

## CHE 101– Chapter 9 – Study Guide

Terms: mole ratio, yield, percent yield, actual yield, theoretical yield, limiting reagent, stoichiometry, Molarity.

Given a chemical equation you should be able to:

- a) Calculate molecular weights
- b) Convert grams  $\leftrightarrow$  moles  $\leftrightarrow$  atoms/molecules
- c) Calculate mol to mol ratios
- d) Convert grams of reactant  $\leftrightarrow$  moles of reactant  $\leftrightarrow$  moles of product  $\leftrightarrow$  grams of product
- e) Determine the limiting reactant
- f) Determine the amount of excess reactant needed and/or left over
- g) Determine the amount of products formed in a reaction
- h) Determine theoretical yield
- i) Calculate percent yield
- j) Molarity (mol/L)
- k) Titrations
- l) Conversion Factors
  - a. Avogadro's Number  $1 \text{ mol} = 6.022 \times 10^{23}$  anything
  - b. Molecular Weight (g/mol)
  - c. Mol/Mol ratios