Test bank chapter (15)

Choose the most correct answer

1-What is the concentration of H^+ in a 2.5 M HCl solution?

    a) 0
    b) 1.3 M
    c) 2.5 M
    d) 5.0 M

2. What is the OH^- ion concentration in a 5.2×10^{-4} M HNO_3 solution?

    a) 1.9×10^{-11} M
    b) 1.0×10^{-7} M
    c) 5.2×10^{-4} M
    d) Zero

3.Calculate the H^+ ion concentration in lemon juice having a pH of 2.4.

    a) 4.0×10^{-2} M
    b) 250 M
    c) 0.38 M
    d) 4.0×10^{-3} M

4. Calculate the pH of a 6.71×10^{-2} M NaOH solution.

    a) 12.83
    b) 2.17
    c) 11.82
    d) 6.71

5. What is the pH of 0.0200 M aqueous solution of HBr ?

    a) 1.00
    b) 1.70
    c) 2.30
    d) 12.30

6.The pOH of a solution of NaOH is 11.30. What is the $[H^+]$ for this solution?

    a) 2.0×10^{-3}
    b) 2.5×10^{-3}
    c) 5.0×10^{-12}
    d) 4.0×10^{-12}

7. What is the pH of a 0.0400 M aqueous solution of KOH ?

   a) 12.60
   b) 10.30
   c) 4.00
   d) 1.40

8. What is the approximate pH of a solution labeled 6×10^{-5} M HBr?
   a) **4.2**
   b) 4.5
   c) 5.8
   d) 9.8

9. If the pH = 2 for an HNO3 solution, what is the concentration of HNO_3?

   a) 0.10
   b) 0.20
   c) 0.010
   d) 0.020

10. A solution in which $[H^+] = 10^{-8}$ M has a pH of ___ and is ___.

   a) 8, acidic
   b) 6, basic
   c) -6, basic
   d) 8, basic

11. Which of the following solutions has the lowest pH at 25oC? (No calculations required.)

   a) 0.2 M NaOH
   b) 0.2 M NH3
   c) 0.2 M HCl
   d) pure water

12. Calculate the pH of a 3.5×10^{-3} M HNO_3 solution.

   a) -2.46
   b) 0.54
   c) 2.46
   d) 3.00

13. the pH of 2.6×10^{-2} M KOH.

   a) 12.41
   b) 15.59
   c) 2.06
   d) 7.00

14. What is the $[H^+]$ ion in a 4.8×10^{-2} M KOH solution?

    a) 4.8×10^{-2} M
    b) 1×10^{-7} M
    c) 4.8×10^{-11} M
    d) 4.8×10^{-12} M

15. What is the $[OH^-]$ ion in a 5.2×10^{-4} M HNO_3 solution?

    a) 1.9×10^{-11} M
    b) 1.0×10^{-7} M
    c) 5.2×10^{-4} M
    d)   zero