CHEMISTRY-11	Chapter#09-First Half (9.0 - 9.4) 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:

1. **A solution of glucose is 10% w/v. The volume in which 1 g mole of it is dissolved will be:**
   (a) 1 dm^3 (b) 1.8 dm^3 (c) 200 cm^3 (d) 900 cm^3
2. **In azeotropic mixture showing positive deviation from Raoult's law, the volume of the mixture is:**
   (a) Slightly more than the total volume of the components.
   (b) Slightly less than the total volume of the components.
   (c) Equal to the total volume of the components.
   (d) None of these
3. **An aqueous solution of methanol in water has vapor pressure:**
   (a) Equal to that of water (b) Less than that of water
   (c) Equal to that of methanol (d) More than that of water
4. **A solution is a _____ mixture of two or more substances.**
   (a) Homogeneous (b) Heterogeneous (c) Both 'a' & 'b' (d) None
5. **Which one is 1M solution of glucose in water?**
   (a) 1% w/v (b) 9% w/v (c) 1.8 % w/v (d) 18% w/v
6. **For solutions having more than two components, the concentration unit used is:**
   (a) Molarity (b) Molality (c) Mole fraction (d) ppm
7. **Which one is the example of partially miscible liquids?**
   (a) Alcohol + Water (b) Alcohol + Ether (c) Water + Ether (d) Water + CS_2
8. **Which one is the equation for Raoult's law?**
   (a) $P^o = Px_1$ (b) $\frac{P^o}{\Delta P} = x_2$ (c) $\Delta P = P^o x_2$ (d) None
9. **Which solution is non-ideal?**
   (a) Benzene-ether (b) Methyl alcohol-water
   (c) Water-HCl (d) Both 'b' & 'c'
10. **The azeotropic mixture of ethanol and water contains alcohol:**
    (a) 95.5% (b) 20.24% (c) 79.76% (d) 4.5%

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

SECTION-I

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

i. Differentiate between solvent and solute.
ii. Define molarity. Give its mathematical expression.
iii. Calculate the molality of 8% w/w NaCl solution.
iv. Why is glucose not soluble in CCl_4 but dissolves in water?
v. Explain the effect of temperature on phenol-water system.
vi. What is the difference between azeotropic mixtures and pure chemical compounds?

SECTION-II

NOTE: Attempt All Questions: **(08)**

Q.3: Differentiate between ideal and non-ideal solutions.

Q.4: What are azeotropic mixtures? What type of deviation is shown by them? Explain with the help of graph.