Fall 2012 lecture test answers.

1. K2SO4, Ba(NO3)2 (NH4)2CO3 , N2O5

2. sodium sulfide, iron(III) phosphate, carbon tetrabromide, acetic acid.

The acetic acid formula is not empirical, because it has 2 C, 4 H and 2 O, which can be simplified to CH2O

3 B 4 B 5 B 6 C 7 A 8 B

9. 2 Al + 3 CuSO4 → Al2(SO4)3 + 3 Cu

2 C4H10 + 13 O2 → 8 CO2 + 10 H2O

4 HgO → 2 Hg2O + O2

10 B 11 B 12 C 13 B 14 C 15 B 16 B 17 B 18 D 19 D 20 C

21 A 22 B 23 C

N2 + 3 H2 → 2 NH3 b) 4.0 mole II 70.0 %

III. There are many correct answers to part A. One of them is NaOH.

Part B depends on what was given in part A. In this case, Cu2+ + 2 OH− **→ Cu(OH)2**

IV. Fe is limiting. b) 6.45 g c) 56.6 g

V K2S2O3 VI C2H6 VII. It is CH3O, and the actual is C2H6O2

VIII. 2.96 g

IX 14.18 g of Cl2 gas. B. 16 molar.