

ECAT Chemistry Chapter 8 Chemical Equilibrium

Sr	Questions	Answers Choice
1	Question Image	A. Increase in concentration of 1 B. Decrease in concentration of $K_{sub>2</sub>}$ C. Increase in temperature D. Increase in total pressure
2	Question Image	A. Favour the formation of $N_{sub>2</sub>O_{sub>4</sub>}$ B. Favour the decomposition of $N_{sub>2</sub>O_{sub>4</sub>}$ C. Not alter the equilibrium D. Stop the reaction
3	pH of water is 7, if 0.01 M NaOH is added, than its pH is	A. 12 B. 14 C. zero D. 10
4	Extent to $H_2 + I_2 \rightarrow 2HI$ can be increased by :	A. Increasing temperature. B. Increasing product. C. Increasing pressure. D. Adding a catalyst.
5	The value of K_p is greater than K_c for a gaseous reaction when	A. Number of molecules of products is greater than the reactants B. Number of molecules of reactants is greater than those of products C. Number of molecules of reactants and products equal D. Catalyst is added
6	The solubility product of AgCl is $2.0 \times 10^{-10} \text{ mole}^2 \text{ dm}^{-6}$. The maximum concentration of Ag^+ ions in the solution is	A. $2.0 \times 10^{-10} \text{ mole dm}^{-3}$ B. $1.41 \times 10^{-5} \text{ mole dm}^{-3}$ C. $1.0 \times 10^{-10} \text{ mole dm}^{-3}$ D. $4.0 \times 10^{-20} \text{ mole dm}^{-3}$
7	A large value of K_c means that at equilibrium :	A. Less reactant and more products. B. Reactants and product in same amounts. C. More reactants and less products. D. None of above.
8	Which one of the following has no units of its K_c value	
9	Question Image	A. Equal volumes of N_2 and H_2 are reacting B. Equal masses of N_2 and H_2 are reacting C. The reaction has stopped D. The same amount of ammonia is formed as is decomposed into N_2 and H_2
10	A solution has pH = 0, its H^+ ion concentration is	A. 1×10^{-14} B. 1×10^{14} C. 1×10^1 D. 1
11	The substance which increases rate of reaction but remains unchanged at the end of reaction is called :	A. Catalyst. B. Indicator. C. Promoter. D. Activator.
12	Question Image	A. Rate of opposing reactions are equal. B. Rate constants of opposing

12	I a chemical reaction equilibrium is said to have been established when :	<p>reactions are equal. C. Opposing reactions stop. D. Concentration of reactants and products are equal</p>
13	Question Image	<p>A. $K_C = K_P$ B. $K_p = K_cRT$ C. $K_p = K_c(RT)^{-2}$ D. $K_p = K_c(RT)^{-1}$</p>
14	If pH of buffer of 1 mole dm^{-3} of HCOOH + 0.1 mole dm^{-3} HCOONa having $\text{pK}_a = 3.78$ is	<p>A. 1.78 B. 2.78 C. 3.78 D. 4.78</p>
15	A solution having $\text{pH} = 4$ its OH^- ion concentration in mole dm^{-3} is	<p>A. 1.0×10^{-4} B. 1.0×10^{-10} C. 1.0×10^{-14} D. 1×10^0</p>
16	Question Image	<p>A. Low pressure B. High pressure C. High temperature D. High concentration of SO_2</p>
17	Question Image	<p>A. Reversible reaction B. Irreversible reaction C. Spontaneous reaction D. None of these</p>
18	Question Image	<p>A. High temperature and low pressure B. Low temperature and low pressure C. Low temperature and high pressure D. High temperature and high pressure</p>
19	In exothermic reversible reaction increase in temperature shift the equilibrium to :	<p>A. Remains unchanged. B. Product side. C. Reactant side. D. None of above.</p>
20	Question Image	<p>A. $[A] = [B]$ B. $[A] \leq [B]$ C. $[B] = [C]$ D. $[A] \geq [B]$</p>