

## CHEM 113••EXAM #3 Spring 2005

•	<b><u>General Equilibrium Topics (Chapter 13)</u></b>	<b>5</b>
	General concepts, Le Chatelier's Principle, $K_p$ vs $K_c$	
•	<b><u>Chemical Equilibrium Skills(Chapter 13)</u></b>	<b>4</b>
	Meaning of K, writing Equilibrium Constant Expressions, manipulating equilibria	
•	<b><u>Equilibrium Shifts(Chapter 13)</u></b>	<b>3</b>
	Q and equilibrium calculations	
•	<b><u>General Terms and Definitions (Chapter 14 and 15)</u></b>	<b>5</b>
	relating to acids and bases, buffers, titrations, primary species, $K_a$ , $K_b$	
•	<b><u>General pH calculations (Chapter 14 )</u></b>	<b>4</b>
	pH of strong and weak acids and bases and salts (also pOH, $OH^-$ , $H^+$ )	
•	<b><u>pH of mixtures (Mixing Problems and Buffers (Chapter 15)</u></b>	<b>3</b>
	calculate pH for various combinations of acids and bases	
•	<b><u>Net Ionic Equations of Acid Base Reactions (Chapter 15)</u></b>	<b>3</b>
	identify primary species in solution to determine appropriate reaction	
	<b>TOTAL</b>	<b>27</b>

Formulas and Constants Provided:

Acid Base Chart and pH equations.

**Bring #2 Pencils, Calculators, and Yourself.**