

CHEM 1032 – Week 11 Questions

1. Which could you add to CH_3COOH to form a buffer?
 - a. HCl
 - b. NaCl
 - c. NaOH
2. What is true at the equivalence point?
 - a. $\text{pH} = 7$
 - b. moles acid = moles base
 - c. $[\text{H}_3\text{O}^+] = [\text{OH}^-]$

A 0.100 M HCl solution is used to titrate a 25.00 mL sample of NH_3 . The initial reading on the buret is 50.00 mL and the final reading is 26.25 mL.

3. What is the concentration of NH_3 ?
4. What is the pH at the equivalence point?
 - a. $\text{pH} > 7$
 - b. $\text{pH} = 7$
 - c. $\text{pH} < 7$
5. What is the numerical value of pH at the equivalence point?
6. What is the pH after the addition of 5.0 mL of HCl ?
7. What is the pH at the half equivalence point?
8. What is the pH after the addition of 30.00 mL of HCl ?