CHEMISTRY-11	Chapter#08-Second Half(8.3 - 8.9) Test-3B		
	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. **Ionic product of water (K_w) increases _____ when temperature increases from 0°C to 100°C:**
   (a) 22 times (b) 75 times (c) 55 times (d) 65 times
2. **In the presence of common ion, the ionization of an electrolyte will:**
   (a) Increase (b) Decrease (c) No effect (d) Moderate change
3. **Pure water is _____ conductor of electricity.**
   (a) Non (b) Poor (c) Good (d) Super
4. **Molar concentration of water is:**
   (a) 1 mole dm^{-3} (b) 18 moles dm^{-3} (c) 55.5 moles dm^{-3} (d) $1.8x10^{-16}$moles dm^{-3}
5. **The greater is the dilution of the solution, the greater is:**
   (a) The number of ions (b) Percentage ionization
   (c) Dissociation constant (K_a) (d) All
6. **Which has the smallest value of K_b?**
   (a) $Ca(OH)_2$ (b) $C_6H_5NH_2$ (c) CH_3NH_2 (d) NH_4OH
7. **K_a and K_b of a conjugate acid base pair are _____ proportional to each other.**
   (a) Directly (b) Inversely (c) Both (d) None
8. **When HCl is added to the solution of H_2S in water, then:**
   (a) The solubility of H_2S increases (b) The solubility of HCl increases
   (c) The solubility of H_2S decreases (d) The solubility of HCl decreases
9. **Buffer is the application of:**
   (a) Law of mass action (b) Le-Chatelier's Principle
   (c) Common ion effect (d) All
10. **The best buffer is prepared by mixing salt and acid in a ratio:**
    (a) 1 : 1 (b) 1 : 10 (c) 10 : 1 (d) 2 : 1

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

SECTION-I

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

i. What is ionic product of water? How does K_w vary with the change in temperature?
ii. Calculate the pH of 10^{-4} mole dm^{-3} of $Ba(OH)_2$ solution.
iii. Define acid and base according to Lowry Bronsted concept.
iv. How does a buffer act? Explain with an example.
v. Write Henderson equation for acids and bases.
vi. How can solubility product be determined from solubility? Give an example.

SECTION-II

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

Q.3: The solubility of PbF_2 at 25°C is 0.64 gdm^{-3}. Calculate K_{sp} of PbF_2.

Q.4: Calculate the pH of 1.0 mole dm^{-3} of H_2X, which is only 50 % dissociated.