Acid/Base II Written Response:

1.

(5 marks)

Calculate the initial concentration of a KF salt solution that has a pH $= 8.65$.
Begin by writing the equation for the predominant equilibrium reaction.

2.

(5 marks)

Calculate the pH of a $0.35\,M$ solution of the salt ammonium bromide.
Begin by writing the equation for the predominant equilibrium.

3.

A sample of the strong acid $HCl(aq)$ is titrated with a sample of $NH_3(aq)$, a weak base.
Write the formula, complete ionic and net ionic equations for the titration reaction. (3 marks)

4.

Describe two lab tests and how their outcomes could be used to distinguish
between a strong acid and a weak acid of equal molar concentrations. (4 marks)

Test 1: _____

_____

Outcome: _____

_____

Test 2: _____

_____

Outcome: _____

_____