FAROOQ ACADEMY

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XI - CHEMISTRY

UNIT: 9 SOLUTIONS IMPORTANT QUESTIONS

2 & 3 Marks:

1. State Raoult's law Pg no. 42
2. **Define isotonic solution pg no. 56 (MAY 2022)**
3. Define Van't Hoff factor pg no. 58
4. What are the ideal and non-ideal solutions? Give eg pg no. 46
5. Define i) Molarity ii) Mole fraction pg no. 32
6. **Define osmotic pressure pg no. 56 (MAY 2023)**
7. **Define i)Normality ii) Molality pg no. 32**
8. State Henry's law pg no. 39
9. What are colligative properties pg no. 49
10. **Define osmosis pg no 55**
11. What is the standard solution?advantages of using it? Pg no 35
12. Define reverse osmosis pg no 57
13. Explain the effect of pressure on solubility pg no 38

5 Marks:

1. State Henry's law. Write the limitations of Henry's law pg no 39 (MAR 2023)

2. State Raoult law and obtain expressing for lowering of vapour pressure when a non-volatile solute is dissolved in solvent pg no. 42

3. Write the Factors responsible for deviation from Raoult's law pg no 48
4. How will you determine the molar mass from osmotic pressure pg no 56
5. What is meant by elevation of boiling point & Depression in freezing point pg no 50
6. Vapour pressure of binary solution of solid in liquids pg no 44

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PROBLEMS :

1.Calculate the molality of the solution containing 45 g of glucose dissolved in 2 kg of water pg no 32

2. The observed depression in the freezing point of water for a particular solution is 0.0930 C. Calculate the concentration of the solution in molality. Given that the molal depression constant for water is 1.86 KKg mol-1 BB46

3. 5.85g of sodium chloride is dissolved in water and the solution was made up to 500 mL using a standard flask. The strength of the solution in formality is Pg no 36

4. What volume of 4M HCl and 2M HCl should be mixed to get 500 mL of 2.5 M HCl? Pg. no 35

5.50g of tap water contains 20mg of dissolved solids. The TDS value in ppm is pg no 34