Homework #2  

Name _______________________

Chem 10

1. (6 pts) Write the molecular formula for the compounds formed from the following elements.
   a) Mg and F ____________________
   b) Fe(II) and N ________________
   c) Al and S _____________________
   d) Mg and O __________________
   e) Li and sulfate ________________
   f) Al and nitrate ________________

2. (4 pts) Predict which type of bond would form between the following elements. Place an I for ionic and a C for covalent.
   a) B and N ____________
   b) C and O _____________
   c) Be and S ___________
   d) Cu and Cl ____________

3. (4 pts) Write the structures for the following molecular formulas. Include all of their bonds and unpaired electrons.
   a) HCN
   b) H₂CO
4. (7 pts) Circle the functional groups and label them. To help you, use the list of functional groups below.

a) aromatic       b) alcohol     c) ether     d) amine     e) carboxylic acid

f) amide         g) ester        h) thiol

![Tryptophan](tryptophan.png)

Tryptophan- an amino acid.

![Ritalin](ritalin.png)

Ritalin- a drug given to children that have ADD

5. (4 pts) Write the molecular formula for the following compound.

![Butesin](butesin.png)

Butesin- a local anesthetic