**Review for General Chem, Test 7**

The following questions are meant to give you an idea of what might be asked. The questions may be phrased differently on the test, they may involve different terminologies, and they will certain be in a different format. Keep this in mind when answering these questions so you don’t become overly dependent on this review sheet.

Now for the questions:

1) For the reaction: \_\_\_\_\_ Al + \_\_\_\_\_ CuCl2 → \_\_\_\_\_ AlCl + \_\_\_\_\_ Cu, answer the following questions:

a) Balance the equation

b) If 100 grams of aluminum react with an excess of copper(II) chloride, how many grams of AlCl are likely to be formed?

c) If 100 grams of copper(II) chloride react with an excess of aluminum, how many grams of AlCl are likely to be formed?

d) Given the answers from b) and c), how many grams of AlCl will actually be formed?

e) The reagent that gave the smallest answer is referred to as the “limiting reagent.” How does the limiting reagent determine the amount of product that will actually be formed?

2) Define the following terms: Stoichiometry, reagent, product, coefficient, solution, colloid, suspension, saturated, unsaturated, supersaturated, molarity, molality, solvent, solute, dilution

3) What is the molarity of a solution in which 3.0 grams of NaBr are present in 450 mL of solution?

4) What is the molality of a solution in which 50 grams of NaCl have 1500 mL of water added to it?

5) What is the main difference between molarity and molality?

6) How many moles of NaOH are there in 340 grams?

7) If I add 500 mL of water to 250 mL of a 0.50 M KOH solution, what will be the molarity of the resulting solution?

8) I have a solution in which 50 grams of NaOH are present in 250 mL of solution.

a) What is the molarity of this solution?

b) What will the molarity of the resulting solution be if I add 800 mL of water to this solution?