Lesson Plan

Name of Teacher : Rakesh Kumar

Subject : Chemistry

Class : B.Sc 5th Semester

Month	Topic
July, 2025	Quantum Mechanics – I Black Body Radiation Application of Plank Radiation Law, Postulates, Operator, Schrodinger Wave Equation, Particle in One Dimensional Box, its Significance Expectation Values, Hisenberg Uncertainty Principle
August, 2025	Physical Properties And Mol. Structure– Optical Activity, Dipole Moment, Magnetic Properties Spectroscopy – Introduction, Rotational Spectrum, Vibrational Spectrum, And Raman Spectroscopy.
September, 2025	Nuclear Magnetic Resonance Spectroscopy Principle, Signal, Type of proton, shielding/deshielding Splitting, Chemical shift, Application, PMR Spectra of Molecules. Simple Problems,
October, 2025	Carbohydrates I And Carbohydrates II Organometallic Compounds: Preparation, Physical and their Chemical Properties. Metal – Lig. and Bonding in Transition complexes Thermodynamic and Kinetic Aspects.
November, 2025	Magnetic Properties of Transition Metal complexes Electron Spectra of Transition Metal complexes Types of Electronic Transition, d-d transition, Spectroscopic ground States, Spectrochemical Series, Orgel energy level diagram d^1 and d^9 Spectra of $[Ti(H_2O)_6]^{3+}$ ion.

(Rakesh Kumar)
Asso. Prof. of Chemistry

Signature of Teacher