

**FIRST REVISION EXAMINATION - 2025****CHEMISTRY**

Std : XII

Reg.  
No.

Time : 3.00 Hours

Marks : 70

**I Choose the correct answer.****15x1=15**

- In the electrolytic refining of copper, which one of the following is used as anode?  
a) Carbon rod      b) Pure copper      c) Platinum electrode      d) Impure copper
- Carbon atoms in fullerene with formula  $C_{60}$  have \_\_\_\_\_ hybridisation.  
a)  $sp^2$       b)  $sp^3$       c)  $sp^3d$       d) sp
- Among the following, which is the strongest oxidizing agent?  
a)  $Cl_2$       b)  $F_2$       c)  $Br_2$       d)  $I_2$
- The magnetic moment of  $Mn^{2+}$  ion is  
a) 5.92 BM      b) 2.80 BM      c) 8.95 BM      d) 3.90 BM
- Which one of the following complex compound have Co-ordination number 6?  
a)  $[Co(en)_2Cl_2]$       b)  $[Cu(NH_3)_2Cl_2]$       c)  $[Co(NH_3)_5Cl]^{2+}$       d) Both (a) and (c)
- The Cation leaves its normal position in the crystal and moves to some interstitial position, the defect in the crystal is known as  
a) Schottky defect      b) F Center      c) Frenkel defect      d) Non-stoichiometric defect
- The addition of a catalyst during a chemical reaction alters which of the following quantities?  
a) Enthalpy      b) Activation Energy      c) Entropy      d) Internal Energy
- The pH of  $10^{-5}$  M KOH solution will be  
a) 9      b) 5      c) 19      d) None of these
- The Anode used in the Lithium - ion battery is  
a)  $CoO_2$       b) Li      c) Pores graphite      d) Spongy lead
- Hair cream is  
a) Sol      b) gel      c) emulsion      d) Solid sol
- Which one of the following is used as an antifreeze in automobile radiator.  
a) Methanol      b) Ethanol      c) Glycerol      d) Ethylene glycol
- In which of the following reactions new Carbon - Carbon bond is not formed?  
a) Aldol Condensation      b) Friedel craft reaction  
c) Kolbe's reaction      d) Wolf Kishner reaction
- Secondary nitro alkanes react with nitrous acid to form \_\_\_\_\_ colour solution.  
a) Red      b) Blue      c) Green      d) yellow
- Which one of the following is not produced by body  
a) DNA      b) Enzymes      c) Hormones      d) Vitamins
- Drugs that bind to the receptor site and inhibit its natural function are called  
a) antagonists      b) agonists      c) enzymes      d) molecular targets

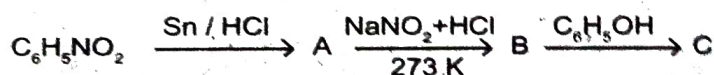
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**II Answer any 6 Questions. Q.No.24 is Compulsory.****6x2=12**

16. Write Ethyl borate test.
17. What are interhalogen compounds? Give examples.
18. Define half life of a reaction?
19. State ostwald's dilution law.
20. Why are lyophilic colloidal sols more stable than lyophobic colloidal sols?
21. Give the uses of Diethyl ether?
22. Write a note on Benzoin Condensation.
23. What are food preservatives? Give examples
24. What the IUPAC ligand name for the following
  - a)  $C_2O_4^{2-}$
  - b) en
  - c)  $H_2O$
  - d)  $Cl^-$

**III Answer any 6 Questions. Q.No.33 is Compulsory.****6x3=18**

25. Why HF cannot be Stored in glass bottles?
26. Write the Chromyl Chloride test.
27. What is linkage isomerism? Explain with example.
28. Write a note on the Frenkel defect.
29. State Faraday's laws of electrolysis.
30. Explain intermediate componned formation theory of catalysis with an example.
31. Give the coupling reaction of phenol.
32. Write any three biological importance of Lipids.
33. Identify Compounds A, B and C in the following sequence of reaction.

**IV Answer all the Questions.****5x5=25**

34. a) Explain Zone refining process. [OR] (5)
- b) Explain the Structure of Diborane. (5)
35. a) What are Lanthanoid Contraction? Explain Causes and its Consequences. [OR] (5)
- b) Derive integrated rate law for a first order reaction.  $A \longrightarrow \text{Product}$  (5)
36. a) (i) What are the limitations of the Arrhenius concept? (2)
- (ii) Explain Common ion effects with example? [OR] (3)
- b) Derive an expression for the Nernst equation (5)
37. a) Differentiate Physisorption and Chemisorption. [OR] (5)
- b) (i) Differentiate Primary, Secondary and Tertiary alcohols by Victor Meyer's test (3)
- (ii) Write Kolbe's reaction. (2)
38. a) (i) What is Urotropin? How is it prepared? Mention its uses? (3)
- (ii) Aniline doesnot undergo Fridel - Crafts reaction Give reason. [OR] (2)
- b) (i) Give Short note on Gabriel Phthalimide synthesis. (3)
- (ii) How is terylene Prepared? (2)

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