Key to Lomax/Hartman Exam 1.

1. c. Cl

2. a. C₃H₁₈O₃

3. a. ²⁸Si has __14__ protons and __14__ neutrons.
   b. 28.0855 amu

4.a. S₂F₄  A / BC/ I  disulfur tetrafluoride  140.13
   b. CoPO₄  A / BC/ I  cobalt(III) phosphate  153.90
   c. H₂SO₃  A / BC/ I  sulfurous acid  82.08

5.a. Tetraphosphorous trisulfide  P₄S₃
   b. Manganese(II) iodide  MnI₂
   c. Lithium perchlorate  LiClO₄

6.a. ⁵⁸Ni  __28__  Protons  __31__  Neutrons
   b. ¹⁴N  __6__  Protons  __8__  Neutrons

7.  C₆H₆  : 78.11 g/mol
    B₃N₃Cl₆  : 287.17 g/mol

8.  C₃H₃NO₂

9.a)  2 HSbCl₄  +  3 H₂S  6 Sb₂S₃  +  8 HCl
   b)  C₃H₄  +  5 O₂  6 3 CO₂  +  4 H₂O
   c)  2 NaNO₃  +  H₂SO₄  6 Na₂SO₄  +  2 HNO₃

10. Ca  +  2 H₂O  6 Ca(OH)₂  +  H₂

   Group Number _____2_______  Group Name ___alkaline earth metals________________

What is the name of the product? (2 points) __calcium_hydroxide___ (di)hydrogen

If you have a 15.0 mL sample of sodium, what is its mass. (density of Ca = 1.55 g/mL)(3 points)
23.25 g Ca

If 25.0. g of water is reacted with the sodium, which is the limiting reagent? (5 points)

Ca limiting

What is the stoichiometric yield? (3 points) 42.98 g Ca(OH)₂

If only 36.0 g of NaOH are isolated, what is the percent yield? (3 points) 36/42.98*100% = 83.75%