

Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2025-26)

Name of the Teacher: Dr. Archana, Dr Shilpa Dogra

Department: Chemistry

Class: M.Sc I

Subject: Inorganic Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	01-08.2025	20.08.2025	VSEPR, Walsh diagrams (tri and tetra-molecules), d π -p π bonds,	Lecture
2	21.08.2025	06.09.2025	Bent rule and energetics of hybridization, some simple reactions of covalently bonded molecules.	Lecture
3	08.09.2025	30.09.2025	Limitations of crystal field theory, molecular orbital theory for octahedral.	Lecture
4	06.10.2025	Till Exam	molecular orbital theory for tetrahedral and square planar complexes, π bonding and molecular orbital theory.	Lecture
5	01.08.2025	20.08.2025	Stepwise and overall formation constant and their interaction, trends in stepwise constants, factors affecting the stability of metal complexes with reference to the nature of metal ion and ligand, chelate effect and its thermodynamic origin,	Lecture
6	22.08.2025	06.09.2025	Determination of binary formation constants by pH spectrophotometry. Energy profile of a reaction, reactivity of metal complexes,	Lecture and group discussion
7	12.10.2025	30.10.2025	Inert and labile complexes, kinetic application of valence bond and crystal field theories, kinetics of	Lecture

			octahedral substitution. Acid hydrolysis, factors affecting acid hydrolysis, Base hydrolysis, conjugate base mechanism, direct and indirect evidences in favour of conjugate mechanism, reactions without metal-ligand bond cleavage	
8	31.10.2025	Till exams	Substitution reactions in square planar complexes, the trans effect, mechanism of substitution reaction, Redox reactions, electron transfer reactions, mechanism of one electron transfer reactions, outer sphere type reactions, Cross reactions and Marcus Hush Theory, inner sphere type reactions	Lecture and Group discussion
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
27 th August, 2025	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				
24 th September, 2025	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				
29 th October, 2025	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				
10 th November, 2025	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

