1. Describe how the following evidence led to the development of atomic theory.

a. Law of multiple proportions

b. Cathode ray tube experiments

c. Oil drop experiment

d. Gold foil experiment

e. Chadwick's experiment

2. How many protons, neutrons, and electrons are in each of the following?

a. 31S b. 107Ag

c. Tin-116 d. Radon-222

3. Locate the following on a periodic table:

a. halogens b. alkalai metals

c. alkaline earth metals d. noble gases

4. What are the top 3 elements that make up the crust of the Earth? The human body?

5. Give examples of the following:

a. homonuclear diatomic molecule f. ionic compound

b. heteronuclear diatomic molecule g. binary acid

c. cation h. oxyacid

d. anion i. hydrate

e. polyatomic ion j. alcohol

6. Name the following:

a. CaSO4` e. Co3(PO3)2

b. SO2 f. H2CO3

c. HBr g. AgHSO4

d. N2O4 h. P4O10

7. Write formulas for the following:

a. mercury (i) acetate e. phosphorous pentachloride

b. di chlorine monoxide f. nitrous acid

c. phosphoric acid g. cupric chloride

d. zinc phosphate h. hodrosulfuric acid

8. Name the following hydrates:

a. CoCl2·2H2O b. NaC2H3O2·2H2O

9. Write formulas for the following hydrates:

a. copper (II) chloride pentahydrate b. aluminum sulfate hexahydrate

10. Name the following organics:

a. CH3CH2CH2CH2CH3 c. CH3CH2CH2NH2

b. CH3CH2OH d. CH3CH2CH2COOH