

EXERCISE 9Chem 10
(Due in lab _____)
10 pointsName KEY
(last) (first)
Lab Section # _____ Lab Instructor _____

A. For each of the following reactions, write a "B" if the equation is balanced and a "U" if the equation is unbalanced.

- | | |
|---|-------------|
| 1. $\text{Hg}(\text{NO}_3)_2 \longrightarrow \text{Hg}(\text{NO}_2)_2 + \text{O}_2$ | 1. <u>B</u> |
| 2. $\text{Ca}_3(\text{PO}_4)_2 + 3 \text{NaOH} \longrightarrow \text{Na}_3\text{PO}_4 + 3 \text{Ca}(\text{OH})_2$ | 2. <u>U</u> |
| 3. $\text{MgO} + \text{H}_2\text{O} \longrightarrow \text{Mg}(\text{OH})_2$ | 3. <u>B</u> |
| 4. $\text{H}_2\text{CO}_3 + 2 \text{NaOH} \longrightarrow \text{Na}_2\text{CO}_3 + 2 \text{H}_2\text{O}$ | 4. <u>B</u> |
| 5. $\text{K}_2\text{S} + \text{Pb}(\text{NO}_3)_2 \longrightarrow \text{PbS} + \text{KNO}_3$ | 5. <u>U</u> |
| 6. $\text{C}_4\text{H}_{10} + 13 \text{O}_2 \longrightarrow 4 \text{CO}_2 + 5 \text{H}_2\text{O}$ | 6. <u>U</u> |

B. Reaction Type: Write the correct *letter* in the blank at the right.

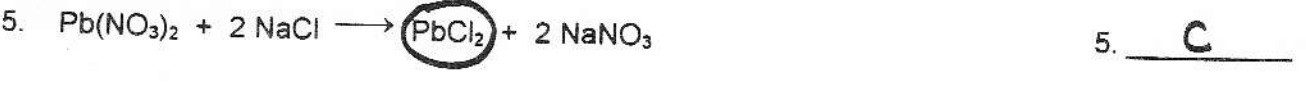
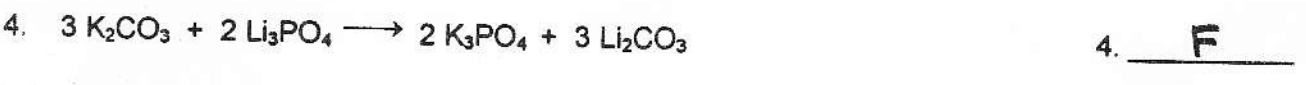
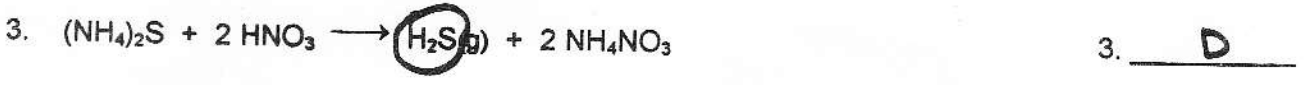
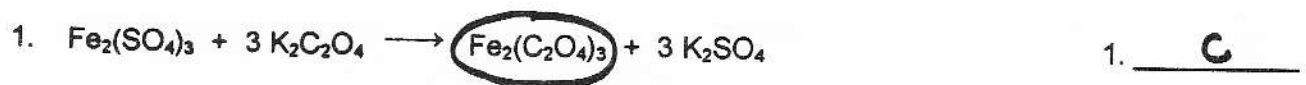
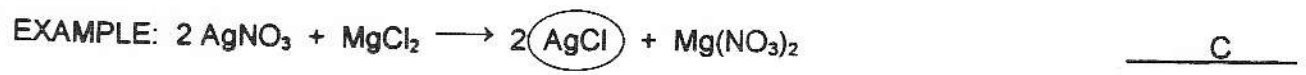
(A) Combination (B) Single Replacement (C) Decomposition (D) Double Replacement

- | | |
|--|--------------|
| 1. $\text{Ba}(\text{NO}_3)_2 + \text{Na}_2\text{SO}_4 \longrightarrow \text{BaSO}_4 + 2 \text{NaNO}_3$ | 1. <u>D</u> |
| 2. $\text{P}_2\text{O}_5 + 3 \text{H}_2\text{O} \longrightarrow 2 \text{H}_3\text{PO}_4$ | 2. <u>A</u> |
| 3. $\text{Cu} + 2 \text{AgNO}_3 \longrightarrow \text{Cu}(\text{NO}_3)_2 + 2 \text{Ag}$ | 3. <u>B</u> |
| 4. $\text{NH}_4\text{Cl} \longrightarrow \text{HCl} + \text{NH}_3$ | 4. <u>C</u> |
| 5. $\text{N}_2 + 3 \text{H}_2 \longrightarrow 2 \text{NH}_3$ | 5. <u>A</u> |
| 6. $\text{HCl} + \text{NaOH} \longrightarrow \text{NaCl} + \text{H}_2\text{O}$ | 6. <u>D</u> |
| 7. $2 \text{PI}_3 \longrightarrow 2 \text{P} + 3 \text{I}_2$ | 7. <u>C</u> |
| 8. $2 \text{Al} + 6 \text{HNO}_3 \longrightarrow 2 \text{Al}(\text{NO}_3)_3 + 3 \text{H}_2$ | 8. <u>B</u> |
| 9. $\text{NH}_4\text{Br} + \text{KC}_2\text{H}_3\text{O}_2 \longrightarrow \text{NH}_4\text{C}_2\text{H}_3\text{O}_2 + \text{KBr}$ | 9. <u>D</u> |
| 10. $\text{Cu}(\text{OH})_2 \longrightarrow \text{CuO} + \text{H}_2\text{O}$ | 10. <u>C</u> |
| 11. $\text{BaO} + \text{CO}_2 \longrightarrow \text{BaCO}_3$ | 11. <u>A</u> |
| 12. $\text{Cl}_2 + 2 \text{KBr} \longrightarrow 2 \text{KCl} + \text{Br}_2$ | 12. <u>B</u> |

(OVER)

3. For each of the following DOUBLE REPLACEMENT reactions, circle the PRODUCT which causes the reaction to occur (go to completion). Then write the correct letter that corresponds to the product you circled in the blank at the right - that is - choose from the following:

- (A) weak acid
- (B) weak base
- (C) insoluble salt (precipitate)
- (D) insoluble gas
- (E) water
- (F) no reaction



DRIVE