

B.Sc DEGREE EXAMINATION, EVEN SEMESTER 2021
III Year VI Semester
Inorganic Chemistry - II

Max.marks :25

Answer any **FIVE** questions ($5 \times 5 = 25$) Marks

1. (a) Explain Werner's theory of coordination complexes.
(b) Write the geometry and hybridization involved in $[Co(NH_3)_6]^{3+}$.
2. What is isomerism? Explain the geometrical isomerism in 6-co-ordinated complexes.
3. Explain the preparation, hybridization and structure of $Fe_2(CO)_9$ and $Mn_2(CO)_{10}$
4. (a) Discuss the splitting of metal d- orbitals in octahedral complexes.
(b) Write a note on high spin and low complexes
5. (a) Discuss the bimolecular nucleophilic substitution reaction in octahedral complexes.
(b) Explain the π –bonding theory of trans effect.
6. Describe the paper chromatography method of separation. Write the factors affecting Rf value.
7. Explain the instrumentation of electrophoresis with neat a diagram.