KARNATAK UNIVERSITY, DHARWAD

Regulations
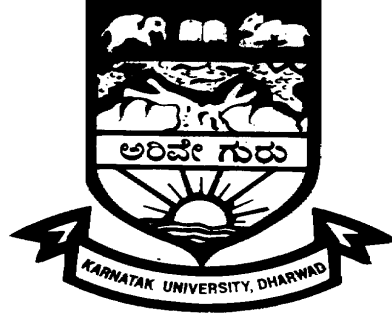
For

MASTER OF LIBRARY AND INFORMATION SCINECE

CHOICE BASED CREDIT SYSTEM (MLISc – CBCS)

From

2016-17 & Onwards

REGULATIONS

For

MASTER OF LIBRARY AND INFORMATION SCINECE

CHOICE BASED CREDIT SYSTEM (MLISc – CBCS)

2016-2017

KARNATAK UNIVERSITY, DHARWAD

Regulations concerning Master Degree Programme

Faculty of Social Sciences, from 2016-2017

Master Degree Programme in Library and Information Science (MLISc-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 SCINECE

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 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 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 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 30 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. Two seats are under enhanced fee. Total Seats is 30.

Course of Study:

The courses of study for M.L.I.Sc 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 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 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 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 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.L.I.Sc

Semester-I

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Compulsory Papers					
P 1.1	Foundations of Library & Information Science	75	25	100	4	4 Hrs/week
P 1.2	Knowledge Organisation, Information Processing and Retrieval (Theory)	75	25	100	4	4 Hrs/week
P 1.3	Knowledge Organisation, Information Processing and Retrieval (Practical)	75	25	100	4	8 Hrs/week
P 1.4	Information Sources	75	25	100	4	4 Hrs/week
P 1.5	Information Technology: Basics	75	25	100	4	4 Hrs/week
P 1.6	IT Practicals	75	25	100	4	8 Hrs/week

Semester-II

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Compulsory Papers					
P 2.1	Management of Libraries & Information Centres	75	25	100	4	4 Hrs/week
P 2.2	Information Services & Systems	75	25	100	4	4 Hrs/week
P 2.3	Information Services & Information Technology (Practical)	75	25	100	4	8 Hrs/week
P 2.4	Information Processing & Retrieval-UDC and AACR- II (Practical)	75	25	100	4	8 Hrs/week
P 2.5	Library and Users	75	25	100	4	4 Hrs/week
	Open Elective Paper					
P 2.6	E-Information Sources and Services	75	25	100	4	4 Hrs/week

Semester-III

Paper Code	Title of the Paper	Max. Marks	Internal Assessment	Total Marks	Credits	Teaching Hrs.
	Compulsory Papers					
P 3.1	Information and Communication	75	25	100	4	4 Hrs/week
P 3.2	Information, Retrieval, Repackaging and Consolidation	75	25	100	4	4 Hrs/week
P 3.3	Research Methods	75	25	100	4	4 Hrs/week
P 3.4	Information Technology Applications (Theory)	75	25	100	4	4 Hrs/week
P 3.5	Information Technology Applications (Practical)	75	25	100	4	8Hrs/week
	Open Elective Paper					
P 3.6	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.
	Compulsory Papers					
P 4.1	Networking and Internet Technology	75	25	100	4	4 Hrs/week
P 4.2	Digital Library and Multimedia (theory)	75	25	100	4	4 Hrs/week
P 4.3	Specialization/optional Course (Public, Academic Special Library System and WIS)	75	25	100	4	4 Hrs/week
P 4.4	Digital Library and Multimedia (Practical)	75	25	100	4	8 Hrs/week
P 4.5	Dissertation	100	00	100	4	6Hrs/week
P 4.6	Dissertation Viva – voce	40	00	40		
	Educational Tour Report	10	00	10	2	
	Internet Searching (Practical)	40	10	50	2	4 Hrs/week

Study Tour

There shall be a study tour, which is compulsory and a student has to submit a tour observation report. Study tour will be conducted during mid semester vocation falling between III and IV Semester.

Submission of Dissertation

a) M.L.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.

b) M.L.I.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.

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 LIBRARY AND INFORMATION SCINECE

CHOICE BASED CREDIT SYSTEM

(MLISc – CBCS)

MASTER OF LIBRARY AND INFORMATION SCIENCE COURSE

(MLISC - I) SEMESTER

PAPER- 1.1 Foundations of Library and Information Science

Unit- 1 **Library as a Social Institution.**
- Social and Historical Foundations of Library
- Different types of Libraries- their distinguishing features and functions
- Role of Library in formal and Informal Education

Unit- 2 **Normative Principles of Library and Information Science**
- Five Laws of Library Science
- Implications of Five Laws in Library and Information Centres Activities
- Latest Trends in Five Laws of Library and Information Science

Unit- 3 **Library Development**
- Role of Central Govt. in Development of Libraries in India with Special Reference to Karnataka
- Development of Public Libraries in Karnataka after the enactment of Karnataka Public Library (KPL) Act, 1965.

Unit- 4 **Laws Relating to Libraries and Information Centres**
- Library Legislation- need, purpose, and essential features
- Library Legislation in India- problems and prospects
- Overview of Public Library Acts in Indian States
- Detailed study of Karnataka Public Library Act 1965.
- Press and Registration Act and Delivery of Books (Public Libraries) and News Paper Act, 1954 and 1956
- Copyright Act and Intellectual Property (IPR)

Unit- 5   **Library and Information Science Profession**

- Attributes of a Profession
- Librarianship as a Profession
- Professional Ethics and Qualities
- Professional Education and Research

Unit-6   **Professional Associations**

- Professional Associations- Objectives and Functions
- Role of Professional Associations in the Development of Library and Information Centres and Professionals.
- Regional Library Associations- Objectives, Functions and Activities, KALA
- National Library Associations- Objectives, Functions and Activities, ILA, IATLIS, IASLIC
- International Library Association- Objectives, Functions and Activities, IFLA, ALA, LA.
- Promoters of Library and Information Services, National Level: RRRLF, International Level: UNESCO

Unit- 7Public Relations and Extension Activities

- Concept, Definition, and Scope
- Facets and Programmes
- Publicity and Extension, Outreach Activities;
- Library Path Finders (Guides)

Selected Readings

1. Burahohan, Alka. Various aspects of librarianship and Information Science. New Delhi: Ess Ess, 2000
2. Greer, R. Grover, R. & Fowler, S. Introduction to the Library and Information Professions, Ed.2. Libraries Unlimited, 2013.

3. Isaac, K. A. Library Legislation in India: A Critical Comparative Study of State Library Acts. Ess Ess. 2004

4. Khanna, J. K. Library and Society. Kurukshetra: Research Publisher, 1987.

5. Kumar, P. S. G. Indian Library Chronology, Ed. 2 Bombay: Allied, 2000.

6. Kumar, P.S.G. Foundations of Library and Information Science. Paper I of UGC Model Curriculum. B.R. Publishing Corporation. 2011

7. Kumar, P.S.G. Fundamentals of Information Science. Delhi: S. Chand, 1997

8. Patel, Jashu., Kumar, Krishna. Libraries and Librarianship in India. London: Greenwood Press, 2004.

9. Ramaiah, L. S. Re-Invention of Librarianship: Its Multiple Facets. New Delhi: Ess Ess, 2010

10. Ranganathan, S. R. The Five Laws of Library Science. Bangalore: Ess Ess, 2006.

11. Rout, R.K. Ed. Library Legislation in India. New Delhi: Relience, 1999.

12. Sharma, Devendra. Information Technology, Ranganathan's Five Laws & University Libraries. Lambert Academic Publishing, 2014.

13. Surendra Singh and Sonal Singh. Ed. Library, Information and Science and Society. New Delhi: Ess Ess, 2002.

14. Venkatappaiah, Velega. Public Library Legislation in the New Millennium. Bookwell, 2007

15. www.netugc.com.

16. http://www.egyankosh.in/book.php?course=MLIS&uid=1

PAPER 1.2 Knowledge Organisation, Information Processing & Retrieval
(Theory)

Unit-1   **Knowledge Organisation**
- History and Development of Classification: Knowledge Classification,
- Library Classification: Meaning, definitions, nature, purpose and importance.
- General Theory of Classification:
    - Descriptive Theory
    - Dynamic Theory
- Major Contributions by S.R. Ranganathan to classification Theory.

Unit-2   **Design and Development of Classification Schemes**
- Normative Principles of Classification: Basic laws, Fundamental laws, Canons, Principles and Postulates.
- Species of Library Classification: Enumerative, Almost Enumerative, Almost Faceted, Rigidly Faceted, Freely Faceted Classification.
- Standards Schemes of Classification: CC, DDC, UDC
- Trends in Library Classification: KOS in the Internet world, Ontology, Folksonomy. Taxonomy Categories.

Unit-3   **Universe of Subjects**
- Concept, Meaning, Definition.
- Structure and Attributes of Subjects
- Types of Subjects: Simple, Compound and Complex Subjects
- Modes of Formation of different Subjects.

Unit- 4   **Bibliographic Description**
- Cataloguing – Meaning, Definition, Need, Purpose and Functions of Library Catalogue.
- Evolution of Catalogue
- Physical Forms : Inner Forms and Outer Forms
- Different kinds of entries
- Cataloguing codes, AACR2 (latest Edition)
- Resource Description and Access (RDA)
- Types of Catalogue: Cooperative and Centralized Cataloguing, Union Catalogue

- Standardization of Bibliographic Description: ISBD (M), ISBD(S), ISBD(G), ISBD (NBM) and ISBN
- Recent Trends in Library Catalogue: Online Public Access Catalogue (OPAC)
- Bibliographic Record Format – MARC21, UNIMARC, CCF

Unit 5:   **Normative Principles of Cataloguing**
- Background and Development of Normative Principles.
- General Normative Principles: Laws.
- Specific Normative Principles of Library and Information Science.
- Specific Normative Principles of Cataloguing: Canons.
- Impact of Normative Principals, Laws and Canons on Library Cataloguing.

Unit 6:   **Subject Heading**
- Meaning, Purpose and Objectives of Subject Cataloguing.
- Design and Construction
- Sears list of Subject Heading,
- Specific Indexing Techniques: Chain Indexing, Preserved Context Index System (PRECIS), Postulate-based Permuted Subject Indexing (POPSI), Computer Aided Subject System (COMPASS).
- Subject Headings: General – Sears List of Subject, Library of Congress Subject List;
- Subject oriented: MeSH, SHE.

Unit 7:   **Meta Data**
- Meaning Definition, Purpose and Importance of Metadata
- Basic Features of Metadata
- Types of Metadata
- Elements of Metadata
- Metadata Standards: Dublin Core, Mark 21.
- Benefits of Metadata for Libraries and Users.

Selected Readings

1. American Library Association (2013). RDA 2013 Revision: Resource Description & Access. Chicago: American Library Association.

2. Anglo American Cataloguing Rules. 2nd Edition 2002 Rev. (2002). Chicago: Americal Library Association.

3. Anglo American Cataloguing Rules. 2nd Edition Rev. (1998). New Delhi, Oxford.

4. Cabonero, D. A. and Dolendo, Russell B. (2013) Cataloging and Classification Skills of Library and Information Science Practitioners in their Workplaces: A Case Analysis. Library Philosophy and Practice,

5. Dhyani, Pushpa. (1998). Library Classification: Theory and Practice. New Delhi: Vishwa Prakashan.

6. Joint Steering Comm (2015) Ed. RDA: Resource Description and Access. London: Facet Publishing.

7. Krishan Kumar (2004). Theory of Library Classification. New Delhi: Vikas.

8. Kumar, P. S. G. (2003). Knowledge Organization, Information Processing and Retrieval Theory. Delhi: BR Publications.

9. Maxwell, Robert L. (2013) Maxwell's Handbook for RDA: Explaining and Illustrating RDA: Resource Description and Access Using MARC21. New York: ALA Edition.

10. Shawne D. Miksa (2015). Introduction to Resource Description and Access: Cataloguing and Classification in the Digital Era. London: Facet Publishing.

11. Ramalingam, M. S. (2000). Library Cataloguing and Classification Systems. Delhi: Kalpaz.

12. Ranganathan, S. R. (1955). Headings and Canons. Madras: S Vishwanathan.

13. Ranganathan, S. R. (1988). Classified Catalogue Code. Madras, UBSPD.

14. Ranganathan, S. R.. (1950.) Library Catalogue: Fundamentals and procedures. Madras:LA.

15. Ranganathan, S. R. (1999). The Five Laws of Library Science. Bangalore: Sarada Ranganathan Endowment for Library Science.

16. Ranganathan, S. R. (1957-58). Prolegomena to Library Classification. Ed2, London: LA.

17. Sinha, S. C. and Dhiman, A. K. (2002). Prolegomena to Universe of Knowledge. New Delhi: Ess Ess.

18. Ranganthan S. R. (1998) Elements of Library Classification. Bangalore: Sarada Ranganathan Endowments for Library Science.

19. Shichao Zhang, Chengqi Zhang, and Xindong Wu. (2004). Knowledge Discovery in Multiple Databases. New York: Springer.

20. Srivastav AP (1993) Theory of Knowldege Classification. New Delhi: Sage.

21. Sumangala Jha. (2013). Knowledge Organization, Information and Retrieval. New Delhi: Anmol.

22. Beghtol W. B. (2004). Knowledge Organization and Classification in International Information Retrieval. London: Routledge.

23. Chowdhury, G. G. & Chowdhary, S. (2001). Information Sources and Searching on the World Wide Web. London: Facet Publishing.

24. Chowdhury, G. G. & Chowdhary, S. (2001). Searching CD-ROM and Online Information Sources. London: Facet Publishing.

PAPER 1.3 Knowledge Organisation, Information Processing and Retrieval. (Practical)

Classification of Documents (DDC latest edition).

Unit -1

- Identification of Specific Subjects of the Documents
- Classification of documents representing simple, compound and complex subjects.

Unit -2

- Use of Standard sub-division (table 1) in DDC.
- Use of tables in DDC: From table -2 to table 7.
- Assigning Book Number
- Web Dewey.

Unit- 3

- Cataloguing of Simple Documents
- Cataloguing of Complex Documents

Unit- 4

- Cataloguing of Serials

Unit- 5

- Subject Cataloguing
- Assigning Subject Headings Using at least one standard list of Subject Headings (Sears list of subject Heading/ Library of Congress Subject Headings)

Selected Readings

1. Bell, J. (1998). Dewey for Windows Guide. Albeny NY: Forest Press
2. Kumar, P. S. G. (1990). Practical Guide to DDC 20. Nagpur: Dattsons.
3. Kumar, P. S. G. (2003). Knowledge Organization Information Processing and Retrieval Practice. New Delhi: BR
4. Moore, J. A. Ed. (2002). Practical Reading: Processing Information. Boston: Addison Wesley.
5. Sahu, R. (2012). DDC in Library Science. New Delhi: Random Publishing.

6. Sanjay Kaushik (2012). DDC: A Practical Manual of 23rd Edition. New Delhi: Ess Ess Publication.

7. Satija MP (2001). Exercises in the 19th Edition of the DDC. New Delhi: Concept Publishing.

8. Satija MP (2013). Dewey Decimal Classification 19th Edition (1979) to Edition 23rd (2011). New Delhi: Ess Ess.

9. Satija MP (2013). The Theory and Practice of the DDC System Second Edition. New Delhi: Chandos Publishing House Cambridge.

10. Sharma, C. K. (2008). Practical Handbook of Dewey Decimal Classification. New Delhi: Antlantic.

11. Spink, A. (2012). Information Processing and Retrieval in Library and Information Science. New Delhi: Gaurav.

12. Takahira, Y. (2009). Practical Aspects of Knowledge Management. New York: Springer.

PAPER – 1.4   Information Sources

Unit 1:   **Introduction to Information Sources**
- Information Sources: Meaning, Definition, Nature, Evolution, Characteristics, Functions, Importance and Criteria for Evaluation and limitations.

Unit 2:   **Types of Information Sources**

- Primary, Secondary and Tertiary sources of information.
- Documentary Sources and Non –Documentary Sources, Human and Institutional sources,
- Non–print and Electronic sources.

Unit - 3:   **Primary Sources (Print and Electronic Versions)**

- Periodicals, Technical reports, Patents, Standards and Specifications, Theses and Dissertations, Conference and Seminar publications, Trade literature, etc.

Unit - 4:   **Secondary   Sources (Print and Electronic Versions)**

- Dictionaries, Encyclopedias, Yearbooks and Almanacs, Biographical sources, Bibliographies, Geographical sources, Current sources, Statistical information sources, Handbooks and Manuals, Abstracting and Indexing periodicals, Annual reviews etc.

Unit - 5:   **Tertiary Sources (Print and Electronic Versions)**
- Directories, Guides to subject literature, Bibliography of bibliographies, Monographs, Union catalogues, Textbooks, etc.

Unit - 6:   **Non documentary Sources and their Electronic Versions**
- **a)** Human Sources: Technological gatekeepers, Invisible collages, Consultants, Experts/resource persons, Extension workers, Representatives of firms, Personal home pages ,Weblogs and others.

- **b)** Institutional / Organizational Sources: Government ministries and departments, R& D organizations, Learned societies, Publishing houses, Broadcasting stations, Archives, Data banks, Information analysis centers, Referral centers, Institutional web sites, etc.

Unit - 7:   **Non – Print and Electronic Sources**

- Microforms, Audio visual materials, Optical media based databases, Online databases, List servers, Open access resources, Internet sources, E-books, E-Journals, E-Thesis , E-News papers, Blogs, Wikis, Subject Gateways and Portals.

Suggested Readings:

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. Bopp, Richard E & Smith, Linda C. : Reference and information services : an introduction, 3rd ed. Colorado, Libraries Unlimited, 2010.
3. Cassell, Hay Ann & Hiremath, Uma : Reference and information services in the 21st century : an introduction. London, Facet Publishing, 2011.
4. Craven, Jenny (ed.) : Web accessibility : practical advice for the library and information professional. London, Facet Publishing, 2008.
5. G. G. Chowdhury and Sudatta Chowdhury. Information Sources and Searching on the World Wide Web. London : Facet Publishing, 2012.
6. Gopinath, M.A : Information Sources and Communication Media. DRTC Annual Seminar, Bangalore-1984 .
7. Katz, (William A). Introduction to reference work: reference service and reference process. v.2. Ed. 5. 1987. McGraw-Hill, New York
8. Krishna Kumar : Reference service, 5th rev. ed. New Delhi, Vikas Publishing House, 2002.
9. Kumar, P.S.G. (2004). Information Sources and Services. Delhi: B. R. Publishing.
10. Mukherjee, A. K. : Reference work and its tools, 3rd. ed. Calcutta, World Press, 1975.
11. Ranganathan, S. R. : Reference service, 2nd ed. Bombay, Asia Publishing House, 1961.
12. Rao, I.K.R : Electronic Sources of Information, DRTC Annual Seminar,
13. Sewasingh: Hand book of International Sources on Reference and Information,
14. Crest publishing , NewDelhi 2010
15. Sharma, J. S. & Grover, D.R. (1987). Reference Services and sources of information. New Delhi: EssEss Publications.
16. Sheehy, E. P. (Ed). (1986). Guide to reference books. 10th ed. Chicago: ALA.
17. Walford, A.J : Guide to Reference Materials, London, Library Association, 1990, 3Vol.

PAPER – 1.5: Information Technology: Basics

Unit 1: Information Technology
- Meaning, Definitions, Evolution, Scope, Components, Functions, Benefits and Applications

Unit 2 : Introduction to Computer
- Concept, Definition, Historical Developments, Generation and Classification of Computers.
- Characteristics / Benefits of Computer

Unit 3: Computer Architecture
- Components of a Computer: Central Processing Unit, Input and Output Devices, Internal and External Storage Devices.

Unit 4: Software
- System Software: Purpose, Operating Systems – Microsoft Windows, LINUX, UNIX, Open Source Operating Systems.
- Application Software: Word Processors, Spreadsheets, Internet Browsers,
- DBMS, Anti-Virus Programs, Sharewares, Web Designing Tools, HTML Editors.

Unit 5: Data Representation
- Data representation in computers
- Number Systems: Binary, Decimal, Octal and Hexadecimal (Addition, Subtraction of Number Systems)
- Conversion of Binary to Other Number System and Vice-Versa.
- Character Encoding Standards: ASCII, EBCDIC, ISCII and UNICODE.

Unit 6: File Organization
- File Concepts, Methods, Functions, Sequential, Inverted, Indexed, and other methods.

Unit 7: Overview of Programming Languages
- Concept, Need, Examples
- Machine, Assembly and High level programming languages
- Programming Concepts: System Analysis, Algorithms and Flow-Charts

Selected Readings

1. Alexander, Tom and Mathew, Joe. (2012).Computer and Information Technology, New Delhi; Neha Publishers & Distributors.
2. Arvind Kumar. Ed. (2006). Information Technology for all (2vols.). New Delhi, Anmol,
3. Bansa, S. K. (2005).Information Technology and Globalisation, New Delhi: A. P.H. Publishing Corporation.
4. Bansandra, S. K. (2002). Computer Today, New Delhi, Golgitaia.
5. CA Praveen Jain. (2015) IT Information Technology, New Delhi, Jain Publishing.
6. Chandwani, M. and Jain A. (2014). Computing and Informatics. , New Delhi, Jain Publishing.
7. Decson, Eric. (2000). Managing with Information Technology, Great Britan, Kogan Page Ltd,
8. Dinesh, Madan (2015). Information Technology a Complete Reference, New Delhi, Jain Publshing.
9. Forrester W. H. and Rowlands, J.L. (2002). The Online searcher's compainion, London, Library Association.
10. Gupta, Vikas. (2005).Rapidix Computer Course, New Delhi, Pustak Mahal
11. Hunter and Shelly (2003).Computers and Common sense, New Delhi, Vikas, Kailash Chandra Das, Application of Information Technology in Libraries, JBA New Delhi, 2012
12. Rowely, Jennifer. (2001). Information System, Ed.2, London, Clive Bingley.
13. Satyanarayana, R. (2005). Information Technology and its facets. Delhi, Manak
14. Sunders, R. (2000). Computer Today Ed. 2, John Wiley.
15. Taxali, Ravikant. (2006). PC software made easy, New Delhi.
16. Abraham, Silberschatz. (2006). Ed 7th. Operating System Principles, Peter Baer Galvin.
17. Dhamdher, D. M. (2012).Operating Systems A Concept Based Approach, New Delhi; Jain Publshing.
18. Edward Jones, Microsoft Word 2010: An Introduction [Kindle Edition]: Amazon Digital Services.
19. Jason A. Clark. (2015). Responsive Web Design in Practice (Library Technology Essentials) [Kindle Edition], Publisher: Rowman & Littlefield Publishers.
20. Mehmet Zahid Sobaci ((2014).) Ed. Social Media and Local Governments: Theory and Practice (Public Administration and Information Technology): Springer; 2016
21. Narendra, Dodiya. (2015). 10 Pillars of Library and Information Science: Pillar 8: Information Technology. New Delhi: Ess Ess Publications.
22. Robert, Kraut. (2006). Computers, Phones, and the Internet: Domesticating Information Technology, Malcolm Brynin, Sara Kiesler, New York, Oxford University Press.
23. Rocco, Agrifoglio. (2015). Knowledge Preservation Through Community of Practice: Theoretical Issues and Empirical Evidence (Springer Briefs in Information Systems). Publisher: Springer.

24. Sudeepa Banerjee, (2014). Internet as a Media, New Delhi; Jain Publshing.

PAPER 1.6 Information Technology (Practicals)

- Introduction to Computer Peripheral Devices.
- Introduction to Operating Systems: Windows and Linux.
- Introduction to MS Office packages: Word, Excel and Power Point.
- Creation of E-Mail ID.

MASTER OF LIBRARY AND INFORMATION SCIENCE COURSE

(MLISC - II) SEMESTER

PAPER- 2.1   Management of Libraries and Information Centres

Unit 1:   **Management**
- Concept, Meaning, Definitions and Scope;
- Management Schools of Thought;
- Functions and Principles of Management;
- Scientific Management, Principles of Scientific Management and their application to Library and Information Centres
- Organizational Structures

Unit 2:   **Library House Keeping Operations**
- Different Sections of Library and Information Centre
- Book Selection and Acquisition: Purpose, Objectives, Need and Functions. Book Selection Tools and Principles of Book Selection
- Technical Processing
- Serial Control, Circulation Control, Maintenance etc.
- Stock Verification: Policies, Procedures and Methods
- Online Bookshops: Identification, Advantages, Online Book Shops Vs Traditional Book Shops. URLs
- Collection Development and Management Policies, Procedures.
- Archiving- Conservation-Preservation, Print and non-print materials

Unit 3:   **Human Resource Planning, Management and Development**
- Human Resource Planning: Meaning, Definitions and Planning Process.
- Human Resource Management: Meaning, Definitions and Functions.

- Job Description, Analysis and Job Evaluation;
- Recruitment procedures;
- Motivation, Delegation, and Decision Making;
- Training and Development
- Performance Appraisal
- Leadership Qualities

Unit 4:   **Financial Management**
- Sources of Finance and their Importance.
- Budgeting: Meaning and Definition.
- Tips for Preparation of Budget.
- Budgeting Techniques and Methods: Line Budget, PPBS and Zero Based Budgeting.
- Budgetary Control.
- Cost effectiveness and Cost Benefit Analysis.
- Out sourcing

Unit 5:   **System Analysis and Design**
- Concepts, Meaning and Definitions
- Study of a System
- Performance Evaluation of Library and Information Centres
- Performance Measurement
- Management of Information systems (MIS): Concept, Use
- Project Management, PERT / CPM.

Unit 6:   **Physical Facility Management**
- Concept of Change.
- Changes in Procedures, Methods, Tools and Techniques.
- Problems of Incorporating Change.
- Techniques of Managing Change
- Total Quality Management (TQM): meaning, definition, concept, elements

- Use of Technology and Technology Management
- Risk Management, Contingency Management

Unit 7:   **Planning and Reporting**

- Concept, Definition. Need, and Purpose; Types
- Policies and Procedures, MBO
- Building and Space Management in Libraries and Information Centres
- Library Statistics
- Library Committees: Importance, Types and Functions
- Library Rules and Regulations
- Annual Report: Compilation, Contents and Style

Selected Readings

1. Beardwell, Ian and Holden, Len. Ed. Human Resource Management: Contemporary Perspective. New Delhi: McMillan, 1996.

2. Besterfield, D. H. Total Quality Management. Prearson, New Delhi. 2011.

3. Brophy, Peter and Courling Kote. Quality Management for Information and Library Managers. Bombay: Jaico, 1997.

4. Bryson, J. O. Effective Library and Information Management. Bombay: Jaico, 1996.

5. http://www.egyankosh.in/book.php?course=MLIS&uid=1.

6. Iyer, V. K. Library Management of Staff Training and Development. Delhi: Rajat, 1999.

7. Krishna Kumar. Library Administration and Management. Delhi: Vikas, 1987.

8. Krishnamurthy, R. Library Management. New Delhi: Commonwealth, 1997.

9. Kumar P.S.G. Management of Libraries and Information Centres. Paper V of UGC Model Curriculum. Delhi: B.R Publishing Corporation, 2003

10. Paliwal, P.K. Compendium of Library Administration. New Delhi: Ess Ess, 2000.

11. Pankl, V., & White, D.T. Recruitment, Development, and Retention of Information Professionals: Trends in Human Resources and Knowledge Management. Business Science Reference, 2010.

12. Sengar Sunita & Singh, R K. Human Resource Management in Libraries. Shree Publisher & Distributors. New Delhi. 2009.

13. Sengar, S., & Singh, R. K. Human Resource Management in Libraries. Shree Publisher and Distributors, 2009

14. Siwatchi, Ajit Singh. Library Management: Leadership style Strategies and Organizational climate. New Delhi: Shree, 2004.

15. Stueart, R.B., Morner, C. J. & Moran, B.B. Library and Information Centre Management. Ed. 8, Libraries Unlimited, 2012.

    www.netugc.com.

PAPER 2.2 Information Systems and Services (Theory)

Unit 1:   **Information Systems**

- Basic concept, Types, Characteristics and components. Planning and Organisation of Information Systems.
- Different kinds of documents: Dictionaries, Encyclopedias, Ready Reference Sources, Statistical Sources, Geographical sources, Biographical sources, Patents, Stadards, Theses, Reports, Standards and Specifications, etc.

Unit 2 :   **Libraries, Documentation and Information Centres**

- Data Banks, Information Analysis Centres, Documentation Centres, Document Delivery/Reprographic Centres, Archives and Museum, Referral Centres, Clearing House.

Unit 3:   **Planning, Designing and Evaluation of National and International Information Systems.**

- Evaluation Criteria for National and International Information Systems.

Unit 4:   **National Information Systems and Services**

- NAPLIS (National Policy on Library and Information Systems). NISCAIR, DESIDOC, NASSDOC, SENDOC, INFLIBNET, NISSAT.

Unit 5:   **International Information Systems and Services**

- UNESCO-PGI, AGRIS, INIS, INSPEC, DEVSIS, MEDLARS, ICSU, BIOSIS, UNISIST.

Unit 6:   **Reference Service**

- Meaning, Definition and Scope.
- Need and Purpose of Reference Service.
- Types of Reference Service: Short Range and Long Rang
- Reference vis-à-vis Information Service.
- Information Alerting Services: CAS, SDI, Paper Clipping Service, Indexing service, Abstracting service. etc.

- Information Services: Literature Search Services, Document Delivery Services (DDS). Electronic Document Delivery Services (EDDS), Translation Services, Reprographic Service

Unit 7:   **Open Access Initiatives**

- Open access: Concept, Need, Characteristics and Types.
- Open Access Initiatives in India.
- Evolution of Institutional repositories
- Institutional repositories-concepts and issues
- Repositories and Open Archives
- Implementing institutional repositories
- Institutional repository software-Key features and functionality.
- IR and Case Studies.
- Document Delivery Services.

Selected Readings

1. Asija, Sunitha. Documentation services in India: A review of some selected documentation centres. New Delhi, Academic Publications, 1998.
2. Barua, Brahmanda Pratap. National Policy on Library and Information Systems and Services for India. Bombay: Popular Prakashana, 2002.
3. Burch, J. C. and Stretev, F. R. Information Systems: Theory and Practice, 2004.
4. Colin, H. Ed. Management Information Systems in Library and Information Services. London: Tayler Graham, 2006.
5. Design and Architecture of Digital Information Systems and Services. UK: Fecet Publishing, 2015
6. Goyal, D.P. Management Information Systems. New Delhi: Vikas, 2014
7. Harris, Colin. Management Information Systems in Libraries and Information Services. New York Tyler Graham, 2006.
8. Jawadekar. Management Information Systems: A Global Digital Enterprise Perspective. Delhi: McGraw Hill Education (India), 2013.
9. Kaushik P. Library Infomarion services and Systems. New Delhi: Anmol Publications, 2006
10. Keyes, Jessica. Information Services and Systems (Best Practices). New York: Auerbach Publications: 2010

11. Kochtanek, Thomas R. and Mathews, Joseph R. Library and Information Systems: From Library automation to distributed information access solution. West Port: Libraries unlimited, 2004.
12. Krishna Kumar. Reference service. New Delhi 1977.
13. Lucas, Amy. Ed. Encyclopedia of Information Systems and Services. Detroit Gale Research, 1990.
14. Murdick, Rober G. et. Al. Information Systems for Modern Management. 3red ed. New Delhi: Prentice Hall, 1996.
15. Neelameghan A. and Prasad, K.N. Eds. Information systems and services in India. Bangalore, SRELS, 2005.
16. Osbern, Larry N. and Nakamura, Margeret. Systems Analysis for Librarians and Information Professionals . 2nd ed. Englewood: Libraries Unlimited, 2004.
17. Ranganathan, S. R. Reference Service. Bombay: Asia, 1967.
18. Sadagopan, S. Management Information Systems. Delhi, PHI Learning, 2014
19. Sing, Gurudev. Information Sources Services and Systems, Delhi: PHI Learning Private Limited, 2013.
20. Wiseman, H. M. Information Systems, Services and Centres. New York: Becker and Hanyes, 1972.

PAPER - 2.3 Information Services and Information Technology (Practicals)

1.   Information Services:

      a) Exercises in Reference Questions.
      b) Evaluation of Reference documents.
      c) Preparation of Current Awareness List.
      d) Compilation of Press Clippings.

2 :   Advanced Internet Searching

      a) Database search and retrieval :Webcats and WebOPAC's.
      b) Online Reference Services, Ask an Expert.
      c) ETD, Institutional Repositories, Subject Gateways.
      d) Consortia based E-resources, Web directories, Library Portals.

PAPER 2.4: Information Processing & Retrieval (Practical)

Universal Decimal Classification (UDC)

Unit 1 :

- Introduction to the Structure of UDC
- Use of Common Auxiliaries
- Use of Special Auxiliaries
- Construction of the Class numbers
- Filing Order and Citation Order
- Assignment of Book Numbers

Cataloguing of Non Book Materials according to AACR-2

Unit- 2 Cataloguing of Cartographic Materials

Unit- 3 Cataloguing of Microforms

Unit- 4 Cataloguing of Sound Recordings, Motion Pictures and video Recordings

Unit- 5 Cataloguing of Electronic Resources

Selected Readings

1. Bose, H. (1988). Universal Decimal Classification Theory and Practice. United Kingdom: Stosius Inc/Advent Books Division.

2. British Standards Institution (2003). Universal Decimal Classification. United Kingdom: British Standards Institution.

3. Kalinina, E. & Smirnova, A. I. (1986). Vocabulary of Terms on UDC Theory & Practice. Russia: All-Union Institute.

4. Khanna, J. K.(2009). Universal Decimal Classification. Agra:Y. K. Publishers

5. Raju, A. A. N. (2007). Universal Decimal Classification (IME – 1993): Theory and Practice: A Self Instructional Manual. New Delhi: Ess Ess Publisher.

6. Satyanarayana, V. V. V. (1998). Universal Decimal Classification: A Practical Primer. New Delhi: Neha Publishers.

7. Sehgal, R. L. (2002). An Introduction to UDC. New Delhi: Ess Ess.

8. Singh, K. P. (2013). UDC A Manual for Classification Practical and Information Resources. New Delhi: Today Tomorrows.

PAPER 2.5 Library and Users

Unit – 1   Information users and their needs
- Category of User Communities: Students, Teachers, Scientists and Technologists, Research and Development Personnel, Planners, Policy Makers, Ethnic groups and other professionals
- Need and Information Needs: Meaning, Definition, Distinction between need, want, demand and requirement
- Types of Information Needs
- Information Seeking Behaviour: Meaning, Definition, Different Models of ISB

Unit – 2   User Studies
- Meaning, Definitions and Importance
- Planning and organization of User Studies
- Case Studies
- Information Use Studies

Unit – 3   Methods and Techniques of conducting user studies in Library and Information Centres
- Quantitative and Qualitative Techniques
- Survey Methods: Techniques of data collection- Questionnaire, Interview, Observation, Diary, Record Analysis and Citation Studies
- Sampling: Types of sampling

Unit – 4   User Education
- Meaning, Definitions and Importance
- User Education in the electronic environment
- Different methods of conducting User Education
- Evaluation of User Education Programs (UEP)
- Resource Based Instruction

Unit – 5   Information Literacy
- Meaning, Definition, Significance
- History and development of the concept
- Types of Literacies
- Information Literacy Models

Unit – 6   Life Long Learning
- Meaning, Definition, Importance
- Life Long Learners

- Major Drivers of lifelong learning

Unit – 7   Global perspectives
- Development of IL Standards and Guidelines: National and International
- National Information Literacy Missions, Forums and Task forces
- Integration of Information Literacy at different levels of education
- Information Literacy in India

References:
1. Alvite, L. and Barrionuevo, L. (2011). Libraries for Users: Services in Academic Libraries. Oxford: Chandos Publishing.
2. Biblarz, D., Bosch, S. and Sugnet, C. (2001). Guide to Library User Needs Assessment for Integrated Information Resource Management and Collection Management. Maryaland: Scarecrow Press, Inc.
3. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.
4. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.
5. Ford, N. (2015). Introduction to Information Behaviour. London: Facet Publishing.
6. Ford, N. (2015). Introduction to Information Behaviour. London: Facet Publishing.
7. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc.
8. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc.
9. Henry, M. and Morgan,S.(2002). Practical strategies for modem academic library. London: Aslib-IMI.
10. Kawatra, P. S. (1997). Library user studies: Manual for librarians and information scientists. Mumbai, Jaico.
11. Kumar, P. S. G. (2004). Library and Users: Theory and Practice. Delhi: B. R. Publishing Corporation.
12. Lushington, N. (2002). Libraries Designed for Users: A 21st Century Guide. Chikago: Neal-Schuman Publishers.
13. Lushington, N. (2002). Libraries Designed for Users: A 21st Century Guide. Chikago: Neal-Schuman Publishers.
14. P. Balasubramanian, P. (2011). Users and Uses of Library. New Delhi, Deep and Deep Publications Pvt. Ltd.
15. Ruthven, I and Kelly, D. (2011). Interactive Information-seeking Behaviour and Retrieval. London: Facet Publishing.
16. Spiller, D. (2000). Providing Materials for Library Users (6th Ed.). Chicago: Library Association Publishing.

17. Trehan, G. L. (1985). College library management: Academic library system, service and use. New Delhi: Sterling.

Paper – 2.6: Electronic Information Sources and Services (Open Elective)

Unit 1:   Information Sources
- Concept, Characteristic Features and Use.
- Types of Sources (Primary, Secondary, Tertiary and Non-Documentary Sources)

Unit 2:   Internet Sources
- Concept, Kinds of Internet Sources, Services
- Search Engines: Types, Subject Gateways
- Data Banks, Referral Centres, Digital Libraries, Virtual Libraries
- Criteria for Evaluation of Internet Resources

Unit 3:   Electronic Publishing
- Introduction to E-publishing, overview, meaning and definitions.
- Electronic Information Sources: Meaning and Definitions, Historical Development of EIRs
- Types of EIRs: E-journals, E-databases, E-books, Open Access Journals, Open access databases, Aggregators

Unit 4:   Electronic Information Sources Use
- Information Seeking Behaviour
- Information Literacy: Concept, Meaning and Definitions, IL skills and competencies.
- Search and Browse: Basic Search and Advanced Search in E-databases.
- Search Strategy, Search Syntax, Boolean Operators, Search Techniques.

Unit 5:   Electronic Information Services

- Meaning, Definition and Scope
- Types of Information Services: Short range and long range
- Information Alerting Services, E-mail, Documentation Service, E-news paper clipping service, Translation Service, Document Delivery Service, Bulletin Board Service, Network Based Services.
- Latest trends in EIRs

- Evaluation criteria for EIRs

Selected Readings

1. Chowdhury, G. G. and Chudhry, Sudatta (2000). Searching CD-ROM and online information sources. London: Library Association
2. Cooper, Michael D. (1996). Design of Library automation systems: File structure data structures and tools. New York : John Wiley.
3. Dickson, Garg W. and Desanctis, Geradine. Information technology and the future enterpriser: New models for managers. New Jersey: Prentice Hall.
4. Ferris, Jeffrey A. (2000). Windows 2000: Development and desktop management Indiana: New Riders.
5. Gallimare, Allec (1997). Developing on IT strategy for your libraray. London. Library Asssociation.
6. Gopinatha, M. A. (1984). Information Sources and communication media. DRTC Annual Seminar. Bangalore.
7. Jeanne Froidevaux Muller, (2005) A Librarian's Guide to the Internet : Searching and Evaluating Information : New Delhi : Chandos Publishing.
8. Lesk, Michael (1997). Practical digital libraries: Books, bytes and bucks. San Francisco: Morgan Kaufmann
9. Mahapatra Rabindra (2011) Dynamics of E-Resources & Usage Trends in Digital Era
   New Delhi. JBA Book
10. Ormes, Sorah and Dempsey, Lorcan Eds (1997). The Internet, networking and the public library, London: Library Association
11. Rabindra K. Mahapatra (2013) Electronic Librarianship: Issues and Trends, New Delhi. JBA Book
12. Terplan, Kornel (1997). Intranet performance management . London: CRC press.
13. www.infolibrarian.com
14. www.libraryspot.com
15. www.refdesk.com

MASTER OF LIBRARY AND INFORMATION SCIENCE COURSE

(MLISC - III) SEMESTER

PAPER- 3.1 Information and Communication

Unit 1:   **Data, Information and Knowledge**

- Data: Types, Nature and Characteristics
- Information: Nature, Characteristics, Value and Notion of Information
- Knowledge: Nature, Types, Value and Characteristics features
- Inter-relation of Data, Information and Knowledge

Unit 2:   **Information Management and Knowledge Management**

- Information Management: meaning, definitions and value
- Role of new Information Manager
- Knowledge Management: meaning, definitions and types of knowledge
- Need for Knowledge Management
- Difference Between Information Management and Knowledge Management
- Knowledge Management Models

Unit 3:   **Communication**

- Information Generation and Communication
- Channels and Levels of Communication
- Barriers of Information Communication
- Communication Modes and Models

Unit 4:   **Information Science**

- Information Science: meaning, definitions
- Origin, Development and Evolution of Information Science
- Theoretical Foundations and Framework of Information Science
- Physical and Cognitive Paradigms
- Education for Library and Information Science Professionals

Unit 5:   **Information Society**
- Genesis, Development and Evolution of Information Society
- Changing Role of Library and Information Centres in the Information Society
- Issues of Information Society: Social, Political and Economical
- Policies relating to Information: Right to Information and Intellectual Property Rights
- Concept of Freedom, Censorship, Data Security and Fair Use
- National and International Information Policies and Programmes: UAP, UBC

Unit 6:   **Marketing of Information**
- Marketing: Meaning, definition, objectives
- Marketing of Information Services and Products in India
- Marketing Research and Market Segmentation
- Marketing Mix: Supply, Product, Place and Price
- Marketing Mix: Communication Strategy, Production and Policy
- Marketing in Digital Environment

Unit 7:   **Economics of Information and Information Economics**
- Economics of Information and Information Economics
- Information as a Resource and Factors of Production
- Economics of Information Sources and Production

Selected Readings

1. Ackerman, Mark S. [et al.]. Sharing Expertise: Beyond Knowledge Management. Boston: MIT Press. 2003

2. Debons, Anthony (et al). Information Science: An Integrated View. Boston, Mass.: G K Hall. 1988

3. Dhiman, Anil Kumar and Sharma, Hemant. Knowledge Management for Librarians. New Delhi: Ess Ess, 2009

4. Emc Education Services. Information Storage and Management. Ed. 2. Wiley, 2012.

5. Haravu L. J. Lectures on Knowledge Managemeant: Paradigms, Challenges and Opportunities. Bangalore:Sarada Ranganathan Endowment for Library Science. 2002

6. Kamalavijayan, D. Information and Knowledge Management. New Delhi: Macmillan, 2005.

7. 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.

8. Rao, Madan Mohan. Leading with Knowledge: Knowledge Management Practices in Global Infotech Companies. New Delhi: McGraw Hill. 2003

9. Sahu, Ashok Kumar. Information Management in New Millennium: Opportunities and Challenges for Library Professionals. New Delhi: Ess Ess, 2008

10. Satyanaraana, N. R. and Satyanarayana, R. ed. Problems of information Science, 1996.

11. Taher, Nasreen. Knowledge Management: From Rhetoric to Reality. Hyderabad: ICFAI University Press, 2005

12. Vickery, B.C. and Vickery, A. Information Science theory and practice, 1994

13.   Webster, F. Theories of the Information Society. 2nd ed. London: Routledge. 2002

14. Wolpert, S. A. and Wolpert, J. F. Economics of Information, 1986.

15. http://www.egyankosh.in/book.php?course=MLIS&uid=1.

16. www.netugc.com

PAPER - 3.2 Information Retrieval, Repackaging and Processing

Unit 1:   **Information Retrieval System**
- Concept, Meaning, Definition, Objectives, Characteristics, Components and Functions.

Unit 2:   **Indexing**
- Basic Concepts, Need and purpose, Indexing Languages: Types and Characteristics,
- Vocabulary Control, Thesaurus: Structure, function and design.
- Pre-Coordinate and Post –Coordinating Indexing, Chain Indexing, POPSI, PRECIS,
- Key word Indexing: KWIC, KWAC, KWOC
- Citation indexing, Automatic Indexing.
- Abstracting: Concept, Meaning and definitions, Types and Uses. Abstarcting agencies and services.

Unit 3:   **Information Retrieval Process**
- Common features of search process, Steps in creation of a search file, Searchers features, Query search and steps in query formulation,
- Search process –strategies and techniques, Search software, Search engines, Multiple database searching, Tools of Internet Search, Voice search, Image search, Video search engines.

Unit 4:   **Information Retrieval Models**
- Basic Retrieval methods-manual and automated
- Boolean logic, Cognitive, Fuzzy and Probabilistic.

Unit - 5:   **Evaluation of IR Systems**
- Purpose and criteria's for evaluation, Evaluation experiments: ASLIB, The Crane fields; MEDLARS,SMART.

Unit 6 :   **Trends in IRS**
- Developments, Searching and retrieval, Full text retrieval, User interfaces, IR standards and protocols.

Unit 7:   **Information Repackaging and Consolidation**
- Concept, meaning and utility of repackaging and consolidation of Information products.
- Types of Repackaging and Information consolidation of products, Agencies dealing with repackaging, Document delivery and Reprography techniques.
- Translation Centers, Bureaux, Machine aided Translation.

Suggested Readings:

1. Alberico, Ralph and Micco Mary. Expert Systems for reference and information retrieval. West port : Meckler, 1990.
2. Austin, D. Precis, A manual of concept analysis and subject indexing. 2nd ed. 1984.
3. Baeza-Yates, R. A., and Ribeiro-Neto, B. (2010). Modern Information Retrieval (2nd ed.).Reading, Massachusetts: Addison-Wesley.
4. Barbara Allan. E-learning and Teaching in library and Information Services. London : Facet Publishing, 2002.
5. Bikowitz, W. R. Knowledge Management. Delhi: PHI, 2000.
6. Chowdhruy, G. G. Introduction to Modern Information Retrieval. 2nd edn. London, Facet Publishing, 2003.
7. Cleaveland, D. B., Cleveland, A. D. Introduction to Indexing and Abstracting. 1983.
8. Crawford, Marshall Jean. Information broking: a new career in information work. London: LA, 1988
9. Ford, Nigel. Expert Systems and artificial intelligence : An information manager's guide. London: LA, 1991.
10. James Dearnley and John Feather : The Wired World: An introduction to the theory and practice of the information society. London : Facet Publishing, 2001.
11. Jean Atchison & Alan Gilchrist. Thesaurus construction: a practical manual. London: Aslib. 1972.
12. Lancaster, F. W.   Information retrieval systems, characteristics, testing and evaluation. Facet Publishing, 1968.
13. Lancaster, F.W. Indexing and Abstracting in Theory and Practice. London: Facet Publishing, 2003.
14. Pandey, S.K. Ed. Library Information Retrieval. New Delhi, Anmol, 2010.
15. Peter Brophy. The Library in the 21st Century: New Services for Information Age. London: LA, 2001.
16. Prasher, R. G. Information and its Communication. New Delhi: Medallion Press, 2000.
17. Seetharama ,S. Information consolidation and repackaging. Ess Ess, New Delhi, 1997.
18. Singhal, Aravind and Rogers, EM. India's information revolution. New Delhi: Sage, 1989.
19. Vickery, B. C. Techniques of information retrieval. London: Butterworths, 1970.

PAPER 3.3: Research Methods

Unit 1:   Foundations of Research

- Research: Meaning, Definitions, Need and Purpose, characteristics of research
- Types of Research: Fundamental or Pure and Applied
- Research Process / Steps in Research
- Motivation of Research, Ethics in research
- Areas of research in LIS
- Barriers to research
- Role of research in the development of scholarship

Unit 2:   Research Design

- Planning of Research
- Identification of Research Problem: Characteristics, Journey from broad to narrow topics.
- Formulation of Research Problem
- Research Design: Meaning, Definitions, Characteristics, Types, Contents of Research
  Design.
- Variable: Concept, difference between concept and variable, types.
- Hypotheses: Definitions of Hypotheses, Need, Types, Sources and Functions of Hypotheses.
- Preparation of a Research Proposal.
- Literature Review: Concept, Meaning, Purpose, Planning, Sources for review

Unit 3:   Research Methods

- Classification of Research: Scientific and Arbitrary (Unscientific) method
- Ranganathan's Spiral of Scientific Method
- Types of Research: Based on Purpose, Objectivity and Enquiry mode
- Experimental Research: Meaning, Steps, Experiment vs. Controlled Groups, Types
- Historical Method: Meaning, Purpose, Steps and Types
- Delphi Method
- Survey Method: Scope, Purpose, Types, Steps in Survey, advantages and limitations

- Case Study Method: Concept, Case vs Survey, Characteristics, Objectives, Techniques and tools, Steps, Problems
- Content Analysis: Characteristics, Steps, Advantages, limitations
- Bibliometrics and Scientometrics: Meaning, Definitions, Sources of data, Advantages, Limitations

Unit 4: Research Techniques and Tools
- Questionnaire: Meaning, Types, Merits, Limitations, preparing a questionnaire, advantages, limitations
- Interview: Meaning, Characteristics, Types, Interview Process, Advantages, Limitations
- Observation: Importance, Types, Process, Advantages, Limitations
- Other Techniques: Scales, Check lists, Library Records and Reports.
- Types of measurement scales.

Sampling Techniques
- Basic concept, types of sampling
- Probability: Random, Systematic, Stratified, Cluster, Multistage, Area
- Non-Probability: Convenience, Purposive, Quota, Snowball
- Sample Size, Principles of sampling and Advantages of sampling

Unit 5: Analysis and Interpretation of Data
- Functions of Statistics, Types
- Classification and Summarization of Data
- Graphical presentation of Data: Types of Graphs – Bar, Pie, Line, Histogram etc.
- Measurement Scales
- Descriptive Statistics: Measure of Central Tendency – Mean, Mode and Median.
- Inferential statistics.
- Measures of Dispersion: Standard Deviation
- Chi-Square Test, ANOVA, Regression Analysis, Co-efficient of Variation
- Statistical Packages – PASW.

Unit 6: Bibliometrics, Scientometrics and Informetrics
- Concept, Definition, Historical Development
- Citation Databases: Scopus and Web of Science
- Bibliometric / Scientometrics indicators
- Bibliometric Laws: Bradford's, Zipf's and Lotka's

- Citation Analysis
- Growth of Literature and Doubling Time
- Indices: H-index, g-index etc.
- Impact Factor: Individuals and Journals
- LIS research and metric studies
- Trends in Bibliometric / Scientometrics

Unit 7:   Research Reporting
- Types of research report, purpose, contents, structure and components
- Guidelines of research reports
- Reference Style manuals: APA, ACS. etc.
- Methods of Research Evaluation

Selected Readings

1. Busa, Charles, H. and Harter, Stephen, S. (1980). Research Methods in Librarianship. Techniques and Interpretation. Orlando, Academic press.
2. Charles, H. et. al. (1993). Research Methods in Librarianship: Technique and Interpretation New Delhi, Sage.
3. Goode, W. J. and Hatt, P.K. (1986). Methods in Social Science Research, New Delhi, McGraw Hill.
4. Jagadish R. Raiyani. (2012). Research Methodology: Theory & Techniques. New Century Publications
5. Krishan Kumar, (1992). Research Methods in Library and Information Science, New Delhi, Vikas.
6. Leddy, Paul D. (1980). Practicle Research: Planning Design. London, Clive-Bigley.
7. Line, M.B. (1967). Library Survey, London, Clive Bingley.
8. Nicholas D. and Ritchil, M. (1970). Literature and Bibliometrics. London, Clive Bingley.
9. Rajendra, Kumbhar. (2014). Library and Information Science Research: Methods and Techniques. Pune, Universal Prakashan.
10. Ranjit, Kumar. (2014). Research Methodology: A step-by-step Guide for Beginners. New Delhi, Sage Publications.
11. Ravichandra Rao, I.K. (1985). Quantitative Methods for Library and Information Science, New Delhi, Wiley Eastern.
12. Slater, M. (1990). Research Methods in Library and Information Studies. London. L. A.
13. Stevens, R. E. Ed. (1971). Research Methods in Librarianship, London, Clive Bingley.

PAPER 3.4 Information Technology Applications (Theory)

Unit-1 Automation of Libraries
- Automation: Meaning and Definitions
- Historical developments in Library Automation
- Plannning of Library Automation
- Integrated Library System (ILS): Basic requirements, steps and implementation
- Components of Automated Library System: Acquisition, Cataloguing, Circulation, Serials Control Systems and OPAC

Unit-2 Library Software Packages
- Development of Library software
- Library Automation Standards
- Library Automation Software: Functional Requirements
- Types of Library Software- Proprietary Software and Open Source software
- Trends and Future of Library Automation Software

Unit-3 Communication Technology
- Chronology of Communication Technology
- Evolution of Communication Technology
- Communication Technology: Meaning, Definition and its Significance
- Telecommunications: Different Media and Channals.
- Communication Networks: Public Switched Telephone Network (PSTN) and Public Data Network (PDN)

Unit-4 Database and DBMS
- Introduction to the concept, Components and Structure of Databases
- Types of Databases: Online and Offline
- Concept of DBMS: Major features
- Creation of Databases

Unit-5 Emerging Technologies in Libraries

- Barcode: Different Symbologies and its application in Libraries
- RFID: Its application in Libraries
- Smartcard technology
- Latest trends in Library Security Technology

Unit-6 E-Publishing

- Meaning, Definition, Significance
- Types of E-publishing
- Digital copyright issues
- Open Access movement and its impact on Scholarly Communication

UNIT-7 Artificial Intelligence

- Concept, Growth and Development
- Expert system
- Natural Language Processing
- Pattern Recognition
- Application of Artificial Intelligence in Library and Information Centres

References:

1. Chakravarthy, R. C. and Murthy, P. R. S. (2011). Information Technology and Library science. NewDelhi: Pacific Publications.
2. Curtin, Dennis and others (1999). Information Technology: The breaking Wave. NewDelhi: McGraw Hill Education.
3. ITL Education Solutions Limited (2012). Introduction to Information Technology. NewDelhi: Pearson.
4. Kulkarni Parag. and Joshi Prachi. (2015). Artificial Intelligence: Building an Intelligent System. NewDelhi: PHI

5. Kumar, P. S. G. (2004). Information Technology: Applications (Theory and Practice). NewDelhi: B. R. Publishing.

6. Lancaster, F. W. (1990). Electronic Publishing and their Implications for Libraries and beyond. London: Clive Bingley.

7. Pandya, Raj. (2000). Mobile communication services and systems. New Delhi: Prentice Hall of India.

8. Post, Gerald V. (2000). Database Management Systems. New Delhi: Tata McGraw-Hill Publishing House.

9. Ravichandra Rao (1996). Library Automation. New Delhi: New Age International.

10. Sharda, Nalin K. (1999). Multimedia information Networking. New Delhi: Prentice Hall of India.

11. Shepherd, Robert D. (2001). Introduction to Computers and Technology. New Delhi: Crest Publishing House.

12. Stallings, William(2000). Data and computer communications. New Delhi: Prentice Hall of India.

13. Turban, Rainer and Potter (2006). Introduction to Information Technology. New Delhi: Wiley.

14. Vishwanathan, Thaigarajan. (2005). Telecommunications switching system and networks. New Delhi: Prentice Hall of India.

15. Whittaker, Jason (2002). Internet: Basics. London: Routledge.

PAPER 3.5 Information Technology Applications (Practicals)

- Use of Library Software: SOUL, Koha and NewGenLib.
- Online Database searching: Web Directory, Web OPACs, WorldCat and IndCat. Etc.

PAPER 3.6 Information Literacy (Open Elective)

Unit 1:   **Information Literacy (IL)**
- Fundamentals of IL: Meaning, Definitions and Concepts
- History and Evolution
- Need and Importance
- Information Literacy and Libraries

Unit 2:   **Types of Information Literacies**
- Technology Literacy
- Media Literacy
- Computer Literacy
- Digital Literacy

Unit 3:   **Information Literacy Standards, Guidelines and Models**
- ALA, ACRL and IFLA Guidelines
- Information Literacy Standards
- Elliss model, Kuhlthau model, SCONUL and Empowering 8TM models
- Partners of Information Literacy

Unit 4:   **Life Long Learning and Information Literacy**

- Meaning, Definition, Importance
- Life Long Learners
- Major Drivers of lifelong learning
- Role of Information Literacy in higher education
- Role of information literacy in research
- Impact of Information Literacy skills on Learning and Reading Habits

Unit 5:   **Trends in Information Literacy Research and major IL Initiatives, Programmes**
- Current Trends and Research in Information Literacy
- Integration of Information Literacy at different levels of education
- Global Perspectives of Information Literacy
- Information Literacy Initiatives and Programmes in India.

Selected Readings

1. American Library Association (2006). Information Literacy Competency Standards for Higher Education. Available at: www.acrl.org

2. American Library Association Final Report of Presidential Committee on Information Literacy. (1989). Final Report. Chicago:Author. www.ala.org/at/nill/littsthtml

3. Association of college and Research Libraries (2000). Information Literacy Competency standards for higher education. Available at: www.ala.org

4. Barker, K. and Londsale, R. Ed. (1994). Skills for life: the value and meaning of literacy. London: Taylor Graham.

5. Bruce, C. (1997). The seven faces of Information Literacy. Adelaide(AU): Auslib Press.

6. Cox, C. and Lindsay, E. (2008). Information Literacy Instruction Handbook. Chicago, IL: Association of College and Research Libraries.

7. Doyle, C. S. (1994). Information Literacy in an information society: A concept for the information age. Syracuse, NewYork: ERIC Clearinghouse on Information and Technology.

8. Eisenberg, M. B., Lowe, C. A. and Spitzer, K. L. (2004). Information Literacy: Essential Skills for the information age. London: Libraries Unlimited.

9. Gilster, P. (2007). Digital Literacy. NewYork: Wiley.

10. Godwin, P. And Parker, J. Ed. (2008). Information Literacy Meets Library 2.0. London: Facet Publishing.

11. Grassian, E. S., Kaplowitz J. R. (2009). Information Literacy Instruction: Theory and Practice. Chicago: Neal-Schuman Publishers, Inc

12. Kuhltahu, C. C. (1987). Information Skills for an Information Society: A review of Research. Syracuse, NewYork: ERIC Clearinghouse on Information Resources.

13. Martin, A. and Madigan, D. Ed. (2006). Digital Literacies for learning. London: Facet Publishing.

14. UNESCO (n.d.), "Information Literacy". http://portal.unesco.org/ci/en/ev.php.

MASTER OF LIBRARY AND INFORMATION SCIENCE COURSE

(MLISC - IV) SEMESTER

PAPER 4.1 Networking and Internet Technology

Unit: 1   **Introduction to Networks**

- Computer Networks : Meaning, Definition and Examples
- Switching Techniques: Circuit switching, Packet switching and Cell Switching
- Network media-UTP, Optical fiber, Ethernet, Network Interface Cards, Hubs, Routers, Gateway, Modem
- Network types: LAN, WAN, MAN, CAN, PAN,
- Wireless Networks: WiFi, WiMAX

Unit 2:   **Topologies of Network**

- Concept of Topology
- Types: Bus, Ring, Mesh, Star, Tree etc.
- Data Networks: Integrated Services Digital Network (ISDN), Digital Subscribers Line(DSL), Asynchronous Transfer Mode (ATM), etc.
- Transmission Media: Twisted Pairs, Coaxial Cables, Optical Fibres, Microwave Transmission, Satellite Transmission.

Unit 3:   **Library and Information Networks at National Level**

- Evolution, Need, Characteristics and Types of Library and Information Networks
- Data Communication Networks: NICNET, I-NET, RABNET.
- General Application Networks: ERNET, SIRNET, BTISNET, TIFACLINE.
- Library application Networks: INFLIBNET, DELNET, ADINET, etc.

Unit 4:   **Library and Information Networks at International Level**

- Online Computer Library Center (OCLC)
- Research Libraries Group (RLG) — RLIN
- Joint Academic Network (JANET)
- Consortium of University Research Libraries (CURL)
- Australian Academic and Research Library Network (AARLIN)

Unit 5:   **Internet Technology**

- Meaning and Definitions
- History of Internet
- Internet Technology: Tools and Protocols: TCP/IP and others.
- Internet connectivity, Dial up, Leased line, V-SAT Connectivity etc.
- Internet, Extranet and Intranet.
- Web Browsers: Types, Software, Book Mark, Caching, etc.
- Internet security, Firewall, Proxy servers
- Web 2.0 and Web 3.0 Technologies
- Semantic Web, Invisible Web and Deep Web

Unit 6:   **Search Engines**

- Meaning and Definitions, Concept of Search Engines
- Types of Search Engines: General Search Engines, Meta Search Engines, Intelligent Search Engines, Subject Specific Search Engines.
- Search Technologies and Strategies.
- Benefits and Limitations of Search Engines.

Unit 7:   **Internet Services**

- E-mail
- File Transfer Protocol (FTP)
- Remote Login, WWW
- Teleconferences, Video conferencing.
- Bulletin Board Services and Document Delivery Serive.
- Trends in Networking.

Selected Readings

1. Andrew, Judith. Digital Libraries: Policy Planning and Practice. Hampshire: Ashgate, 2004.

2. Bose, Kaushik. Information Networks in India: Problems and Prospects, New Delhi: Ess Ess, 1994.

3. Brophy, Peter. Libraries without walls: The distributed delivery of Library and Information Services. London: Facet Publishing, 2004.

4. Chwan-Hwa (John) Wu. Introduction to Computer Networks and Cybersecurity. New Delhi, CRC Press, 2013.

5. Comer, D. E.. Computer Networks and Internets. 6th Ed. New Delhi: Pearson, 2014

6. Janczewski, Lech. Internet and intranet security management: risks and solutions. Hershey: Idea, 2000.

7. Hallberg, Bruce. Networking: A Beginner's Guide. 6th Ed. New York: McGraw-Hill Education, 2013.

8. Kurose, James F. and Ross, Keith W. Computer Networking: A Top-Down Approach. 6th Ed. New York: Pearson, 2012.

9. Mann, Chris, Ed. *In* Internet communication and qualitative research. London: Sage, 2000.

10. Mathew Strebe. Internet Information Service. New Delhi: BPS Publication, 1998.

11. Pandian, Paul M. and Jabhekar, Ashok: Internet for Libraries and Information Centres, New Delhi: McGraw Hill, 2001.

12. Pedtey, Paul. Internet and Push Technology. London: LA, 1999.

13. Peterson, L. L. Computer Networks: A Systems Approach. UK: Morgan Kaufmann, 2011.

14. Schwartz, D. T. et. al. Internet based organizational memory and Knowledge Management. London: Ida Group publisher, 2000.

15. Subba Rao, Siriginidi (2001). Networking of libraries and information centres: challenges in India. Library Hi Tech, 19 (2), 167-179.

16. Susan, Estrada. Connecting to the Internet. London: Orilly, 1993.

17. Tanenbaum, Andrew S. Computer Networks. 5th Ed. New York: Pearson, 2010.

18. Terplan, Kornel. Internet performance management. London: CRC Press, 2000.

PAPER – 4.2   Digital Library and Multimedia (Theory)

Unit 1:   **Digital Library**
- Nature, Meaning and Definitions, Objectives, Characteristics, Digital Library Collections. Digital Library Services.

Unit 2:   **Design and Organisation of Digital Library**
- Architecture, Interoperability, Compatibility, Protocols, Standards and User Interfaces, Ergonomics, Digital Library Technology. Social, Economic and Legal Issues.

Unit 3:   **Digital Library Initiatives**
- Evolution of Digital Libraries, DLI-I and DLI-II, E-Lib Programme, Institutional Repositories, Digital Library Initiatives at International level and in India.
- Study of GSDL, dSpace and E-Prints.

Unit 4:   **Digital Resource Management**
- Identification, Accessing, Processing, Digitization, Storage and retrieval/usage of Digital Resources. Digital Library Evaluation. Digital Rights Management.

Unit 5:   **Overview of Multimedia**
- Nature, Meaning and Definition, Historical Development, Branches of Multimedia: Web Designing, Animation.
- Formats: Visual-Image Formats, Audio-Image Formats, Internet-Related Formats,

Unit 6:   **Multimedia Authoring tools**
- Graphics and drawing packages, Image editing and animation software's.
- Digital representation and compression
- Designing a multimedia product for Web or Optical disk.
- Overview of multimedia software's: Omnipage, Flash, Photoshop etc.

Unit 7:   **Library Web Page Designing**
- Website Designing.
- Website designing Languages.
- Contents of Library webpage.
- Website evaluation criteria.

- Web Tools and Web Apps for LIS.

Suggested Readings:

1. C. Xavier. World Wide Web Design with HTML. New Delhi: TMH, 2000.
2. Cooper. Michael D. Design of Library Automation System: File Structure, Data Structures and Tools. New York: John Wiley, 1996.
3. David Baker Wendy Evans, Digital Library Economics (Chandos Information Professional Series) 9781843344032, Chandos Publishing.
4. Diane Kresh , The Whole Digital Library Handbook :9780838909263 , ALA Editions 2015
5. Diane Kresh, WHOLE DIGITAL LIBRARY HANDBOOK: 9788184082326, Indiana Publishing House 2015.
6. G. G. Chowdhury. Introduction to Digital Libraries. London: Facet Publishing, 2013.
7. John M. Cohn, Ann L. Kelsey and Keith Michael Fiels , Planning for library automation: A Practical Handbook – London : Library Association, 1998.
8. Jia Liu, Metadata And Its Applications In The Digital Library: Approaches And Practices : 9781591583066, Libraries Unlimited.
9. John M. Coln, AnnL Kelsey, Keith Michael Fiels. Planning for Automagtion : A How-to-do-it for Librarian. 2nd Ed. [S.I.] : Neal-Schuman, 2000.
10. Kausik Bose Information Networks in India : Problems and Prospects / New Delhi : Ess Ess Publications, 2010.
11. Leona Carpenter, Simon Shaw & Andrew Prescott. Towards the Digital Library. London : LA, 1998.
12. Lovecy, Ian. Automating library procedures: a survivor's handbook. London: Library Association, 1984.
13. Paul Pedley. The invisible Web: Searching the hidden parts of the Internet. London: Aslib, 2010.
14. Steven Ovadia, The Librarian's Guide to Academic Research in the Cloud (Chandos Information Professional Series) : 9781843347156 ,: Chandos Publishing
15. Reynolds, Dennis. Library Automation: Issues and applications. New York: Bowker, 2000.
16. Satyanarayana, N. R. A manual of computerization of libraries. New Delhi: Viswa Prakashan, 1995.
17. Yan Quan Liu, Digital Libraries in Theory and Practice : 9781468121483,CreateSpace
18. Yan Quan Liu, Multimedia Design & HCI in Libraries: An Introduction for Information & Library Professionals: 9781478251927 , CreateSpace Independent Publishing Platform.

PAPER - 4.3 Electives (Any One)

A. Public Library System

Unit 1:   **Public Libraries**
- Meaning, Definitions, Origin, Objectives and Functions
- UNESCO Public Library Manifesto: 1972, 1994 and 2004.
- Role of Public Libraries in Modem Society.
- Growth and Development of Public Libraries in USA, UK and India.

Unit 2:   **Collection Development and Management**
- Steps in collection development: Selection and Acquisition of different types of documents including non-book materials.

Unit 3:   **Organisation and Management of Information Resources and Services**
- Organization of Library, Staff Manual, Statistics, Work Measurement and Standards.
- Organisation of Information Resources.
- Planning and Organisation of various types of Information services to the different categories of users including the disabled. Extension and Publicity Activities.

Unit 4:   **Human Resource Planning, Management and Development**
- Nature, Size, Selection and Recruitment, Qualifications, Training and Education, Duties and Responsibilities, Service conditions, motivation and control.

Unit 5:   **Study of Library Legislation**
- Library Legislation: UK, USA and India.
- Karnataka Public Libraries Act, 1965 and its features.
- Comparative and Critical Study of Public Library Acts in India.

Unit 6:   **Financial Management**

- Financial resources of Public Libraries, Mobilization and Estimation of Public Library Finance.
- Budget: Meaning, Definitions and Functions.
- Different types of Budget and Application of PPBS in Public Libraries.

Unit 7:   **Library Automation and Library Users**
- Computerization of different divisions, networking: National and Regional Levels.
- Resource sharing: Problems and Prospects.
- Study of Users and their needs, User Education and Public Library Standards.

Selected Readings:
'
1. Beardwell, Ian and Holden, Len. Ed. Human Resource Management: Contemporary Perspective. New Delhi: McMillan, 1996.
2. Bilal, D. Library Automation: Core Concepts and Practical Systems Analysis. Ed. 3. Libraries Unlimited, 2014.
3. Great Britain, Ministry of Education. Standards of Public Library Services in England and Wales. Report. London: HMSO, 1959.
4. Iyer, V. K. Library Management of Staff Training and Development. Delhi: Rajat, 1999.
5. Kesavan, B.S. National Library of India, Calcutta. National Library, 1961.
6. Krishnamurthy, R. Library Management. New Delhi: Commonwealth, 1997.
7. Kumar, M. G., & Sethunath, V S. Public Libraries. Crescent Publishing Corporation. 2012.
8. McCloven, L.R. Public Library Extension, Paris. UNESCO, 1951.
9. Mittal, R.L. Public Library Law, Delhi: Metropolitan, 1971.
10. Ranganathan, S.R. Library Development Plan: A 30 year Programme for India with Draft Library Bill, Delhi: Delhi University, 1950.
11. Tiwari, P. Library Automation. Aph Publishing Corporation, 2010.
12. Venkatappaiah, Velega. Public Library Legislation in the New Millennium. Bookwell, 2007
13. White, Carl M. Ed. Bases of Modem Librarianship. New York: Pergmon, 1964.
14. Goulding, Anne. Public Libraries in 21st Century: Defining Services and debating the future. Ashgare. United Kingdom. 2012.

15. www.netugc.com.

16. http://www.egyankosh.in/book.php?course=MLIS&uid=1.

PAPER: 4.3 (B) Academic Library System

Unit1:   **Academic Libraries**
- Meaning, Definition, Importance, Functions.
- Types of Academic Libraries. School, College, University Libraries
- Role of Libraries in Higher Education.

Unit2:   **Evolution of Higher Education and Libraries in India**
- Higher Education and Libraries in India before independence and after independence.
- Role of Academic Libraries in the present electronic environment.
- Challenges of Academic Libraries.

Unit 3:   **University Grants Commission (UGC)**
- Establishment of UGC.
- Role of UGC in the Development of Academic Libraries.
- Powers and Functions of UGC.
- Committees Constituted by UGC for the development of College and University libraries.
- Role of other regulatory bodies in the promotion of libraries in India.

Unit 4   **Collection Development and Management in Academic Libraries**
- Ideal Characteristics of Academic Library collection
- Meaning and Definitions of collection development.
- Book selection procedure.
- Collection development policy in the digital environment.
- Problems of collection development.
- Copyright uses in the digital environment.

Unit 5:   **Academic Library Services**
- Digital Reference Services (DRS).
- Current Awareness and SDI Service (CAS & SDI)
- E-mail Altering Services.
- Electronic Document Delivery Services (EDDS)
- Database Services.
- User Education and Information Literacy.

Unit 6:   **Academic Library Management**
- Human Resource Development (HRD) and Financial management in Libraries.

- HRD: Meaning, definitions and importance.
- Manpower planning and training: Continuing Education Programmes(CEPs) for Librarians.
- Financial Management: Types of Budgeting, Lumpsum Budget, Zero Based Budget (ZBB) and Program Planning Budgeting System (PPBS).

Unit   7:   Library Networking
- Library/ Information Networking: Definition, need and importance.
- Information Network Development in India: DELNET, INFLIBNET, VIDYANET, ERNET.
- Library Consortia: Emerging Trends.

References:

1. Deshpande, K. S. (1985). University Library System in India. New Delhi: Streling Publishers Pvt. Ltd.
2. Dhiman, A. K. (2002). Academic Libraries. New Delhi: Ess Ess Publications.
3. Flemming, H. (1990). User Education in Academic Libraries. London: The American Library Association.
4. Mathews, B. (2009). Marketing Today's Academic Library: A Bold New Approach to Communicating with Students. Chicago: American Library Association.
5. Petruzzelli, B. W. (2006). Real-Life Marketing and Promotion Strategies in College Libraries: Connecting With Campus and Community. London: Routledge.
6. Budd, J. M. (1998). The Academic Library: Its Context, Its purpose and Its operation. Englewood, Colorado: Libraries Unlimited.
7. Dayal, B. (2011). Managing Academic Libraries Principles and Practice. New Delhi: Isha Books.
8. Kumar, P. S. G. (2004). Information Sources and Services: Theory and Practice. Delhi: B. R. Publishing Corporation.
9. Mitchell, E. and Seiden, P. (2015). Reviewing the Academic Library: A Guide to Self-Study and External Review. Chicago: American Library Association.
10. Petruzzelli, B. W. (2006). Real-Life Marketing and Promotion Strategies in College Libraries: Connecting With Campus and Community. London: Routledge.

11. Rajasekharan, K. and Nair, R. (1992). Academic library effectiveness. New Delhi: Ess Ess Publications.

12. Kaul, H. K. (1999). Library resource sharing and networks. Delhi: Virgo   Publication.

PAPER 4.3 C: Special Library System

Unit 1:   **Special Libraries**

- Meaning, Definitions, Characteristics, Aims, Objectives, Functions
- Types of Special Libraries: Government, R & D Libraries, Industrial, Hospital, Prison, News paper, Children, Mobile Libraries etc.
- History and Development of Special Libraries in India, UK and USA.

Unit 2:   **Collection Development and Resource Management**

- Meaning and Definitions, Purposes, Functions
- Collection Development Process: Community Analysis and User studies, Collection Development Policy, Selection, Acquisition.
- Resources Management: Meaning, Definitions, Storage, Evaluation and Weeding, Preservation.
- Impediments and Guidelines for Collection Development.

Unit 3:   **Planning of Various Information Services**

- Reference: Active, Passive and Short-range and Long-range and Referral Services.
- Abstracting and Indexing Services.
- Current Awareness Services: Current Contents, Bulletin Board and etc.
- Selective Dissemination of Information.
- News Paper Clipping Service.
- Digest Service, Reprographic and Translation Service.
- Literature Search and Bibliographic Service and others.
- Web based Information Services: E-mail, Use of Social Networking Sites.

Unit 4:   **Resource Sharing, Networking and Consortia**

- Meaning, Definitions, Need, Objectives, Functions and Components.
- From Library Cooperation to Consortia.
- Areas of Resource sharing.
- Networking: Meaning, Definitions, Need, INFLIBNET, DELNET etc.
- Consortia: Meaning and Definitions, Concept, Need, Purpose.

Unit 5:   **Human Resource Planning and Management (HRP & HRM)**
- Human Resource Planning: Meaning, Definitions, Need, Purpose, Elements, Personal Policy, Training and Development, Advantages.
- 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

Unit 6:   **Financial and Space Management**

- Meaning and Definitions, Sources of Finance
- Budgeting Techniques: Meaning and Definitions, Need, Purpose, Characteristics; Types of Budget: Line-item, Lump-sum, Programme Budget, PPBS, ZBB.
- Methods of Financial Estimation and Allocation of Budget.
- Planning and Principles of Library Building; Library Furniture and Equipments.

Unit 7:   **Library Users and Use Studies**

- Types of Users: Needs
- Use Studies: Concept, Need, Types
- Objectives and Techniques of use studies

Selected Readings

1. Ashworth, W. (1985). Handbook of Special Librarianship and Information Work. Ed. 4. London: ASLIB.
2. Ashworth, Wilfred. (1979).Special Librarainship, London, Clive Bingley,
3. Autherton, P. (1977). Handbook of Information Systems and Services. Paris: UNESCO.
4. Bakewell, KGB. (1969). Industrial Libraries through the world. Pergaman: Oxford.
5. Ball, Rafael, (1970). "Future trends in special library services" INSPEL Silva Manil, Special Libraries, London, Andre Deutsch.
6. Burket, J. (1968). Trends in Special Librarianship. London: Clive Bingle.
7. Clanderhead, P. (Ed). (1972). Libraries for Professional Practice. London: Architectural Press.
8. Eva Semertzaki. (2011). Special Libraries as Knowledge Management Centres. New Delhi. Chandos Information Professional Series: Chandos Publishing (Oxford) Ltd.
9. James, M, Matarazzo. and Toby, Pearlstein. (2013). Special Libraries: A Survival Guide. Libraries Unlimited Inc
10. Jockson, EB. (1985). Special Librarianship: A New Reader. Metuchen: Scarecrow Press.
11. Kataria Sajay, Anbu K John Paul,Shri Ram.(2010). Emerging Technologies and Changing Dimensions of Libraries and Information Services, Delhi, KBD Publication
12. Krishan Kumar. (1973). Research Libraries in the Developing Countries. New Delhi: Vikas.

13. Mishra, R. K. (2013). Special Library System And Information Services   Centrum Press.
14. Mount, E. (1984). Management of Scientific and Technical Libraries. New York: Haworth.
15. Panda, B D, (1992). Towards A Special Library System, New Delhi, Anmol Publications,
16. Pruett, NJ. Scientific and Technical Libraries. 2vols. Orlando: Academic.
17. Singh, S.P. and Krishan, Kumar. (2005). Special Libraries in the Electronic Environment, New Delhi: Bookwell.
18. http://gep.ub.fu-berlin.de/drupal/special-interest-working-groups/special-libraries/objectives
19. http://speciallib.blogspot.in/ http://en.wikipedia.org/wiki/Special_library
20. http://slq.nu/?article=the-special-library-bridging-the-physical-and-digital-arenas
21. http://librariandiary.blogspot.in/2012/03/special-libraries.html

Paper 4.4: Digital Libraries and Multimedia (Practical)

- Digital Library Software: Eprints, D-Space, Green Stone and Moodle.
- Content Management Software: Drupal, Joomla and WordPress

Paper 4.5   Dissertation   100 Marks

Dissertation Viva-voce   40 Marks

Educational Tour Report   10 Marks

PAPER 4.6 Internet Searching (Practical)

- Use of different search engines: Google, Yahoo, Bing Etc.
- Use of different Meta search engines, etc.