Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh

Monthly Teaching Plans (Odd Semester)

Session – (2025-26)

Name of the Teacher: Dr. Aanchal, Dr. Nisha Dawra and Dr. Shilpa

Department: Chemistry

Class: B.Sc III (Med, Non Med, MFT) **Subject:** Physical Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	24-07-2025	30-08-2025	Elementary Quantum Mechanics-I: Black-body radiation, Planck's radiation law, photoelectric effect, heat capacity of solids, Bohr's model of hydrogen atom (no derivation) and its defects, Compton effect. De Broglie hypothesis, the Heisenberg's uncertainty principle, Sinusoidal wave equation, Hamiltonian operator, Schrodinger wave equation and its importance.	Lecture Method and Group Discussion
2	01-09-2025	30-09-2025	Physical interpretation of the wave function, postulates of quantum mechanics, particle in a one-dimensional box. Schrodinger wave equation for H-atom, separation into three equations (without derivation), quantum numbers and their importance, hydrogen like wave functions, radial wave functions, angular wave	Lecture Method and Group Discussion

			functions.	
3	1-10-2025	15-10-2025	Elementary Quantum Mechanics-II: Molecular orbital theory, basic ideas – criteria for forming M.O. from A.O., construction of M.O.'s by LCAO–H^{2+} ion. Calculation of energy levels from wave functions, physical picture of bonding and antibonding wave functions, concept of σ, σ∗, π, π* orbitals and their characteristics. Hybrid orbitals – sp, sp^2, sp^3; calculation of coefficients of A.O.'s used in these hybrid orbitals. Introduction to valence bond model of H2, comparison of M.O. and V.B. models.	Lecture Method and Group Discussion
4	16-10-2025	30-10-2025	Photochemistry-I: Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of	Lecture Method and Group Discussion
5	31-10-2025	10-11-2025	Photochemistry: Grothus – Drapper law, Stark – Einstein law, Jablonski diagram depicting various processes occurring in the excited state. ,Revision and Solution of previous years' question papers	Lecture Method and Group Discussion
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
27th August, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
24th Sept, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan			

Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans	
29th Oct, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans	
10th Nov, 2024	The teachers have completed the scheduled chapters and topics as shown in the lesson plan

***Any of these** – (i) Lecture Method; (ii) PPT; (iii) Online Sources; (iv) Group Discussion; (v) Case Studies etc.Other Methods adopted by the teacher – Please write the specific teaching method