Name _____

Quiz 3

1. (2 pts. ea.) Which of the following molecules are bases (circle them).

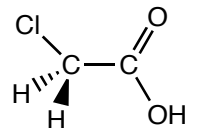| C_6H_5OH	CsOH	$Ba(OH)_2$
K_2CO_3	LiCl	

2. (6 pts.) When NaOH dissolve in water, what forms (write the chemical formulas for the particles that form when NaOH dissolves in water.)

3. When hydroxide is not released when $NaHCO_3$ is dissolved in water, but $NaHCO_3$ is a base.

   a. (6 pts.) Write the formulas of the ions that form when $NaHCO_3$ dissolves in water.

   b. (6 pts.) Write the chemical reaction for the reaction of the base in $NaHCO_3$ with H^+.

4. (2 pts each.) Circle the acids in the following table. (Formulas, Lewis structures, and Kekulé structures are drawn.)

HI		
		H_2S

6. (6 pts.) Typically, when molecular compounds dissolve, they simply separate from each other, but the molecules remain intact. When a molecular compound that happens to be an acid dissolves, what happens to the molecule?

7. (6 pts.) $HClO_4$ is a strong acid called perchloric acid. Write a balanced chemical equation for the reaction that occurs when $HClO_4$ dissolves in water. Remember to include water as a reactant.

8. In lab yesterday, you determined the strength of several antacid tablets. Some of the tablets used $CaCO_3$ and others used $Mg(OH)_2$ as the active ingredients.
a. (6 pts.) Write the balanced chemical equation for the reaction of $CaCO_3$ with stomach acid (HCl).

b. (6 pts.) Write the balanced chemical equation for the reaction of $Mg(OH)_2$ with HCl.

9. (10 pts.) 0.015 mol of HCl were added to your antacid. Some of the HCl was neutralized by the antacid. The remaining acid was neutralized by adding 0.0047 mol of NaOH. How much acid was neutralized by the antacid tablet?