Chemistry Fsc Part 1 Chapter 8 Online Test

Sr	Questions	Answers Choice
1	For which system does the equilibrium constant K_c has units of $(concentration)^{-1}$	
2	Question Image	A. The value of K_pfalls with a rise in temperature B. The value of K_pfalls with increasing pressure C. Adding V₂O₅catalyst increase the equilibrium yield of sulphur trioxide D. The value of K_pis equal to K_c
3	The pH of 10^{-3} mol dm^{-3} of an aqueous solution of H_2SO_4 is	A. 3.0 B. 2.7 C. 2.0 D. 1.5
4	The solubility product of AgCl is 2.0×10^{-10} $mol^2 dm^{-6}$ The maximum concentration of Ag^+ ions in the solution is	A. 2.0 x 10⁻¹⁰mol dm⁻³ B. 1.41 x 10⁻⁵mol dm⁻³ C. 1.0 x 10⁻¹⁰mol dm⁻³ D. 4.0 x 10⁻²⁰mol dm⁻³
5	An excess of aqueous silver nitrate is added to aqueous barium chloride and precipitate is removed by filtration. What are the main ions in the filtrate	
6	At equilibrium stage of chemical reaction	A. The concentration of reaction is equal to concentration of products B. The rate constant of forward reaction is equal to rate constant of backward reaction C. The rate of forward reaction is equal rate of backward reaction D. The energy of activation of forward step is equal to energy of activation of backward step
7	Question Image	A. dm⁺⁶mole⁻² B. mole²dm⁻⁶ C. Mole dm⁻³ D. Having no units
8	If the volumes of reactants and products are same in a gaseous phase reaction, then the equilibrium state is not affected by	A. Change of temperature B. Change of pressure C. Change of concentration D. Catalyst
9	The relationship between K_p and K_c is given by	
10	Le-Chatelier Braun principle is sometimes known as	A. Law of mass action B. Law of mobile equilibrium C. Law of active mass D. All of these above
11	The effect of temperature on equilibrium was studied by	A. Lewis B. Van der wall C. Arrhenius D. Vant hoff
12	K_a and K_b of a conjugate acid and are related with k_w as	A. K_a+ K_b=K_w B. K_a- K_b=K_w C. K_a.K_b= K_w D. K_a/ K_b= K_w

13	The pH of human blood is	A. 7.0 B. 7.4 C. 4.0 D. 6.5
14	The value of pH and P^{OH} of pure water at 25° C is	A. 14 B. 7 C. 1 x 10⁻¹⁴ D. 1 x 10¹⁴
15	A buffer solution can be prepared by mixing	A. Weak acid and its salt with weak base B. Weak base and its salt with strong acid C. Strong acid and its salts with weak base D. Strong base and its salt with weak acid
16	The number of moles of acid or base required by one dm^3 of buffer to alter its pH by one unit is called	A. Buffer efficiency B. Buffer capacity C. Buffer action D. None
17	The pK_a value of CH_3COOH is 4.74 when we mix CH_3COOH and CH_3COONa in the ratio of 10:1, tehn the pH of the buffer is	A. 4.74 B. 5.74 C. 3.74 D. 7.00
18	The law of mass action was given by	A. D.C. down and P wage B. Gay Lussic and C.M C. C.M Goldberg and P. Waage D. Hendeson and Le Chateller's
19	_____ was derived by C.M Guldberg and P Waage in 1864	A. Law of conservation of Mass B. Law of mass action C. Law of conservation of energy D. Distribution law
20	Optimum pressure in Haber's process for synthesis of Ammonia is	A. 100 -150 atm B. 200- 300 atm C. 350 - 450 atm D. 500 - 600 atm
21	Catalyst used in preparation of NH3 from N2 and H2 is.	A. Ni B. Fe C. Pt D. V2O5
22	The pH of 10-3 mole dm-3 of an aqueous solution of H2SO4 is.	A. 3.0 B. 2.7 C. 2.0 D. 1.5
23	A chemical reaction A ---------- B is said to be in equilibrium when	A. Complete conversion of A to B has taken place B. Conversion of A to B is 50% complete C. Rate of transformation of A to B is equal to B to A D. 50% Reactant have been changed to B
24	The unit of Kc for the reaction N2 +O2 = 2NO will be	A. mol dm-3 B. mol-1 dm+3 C. mol-2 dm+6 D. No units
25	Almost forward reaction is complete when value of Kc is	A. very high B. Very small C. Neither large nor very small D. No correlation
26	the substance which increase the rate of reaction but remains unchanged at the end of the reaction is called.	A. Indicator B. Promoter C. Catalyst D. Activated complex
27	For the equilibrium system N2 + O2 + Heat = 2NO the equilibrium constant deceases by	A. Decreasing the temperature B. Adding a catalyst C. Adding N2 D. Adding NO
28	When solid KI dissolved in water, its heat of solution is positive. What would happen to dissolution when temperature is increased.	A. Increases B. Decreases C. Remain same D. Firs increases than decreases
		A. Forward

29	When concentration of one product is removed at equilibrium stage, in which direction it moves to reestablish equilibrium.	A. Forward B. Reverse C. Neither forward nor reverse D. Equally move in both direction
30	The sum of pH and pOH is	A. 0 B. 7 C. 14 D. 10
31	Which one of the following aqueous solutions has the highest pH	A. 0.1 M NaOH B. 0.1 M HCl C. 0.2 M H_2SO_4 D. 0.1 M HNO_3
32	Which one of the following has highest pH	A. Distilled water B. 1 M NH_4OH C. 1 M NaOH D. Water saturated with chlorine gas
33	A solution have H+ ions concentration 1×10^{-7} , its pH will	A. Acidic B. Basic C. Neutral D. Zero
34	Kw for water at 0 oc is 0.1×10^{-34} and at 100 ^{o}C 7.5×10^{-14}, How many times dissociation of water increase from 0 ^{o}Cto 100 ^{o}C	A. 7.5 times B. 50 times C. 75 times D. 100 times
35	A solution has pH zero. Its H+ ions concertation will	A. zero B. More than unity C. Less than unity D. Unity only
36	pH of rain water.	A. 7 B. Slightly basic C. slightly acidic D. Highly basic
37	Which acid has less value of pKa.	A. CH_3COOH B. H_2S C. H_2CO_3 D. HCl
38	Sum of pKa and pKb is equal to.	A. 1 B. 7 C. 0 D. 14
39	Buffer action can be explained by	A. Common ion effect B. Law of mass action C. Le Chateller's principle D. All above
40	One dm^3 of a buffer solution containing 0.01 M NH_4Cl and 0.1 M NH_4OH having pKa of 3 has pH.	A. 4 B. 6 C. 9 D. 10
41	pH of buffer is calculated by.	A. Sorenson equation B. Mosley equation C. Henderson equation D. De broglie equation
42	pKa of CH_3COOH is 4.74. The pKb value of CH_3COO^- ions will be	A. 7 B. 14 C. 9.26 D. zero
43	When small amount of acid or base is added to buffer, its pH.	A. Remain same B. Always increases C. Always decreases D. slightly increases or decreases
44	When HCl is added to H_2S aqueous solution, Its ionization	A. Decrease B. Increase C. Remains constant D. First increases than decreases
45	Some impurities of $MgCl_2$ are present in NaCl which separation technique can be used to separate the impurities.	A. Filtration B. Crystallization C. Common ion effect D. Chromatography
46	A solution will be unsaturated if	A. Ionic product = Kap B. Ionic product < Ksp C. Ionic Product > Ksp D. both 'a' and 'b' are correct

47	Which statement is correct about solubility product constant.	A. It is applicable at highly soluble substances. B. Value of Kap is independent of temperature C. It is used for homogeneous aquarium system D. It can be used to predict that precipitation will take place or not by combining two ions