

2007-08
Con. 4885-07.
4/12/07

General Chemistry

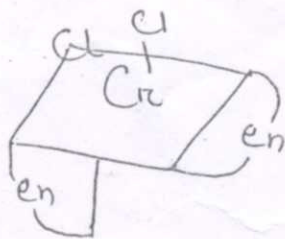
(2 Hours)

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F. Y. B. Pharm
BB-6222
Sem-I

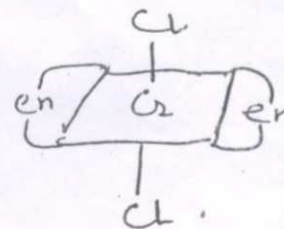
[Total Marks : 40

- N.B.** (1) Question No. 1 is compulsory.
(2) Attempt any four from remaining five questions.
(3) Give figures and examples wherever needed.

1. (a) Give IUPAC Nomenclature for the following :— 2
(i) $[Zn(NH_3)_4]^{+2}$
(ii) $K[FeCl_2(H_2O)]$
- (b) Write the structures for the following :— 2
(i) Dicyanobis (ethylenediamine) cobalt (III) Chlorate
(ii) Di chlorotetraammine platinum (IV) bromide.
- (c) Define the following :— 4
(i) Hyper Surface
(ii) Saddle Point
(iii) Effective Atomic Number
(iv) Astringent.
2. (a) Explain the Kinetic and Thermodynamic Control for a chemical reaction. 4
(b) Differentiate between Transition State and Activated Complex. 2
(c) The Half life of a substance in a First Order reaction is 20 minutes. Calculate the Rate constant for the same. 2
3. (a) Explain the effect of Temperature on Reaction rate. 4
(b) Discuss in brief the Primary Isotope Effect. 4
4. (a) Discuss the specific acid catalysis. 4
(b) Name the isomerism possible shown by following complexes and justify :— 4
(i) $[Co(NH_3)_6]$ $[Cr(NO_2)_6]$ and $[Cr(NH_3)_6]$ $[Co(NO_2)_6]$
(ii)



and



5. (a) Explain the various mechanisms for Topical Antimicrobial Agents. 4
(b) Give properties and uses of following (any two) :— 4
(i) Barium Sulfate
(ii) Aluminium Hydroxide Gel
(iii) Hydrogen Peroxide.
6. (a) What are the different theories of Complexation and discuss in detail the Crystal Field Theory. 4
(b) Write short notes on (any two) :— 4
(i) Square Planar Complex
(ii) Initial Rate Kinetics
(iii) Pharmaceutical Aids