

Department of Chemistry
JSS College for Women(Autonomous), Saraswathipuram, Mysuru-
570009

Course outcomes of BSc -Chemistry -2025-26

V Semester Paper 5

Course outcomes	
CO1	Understand the principles of coordination chemistry including ligand classification, nomenclature, stability of complexes, isomerism, and methods for determination of formation constants.
CO2	Analyze advanced organic chemistry concepts such as aromaticity, stereochemistry, conformational analysis, and the structure and biological importance of vitamins.
CO3	Explain photochemical and radiation chemical processes, including quantum efficiency, photophysical phenomena, radiolysis, and apply phase rule to one- and two-component systems.
CO4	Apply principles of molecular spectroscopy (rotational, vibrational, Raman, and electronic spectroscopy) to interpret molecular structure, bonding, and energy transitions.

V Semester Paper 6

Course outcomes	
CO1	Explain modern concepts of acids and bases, non-aqueous solvents, HSAB theory, and bonding in boranes, carboranes, metal clusters, and carbonyl compounds.
CO2	Understand the structure, reactions, and interconversions of carbohydrates and heterocyclic compounds, including their synthesis and aromatic behavior.
CO3	Apply quantum mechanical principles and colligative properties to solve theoretical and numerical problems related to molecular systems and solutions.
CO4	Interpret UV-Visible spectroscopic data using electronic transitions, chromophores, and Woodward–Fieser rules to determine structural features of organic molecules.

VI SEMESTER PAPER 7

Course outcomes	
CO1	Enables Students to analyze , predict and interpret the structure, bonding and physical properties of transition metal complexes
CO2	To understand, predict and applications of reaction mechanism.
CO3	To understand the concept of ionic equilibria, behavior of ions in solution and different types of electrochemical cell and applications of EMF measurements.
CO4	Ability to interpret IR spectra, identify the functional groups and analyze the factors affecting the vibrational frequencies in organic and co-ordination compounds.

VI SEMESTER PAPER 8

Course outcomes	
CO1	To optimize production analysis quality understand unit operations and applications of industrially important materials
CO2	To understand chemistry of amino acids and peptides ,mechanism of rearrangement reactions, Design synthetic routs for amino acids and peptides
CO3	To analyze the rates and mechanism of chemical changes ,measuring the rate of reaction using advanced techniques and interpret the mechanism of homogeneous ,acid-base ,enzymes, catalysis
CO4	Theoretical understanding and instrumentation of NMR spectroscopy ,identifying the organic molecules