

# Participation Assignment

## CHEM 1100-General Chemistry II

Name:

#12

Section: 31, TR

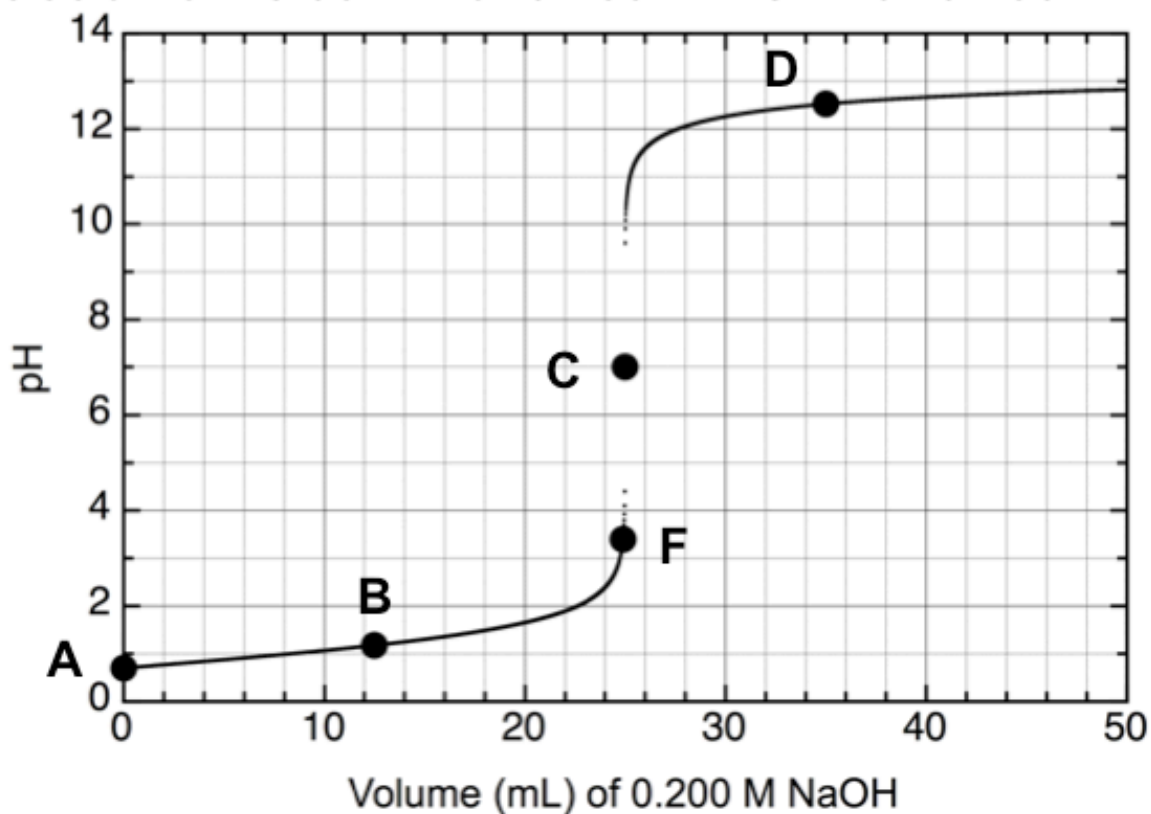
Due Date: Tuesday 2/19/2019

1. State whether you expect solutions of each of the following substances to be acidic, basic, or neutral:

a. HCl      b. NaOH      c.  $\text{N}_2\text{H}_4$       d. NaCl      e.  $\text{AlCl}_3$

f. NaClO      g.  $\text{NH}_4\text{NO}_3$       h.  $\text{NH}_4\text{F}$       i.  $\text{NaHCO}_3$

## Titration of 25.00 mL of 0.200 M HCl with 0.200 M NaOH



2. The above graph represents the titration of 25.00 mL 0.200 mol/L HCl by a solution that is 0.200 mol/L NaOH.

Point A: Calculate the pH before the addition of any NaOH.

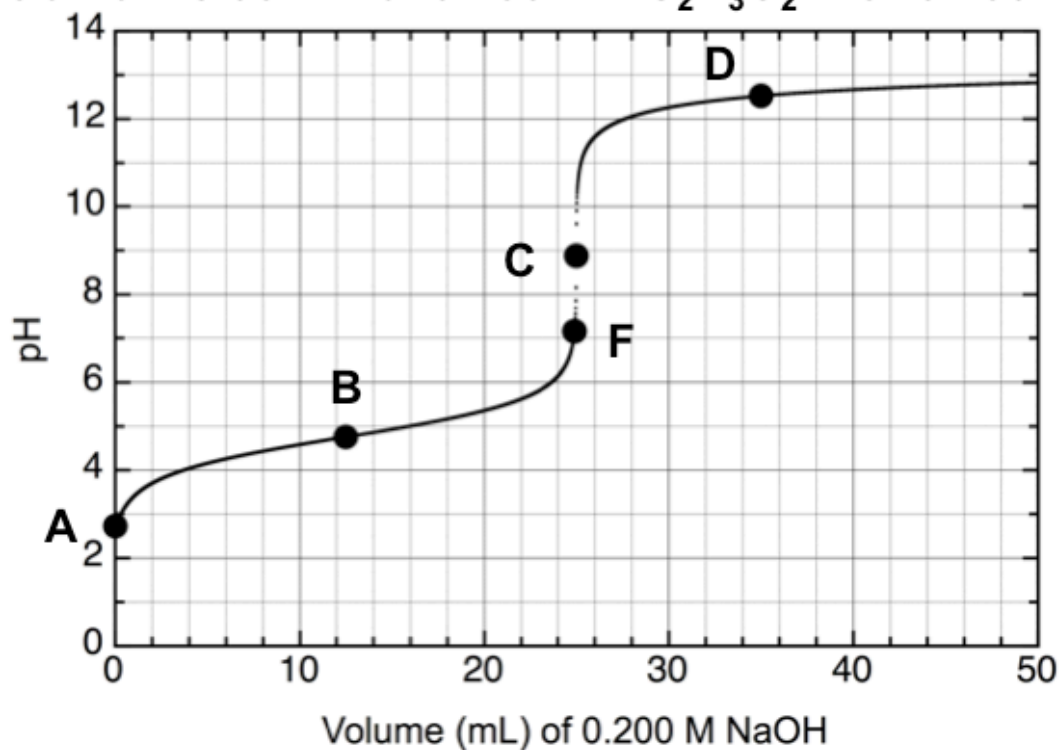
Point B: Calculate the pH after the addition of 12.50 mL of the NaOH solution.

Point C: Calculate the pH after the addition of 25.00 mL of the NaOH solution.

Point D: Calculate the pH after the addition of 35.00 mL of the NaOH solution.

3. Define “equivalence point”.

### Titration of 25.00 mL of 0.200 M $\text{HC}_2\text{H}_3\text{O}_2$ with 0.200 M NaOH



4. The above graph represents the titration of 25.00 mL 0.200 mol/L  $\text{HC}_2\text{H}_3\text{O}_2$  by a solution that is 0.200 mol/L NaOH.

Point A: Calculate the pH before the addition of any NaOH.