CHEMISTRY-11	Chapter#09(Complete) Test-3		
	Name:	Class:	ID:
Date: / / Time Allowed: 40 Min.	Marks Total: **30**	Marks Obtained:	

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

NOTE: **Tick The Correct Option:**

1. **Colligative properties are the properties of:**
   (a) Dilute solutions which behave as nearly ideal solutions.
   (b) Concentrated solutions which behave as nearly non-ideal solutions.
   (c) Both 'a' & 'b'
   (d) Neither 'a' nor 'b'

2. **A thermometer used in Landsberger's method can read up to:**
   (a) 0.1 K   (b) $0.01^{\circ}F$ (c) 0.01 K   (d) $0.01^{\circ}C$

3. **The relative lowering of vapor pressure depends upon:**
   (a) The nature of the solute   (b) The amount of the solute
   (c) The temperature of the solution   (d) All

4. **The solubility of $CuSO_4$ at $100^{\circ}C$ is:**
   (a) 14.3 g   (b) 37.5 g   (c) 75.4 g   (d) None

5. **Which solution of glucose in water will cause greater elevation of B.P.?**
   (a) 0.1 m   (b) 0.1 M   (c) 1% w/w   (d) Both 'a' & 'b'

6. **The values of K_b and K_f depend upon:**
   (a) The nature of solute   (b) The nature of the solvent
   (c) The number of solute particles   (d) Both 'a' & 'b'

7. **The presence of a solute in a liquid increases the _____ range of the solution.**
   (a) Solid   (b) Liquid   (c) Gas   (d) All

8. **Which salt has endothermic heat of solution?**
   (a) LiCl   (b) Li_2CO_3 (c) KCl   (d) Both 'a' & 'b'

9. **Which ion has the greatest hydration energy?**
   (a) H^+ (b) Mg^{2+} (c) Cu^{2+} (d) Al^{3+}

10. **What is the correct order with respect to the hydration energy of ions?**
    (a) $OH^- > F^- > Cl^- > Br^-$ (b) $F^- > Cl^- > Br^- > OH^-$
    (c) $Br^- > Cl^- > F^- > OH^-$ (d) $F^- > OH^- > Cl^- > Br^-$

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

SECTION-I

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

   i. What is Raoult's law? Give its three definitions with mathematical expressions.
   ii. How is the solubility of a substance determined?
   iii. Why 6 g urea, 18 g glucose and 34.2 g of sucrose produce same lowering in vapour pressure?

iv. What is ebullioscopic constant or molal boiling point constant?

v. Freezing points are depressed due to the presence of solutes. Justify.

vi. Why hydration energy of Na^+ ion is smaller than Li^+ ion?

SECTION-II

NOTE: Attempt All Questions: (04)

Q.3: What is solubility? Explain solubility curves.

Q.4: How is depression in freezing point of a solution is measured by Beckmann's method?