

Class : 11

**CHEMISTRY**

Reg.No 11220

Time : 1-30 Hours

Marks : 50

**PART - A**

Answer all the questions.

10X1=10

- The product obtained as a result of a reaction of Nitrogen with  $\text{CaC}_2$  is  
 a)  $\text{Ca}(\text{CN})_2$       b)  $\text{CaN}_2$       c)  $\text{Ca}(\text{CN})_2$       d)  $\text{Ca}_3\text{N}_2$
- The colour of Lithium in Flame test  
 a) yellow      b) Crimson red      c) Blue      d) Lilac
- Sodium is Stored in  
 a) Kerosene      b) Water      c) Alcohol      d) None of These
- The van't Hoff Factor ( $\alpha$ ) for a dilute aqueous Solution of the strong electrolyte barium hydroxide is  
 a) 0      b) 1      c) 2      d) 3
- Normality of 1.25M Sulphuric acid is  
 a) 1.25N      b) 3.75N      c) 2.5N      d) 2.25N
- Example for gas in Solid Solution is  
 a) Camphor in nitrogen gas      b) Solution of  $\text{H}_2$  in Palladium  
 c) Salt water      d) Amalgam of potassium
- The Suspension of slaked lime in water is known as  
 a) Lime water      b) Milk of Lime      c) Quick Lime      d) Aqueous Solution of Slaked Lime
- The compound that will react most readily with gaseous bromine has the formula  
 a)  $\text{C}_3\text{H}_6$       b)  $\text{C}_2\text{H}_2$       c)  $\text{C}_4\text{H}_{10}$       d)  $\text{C}_2\text{H}_4$
- Peroxide effect can be studied in case of  
 a) Oct - 4 - ene      b) Hex - 3 - ene      c) Pent - 1 - ene      d) but - 2 - ene
- Which of the following is optically active  
 a) 2-methyl pentane      b) Citric acid      c) Glycerol      d) none of these

**PART - B**

Answer any 5 of the following questions only (Q.No.17 is compulsory)

5x2=10

- How is plaster of Paris prepared.
- Write the reason for the anomalous behaviour of beryllium.
- State Henry's Law
- Define the term isotonic solution
- Write short notes on aromaticity
- Preparation of Benzene from acetaline
- Give the systematic names for the following  
 a) Soda ash      b) Milk of magnesia      c) Caustic Potash      d) Lye

3x3=15

18. Write the Chemical equations for the reaction involved in Solvay process of preparation of Sodium carbonate
19. Describe the Biological importance of Calcium and Magnesium
20. Calculate the molality of the Solution Containing 45 gm of glucose dissolved in 2 kg of water
21. Write the properties for an Ideal Solution
22. Define a) Normality ( ) b) Mole Fraction
23. Write wurtz - Fitting reaction
24. A Formula for Compound A is  $C_2H_2$ . It react with  $O_2$  to give compound B. B react with  $Zn / H_2O$  to give compound C. Find A, B and C. and give the equation

### PART - D

#### All of the Following Question

3x5=15

25. Discuss briefly the Similarities between beryllium and Aluminium (5)
- (OR)
- a) Give any three uses of gypsum (3)
- b) Why alkaline earth metals are harder than alkali metals (2)
26. a) How will you determine the molar mass from Osmotic pressure (3)
- b) Write Short notes on Van't Hoff Factor (2)
- (OR)
- Write the Factors responsible for deviation from Raoult's Law (5)
27. Explain the Structure of Benzene (5)
- (OR)
- a) Explain Markovnikov's rule with suitable Example (3)
- b) Write the preparation and Structure of BHC (2)