

CHEMISTRY-11	Chapter#09(Complete) Test-1		
	Name:	Class:	ID:
Date: / /	Marks Total: 25	Marks Obtained:	
Time Allowed: 40 Min.			

Maximum Marks: 09 **(OBJECTIVE TYPE)** Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- 18 g glucose is dissolved in 90 g water. The relative lowering of Vap. pressure is equal to:

(a) 1/5 (b) 5.1 (c) 1/51 (d) 6
- The molal boiling point constant is the ratio of the elevation in boiling point to:

(a) Molarity (b) Molality
(c) Mole fraction of solvent (d) Mole fraction of solute
- The vapour pressure of the solvent above the solution is directly proportional to the:

(a) Mole fraction of solute (b) Mole fraction of solvent
(c) Both 'a' & 'b' (d) None
- In a saturated solution, the concentration of the solute in solution, is in equilibrium with:

(a) Solvent (b) Solid solute (c) Solution (d) All
- The solubility of NaCl at 0°C is:

(a) 14.3 g (b) 37.5 g (c) 75.4 g (d) None
- Which solution will cause greater elevation in boiling point of water?

(a) 6 g urea in 1 kg water (b) 18 g glucose in 1 kg water
(c) 34.2 g sucrose in 1 kg water (d) All equal
- The elevation in boiling point (ΔT_b) is directly related to:

(a) Molarity (b) Molality (c) Both (d) None
- Which is the incorrect relation?

(a) $\Delta T_b = T_2 - T_1$ (b) $\Delta T_f = T_2 - T_1$ (c) $\Delta T_f = T_1 - T_2$ (d) None
- One mole of a solute requires _____ of water to reach the stage of infinite dilution.

(a) 100-200 moles (b) 500-600 moles (c) 700-800 moles (d) 800-1000 moles

Maximum Marks: 16 **(SUBJECTIVE TYPE)** Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions: (12)

- Differentiate between ideal and non-ideal solutions.
- Define solubility.
- What are the applications of colligative properties?
- Why do the boiling points of solvents increase due to the presence of non-volatile solutes?
- NaCl and KNO₃ are used to lower the melting point of ice. Explain.
- Why hydration energy of Li⁺ ion is greater than Cs⁺ ion?

SECTION-II

NOTE: Attempt All Questions: (04)

Q.3: Define colligative properties. How molecular mass of a solute is determined by lowering in vapour pressure?