AP CHEMISTRY

TOPIC 1: CHEMICAL FOUNDATIONS, PART C

Day 4:

- Molecules and Ions
- Periodic Table
- Naming "simple" compounds

Homework problems:

1) Name or write the formula for the following compounds: "binary molecular compounds"
   a) S_4N_2 ***tetra-sulfur di-nitride***
   b) BI_3 ***boron tri-iodide***
   c) P_2O_5 ***di-phosphorus penta-oxide***
   d) antimony tribromide ***$SbBr_3$***
   e) diphosphorus tetroxide ***P_2O_4***
   f) tetranitrogen dioxide ***N_4O_2***
2) Name or write the formula for the following compounds: ionic compounds
   a) barium fluoride ***BaF_2***
   b) calcium nitride ***Ca_3N_2***
   c) aluminum oxide ***Al_2O_3***
   d) Li_2O ***lithium oxide***
   e) AgI ***silver iodide***
   f) NaF ***sodium fluoride***
3) Name or write the formula for the following compounds: ionic compounds (with polyatomics)
   a) $MgSO_4$ ***magnesium sulfate***
   b) Na_2SO_2 ***sodium hyposulfite***
   c) NH_4ClO_3 ***ammonium chlorate***
   d) $Mg(C_2H_3O_2)_2$ ***magnesium acetate***
   e) NH_4IO_3 ***ammonium iodate***
   f) $AgNO_3$ ***silver nitrate***
   g) magnesium hydroxide ***$Mg(OH)_2$***
   h) potassium phosphate ***K_3PO_4***
   i) calcium nitrate ***$Ca(NO_3)_2$***
   j) barium hydroxide ***$Ba(OH)_2$***
   k) sodium sulfite ***Na_2SO_3***
   l) potassium perchromate ***K_2CrO_5***
   m) lithium sulfate ***Li_2SO_4***

4) Name or write the formula for the following compounds: ionic compounds II

a) FeS ***iron(II) sulfide***

b) $CoCO_3$ ***cobalt(II) carbonate***

c) $CuSO_4$ ***copper(II) sulfate***

d) $SnBr_4$ ***tin(IV) bromide***

e) $Hg(IO_3)_2$ ***mercury(II) iodate***

f) PbS ***lead(II) sulfide***

g) MnO_2 ***manganese(IV) oxide OR manganese(II) peroxide***

h) $Au(NO_3)_3$ ***gold(III) nitrate***

i) $Sn(OH)_4$ ***tin(IV) hydroxide***

j) tungsten(III) oxide ***W_2O_3***

k) nickel(III) sulfite ***$Ni_2(SO_3)_3$***

l) mercury(I) sulfide ***Hg_2S***

m) copper(II) phosphate ***$Cu_3(PO_4)_2$***

n) bismuth(III) iodate ***$Bi(IO_3)_3$***

o) lead(II) chromate ***$PbCrO_4$***

p) copper(I) iodide ***CuI***

5) Name or write the formula for the following compounds: acids

a) nitric acid ***HNO_3***

b) hydrofluoric acid ***HF***

c) hydrobromic acid ***HBr***

d) chloric acid ***$HClO_3$***

e) acetic acid ***$HC_2H_3O_2$***

f) carbonic acid ***H_2CO_3***

g) hydrochloric acid ***HCl***

h) H_3N ***hydro-nitric acid***

i) H_3P ***hydro-phosphic acid***

j) H_2SO_4 ***sulfuric acid***

k) HCl ***hydro-chloric acid***

l) H_2S ***hydro-sulfuric acid***

m) H_3PO_4 ***phosphoric acid***

n) HI ***hydro-iodic acid***