1. Which statement is correct when 18 g of oxygen O_2 reacts with 2.0 g of hydrogen H_2 to form water?

$$2\ H_2O(l) \rightarrow 2\ H_2\ (g) + O_2(g)$$

A) Some oxygen is left over.
B) Water, H_2O, has a molar mass of 20.
C) The Law of Multiple Proportions applies.
D) When 18 g of O_2 reacts with 2.0 g of H_2 , 20. g of H_2O is produced.
E) There is insufficint hydrogen for any water to form.

2. What mass of H_3PO_4 is needed to completely react with 30. g of Ca?

$$3\ Ca + 2\ H_3PO_4 \rightarrow Ca_3(PO_4)_2 + 3\ H_2$$

A) 20 g B) 49 g C) 74 g D) 98 g E) 116 g

3. When 6.000 mole of $KClO_3$ are reacted, how many grams of $KClO_4$ are produced?

$$4\ KClO_3(s) \rightarrow 3\ KClO_4(s) + KCl(s)$$

MM	(122.6)	(138.6)	(74.6)

A) 104.0 g B) 138.6 g
C) 415.8 g D) 623.7 g
E) 2495 g

4. When 13.0 grams of acetylene, C_2H_2, is reacted, what mass of water, H_2O, is produced?

$$2\ C_2H_2(g) + 5\ O_2(g) \rightarrow 4\ CO_2(g) + 2\ H_2O(l)$$

A) 9.00 g B) 12.0 g
C) 13.0 g D) 18.0 g
E) 26.0 g

5. In the reaction represented by the equation,

$$COCl_2 + 2\ NaI \rightarrow 2\ NaCl + CO + I_2$$

what is the maximum weight of iodine that can be liberated from 60.0 grams of sodium iodide?

A) 25.4 g B) 50.8 g
C) 102 g D) 153 g
E) 203 g

6. A mixture of 2.0 grams of hydrogen and 32 grams of oxygen is exploded and produces water. What weight of gas remains uncombined ?

A) 1.0 gram of hydrogen
B) 1.0 gram of oxygen
C) 4.0 grams of hydrogen
D) 8.0 grams of oxygen
E) 16.0 grams of oxygen