**4th Quarter Final End of Year Test** **Study Guide 2017 ~50 question test**

Chapter 9 *9 questions*

*-key terms*

-mass-mass/volume/molecule calculations (stoichiometry)

-limiting reagent calculations

-excess reagent

-percent yield calculations

Chapter 10 *8 questions*

-*key terms*

-calculations involving specific heat equation

-units for specific heat

-conversions between energy units: cal/J (know 4.184 J = 1 cal)

-endothermic/exothermic processes

-system/surrounding

-First Law of Thermodynamics

Chapter 13 *9 questions*

-*key terms*

-Gas Laws, know the names and be able to do calculations

-Convert between pressure units

Chapter 14 *4 questions*

-*key terms*

-types of intermolecular forces and which substances exhibit which force

-types of solids and examples ex. crystalline/amorphic and atomic/molecular/ionic

Chapter 15 *8 questions*

*-key terms*

-Chemist's Rule of Thumb

-solve: mass%, molarity, dilutions, molality

-colligative properties and what they depend upon

-dissociating and non-dissociating compounds

Chapter 16 *9 questions*

*-key terms*

-acids vs. bases

-conjugate acid/base pairs

-strong vs weak acids

-calculate [H+] and [OH-]

-calculate pH and pOH