ECAT Chemistry Chapter 8 Chemical Equilibrium

Sr	Questions	Answers Choice
1	The correct relation b/w K_c and K_p is :	A. K_p = K_c[P/N] ^{Δn<o:p></o:p>} B. K_{c =}K_p(RT) ^{Δn}<o:p> </o:p> C. K_{p =}K_c(RT) ^{Δn}<o:p> </o:p> D. K_{p =}K_c(RT) ^{Δn}<o:p> </o:p>
2	Question Image	A. HF is stable and does not decompose even at 2000°C B. HF is stable and slowly decomposes at 2000°C C. HF is strong acid D. HF produces equal moles of hydrogen and fluorine
3	What happens when reaction is at equilibrium and more reactant is added :	A. Forward reaction rate is increased. B. Forward reaction rate is decreased. C. Backward reaction rate is increased. D. Equilibrium remains unchanged.
4	1.1 mol of A is mixed with 2.2 mol of B and the mixture is kept in on litre flask till the equilibrium is reached. At equilibrium, 0.2 mol of C is formed. If the equilibrium reaction is A+2B 2C+D, the value of equilibrium constant is	A. 0.002 B. 0.004 C. 0.001 D. 0.003
5	Question Image	A. 0.02 B. 0.2 C. 50 D. 25
6	A chemical reaction is in equilibrium when	A. Formation of product is minimum B. Reactants are completely transformed into products C. Rates of forward and backward reactions are equal D. Equal amounts of reactants and products are present
7	The rate of reaction :	A. Remain same as reaction proceeds. B. May decrease or increase as reaction proceeds . C. Increase as reaction proceeds. D. Decreases as reaction proceeds.
8	pH of water is 7, if 0.01 M NaOH is added, than its pH is	A. 12 B. 14 C. zero D. 10
9	Question Image	A. 1 B. 10 C. 5 D. 0.33
10	pH of 1 molar NaOH is	A. 7 B. zero C. 14 D. 10
11	For what value of K_c almost forward reaction is complete :	A. K_{c =}10³⁰<o:p></o:p> B. <o:p></o:p> K_{c =}10⁻³⁰<o:p></o:p> C. <o:p></o:p> K_{c =}0<o:p></o:p> D. K_{c =}1<o:p></o:p>
12	K_a value of HF acid is 6.7×10^{-15} the acid is a	A. Weak acid B. Moderately strong acid C. Strong acid

		D. Very weak acid
13	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
14	Buffers having pH less than 7 are made	A. Mixture of weak acid + salt of it with strong base B. Mixture of weak acid + salt of it with weak base C. Mixture of weak base + salt of it with strong acid D. Mixture of weak base + salt of it with weak base
15	The state of equilibrium refers to	A. State of rest B. Dynamic state C. Stationary state D. State of inertness
16	A solution of NaOH has pH = 13, then concentration of NaOH is	A. 10⁻¹³M B. 10¹³M C. 10⁻¹M D. 10⁺¹M
17	For which system does the equilibrium constant, kc has units of (concentration) ?	A. N₂+3H₂₋₋-----2NH₃<o:p></o:p> B. H₂+L₂--------2HL<o:p></o:p> C. 2NO₂----------N₂O₄<o:p></o:p> D. 2HF--------H2+F₂<o:p></o:p>
18	The optimum conditions of temperature and pressure to get maximum NH_3form $N_2$and H_2gases is	A. 2000°C and 10 atmosphere B. 0°C and 1 atmosphere C. 400°C and 200-300 atmosphere D. 200°C and 100 atmosphere
19	Question Image	
20	Law of mass action was given by :	A. Guldberg and Waage. B. Berkeley and Hartly. C. Ramsay and Reyleigh. D. Berthelot.