

Name: \_\_\_\_\_

### Quiz #3

CHEM 1411 — Fall 2009

1. Match each of the following descriptions to the elements listed below: **alkali metal, halogen, alkaline earth metal, transition metal, noble gas, lanthanide, actinide.** (20 pts)

a. calcium (Ca) \_\_\_\_\_ c. neon (Ne) \_\_\_\_\_

b. potassium (K) \_\_\_\_\_ d. iron (Fe) \_\_\_\_\_

2. Classify each of the following compounds as **ionic** or **molecular.** (20 pts)

a. CO<sub>2</sub> \_\_\_\_\_ c. PCl<sub>3</sub> \_\_\_\_\_

b. NaI \_\_\_\_\_ d. ZnCl<sub>2</sub> \_\_\_\_\_

3. How many sulfur atoms are there in 3.8 mol of sulfur? (20 pts)

4. How many moles of silicon are in 9.40 g of silicon? (20 pts)

5. What is the mass of  $4.91 \times 10^{21}$  platinum atoms? (20 pts)