

Third year

Semester-5

Chemistry-5: Inorganic, organic & Physical Chemistry-5 (core)

Block – 1: Inorganic Chemistry-5

- Unit – 1: Bonding in Metals
- Unit – 2: Principles of Metallurgy
- Unit – 3: Organometallics compounds
- Unit – 4: Metal ions in biological system

Block – 2: Organic Chemistry-7

- Unit – 5: Heterocyclic compounds.
- Unit – 6: Aminoacids and proteins.
- Unit – 7: Vitamins and Hormones.

Block – 3: Physical Chemistry -5

- Unit – 8: Thermodynamics-II.
- Unit – 9: Electro Chemistry-II
- Unit – 10: Photochemistry.

Block – 4: General Chemistry -3

- Unit – 11: UV-Visible spectroscopy.
- Unit – 12: IR-Spectroscopy.
- Unit – 13: Evaluation of Analytical Data.

Practical: Chemistry-5: Systematic Qualitative analysis of organic compounds

Block -1: Systematic qualitative analysis procedure for identification of Organic compounds.

- Unit – 1: Preliminary examination, solubility and Detection of Acidic functional groups (Carboxylic acid and phenols).
- Unit – 2: Detection of basic functional groups (Amines).
- Unit – 3: Detection of Neutral and some miscellaneous functional groups. (Aldehydes, ketone, esters, amides, nitro hydrocarbons, hydrocarbons, carbohydrates and urea)

Block -2: Identification of functional groups..

- Unit – 4: Identification of known organic compound (Carboxylic acid)
- Unit – 5A: Identification of unknown organic compounds-1

Unit – 5B: Identification of unknown organic compounds-2

Unit – 6A: Identification of unknown organic compounds-3

Unit – 6B: Identification of unknown organic compounds-4