

LESSON PLAN- B.Sc 5th SEMESTER
Session: 2022-23

Name of teacher- Dr. Anju Siwach, Assistant Professor

Subject- Inorganic Chemistry

CLASS	WEEKS	SYLLABUS
B.Sc 5 th Semester	22-8-2022 to 27-8-2022 29-8-2022 to 3-9-2022 5-9-2022 to 10-9-2022 12-9-2022 to 17-9-2022	Metal-ligand Bonding in Transition Metal Complexes: Limitations of valence bond theory, an elementary idea of crystal-field theory, crystal field splitting in octahedral complexes, crystal field splitting in tetrahedral and square planar complexes, factors affecting the crystal-field parameters.
	19-9-2022 to 24-9-2022 26-9-2022 to 1-10-2022 3-10-2022 to 8-10-2022	Thermodynamic and Kinetic Aspects of Metal Complex A brief outline of thermodynamic stability of metal complexes factors affecting the stability complexes, substitution reactions of square planar complexes of Pt(II), trans effect.

	<p>10-10-2022 to 19-10-2022</p> <p>27-10-2022 to 5-11-2022</p> <p>7-11-2022 to 12-11-2022</p>	<p>Magnetic Properties of Transition Metal Complex Types of magnetic behavior, methods of determining magnetic susceptibility,</p> <p>spin-only formula. L-S coupling, correlation of s and eff values,</p> <p>orbital contribution to magnetic moments, application of magnetic moment data for 3d metal complexes</p>
	<p>14-11-2022 to 19-11-2022</p> <p>21-11-2022 to 26-11-2022</p> <p>28-11-2022 to 3-12-2022</p> <p>5-12-2022 to 10-12-2022</p>	<p>Electronic Spectra of Transition Metal Complexes Types of electronic transitions, selection rules for d-d transitions,</p> <p>spectroscopic ground states, spectrochemical series.</p> <p>Orgel-energy level diagram for d1 and d9 states,</p> <p>discussion of the electronic spectrum of $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$ complex ion.</p>
	<p>12-12-2022 to 17-12-2022,</p> <p>17-12-2022 onwards</p>	<p>Assignments, Viva, Test, Revision</p> <p>MDU examination</p>