Lesson Plan

B. Sc. III Year (Vth Semester)

Paper-XV (CH-301) Inorganic Chemistry

Teacher name: Dr. Neha Aggarwal

October 2020

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| Metal- 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 planer complexes,  |

November 2020

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| factors affecting the crystal field parameters. Thermodynamics and Kinetic Aspects of metal complexes A brief outline of thermodynamic stability of metal complexes and factors affecting the stability |

December 2020

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| Irving William Series, substitution reactions of square planer complexes of Pt[II], Trans effect. Section – B (23 periods) Magnetic properties of Transition metal complexes Types of magnetic materials, magnetic susceptibility, method of determining magnetic susceptibility, spin only formula |

January2021

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| L-S coupling, correlation of µs and µeff values, orbital contribution to magnetic moments, application of magnetic moment data for 3d metal complexes. Electronic spectra of Transition metal complexes Selection rules for d-d transition, spectroscopic ground states, spectrochemical series, |

February 2021

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| orgel energy level diagram for d1 and d9 states, discussion of electronic spectrum of [Ti(H2O)6] +3 complex ion. |