

FIRST SEMESTER

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T101A: Inorganic Chemistry–I	4	4	3	25	75	100
PG75T102B: Organic Chemistry–I	4	4	3	25	75	100
PG75T103C: Physical Chemistry– I	4	4	3	25	75	100
PG75T104D: Analytical Chemistry	4	4	3	25	75	100
B. Practical						
PG75P101A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P102B: Lab Course in Organic Chemistry	2	4	4	10	40	50
PG75P103C: Lab Course in Physical Chemistry	2	4	4	10	40	50
PG75P104D: Lab Course in Analytical Chemistry	2	4	4	10	40	50
Total	24	32	28	140	460	600

SECOND SEMESTER

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T201A: Inorganic Chemistry–II	4	4	3	25	75	100
PG75T202B: Organic Chemistry–II	4	4	3	25	75	100
PG75T203C: Physical Chemistry–II	4	4	3	25	75	100
B. Elective						
PG75O201A: Applied Inorganic Chemistry	4	4	3	25	75	100
C. Practical						
PG75P201A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P202B: Lab Course in Organic Chemistry	2	4	4	10	40	50
PG75P203C: Lab Course in Physical Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

THIRD SEMESTER
(INORGANIC CHEMISTRY SPECIALIZATION)

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T301A: Advanced Coordination & Bioinorganic Chemistry	4	4	3	25	75	100
PG75T302A: Molecular Spectroscopy	4	4	3	25	75	100
PG75T303A: Selected topics in Inorganic Chemistry	4	4	3	25	75	100
B. Elective						
PG75O302B: Applied Organic Chemistry OR PG75O302C: Applied Physical Chemistry	4	4	3	25	75	100
C. Practical						
PG75P301A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P302A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P303A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

THIRD SEMESTER

(ORGANIC CHEMISTRY SPECIALIZATION)

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/Practical	Internal Assessment Marks Theory/Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T301B: Organic spectroscopy	4	4	3	25	75	100
PG75T302B: Stereochemistry and Reaction Mechanism	4	4	3	25	75	100
PG75T303B: Chemistry of Natural Products	4	4	3	25	75	100
B. Elective						
PG75O302B: Applied Organic Chemistry OR PG75O302C: Applied Physical Chemistry	4	4	3	25	75	100
C. Practical						
PG75P301B: Lab Course in Organic Chemistry	2	4	4	10	40	50
PG75P302B: Lab Course in Organic Chemistry	2	4	4	10	40	50
PG75P303B: Lab Course in Organic Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

THIRD SEMESTER

(PHYSICAL CHEMISTRY SPECIALIZATION)

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T301C: Quantum Mechanics, Group Theory & Diffraction.	4	4	3	25	75	100
PG75T302C: Spectroscopy & Voltammetry.	4	4	3	25	75	100
PG75T303C: Statistical Mechanics & Polymer Chemistry.	4	4	3	25	75	100
B. Elective						
PG75O302B: Applied Organic Chemistry OR PG75O302C: Applied Physical Chemistry	4	4	3	25	75	100
C. Practical						
PG75P301C: Lab Course in Physical Chemistry	2	4	4	10	40	50
PG75P302C: Lab Course in Physical Chemistry	2	4	4	10	40	50
PG75P303C: Lab Course in Physical Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

THIRD SEMESTER
(ANALYTICAL CHEMISTRY SPECIALIZATION)

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T301D: Instrumental Methods of Analysis	4	4	3	25	75	100
PG75T302D: Molecular Spectroscopy	4	4	3	25	75	100
PG75T303D: Selected Topics in Analytical Chemistry–I	4	4	3	25	75	100
B. Elective						
PG75O302B: Applied Organic Chemistry OR PG75O302C: Applied Physical Chemistry	4	4	3	25	75	100
C. Practical						
PG75P301D: Lab Course in Analytical Chemistry–I	2	4	4	10	40	50
PG75P302D: Lab course in Analytical Chemistry–II	2	4	4	10	40	50
PG75P303D: Lab course in Analytical Chemistry–III	2	4	4	10	40	50
Total	22	28	24	130	420	550

FOURTH SEMESTER
(INORGANIC CHEMISTRY SPECIALIZATION)

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T401A: Instrumental Methods of Analysis.	4	4	3	25	75	100
PG75T402A: Material, Nuclear and Environmental Chemistry	4	4	3	25	75	100
PG75T403A: Organometallic and Solid State Chemistry	4	4	3	25	75	100
PG75D404A: Project Work*	6	4	8	25	125*	150
Practical						
PG75P401A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P402A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50
PG75P403A: Lab Course in Inorganic Chemistry	2	4	4	10	40	50

*Project Evaluation:

Dissertation – 75 Marks
Presentation/ – 50 Marks
Viva-Voce

**FOURTH SEMESTER
(ORGANIC CHEMISTRY SPECIALIZATION)**

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/Practical	Marks at the exams	Total Marks
PG75T401B: Organic Synthesis	4	4	3	25	75	100
PG75T402B: Photochemistry and Pericyclic Reactions	4	4	3	25	75	100
PG75T403B: Heterocyclic and Medicinal Chemistry	4	4	3	25	75	100
PG75D404B: Project Work*	6	4	8	25	125*	150
Practical						
PG75P401B: Lab Course in Organic Chemistry	2	4	3	10	40	50
PG75P402B: Lab Course in Organic Chemistry	2	4	3	10	40	50
PG75P403B: Lab Course in Organic Chemistry	2	4	3	10	40	50
Total	24	28	21	130	395	600

*** Project Evaluation:**

Dissertation – 75 Marks

Presentation/ – 50 Marks

Viva-Voce

**FOURTH SEMESTER
(PHYSICAL CHEMISTRY SPECIALIZATION)**

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams	Total Marks
PG75T401C: Quantum Mechanics and Solid State Chemistry.	4	4	3	25	75	100
PG75T402C: Catalysis and Polymer Chemistry.	4	4	3	25	75	100
PG75T403C: Spectroscopy and Microscopy.	4	4	3	25	75	100
PG75D404C: Project Work*	6	4	8	25	125*	150
C. Practical						
PG75P401C: Lab Course in Physical Chemistry	2	4	3	10	40	50
PG75P402C: Lab Course in Physical Chemistry	2	4	3	10	40	50
PG75P403C: Lab Course in Physical Chemistry	2	4	3	10	40	50
Total	24	28	21	130	395	600

*** Project Evaluation:**

Dissertation – 75 Marks

Presentation/ – 50 Marks

Viva-Voce

**FOURTH SEMESTER
(ANALYTICAL CHEMISTRY SPECIALIZATION)**

Description of Papers	Credits	No. of Hrs/ week Theory/ Practical	Duration of exam. in Hrs Theory/ Practical	Internal Assessment Marks Theory/ Practical	Marks at the exams.	Total Marks
A. Core Subjects						
PG75T401D: Pollution and Analysis	4	4	3	25	75	100
PG75T402D: Quality Control, Analysis of Food, Beverages and Pharmaceuticals.	4	4	3	25	75	100
PG75T403D: Selected Topics in Analytical Chemistry–II	4	4	3	25	75	100
PG75D404D: Project work*	6	4	8	25	125*	150
C. Practical						
PG75P401D: Lab course in Analytical Chemistry.	2	4	4	10	40	50
PG75P402D: Lab course in Analytical Chemistry.	2	4	4	10	40	50
PG75P403D: Lab course in Analytical Chemistry	2	4	4	10	40	50
Total	22	28	24	130	420	550

** Project Evaluation:

Dissertation-75 Marks

Presentation- 50 Marks

Viva-Voce -25 Marks