Lesson Plan Format
18 weeks (From January 2018 to April 2018)

Name of Assistant /Associate Professor : Ms. Renu Tushis
Class and Section : M.Sc. chemistry (previous) - Inorganic chemistry - II
Subject : Inorganic chemistry - II

Week 1(January 1-6)	
Chapter 1	
01/01/2018	Introduction of Metal- Ligand Bonding
02/01/2018	Discussion of crystal field Theory
03/01/2018	Limitations of crystal field theory
04/01/2018	Discussion about Combination of Orbitals
05/01/2018	Molecular Orbital theory
06/01/2017	Ligand field theory
Week 2(January 8-13)	
Chapter	
08/01/2018	Revision of all these topics will be done
09/01/2018	problems will be taking in the class
10/01/2018	test will be conducted
11/01/2018	Discussion of the test
12/01/2018	MOT ON Octahedral complexes
13/01/2018	MOT ON tetrahedral complexes
Week 3(January 15-20)	
Chapter	
15/01/2018	π- bonding and Molecular Orbital theory
16/01/2018	Revision of all these topics will be done
17/01/2018	test will be conducted
18/01/2018	Discussion of the test
19/01/2018	Group Discussion
19/01/2018	Introduction to electronic spectra of Transition Metal complexes.
20/01/2018	Spectroscopic ground states
Week 4(January 22-27)	
Chapter	
22/01/2018	National Holiday
23/01/2018	Spin- Orbit coupling introduction
24/01/2018	spin- Orbit coupling in free ions for 1st Series.
25/01/2018	Introduction to Orgel Diagrams
26/01/2018	National Holiday

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27/01/2018	Discussion of transistions involved in Orgel Diagrams.
Week 5 (January29- Feb3)	
Chapter	
29/01/2018	Introduction of Tanabe-Sugano Diagrams (d^1-d^9)
30/01/2018	Revision of all the topics done, till then.
31/01/2018	problems taking in the class
01/02/2018	test will be conducted
02/02/2018	Discussion of the test
03/02/2018	Calculation of Dq, B and β-parameters
Week 6(Feb 5-10)	
Chapter	
05/02/2018	Effect of distortion on the d-orbital energy levels.
06/02/2018	structural evidence from electronic spectrum.
07/02/2018	Jahn-teller effect
08/02/2018	spectrochemical and Naphalauxetic series
09/02/2018	Charge transfer spectra
10/02/2018	Electronic spectra of molecular addition compounds.
Week 7(Feb 12-17)	
Chapter	
12/02/2017	Revision of all the topics, done till then.
13/02/2017	National Holiday
14/02/2017	test will be conducted
15/02/2017	Magnetic properties of transition metal complexes.
16/02/2017	Elementary theory of Magneto-chemistry,
17/02/2017	Guoy's method for determination of Magnetic susceptibility
Week 8(Feb 19-24)	
Chapter	
19/02/2018	Calculation of Magnetic Moments
20/02/2018	Magnetic properties of free ions
21/02/2108	Orbital contribution
22/02/2018	Effect of ligand field
23/02/2018	application of magneto-chemistry in structure determination
24/02/2018	Revision of the topics
Week 9(Feb 26-March03)	
Chapter	
26/02/2018	problems taking in the class
27/02/2018	Assignment work
28/02/2018	Holi Break
01/03/2018	National Holiday

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02/03/2018	Holi - Break
03/03/2018	Holi - Break
Week 10(March 5-10)	
Chapter	
05/03/2018	Magnetic exchange coupling
06/03/2018	spin - state cross over
07/03/2018	Group Discussion
08/03/2018	Introduction to Metal clusters
09/03/2018	Structure and bonding in higher boranes
10/03/2018	Wade's rules
Week 11(March 12-17)	
Chapter	
12/03/2018	Carboranes
13/03/2018	Metal Carbonyl clusters
14/03/2018	Low Nuclearity carbonyl clusters.
15/03/2018	Total electron count
16/03/2018	Revision of all these topics
17/03/2018	problems taking in the class
Week 12(March 19-24)	
Chapter	
19/03/2018	test will be conducted
20/03/2018	Discussion of the Test
21/03/2018	Introduction of Metal-π complexes.
22/03/2018	Metal carbonyls
23/03/2018	National Holiday
24/03/2018	structure determination
Week 13(March 26-31)	
Chapter	
26/03/2018	Bonding involved
27/03/2018	Backbonding
28/03/2018	Revision
29/03/2018	National Holiday
30/03/2018	problems taking in the class
31/03/2018	Test will be conducted
Week 14(April 02-07)	
Chapter	
02/04/2018	Discussion of the test
03/04/2018	Vibrational spectroscopy Analogy
04/04/2018	Vibrational spectra of metal carbonyls

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05/04/2018	Bonding and structure elucidation
06/04/2018	Important reactions of metal carbonyls
07/04/2018	Preparation
Week 15(April 09-14)	
Chapter	
09/04/2018	Bonding and structure
10/04/2018	Important reactions of transition metal Nitrosyl
11/04/2018	Revision
12/04/2018	Problems will be taking based on any topic
13/04/2018	National Holiday
14/04/2018	National Holiday
Week 16(April 16-21)	
Chapter	
16/04/2018	Test will be conducted
17/04/2018	Discussion of the test
18/04/2018	National Holiday
19/04/2018	Assignment Work
20/04/2018	Introduction to dinitrogen and dioxygen complexes
21/04/2018	tertiary phosphine as ligand.
Week 17(April 23-28)	
Chapter	
23/04/2017	Revision of all the topics
24/04/2017	problems will be taking in the class
25/04/2017	Test will be conducted
26/04/2017	Discussion of the test
27/04/2017	Group discussion
28/04/2018	Revision
Week 18(April 29-30)	
Chapter	
30/04/2018	Revision will be done.

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