

NO CREDIT IF YOU: Fail to put in the Units & Properly Round, Fail to show ALL math work

(1 pt) PRINT YOUR NAME on the line: _____

Your start time on this test _____

Your finish time on this test: _____

Max Grade: 100 points Time it took you to do this test: _____

A. Fill in the Blanks (28 pts total, 4 points ea)

1. Why is the atomic weight of an element sometimes called the average atomic weight?

2. What is a mole?

3. Which contains more atoms: 1 mole of Lead or 12.01 g of Carbon?

4. What is the Molar Mass of Water?

5. What is Avogadro's Number [what is the value and what does that mean]?

6. What is the purpose of determining Percent Composition?

7. What does Theoretical Yield mean?

B. Solve the Following. Show the Complete and Balanced Equation for each reaction And - Will the reaction go to Completion? (70 pts total, 10 points ea)

B-1 What is the molecular and what is the empirical formulae for a compound that contains 59.95% Carbon and 13.42% Hydrogen? The estimated Mw is between 175 – 185 g/mole.

B-2 What is the empirical formulae for a compound that contains 52.00% Aluminum?

B-3 Ammonium Chloride is reacted with Sulfuric Acid. What is the driving force for this reaction? Show all equations.

- B-4-6** 5.00 g of Magnesium is reacted with 3.00 g of Hydrochloric Acid.
- B-4** Show the Complete Balanced Formulae
- B-5** How much "Product" [what is the driving force] is formed
- B-6** How much excess is there of the one reactant in excess?

