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Chemistry 152
Worksheet 4

Name: _____

- A. (2.0 pts.) Determine the pH of a buffer solution that is 0.15M in HF and 0.25M in NaF. K_a for HF = 3.5×10^{-4} .
- B. (2.0 pts.) Determine the $[H^+]$ and pH of a buffer solution prepared by dissolving 0.10 moles of NH_3 and 0.15 moles of NH_4NO_3 in 1.00L of solution. K_b for NH_3 = 1.8×10^{-5} .
- C. (1.0 pts.) Determine the $[ClO^-]$ required in a 0.20M HClO solution to produce a buffer solution having a pH of 7.48. K_a for HClO = 3.5×10^{-8} .
- D. (1.0 pts.) Determine the pH and percent by hydrolysis for 0.10M NaCN solution. K_a for HCN = 4.0×10^{-10} .
- E. (4.0 pts.) Write balanced net ionic equations for the reactions expected when aqueous solutions of each of the following are mixed. Indicate the form of the equilibrium constant in terms of other constants such as K_a , K_b , and K_w .

