

Name: _____
Blk: _____ Date: _____

CHEMISTRY 11
UNIT II TEST REVIEW

YOUR UNIT IV TEST IS SCHEDULED FOR _____
The format of the test will be 40 marks multiple choice and 30 marks short answer. Your test will also include 20 % of flashback questions from the previous units. In order to help you prepare for your test you must complete the following package and hand it in at start of class on the day of the test.

There are FIVE Parts to this unit:

1. Moles, atoms, molecules, grams and volume @STP
2. Molar Mass and Percent Composition
3. Empirical Formula + Molecular Formula
4. Molarity
5. Dilution

PART I: Moles, atoms, molecules, grams and volume at STP

1. State Avogadro's Hypothesis
2. What is a mole?
3. Draw the MOLE IS THE HEART OF CHEMISTRY diagram:

4. How many molecules of potassium carbonate are in a 341.2 g sample?
5. How many moles are there in a 65.0 g sample of Copper (II) Sulphate?
6. How many oxygen atoms are in 2.53×10^{-13} moles H_2O ?
7. How many molecules of SO_2 are present in a 9.50 L of SO_2 (g) at STP?
8. What is the volume occupied by 3.25×10^{13} molecules of methane gas (CH_4) at STP?
9. How many chloride atoms are contained in 15.6 grams of Iron (III) chloride?
10. How many atoms are there in 196.0 grams of Silver?

PART II: MOLAR MASS AND PERCENT COMPOSITION

1. Calculate the molar mass of the following molecules:
a. $\text{Cu}(\text{NO}_3)_2$ b. $(\text{NH}_4)_3\text{PO}_4$ c. $\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$