ECAT Chemistry Chapter 8 Chemical Equilibrium

Sr	Questions	Answers Choice
1	$K_a$value of HF acid is 6.7 x $10^{-15}$the acid is a	A. Weak acid B. Moderately strong acid C. Strong acid D. Very weak acid
2	Question Image	A. Shift reaction toward forward direction B. Shift reaction backward C. Lower the value of K_c D. No change in reaction
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	pKb value of NH_4OH is 4.74. If the concentration of NH_4OH is 1 molar containing 0.1 molar NH_4Cl, then pH of this buffer will be	A. 3.74 B. 10.26 C. 4.74 D. 9.26
5	pH of water is 7, if 0.01 M NaOH is added, than its pH is	A. 12 B. 14 C. zero D. 10
6	strength of an acid can be determined by	A. P^{ka} B. P^{kp} C. P^{oH} D. P^{kw}
7	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.
8	1 mol of N_2O_4 was decomposed according to given equation in 1dm_3 container. At equilibrium x mole of N_2O_4 have dissociated. What is the value of K_C:	A. 2x/(1-x)^{2<o:p></o:p>} B. 4x²/(1-x)<o:p></o:p> C. 4x/(1-x)<o:p></o:p> D. 2x/(1-x)<o:p></o:p>
9	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%
10	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
11	In exothermic reversible reaction increase in temperature shift the equilibrium to :	A. Remains unchanged. B. Product side. C. Reactant side. D. None of above.
12	Which of the following is a characteristic of a reversible reaction?	A. It never proceeds to completion B. It can be influenced by a catalyst C. It proceeds only in the forward direction D. Number of moles of reactants and products are equal
13	The ph of 10-3 mole dm-3 of an aqueous solution of H_2SO_4 is :	A. 3.0<o:p></o:p> B. 2.7<o:p></o:p> C. <span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-

		hansi-theme-font:minor-latin; mso-bidi-font-family:Arial;mso-bidi-theme-font:minor-bidi;mso-ansi-language: EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">2.0 D. 1.5<o:p></o:p>
14	Question Image	
15	Question Image	A. Increases B. Decreases C. Remains same D. Cannot be predicted
16	Law of mass action was given by :	A. Guldberg and Waage. B. Berkeley and Hartly. C. Ramsay and Reyleigh. D. Berthelot.
17	A solution of NaOH has pH = 13, then concentration of NaOH is	A. 10⁻¹³M B. 10¹³M C. 10⁻¹M D. 10⁺¹M
18	Which one of the following is a buffer	A. HCl + NaCl solution B. CH₃COOH + CH₃COONH₄solution C. H₂SO₄+ CaSO₄solution D. CH₃COOH + CH₃COONa
19	Law of mass action states that rate of chemical reaction is directly proportional to the product of active masses of the reactants. The term active mass means	A. Mass in grams converted to products B. Number of moles C. Number of moles per dm³of reactants D. Total pressures of the reactants
20	An aqueous solution is neutral when its	A. pH = 14 B. pH = zero C. pH = 7 D. Kw = 10⁻⁷