**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.