Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Odd Semester)
Session – (2024-25)

Name of the Teacher/s: Dr. Rishu and Dr. Yesbinder

Department: Chemistry

Class: B.Sc III **Subject:** Inorganic Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	15-07-2024	05-08-2024	Ligand Bonding in Transition Metal Complexes Limitations of valence bond theory, an elementary idea of crystal – field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal – field parameters, Spectro chemical Series.	Lecture Method
2	06-08-2024	20-08-2024	Thermodynamic and Kinetic Aspects of Metal Complexes A brief outline of thermodynamic and Kinetic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes	Lecture Method
3	21-08-2024	31-08-2024	Organometallic Chemistry Definition, nomenclature and classification of organometallic compounds. Preparation, properties, bonding.	Lecture Method, assignments and Group Discussion
4	2-09-2024	16-09-2024	Applications of alkyls and aryls of Li, Al, Hg, Sn and Ti, a brief account of metal – ethylenic complexes and homogeneous hydrogenation.	Lecture Method and Group Discussion

5	17-09-2024	28-09-2024	Mononuclear carbonyls and the nature of bonding in metal carbonyls	Lecture Method and Group Discussion
6	30-09-2024	05-10-2024	Bioinoganic Chemistry Essential and trace elements in biological processes,	Lecture Method and Group Discussion
7	07-10-2024	21-10-2024	Metalloporphyrins with special reference to haemoglobin and myoglobin.	Lecture Method and Group Discussion
8	22-10-2024	16-11-2024	Biological role of alkali and alkaline earth metal ions. Nitrogen fixation	Lecture Method and Group Discussion
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
31st 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				
30th 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				
26th 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				
14th 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

Lesson Plan

MCM DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans (Even Semester)
Session – (2024-25)

Name of the Teacher/s: Dr. Rishu and Dr. Yesbinder

Department: Chemistry

Class: B.Sc III **Subject:** Inorganic Chemistry

S.No.	Date (Monthly)		Topics to be Covered	Academic Activity Undertaken*
	From	To		
1	10 .01.2025	30.01.2025	Silicones and Phosphazenes Silicones and phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes.	Lecture Method
2	31.02. 2025	27.02. 2025	Hard and Soft Acids and Bases Classification of acids and bases as hard and soft Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis, theoretical basis of hardness and softness, electronegativity and hardness and softness	Lecture Method
3	28.02. 2025	25.03. 2025	Electronic Spectra of Transition Metal Complexes Types of electronic transitions, L – S coupling, selection rules for d-d transitions, spectroscopic ground states, Orgel – energy level diagram for d1 and d9states, discussion of the electronic spectrum of [Ti(H2O)6]3+ complex ion	Lecture Method and Group Discussion
4	26.03. 2025	23.04.2025	Magnetic Properties of Transition Metal Complexes	Lecture Method

			Types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. Correlation of μs and μeff values, orbital contribution to magnetic moments, application of magnetic moment data for 3d metal complexes	
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans				
31-01-2025	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				
28-02-2025	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				
29-03-2025	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				
19-04-2025	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