CHEMISTRY-11	Chapter#08-Second Half(8.3 - 8.9) Test-4A		
	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. **An excess of aqueous silver nitrate is added to aqueous barium chloride and precipitate is removed by filtration. What are the main ions in the filtrate?**
   (a) Ag^+ and NO_3^{-1} only (b) Ag^+ and Ba^{2+} and NO_3^{-1}
   (c) Ba^{2+} and NO_3^{-1} only (d) Ba^{2+} and NO_3^{-1} and Cl^{-1}
2. **Which aqueous solution has highest pH?**
   (a) 0.1 M NaOH (b) 1.0 M H_2SO_4 (c) 0.1 M HCl (d) 0.2 M HNO_3
3. **The value of K_w at 25^0C is:**
   (a) 0.11×10^{-14} (b) 0.3×10^{-14} (c) 1.0×10^{-14} (d) 1.8×10^{-16}
4. **pH is directly proportional to:**
   (a) H^+ ion concentration (b) OH^- ion concentration
   (c) Both 'a' & 'b' (d) None
5. **At 100^0C, pH + pOH = ?**
   (a) $= 14$ (b) < 14 (c) > 14 (d) $= 0$
6. **If $K_a > 1$, the acid is:**
   (a) Strong (b) Moderately strong
   (c) Weak (d) Moderately weak
7. **When 0.1 moles of CH_3COOH are dissolved in 1 dm^3 of the solution, the % ionization is:**
   (a) 1.33% (b) 13.3% (c) 12.6% (d) 1.26%
8. **"Dilution increases the degree of dissociation" is called:**
   (a) Common ion effect (b) Ostwald's dilution law
   (c) Solution theory (d) Buffer capacity
9. **A basic buffer is:**
   (a) A strong base and its salt with a strong acid.
   (b) A strong base and its salt with a weak acid.
   (c) A weak base and its salt with a weak acid.
   (d) A weak base and its salt with a strong acid.
10. **On mixing the saturated solutions of $PbCrO_4$ and Na_2CrO_4, the solubility of _____ deceases, and it precipitates out.**
    (a) $PbCrO_4$ (b) Na_2CrO_4 (c) Both (d) None

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

SECTION-I

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

i. Differentiate between K_a and K_b.
ii. What is the effect of common ion on solubility?
iii. How does common ion effect help in identifying the II group basic radicals?
iv. Define buffers? How are they prepared or what are their types? OR Differentiate between acidic and basic buffers.
v. What happens when a small amount of an acid or a base is added to a basic buffer containing NH_4OH and NH_4Cl?
vi. How does mixture of NH_4OH and NH_4Cl give us the basic buffer?

SECTION-II

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

Q.3: Prove that $pK_a + pK_b = pK_w$

Q.4: Write a note on buffer capacity.