SECOND MID TERM EXAMINATION - 2024

CLASS : 11 | **CHEMISTRY** | Reg.No.

Time : 1.30 Hours | Maximum Marks : 50

PART - A

I Choose the correct answer: **10x1 =10**

1. Lithium shows diagonal relationship with

   a) Sodium b) Magnesium c) Calcium d) Aluminium

2. The product obtained as a result of a reaction of nitrogen with CaC_2 is

   a) $Ca(CN)_3$ b) CaN_2 c) $Ca(CN)_2$ d) Ca_3N_2

3. Formula of Gypsum is

   a) $CaSO_4.2H_2O$ b) $CaSO_4.1/2H_2O$ c) $3CaSO_4.H_2O$ d) $2CaSO_4.2H_2O$

4. Osmotic pressure (π) of a soultion is given by the relation

   a) π =nRT b) π V=nRT c) π RT=n d) None of these

5. The Molality of a solution containing 1.8g of glucose dissolved in 250g of water is

   a) 0.2M b) 0.01M c) 0.02M d) 0.04M

6. The Van't Hoff factor (i) for a dilute aqueous solution of the strong electrolyte barium hydroxide is

   a) 0 b) 1 c) 2 d) 3

7. The name of $C_2F_4Cl_2$ is _____

   a) Freon - 112 b) Freon - 113 c) Freon - 114 d) Freon - 115

8. _____ is used in the manufacture of pesticides like DDT

   a) Chloropicrin b) Toluene c) Benzene d) Chloro benzene

9. General formula for cyclo alkane is _____

   a) C_nH_n b) C_nH_{2n} c) C_nH_{2n-2} d) C_nH_{2n+2}

10. Which of the following is aliphatic saturated hydrocarbon

    a) C_8H_{18} b) C_9H_{18} c) C_8H_{14} d) All of these

PART - B

II Any any 5 of the following questions only. (Q.No.17 is compulsory) **5x2=10**

11. Write the reason for anamalous behaviour of Beryllium.
12. Why Alkaline earth metals are harder than alkali metals?
13. What are the Colligative properties?

14. Write shote notes on Van't Hoff factor (i).
15. Define Osmosis.
16. Write the preparation of BHC.
17. $CH_3-CH=CH_2 + HBr \xrightarrow{\text{Peroxide}} ?$

PART - C

III Any any 5 of the following questions. Answer Q.No:24 is compulsory. **5x3= 15**

18. How is plaster of paris prepared? Write their uses.
19. Write the biological importance of Calcium and Magnesium.
20. State Henry's law? Write their limitations.
21. Discuss the Similarities between Beryllium and Aluminium.
22. Define : 1. Molality 2. Nomality.
23. What is Aromaticity?
24. Calculate molality of the solution containing 45g of glucose dissolved in 2kg of water.

PART - D

IV Answer all questions : **3 x 5 = 15**

25. a) How will you determine the molar mass from Osmatic Pressure. (3)

    b) What is Isotonic Solution? (2)

[OR]

a) State Raoult Law and obtain expression for lowering of vapour pressure when non volatile solute is dissolved in solvent. (5)

26. a) Give the Systamatic names of the following. $4 \times \frac{1}{2} = (2)$

    a) Soda ash b) Milk of magnesia c) Caustic potash d) Lye.

    b) Write the use of Gypsum (3)

[OR]

a) Explain Markow nikoff's rule with example. (3)

b) Write the difference between propane and propene. (2)

27. a) Compare S_N^1 and S_N^2 reaction Mechanisms. (5)

[OR]

a) Write the chemical equations for the reactions involved in Solvay process of preparation of Sodium Carbonte. (3)

b) Beryllium halides are Covalent, - where as magnesium halides are ionic.why? (2)