

# Chem 7 Native Exam Review

- Glass ware to measure volume
- Compounds: covalent versus ionic
- Electron configuration first 4 periods.
- Be able to identify an element using EC.
- Given total  $e^-$ , identify the # of energy levels.  
(example: O has 8 total  $e^-$  so 2 energy levels)
- Use particle diagrams to identify compounds, solutions, etc.
- Periodic Trends
  - a) size
  - b) ionization energy
  - c) electronegativity
  - d) Force of attraction
  - e) sizes of ions
- particle diagram to identify a limiting reactant.
- Naming: ionic, covalent  
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Type I + II
- Given  $X_2A_3$ ; if you know X or A, you can find charge or know group.
- Lewis Formulas
- Stoichiometry
  - a) Theo yield in moles and mass non-LR problems.
  - b) LR problems
    1. identify LR
    2. Calc theo yield of a product moles + mass
    3. Find L.R given mass reactants or moles reactants.
- mass  $\leftrightarrow$  mole  $\leftrightarrow$  molecules
- molecules  $\leftrightarrow$  mole  $\leftrightarrow$  mass
- balance equations
- identify ratios to solve for products

- Identify ppt in ppt rxns
- know the solubility rules
- identify and analyze
  - a) ppt rxns
  - b) neutralization
  - c) redox - know which reactant gives up  $e^-$  and which reactant accepts  $e^-$ .
  - d) write net ionic equations for (a-c).
- Calculation Molarity
- Solution = solvent + solute