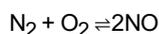


ECAT Chemistry Chapter 8 Chemical Equilibrium

Sr	Questions	Answers Choice
1	Product of concentration of ions raised to the power equal to the co-efficient of ions in balanced equation for saturated solution of a salt is called	A. Ionic product B. Equilibrium constant K_c C. K_w D. Solubility product (K_{sp})
2	According to Le-Chatelier's principal, adding heat to a solid and liquid in equilibrium will cause the	A. Amount of solid to decrease B. Amount of liquid to decrease C. Temperature to rise D. Temperature to fall
3	An excess of aqueous silver nitrate is added to aqueous barium chloride and precipitate is removed by filtration. What are the main ion in filtrate?	A. Ag^+ and NO_3^- only B. Ag^+ and Ba^{2+} and NO_3^- C. Ba^{2+} and NO_3^- D. Ba^{2+} and NO_3^- and Cl^-
4	Which one of the following is not a buffer	A. $H_2CO_3 + NaHCO_3$ solution B. $H_3PO_4 + NaH_2PO_4$ solution C. $HI + NaI$ solution D. $NH_4OH + NH_4Cl$ solution
5	The concentration of reactants is increased by x, then equilibrium constant K becomes	A. In K/x B. K/x C. $K + x$ D. K
6	The rate of forward reaction is two times that of the reverse reaction at a given temperature and identical concentration, K equilibrium is	A. 0.5 B. 1.5 C. 2.5 D. 2.0
7		A. $[A] = [B]$ B. $[A] \neq [B]$ C. $[B] = [C]$ D. $[A] \neq [B]$
8	An aqueous solution is neutral when its	A. $pH = 14$ B. $pH = \text{zero}$ C. $pH = 7$ D. $K_w = 10^{-7}$
9	pH of 0.1 molar HCl solution is	A. 1 B. zero C. 13 D. 14
10	The solubility of PbF_2 is $2.6 \times 10^{-3} \text{ mole dm}^{-3}$ then its solubility product is	A. 2.6×10^{-3} B. 6.76×10^{-6} C. 5.2×10^{-6} D. 7.0×10^{-8}
11	Under what condition of temperature and pressure the formation of atomic hydrogen from molecular hydrogen will be favoured	A. High temperature and high pressure B. Low temperature and low pressure C. High temperature and low pressure D. Low temperature and high pressure
12		A. Low pressure B. High pressure C. High temperature D. High concentration of SO_2
13		A. Pressure change B. Temperature change C. Concentration change D. Catalyst

14



The unit of K_c for this reaction will be:

- A. $\text{mol}^{-2}\text{dm}^{-3}$
- B. $\text{mol}^{-1}\text{dm}^{-3}$
- C. $\text{mol}^{-1}\text{dm}^{-3}$
- D. $\text{mol}^{-2}\text{dm}^{-3}$

15

In 1000 molecules of 0.001 M acetic acid the number of H^+ ions is 12.6, then its percentage of ionization is

- A. 1.33%
- B. 1.26%
- C. 12.6
- D. 1%

16

Question Image

- A. 450°C
- B. 250°C
- C. 850°C
- D. 1000°C

17

In a reversible chemical reaction having two reactants in equilibrium, if the concentration of the reactants are doubled then the equilibrium constant will

- A. Also be doubled
- B. Be halved
- C. Becomes one fourth
- D. Remains the same

18

When a weak acid is dissolved in water or a weak base dissolved in water, then in both cases the conjugate acid base pair is produced. The ionization constants K_a and K_b of a pair are related with each other as

- A. $K_a = K_b$
- B. $K_a \cdot K_b = K_w$
- C. $K_a > K_b$
- D. $K_a < K_b$

19

Question Image

- A. Total pressure
- B. Amount of A_2 and B_2
- C. Temperature
- D. Catalyst

20

Question Image