

ANSWER THREE PARTS: **1)** Identify the type of each equation in the blank to the left. **2)** Write the rule that applies to each in the blank beside the word equation. **3)** Complete and balance the chemical equations in the space below each.

_____ 1. Burning calcium in air _____

_____ 2. Lithium oxide added to water _____

_____ 3. Iron (II) carbonate is heated _____

_____ 4. Potassium chlorate is heated _____

_____ 5. Sodium hydroxide reacts with nitric acid _____

_____ 6. Potassium added to water _____

_____ 7. Aluminum added to nitric acid _____

_____ 8. Bromine gas added to magnesium iodide _____

_____ 9. Chlorine gas added to ammonium fluoride _____

_____ 10. Acetylene gas(C_2H_2) burns in air _____

_____ 11. Magnesium reacts with hydrochloric acid _____

_____ 12. Copper (II) phosphate reacts with ammonium carbonate _____

_____ 13. Carbon dioxide reacts with water _____

_____ 14. Aluminum hydroxide is heated _____

_____ 15. Pentane (C_5H_{12}) burns in air _____

_____ 16. Sodium iodide reacts with copper (II) nitrate _____

_____ 17. Hydrogen gas burns in air _____

_____ 18. Decomposition of hydrochloric acid _____

_____ 19. Neutralization of calcium hydroxide and acetic acid _____

_____ 20. Aluminum is added to potassium permanganate _____