**CHEM 102 Recitation Ch 17 Name**

**Q1**. Which of the following, if added to a saturated solution of Ag2CO3 would increase the solubility of

Ag2CO3?

 **A)** Na2CO3  **B)** NaOH **C)** AgNO3 **D)** KBr

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| **Q2.** | Which compound is more soluble in an **acidic solution** than in a **neutral solution**? |
| **A)** | AgI |
| **B)** | PbBr2 |
| **C)** | BaF2  |
| **D)** | CuCl |

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| **Q3.** Which of the following titrations result in an **acidic** solution at the equivalence point?  |
|  **A)**  | KF titrated with KOH |
|  **B)**  | HCl titrated with NaOH  |
|  **C)**  | CH3COOH titrated with NaOH  |
|  **D)**  | C5H5N titrated with HCl  |

**Q4.** Calculate the **pH** of a **0.57 M NaF** solution. (The *K*a of HF is 7.1 x 10–4) [8.45]

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| **Q5.** | What would be the **pH** value when **1.0 g** of solid **NaOH** is added to a **1.0 L** of 0.10 *M* formic acid (HCO2H) / 0.20 *M* sodium formate (HCO2Na) solution? [4.25]*K*a of formic acid is 1.710-4 |

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| **Q6.** | 50.00 mL of 0.10 *M* **HNO2** (nitrous acid, *K*a = 4.5 × 10-4) is being titrated with a 0.10 *M* **KOH** solution. Calculate the **pH** after 25.00 mL of the **KOH** solution is added to the titration flask. [3.35] |

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| **Q7.** | Will a precipitate of **PbCl2** form when 0.10 L of 3.0 × 10-2 *M* **Pb(NO3)2** is added to 400 mL of 9.0 × 10-2 *M* **NaCl**? For PbCl2, *K*sp = 2.4 × 10-4. |
| **A)** | No, because *Q* < *K*sp |
| **B)** | Yes, because *Q* > *K*sp |
| **C)** | Yes, because *Q* < *K*sp |
| **D)** | No, because *Q* = *K*sp |