

FIRST REVISION EXAMINATION - 2024

Std : XII

Time : 3.00 Hours

CHEMISTRY

Regd.

No.

Marks : 70

PART - A

15 X 1 = 15

1) Answer all the questions.

- Bauxite has the composition
 - $\text{Al}_2\text{O}_3 \cdot n\text{H}_2\text{O}$
 - $\text{Fe}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$
 - Al_2O_3
 - None of the above
- Inorganic benzene means
 - C_6H_{12}
 - $\text{C}_6\text{H}_{12}\text{O}_{11}$
 - $\text{B}_3\text{N}_3\text{H}_6$
 - B_2H_6
- XeF_6 on complete hydrolysis produces
 - XeOF_4
 - XeO_2F_2
 - XeO_3
 - XeO_2
- The oxidation state of Fe in $\text{Fe}(\text{CO})_5$
 - +5
 - +2
 - +3
 - 0
- Which one has para Magnetic
 - $[\text{Zn}(\text{NH}_3)_4]^{2+}$
 - $[\text{Co}(\text{NH}_3)_6]^{3+}$
 - $[\text{Ni}(\text{H}_2\text{O})_6]^{2+}$
 - $[\text{Ni}(\text{CN})_4]^{2-}$
- The Vacant space in fcc lattice unit cell is
 - 26 %
 - 48 %
 - 52.38 %
 - 32 %
- Time required for the reactant concentration to reach one half of its initial value is called
 - Half life period
 - first order
 - Zero order
 - Pseudo first order
- Faraday constant is defined as
 - charge required to deposit one mole of substance
 - charge carried by 1 electron
 - charge carried by 6.22×10^{10} electrons
 - charge carried by one mole of electrons
- Assertion (A) : The conductivity of ionic solution measured by winstone circuit through AC current
Reason (R) : DC Current decompose the solution
 - Both A and R Correct
 - Both A and R wrong
 - A Correct R wrong
 - A wrong R correct
- The optimum temperature for the action of an enzyme in human body
 - 30°C
 - 35°C
 - 39°C
 - 95°C
- $\text{HO}-\text{CH}_2-\text{CH}_2-\text{OH}$ On heating with per iodic acid gives.
 - Methanal
 - Methanoic acid
 - CO_2
 - glyoxal
- Product obtained from etard reaction is
 - Cinnamaldehyde
 - acetaldehyde
 - Formaldehyde
 - Benzaldehyde
- Aniline + benzoyl chloride $\xrightarrow{\text{NaOH}}$ $\text{C}_6\text{H}_5-\text{NH}-\text{CO}-\text{C}_6\text{H}_5$ this reaction is known as
 - Friedel-Crafts reaction
 - HVZ reaction
 - Schotten-Baumann Reaction
 - Kolbe's reactions
- Which one is non-reducing sugar
 - Glucose
 - Sucrose
 - Maltose
 - Lactose
- As per BIS Grade 1 Soaps should have % minimum TFM.
 - 60 %
 - 70 %
 - 76 %
 - 50 %

II) Answer any Six Questions (Q.No.24 is Compulsory)

6 X 2 = 12

16. Give any two uses of Zinc.
17. Prove that sulphuric acid as a dibasic.
18. Write about Brag's equation.
19. What are the limitations of Arrhenius concept?
20. What is mean by tyndall effect?
21. Explain williamson ether synthesis.
22. What are epimers? Give example.
23. Draw the structure of Glucose.
24. Rate constant of first order reactions $1.54 \times 10^{-3} \text{ S}^{-1}$ Find the value of half life period.

PART - III

III) Answer any Six Questions (Q.No.33 is Compulsory).

6 X 3 = 18

25. What is inert pair effect
26. What is mean by lanthanide contraction?
27. Why does conductivity of a solution decrease on dilution of the solution?
28. Give the coupling reaction of phenol.
29. Explain the reducing action of formic acid with example.
30. What is chloropicrin? How it was prepared? Give it uses.
31. How is vitamins are classified?
32. How is terylene prepared?
33. Write the following for the complex $[\text{Ag}(\text{NH}_3)_2]^+$
 - a) Ligand
 - b) central metalion
 - c) IUPAC Name

PART - IV

IV) Answer all the questions.

5X5 = 25

34. a) i) what are the limitations of Ellingham diagram.
ii) How is Nickle purified by mond process
(OR)
b) i) Explain the structure of diborane with diagram.
35. a) How is $\text{K}_2\text{Cr}_2\text{O}_7$ Prepared?
(OR)
b) Draw the structure of cubic unit cell. Calculate the atoms present in it.
36. a) Derive an expression for Nernst equation
(OR)
b) Differentiate chemisorption and physisorption.
37. a) Write the following Reactions.
i) Dow Process ii) Acrolin preparation
(OR)
b) i) Write the uses of diethylether
ii) Write the preparation of Eurotropin Given its uses.
38. a) Distinguish between primary, Secondary and Tertiary amines.
(OR)
b) How is soaps and detergents are used as cleansing agents.
