TDC Part III
Paper VI
Inorganic Chemistry

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TOPIC:-UNIT II, MAGNETIC PROPERTIES,

SUMMARY& PRACTICE QUESTIONS

SUMMARY

This chapter is concerning the magnetic properties of the transition metal complexes. It was realized that there was a diamagnetic criterion between magnetic properties and the nature of the metal ion in a complexes. In other word, the useful study of magnetic properties of transition metal complexes at low temperature is essential. Magnetic susceptibilities and specific heat are among the principal measurement that carries out on magnetic system.

PRACTICE QUESTIONS

1. Define the Magnetic susceptibility?
2. Explain why Cu (I) is diamagnetic where as Cu (II) is paramagnetic.
3. What is Magnetic susceptibility? How does it vary with temperature.
4. Calculate the spin magnetic moment of Cr^{+2} and V^{+3}.
5. What do you mean by the term diamagnetic correction?
6. Discuss the Gouy's method for the measurement of magnetic susceptibility.
7. What is the difference between ferromagnetism and antiferromagnetism.
8. Calculate spin only magnetic miment for Co^{+3} ion.
9. What is temperature independent paramagnetism?
10. Give a brief account of diamagnetism, paramagnetism, ferromagnetism and ant ferromagnetism
11. Discuss the magnetic behaviour of first transition series metal compounds.
12. What is the calculated μ_s value for Fe^{+2} high spin ion.
13. Explain the phenomenon of orbital contribution of magnetic moment.