**AP Chem Unit 1 Test Review**

*Multiple Choice Topics*

Matter: pure vs mixtures (examples and how to determine); heterogenous vs homogenous(solution); examples of solutions; interpret particle diagrams; diatomic elements

Chemical formula; structural formula; molecular vs empirical formula

Law of Definite Proportions and Multiple proportions

Chemical vs Physical changes/properties Density; intensive vs extensive

Types of phase changes

SigFigs; Accuracy and precision

Basic atomic structure (p,n,e); isotopes vs ions; symbols for isotopes ( X) mass #, atomic #, charge

Three basic types of nuclear radiation (properties). Relation to Gold Foil experiment.

Thomson cathode ray experiment; Millikan oil drop; Dalton’s postulates

Regions/arrangement of periodic table: groups; periods; metals/nonmetals/metalloids

alkali metals, alkaline earth, halogens, noble gases

How to determine element charges/oxidation numbers in ionic compounds by group.

How to determine balanced ionic formulas.

Mass spectrometer and how to interpret mass spectrum diagram

*FRQ Topics*

1) Name 2 compounds and write balanced formulas of 2 compounds (ionic, acid, or covalent)

(know nitrate, sulfate, carbonate, phosphate, hydroxide, chlorate and how to determine -ite ions along with prefixes hypo- and per- as used in halogen oxyanion series)

2) Factor label problem given conversion factors

3) Factor-label problem to determine the charge of an ion based on protons and electrons;

write formula/name compound

4) LAB DATA question using density

5) Lab question: Chemical/Physical properties

NO %abundance/average atomic mass calculation