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SECOND MID TERM TEST - 2024

Standard - XII

Reg.No.

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Time: 1.30 hrs.

CHEMISTRY

Marks:35

PART - I**I. Choose the correct answers:****5 × 1 = 5**

- How many geometrical isomers are possible for $[\text{Pt}(\text{Py})(\text{NH}_3)(\text{Br})(\text{Cl})]$?
a) 3 b) 4 c) 0 d) 15
- The number of electrons that have a total charge of 9650 coulombs is
a) 6.22×10^{23} b) 6.022×10^{24}
c) 6.022×10^{22} d) 6.022×10^{-34}
- The most effective electrolyte for the Coagulation of As_2S_3 Sol is
a) NaCl b) $\text{Ba}(\text{NO}_3)_2$
c) $\text{K}_3[\text{Fe}(\text{CN})_6]$ d) $\text{Al}_2(\text{SO}_4)_3$
- The product formed by the reaction an aldehyde with a primary amine
a) Carboxylic acid b) Aromatic acid
c) Schiff's base d) Ketone
- Nitro ethane and ethyl nitrite are
a) Chain isomers b) Position isomers
c) Functional isomers d) Tautomers

PART - II**Answer any four Questions. Q.no.11 is compulsory.****4 × 2 = 8**

- Give the difference between double Salt and Coordination compounds.
- Write the IUPAC name of coordination compounds
(i) $[\text{Ag}(\text{CN})_2]^-$ (ii) $[\text{Pt}(\text{NH}_3)_2\text{Cl}(\text{NO}_2)]$
- Write a note on Catalytic poison.
- Write Hoffmann's degradation reaction.
- $\text{CH}_3\text{NH}_2 \xrightarrow{\text{CH}_3\text{Br}} \text{A} \xrightarrow{\text{CH}_3\text{COCl}} \text{B}$. Find A and B.
- Ionic Conductance at infinite dilution of Al^{3+} and SO_4^{2-} are 189 and 160 $\text{mho cm}^2 \text{ equiv}^{-1}$. Calculate the equivalent conductance of the electrolyte $\text{Al}_2(\text{SO}_4)_3$ at infinite dilution.

PART - III**Answer any four Questions. Q.No.17 is compulsory.****4 × 3 = 12**

- What are Ionisation isomers? Give example.
- State Faraday's Laws of electrolysis.

14. Define Molar Conductance and specific conductance.
 15. What is the significance of Brownian movement?
 16. Mention the shapes of the following colloidal particles?
 i) As_2S_3 ii) Gold Sol. iii) Tungstic acid sol
 17. Aniline does not undergo Friedel-Crafts reaction. Why?

PART - IV**2 × 5 = 10****Answer all the questions.**

18. a) Identify the following to the co-ordination compound $[Co(C_2O_4)_3]^{3-}$
 i) IUPAC Name ii) Ligand iii) Central metal ion
 iv) Co-ordination number v) Geometry

(OR)

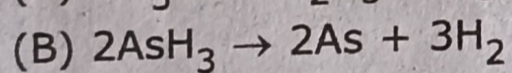
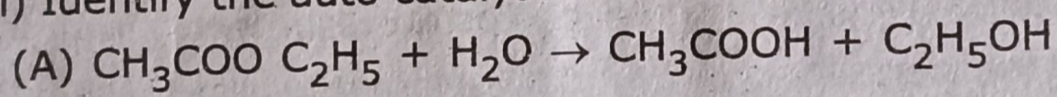
b) Derive an expression for Nernst equation.

(3)

19. a) i) Differentiate physisorption and chemisorption
 ii) How will you convert nitro methane into chloropicrin

(2)**(OR)**

b) i) Identify the auto catalyst in the following reaction.

(2)

ii) Write Gabriel Phthalimide synthesis.

(3)
