

CHEMISTRY-11	Chapter#09(Complete) Test-4		
	Name:	Class:	ID:
Date: / /	Marks Total: 30	Marks Obtained:	
Time Allowed: 50 Min.			

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

NOTE: Tick The Correct Option:

- Relative lowering of vapour pressure is equal to:
 - Mole fraction of solute
 - Mole fraction of solvent
 - Molarity
 - Molality
- Which solution will show smaller lowering of vapour pressure?
 - 1 m glucose solution
 - 1 m urea solution
 - 1 m sucrose solution
 - All will cause equal lowering of V.P.
- Solubility curve is the graphical representation between the solubility of a substance and:
 - Temperature
 - Pressure
 - Molality
 - Volume
- Whose solubility will decrease with increase in temperature?
 - NaNO₃
 - Ce₂(SO₄)₃
 - K₂Cr₂O₇
 - Na₂SO₄. 10H₂O
- Which is the application of colligative properties?
 - The use of automobile antifreeze
 - The development of solution theory
 - The molecular mass determination
 - All of these
- Which solvent has greater value of molal freezing point constant?
 - Water
 - Ethanol
 - Acetic acid
 - Benzene
- Beckmann's method is used to determine the:
 - Lowering of vapor pressure
 - Elevation in boiling point
 - Depression in freezing point
 - Osmotic pressure
- The antifreeze used in the automobile radiators is:
 - Glycerin
 - Glycol
 - Glycerol
 - All
- When one mole of NaCl is dissolved in 800-1000 moles of water, the enthalpy change is:
 - +2.008 kJ
 - 2.008 kJ
 - +4.98 kJ
 - 4.98 kJ
- What is the correct order with respect to hydration energy of ions?
 - Cu²⁺ > Mg²⁺ > Ag⁺
 - Mg²⁺ > Ag⁺ > Cu²⁺
 - Ag⁺ > Mg²⁺ > Cu²⁺
 - Mg²⁺ > Cu²⁺ > Ag⁺

Maximum Marks: 20 **(SUBJECTIVE TYPE)** Time Allowed: 40 Min.

SECTION-I

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

- Define solubility curves. Name its two types.
- Why some salts (CaCl₂.6H₂O or Na₂SO₄.10H₂O) show discontinuous solubility curves?
- Why 6 g urea, 18 g glucose and 34.2 g of sucrose dissolved in water cause equal elevation in boiling point?
- What is cryoscopic constant or molal freezing point constant?
- Why Beckmann thermometer is used to note the depression of the freezing point?

vi. Lattice energy of ionic solids is always higher than molecular solids. Why?

SECTION-II

NOTE: Attempt All Questions:

(08)

Q.3: What is Raoult's Law? Give its three statements.

Q.4: What is molal boiling point constant? How can we determine the molar mass of an unknown solid by elevation in boiling point method?