Yakeen NEET 2.0 2026

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Ionic Equilibrium

DPP: 2

Q1 The pH of a $0.1M$ aqueous solution of a weak acid (HA) is 3 . What is its degree of dissociation?
(A) 1%
(B) 10%
(C) 50%
(D) 25%

Q2 What is the pH value of $N/1000KOH$ solution?
(A) 10^{-11}
(B) 3
(C) 2
(D) 11

Q3 The pH of a $10^{-9}M$ solution of HCl in water is:
(A) 8
(B) -8
(C) Between 7 and 8
(D) Between 6 and 7

Q4 An acid solution of $pH = 6$ is diluted hundred times. The pH the solution becomes:
(A) 6.95
(B) 6
(C) 4
(D) 8

Q5 The number of H^+ ions present in $1\ mL$ of a solution having $pH = 13$ is:
(A) 10^{13}
(B) 6.023×10^{13}
(C) 6.023×10^7
(D) 6.023×10^{10}

Q6 The pH of a solution is increased from 3 to 6 ; its H^+ ion concentration will be:
(A) Reduced to half
(B) Doubled
(C) Reduced by 1000 times
(D) Increased by 1000 times

Q7 What is the pH of a $0.015MBa(OH)_2$ solution?
(A) 1.82
(B) 1.52
(C) 12.48
(D) 12.18

Q8 The aqueous solution whose $pH = 0$ is
(A) Acidic
(B) Alkaline
(C) Amphoteric
(D) Neutral

Q9 For an acid solution, the $[OH^-]$ is
(A) $> 10^{-7}$
(B) $< 10^{-7}$
(C) 10^{-14}
(D) 10^{-7}

Q10 The pH of a solution is 6.0 . In this solution
(A) $[H^+] = 100\ [OH^-]$
(B) $[H^+] = 10\ [OH^-]$
(C) $[H^+] = [OH^-]$
(D) $[H^+] = \frac{1}{10}[OH^-]$

Q11 pH of an aqueous solution of $NaCl$ at $85°C$ should be
(A) 7
(B) > 7
(C) < 7
(D) 0

Q12 Select the correct statement
(A) If $[H^+] = y \times 10^{-x}$ then $pH = x - \log y$
(B) If $[H^+] = \frac{1}{Y} \times 10^{-x}$ then $pH = x + \log y$
(C) pH of a solution $= 14 + \log[OH^-]$
(D) All of the above

Q13 The $[H^+]$ of a solution is $0.03M$. The pOH of this solution is,

(A) 12.48 (B) 12.52
(C) 12.54 (D) 12.58

Q14 For a $100ml$ solution of $10^{-2}M\,NaOH$ the ratio
$pH : pOH$ would be
(A) $6 : 1$
(B) $1 : 6$
(C) $2 : 1$
(D) $10^{10} : 1$

Q15 10^{-2} mole of KOH is dissolved in 10 litres of
water. The pH of the solution is
(A) 12 (B) 2
(C) 3 (D) 11

Answer Key

Q1	(A)	Q9	(B)
Q2	(D)	Q10	(A)
Q3	(D)	Q11	(C)
Q4	(A)	Q12	(D)
Q5	(C)	Q13	(A)
Q6	(C)	Q14	(A)
Q7	(C)	Q15	(D)
Q8	(A)		

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