: Approaches: Typological Trait Phenomenological Psycho-Analytical Socio-Psychological; Assessment of Personality

### **Unit-V: Types of Motivation:**

Nature of Motivation, Maslow's Theory of Motivation and self Actualization.

### **Unit-VI: Emotion:**

Nature, Types, Bodily changes during emotions, attaining control over emotion, meditation and emotional control, Nature and Management of stress.

### **Books for Study:**

|                                    |                                                          |                                                                      |
|------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------|
| Swami Adidevananda                 | The Yoga Psychology                                      | Pub. Ramkrishna Vedanta Math Calcutta                                |
| Swami Rama & Swami Ajaya           | Creative use of Emotion                                  | Himalayan International Institute<br>Malviya Nagar, New Delhi-110017 |
| -----"-----                        | Yoga and Psychotherapy-the<br>Evolution of Consciousness | -----"-----                                                          |
| Geraldine Coster                   | Yoga and Western Psychology                              | 41. U-A Bungalow Road, Jawahar<br>Nagar Delhi- 110007.               |
| Munn N.L                           | Introduction to Psychology                               | Pub. Oxford & IBH Pub. Co. Calcutta                                  |
| Bhatia H.R                         | General Psychology                                       | Pub. Oxford & IBH Pub. Co. Calcutta                                  |
| Dharanendraiah A.S                 | Samanya Mano Vijnana (Kannada)                           | Pub. Mys. Uni. Mysore                                                |
| Nataraj P.K                        | Samanya Mano Vijnana Vol I & II                          | Pub. Mysore Uni. Mysore                                              |
| B. Krishnamurthy and<br>K.L. Reddy | Psychological Immunity                                   | -----"-----                                                          |

### **B03: Hatayoga Pradipika and Gheranda Samhita**

#### **Text / Reference Books:**

|                                        |                                            |                                                |
|----------------------------------------|--------------------------------------------|------------------------------------------------|
| Shree Sahajananda                      | Hatha Yoga Manjari                         | Kaivalyadhama S.M.Y.M.Samiti, Lonavala         |
| Swami Muktibodhananda                  | Hatha Yoga Pradipika                       | Dr. G.K.Keiriwal, Bihar School of Yoga, Manger |
| Saraswati                              |                                            | M.L.B.D.Delhi, 2000                            |
| Burley Mikel                           | Hatha Yoga-Its Context Theory and practice |                                                |
| Kunhan Raj                             | Hatha Yoga Pradipika                       | The Adyar library Publications Chennai, 2000.  |
| Burnier Radha                          | Hatha Yoga Pradipika of Svatmaarama        | -----”-----                                    |
| Dr. C.S.Naikar                         | Ghatastha Yoga                             | Medha Pub. Kalyan Nagar, Dharwadl 580007.      |
| Swami Digambar ji                      | Gherandha Samhita                          | -----”-----                                    |
| Dr. Mallikarjun paraddi and Sri Laxman | Hatha Pradipika of Shwathmaram             | Kaivalyadhama S.M.Y.M.Samiti, Lonavala-1998    |
| Kumar Sannellappannavar                | Hatha Pradipika (Kan.)                     | Dr. G.K.Keiriwal, Bihar School of Yoga, Manger |

### **B04 Yoga Vashista**

#### **Text / Reference Books:**

### **B05: Yoga Practicals (Pract-II)**

#### **A. Practical**

The following Yogic practices with brief theoretical knowledge about their importance of name, the technique, benefits, salient features, precautions to be taken and advantages of each of the following Yogic practices, e.g. Kriyas, Asanas, Pranayama, Bhandha and Meditation will be taught along with record writing:

**I. Kriyas:** Vamana Dhauti, Vastra Dhauti & Agnisara

**II. Yogic Surya Namaskar:**

**III. Asanas:**

Svastikasana, Siddhasana, Vrikshasana, Urdhva hastottanasana, Parivritta trikonasana, Mandukasana, Parshva konasana, Baddha konasana, Ardha matsyendrasana, Supta Vajrasana, Navasana, Paschimottanasana, Halasana, Matsyasana, Dhanurasana, Uttitha Padmasana, Vatayanasana, Chakrasana, Kukkutasana, Kurmasana, Shavasana.

#### **B. Practical**

**I. Pranayama:** (With bahya-kumbak Pranayama):

Surya bedhana, Chandra bedhana, Nadi shodhana, Ujjayee, Sheetali & Bhramari

**II. Bhandha:** Mula Bhandha, Uddiyana Bandha & Jalandhara Bandha

**III. Meditation:** Vipassana Meditation and transidential meditation.

## Books for Study:

|                                |                                                        |                                                  |
|--------------------------------|--------------------------------------------------------|--------------------------------------------------|
| Yogiraj Behramji               | Yogasana for Health                                    | Himalayan Yoga Institute, 1989.                  |
| Dhirendra Brahmachari          | Yogasana Vijnana                                       | Dhirendra Yoga Publications, New Delhi, 1989.    |
| Tiruka                         | Yogasanagalu (Kannada)                                 | Ananthashevashtama, Malladihalli, 1989           |
| Yogeshwar                      | The Text book of Yoga                                  | Yoga Centre, Madras                              |
| Lajapat Rai                    | A Physiological Approach to Yoga                       | C.R.I.Y. New Delhi. 1996.                        |
| Iyengar B.K.S                  | Yoga Deepika (Kannada)                                 | V.K. Yogas, Bangalore, 1989.                     |
| Gharote M.L.                   | Pranayama - The Science of Breath                      | The Lonavala Yoga Institute, Lonavala, 2003.     |
| Ajit Kumar                     | Yoga Pravesha (Kannada)                                | Rastrothana Sahitya Parishat, Bangalore, 1984.   |
| Tiruka                         | Shatkriyegalu (Kannada)                                | Ananthashevashtama, Malladihalli                 |
| P. Anand Dg.                   | Yoga Ushas (Kannada)                                   | Usha Enterprises, Bangalore, 2004                |
| Swami Satyananda Saraswati     | Surya Namaskar                                         | Bihar School of Yoga, Munger, 1983.              |
| Dr. Patrick Horay & David Harp | Hot Water Therapy                                      | Orient Paper Backs, New Delhi, 1997.             |
| Geeta S. Iyengar               | Yoga-a gem for Women                                   | Allied Publishers Limited, ISBN, 2000            |
| Lajapat Rai and Others         | Meditation: Techniques and there Scientific Evaluation | Anubhava Rai Publication, Gurgaon 1999.          |
| Osho                           | Dhyana Sutra                                           | Osho Misarge Meditation Centre, Bangalore, 1986. |
| -----"                         | Meditation                                             | Rajaneesh Ashrama, Poona.                        |
| -----"                         | Meditation First Last Freedom                          | -----"                                           |
| -----"                         | Meditation; The Art of Ecstasy                         | -----"                                           |
| -----"                         | Yoga Hoo Mystic Rose                                   | -----"                                           |

## Open Elective Paper

### H93 Yoga and Holistic Health

#### Unit-I: Introduction:

1. Health its meaning and definitions
2. Yoga, Holistic Health-its perspectives
3. Concepts of disease, definitions & types of diseases

#### Unit-II: Nutrition and Health:

- 1 Components of food and nutrients
- 2 Role of food for healthy living
- 3 Meaning of balanced diet
- 4 Role of Vitamins & Minerals

#### Unit-III: Yoga and Mental Health:

- 1 Human psyche, Behavior therapy to treat Depression, Anxiety etc.
- 2 Syptoms, Treatment
- 3 Yoga therapy for attaining unified vision, spiritualization and identification of chitsagara.
- 4 Yoga, spiritualism, peace within and without.

#### Unit-IV: Patanjali's Kriya Yoga and Holistic Health.

- 1 Pancha Kleshas and their eradication
- 2 The concept of prakriti and its purpose
- 3 The concept of purusha-kaivalya
- 4 Ashtangayoga

#### Unit-V: Yoga and Social Health

- 1 Yoga and social concern
- 2 Yoga and reconstruction of human society
- 3 Karma-Bhakti, Jnanaraj yogas and Social upliftment

## Books for Study:

|                  |                                                 |                                                                                    |
|------------------|-------------------------------------------------|------------------------------------------------------------------------------------|
| Dr. Anand Nadgir | Sharrera Rachana Shastra Mattu Shareera Shastra | Mallasajjan Prakashan, MVAS Shri K.G. Nadgir College of Education, Dharwad-580008. |
| K.G. Nadgir      | Arogya & Arogya Shikshana                       | Mallasajjan Prakashan, Dharwad.                                                    |
| Chatterjee       | Human Physiology                                | Medical Aliened Agency Calcutta-1985                                               |

|                            |                                                                |                                                                              |
|----------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------|
| Pearce                     | Anatomy & Physiology for Nurses including clinical application | Calcutta, OUP-1982                                                           |
| Swamy Satyananda Saraswati | Common Diseases                                                | Sri G.K.Kejriwal, Honorary Secretary, Bihar School of Yoga                   |
| Swami Vivekananda          | Raj-Yoga (Kannada-English)                                     | Ramkrishna Ashram, Bangalore.                                                |
| Swami Vivekananda          | Jnana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga.                | Advaita Ashrama, Culcutta, 2000                                              |
| Dr.B.P.Siddhashrama (Ed)   | Problems & Perspectives of Social Philosophy Vol 1 to 6        | Siddha Prakashana No.31. Siddharoqdh; Nagar Srinagar, Dharwad.               |
| Dr.B.P.Siddhashrama (Ed)   | Spiritual Globalization                                        | -----”-----                                                                  |
| Swami Adidevananda         | The Yoga Psychology                                            | Pub.Ramkrishna Vedanta Math Calcutta                                         |
| Swami Rama & Swami Ajaya   | Creative use of Emotion                                        | Himalayan International Institute Malviya Nagar New Delhi-110017             |
| -----”-----                | Yoga and Psychotherapy-the Evolution of Consciousness          | -----”-----                                                                  |
| Dharanendraiah A.S         | Samanya Mano Vijnana (Kannada)                                 | Pub. Mys.Uni.Mysore                                                          |
| Yogiraj Behramji           | Yogasana for Health                                            | Himalayan International Institute, Malviya Nagar, New Delhi-110017           |
| Dr. Ganesh Shankar         | Health for all through Yoga                                    | Department of Yogic Studies, Dr. harisigh Gour University, Sagar-470003 (MP) |

### **M.A. in Yoga Studies: III Semester**

#### **Scheme of Papers**

##### **Title of the Paper**

##### **Compulsory Papers**

- C01 Research Methodology for Yogic Science
- C02 Yoga, Spiritualism and Global Peace
- C03 Shivasmhita
- C04 Yoga Practicals (Pract-III)
- C05 Yoga Therapy (Diagnosis)

##### **Open Elective Paper**

- I88 Yoga and Spiritualism

#### **C01: Research Methodology for Yogic Science**

##### **Unit-I: Introduction:**

Yoga and Research: Objectives, types, approaches, significance of research, General methods of research, Research process, Flowchart; problems encountered by Yoga research in India.

##### **Unit-II: Research Process of Yogic Science:**

Problem Hypotheses and Testing of Hypotheses.

### Unit-III: Concepts, constructs and variables:

Variables control of variable; Constitutive and operational definitions of constructs and variables. Application of Variable techniques in Yogic Science.

### Unit-IV: Research Design:

Need for research design; features of a good design; important concepts relating to research design, different research designs-Basic principles of experimental design. Experiment on consciousness and its evolution through meditation.

### Unit-V: Methods of Data Collection:

Interview, objective tests and scales; observation of behavior; projective methods; available materials and content analysis; and case study.

### Unit-VI: Report Writing and Preparing Research Proposal:

Meaning, why techniques? Precautions; steps in report writing; layout types; oral presentation; precautions in report writing.

### Books for Study:

|                               |                                              |                                                                   |
|-------------------------------|----------------------------------------------|-------------------------------------------------------------------|
| Kerlinger F.N.                | Foundations of Behavioral Research -II Ed.,  | Reinhart and Winston. Hew York; Holt.                             |
| Kothari C.R.                  | Research Methodology,                        | Wishva Prakashan Chennai, 2000.                                   |
| C.J.Mouly                     | The Science of Education Research (2nd Edn.) | Van Nastrand, 1970                                                |
| Degroot A.J.                  | Methodology, Houghton, 1969.                 | -----”-----                                                       |
| D.Amoto                       | Experimental Psychology                      | THM Edition, New Delhi, 1979.                                     |
| Dr. Chaya Rai                 | Studies in Philosophical Methods             | University of Jabalpur, Jabalpur.                                 |
| Swami Satprakashananda        | Methods of Knowledge                         | Advaita Ashrama, Calcutta.                                        |
| Dr.B.P.Siddhashrama           | Spiritual Globalization                      | Siddha Prakashana, No.31. Siddharoodha Nagar Srinagar, Dharwad-3. |
| L.V.Redman and A.V.H.Mory     | The Romance of Research                      | Cambridge University Press, 1967.                                 |
| Rist J.M.                     | Plotinus - The Road to Reality               | -----”-----                                                       |
| David Scot and Tony Doubleday | The Elements of Zen Masters                  | -----”-----                                                       |
| Osho                          | The Perfect Way                              | Rajaneesh Ashrama, Poona.                                         |
| -----”-----                   | Tantra: The Supreme Understanding            | -----”-----                                                       |
| -----”-----                   | Vedanta: Seven Steps of Samadhi              | -----”-----                                                       |

## **C02: Yoga, Spiritualism and Global Peace**

### **Unit-I: Spiritualism:**

1. Meaning, Definitions and aims & Objectives of Spiritualism
2. Relationship between Yoga and Spiritualism
3. Yoga therapy and Spiritualism
4. Astanga-Yoga and Spiritualism

### **Unit-II: The Concept of Peace:**

1. Definition, nature, Scope, aims of Peace.
2. Yoga, Health, Peace within and without.
3. The concept of Vasanasaya, Manonasa & Peace.
4. Dhyana, Dharana, Samadhi and Peace

### **Unit-III: Spiritual Globalization:**

1. Self-Actualization
2. Religious Amity & Meta-Religious Consciousness
3. Reconstruction of Human Society on Spiritual basis
4. Global Peace & Harmony
5. Realization of Lord in the entire manifestation.

### **Unit-IV: Yoga, Spiritualism and World Religions:**

1. Yoga in Hinduism, Buddhism and Jainism
2. Yoga and Spiritualism in Islam, Christianity & Taoism
3. Spiritualism in Sikhism, Sufism & Veerasaivism
4. Spiritualism in Haridasas and Sahaj Raj-Yoga of I.V.V.
5. Spiritualism in Kayakalpayoga & Kundaliniyoga of Vetharthi Maharshi

### **Unit-V: Spiritualism & Global Peace**

1. Meditation & inter-religious relationships.
2. Comparative Religion & Universal Religion
3. Yogic values and the concept of Universal Brotherhood
4. Contemporary Scenario of Yogic & Spiritual Movements
5. Spiritualism and Global Peace.

### **Books for Study:**

|                        |                                 |                                        |
|------------------------|---------------------------------|----------------------------------------|
| Dabre Thomos           | Education for Peace             | Cambridge Uni. Pub. Cambridge          |
| Vethathiri Maharshi    | Blue Print for world Peace      | Vethathiri Publications, Erode- 638001 |
| ಜಿ.ಎ. ಶಿವಲಿಂಗಯ್ಯ (ಸಂ)  | ಅನಾದಿ ವೀರಶೈವ ಸಂಗ್ರಹ             | ಬಸವ ಸಮಿತಿ, ಬೆಂಗಳೂರು.                   |
| Prof. B.P.Siddhashrama | Problems and Perspectives of    | Prof. Girish Sharma, Gauhati           |
| (Ed)                   | Social Philosophy Vol.4         | University, Guwahati.                  |
| Prof. B.P.Siddhashrama | Spiritual Globalization         | Siddha Prakashana, No.31.              |
|                        |                                 | Siddharoodha Nagar, Srinagar,          |
|                        |                                 | Dharwad-3.                             |
| Prof. B.P.Siddhashrama | Global Spiritualism Vol. I.     | Siddha Prakashana No.31.               |
| (Ed)                   |                                 | Siddharoodha Nagar, Srinagar,          |
|                        |                                 | Dharwad-3.                             |
| Swami Muktananda       | From the Finite to the Infinite | Syda foundation P.O.Box-600 South      |
| Paramhansa             |                                 | Fallsdurg Hong Kong                    |
| ಸ್ವಾಮಿ ಯತೀಶ್ವರಾನಂದ     | ಧ್ಯಾನ ಮತ್ತು ಆಧ್ಯಾತ್ಮಿಕ ಜೀವನ     | ರಾಮಕೃಷ್ಣ ಆಶ್ರಮ, ಬಸವನಗುಡಿ ರಸ್ತೆ,        |
|                        |                                 | ಬೆಂಗಳೂರು.                              |

|                      |                                       |                                                |
|----------------------|---------------------------------------|------------------------------------------------|
| S.C.Nadimath         | Handbook of Veerasaivism              | L.E.Association, Dharwad (1941).               |
| J. Krishnamurthy     | The Meditative Mind                   | Krishnamurthy, Fondation, USA.                 |
| Antony Kolenderry    | The Meditation for Peace              | Indian Institute of Spirituality,<br>Bangalore |
| Aronowitz            | Post-Modern Education                 | Minnea Polis Publ. USA.                        |
| Bubharakkita Acharya | Meditation and Peace                  | Bubha Rakkita tera Trust, Bangalore.           |
| Cox Gray             | The Way of Peace                      | Paulist Press, New York, 1986.                 |
| Kainz Howard         | Philosophical Perspective on<br>Peace | Macmillan, London, 1987                        |
| D. Britto Francis    | Man's Search for Peace                | -----”-----                                    |
| A.R.Wadia            | Religion as a Quest for Values        | University of Culcutta, 1950                   |
| S. Radhakrishna      | East and West in Religion             | Allen & Unwin Ltd. London, 1956.               |
| Radhakrishna C       | Religion and Culture                  | Orient Paper back, New Delhi, 1987.            |
| Swamy Nirvedananda   | Lecturers on Universal Religion       | Rama Krishna Ashrama Culcutta, 1938            |

### C03: Shivasamhita

**Text:** Shyam Gosh: **The Original Yoga** (Book-I full)

Publ: Munshiram Manoharlal Pvt.Ltd., New Delhi.

### C04: Yoga Practicals (Pract-III)

#### A. Practical

The following Yogic practices with brief theoretical knowledge about their importance of name, the technique, benefits, salient features, precautions to be taken and advantages of each of the following Yogic practices, e.g. Kriyas, Asanas, Pranayama, Bhandha Mudra and Meditation will be taught along with record writing.

#### I. Kriyas: Danda Dhauti & Nauli

**II. Asanas:** Parvatasana, Poorvottanasana, Utkatasana, Padmapoorvottanasana, Naukasana, Ardabaddhapadmapachimottasana, Tringyamukaikapadapaschim anasan, Adhomuka, Matsyasana, Uttanamandukasana, Akarna Dhanurasana, Karnapeedasana, Mayurasana, Garudasana, Bhujapeedasana, Bakasana, Ekapada Rajakapotasana, Ekapada Shirshasana, Ugrasana, Shirshasana & Shavasana

#### B. Practical

**I. Pranayamas:** (With Kumbaka Pranayama, 1:1:2.)

Nadi Shodhana, Ujjayee, Sheetali, Shitkari, Bhramari & Bhastrika

## **II. Bhandas & Mudras:** Jivha Bhandas, Simha Mudra & Yoga Mudra

## **III. Meditation:** Viswatmaka-Maitri, Witnessing Subtle elements & Nadabrahma

### **Reference Books:**

|                       |                        |                                                 |
|-----------------------|------------------------|-------------------------------------------------|
| Iyengar B.K.S         | Yoga Deepika (Kannada) | V.K.Yogas,Bangalore, 1989.                      |
| Yogiraj Behramji      | Yogasana for Health    | Himalayan Yoga Institute,<br>1989.              |
| Dhirendra Brahmachari | Yogasana Vijnana       | Dhirendra Yoga Publications,<br>New Delhi, 1989 |
| Tiaari, O.P           | Asana Why and How      | Kaivalyadhama, Lonavala,<br>1991.               |
| Tiruka                | Yogasanagalu (Kannada) | Ananthashevashrama,<br>Malladihalli, 1989       |
| Yogeshwar             | The Text book of Yoga  | Yoga Centre, Madras                             |
| Swami Satyananda      | Pranayama              | Kaivalyadhama, Lonavala,<br>1983.               |

## **C05: Yoga Therapy**

### **Unit-I.**

1. Case Study–Importance and Method
2. Case History
3. Data Entry, Relationship with Patient
4. Present condition of sleep, hunger, micuration, Bowel movements, Menstrual cycle.
5. Preparation for case taking

### **Unit-II. General Physical examination:**

1. Height, Weight, B.P recording temperature etc.
2. Food habits and Daily routines
3. Examination of Nails, eyes, skin, tongue etc.
4. Supporting of literatures

### **Unit-III. Examination of the different system:**

1. Digestive system
2. Cardio Vascular
3. Respiratory System
4. Excretory System
5. Nervous system

### **Unit-IV. Analysis of:**

Psycho level, Socio level, Spiritio level

**Unit-V. Lab investigation:**

Blood Analysis, X-ray, Scanning etc, Urine, Stool analysis etc, Follow up.

**Books for Study:**

|                 |                                       |                                                                                        |
|-----------------|---------------------------------------|----------------------------------------------------------------------------------------|
| Swami Rama      | The Art of Joyful living              | The Himalayan International<br>Institute NIL, 24 A. Malviya<br>Nagar New Delhi-110017. |
| Davidson        | Anatomy and Physiology                | -----”-----                                                                            |
| Jone. H. Clarke | Diseases of the Heart and<br>Arteries | B. Join Pub. New Delhi                                                                 |
| Hutchinsons     | Clinical Methods                      | -----”-----                                                                            |
| Dr. G.D. Thapar | Keart Attecks                         | U.B.S. Pub. New Delhi.                                                                 |
| Davidson        | Clinical Methods                      | -----”-----                                                                            |
| A.G. Likhachev  | Diseases of the Ear, Nose &<br>Throat | Mir, Pub. Moscow                                                                       |

**Open Elective Paper****188 : Yoga and Spiritualism****Unit-1: Introduction:**

1. Definition, nature and scope of Spiritualism
2. Problems and perspectives of Spiritualism
3. Spiritualism compared with Philosophy, Religion , Ethics and Yoga

**Unit-II: The concept of self:**

1. Self and Consciousness
2. Panchakosha and discovery of Self
3. Jagrat, Swapna, Sushupti and Turiya
4. Self and Reincarnation

**Unit-III: Self-Consciousness:**

1. Consciousness and Materialism
2. The doctrine of Soul Substance and Personal Identity of Self
3. Absolute Consciousness and Self (Sat-Cit-Anand)

**Unit-IV: Concept of God:**

1. Theories of God and Proofs for the existence of God.
2. God - Cosmic Energy - Spiritual Globalization
3. God -Religious dialogue, adaptation of common spiritual values and unity of mankind

**Unit-V: God, Soul and World:**

1. God and His Creation.
2. The relationship of God with selves and world - Cycle,
3. Self-realization, God-realization
4. Bondage, release and means

**Books For Study:**

1. Siddhashrama B.P. (Ed) -Problems and Perspectives of Social Philosophy Vol. 4,
2. Siddhasharma. B.P. - Spiritual Globalization, Siddha Prakashana, No. 31, Siddharoodha Nagar, Srinagar, Dharwad - 3
3. Siddhasharma B.P. - Global Spiritualism Vol. 1.
4. Swami Muktananda Paramahansa - From the Finite to the Infinite, Krishnamurthy. J. - The meditative Mind, Krishnamurthy, Foundation, USA

#### **IV Semester**

D01 Bhagavdgeeta

D02 Yoga Therapy (Treatment)

D03 Yoga Practicals (Pract-IV)

D04 (i) Educational Tour Report

D05 (ii) Yoga Camp

D06 Project Dissertation

D07 Viva-Voce

#### **Core Paper**

D08 Yoga and World Peace

**D01: Bhagavdgeeta**

#### **Books for Study:**

Gorkpur Press

Geeta Press

Geeta publication

**D02: Yoga Therapy (Treatment)**

#### **Unit-I Line of Treatment:**

1. Tridosha Theory
2. Panca Kosha theory
3. 25 Tatva Theory
4. Modern Method
5. Set up for the treatment

**Unit-II. Effect of Yoga Therapy on:**

1. Digestive System
2. Cardio vascular System
3. Respiratory System
4. Endocrine System
5. Reproductive System
6. Nervous System

**Unit-III. Yoga therapy for following diseases:**

1. Diabetes mellitus
2. Hypo /Hyper tension, Heart problems
3. Allergy, Asthma, Breathlessness
4. Back pain, Joint pain, Arthritis
5. Digestive disorders, Ulcers, Obesity

Unit-IV. Dietics, Method, Basis, Implementation, Life style, Sleep, Bath, Work, Rest. Maintenance of record and Data follow up.

**Unit-V. Yoga therapy concept in:**

1. Patanjala Yoga Sutra
2. Hathayoga Pradipika
3. Gheranda samhita
4. Siva samhitap
5. Mandukya karika

**Books for Study:**

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| Hathayoga Pradipika                  | Kuvalayananda Kaivalyadhama Lonavala |
| Gheranda Samhita                     | Kuvalayananda Kaivalyadhama Lonavala |
| Siva Samhita                         | Chawkamba Varanasi                   |
| Mandukya Karika                      | -----”-----                          |
| Yogic Anatomy & Physiology           | Dr.M.M.Gore, Lonavala                |
| Yoga Therapy                         | Kuvalayananda Kaivalyadhama Lonavala |
| Scientific Survey of Yogic Practices | -----”-----                          |
| Asana Survey of Yogic Practices      | -----”-----                          |

### **D03: Yoga Practicals (Pract-IV)**

#### **A. Practical**

The following Yogic practices with brief theoretical knowledge about their importance (of name, the technique, benefits, salient features, precautions to be taken and advantages of each of the following Yogic practices, e.g. Kriyas, Asanas, Pranayama, Mudra and Meditation will be taught along with record writing.

#### **I. Kriyas:** Trataka Jattru Trataka & Jyothi Trataka

#### **II. Advance Asanas:** Matsyendrasana, Kapotasana, Hanumanasana, Gomukhasana, Setu Bhandha-Sarvangasana, Nataraj asana, Raj kapotasana, Kraunchasana, Marichyasana, Padma Shirshasana, Bharadwajasana, Yoga Nidrasana, Garbhasana, and Padangusthasana.

#### **B. Practical**

#### **I. Pranayamas:** (With Kumbhaka 1:4:2.)

Surya Bedhana, Chandra Bedhana, Ujjayee, Sheetali, Shitkari, Bhramari Bhastrika & Nadi Shodhana

#### **II. Banda Mudras:** Dhyana Mudra & Shanmukhi Mudra

#### **III. Meditation:** Amanaska, Turiya, Turiyatita, Nissamadhi, Yuthana & Universal Consciousness. Encompassing Cit alone in all the three states.

#### **Books for Study:**

|                    |                        |                                                    |
|--------------------|------------------------|----------------------------------------------------|
| Dr. M.L.Gharote    | Yogic Techniques       | The Lonaval Yoga Institute<br>India, Lonaval, 1999 |
| Swami Kuvulyananda | Asanas                 | Kaivalyadhama,<br>Lonavala, 1982.                  |
| Iyengar B.K.S      | Yoga Deepika (Kannada) | V.K. Yogas, Bangalore,<br>1989.                    |

### **D04: Educational Tour Report**

#### **(i) Educational Tour Report:**

**50 Marks**

There shall be an Educational Study Tour is compulsory for M.A. – IV Semester students. The students will be taken to any one or more than one of the recognized yoga centers in

India. Each student has to submit a study Tour Report which will be evaluated by the concerned teacher and also approved by chairman of the Dept.

**D05 (ii) Yoga Camp Report**

**50 Marks**

Each student has to organize two Camps i.e. one Yoga Training Camp and another Yoga Therapy i.e. Diagnosis & Treatment Camp not less than a week's period for each camp under the supervision of concerned Teacher of the Department and further the submit the Report I which will be evaluated by concerned teacher and also approved by the Chairman of the Dept. The above reports will be Scrutinized by the external Practical examiner all the time of Annual examination

**D06 Project Dissertation and Viva- voce**

**(80+20 marks)**

**(i) Project Dissertation**

**80 marks**

Shudent should select a topic under the eara of applied yoga and cary out an empirical study. Further prepare a dissertation following of the records method proporlly and submite to the department.

**D07 (ii) Viva-voce**

**20 marks**

There shall be dissertation Viva-voce exam, by the Board of Examiners at the end of all theory/practical examination

## **Core paper**

### **D08: Yoga and World Peace**

#### **Unit-I: Peace in Theory and Practice**

1. Yoga as Peace Science
2. Peace as non-injury, compassion, love, service and mutual aid
3. Peace with justice through non-violent action
4. Multi-dimensional aspects of yoga, peace, non-violence and development

#### **Unit-II: Conflict resolution and peace making**

1. Definition, nature and scope of conflict, inner conflict and outer conflict
2. Yogic methods of conflict resolution, meditation, mental and spiritual healing.
3. Peaceful methods of conflict resolution, negotiation, mediation, arbitration adjudication, role of gender, race, culture, language and religion in conflict situation
4. Yogic methods of annihilating Stress, Strain, Anger & Anxiety.

#### **Unit-III: Social aspects of peace**

1. Non-violent social change
2. Creating peaceful social structures
3. Mass violence, suicide, crime.
4. Yogic treatment for socio-individual disorders through developing Iccha, Kriya, & Jnana shaktis

#### **Unit-IV: Psychological Aspects of Peace**

1. Psychology of crime and deviant behavior
2. Psychology of nationalism, child abuse, adolescent aggression
3. Yogic treatment for the diseased individual / social psyche

#### **Unit-V: Gandhi's contribution to peace**

1. Gandhian Satyagraha model
2. Yoga education as value education
3. Education experiment, peace awards, role of UNO for establishment of peace

#### **Books for Study:**

1. Stene Marks : Peace, Development and Human Rights Education
2. Galung John : Violence and Peace Research
3. Magnus Haavelsred : Peace Education
4. Murthy. K.S: The Quest for Peace
5. Kenneth Boulding : Stable Peace

## **II. Ph.D .Degree programme:**

### **1. Title**

The course shall be called "**Doctor of Philosophy**" (Ph.D) in Yoga Studies

### **2. Duration:**

This shall be a full time Programme and is extended over a period of two academic years comprising of Four terms or as prescribed by the University from time to time.

### **3. Eligibility:**

Candidates who have obtained Master's degree in Yoga, Philosophy, Education, Physical Education, Psychology, Anthropology, Sanskrit and Medicine from any University in the state or from any other University recognized as equivalent thereto and comply with other eligibility requirements as prescribed by the University are eligible for admission to Ph.D. degree Programme in Yoga Studies.

Sd/-

Dean and Chairman BOS  
P.G. Dept. of Yoga Studies,  
Karnatak University, Dharwad.

***KARNATAKA UNIVERSITY***  
***DHARWAD SYLLABUS***

***CERTIFICATE COURSE IN YOGA  
STUDIES (C.Y.S)***

***W.E.F.2020-2021***

**KARNATAK UNIVERISTY DHARWAD**  
**DEPARTMENT OF YOGA STUDIES**

**PREAMBLE:**

Yoga is an integral part of Indian cultural and Spiritual heritage. The science of Yoga promotes physical, mental and spiritual health and also helps an individual to lead a happy and healthy life, thus bring harmony and peace in the society. In the modern days, the techniques of Yogic science are extremely useful in the management of stress and stress related disorders and promote positive health of an individual.

Karnatak Univeristy Dharwad has established the Department of studies in Yoga way back in the year 1976 and is the first University in Karnatak state and second in entire India which has started the Department of studies in Yoga, to impart comprehensive Yoga education with Provisions to grant higher degrees in Yogic studies. At present the Department of Yoga studies functions with following objectives.

**OBJECTIVES:**

1. To impart Yoga education and training for promotion of positive health and also for overall personality development of an individual.
2. To impart scientific training in Yogic studies (both theoretical and practical) to those desirous making a carrier in the professional field of Yogic teaching and to provide professional Yoga teachers to all levels of learning.
3. To train the students to undertake higher training and research in various aspects of Yogic science.
4. To organize short term Yoga training and Yoga therapy courses or camps, special lectures, workshops and seminars on Yoga for the benefit of students, teachers, ministerial staffs of the university and all sections of the society to promote positive health.
5. To promote and also to propagate the importance of Yogic science in modern days and take in to the common man.

**COURSES OFFERED**

The Dept. of Yoga Studies is now offering two regular courses each of one year duration and one MA course of two years duration:

1. Certificate Course in Yoga Studies (Part Time)
2. P.G. Diploma in yoga Studies (Full Time)
3. M.A in Yoga (Full Time)

## **COURSE STRUCTURE**

### **1. CERTIFICATE COURSE IN YOGA STUIDES (C.Y.S)**

**1. Title:**

The course shall be called “Certificate Course in Yoga Studies” (C.Y.S)

**2. Duration :**

The Course is extended over a period of one academic year comprising of two terms.

**3. Objectives :**

The Course is designed

- 3.1 To introduce Yoga and Yogic practices to promote positive health of an individual.
- 3.2 To provide training in theory and practice of Yoga allied subjects for development of personality of an individual at physical, mental, emotional and intellectual levels with a spiritual basis.
- 3.3 To train the students to undertake higher training and practice in Yoga

**4. Eligibility:**

- 4.1 A candidate seeking admission to certificate course in Yoga studies shall have passed the S.S.L.C (X) of Karnataka State or its equivalent thereto
- 4.2 Candidates are allowed to take admission to the CYS Course along with their studies in Under Graduate or Post Graduate course (i.e P.U.C., B.A, B.Sc, B.Com, M.A, M.Sc, M.Com, MBA, M.Phil, Ph.D etc).
- 4.3 Candidates who are in employment are also allowed to take admission to the said course.

**5. Medium of Instruction:**

English/Kannada

**6. Hours of Instruction:**

There shall be 4 hours of teaching work per week for every theory paper of 100 marks and 8 hours of teaching work per week for every practical paper of 100 marks.

**7. Intake Capacity:**

Maximum Hundred (100) candidates/ As prescribed by the University from time to time.

**8. Attendance:**

For admission to the said examination, candidates are required to keep two terms in the Department of Yoga Studies of this University. A students shall attend a minimum of 75% of the total instruction hours in a paper (theory/practical) in each term or as prescribed by the University from time to time

**9. Scheme of Examination:**

- 9.1 There shall be a University examination at the end of an academic year both in theory and practical papers.
- 9.2 Candidates are allowed to write the said examination either in English or in Kannada.
- 9.3 The duration of theory paper examination shall be of 3 hours.
- 9.4 Each theory paper of 100 marks shall comprise of 10 questions of 20 marks each from five units covering the entire syllabus. The student has to answer five questions out of Ten.
- 9.5 The duration of practical paper examination shall be of 4 hours and each practical batch shall contain a maximum of 12 candidates.

**10. Standard of Passing**

A candidate is required to obtain 40% of marks in each paper and 40% of marks in the aggregate for getting passed the said examination. A candidate must obtain 40% or more but less than 50% of aggregate marks for Pass class, 50% or more but less than 60% of aggregate marks for second class, 60% or more but less than 70% of

aggregate marks for a first class and 70% or more of aggregate marks for a first class with Distinction.

### 11. Reappearing Facility:

A candidate failing only in one or more theory papers or in a practical paper is allowed to reappear for only those paper/s in which he/she has failed. He/she need not reappear for the papers (theory or practical's) in which he/she has passed.

### 12. Scheme of papers and practical

| S. No. | Paper No. | Title of the Paper         | Total Marks | Hours of Instruction | Duration of Exam. |
|--------|-----------|----------------------------|-------------|----------------------|-------------------|
| 1      | C01       | Foundations to Yoga        | 100         | 4 hrs/week           | 3 hrs             |
| 2      | C02       | Yoga and Health            | 100         | 4 hrs/week           | 3 hrs             |
| 3      | C03       | Practical Training in Yoga | 100         | 8 hrs/week           | 4 hrs             |

### C01: FOUNDATIONS TO YOGA

Marks: 100

Duration: 4hrs/week

#### Unit-I: Introduction to Yoga

1. Etymology and definitions of Yoga.
2. Origin, history and development of Yoga.
3. Misconceptions, aims and objectives of Yoga.
4. Important schools of Yoga—karma yoga, jnyana yoga and bhakti yoga.

#### Unit-II: Yogic Practices for Common Man

1. Rules and regulations to be followed by a yoga practitioner.
2. Nature, types and importance of meditation.
3. Relevance of yoga in modern world.

#### Unit-III: Essence of Patanjali Yoga Sutra.

1. Introduction of Patanjali Yoga Sutra: Samadhipada, Sadhanapada, Vibhutipada and Kaivalyapada.
2. Concept of Chitta, Chitta-bhumis, Chitta-vrittis, Chitta-vritti nirodhopaya (Abhyasa and Vairagya).
3. Astanga Yoga :Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.

#### Unit-IV: Essence of Hatha Yoga Pradeepika. .

1. Meaning, nature, scope, aim and objectives of Hatha Yoga.
2. Introduction to Hatha Yoga Pradeepika text.
3. Technique and utility of hatha yoga practices: such as Asanas, Pranayamas, Kriyas, Bhandhas and Mudras etc..
4. Shat-chakras, their nature and importance in Hatha-yoga

#### Unit – V: Philosophical Foundations of Yoga

1. Introduction to philosophy, salient features of Indian Philosophy.
2. Concepts of Soul and moksha in important Indian philosophical systems( Buddhism, Jainism, Sankya-Yoga, Upanisads, Advaita, Vishistadvaita, and Dvaita).
3. Theory of Karma and Rebirth.

#### Books for Reference

- Swami Rama : Lectures on Yoga (The Himalaya International Yoga Institute, Pennsylvania, 1979)
- Joshi K. S.:Yoga in Daily Life (Orient Paper Backs, New Delhi, 1985)
- Ajitkumar: Yoga Pravesh (Kannada) (Rastrothana sahitya, Bangalore, 1990)
- Swami Digambaraji : Hatha Pradipika (Kaivalyadhama, Lonavala, 1982)
- Swami Digambarji & Gharote, M.L.:Gheranda Samhit (Kaivalyadhama, Lonavla, 1978)
- Naikar C.S.: Ghatashthayoga (Kannad)(Media Publisher, Dharwad, 1977)
- Naikar C.S.: Hatha Yoga pradeepika (Kannada) (Media Publishers, Dharwad, 2001)

- Burley, Mikel : Hatha Yoga, its Context Theory and practice (M.L.B.D. Delhi, 2000)
- Karambelkar, P.V.: Patanjali's Yoga Sutra (English)(Kaivalyadhama, Lonavala, 1989)
- Stephen Sturges: The Yoga Book (Motilal Banarsidass, Delhi, 2004)
- Swami Adidevananda :Patanjala Yoga darshan (Kannada) (Ramakrishna Math, Bangalore)
- Nadiger K.G. :Patajala Yogasara (Kannada)
- Karel Werner: Yoga and Indian Philosophy ((Motilal Banarsidas, Delhi, 1979)
- Swami Prabhavananda : Spiritual Heritage of India (English) Bharatiya Adhyatmika Parampare (Kannada) (Shri Ramkrishna Math, Madras, 2004)
- Kunhan Raja: Some Fundamental Problem in Indian Philosophy (Pub : Motila Banarsidass, 1974)
- Brij Bihari Nigam: Yoga Power (Dominant Publishers, Delhi, 2001)
- Swami Vivekananda: Jnana Yoga, Bhakti Yoga, Karmayoga, Rajayoga (Advaita Ashrama, Culcutta -200)
- Dr. N.G.Mahadevappa: Yoga Mattu Bharatiya Tattvashastra, Suyoga Prakasana, Chaitanya, 5<sup>th</sup> Cross Kalyana Nagara , Dharwad-580007, 2008.
- Vedanta Keshari Sri Mallikarjuna Mahaswamigalu: Patanjala Yogasutra, Jnyana Yoga Foundation, Bijapura, 2003.
- Dr. Chandramouli S. Naikar: Hathayogapradeepika, Medha Publishers, Sankalpa, Kalyana Nagar, Dharwad-7

## **C02 YOGA AND HEALTH**

Marks : 100

Duration:4hrs/week

### **Unit I: Concept of Health in Yoga**

1. Yogic concept of health and disease: concept of adhi and vyadhi; meaning and definitions.
2. Concept of Tridosha, Triguna, pancha-mahabhutas, pancha-prana, and their role in health and healing .
3. Concept of pancha kosha, shat-chakra and their role in health and healing.

### **Unit II: Nutrients and Yogic Principles of Diet**

1. Food: concept, components, functions and classification.
2. Nutrients: sources, functions and effects on body.
3. Yogic Diet: concept of ahara, mitahara, pathya and apathy.

### **Unit III: Introduction to Human Anatomy.**

1. Nine systems of human body (ie, circulation, nervous, muscular, skeleton, digestive, reproductive, endocrine, cardio-vascular and sensory organ): their basic knowledge structure and functions.
2. Cell and tissue: their Structure and functions.

### **Unit IV: Introduction to Human Psychology**

1. Meaning and definitions of Human Psychology.
2. Mental process: attention, sensation, perception, learning, memory, feeling and emotions.
3. Definitions and types of personality; Yoga and personality development.

### **Unit V: Yogic Management of Common Disorders**

1. Yogic management of frustration, conflict and stress.
2. Effect of Yogic practices on nine systems of human body and mind,.
3. Yogic treatment for common psychosomatic disorders.

### Books for Reference

- Iyengar B.K.S: Arogya – Yoga (Kannada) (Himagiri Graphics, Bangalore, 2000)
- Nagarathna R and Nagendra H. R.: Integrated Approach of Yoga Therapy for positive Health (Swami Vivekananda yoga Prakashana, Bangalore, 2001)
- Lajapt Rai And others: Human Food (Anubhava Rai publication, Gurgaon, 1999)
- Gore M.M.: Anatomy and physiology Yogic Practice (Kanchana Prakashana, Lonavala, 2004)
- Shirley Telles : A Glimpse of the human body (Pub : V.K. Yogas, Bangalore, 1995)
- Nadiger A.K. : Shareera Rachane mattu Gundharma Shastra (Kan) (Shareer shikshan prakashna, Dharwad, 2000)
- Bhatia H. R.: General Psychology (Oxford & IBH Publishing co., Calcutta, 1971)
- Sachdeva I.P. : Yoga and depth psychology (Motilal Banarsidas, Delhi, 1978)
- Nataraj P.K.: Samanaya Mano Vijanan, Vol. I & II (Kannada ) (Mysore University, Mysore )
- Nagendra H.R. & Nagaratna .R.: New Perspectives in Stress Management ( V.K. yoga Prakashana , Bangalore, 2001)
- Swami Kuvalyananda & Vinekar S.L. : Yogic Therapy ( Ministry of Health, Govt of India , New Delhi 1963)
- **Swami Satyanada Saraswati: Yogic Management of common diseases** ( Bihar school of Yoga, munger )
- Nagendra H.R. & Nagaratna R.: Samagra Yoga Chikitsa (Kannada) (Swami Vivekananda Yoga Prakashana, Bangalore, 2000)

### C03: PRACTICAL: PRACTICAL TRAINING IN YOGA

Marks : 100 (80+20)

Duration : 8hrs./week (6+2)

The student should know the technique and important features of the following Yogasanas, Pranayama, Meditation, Yogic Kriyas, Bandhas and Mudras and their practices.

#### I. Yogasanas

40 marks

- a. **Meditative Asanas** : Sukhasana, Padmasana, Vajrasana, Svastikasana,
- b. **Relaxative Asanas** : Shavasana, Makarasana, Vishramasana, Tadasana,
- c. **Cultural Asanas** : Urdhva Hastasana, Kati Chakrasana, Ardha Chakrasana, Padahastanasana, Trikonasana, Parivrita Trikonasana, Parshva Konasana, Yoga Mudra, Uttitha padmasana, Shashankasana, Baddha konasana, Ustrasana, Navasana, Vakrasana, Ardha Matsyendrasana, Gomukhasana, Paschimottanasana, Supta Vajrasana, Utthana Mandukasana, Akarna Dhanurasana, Baddha padmasana, Garbhasana, Bhujangasana, Shalabhasana, Dhanurasana, , Pavanamuktasana, , Sarvangasana, Matsyasana, Halasana, Chakrasana, Shirshasana and Mayurasana.
- d. **Yogic Surya Namaskara**

#### II. Pranayama & Meditation

20marks

1. Mechanism of correct breathing. 2. Yogic deep breathing 3. Concept of Puraka, Rechaka and Kumbhaka 4. Nadi Shodhana Pranayama, (with Kumbhaka) 5. Ujjayee, Sheetali and Bhramari Pranayamas (without Kumbhaka) 6. Recitation of Pranava japa and 7. Elementary practice of Meditation

#### III. Bandhas & Mudra

10Marks

1. Jalandhara Bandha. 2. Yoga Mudra. 3. Uddiyana Bandha. 4. Shanmukhi Mudra. 5. Mula Bandha. 6. Simha Mudra. 7. Jivha Bandha. 8. Vipareeta Karani

#### IV. Yogic Kriyas

10Marks

1. Neti, 2. Dhouti, 3. Nouti, 4. Basti, 5. Kapalabhati, 6. Trataka.

**V. Journal – Viva Voce**

20Marks

- a. **Journal** : The students have to write minimum ten assignments on different topics related to Yoga practical prescribed by the Yoga practical teachers. The journal has to be signed by the concerned practical teacher and the Chairman of the Department and shall be produced at the time of annual practical examination for evaluation.
- b. **Viva Voce**: There shall be a viva voce examination.

**Books for Reference**

- Swami Kuvulyananda : Asana (Kaivalyashama, Lonvala, 1982)
- Tiwari O.P.: Asana Why and How (Kaivalyadhama, Lonvala, 1991)
- Swami Satyananda Saraswati :Asana, Pranayama, Mudra, Bandha (Bihar School of Yoga, Munger, 1989)
- Yogeshwar: The Text Book of Yoga (Yoga centre Madras)
- Swami Satyananda : Surya Namaskar Saraswati (Bihar School of Yoga, Munger 1983)
- Swami Shivanand: Yogasanagalu (Kannada) (Bangalore Divya Jeevan Sangh, Bangalore, 1989)
- Tiruka : Yogasanagalu (Kannada) (Ananthashevashtama, Malladihalli)
- Nagendra, H. R.: The art and science of Pranayama (V.K. Yogas, Bangalore, 1993)
- Swami Kuvulyananda : Pranayama (Kaivalyadhama, Lonvala, 1983)
- Gharote, M.L.: Pranayama – The Science of Breath (The Lonvala Yoga Institue, Lonvala, 2003)
- Joshi, K. S.:Yogic Pranayama (Orient Paperback, New Dehli, 1990)
- Tiruka : Shtkriyeagalu (Kannada) (Ananthashevashtama, malladihalli)
- Nimbalkar S. P. :Yoga for health and Pease (Yoga Vidya Niketana, Bombay, 1992)
- Ajitkumar: Yoga Pravesha (Kannada) (Rastrothana Sahitya Parishat, Bangalore, 1992)
- Swami Yateeshwarananda : Dhyana Jeevan Deepika (kannada) (Ramkrishnashrama, Bangalore, 1984)
- Kattimani R. V. :Manashantigagi Dhyana (Kannada)(Usha Enterprises, Bangalore, 2004)
- Mandalika V.V.:Yoga Pravesha (kannada) (Yoga Vidya Dhama, Nasik, 2004)

***KARNATAKA UNIVERSITY***  
***DHARWAD SYLLABUS***

***1. POST GRADUATE DIPLOMA IN YOGA  
STUDIES (P.G.D.Y.S)  
W.E.F.2020-2021***

**KARNATAK UNIVERISTY DHARWAD**  
**DEPARTMENT OF YOGA STUDIES**

**PREAMBLE:**

Yoga is an integral part of Indian cultural and Spiritual heritage. The science of Yoga promotes physical, mental and spiritual health and also helps an individual to lead a happy and healthy life, thus bring harmony and peace in the society. In the modern days, the techniques of Yogic science are extremely useful in the management of stress and stress related disorders and promote positive health of an individual.

Karnatak Univeristy Dharwad has established the Department of studies in Yoga way back in the year 1976 and is the first University in Karnatak state and second in entire India which has started the Department of studies in Yoga, to impart comprehensive Yoga education with Provisions to grant higher degrees in Yogic studies. At present the Department of Yoga studies functions with following objectives.

**OBJECTIVES:**

1. To impart Yoga education and training for promotion of positive health and also for overall personality development of an individual.
2. To impart scientific training in Yogic studies (both theoretical and practical) to those desirous making a carrier in the professional field of Yogic teaching and to provide professional Yoga teachers to all levels of learning.
3. To train the students to undertake higher training and research in various aspects of Yogic science.
4. To organize short term Yoga training and Yoga therapy courses or camps, special lectures, workshops and seminars on Yoga for the benefit of students, teachers, ministerial staffs of the university and all sections of the society to promote positive health.
5. To promote and also to propagate the importance of Yogic science in modern days and take in to the common man.

**COURSES OFFERED**

The Dept. of Yoga Studies is now offering two regular courses each of one year duration and one MA course of two years duration:

1. Certificate Course in Yoga Studies (Part Time)
2. P.G. Diploma in yoga Studies (Full Time)
3. M.A in Yoga (Full Time)

## **COURSE STRUCTURE**

### **POST GRADUATE DIPLOMA IN YOGA STUDIES (PGDYS)**

#### **P.G DIPLOMA IN YOGA STUDIES (P.G.D.Y.S)**

**1. Title:**

The course shall be called “P.G. Diploma in Yoga Studies” (P.G.D.Y.S)

**2. Duration:**

This is a full time course and is extended over a period of one academic year comprising of two terms.

**3. Objectives:**

The Course is designed

- 3.1 To introduce Yoga and Yogic Practices to holistic health of an individual.
- 3.2 To impart scientific training in Yoga studies (both in theory and practical) and allied subjects to students desirous of making a career in the field of Yogic science and develop them to become Yoga teachers to teach Yoga at all levels.
- 3.3 To provide intensive training in theory, practice and teaching techniques of Yoga studies as are necessary to develop the basic knowledge, skill, techniques and attitudes in students to work with individuals, groups and communities.
- 3.4 To introduce the fundamentals of Yoga therapy and also to provide new avenues to the students to learn, practice and propagate the techniques of this ancient science.
- 3.5 To organize Yoga camps, workshops, symposia and seminars etc for the benefit of all sections of the society.
- 3.6 To train the students to undertake higher training and research in various aspects of Yogic science

**4. Eligibility:**

- 4.1 A candidate who has passed bachelors degree examination in any faculty of Karnatak University or any recognized university in India or abroad shall be eligible for admission to the P.G. Diploma in Yoga studies course and preference will be given to those who have successfully completed Certificate course in Yoga studies (one year duration) of this University or its equivalent thereto.
- 4.2 A candidate should be medically fit. A medical fitness certificate in this regard issued from the Health Centre, Karnatak University must be produced at the time of admission. Candidates suffering from any chronic disease are advised not to seek admission to this course.
- 4.3 No one who is in employment shall be allowed to join the P.G.D.Y.S Course without taking leave from his Institution/office etc. From the date of commencement of the academic session to the conclusion of the second term.
- 4.4 Students who are studying in P.G. Courses (e.g. M.A., M.SC., M.COM., M.B.A., M.Phil., Ph.D., etc.) as a regular student or in any other regular courses are not allowed to take admission to the above course. An undertaking in this regard should be produced at the time of admission.
- 4.5 There is no upper age limit for admission to the P.G. Diploma in Yoga Studies Course.

**5. Medium of Instruction**

English/ Kannada

**6. Hours of Instruction:**

There shall be 4 hours of teaching work per week for every theory paper of 100 marks and 8 hours of teaching work per week for every practical paper of 100 marks and their to.

**7. Intake Capacity:**

Maximum 40+10 candidates or

As prescribed by the University from time to time

**8. Attendance:**

For admission to the said examination, candidates are required to keep two terms in the Department of Yoga Studies of this University. A student shall attend a minimum of 75% of the total instruction hours in a paper (theory/ practical) in each term or as prescribed by the University from time to time.

**9. For women:**

The practical training classes for women may be arranged separately and conducted by a lady Yoga teacher. But they must be prepared to take up training from the male Yoga teacher also.

**10. Scheme of examination:**

- 10.1 There shall be a University examination at the end of an academic year both in theory and practical papers.
- 10.2 Candidates are allowed to write the said examination either in English or in Kannada .
- 10.3 The duration of theory paper examination shall be of 3 hours.
- 10.4 Each theory paper of 100 marks shall comprise of 10 questions of 20 marks each from five units covering the entire syllabus. The student has to answer five questions out of Ten
- 10.5 The duration of practical paper examination shall be of 4 hours and each practical batch shall contain a maximum of 8candidates.

**11. Standard of Passing**

A candidate is required to obtain 40% of marks in each paper and 40% of marks in aggregate for getting passed the said examination. A candidate must obtain 40% or more but less than 50% or more but less than 60% of aggregate marks for second class, 60% or more but less than 70% of aggregate marks for a first class and 70% or more of aggregate marks for a first class with Distinction.

**12. Reappearing Facility:**

A candidate failing only in one or more theory papers or in a practical paper is allowed to reappear for those paper/s in which he/ she has failed. He/she need not reappear for the papers (theory or practicals) in which he/ she has passed.

**13. SCHEME OF PAPERS AND PRACTICALS:**

| S.NO. | PAPER NO. | TITLE OF THE PAPER                | TOTAL MARKS | HOURS OF INSTRUCTION | DURATIN OF EXAMIATION |
|-------|-----------|-----------------------------------|-------------|----------------------|-----------------------|
| 1.    | Y01       | Traditional Yogic Texts           | 100         | 4hrs./week           | 3 hrs.                |
| 2.    | Y02       | Philosophical Foundations of Yoga | 100         | 4hrs./week           | 3 hrs.                |

|    |     |                                      |     |             |                        |
|----|-----|--------------------------------------|-----|-------------|------------------------|
| 3. | Y04 | Applied Yoga                         | 100 | 4hrs./week  | 3 hrs.                 |
| 4. | Y05 | Practical Training in Yoga           | 150 | 12hrs./week | 3 hrs.                 |
| 5. | Y06 | Teaching Methods for Yogic Practices | 50  | 4hrs./week  | 30 Minutes per student |
| 6. | Y08 | Human Biology & Psychology           | 100 | 4hrs./week  | 3 hrs.                 |
| 7. | Y09 | Project work and Journal             | 50  | -----       | ----                   |
| 8. | Y10 | Study Tour                           | 50  | -----       | ----                   |

### **Y01: TRADITIONAL YOGIC TEXTS:**

Duration: 4 hrs. Per week

Marks: 100

#### **SECTION A: HATH-YOGIC TEXTS**

Duration: 3 hrs. Per week

Marks: 60

#### **UNIT I**

1. Introduction of Hatha Yoga Pradeepika: Meaning, nature, relevance and aims of Hatha-Yoga
2. Introduction of Gheranda Samhita: shatkarma, asana, mudra, pratyahara, pranayama, dhyana and samadhi.
3. Introduction of Shivasamhita: liberation, nadis, pranas, success in yoga, asanas, mudras, mantrayoga and chakras.

#### **UNIT II**

1. Asanas: Types, techniques, prerequisites and benefits of yogasanas as per Hatayoga Pradeepika
2. Pranayama: Types, techniques, prerequisites and benefits of pranayama as per Hatha-yoga Pradeepika
3. Shatkriyas: Techniques and benefits of shatkriyas as per Hath-yoga Pradeepika

#### **UNIT III**

1. Bandhas and mudras: Concepts, definitions, techniques and benefit as per Hatha yoga pradeepika.
2. Shat-chakras: their nature, importance and utility of shat-chakras meditation
3. Concepts and benefits of nadha and nadhanusandana; nature of Samadhi.

## SECTION B : PATANJALI YOGA SUTRA

Duration: 1 hr.

Marks:40

### UNIT IV

1. Nature and introduction of Patanjali Yoga Sutra; Samadhi pada, sadhana pada, vibhuti pada and kaivalya pada.
2. Yoga, psychology: Chitta, chittabhumi, chitta-vrutti, chitta-vrutti nirodhopaya, chitta vikshepas and chittaprasadanam.
3. Ashtanga Yoga; concept of vasana.

### UNIT V

1. Theory of Klesha, kriya yoga, vibhuthis and kaivalya as per Patanjali Yoga Sutra
2. Concept of abhyasa, vairagya and Ishwar as per Patanjali Yoga Sutra
3. Nature and types of Samadhi as per Patanjali Yoga Sutra: ritambharaprajna and adhyatmaprasada; samprajnyata and asamprajnyata, sabeeja and nirbeeja samadhi.

### **BOOKS FOR REFERENCE**

1. Swami Digambarji and Pt. Raghunatha Shastri: Hatha pradeepika of Svatmarama kaivalyadhama, S.M.Y.M. Samiti LONAVALA, 1988
2. Swami Muktibodhananda Saraswati: Hath-yoga Pradeepika, The light on Hathayoga Bihar School of Yoga Munger,1985
3. Swami Digambarji and Gharate M.L.: Gheranada Samhita Kaivalyadhama, M.Y.N. Samiti, Lonavala,1978
4. Burley, Mikel: Hatha Yoga, Its context Theory and Practice, M.L.D.B.Delhi,2000
5. Paraddi.M.S. & Sannellappanavar L.V. : Hathapradeepika (Kannada), Utasahi prakashana, Dharwad, 1998
6. Naikar C.S.: Ghatasthayoga (kannada), Medha Publishers, Dharwad, 1997
7. Kunhan Raj : Hatha Yoga pradeepika with Jotsna The Adyar Library publications, Chennai2000
8. Ghosh, Shyam : The original Yoga , Munshiram Manoharlal, New Delhi, 1999
9. Burnier, Radha : Hathayoga pradeepika of Svatmarama ,The Adyar Library publications, Chennai, 2000
10. Swami Maheshanandaji and others : Shiova Samhita, Kaivalyadhama, S.M.Y.M. Samiti, Lonavala, 1999
11. Ghatore M.L. & others: Hatharatnavali of Srinivasyogi, The Lnavala Yoga Institute, Lonavala, 2002
12. Woodroffe, Sir John : The Surpent power, Ganesh & Company, Madras, 2000

13. Karambelkar P.V. : Patanjali Yoga Sutra , Kaivalyadhama, Lonavala, 1989
14. Timmi I.K. : The Science of Yoga ,The Adyar Library, Madras.
15. Woods J.H. : The Yoga System of Paptanjali ,M.L.D.B., Delhi, 1988.
16. Swami Vivekananda : Rajyoga ,Advaita Ashram, Culcutta,2000.
17. Swami Adidevananda : Patanjali Yoga Darshana (Kann.)
18. Swami Harshananda : Maharshi Patanjaliya Yoga Sutragalu (kannada), Ramakrishna Asharama, Mysore, 1996.
19. Iyengar B.K.S. : Light on Patanjali Yoga ,New York, Schocken Books, 1994.
20. Rukmini T.S. : Yopga Vartika Vijnanbhikshu (Tr.) Vol. I,II,III & IV , Munshiram Manoharlal Pvt. Ltd. New Delhi.
21. Swami Sir Omananadatirtha : Patanjali Yoga Pradeepa, Geeta Press, Gorakhpur, 1994.
22. Vedanta Keshari Sri Mallikarjuna Mahaswamigalu: Patanjala Yogasutra, Jnyana Yoga Foundation, Bijapura, 2003.
23. Dr. Chandramouli S. Naikar: Hathayogapradeepika, Medha Publishers, Sankalpa, Kalyana Nagar, Dharwad-7

## **Y02 : PHILOSOPHICAL FOUNDATIONS OF YOGA**

Duration: 4 hrs per week

Marks : 100

### **UNIT I : A BREF INTRODUCTION TO YOGA AND INDIAN PHILOSOPHY**

1. Introduction to philosophy: its nature, scope and branches.
2. Indian Philosophy: orthodox and heterodox schools, Salient features of Indian Philosophy.
3. Theory of Karma and rebirth
4. Relation between Yoga and Indian Philosophy

### **UNIT II : CONCEPT OF SOUL AND MOKSHA IN INDIAN PHILOSOPHY**

1. Concept of Soul and moksha in Upanishads.
2. Concept of Soul and moksha in Charvaka, Jainism and Buddhism.
3. Concept of Soul and moksha in Samkhya-Yoga, Advaita, Dvaita and Vishistadvaita philosophy

### **UNIT III : ORIGIN, HISTORY & DEVELOPMENT OF YOGA**

1. Nature, etymology, definition, aim, objectives and misconceptions of Yoga.
2. Origin, history and development of Yoga; Yoga in Shad-darshana, Vedas, Upanishads, tantra, Sufism, Jainism and Buddhism.
3. Contributions for the development of Yoga in modern times.

#### UNIT IV : SCHOOLS OF YOGA

1. Introductions to different kinds of Yoga:
2. Bhakti Yoga, Jnyana Yoga, Karma Yoga: their Philosophical foundations and practices.
3. Patanjali Yoga, Buddhist yoga, Kundalini Yoga and Shiva-Yoga : Their Philosophical foundations and practices.

#### UNIT V : YOGA IN BHAGVAD-GEETA

1. Introduction and essentials of Bhagavad Geeta from Chapters II,III,V, VI, XII & XVII
2. Samkhya Yoga and Dhyana Yoga
3. Karma-Yoga and Bhakti-Yoga
4. Gunatraya vibhaga yoga

#### **BOOKS FOR REFERENCE**

1. Kerala Werner : Yoga and Indian Philosophy (Motilal Banarsidas, Delhi,1979)
2. Radhakrishnan S. : Indian Philosophy (Vol. I & II) (George Allen and Unwin, London)
3. Swami Prabahvananda : Spiritual Heritage of India (English) Bharatiy Adhyatmika Parampare, (Kannada), (Sri Ramakrishna Math, Madras, 2004)
4. Dasgupta S.N. : Yoga as Philosophy and Religion (Kegan Paul, London, 1924)
5. Dasgupta S.N. : Yoga Philosophy in Relation to other Systems of Indian thought (university of Culcutta, Culcutta, 1924)
6. Sharma, Chandradhar : A Critical Survey of Indian Philosophy (Motilal Banarsidas, Delhi.1974)
7. Kunhan Raja : Some Fundamental Problems in Indian Philosophy ( Motilal Banarsidas, Delhi.1974)
8. Stace, W.T. : Mysticism & Philosophy (macmillan and co. London)
9. Dasgupta S.N. :Hindu Mysticism ( Motilal Banarsidas, Delhi.1927)
10. Stephen Sturges : The Yoga Book (Motilal Banarasidas, Delhi, 20-04)
11. Swami Jnananda : Philosophy of Yoga ( Sri Ramakrishnasharama, Mysore)
12. Bhat Edurkala Shankarnarayan. :Hindu dharmada parichaya (kannada) (Sri Ramakrishna Prakashana, Bhagmandala)
13. Swami Krishnananda : A short History of Religions and Philosophic Thought in India, (The Devine Life Society, Rishikesh,1973)
14. Fenerstein George: The Yoga Tradition: Its History, Literature, Philosophy and Practice, (Bhavana Books and Prints, 2002)

15. Swami Vivekananda : Jnana Yoga, Bhaktio Yoga, Karma Yoga, Raja Yoga (Advaita Ashrama, Culcutta)
16. Swami Atmananda : Four Yogas (Bhartiaya Vidyabhavana, Bombay, 1966)
17. Radhakrishnan S. : The Principal Upanishads (George Allen and Unwin, London, 1953)
18. Somanathananda : Upanishad Bhavadhare (Sri Ramakrishnashrama, Mysore, 1966)
19. Goyandaka Jayadayal : Sri Madbhagavadgita Tattvavivecani (Geeta Press, Gorakhpur, 1961)
20. Radhakrishnan S. : The Bhagvadgeeta (Routledge & Kegan Paul, London, 1960)
21. Swami Adidevananda : Sri Ramanuja Gita Bhasya (Sri Ramakrishnashrama, Mysore, 1993)

## **Y08 : HUMAN BIOLOGY AND PSYCHOLOGY**

### **SECTION - A : HUMAN BIOLOGY**

Duration: 2hrs. per week

Marks: 50

#### **UNIT - I:**

1. Cell: Structure and function of cell and tissues. Organs of human body.
2. Skeletal System: Types and functions of skeletal systems. Joints and classification of bones.
3. The Muscular System: Characteristics, structure and functions of body and skeletal muscles. Types of body muscles.
4. The Circulatory System: Structure and function of the heart. The mechanism of systemic and pulmonary circulation. The cardiac cycle. Composition and functions of blood. Blood groups and their importance. Blood Pressure.

#### **UNIT – II:**

1. The Respiratory System: Anatomy and physiology of respiratory system, its organs and functions. The process of respiration, lung volume and capacities
2. The Digestive System: Anatomy and physiology of digestive system. Alimentary canal and their functions. Physiology of digestion.
3. The Urinary System: Anatomy and physiology of urinary system, structure and functions of kidney. The Nephron and production of urine.
4. The Reproductive System : Anatomy of the male and female reproductive system, Functions of testis and ovary. The menstrual cycle.

#### **UNIT – III:**

1. The Endocrine System : The structure and function of the major endocrine glands. Hormones and their functions. Pituitary, thyroid, parathyroid, adrenal, pancreas and gonads.

2. The Nervous System : Gross anatomy of nervous system. Central nervous system. Peripheral nervous system, autonomic nervous system. The sympathetic and parasympathetic divisions. The Neuron.
3. Sense organs: (Vision, smell, hearing, taste and touch) their structure and pathways.

### **SECTION B : HUMAN PSYCHOLOGY**

Duration: 2 hr per week

Marks: 50

#### **Unit - IV: Human Psychology**

1. Human Psychology: The nature and scope of psychology, mental processes, the human behavior and psychological basis of behavior.
2. Mental Processes: attention, sensation, perception, learning, memory, feeling and emotion. States of consciousness, intelligence and its measurements, emotional intelligence. Motivation and multiple intelligence.

#### **Unit - V : Personality Development**

1. Personality : The nature and characteristics of personality, determinants of personality, types of personality, personality disorders, the yogic concept of personality and its development, psychosomatic problems and psychiatric ailments.
2. Mental Health: Means of mental health; positive mental health; mental disorders; yogic management of mental conflicts, stress, disorders; yoga for mental health, psychology of spiritual growth, spiritual values, pure consciousness and mode of living.

### **BOOKS FOR REFERENCE**

1. Gore M.M. : Anatomy and Physiology of Yogic Practices (Kanchana Prakashana, Lonavala, 2003)
2. Shirley Telles : A Glimpses of the Human body (V.K. Yogas, Bangalore, 1995)
3. Nadiger A.K. : Shareera Rachane mattu Gunadharma Shastra (Kann.) (Shareera Shikshana Prakashana, Dharwad, 1999)
4. Evelyn C. Pearce : Anatomy and Physiology for Nurses (Faber and Faber Ltd., London, 1968)
5. Chatterjee C.C. : Human Physiology (Vol. I & II) (Medical Allied Agency, Culcutta, 1992)
6. Munn N.L. : Introduction of Psychology (Oxford and IBH Publishing Co. Culcutta, 1967)
7. Bhatia H.R. : General Psychology (Oxford and IBH Publishing Co. Culcutta, 1976)
8. Nataraj P.K. : Samanya Mano Vijnan, (kannada) (Vol.I & II) (Mysore University, Mysore)
9. Hilgard E.R. and others : Introduction to Psychology (Oxford and IBH Publishing Co. Culcutta, 1975)

10. Sachdev I.P. : Yoga and Depth Psychology (Motilal Banarasidas, Delhi, 1978)
11. Coleman J. : Abnormal Psychology and Modern Life (Foresman, Scott, 1972)
12. Nagendra H.R. & Nagratna R. : New Perspectives in Stress Management (V.K. Yogas, Bangalore, 1988)

#### **Y04 : APPLIED YOGA**

Duration : 4 hrs per week

Marks: 100

##### **Unit - I : YOGA AND HEALTH**

1. Concept of health and disease according to yoga, WHO, ayurveda and naturopathy; dimensions of health: physical, mental, social and spiritual.
2. Concept of adhi and vyadhi; Concept of pancha kosha
3. Preventive, curative and promotive aspects of yoga
4. Yoga and principles of Diet
5. Yogic principles of healthy living: Ahara, Vihara, Achara, Vichara
6. Yogic practices for healthy living

##### **Unit - II : YOGA AS A THERAPY**

1. Meaning, scope, principles and practices of yoga therapy.
2. Effect of yogic practices on different systems of body and mind.
3. Food: its components, classification, nutrients. Panchprana, panch-bhuta, shat-chakra, tridosha, saptadhatu, and triguna
4. Concept of dinacharya, rutucharya, shadrutu, shodhana and shaman

##### **Unit - III : YOGIC MANAGEMENT OF DISORDERS**

1. Psychosomatic problems and psychiatric ailments
2. Examination of patient: complaints, history study of symptoms, investigation, diagnosis and treatment, follow up and review of systems.
3. Yogic management and treatment of common psychosomatic disorders of respiratory, digestive, cardio-vascular, nerves, bones and joint systems.
4. Yogic management of stress and stress related problems.

##### **Unit - IV : YOGA & RESEARCH**

1. Meaning, nature and concept of research in yoga

2. Problems, hypothesis, design, sampling in yogic research
3. Methodology in yogic research
4. Brief survey of research carried out in yoga such as scientific research, philosophic research, and therapeutic research.
5. Brief survey of research contributions of reputed yoga institutions.

#### Unit - V : YOGA EDUCATION

1. Meaning and purpose of yoga education; Role of teaching, learning, teachers and students in yoga education; Principles of teaching; quality of perfect yoga guru; yogic levels of learning, vidhyarti, shishya, mumukshu;
2. Methods of yoga teaching, factors influencing yoga teaching; teaching techniques of group teaching; techniques of mass instructions; organizations of teaching – time management, discipline etc..
3. Yoga and value education, contents of value education, methods of value education.

#### **BOOKS FOR REFERENCE**

1. Gharote M.L. : Applied Yoga (Kaivalyadhama Publications, Lonavala, 1990)
2. Gore M.M. : Anatomy & Physiology of Yogic Practices (Kanchana Prakashana, Lonavala, 2003)
3. Iyengar B.K.S. : Arogya – Yoga ( Kannada) (Himagiri Graphics, Bangalore, 2000)
4. Nagarathana R. & Nagendra H.R. : Integrated Approach of Yoga Therapy for Positive Health (Swami Vivekananda Yoga Prakashana, Bangalore 2001)
5. Nagendra H.R. & Nagrathana R. : New Perspectives in Stress Management (V.K. Yogas, Bangalore, 1988)
6. Nagendra H.R. & Nagrathana R. : Samagra Yoga Chikitse (Kannada) (Swami Vivekananda Yoga Prakashana, Bangalore 2000)
7. Lajpat Rai & others : Human Food (Anubhava Rai Publicationa, Giragaon, 1999)
8. Swami Kuvalyananda & Vinekar S.L. : Yogic Therapy (Ministry of Health, Govt. of India, New Delhi, 1963)
9. Swami Satyananda Saraswati : Yogic Management of Common Diseases (Bihar School of Yoga, Munger)
10. Shankar P.S. : Your Body in Health & Sicknes (Jaico Publishing House, Bombay, 1982)
11. Swami Kuvalyananda : Asana, Pranayama (Kaivalyadhama Publications, Lonavala)
12. Vaze D.R. : Swadhyaya and Yoga Therapy (Gokul masik Prakashan, Pune, 2002)
13. Fawley David : Ayurvedic Healing (MotilalBanarisidass, Ahamadabad, 1997)

14. Gandhi T.P. & others : Human Anatomy – Physiology and Health Education (B.S. ShahPrakashan, Ahmadabad, 2000)
15. Gharote M.L. & Ganguly S.K. : Teaching Methods for Yogic Practices (Kaikvalyadhama, Lonavala, 1988)
16. Nagendra H.R. & others : Yoga in Education (Kannada & English) (V.K.Yogas, Bangalore, 1994)
17. Kogler Aladar : Yoga for every Athlete (Jaico Publishing House, Delhi 1999)

### **Y05 : PRACTICAL TRAINING IN YOGA**

Marks: 150 (130+20)

Duration: 12hrs/week

#### **I. YOGASANAS:**

**60 Marks**

The theoretical knowledge, techniques, importance of the name, advantages and practices of the following yogasanas.

1. **Meditative Asanas** : Sukhasana, Padmasana, Vajrasana, Svastikasana, Siddhasana
2. **Relaxative Asanas** : Shavasana, Makarasana, Vishramasana, Tadasana Mechanism of correct breathing
3. **Cultural Asanas**: Vrikshasana, Urdhva Hastottanasana, Ardhakati Chakrasana, Ardha Chakrasana, Padahastanasana, Trikonasana, Parivrita Trikonasana, ParshvaKonasana, Utkatasana, Yoga Mudrasana, Uttitha Padasana, Shashankasana, Baddha Konasana, Navasana, Ustrasana, Akarna Dhanurasana, Vakrasana, Ardha Matsyendrasana, Gomukhasana, Parvatasana, Utthana Mandukasana, Janushirshasana, Paschimottanasana, Poorvottanasana, Supta Vajrasana, Bhujangasana, Shalabhasana, Dhanurasana, Pavanmuktasana, Sarvangasana, Halasana, Karnapeedanasana, Matsyasana, Chakrasana, Shirshasana and Mayurasana
4. **Advanced Asanas** : Vatayanasana, Garudasana, Hanumanasana, Padangusthasana, Natarajasana, Baddha Padmasana, Kukkutasana, Garbhasana, Bhujapeedasana, Bakasana, Kurmasana, Ugrasana, Matsyendrasana, Ekpada Shirshasana, Ekpada Rajakapotasana, Kapotasana, and Yoganidrasana
5. **Yogic Surya Namaskar**

#### **II. PRANAYAMA:**

**30 Marks**

1. Mechanism of correct breathing
2. Yogic deep breathing
3. Concept of Puraka, Rechaka & Kumbhaka
4. Nadi Shodhana Pranayama (with a Ratio of 1:4:2:1)
5. Surya Bedhana, Chandra Bedhana, Ujjayee, Sheetali, Shitkari, Bhramari and Bhastrika Pranayamas (with Kumbhaka and of suitable ratio)

#### **III. YOGIC KRIYAS:**

**20 Marks**

Kapalbhati, Jalaneti, Sutraneti, Vamna Dhauti, Vastra Dhauti, Jyoti Trataka, Agnisara, Nauli

**IV. BANDHAS & MUDRAS:****10 Marks**

Jalandhara Bandha, Yoga Mudra, Uddiyana Bandha, Shanmukhi Mudra, Mula Bandha, Simha Mudra, Jivha Bandha, Vipareeta Karani.

**V. MEDITATION:****10 Marks**

Recitation of pranava japa, hymns, antarmouna and elementary practice of pranava dhyana.

**VI.JOURNAL( Montly Progress Report) & VIVA-VOCE:****20 Marks**

1. **Journal (Monthly Progress Report):** The students have to write monthly progress reports of the progress made by them in yoga practical. The consolidated personal progress report with remarks and signature of yoga practical teacher/s and also the signature of the chairman of the department, shall be produced at the time of Annual Practical Examination for evaluation.
2. **Viva – voce :** There shall be a Viva-voce examination.

**BOOKS FOR REFERENCE**

1. Swami Kuvulyananda : Asana (Kaivakyadhama, Lonavala, 1982)
2. Tiwari, O.P. : Asana Why and How (Kaivalyadhama, Lonavala, 1991)
3. Swami Satyananda Saraswati : Asana, Pranayama, Mudra, Bandha (Bihar School of Yoga, Munger, 1989)
4. Iyenger B.K.S : Yoga Deepika (Kannada)
5. Yogiraj Behramji : Yogasana for Health (Himalayan Yoga Institute, 1989)
6. Dhirenra Bramhachari : Yogasana vijnana (Dhirendra Yoga Publications, New Delhi, 1989)
7. Tiruka : Yogasangalu (kannada)
8. Yogeshwar : The Text Book of Yoga (Yoga center, Madras)
9. Lajpat Rai : A Physiological Approach to Yoga (C.R.I.Y., New Delhi, 1996)
10. Lajpat Rai & others : Meditation : Techniques and their Scientific Evaluation (Anubhava Rai Publications, Guragaon 1999)
11. Iyengar B.K.S. : Pranayama Deepika (Kannada) (V.K.S. Yogas, Bangalore, 1991)
12. Swami Rama & others : Science of Breath (The Himalayan International Institute of Yoga Science, Pennselvenia, 1979)
13. Swami Kuvulyanada : Pranayama (Kaivalyadhama, Lonavala, 1983)
14. Nagendra, H.R. : The art and Science of Pranayama (V.K.S. Yogas, Bangalore, 1993)

15. Joshi K.S. : Yogic Pranayama (Orient Paperback, New Delhi, 1990)
16. Gharote M.L : Pranayama – The Science of Breath (The Lonavala Yoga Institute, Lonavala, 2003)
17. Ajitkumar : Yoga Pravesha (Kannada) (Rashtrothana Sahitya Parishat, Bangalore, 1984)
18. Tiruka : Shatkriyegalu (Kannada) (Ananthashevashrama, Malladihalli)
19. Swami Yateeshwarananda : Dhyana Jeevan Deepika (Kannada) (Ramakrishnashram, Bangalore, 1984)
20. Nimbalkar S.P. : Yoga for Health and Peace (Yoga Vidya Niketana, Bombay, 1992)
21. Prakash Yogi : Yogamruta Deepika (kannada) (Patanjali Yogashrama Trust, Bangalore, 2002)
22. Kattimani R.V. : Manashantigagi Dhyana (kannada) (Usha Enterprises, Bangalore, 2004)
23. Swami Yateeshwarananda : Dhyana Jeevan Deepika (Kannada) (Ramakrishnashram, Bangalore, 1984)
24. Mandalika V.V. : Yoga Pravesha (Kannada) (Yoga Vidya Dhama, Nasik, 2004)
25. Swami Satyananda Saraswati : Surya Namaskar (Bihar School of Yoga, Munger, 1983)

### **Y06 : TEACHING METHODS FOR YOGIC PRACTICES**

Marks : 50 (40 + 10)

Duration : 4 hrs. per week

#### **I. THEORY :**

**40 Marks**

1. Need of yoga teaching and yoga practice.
2. Principles and methods of yoga teaching/demonstration to an individual and a class
3. Sources and scope of yoga teaching/ demonstration methods.
4. Meaning, importance and method of yoga presentation and class management
5. Preparation of lesson plan in Yogic practices, organization of yoga camps, workshops and seminars.

#### **II. PRACTICE TEACHING :**

**10 Marks**

Each student have to prepare and give at least one lecture cum demonstration on different topics of Yoga and also should have to prepare and to teach five lessons on different aspects of Yoga such as asana, pranayama. One lesson should be on any one topic pertaining to common disease. These practices shall be under the supervision of their yoga practical teacher. The five practice teaching lessons and a lecture cum demonstration assignment should be presented at the annual practical examination for evaluation.

### **BOOKS FOR REFERENCE**

1. Gharote M.L. & Ganguly S.K. : Teaching Method for Yogic Practices (Kaivalyadhama, Lonavala, 1988)
2. Satyapad Duggal : Teaching Yoga (The Yoga Institute, Santacruz, Bombay, 1985)
3. Jaydev Yogendra : Yoga Cyclopedia (Vol. I,II & III) (The Yoga Institute, Santacruz, Bombay, 1990)
4. Nagendra H.R. & others : Yoga in Education (Kannada & English) (V.K.Yogas, Bangalore, 1994)
5. Swami Satyananda Saraswati : Yoga Education for Children (Bihar Schools of Yoga, Munger, 1990)
6. Mandaleek V.V. : Yoga Shikshana (Kannada) (Yoga Chaitanya Prakashana, Nasik, 2004)

**YOGA PRACTICALS – III:**  
**Y09 PROJECT WORK AND JOURNAL**

Total Marks: **50**

**I. PROJECT WORK 25**  
**Marks**

1. Here project work is to organize yoga camp/workshop. Each student of PGDYS should organize at least one yoga training camp/workshop of minimum of two weeks duration. The student should submit the camp/workshop report.
2. The camp/workshop should be under the guidance of a yoga teacher. The guide observes and evaluates the yoga training camp/workshop report. The report is signed by the guide and the chairman of the department.

**II. JOURNAL: 25**  
**Marks**

1. Each student has to submit a journal containing minimum of twenty assignments on different topics related to yoga studies, as prescribed by the yoga practical teacher/s.
2. The journal has to be evaluated and signed by the concerned teacher and the chairman of the department.

**YOGA PRACTICALS – IV**  
**Y10 STUDY TOUR**

Total Marks: **50**

**STUDY TOUR:**

1. There shall be at least one study tour for the PGDYS students and is compulsory.
2. The PGDYS students should be taken to at least one of the recognized yoga institutes / centers in India.
3. Each student has to submit the report of his/her observation of the tour.
4. The report is evaluated by the in-charge yoga teacher. It should be signed by the chairman of the department.

Note:

1. The camp or workshop / study tour/ journal shall be conducted in preferential order either during the midterm vacation or at the later part of the second term or at the end of the second term or as it is convenient to the department.
2. The camp or workshop reports, study tour reports and journals should be evaluated by the concerned in-charge teacher/s who must be yoga teacher/s and the marks should be submitted to the chairman of the department. The chairman of the department should examine and submit the marks lists to the concerned authorities.

# **KARNATAK UNIVERSITY, DHARWAD**



## **Regulations**

For

**MASTER OF SCIENCE**

**CHOICE BASED CREDIT SYSTEM (M.Sc. Zoology–  
CBCS)**



**2019-2020 & Onwards**

**KARNATAK UNIVERSITY, DHARWAD**



## **REGULATIONS**

**For**

## **MASTER OF SCIENCE**

**CHOICE BASED CREDIT SYSTEM (M.Sc. Zoology–  
CBCS)**

**From**

**2019-2020 & Onwards**

# **KARNATAK UNIVERSITY, DHARWAD**

## **Regulations concerning Master Degree Programme**

### **Faculty of Science, from 2019-2020**

#### **Master Degree Programme in Zoology (M.Sc. Zoology-CBCS)**

Regulations Governing the Post-Graduate Master Degree Programmes under Choice Based Credit System (KU-CBCS), framed under Section 44(1) (C) of K.S.U. Act, 2000.

#### **MASTER OF SCIENCE CHOICE BASED CREDIT SYSTEM (CBCS)**

##### **Title:**

These Regulations shall be called “Karnatak University Regulations Governing Post-Graduate under the Choice Based Credit System” for Master Degree programmes.

##### **Commencement:**

These Regulations shall come into force from the academic year 2019-2020.

##### **Definitions:**

In these Regulations, unless otherwise mentioned:

- a) “University” means Karnatak University:
- b) “Post-Graduate Programmes” means Master’s Degree Courses.
- c) “Compulsory Course” means a fundamental paper which a student admitted to a particular Post-Graduate programme should successfully complete to receive the Post-Graduate Degree in the concerned subject.
- d) “Specialization Paper” means an advanced paper due to departmental choice for students wanting to receive Degree in the specialization area:
- e) “Open elective” means a course offered by Department for students of other Departments in the same Faculty. Students have freedom to choose from a number of optional courses offered by other Department/s to add to their credits required for the completion of their respective programmes: however, if in a P.G. Centre there is only one Department for the time being, the students of that Department should study that open elective course.
- f) “Credit” means the unit by which the course work is measured. For this Regulation, one Credit means one hour of teaching work or two hours of practical work per week. Normally a Semester is of 16 weeks duration in any given academic year. As regards the marks for the courses, 1 credit is equal to 25 marks, 2 credits is equal to 50 marks, 3 credits is equal to 75 marks and 4 credits is equal to 100 marks as used in conventional system.
- g) “Grade” is an index to indicate the performance of a student in the selected course. These Grades are arrived at by converting marks scored in each subject by the candidate after completing his/her Internal Assessment and Semester end Examinations. Each course carries a prescribed number of the marks of credits. These

grades are awarded for each subject after conversion of the marks and after completion of the examinations in each semester.

- h) “Grade Point Average” of GPA refers to an indication of the performance of the student in a given semester. GPA is the weighted average of all Grades a student gets in a given semester. The GPA depends on the number of courses student takes and the grades awarded to him/her for each of the subjects so chosen.
- i) “Cumulative Grade Point Average” or CGPA refers to the cumulative Grade Point Averages weighted across all the semesters and is carried forward. The calculations of the GPA, CGPA is shown at the end of this regulation.

### **Minimum Eligibility for Admission:**

The students who have successfully completed the three year/four-year Degree course or any other Degree course of this University or of any other University recognized as equivalent there to by this University shall be eligible for admission to the Post Graduate Programmes under the KU-CBCS Programme provided they also satisfy the eligibility conditions like percentage of marks etc., as may be prescribed by the University and as per Ordinance of the course.

### **Entrance Test**

Candidate seeking admission to the course shall be required to appear for entrance test conducted by the University, for the 1<sup>st</sup> Semester.

### **Selection for Admission**

The selection of students shall be made on merit in each category of reservations as per the University rules for 1<sup>st</sup> Semester.

### **Intake**

The total number of candidates to be admitted to the course would be 52 only for the 1<sup>st</sup> semester. Seven seats are allocated to other University candidates of which one for other University within the state 6 and one for Outside state. Fifteen seats are under enhanced fee. Total Seats is 52.

### **Course of Study:**

The courses of study for M.Sc. Zoology degree shall comprise of Theory and Practicals as noted in the syllabus.

**Note: Specification of Degrees as per UGC notification dated March 2014 published in the Gazette of India, 5<sup>th</sup> July 2014 (Part III Section 4).**

### **Duration of the Programme:**

The programme of study for the Post-Graduate Master Degree shall normally extend over a period of two academic years each academic year comprising of two semesters, and each semester comprising of sixteen weeks of class work.

## **Medium of Instruction**

The medium of instruction and examination is English.

## **Minimum Credits and Maximum Credits:**

- a) There shall be two categories of courses viz., Compulsory course and Open Elective Course. Compulsory course should be from the concerned department only. The Open Elective are the courses offered by other Departments in the same Faculty.
- b) Each course shall have a definite course objective, Eligibility criterion for taking the course, scheme of Evaluation including the components of Internal Assessment (IA) marks, Projects (if any), the number of contact hours, type of practical and the prescribed credits.
- c) The credits for each of compulsory course may vary from 4 and 2 credits- theory and practical respectively. In case of Open Elective Course, it shall be 4 credits for each paper.
- d) A student shall register for minimum of 18 credits and a maximum of 30 credits per semester. However, to qualify for the degree in any Department under any school and faculty, he/she should have registered and cleared a minimum number of credits, which vary from course to course.

## **Course Structure:**

- a) The students of Post-Graduate Programme shall study the courses as may be approved and prescribed by the Academic Council of the University from time to time.
- b) A typical Master Degree program consists of a number of courses. This number varies from discipline to discipline. The term course is used to indicate a logical part of a subject matter of the programme (also referred to as paper). In essence the courses are of three types:
  - i. Compulsory Course
  - ii. Open Elective Course.
- c) Each programme shall have a set of compulsory course that a student must complete to get the degree in the concerned Department. These are distributed in each semester. There could be a minimum of such papers for each semester depending on the department.
- d) The students shall also choose a minimum number of specializations Course offered within the department. Each department will offer at least one specialization paper in the third and fourth semester. The Department, BOS and the Faculty may also have spell out the number of such specialization courses a student will have to take for the specialization. The Department offering of specialization course shall provide the flexibility in the system so that the student can opt for a variety of programmes depending upon their interest.
- e) Each department shall offer at least two Open Elective courses for the II and III Semester for students from other department. Student from the same department are generally not allowed to opt the courses offered as Open Elective course in the same department.
- f) Each course (paper) in this system is designed carefully to include lectures / tutorial/ Laboratory work/ seminars/ Project work/ practical training/ report writing/ Viva-voce

etc., to meet effective teaching and learning needs and the credits are assigned suitably.

- g) Master Degree Programmes are essentially semester system Programmes. There shall be 4 semesters in each Programme. There shall be two semesters for each year of the Programme. Each of the Semester will be of 16 weeks duration including evaluation and grade finalization period. The academic session in each semester will provide 90 teaching days with 48 hrs of teaching / learning periods in six days session per week.
- h) The normal calendar for the semester would be as follows:
  - i. I and III semester - August to November
  - ii. II and IV Semester - January to April

### Attendance

- a. Each paper shall be taken as a unit for the purpose of calculating the attendance.
- b. Each student will have to sign and mark his attendance for every hour of teaching of each paper. At the end of every month all teachers shall notify the attendance of every student on the Notice Board of the department during 2<sup>nd</sup> week of every month. Chairman shall certify the fulfilment of required attendance of every candidate in the Examination form.
- c. Certain proportion of the marks in Internal Assessment shall be awarded based on attendance as an incentive to the student for regularity in attendance.
- d. A student shall be considered to have satisfied the requirement of attendance for each paper, if he/she has to attend not less-than 75% of the number of classes held up to the end of the semester including tests, seminars, group discussions, practical, tutorials, etc.
- e. However, if a student represents his/her institution, University, State or Nation in sports, NCC, NSS of Cultural of any other officially sponsored activities, he/she shall be eligible to claim the attendance for the actual number of days participated subject to a maximum of 20 days in a semester based on the specific recommendation of the head of the Department.

### Course Outline for the M. Sc. Zoology

#### SEMESTER – I Theory

| Paper Code | Title of the Paper       | Max. Marks | Internal Assessment | Total Marks | Credits | Teaching Hrs. |
|------------|--------------------------|------------|---------------------|-------------|---------|---------------|
|            | <b>Compulsory Papers</b> |            |                     |             |         |               |
| PG87T101   | Biosystematics           | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG87T102   | Biology of non-chordates | 75         | 25                  | 100         | 4       | 4 Hrs / week  |
| PG87T103   | Biology of chordates     | 75         | 25                  | 100         | 4       | 8 Hrs / week  |
| PG87T104   | Environmental Biology    | 75         | 25                  | 100         | 4       | 4 Hrs / week  |

**SEMESTER - II**

| <b>Paper Code</b> | <b>Title of the Paper</b>  | <b>Max. Marks</b> | <b>Internal Assessment</b> | <b>Total Marks</b> | <b>Credits</b> | <b>Teaching Hrs.</b> |
|-------------------|----------------------------|-------------------|----------------------------|--------------------|----------------|----------------------|
|                   | <b>Compulsory Papers</b>   |                   |                            |                    |                |                      |
| PG87T201          | Molecular Genetics         | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T202          | Molecular Cell Biology     | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T203          | Animal Physiology          | 75                | 25                         | 100                | 4              | 8 Hrs / week         |
|                   | <b>Open Elective Paper</b> |                   |                            |                    |                |                      |
| PG87T204A         | Animal Behavior            | 75                | 25                         | 100                | 4              | 4 Hrs / week         |

**SEMESTER - III**

| <b>Paper Code</b> | <b>Title of the Paper</b>  | <b>Max. Marks</b> | <b>Internal Assessment</b> | <b>Total Marks</b> | <b>Credits</b> | <b>Teaching Hrs.</b> |
|-------------------|----------------------------|-------------------|----------------------------|--------------------|----------------|----------------------|
|                   | <b>Compulsory Papers</b>   |                   |                            |                    |                |                      |
| PG87T301          | Developmental Biology      | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T302          | Evolutionary Biology       | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T303          | Animal Biotechnology       | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
|                   | <b>Open Elective Paper</b> |                   |                            |                    |                |                      |
| PG87T304A         | Economic Zoology           | 75                | 25                         | 100                | 4              | 4 Hrs / week         |

**SEMESTER – IV**

| <b>Paper Code</b> | <b>Title of the Paper</b>             | <b>Max. Marks</b> | <b>Internal Assessment</b> | <b>Total Marks</b> | <b>Credits</b> | <b>Teaching Hrs.</b> |
|-------------------|---------------------------------------|-------------------|----------------------------|--------------------|----------------|----------------------|
|                   | <b>Compulsory Papers</b>              |                   |                            |                    |                |                      |
| PG87T401          | General and Comparative Endocrinology | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T402          | Biology of Reproduction               | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87T403          | Applied Zoology                       | 75                | 25                         | 100                | 4              | 4 Hrs / week         |
| PG87PW404         | ZCPJ-4.7 Project work                 | 75                | 25                         | 100                | 4              | 4 Hrs / week         |

## **Internship**

Nil

## **Submission of Dissertation**

- a) M.Sc. III semester students shall have to choose a topic for dissertation and preliminary preparation be carried out under the guidance of a teacher.
- b) M.Sc. –IV semester students shall have to submit the dissertation on the chosen topic, before the commencement of the theory examination.
- c) Candidates keeping terms but not appearing for the theory and practical papers and not submitted the dissertation within the prescribed time may appear for respective examination and submit the dissertation within the prescribed time.
- d) Candidates appearing for the examination under the provision of (c) will be not eligible for the award of any rank, prize, medal etc.

## **Evaluation:**

- a. Each Course has two components, the first being Internal Assessment Marks and the second being the Semester End Exams. The Internal Assessment (IA) marks are based on continuous Internal Assessment. The total marks for the Internal Assessment would be based on the total credit awarded to the Course. For instance, if a Compulsory Course has a Credit award of 4, then the total max marks would be 100 for the subject.
- b. The marks shall be displayed on the Notice Board of the Department also. The tests shall be written in a separately designated book and after evaluation; the same should be shown to students.
- c. In case of candidates who wish to appear in improvement examinations, if any, the marks obtained in the Internal Assessment shall not be revised. There is no improvement for internal assessment.
- d. To encourage the students for the regular participation in academic curricula following break-up for attendance has been recommended.

| <b>Attendance</b> | <b>Marks Allotted</b> |
|-------------------|-----------------------|
| 91 to 100%        | 3                     |
| 81 to 90%         | 2                     |
| 75 to 80%         | 1                     |

- e. Students seeking the condoning of attendance after representing the University have to produce attendance certificates from the concerned authority and that attendance period to condone of shall be considered for the allotment of marks as under.
- f. There shall be one end semester examination of 3 duration (for 75 marks/ paper). Each answer scripts of the semester end examination (theory and project report) shall be assessed by two examiners (one internal and another external). The marks awarded to that answer script shall be the average of these two evaluations. If the difference in marks between two evaluations exceeds 20% of the maximum marks such a script shall be assessed by third

external examiner. The marks allotted by the third examiner shall be average with nearer mark of the two evaluation

### **Completion of Course:**

- a. A candidate is expected to successfully complete P.G. Master Degree course in two years from the date of admission.
- b. Whenever the syllabus is revised, the candidate reappearing shall be allowed for PG Degree examinations only according to the new syllabus.

### **Declaration of Results:**

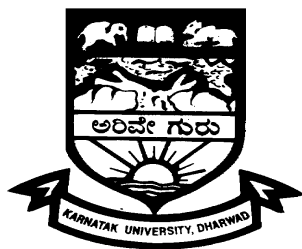
- a. Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examinations. However, candidate should obtain at least 40% of the marks in the Semester End Examination. There is no minimum in the IA marks. However, after adding the IA and the semester end examination, the candidates should score a minimum of 40 % of the maximum marks for the subject.
- b. The candidates, seeking improvement of their results shall submit a representation along with a permissible fee to the Registrar (Evaluation) and surrender the degree certificate/ provisional pass certificate /original marks card of that semester within 15 days of announcement of result.

### **Marks and Grading**

The grading of successful candidate at the examination shall be as follows:

| <b>Percentage</b> | <b>GPA/CGPA</b> | <b>Letter</b> | <b>Class</b>                 |
|-------------------|-----------------|---------------|------------------------------|
| 75.00 to 100.00 % | 7.50 to 10.00   | A             | First Class with Distinction |
| 60.00 to 74.90%   | 6.00 to 7.49    | B             | First Class                  |
| 50.00 to 59.94%   | 5.00 to 5.99    | C             | Second Class                 |
| 40.00 to 49.94%   | 4.00 to 4.99    | D             | Pass                         |
| Less than 40.00%  | Less than 4.00  | F             | Fail                         |

**KARNATAK UNIVERSITY, DHARWAD**



**SYLLABUS**

**For**

**MASTER OF SCIENCE**

**CHOICE BASED CREDIT SYSTEM**

**(M.Sc. – CBCS)**

## **PROGRAMME SPECIFIC OUTCOMES (PSOS)**

After successfully completing of M. Sc. Zoology Program, the students will be able to:

- Develop in-depth knowledge about the concepts of Zoology from the organism level to the molecular level. Understand the significance of animal taxonomy and systematics.
- Comprehend and interpret the evolutionary relationships among different animal groups.
- Learn the skills of handling various scientific equipment and perform the experiments.
- Explore various applied fields with the knowledge of sericulture, apiculture, fisheries, poultry, vermiculture and dairy farms etc.
- Communicate the importance of ecosystem, biodiversity its conservation and awareness about pollution control to the society.
- To acquire knowledge on the various aspects of Zoology including Molecular Cell Biology, Molecular Genetics, Physiology, Developmental Biology, Evolutionary Biology, Comparative Endocrinology, Biology of Reproduction, and Animal Biotechnology.
- Develop theoretical and practical knowledge in handling the animals and using them as model organisms.
- Develop skill in effective data presentation and dissertation writing.

**Semester-I**

| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PG87T101Biosystematics</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                               |
| <p>After completion of Biosystematics paper students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand the different species concepts, trends and approaches of taxonomy.</li> <li>• Study different collection, preservation and identification methods in animal science.</li> <li>• Understand the components and category classification, construct phylogenetic tree and its analysis.</li> <li>• Understand the fundamental principles of animal systematic and their analysis.</li> <li>• Classify animals according to their characters and understand the theories for classification.</li> <li>• Highlight the importance of International rules of nomenclature and classification of animals.</li> </ul> |                               |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Teaching Hours (Max. 48)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Unit I: Science of Biosystematics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Concept of Biosystematics, Terms used in systematic biology, Historical review of taxonomic philosophies, Future of taxonomic studies, Stages in taxonomy, Tasks of taxonomist, Systematics as a profession, Significance of taxonomy.                                                                                                                                                                                                                                                                                                                                                                                             | 04                              |
| Unit II: Species concept                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 06                              |
| Historical perspective of species concept (typological, nominalist, biological), kinds of species- sibling, sympatric, allopatric, syntopic, ring species, polytypic and monotypic species. Intraspecific groups (variety, morphs, subspecies, temporal subspecies, race and clines).                                                                                                                                                                                                                                                                                                                                              |                                 |
| Unit III: Taxonomic Collection, Preservation and Identification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10                              |
| Collection - Purpose, value, scope of collection, content of collection, significance of museum collections, legal aspects of collecting animals, post collection processes. Preparation and packaging of specimen for posting. Preservation - Methods, taxidermy, plastination, factors responsible for the deterioration of museum specimens. Curating of collections - museum collection policy, preparation of material for study, housing and cataloging, exchangeable and expendable materials and loans. Identification - Systematic process of sorting and labelling, procedure of identification; identification services |                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Unit IV: Trends and Approaches in Taxonomy                                                                                                                                                                                                                                                                                                                                                                                                                      | (08) |
| Morphological - General external structures, anatomy, special structures, Embryological and Cytogenetic, Ecological – Habitats and hosts, food, parasitism, seasonal variations. Behavioural – Ethological isolating mechanisms, courtship and behavioural patterns, Biochemical – Serological proteins, metabolic factors. Molecular – Major rRNA genes, Cytochrome B, Cytochrome C, Cytochrome C oxidase and other conserved sequences; Numerical approaches. |      |
| Unit V: Classification and Phylogenetic Analysis                                                                                                                                                                                                                                                                                                                                                                                                                | (10) |
| Components of classification; Procedure of classification (phenetic and cladistic), presentation of classification - Linnaean/Taxonomic hierarchy, ways of constructing a phylogenetic tree. Phylogenetic analysis - Purpose, terminology, methods of phylogenetic analysis (Phenetic method, dendrogram method, pairwise distance; Cladistics method, parsimony, maximum likelihood); phylogenetic lineages.                                                   |      |
| Unit VI: Application of Zoological Nomenclature                                                                                                                                                                                                                                                                                                                                                                                                                 | (10) |
| Taxonomic keys and their significance, taxonomic publications, International rules of nomenclature – Historical and contemporary situation; International Code of Zoological Nomenclature (ICZN); DNA bar coding, the taxonomic bottle neck, digitization of taxonomic data/ Bioinformatics.                                                                                                                                                                    |      |

| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PG87T102Biology of non-chordates | Teaching Hours (Max. 48) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------|
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                  |                          |
| After completion of Biology of non-Chordata paper students will be able to: <ul style="list-style-type: none"> <li>Understand the evolution of body plan and design in invertebrates.</li> <li>Study the systematic position and phylogeny of few invertebrate minor phyla.</li> <li>Learn the morphological adaptations with respect to different physiological functions in invertebrates.</li> <li>Understand special features, organs, life history and significance</li> </ul> |                                  |                          |
| Unit I: Coelom, Body plan and Phylogeny                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  | (8)                      |
| Symmetry and evolution of bilateria; Evolution and significance of coelom; evolution and significance of metamerism; Protostomia and Deuterostomia. Phylogeny and systematic position of Ctenophora, Entoprocta, Sipunculida and Ectoprocta.                                                                                                                                                                                                                                        |                                  |                          |
| Unit II : Locomotion and Nutrition                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  | (12)                     |
| Amoeboid, Ciliary and Flagellar movements in Protozoa; Ultrastructural aspects of flagella; Principle of hydrostatic skeleton; hydrostatic movement in Annelida; Flight movement in insect. Nutrition in Protozoa and lower Metazoan; Filter feeding in Polychaeta, Mollusca, Crustacea and Echinodermata; Feeding patterns in insects.                                                                                                                                             |                                  |                          |
| Unit III: Respiration and Circulation                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  | (10)                     |
| Respiratory organs in invertebrates – gills, lungs and trachea; Respiratory pigments - hemoglobin, hemocyanin, hemerythrin and chlorocruorin<br>Circulation – Patterns (open and closed types) with suitable examples                                                                                                                                                                                                                                                               |                                  |                          |
| Unit IV: Excretion                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  | (6)                      |
| Excretory organs – Flame cells, coelomoducts, nephridia and Malpighian tubules – Morphology and mechanisms.                                                                                                                                                                                                                                                                                                                                                                         |                                  |                          |
| Unit V: Nervous System                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                  | (7)                      |
| Trends in neural evolution: Primitive nervous system in Cnidaria and Echinodermata; Advanced nervous system in Annelida, Arthropoda and Mollusca; Brief review of sense organs in different phyla.                                                                                                                                                                                                                                                                                  |                                  |                          |
| Unit VI: Reproduction                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                  | (5)                      |
| Asexual, sexual and parthenogenetic modes of reproduction and their significance; Larval forms and their significance.                                                                                                                                                                                                                                                                                                                                                              |                                  |                          |

|                   |  |
|-------------------|--|
| <b>Practicals</b> |  |
|-------------------|--|

| <b>Paper Code and Name</b> | <b>PG87T103Biology of chordates</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours (Max. 48)</b> |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                            | <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                 |
|                            | <p>After completion of Biology of Chordata paper students will be able to:</p> <p>Understand the systematic and phylogenetic position of protochordates and their general organization.</p> <ul style="list-style-type: none"> <li>• Get an insight idea of origin, evolution and adaptive radiations of early vertebrates such as Cyclostomes and Pisces.</li> <li>• Trace out the origin and evolution of Amphibia, Reptilia, Aves and mammalia and their adaptive radiations.</li> <li>• Understand the adaptive radiations and the nature of endoskeleton in mammals.</li> <li>• Describe the comparative anatomy of integument and its derivatives, brain, kidney, heart and aortic arches in different vertebrates.</li> <li>• Discuss the different modes of adaptations in vertebrates.</li> <li>• To impart the knowledge with respect to taxonomic status of the entire chordates and the evolutionary model of the group, ecology of some important fishes, amphibians reptiles, birds and mammals.</li> <li>• Compare the structures of heart, aortic arches, kidney, balancing organ, hearing organ, thyroid, respiratory organs, brain of different animals.</li> </ul> |                                 |
|                            | UNIT I: Phylogeny, systematic position and organization of Protochordates<br>Phylogeny and systematic position of Urochordata and Cephalochordata. General organization in urochordates-ascidians, thaliaceans and larvaceans; General organization in amphioxus. Retrogressive metamorphosis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (6)                             |
|                            | UNIT II: Origin, evolution and adaptive radiations in early vertebrates<br>Origin of chordate; origin, evolution and adaptive radiations in cyclostomata; origin, evolution and adaptive radiations in Pisces – ostracoderms; placoderms; chondrichthyans; acanthodians; actinopterygians and sarcopterygians.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 06                              |
|                            | UNIT III: Origin, evolution and adaptive radiations in Amphibia, Reptilia and Aves<br><br>Origin, evolution and adaptive radiations in Amphibia – Early labyrinthodonts – stegocephalians, temnospondyls and lepospondyls; Lissamphibians. Origin, evolution and adaptive radiations in Reptilia – stem reptiles, pelicosaur and therapsids. Origin, evolution and adaptive radiations in Aves.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | (8)                             |
|                            | UNIT IV: Zoogeography, Adaptive radiations and Endoskeleton of Mammals<br>Zoogeography, origin and evolution of monotremes, marsupials and placentals, adaptive radiations in marsupials; dentition in mammals.<br>Overview of skull - cranium, jaws and hyoid apparatus; Axial skeleton – vertebrae, centra and ribs. Appendicular skeleton – pectoral girdle, pelvic girdle and organization of limb bones                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | (12)                            |
|                            | UNIT V: Comparative anatomy<br>Comparative anatomy of integument and its derivatives – organization of dermis and epidermis in vertebrates; teeth, feathers, hair, scales, mammary glands, nails, claws and hooves. Heart and aortic arches in anamniotes and amniotes; Anatomy of Brain in different vertebrates. Kidney in vertebrates – archinephric, pronephric, mesonephric and metanephric kidneys and their ducts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | (10)                            |
|                            | UNIT VI: Adaptations<br>Aquatic, aerial and terrestrial adaptations; Aerodynamics and mechanism of flight in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | (6)                             |

|  |                                 |  |
|--|---------------------------------|--|
|  | birds (wing as flight surface). |  |
|--|---------------------------------|--|

| <b>Paper Code and Name</b> | <b>PG87T104Environmental Biology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours (Max. 48)</b> |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
|                            | <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
|                            | <p>After completion of Environmental Biology paper students will be able to:</p> <ul style="list-style-type: none"> <li>• Understand and appreciate the environment and ecological services</li> <li>• Understand the biotic and abiotic factors of environment, biogeochemical cycle and intraspecific relationships of animals.</li> <li>• Acquire knowledge of ecosystem, food chain, energy flow and productivity and study pond as a model ecosystem.</li> <li>• Gain knowledge of habitat ecology, pollution and bioremediation of polluted environment and learn about biodiversity, its importance, conservation, and role of organizations involved in conservation of animals.</li> <li>• Think of climate change, the causes and its effect on the environment and biodiversity.</li> </ul> |                                 |
|                            | <p>Unit I: Introduction to Environmental Biology<br/>History, definition, importance, scope, divisions and awareness of environmental biology. Ecosystem: Concept, types, structure, components and productivity and functions of different ecosystems; Biogeochemical cycles. Ecological Succession: Definition, primary and secondary succession, influence of anthropogenic activities on succession.</p>                                                                                                                                                                                                                                                                                                                                                                                           | (10)                            |
|                            | <p>Unit II: Population Growth and Regulation<br/>Types of population growth, physical and biological factors regulating population, population pyramids, population explosion.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (4)                             |
|                            | <p>Unit III: Natural Resources<br/>Concept and classification of natural resources; Non-renewable resources- land, soil and mineral resources; Renewable resources- water, forest, wildlife, range lands, agriculture, livestock, aquaculture; Energy resources (renewable and non-renewable); Resource management and conservation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | (6)                             |
|                            | <p>Unit IV: Animal biodiversity<br/>Global and Indian biodiversity; Levels of biodiversity- genetic, species, ecosystem diversity; Endangered species; Values of biodiversity- consumptive, productive, social, ethical, aesthetic (ecotourism) and health values; Conservation of biodiversity- ex-situ and in-situ; Mega-biodiversity centers- National parks, sanctuaries and biosphere reserves, biodiversity hotspots; Threats to biodiversity; Human-wildlife conflicts; Organizations associated with biodiversity management.</p>                                                                                                                                                                                                                                                              | (12)                            |
|                            | <p>Unit V: Climate change<br/>Composition and structure of atmosphere; Climate- catastrophes and driving forces; Human caused climate change- ozone layer depletion, greenhouse gases and global warming, acid rain; Strategies for dealing with global warming.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (6)                             |
|                            | <p>Unit VI: Environment and human health<br/>Types of environmental health hazards- infectious organisms, Toxicants- chemicals, natural and synthetic toxins, heavy metals; Bioaccumulation and bio-magnification; Toxicity measurement- animal testing; environmental legislation and protection</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | (10)                            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Semester-II</b>                  |
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>PG87T201: Molecular Genetics</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |
| <b>PG87T201: Molecular Genetics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |
| After completion of Molecular Genetics paper students will be able to: <ul style="list-style-type: none"> <li>• Describe the gene regulation patterns in prokaryotes and eukaryotes.</li> <li>• Understand the dosage compensation mechanisms in a few invertebrates and vertebrates.</li> <li>• Explain the molecular basis of mutations and their impact.</li> <li>• Describe the gene transfer mechanisms in bacteria.</li> <li>• Understand the theories of classical genetics and blood group inheritance in man.</li> <li>• Describe the genetic variation through linkage and crossing over, chromosomal aberrations and sex determination.</li> <li>• Understand the genetic defects, inborn errors of metabolism and genetic and multifactorial diseases, counseling and role of inbreeding and outbreeding.</li> <li>• Understand the molecular structure of genetic materials and the mechanism of gene expression and regulation</li> </ul> |                                     |

| <b>PARTICULARS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Teaching Hours (Max.48)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Unit I: Mendelian and Modern Genetics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                |
| Overview of Mendelian principles and Post-Mendelian Genetics. Concept of alleles, complementation test, cistron, muton and recon.<br>Linkage and crossing over. Non-Mendelian inheritance.<br>DNA structure and functions: DNA as hereditary material – experiments; Watson and Crick model and alternate models of DNA, semi-conservative replication of DNA; DNA repair mechanisms; organization of prokaryotic and eukaryotic genomes. Replication: Enzymology of replication, initiation, elongation and termination; models of replication. Protein synthesis: Genetic code, colinearity hypothesis. Transcription, post-transcriptional modification. Translation: post-translational modification. | (12) Hours                     |
| <b>Unit II: Bacterial Genetics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                |
| Genetics of bacterium and bacteriophage: Transformation, transduction and conjugation in bacteria; F- mediated sexduction, mechanism of recombination in bacteria, Life cycles of bacteriophage, plasmids and episomes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (6) Hours                      |
| <b>Unit III: Gene Regulation in prokaryotes and Eukaryotes</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                |
| Gene regulation: Prokaryotes- operon model- positive and negative regulation; Eukaryotes - model of gene regulation, transcription factors, Cis and trans acting elements in eukaryotes. Dosage compensation in human, <i>Drosophila</i> and <i>Caenorhabditis elegans</i> . Genome imprinting.                                                                                                                                                                                                                                                                                                                                                                                                           | 8 Hours                        |
| <b>Unit IV: Chromosome abnormalities</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                |
| Variation in chromosome structure: cytogenetic implications of duplication, deletion, inversion, translocation and position effect. Transposons- transposable elements in bacteria and in eukaryotes. Mutations- spontaneous and induced mutations; Molecular basis of mutation, effect of mutations                                                                                                                                                                                                                                                                                                                                                                                                      | (6) Hours                      |
| <b>Unit V: Genetic Diseases</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                |
| Genetic diseases: Single gene inheritance; cystic fibrosis,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                |

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| sickle cell anemia, Marfan syndrome, Huntington's disease, and, hemochromatosis. Multifactorial inheritance: heart disease, high blood pressure, Alzheimer disease, arthritis, diabetes, cancer, and obesity. Chromosome abnormalities: Turner syndrome, Klinefelter syndrome, Down syndrome and Cri-du-chat syndrome. Mitochondrial inheritance: Leber's hereditary optic atrophy, epilepsy, myoclonic epilepsy and dementia. | (12) Hours |
| Unit VI: Genomics and Proteomics                                                                                                                                                                                                                                                                                                                                                                                               |            |
| Salient features of yeast, <i>Drosophila</i> and Human genomes; Evolutionary genomics; Proteomics.                                                                                                                                                                                                                                                                                                                             | (4) Hours  |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>PG87T202: Molecular Cell Biology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                         |
| After completing this paper, the students will be able to:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                         |
| <ul style="list-style-type: none"> <li>• Acquainted with scope of modern cell biology, principles and applications of different microscopes.</li> <li>• Study the molecular organization of biomembranes, structural and functional aspects of cell organelles, composition of prokaryotic and eukaryotic cells.</li> <li>• Understand the molecular structure and functions of chromosome biomolecule and their significance.</li> <li>• Understand immunology, cell cycle, apoptosis, cancer cell biology, properties and treatment of cancer cells.</li> </ul> |                                         |

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| <b>PG87T202: Molecular Cell Biology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours (Max. 48)</b> |
| Unit I: Introduction and Microscopy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |
| Scope of modern cell biology, Microscopy: Magnification, Limit of resolution, Resolution power. Types of microscopes: Phase contrast, Fluorescence, Transmission Electron, Laser Confocal microscopes- principle, structure and applications.                                                                                                                                                                                                                                                                                             | (04) Hours                      |
| Unit II: Molecular organization of biomembranes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Organization and composition of plasma membrane, Fluid mosaic model. Membrane fluidity- role of cholesterol. Membrane asymmetry. Transport across membranes (solutes, gases, ions and water); Passive and active transport, Cell junctions: types, structure and functions                                                                                                                                                                                                                                                                | (08) Hours                      |
| Unit III: Molecular organization and functions of cell organelles                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |
| Endoplasmic reticulum; Ribosomes – Structure, translation and translocation, nascent polypeptide chain, protein folding and processing. Golgi apparatus- signal hypothesis, protein glycosylation, protein sorting and transport, endocytosis and lysosome formation. Mitochondria – bioenergetics, oxidative phosphorylation, protein import and transport metabolites; Peroxisomes. Cytoskeleton- Molecular organization of microfilaments, Intermediate filaments and microtubules and their role in cell architecture and functioning | 8 Hours                         |
| Unit IV: Biomolecules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 |
| Amino acids- structure and classification, Peptide bond formation. Proteins - primary, secondary and tertiary structures. Polypeptide folding: Random coiling, Alpha helix and Beta sheet. Protein modifications - Glycoproteins, Proteoglycans and Lipoproteins. Carbohydrates - Complex polysaccharides. Lipids – Triglycerides and compound lipids                                                                                                                                                                                     | 8Hours                          |

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| Unit V: Nucleus and Chromatin Biology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |
| <p>Ultra structure of nucleus and functions. Molecular structure of chromosomes: Euchromatin and Heterochromatin; Role of histones in Packaging DNA; Nonhistone proteins; C- Value Paradox. Nucleolus – organization and functions.</p> <p>Unit VI: Cell Cycle, Apoptosis, Cancer biology and Immunology 13)</p> <p>Cell Cycle- Molecular events; Role of Cyclins and Cyclin Dependent Kinases (CDK) in cell cycle.</p> <p>Apoptosis - Mechanism and significance</p> <p>Cancer Biology - Benign and Malignant tumors; Characteristics and properties of cancer; Development and causes of cancer; Carcinogens; Oncogenes; Oncoviruses; Tumor suppressor genes; Diagnosis and treatment of cancer.</p> <p>Immunology: Cells and tissues of immune system, types of immunity, T and B lymphocytes; Cytokines, MHC molecules. Immunoglobulins: types, structure and functions of immunoglobulins.</p> | 7 Hours |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                           | <b>PG87T203: Animal Physiology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                         |                                    |
| <p>After completion of Animal Physiology paper students will be able to:</p> <ul style="list-style-type: none"> <li>Understand the entire animal's functions of the body, including nutrition, Respiration, blood circulation, excretion, nerve and muscle physiology etc.,</li> <li>Attain knowledge on the mechanism of osmoregulation and thermoregulation in animals.</li> </ul> |                                    |

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| <b>PG87T203: Animal Physiology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Teaching Hours (Max. 48)</b> |
| <b>Unit I: Introduction to Physiology and Physiology of Respiration and Blood</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |
| <p>History and central themes of Animal Physiology and its sub-disciplines</p> <p>Respiration: The atmosphere, solubility of gases, respiratory organs in the vertebrates; Respiratory mechanisms in aquatic and air breathing fishes, birds and mammals; respiration in eggs; Exchange of O<sub>2</sub> and CO<sub>2</sub> and transport. Oxygen dissociation curve.</p> <p>Blood - components and functions; acid-base balance regulation.</p> <p>Circulation: General principle, vertebrate circulation, the physics of flow in tubes, Hemostasis.</p> | 12 Hours                        |
| <b>Unit II: Water and Osmoregulation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |
| Properties of water molecules; Osmoregulation, osmoregulators and conformers; Obligatory exchanges of ion and water; Osmoregulatory organs; Osmoregulation in aqueous and terrestrial animals                                                                                                                                                                                                                                                                                                                                                             | 6 Hours                         |
| <b>Unit III: Temperature</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                 |
| Classification of animals based on thermal biology, Temperature relations of ectotherms, heterotherms and endotherms, specialized metabolic states – torpor, hibernation, and aestivation.                                                                                                                                                                                                                                                                                                                                                                | 6 Hours                         |
| <b>Unit IV: Feeding, Digestion and Energy metabolism</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |

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| Feeding methods and mobility of the alimentary canal; Physiology of digestion and absorption, gastrointestinal secretions; nutritional requirements (micro and macro).<br>Enzymes and metabolism: General properties, Regulation of metabolic reactions, Metabolic production of ATP; Efficiency of energy metabolism. | 12 Hours |
| Unit V: Movement                                                                                                                                                                                                                                                                                                       |          |
| Structural organization of contractile proteins of muscle-actin and myosin; Mechanism of muscle contraction; Adaptations of muscle for various activities – jumping, swimming, sound and flight.                                                                                                                       | 6 Hours  |
| Unit VI: Nervous system                                                                                                                                                                                                                                                                                                |          |
| Structural organization and functions of nervous system; Electrochemical, resting and action potential; Transmission of information within neuron, synaptic transmission (electrical and chemical); Neurotransmitters.                                                                                                 | 6 Hours  |

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| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PG87P201- MOLECULAR GENETICS PRACTICALS | Teaching Hours (Max. 48) |
| <b>PG87P201- MOLECULAR GENETICS PRACTICALS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |                          |
| <ul style="list-style-type: none"> <li>Study of polytene chromosomes in: a. <i>Chironomous</i> larva <i>Drosophila</i> larva</li> <li>Study of genetics of blood group in Man</li> <li>Study of X-chromatin or Barr body in buccal cell of Human</li> <li>Human Karyotype analysis: <ul style="list-style-type: none"> <li>a. Normal male</li> <li>b. Normal female</li> </ul> </li> <li>6. Human Karyotype analysis: <ul style="list-style-type: none"> <li>a. Down syndrome</li> <li>b. Cri-du-chat syndrome</li> <li>c. Klinefelter syndrome</li> <li>d. Turner syndrome</li> <li>e. Translocation <ul style="list-style-type: none"> <li>7. Study of <i>Drosophila</i> mutants <ul style="list-style-type: none"> <li>a. Normal male</li> <li>b. Normal female</li> <li>c. Yellow body</li> <li>d. Bar eye</li> <li>e. White eye</li> <li>f. Vestigial wing</li> <li>g. Ebony body</li> <li>h. Sepia eye <ul style="list-style-type: none"> <li>Study of sex comb and genital plate of different <i>Drosophila</i> species</li> <li>Study of karyotype of different <i>Drosophila</i> species</li> <li>Study of Sternopleural and Acrostical bristles and statistical analysis of <i>Drosophila</i></li> <li>Study of eye pigments of <i>Drosophila</i> by paper chromatography.</li> <li>Study of inversions of <i>Drosophila</i>.</li> <li>Any other practical depending on feasibility.</li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul> |                                         |                          |

| PARTICULARS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Teaching Hours<br>(Max. 48) |
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| <p><b>PG87P202- - MOLECULAR CELL BIOLOGY PRACTICALS</b></p> <ol style="list-style-type: none"> <li>1.Study of epithelial tissues: ciliated, columnar and squamous, etc.</li> <li>2.Study of nervous tissue: Myelinated and unmyelinated nerve cells</li> <li>3.Study of Muscular tissue : Smooth muscles, striated muscles and cardiac muscle</li> <li>4.Study of connective tissues ; Bone and cartilage; Blood cells – Neutrophils, Basophils, Eosinophils, Lymphocytes and Monocytes</li> <li>5.Estimation of DNA by Diphenylamine (DPA) method</li> <li>6.Estimation of RNA by Orcinol method</li> <li>7.Study of mitosis - observation of permanent slides</li> <li>8.Study of stages of Mitosis in onion root tips</li> <li>9.Study of meiosis – observation of permanent slides</li> <li>10.Study of stages of meiosis in grasshopper testis</li> <li>11.Histopathological examination (HPE) of normal and malignant cells.</li> <li>12.Preparation of stains and fixatives</li> <li>13.Observation of Lactobacillus from the curd sample</li> <li>14.Study of eukaryotes from rectal parasite of frog.</li> <li>15.Any other practical depending on feasibility.</li> </ol> |                             |
| <p><b>PG87P203- - ANIMAL PHYSIOLOGY PRACTICALS</b></p> <ol style="list-style-type: none"> <li>1.Qualitative analysis of carbohydrates</li> <li>2.Qualitative analysis of polysaccharides</li> <li>3.Qualitative analysis of proteins</li> <li>4.Qualitative analysis of lipids</li> <li>5.Total count of blood corpuscles</li> <li>6.Differential count of WBCs</li> <li>7.Estimation of blood clotting time</li> <li>8.Estimation of protein and hemoglobin</li> <li>9.Estimation of cholesterol and triglycerides</li> <li>10.Analysis of pathological contents of urine</li> <li>11.Estimation of glucose</li> <li>12.Identification of adulterants</li> <li>13. Any other practical depending on feasibility.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 48 Hours                    |
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>PG87T301: Developmental Biology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |
| After completion of Developmental Biology paper students will be able to: <ul style="list-style-type: none"> <li>Understand the process of development of animals, process of organogenesis of selected organs, development of extra, embryonic membrane and the nature and physiology of placenta.</li> <li>Learn the inducer and inductor role in embryogenesis and gaining knowledge about the metamorphosis and the process of regeneration. Familiar with various stages involved in the developing embryo. Understand the initial developmental procedures involved in Amphioxus, frog and chick. Ability to explain various Prenatal Diagnosis.</li> <li>Familiarise with the principle of developmental biology, various Techniques and tools of Embryology.</li> </ul> |                                        |

| <b>PG87T301: DEVELOPMENTAL BIOLOGY</b>                                                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours (Max. 48)</b> |
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| <b>Unit I: Introduction</b>                                                                                                                                                                                                                                                                                                                                                                                      |                                 |
| Overview of development, Anatomical and experimental approach to developmental Biology: embryological origin of gene theory, Evidence for genomic equivalence. Nuclear transplantation experiments in frog and mammal- the concept of totipotency. Nucleo-cytoplasmic interactions during early development in Ameoba and Frog.                                                                                  | (6)                             |
| <b>Unit II: Fertilization and early development</b>                                                                                                                                                                                                                                                                                                                                                              |                                 |
| Fertilization- Cellular and biochemical processes during early fertilization; Strategies for monospermy and prevention of polyspermy in conservation of species; Signal transduction and egg activation.                                                                                                                                                                                                         | 5Hours                          |
| <b>Unit III: Development in Drosophila</b>                                                                                                                                                                                                                                                                                                                                                                       |                                 |
| Genetic and molecular analysis of axis formation in <i>Drosophila</i> : Development of larva; Establishment of anterior, posterior, dorsal and ventral polarity; Role of maternal effect genes, segmentation genes and homeotic selector genes.                                                                                                                                                                  | 8 Hours                         |
| <b>Unit IV: Development in Amphibians</b>                                                                                                                                                                                                                                                                                                                                                                        |                                 |
| Genetic and molecular analysis of axes formation in amphibia: Mechanism of progressive determination of amphibian axes – the origin and molecular biology of Nieuwkoop centre, primary embryonic and regional specificity of induction: Organizer functions and its diffusible proteins.                                                                                                                         | 9 Hours                         |
| <b>Unit V: Cell differentiation and organogenesis</b>                                                                                                                                                                                                                                                                                                                                                            |                                 |
| Development of somites and differential cell proliferation in shaping organ primordia – Myogenesis – Determination of myotome, specification and differentiation by myogenic bHLH proteins, muscle cell fusion. Differentiation of neural tube - Primary and secondary neurulation, Differentiation of neural tube- Anterior-posterior axis, dorsoventral axis; Differentiation of erythrocytes - Hematopoiesis. | 10 Hours                        |
| <b>Unit VI: Post-embryonic development and Teratology</b>                                                                                                                                                                                                                                                                                                                                                        |                                 |
| Metamorphosis in Amphibia- Morphological, biochemical changes and molecular mechanism of hormonal regulation; Regeneration in Hydra, Planaria and Salamander. Growth- concept, isometric and allometric. Teratology: Causation of abnormal development, experimental studies; Teratogens.                                                                                                                        | 10 Hours                        |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>PG87T302: Evolutionary Biology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                       |
| After completion of Evolutionary Biology paper students will be able to:<br>1. Understand the contributions of evolutionary biologists and interpret various theories on evolution.<br>2. Identify the significance of evolution in understanding biology.<br>3. Explain the Hardy-Weinberg principle of genetic equilibrium and various forms of evolutionary forces.<br>4. Grasp the concepts of Neo-Darwinism and Non-Darwinism.<br>5. Get an insight into different mechanisms of speciation and origin of higher categories.<br>6. Understand the evolution of life histories, trade-offs and the evolutionary basis of aging.<br>7. Understand the theories of evolution and highlighted the role of evidences in support of evolution.<br>8. Learn the evolutionary knowledge through the concepts of coloration and mimicry.<br>9. Obtain the knowledge about direct observation of fossils and their evolutionary relationship of animal groups.<br>10. Understand the inheritance of mendelian traits by direct observation among students.<br>11. Acquire knowledge skill development and observation of blood group identification and pedigree chart preparations. |                                       |

| <b>PG87T302: Evolutionary Biology</b>                                                                                                                                                                                                                                                                                                                                                                                   | <b>Teaching Hours (Max. 48)</b> |
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| <b>Unit I: Introduction to evolution and Theories of evolution</b>                                                                                                                                                                                                                                                                                                                                                      |                                 |
| Evolution of evolutionary thoughts. Lamarckism; Natural Selection (Darwinism), Contributions of Charles Darwin, Alfred Russel Wallace, Thomas Malthus and Hugo de Vries; Postulates of Natural Selection and evidences; Natural Selection in action- Industrial melanism; Darwin's finches, Experimental evidences of Natural selection- Endler's guppies ; Concepts of inclusive fitness – altruism and kin selection. | 14 Hours                        |
| <b>Unit II: Neo-Darwinism</b>                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Hardy-Weinberg Law of genetic equilibrium; Genes and genotype frequencies, Concept of Mendelian Population and gene pool; Factors operating against Hardy-Weinberg Law; Selection - types of selection- balancing selection, frequency dependent selection, directional selection, disruptive selection, artificial selection; Random Genetic drift (Bottle neck effect, Founder's effect); Migration.                  | 10Hours                         |
| <b>Unit III: Non-Darwinism</b>                                                                                                                                                                                                                                                                                                                                                                                          |                                 |
| Molecular polymorphism: Nucleic acids and proteins; Molecular clock; Neutral theory of evolution and evolution random walk; Forces in evolution- stochastic vs deterministic.                                                                                                                                                                                                                                           | 4 Hours                         |
| <b>Unit IV: Speciation and origin of higher categories</b>                                                                                                                                                                                                                                                                                                                                                              |                                 |
| Reproductive isolation mechanisms – pre- and post-zygotic. An overview of speciation - allopatric, sympatric, peripatric and parapatric modes of speciation; Phyletic gradualism and punctuated equilibrium; micro and macroevolution                                                                                                                                                                                   | 6 Hours                         |
| <b>Unit V: The Evolution of Life histories</b>                                                                                                                                                                                                                                                                                                                                                                          |                                 |
| Basic questions in life history evolution; Life history trade-offs: Optimality arguments, age and size at maturation; clutch size and reproductive investment, empirical evidences of life-history trade-offs; Life span and aging; evolutionary theories for aging.                                                                                                                                                    | 10 Hours                        |
| <b>Unit VI: Impact of Darwin's thoughts in understanding human health and diseases</b>                                                                                                                                                                                                                                                                                                                                  |                                 |
| Darwinian medicine; Proximate versus ultimate causes of diseases; Design defects; Defense Mechanisms; Allergy; Evolution of antibiotic / Pesticide resistance; Evolution of behaviors such as anxiety, fear and depression.                                                                                                                                                                                             | 4 Hours                         |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>PG87T303: Animal Biotechnology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                       |
| <p>After completion of Animal Biotechnology paper students will be able to:</p> <ol style="list-style-type: none"> <li>1. Get knowledge about animal cell culture, growth of cell lines and its applications</li> <li>2. Understand gene and animal cloning through r DNA technology.</li> <li>3. Describe recombinant DNA technology, genetic manipulations and their use in a variety of industrial processes.</li> <li>4. Highlight the importance of transgenic animals and application of gene therapy.</li> <li>5. Understand the applications of animal biotechnology in production of various products, nanotechnology and its applications.</li> <li>6. Attain knowledge about the history, branches, scope of biotechnology and gene transfer technique.</li> <li>7. Understand the recombinant technology, gene integration into the vector and with host genome and creation of transgenic animals.</li> <li>8. Attain knowledge about in-vitro fertilization and embryo transfer.</li> <li>9. Understand the DNA finger printing, blotting technique and micro array.</li> <li>10. Describe the applications of stem cells and gene therapy and biotechnology devices, sterilization technique, and DNA isolation from cells and its use in animal identification.</li> </ol> |                                       |

| <b>PG87T303: Animal Biotechnology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours (Max. 48)</b> |
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| Unit I: Introduction<br>Concept, scope, development, current status and future of animal biotechnology                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 02 Hours                        |
| Unit II: Animal cell culture and Stem cell technology:<br>Animal cell culture: Cell culture techniques; Cell lines and storage. Equipments, Culture media, Applications of animal cell culture.<br>Stem cell technology: Types and properties of stem cells, Differentiation of stem cells, Advantages and disadvantages of stem cell technology.                                                                                                                                                                                                             | 10 Hours                        |
| Unit III: Gene and Animal cloning<br>Gene cloning: Method of gene cloning; Molecular tools; Restriction enzymes, ligases and other enzymes, cloning vectors; Selection and screening of transformed cells. Cloning strategies: Construction of genomic and cDNA library. Application of gene cloning.<br>Gene transfer techniques- Transformation; Microinjection; Electroporation; Polycations; Lipofection and Retroviral infection.<br>Animal cloning: Cloning in different animals with special reference to Dolly; Somatic cell nuclear transfer (SCNT). | 12 Hours                        |
| Unit IV: Transgenic Animals and Gene therapy<br>Transgenic animals: Importance of rDNA technology; Genetically Modified Organisms (GMOs), gene targeting, gene knock-out and knock-in technology, gene-silencing; Advantages and disadvantages of transgenic animals – ethical concerns.<br>Gene therapy: Methods; somatic and germ line therapy, gene therapy in animals and embryos.                                                                                                                                                                        | 8 Hours                         |
| Unit V: Application of Animal Biotechnology<br>Production of regulatory proteins (insulin, somatostatin); Whole blood; RBC; Platelet concentration, Albumin; Clotting factors, Hemoglobin. Anticoagulants (heparin, vitamins, plasminogen activator). Hybridoma technology - Production and applications of monoclonal antibody.<br>Recombinant vaccines; DNA vaccines, DNA probes, Biochips.                                                                                                                                                                 | 8 Hours                         |

| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>PG87P301 - DEVELOPMENTAL BIOLOGY (PRACTICAL)</b> | <b>Teaching Hours (Max. 48)</b> |
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| <b>PG87P301 - DEVELOPMENTAL BIOLOGY PRACTICALS</b><br>Study of different developmental stages of chick embryo in whole mounts. Study of transverse sections (T. S.) of chick embryos<br>Temporary mounting of chick blastoderms, embryos of different developmental stages and study of morpho-anatomical features of these embryos. Observation of development of <i>In vivo</i> cultured chick embryo by 'window method'.<br>Study of transverse sections (T. S.) of frog embryos and tadpoles.<br>Study of morpho-anatomical changes during metamorphosis in frog.<br>Study of development and life cycle of <i>Drosophila</i> :<br>a) Egg      b) I Instar      c) II Instar<br>d) III Instar      e) Pupal stage<br>Temporary mounting of cellular blastoderm, sex comb and halteres in <i>Drosophila melanogaster</i> .<br>Study of development and life cycle of mosquito.<br>Study of rat spermatozoa and ova.<br>Study of pre-implantation stages in mouse, <i>Mus musculus</i><br>a) Zygote      b) 2 cell embryo<br>c) 4 cell embryo      d) 8 cell embryo<br>e) Morula      f) Blastocyst with intact zona pellucida<br>g) Hatched blastocyst<br>13. Any other practical depending on feasibility. |                                                     |                                 |

| <b>PG87P302- Evolutionary Biology PRACTICALS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Teaching Hours (Max. 48)</b> |
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| <b>PG87P302- Evolutionary Biology PRACTICALS</b><br>1-2. Evidence for Principle of Evolution:<br>a. Homologous structures.<br>b. Serial homology.<br>3-4. Evidence for Principle of Evolution:<br>a. Analogous organs.<br>b. Vestigial organs.<br>5. Embryological evidence for evolution: Descent with modification.<br>6. Fossils and Living fossils.<br>7-8. Application of Hardy-Weinberg principle to determine allelic frequency of:<br>a. PTC trait in man<br>b. blood group trait in man<br>9. Experiment to elucidate the principle of overproduction that leads to struggle for existence.<br>10. Study to elucidate that every individual is unique and variations are universal.<br>11-12. Experiment to demonstrate how natural selection works:<br>a) alphabet analogy.<br>b) beetle survival.<br>13. Modification of structures for new function that have lost their original role.<br>14. Any other practical depending on feasibility. |                                 |
| <b>PG87P303- ANIMAL BIOTECHNOLOGY PRACTICALS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |
| <b>PG87P303- ANIMAL BIOTECHNOLOGY PRACTICALS</b><br>1. General requirements of animal biotechnology laboratory<br>2. Sterilization Techniques – Physical, Chemical & Radiation<br>3. Separation of Amino acids by paper chromatography                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 48 Hours                        |

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| 4. Identification of bacteria's through Graham's staining method<br>5. Cell viability test by using trypan blue<br>6. Extraction of DNA and RNA from animal tissues<br>7. Isolation of Casein, Lactose, and Albumin from Milk<br>8. Preparation of buffers used in animal biotechnology<br>9. Preparation of different types of media.<br>10. Protozoan's culture in laboratory as a model for cell culture<br>11. Demonstration of Agarose Gel Electrophoresis<br>12. Demonstration of PolyAcrylamide Gel Electrophoresis (PAGE)<br>13. Demonstration of Instruments used in animal Biotechnology<br>14. Cell Death during development (Apoptosis).<br>15. Any other practical depending on feasibility. |  |
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>PG87T401: General and Comparative Endocrinology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                        |
| After completion of General and Comparative Endocrinology paper students will be able to:<br>1.Explain the feedback mechanisms of hormonal action and their significance in homeostasis.<br>2.Discuss the hormonal regulation of calcium, glucose and intermediary metabolism.<br>3.Understand the biological actions of different hormones.<br>4.Describe the comparative anatomy of different endocrine glands.<br>5.Establish a link between immune system and endocrine system and elucidate the hormonal regulation of immune response.<br>6.Have an idea about the glands which works inside the body and secretes a chemical called hormone, their classification and regulation and antibody antigen reaction. |                                                        |

| <b>PG87T401: General and Comparative Endocrinology</b>                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Teaching Hours (Max. 48)</b> |
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| Unit I: Aim and scope of Endocrinology                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |
| Pioneers in Endocrinology - Discovery of hormones; Techniques in endocrinology; Hormones as chemical messengers - Classification of hormones.                                                                                                                                                                                                                                                                                                                         | 5 Hours                         |
| Unit II: Comparative anatomy of Endocrine glands                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |
| Endocrine hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal and pancreas; Neurovascular hypothesis.                                                                                                                                                                                                                                                                                                                                                      | 5 Hours                         |
| Unit III: Hormones – Homeostasis and Biological actions                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |
| Positive and negative feedback of hormone action. Calcium and glucose homeostasis; ormonal regulation of intermediary metabolism: carbohydrate, protein and lipid. Hormones and behaviour. Biological actions of hormones of hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal and pancreas.                                                                                                                                                             | 14 Hours                        |
| Unit IV: Mechanism of hormone action, Biosynthesis and secretion of hormone                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Hormone receptors- types and structure, regulation; Mechanism of hormone action- peptide hormone, receptor signal transduction, G proteins, Cyclic AMP, other membrane messengers - Protein kinase C; Phospholipase C. Mechanism of action of steroid hormones; Termination of hormone action. Biosynthesis and secretion of steroid hormones - corticosteroids and sex-steroids, Catecholamines, thyroid hormones, Peptide hormones- insulin; Hormonal inactivation. | 13 Hours                        |
| Unit V: Growth factors                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 |
| Insulin, Prolactin, placental lactogen and IGFs; Neurotrophic growth factors; Hematopoietic growth factors; Epidermal growth factors; Transforming growth factors; Fibroblast growth factors; Cytokines, chalone.                                                                                                                                                                                                                                                     | 5 Hours                         |
| Unit VI: Immunoendocrinology                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                 |

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| An overview of organization and function of immune system, effect of endocrine ablation and replacement on immune response; Sexual dimorphic immune response and its mechanism; Effect of pregnancy on immune response; Hormonal regulation of immune responses; Immuno-endocrine interactions involved in the immune response. | 6 Hours |
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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PG87T402Biology of Reproduction</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                        |
| After completion of Biology of Reproduction paper students will be able to:<br>1. Understand the overview of reproduction, differentiation of sex and gonads and their hormonal regulation, implantation gestation, parturition and lactation.<br>2. Describe the structure of the organs of the male and female reproductive system and their function like, spermatogenesis, oogenesis and folliculogenesis.<br>3. Describe the biological principles underlying contraceptive technology, compare and contrast the various options for control of fertility.<br>4. Explain how sexually transmitted disease will spread, its control and may contribute to altered neonatal or reproductive function. |                                        |

| <b>PG87T402Biology of Reproduction</b>                                                                                                                                                                                                                                                                     | <b>Teaching Hours (Max. 48)</b> |
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| Unit I: An overview of Reproduction                                                                                                                                                                                                                                                                        |                                 |
| Sex determination and differentiation of gonads, gonadal ducts and their hormonal regulation                                                                                                                                                                                                               | 4 Hours                         |
| Unit II: Male Reproductive system                                                                                                                                                                                                                                                                          |                                 |
| Anatomy of male reproductive system, Histo-architecture of testis, Spermatogenesis, Functions of Sertoli and Leydig cells; Seminiferous epithelial cycle and wave, Stem cell renewal. Hormonal control of spermatogenesis. Patterns of spermatogenesis and testicular cycles in non-mammalian vertebrates. | 10 Hours                        |
| Unit III: Male accessory reproductive organs                                                                                                                                                                                                                                                               |                                 |
| Functional morphology and hormonal regulation of epididymis, Vas deferens, Prostate gland, Seminal vesicle, Coagulating and Cowper's glands; Biology of spermatozoa, and Biochemistry of semen; Biological actions of androgens.                                                                           | 10 Hours                        |
| Unit IV: Female Reproductive system                                                                                                                                                                                                                                                                        |                                 |
| Anatomy of female reproductive system; Histo-architecture of ovary, Folliculogenesis, Follicular atresia, ovulation, Corpus luteum; Hormonal regulation of estrous and menstrual cycle; Biological actions of estrogens. Structure of ovary and ovarian cycles in non-mammalian vertebrates.               | 10Hours                         |
| Unit V: Implantation, Gestation, Parturition and Lactation                                                                                                                                                                                                                                                 |                                 |
| Types of implantation, sequential events and hormonal regulation, delayed implantation; Placenta – histophysiology and endocrine function, Endocrine regulation of pregnancy and parturition; Lactation– Development of mammary glands, Hormonal control of lactation.                                     | 8Hours                          |
| Unit VI: Fertility and Infertility                                                                                                                                                                                                                                                                         |                                 |
| Fertility control in male and females – Natural methods, barrier methods, intrauterine devices, hormonal contraceptives, surgical and immunological approaches; Amniocentesis; ARTs – Induction of ovulation, Artificial insemination, IVF, GIFT, ZIFT, Surrogate pregnancy, Gestational carrier.          | (06)                            |

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| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>PG87T403 Applied Zoology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                 |
| After completion of Applied Zoology paper students will be able to:<br>1. Get a holistic idea about the aquaculture, fisheries, apiculture, lac, poultry, dairy, vermiculture, sericulture, and their industries.<br>2. Understand the various types and methods of aquaculture practices and the physiology and reproductive mechanisms of important fishes.<br>3. Learn the modern techniques and methods of fishery industries.<br>4. Attain knowledge about important cultivable fin fishes, shell fishes and importance of value added fishery products.<br>5. Understand the culture of mulberry plants, methods of rearing <i>B. mori</i> .<br>6. Gain knowledge about quality determination of mulberry silk and marketing strategies.<br>7. Describe the diseases and pests of <i>B. mori</i> . |                                 |

| <b>PG87T403 Applied Zoology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Teaching Hours (Max. 48)</b> |
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| <b>Unit I: Vermiculture</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                 |
| Life cycle of earthworm; Establishment of vermiculture unit; Earthworm as a tool for conversion of waste material into vermicompost; Types of earthworm; Earthworm as Fish and Poultry feed; Vermiwash.                                                                                                                                                                                                                                                                                                                                                                                                            | 6 Hours                         |
| <b>Unit II: Apiculture and Sericulture</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |
| Apiculture: Life cycle, foraging and colony organization in different species; Bee keeping practices in India. Composition and uses of honey; Bee products; Lac insect- life cycle, cultivation and uses of Lac.<br>Sericulture: Classification of silkworms based on moultnism, voltinism and geographical distribution; Popular silkworm breeds and hybrids. Life cycle of <i>Bombyx mori</i> ; Diseases and pests of silkworm: protozoan, bacterial, viral and fungal diseases (mode of infection, transmission, prevention and control measures).                                                              | 12 Hours                        |
| <b>Unit III: Insect Pest Management</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |
| Crop pests: Life cycle and damage caused by pests of cotton, sorghum, pulses and fruits. Household pests; Integrated Pest Management. Mass multiplication of bio-control agents.                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6 Hours                         |
| <b>Unit IV: Parasitology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |
| Kinds of vectors and blood sucking dipterans; Important human and veterinary parasites (Protozoan and Helminthes), Host- parasite interactions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6 Hours                         |
| <b>Unit V: Fisheries</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Freshwater, brackish water and marine fisheries resources of India and its importance. Culture of Exotic fishes; Composite fish culture; Induced breeding. Cold water fisheries, Shell fisheries. Preservation and processing of fish and fish by-products                                                                                                                                                                                                                                                                                                                                                         | 8 Hours                         |
| <b>Unit VI: Poultry and Dairy science</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                 |
| Poultry: Indigenous and Exotic Poultry Breeds. Techniques and methods of breeding; Poultry products; Nutritive value of egg and meat. Poultry diseases: Viral, bacterial, fungal, protozoan and Helminth diseases and their control, vaccines for infections.<br>Dairy science: Indigenous and Exotic breeds. Principles and methods of breeding. Modern trends in breeding dairy animals. Dairy products: Processing, preservation and marketing of milk and milk products. Nutritive value of milk. Dairy pathology: Viral, bacterial and parasitic (Endo-Ecto) infections. Vaccination and control of diseases. | 10 Hours                        |

| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>PG87P401GENERAL AND COMPARATIVE ENDOCRINOLOGY (PRACTICALS)</b> | <b>Teaching Hours (Max. 48)</b> |
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| <b>PG87P401GENERAL AND COMPARATIVE ENDOCRINOLOGY PRACTICALS</b><br>Display of endocrine glands in rat.<br>Study of pituitary and pineal glands in rat.<br>Study of pituitary and pineal glands in fish.<br>Preparation of fixatives and stains, fixation of all endocrine glands as per the protocol.<br>5-6. Processing of following endocrine glands for histology:<br>a) Ovary                      b) Testis c) Adrenal<br>d) Thyroid with Parathyroid e) Pancreas – Islets of Langerhans<br>7-8. Comparative histoarchitecture of following endocrine glands (fish to mammals): Pituitary gland. Thyroid and parathyroid<br>Pancreas Adrenal and inter-renal glands<br>9-10. Enzyme histochemistry - localization of steroid dehydrogenase enzyme activity ( $\Delta^5$ -3 $\beta$ -HSDH and 17-3 $\beta$ -HSDH) in the adrenal, ovary and testis of rat.<br>11. Estimation of Acetylcholinesterase enzyme (AChE) activity.<br>12. ELISA- Quantitative measurement of sex steroid hormones in serum of rat.<br>13. Any other practical depending on feasibility. |                                                                   |                                 |

| <b>PG87P402BIOLOGY OF REPRODUCTION PRACTICALS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Teaching Hours (Max. 48)</b> |
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| <b>PG87P402BIOLOGY OF REPRODUCTION PRACTICALS</b><br>Study of estrous cycle in rat<br>Study of mammalian ovary- Primordial follicle, primary follicle, antral follicle, Graafian follicle, corpus luteum, corpus albicans and atretic follicles.<br>Study of female accessory reproductive organs in rat<br>- T. S. of Fallopian tube<br>- T.S. of Uterus<br>4. Induction of pseudopregnancy in rat.<br>5. Histology of testis and male accessory reproductive organs in rat<br>- Epididymis<br>- Seminal vesicles<br>- Coagulating glands<br>- Ventral prostate and<br>- Cowper's glands / Bulbourethral gland.<br>6. Androgen bioassay in rat.<br>7. Study of abnormal spermatozoa in rat.<br>8. Quantification of number of sperms in rat epididymal fluid.<br>9. Comparative anatomy of the ovary in non- mammalian vertebrates<br>- T. S. of Fish ovary<br>- T. S. of Amphibian ovary<br>- T. S. of Reptilian ovary<br>- T. S. of Bird ovary<br>10. Comparative anatomy of the testis in non- mammalian vertebrates<br>- T. S. of Fish ovary<br>- T. S. of Amphibian ovary |                                 |

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| <ul style="list-style-type: none"> <li>- T. S. of Reptilian ovary</li> <li>- T. S. of Bird ovary</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                    |
| 11. Pathology of Reproductive system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>- Cryptorchid testis, Prostate cancer</li> <li>- Polycystic ovary, Endometriosis</li> </ul> |
| 12. Contraceptive methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>- Intra-uterine device</li> <li>- Hormonal</li> </ul>                                       |
| contraception                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                    |
| 13. Any other practical depending on feasibility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                    |
| <b>PG87P403- APPLIED ZOOLOGY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>48 hours</b>                                                                                                                    |
| <b>PG87P403- APPLIED ZOOLOGY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                    |
| 1.Vermitechnology: Study of Digestive system in Earthworm.<br>2.Vermitechnology: Mounting of setae, blood glands, nephridia and ovary of Earthworm.<br>3.Apiculture: Bee keeping appliances: Study of digestive system in Honey bee.<br>4.Apiculture: Mounting of poison apparatus, pollen basket, pollen brush, wax glands and mouth parts of Honey bee.<br>5.Insect pest management: Study of agricultural and horticultural pests and bio control agents.<br>6.Parasitology: Study of pathogenic parasites.<br>7.Fisheries: Economically important freshwater fishes: ( <i>Catla catla</i> , <i>Labio rohita</i> , <i>Cirrhinus mrigala</i> , <i>Cyprinus carpio</i> , <i>Wallago attu</i> , <i>Clarius batrachus</i> , <i>Mystus seengala</i> and <i>Channa punctatus</i> ).<br>8.Fisheries: Marine fishes: Sardine, Mackerel, Trygon, Scoliodon, 9.Bombay duck and Pomfret). Shell fishes: Prawn, Pearl oyster and Sepia.<br>10.Silkworm Biology: Life cycle of <i>Bombyx mori</i> . Study of digestive system of larva. Mounting of silk gland and spiracles.<br>11.Study of Silkworm pathogens.<br>12.Dairy Science: Study of Different breeds: Study of Ecto and endo parasites (Mode of infection, prevention and control measures).<br>13.Poultry: Study of Different breeds: Study of Ecto and endo parasites. (Mode of infection, prevention and control measures).                                                                                                                                                                                                                                                |                                                                                                                                    |
| <b>REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                    |
| <b>REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | OPEN ELECTIVE COURSES (OEC) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Paper Code and Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PG87T204A-Animal Behaviour  |
| COURSE OUTCOMES (COs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             |
| After completion of Animal behavior paper students will be able to:<br>1.Learn a wide range of theoretical and practical techniques used to study animal behavior<br>2.Develop skills, concepts and experience all aspects of animal behavior.<br>3.Objectively understand and evaluate information about animal behaviour and ecology encountered in our daily lives.<br>4.Evaluate the role of behaviour in the protection and conservation of animals in the wild.<br>5.Consider and evaluate behavior of all animals, including human in the complex ecological world including the urban environment. |                             |

| <b>PG87T204A-Animal Behaviour</b>                                                                                                                                                                                                                                                                                                                                |  | <b>Teaching Hours (Max. 48)</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------|
| <b>Unit I: Introduction to Animal Behavior</b>                                                                                                                                                                                                                                                                                                                   |  |                                 |
| Animal Behavior: Introduction, definition and history (Lorenz, Tinbergen, von Frisch); Questions about animal behavior                                                                                                                                                                                                                                           |  | 4 Hours                         |
| <b>Unit II: Development of Behavior</b>                                                                                                                                                                                                                                                                                                                          |  |                                 |
| Behavior and genes; Innate behavior; Parent-offspring interaction; Imprinting- Filial Imprinting and Sexual imprinting; Instinct- Interaction between instinct and learning                                                                                                                                                                                      |  | 8 Hours                         |
| <b>Unit III: Learning</b>                                                                                                                                                                                                                                                                                                                                        |  |                                 |
| Definition and forms learning: Habituation; Associative learning/ conditioning (Classical conditioning- Pavlov; Operant conditioning, instrumental learning, Skinner), Spatial learning; Insight learning; Social learning; Cognitive maps; Observational learning/imitation; Insight learning; Social learning                                                  |  | 8 Hours                         |
| <b>Unit IV: Communication</b>                                                                                                                                                                                                                                                                                                                                    |  |                                 |
| Sign and normal stimuli; Channels of communication; Pheromones and acoustic signals; Evolution of display and mimicry, aposematic coloration, deception and honesty; communication in social groups, alarm calls, alarm pheromones, trail pheromones; Dance language in honey bee; Primate language                                                              |  | 10 Hours                        |
| <b>Unit V: Evolution of Social system</b>                                                                                                                                                                                                                                                                                                                        |  |                                 |
| Society, benefits and costs of sociality; Social interactions of groups- Altruism – concept of inclusive fitness, (Kin selection, parental care); Reciprocal Altruism, selfish, spite, conflict and infanticide; Insect eusociality: a case of altruism and cooperation (honey bee); Vertebrate societies; Human sociobiology; Biological and cultural evolution |  | 10 Hours                        |
| <b>Unit VI: Cooperation and conflict</b>                                                                                                                                                                                                                                                                                                                         |  |                                 |
| Fine balance between Cooperation and conflict : Queen-worker conflict in ants; Worker-worker conflict in honey bees; disease as an enhanced social conflict; Chimpanzee politics, Parental harassment of sons in bee eaters; communal nursing: Mutiny in ant colony; mother – offspring conflict                                                                 |  | 8 Hours                         |

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| <b>Paper Code and Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>PG87T304A-Economic Zoology</b> |
| <b>COURSE OUTCOMES (COs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                   |
| After completion of Economic Zoology paper students will be able to:<br>1. Understand the culture technique of fish and vermiculture..<br>2. Understand the silk worm rearing and their products<br>3. Understand the bee keeping equipments and apiary management.<br>4. Understand dairy animals management, the breeds of economically important animals and learn the testing of egg and milk quality.<br>5. Learn various concepts of lac cultivation.<br>6. Aware of a broad array of career options and activities in human medicine, biomedical research and allied health professions.<br>7. Understand the pests, parasites and their management and also about the disease of they spread. |                                   |

| <b>PG87T304A-Economic Zoology</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Teaching Hours (Max. 48)</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Unit I Introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |
| Importance of Economic Zoology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 Hours                         |
| Unit II: Vermiculture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 |
| Establishment of vermiculture unit; Earthworm as a tool for the conversion of biodegradable waste into vermicompost; Earthworms as poultry and fish feed; Vermiwash.                                                                                                                                                                                                                                                                                                                                                                                                        | 6 Hours                         |
| Unit III: Beekeeping and Sericulture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                 |
| Beekeeping practices in India; Foraging and colony organization in honeybees; Composition and uses of honey and bee products. Lac culture: Cultivation and uses of lac. Importance of sericulture as a rural industry; Life cycle of <i>Bombyx mori</i> ; Modern rearing methods, reeling, grading and marketing.                                                                                                                                                                                                                                                           | 11 Hours                        |
| Unit IV: Pest management and Parasitology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |
| Pests of economically important crops; Household pests; Damages caused by pests; Integrated Pest Management (IPM)- Different components and general idea about the biocontrol agents; Vertebrate (birds and rodents) pest management. Definition and types of parasites and vectors; Blood sucking dipterans; Important human and veterinary parasites (protozoans and helminthes); Host-parasite interactions.                                                                                                                                                             | 16 Hours                        |
| Unit V: Fisheries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Culture of major carps and exotic carps; Off-shore fisheries- Sardin; Composite fish culture; Ornamental fishes; Pearl culture; Fish by-products.                                                                                                                                                                                                                                                                                                                                                                                                                           | 10 Hours                        |
| Unit VI: Poultry keeping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |
| Different breeds of chicken and different breeding systems; Egg production and economics.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4Hours                          |
| <b>REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Note: The figure in the parantheses indicates approximate number of lecture hours to reflect the weightage to be given to respective topics.<br><b>REFERENCES</b><br>David, D. V. and Kumarswami, T. <i>Elements of Economic Entamology</i> . Popular Book Depot. Madras. 1988<br>Dent, D. <i>Insect Pest Management</i> - II Ed. CABI, 2000<br>Dhaliwal, G. S., and Heinrichs E. A. <i>Critical issues in Insect Pest Management</i> . Commonwealth Publishers, New Delhi, 1998<br>Duncan, F. N. (eds). <i>Beekeeping for profit and pleasure</i> . Agrobios (India) 2004. |                                 |

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