

1. The pH of 10^{-3} mol dm^{-3} of an aqueous solution of H_2SO_4 is

- A. 3 B. 2.7
C. 2 D. 1.5

Answer: Option B

2. Kc value has

- A. No units B. Units
C. Both a & b D. None

Answer: Option C

3. If a buffer solution of higher pH than seven is to be made we use

- A. Strong acid and strong base B. Weak acid and strong base
C. Weak acid and strong base D. Weak acid and its salt with strong base

Answer: Option D

4. Sodium benzoate and benzoic acid are mixed in equimolar ratio to form buffer if pK_a is 2 what will be the pH?

- A. 0 B. 1
C. 2 D. any one

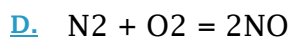
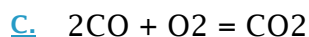
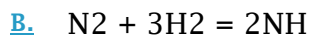
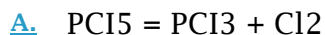
Answer: Option C

5. AgCl dissolved with conc (2×10^{-2}) Ksp will be

- A. 3.6×10^{-6} B. 3.6×10^{-5}
C. 7.2×10^{-6} D. 4×10^{-4}

Answer: Option D

6. In which of the following equilibria will Kc and Kp have the same value?



Answer: Option D

7. Which of the following will not change the concentration of ammonia at the equilibrium ?

A. Increase of pressure

B. Increase of volume

C. Addition of catalyst

D. Decrease of temperature

Answer: Option C

8. pH of an aqueous solution is 5.5. The hydroxyl ion conc. In the solution would be

A. $10^{-5.5}$

B. $10^{-8.5}$

C. $10^{-8.5}$

D. 10

Answer: Option C

9. For a reaction involving only gases at 25°C the equilibrium constant can be expressed in terms of molarity K_c or partial pressure K_p . Which is true about the numerical value of K_p ?

A. K_c is generally greater than K_p

B. K_c is generally less than K_p

C. K_c is generally equal to K_p

D. K_c is equal to K_p if the total moles of reactants and products are equal

Answer: Option D

10. Which of following is not a base

A. KOH

B. NH_3

C. PH_3

D. BF_3

Answer: Option D

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