

CHEMISTRY-11	Chapter#09-Second Half (9.5 – 9.8) Test-3		
	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:

- A thermometer used in Landsberger's method can read up to:
 (a) 0.1 K (b) 0.01°F (c) 0.01 K (d) 0.01°C
- 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 CuSO_4 at 100°C is:
 (a) 14.3 g (b) 37.5 g (c) 75.4 g (d) None
- In solubility curves, the quantity taken along x-axis is:
 (a) Solubility (b) Temperature (c) Pressure (d) Volume
- Which substance will show discontinuous solubility curve?
 (a) $\text{Ce}_2(\text{SO}_4)_3$ (b) $\text{Pb}(\text{NO}_3)_2$ (c) CaCl_2 (d) None
- Which one is not the application of colligative properties?
 (a) The use of automobile antifreeze (b) The molecular mass determination
 (c) The development of solution theory (d) None of these
- The antifreeze used in the automobile radiators is:
 (a) Glycerin (b) Glycol (c) Glycerol (d) All
- Which salt has endothermic heat of solution?
 (a) LiCl (b) Li_2CO_3 (c) KCl (d) Both 'a' & 'b'
- The number of water of crystallization in oxalic acid is:
 (a) 2 (b) 7 (c) 10 (d) 5
- Which salt will cause an increase in the pH of neutral water?
 (a) CuSO_4 (b) Na_3PO_4 (c) Na_2SO_4 (d) KBr

Maximum Marks: 20

(SUBJECTIVE TYPE)

Time Allowed: 40 Min.

SECTION-I

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

- How is the solubility of a substance determined?
- Why some salts ($\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ or $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$) show discontinuous solubility curves?
- What is ebullioscopic constant or molal boiling point constant?
- What are the conditions to observe the colligative properties?
- Write any two applications of boiling point elevation.
- Lattice energy of ionic solids is always higher than molecular solids. Why?

SECTION-II

NOTE: Attempt All Questions: (08)

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

Q.4: What is hydration and hydrolysis? Explain with two examples.