

CHAPTER 15 REVIEW*Acids and Bases***SECTION 15-1****SHORT ANSWER** Answer the following questions in the space provided.**1.** Name the following compounds as acids:_____ a. H_2SO_4 _____ b. H_2SO_3 _____ c. H_2S _____ d. HClO_4

_____ e. hydrogen cyanide

2. _____ Which (if any) of the acids mentioned in item 1 are binary acids?**3.** Write formulas for the following acids:

_____ a. nitrous acid

_____ b. hydrobromic acid

_____ c. phosphoric acid

_____ d. acetic acid

_____ e. hypochlorous acid

4. Calcium selenate has the formula CaSeO_4 .

_____ a. What is the formula for selenic acid?

_____ b. What is the formula for selenous acid?

5. Use an activity series to identify two metals that will not generate hydrogen gas when treated with an acid.

6. Write balanced molecular equations for the following reactions of acids and bases:**a.** aluminum metal with dilute nitric acid

b. calcium hydroxide solution with acetic acid

SECTION 15-1 continued

7. Write net ionic equations that represent the following reactions:

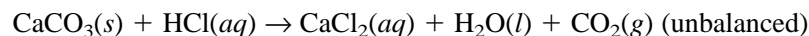
a. the ionization of HClO_3 in water

b. NH_3 functioning as an Arrhenius base

8. a. Explain how strong acid solutions conduct an electric current.

b. Will a strong acid or a weak acid conduct electricity better, assuming all other factors remain constant? Explain your answer.

9. Most acids react with solid carbonates. For example:



a. Balance the above equation.

b. Write the net ionic equation for the above reaction.

_____ **c.** Identify all spectator ions in this system.

_____ **d.** How many liters of CO_2 form at STP if 5.0 g of CaCO_3 are treated with excess hydrochloric acid? Show all your work.