Chemistry 2202 – Review Quiz Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Instructions: Complete the questions on the sheets provided. Show any workings where necessary.*

1. Draw an energy level diagram for each of the following:
   1. Magnesium 2pts
   2. Oxide ion, O2- 2pts
   3. How many how many electrons are in the valence shell of the O2- ion? 1pt
2. Determine the names of the following compounds: 3pts
   1. C3H6
   2. PCl5
   3. N2O4
3. Write the formulas for the following compounds: 2pts
   1. Nitrogen Trichloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Tetraphosphorous Pentaiodide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Determine the names of the following compounds: 5 pts
   1. CaBr2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Li2O \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Hg(I)Cl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Zn(MnO4)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Cr(II)Cr2O7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Determine the formulas of the following compounds: 5 pts
   1. Cesium Oxide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Barium Sulfide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Vanadium(IV) Sulfate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Sodium Cyanide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Copper(I)Oxalate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Balance the following equations by placing the proper coefficients in the blanks before each product and reactant.
   1. \_\_\_ Hg + \_\_\_ Fe2O3 🡪 \_\_\_ HgO + \_\_\_ Fe 2 pts
   2. \_\_\_ C8H16 + \_\_\_ O2 🡪 \_\_\_ CO2 + \_\_\_ H2O 3 pts
7. Perform the following calculations, leaving the correct number of significant digits in your answer: 5pts
   1. 3.448 + 1.9002
   2. 0.004 – 45.34
   3. 77.11 x 3.8
   4. 89.475 / 23.7
   5. 2.1 x 108 – 3.7 x 107