ECAT Chemistry Chapter 8 Chemical Equilibrium

Sr	Questions	Answers Choice
1	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.
2	Question Image	A. Reaction occurs at STP B. Reaction is exothermic C. Reaction is endothermic D. Number of moles of production and reactant are same
3	Acetic acid is 1.33% ionized, In 1000 molecules of 0.1 M acetic acid the number of H^+ions is	A. 1.33 B. 13.3 C. 1.33 D. 1
4	Which statement about the following equilibrium in correct? $2SO_{2\ (g)} + O_{2(g)}$--------------$2sO_{3(g)}$H= - 188.3 KJ mol-1	A. T value of K_{p falls witha rise in temperate.} B. The value of K_{p falls withincreasing pressure}<p class="MsoNormal"><o:p></o:p></p> C. Adding V_{2O}₅catalyst increase the equilibrium yield of sulfur trioxide<p class="MsoNormal"><o:p></o:p></p> D. The value of K_{p is equal to}K_p E. <p class="MsoNormal"><o:p></o:p></p><p class="MsoNormal"><o:p></o:p></p>
5	pH of 0.1 molar HCl solution is	A. 1 B. zero C. 13 D. 14
6	A solution has pH = 0, its H^+ion concentration is	A. 1 x 10⁻¹⁴ B. 1 x 10¹⁴ C. 1 x 10¹ D. 1
7	Question Image	A. 0.073 B. 0.147 C. 0.05 D. 0.026
8	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
9	The solubility product of $Ca(OH)_2$is 6.5 x 10^{-6}. The concentration of OH^-ions is	A. 1.175 x 10⁻² B. 2.35 x 10⁻² C. 3.25 x 10⁻³ D. 3.25 x 10⁻⁴
10	Ammonium carbonate when heated to 200°C gives a mixture of $NH_3$and CO_2vapour with a density of 13.0. What is the degree of dissociation of ammonia carbonate?	A. 3/2 B. 1/2 C. 2 D. 1
11	The rate of a chemical reaction is directly;y proportional to product of molar concentration of reaction substance it is called :	A. Low of conservation of energy. B. Law of mass action. C. Rate law . D. Active mass rule.
12	Question Image	A. 4 mole per dm³ B. 2 mole per dm³ C. 0.33 mole per dm³ D. 0.67 mole per dm³

13	$N_2 3H_2 \rightleftharpoons 2NH_3$ Which of the following change will favor the formation of more NH_3 at equilibrium in above reaction :	A. By adding NH_3. B. By removing H_2. C. By decreasing pressure. D. By increasing pressure.
14	For the above reaction the relationship b/w k_c and k_p will be :	A. $K_p = K_c RT$ B. $K_p = K_c (RT)^{-1}$ C. $K_p = K_c (RT)^{-2}$ D. $K_c = K_p$
15	A buffer solution of 0.1 molar HCOOH and 0.1 molar HCCONa has pH = 3.78 To is 0.01 molar HCl is added, then pH of the buffer solution becomes	A. 2.78 B. 4.78 C. 3.78 D. 3.70
16	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.
17	$H_2 + L_2 ---- 2HI$ In the above equilibrium system, if the concentration of reactants at $25°C$ is increased, the value K_C will :	A. Remains Constant B. Increases C. Cecreases D. Depends upon nature of reactans
18	Chemical equilibrium involving reactants and products in more than one phase is called	A. Static B. Dynamic C. Homogeneous D. Heterogeneous
19	Question Image	A. Increases B. Decreases C. Remains same D. Cannot be predicted
20	Question Image	A. Pressure change B. Temperature change C. Concentration change D. Catalyst