

## TYPES OF BONDS

Part A: Directions – Using your knowledge of the following, classify each as having ionic, covalent, or metallic bonds. Using a periodic table, write down whether the element is a metal or nonmetal.

1. Cu (copper) \_\_\_\_\_
2. CH<sub>4</sub> (methane) \_\_\_\_\_
3. Al (aluminum) \_\_\_\_\_
4. NaCl (table salt) \_\_\_\_\_
5. MgSO<sub>4</sub> (Epsom salt) \_\_\_\_\_
6. Zn (zinc) \_\_\_\_\_
7. C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> (sugar) \_\_\_\_\_
8. MgCl<sub>2</sub> (used to melt ice) \_\_\_\_\_
9. (-CH<sub>2</sub>-CH<sub>2</sub>-)<sub>n</sub> (polymer) \_\_\_\_\_
10. NaHCO<sub>3</sub> (baking soda) \_\_\_\_\_

Part B: Directions – Using your knowledge of the following, classify each as an ionic compound or a molecular compound.

11. CuSO<sub>4</sub> (copper sulfate) \_\_\_\_\_
12. O<sub>2</sub> (oxygen gas) \_\_\_\_\_
13. NaCl (table salt) \_\_\_\_\_
14. MgSO<sub>4</sub> (Epsom salt) \_\_\_\_\_
15. C<sub>2</sub>H<sub>5</sub>OH (ethanol) \_\_\_\_\_
16. C<sub>12</sub>H<sub>22</sub>O<sub>11</sub> (sugar) \_\_\_\_\_
17. MgCl<sub>2</sub> (magnesium chloride) \_\_\_\_\_
18. (-CH<sub>2</sub>-CH<sub>2</sub>-)<sub>n</sub> (polymer) \_\_\_\_\_
19. NaHCO<sub>3</sub> (baking soda) \_\_\_\_\_
20. H<sub>2</sub>O (water) \_\_\_\_\_