

CHEMISTRY-11	Chapter#08-Second Half(8.3 - 8.9) Test-4B		
	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:

- 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?
 - Ag^+ and NO_3^{-1} only
 - Ag^+ and Ba^{2+} and NO_3^{-1}
 - Ba^{2+} and NO_3^{-1} only
 - Ba^{2+} and NO_3^{-1} and Cl^{-1}
- Which aqueous solution has highest pH?
 - 0.1 M NaOH
 - 1.0 M H_2SO_4
 - 0.1 M HCl
 - 0.2 M HNO_3
- The value of K_w at 25°C is:
 - 0.11×10^{-14}
 - 0.3×10^{-14}
 - 1.0×10^{-14}
 - 1.8×10^{-16}
- pH is directly proportional to:
 - H^+ ion concentration
 - OH^- ion concentration
 - Both 'a' & 'b'
 - None
- At 100°C , $\text{pH} + \text{pOH} = ?$
 - = 14
 - < 14
 - > 14
 - = 0
- If $K_a > 1$, the acid is:
 - Strong
 - Moderately strong
 - Weak
 - Moderately weak
- When 0.1 moles of CH_3COOH are dissolved in 1 dm^3 of the solution, the % ionization is:
 - 1.33%
 - 13.3%
 - 12.6%
 - 1.26%
- "Dilution increases the degree of dissociation" is called:
 - Common ion effect
 - Ostwald's dilution law
 - Solution theory
 - Buffer capacity
- A basic buffer is:
 - A strong base and its salt with a strong acid.
 - A strong base and its salt with a weak acid.
 - A weak base and its salt with a weak acid.
 - A weak base and its salt with a strong acid.
- On mixing the saturated solutions of PbCrO_4 and Na_2CrO_4 , the solubility of _____ decreases, and it precipitates out.
 - PbCrO_4
 - Na_2CrO_4
 - Both
 - 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: $\text{Ca}(\text{OH})_2$ is a sparingly soluble compound. Its solubility product is 6.5×10^{-6} . Calculate the solubility of $\text{Ca}(\text{OH})_2$.
- Q.4: a) Benzoic acid, $\text{C}_6\text{H}_5\text{COOH}$, is a weak mono basic acid ($K_a = 6.4 \times 10^{-5} \text{ mole dm}^{-3}$). What is the pH of a solution containing 7.2 g of sodium benzoate in one dm^3 of 0.02 mole dm^{-3} benzoic acid?