**PO 5 Unit Exam (Chapters 14, 15, 16) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Study Guide**

* How will a buffer react when a strong acid is added to it? Be sure you can explain in terms of chemical equations.
* Make sure you understand how Q relates to K and how to calculate and compare the two values.
* Titration curves – know what the curves look like for both a strong acid titrated into a strong base and a weak acid titrated into a strong base. Make sure you can identify all major parts to the graphs.
* Know Le Chatelier's principle affect when stress is put on a chemical system. Review your notes and the worksheet you did on Le Chatelier’s principle. Make sure you understand what happens to a system if concentration, pressure, or temperature increases or decreases in a system.
* What is Ksp and what does its value indicate? How do you calculate for it?
* Contrast a Bronsted-Lowry acid-base theory with Arrhenius acid-base theory.
* What is a conjugate in Bronsted-Lowry acid-base theory and how do you determine which species in a chemical system is a conjugate?
* What is Kw? What is the concept behind it?
* What is molar solubility and how do you calculate for it?
* Memorize six strong acids and six strong bases.
* Calculate the pH of a buffer after its been created.
* What is selective precipitation? Review the problems we worked in class in regards to selective precipitation.
* What is the common ion effect and how does it relate to buffers and molar solubility?
* How do you calculate for Kc when you have only have Kp?
* What concentrations must you know to determine the Kc of a reaction?