

ACIDS AND BASES

TEST _____

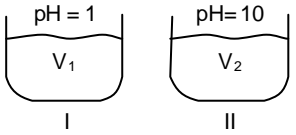
Neutralization – 2

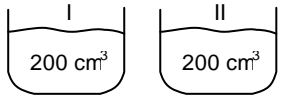
Date: _____

1. When 100 ml $2 \cdot 10^{-2}$ M of HCl solution is mixed with 200 ml NaOH solution whose pH is 12. What would be last pH?
 A) 3 B) 4 C) 5 D) 6 E) 7

2. To make the resulting solution's pH is 12, how many moles of solid KOH must be added to $5 \cdot 10^{-3}$ 2L HCl solution by don't changing the volume?
 A) 0.3 B) 0.03 C) 0.2 D) 0.02 E) 0.04

3. When an acid solution with pH=3 is mixed with unknown concentration of KOH solution in equal volumes. pH of resulting solution is found 7. What is the concentration of KOH solution?
 A) 10^3 B) 10^{-2} C) 0.1 D) 0.2 E) 0.3

4. When mixed the solutions, pH of final solution becomes 7. What is the ratio of V_1/V_2 ?

 A) 10 B) 1 C) 1/10 D) 1/100 E) 1/1000

5. After mixed the solutions beside, what will be pH of final solution?

 A) 1 B) 2 C) 7 D) 10 E) 12

6. Which one of the 100 ml of 0.1 M solutions can neutralize the 100 ml of 0.2 M NaOH solution?
 A) CH_3COOH B) HCOOH C) H_3PO_4 D) H_2SO_4 E) HCl

7. How many ml of 0.4 M NaOH is required to neutralize the 40 ml of 0.25 M H_2SO_4 solution?
 A) 20 B) 25 C) 50 D) 80 E) 100

8. 200 ml of HCl solution can be neutralized by 1.71 g of $\text{Ba}(\text{OH})_2$ solution. What is the $[\text{H}^+]$ in HCl solution? ($\text{Ba}(\text{OH})_2 = 171$)
 A) 0.025 B) 0.05 C) 0.075 D) 0.1 E) 0.2

9. 25 ml of strong monoprotic acid is used to neutralize the 100 ml of 0.0025 M NaOH solution. What is pH of acid solution?
 A) 1 B) 2 C) 3 D) 11 E) 12

10. 50 ml of 10^{-3} M $\text{Sr}(\text{OH})_2$ solution is mixed with 50 ml of $4 \cdot 10^{-3}$ M HCl solution. After mixing; what will be pH of final solution?
 A) 0 B) 2 C) 3 D) 4 E) 7

11. How many ml 0.05 M NaOH solution must be mixed with 300 ml of 0.05 M HCl solution to have a solution with pH=1?
 A) 100 B) 200 C) 800 D) 1300 E) 1800

12. 100 ml of 0.2 M HBr and 100 ml of 0.1 M $\text{Ba}(\text{OH})_2$ solutions are mixed. What is the pH of resulting solution?
 A) 7 B) 8 C) 9 D) 10 E) 13