**Dougherty Valley HS AP Chemistry**

**S-82**

**Acid Base Reactions**

**Quick Check #7**

**Name: Date: Period: Seat #:**

🞎 **Buffer basics**

What could you mix with 100. mL of 2.00 M HNO2 (nitrous acid) to make a buffer?

What is the pH of the best buffer made from nitrous acid, HNO2? Ka of HNO2 = 4.0 x 104.

🞎 **Adjusting the pH of a buffer**

The weak acid, HCN, could be used to make a buffer. The Ka for HCN is 6.2 x 1010.

What is the pH of the best buffer made from HCN?

What ratio of [HCN] to [CN] is needed to have a buffer with pH = 9.00?

🞎 **Multiple Choice Question:**

Which of the following mixtures would result in a buffer solution?

I. 10 mL 0.20 M HCl and 10 mL 0.40 M NH3

II. 10 mL 0.20 M HF and 10 mL 0.20 M NaF

III. 10 mL 0.40 M HC2H3O2 and 10 mL 0.20 M NaOH

A) II only

B) II and III only

C) I and III only

D) I, II and III

E) None of these will result in a buffer solution.