acids and bases

CH7

1	The solution with the lowest pH is			
	1.0M HF	1.0M HCN	1.0M HCOOH	1.0M CH_3COOH
2	As the $[H_3O^+]$ in a solution decreases, the $[OH^-]$			
	Decreases and the pH decreases.		Increases and the pH increases.	
	Decreases and the pH increases		Increases and the pH decreases.	
3	The value of pKw at 25°C is			
	1.0×10^{-14}	1.0×10^{-7}	7.00	14.00
4	What is the pOH of 0.1 M NaOH?			
	1	0.0032	0.40	13.60
5	A 0.010M acid solution has a pH of 2.00. The acid could be			
	HNO_3	H_2SO_3	HCOOH	CH_3COOH
7	Which of the following describes the relationship between $[H_3O^+]$ and $[OH^-]$?			
	$[H_3O^+][OH^-] = 14.00$	$[H_3O^+] + [OH-] = 14.00$	$[H_3O+][OH^-] = 1.0 \times 10^{-14}$	$[H_3O^+] + [OH^-] = 1.0 \times 10^{-14}$
8	A solution of known concentration is the definition of a			
	buffer solution	Neutral solution.	standard solution	saturated solution
10	The ionization of water at room temperature is represented by			
	$H_2O = 2H^+ + O^{2-}$		$2H_2O = 2H_2 + O_2$	
	$2H_2O = H_2 + 2OH$		$2H_2O = H_3O^+ + OH^-$	
11	Addition of HCl to water causes			
	both $[H_3O^+]$ and [OH-] to decrease		both $[H_3O+]$ and [OH-] to increase.	
	$[H_3O^+]$ to increase and $[OH^-]$ to decrease.		$[H_3O+]$ to decrease and $[OH^-]$ to increase.	
12	Which of the following statements concerning Arrhenius acids and Arrhenius bases is incorrect?			
	In the pure state, Arrhenius acids are covalent compounds.			
	In the pure state, Arrhenius bases are ionic compounds.			
	Dissociation is the process by which Arrhenius acids produce H^+ ions in solution.			
	Arrhenius bases are also called hydroxide bases.			
13	According to the Bronsted-Lowry theory, a base is a(n)			
	Proton donor.	Proton acceptor.	Electron donor.	electron acceptor
14	The pH of a solution for which $[OH^-] = 1.0 \times 10–6$ is			
	1.00	8.00	6.00	-6.00
15	The pH of 1.0 M acetic acid (Ka is 1.86×10^{-5}) at 20 °C.			

	0.0043	0.0034	0.043	0.034
16	According to the Lewis theory, a base:			
	Accepts a share in a pair of electrons.	is a proton donor	Is a proton acceptor.	
	Makes available a share in a pair of electrons.		Is any compound that contains electron pairs.	
17	Based on the reactions we have studied, ammonia can be considered as:			
	An Arrhenius base (only).		A Lewis base (only).	
	Both an Arrhenius base and a Lewis base.		A Bronsted-Lowry base (only).	
	both a Bronsted-Lowry base and a Lewis base			
18	Which statement concerning the auto ionization (self-ionization) of water is FALSE? $2\ H_2O_{(l)} <==> H_3O^+_{(aq)} + OH^-_{(aq)}$			
	This reaction is an acid-base reaction according to the Bronsted - Lowry theory.			
	Water is amphiprotic.			
	pH of pure water = 2			
	A H_2O molecule may react as an acid by donating a proton.			
	A H_2O molecule may react as a base by accepting a proton			
19	According to Bronsted-Lowry theory, a base is defined as a:			
	Substance containing OH- ions.		Proton donor	
	electron pair acceptor		Proton acceptor.	Electron pair donor.
20	What is the H_3O^+ concentration in 1.0 M NaOH?			
	1.0 M	1.0×10^{-14} M	1.0×10^{14} M	1.0×10^{-7} M
21	What is the OH^- concentration in a neutral aqueous solution?			
	exactly zero	1.0×10^{-7} M	1.0×10^{-14} M	1.0 M	7.0 M
22	What is the hydronium ion concentration in a solution which is 0.10 M $HNO_{3(aq)}$?			
	0.30 M	2.1×10^{-2} M	0.10 M	1.0×10^{-7} M	6.7×10^{-3} M
23	What is the hydroxide ion concentration in 1.0 M HBr?			
	1.0 M	1.0×10^{-13} M	1.0×10^{-14} M	1.0×10^{-7} M
24	What is the pH of 1.0×10^{-3} M aqueous $HClO_4$?			
	10^{-7}	-3.0	0.0	3.0
25	Calculate the hydroxide ion concentration in pure water at 25°C.			
	exactly zero	1.0×10^{-7} M	7.0 M	1.0 M
26	A solution in which the pH is 8.5 would be described as			
	slightly basic	very basic	neutral	slightly acidic
27	Calculate the pH of a solution in which $[OH^-] = 2.50 \times 10^{-4}$M.			
	0.40	3.60	3.60	13.60
28	Calculate the pH of a solution in which $[OH^-] = 1.0 \times 10^{-4}$ M.			
	4	12	10	6
29	The pOH of an aqueous solution was found to be 12.00. Which of the following is FALSE for the solution?			
	pH = 12	$[H_3O^+] = 10^{-2.00}$	pH = 2	$[OH^-] = 1.0 \times 10^{-12}$M
30	When the pH of a solution becomes more acidic, the number on the pH scale			
	Decreases	Increases	Stays the same	Double

31	When the pH of a solution becomes more basic, the number on the pH scale			
	Decreases	Increases	Stays the same	Triples
32	If a solution is basic, it can be neutralized by adding			
	An acid	A colder base	More base	A weaker base
33	HCl is ……..			
	Strong acid	Weak base	Strong base	Weak acid
34	NaOH is ……..			
	Strong acid	Weak base	Strong base	Weak acid
35	HNO_3 is ……..			
	Strong acid	Weak base	Strong base	Weak acid
36	NH_3 is ……..			
	Strong acid	Weak base	Strong base	Weak acid
37	CH_3COOH is ……..			
	Strong acid	Weak base	Strong base	Weak acid
38	A solution in which the pH is 7 would be described as:			
	Strong acid	Weak base	Strong base	Neutral
39	A solution in which the pH is 2 would be described as:			
	Strong acid	Weak base	Strong base	Neutral
40	A solution in which the pH is 7.6 would be described as:			
	Strong acid	Weak base	Strong base	Neutral

لا تنسي امثلة الكتاب

good luck

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