Name_____

Worksheet D: Bonding Introduction

1. What type of atoms combine to form a covalent bond?

2. What type of atoms combine to form a ionic bond?

3. What type of atoms combine to form a metallic bond?

4. Give two examples of a covalent compounds?

5. Give two examples of a ionic compounds?

6. Give two examples of a metallic compounds?

7. Describe how a covalent bond forms between two atoms.

8. How does a covalent bond differ from an ionic bond?

9. _____is defined as the energy required to break the chemical bond between two atoms and separate them.

10. _____is the tendency of an atom to attract bonding electrons to itself when it bonds with another atom.

11. _____is the attraction between two atoms in which bonding electrons are shared _____between two atoms

12. In general, if the difference in electronegativity between two atoms is zero the bond formed is _____

13. If the electronegativity difference between two atoms is between 0.5 and 2.1 the bond formed is _____

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14. If the electronegativity difference between two atoms is greater than 2.1, the bond is _____

15. In an ionic bond, the valence electrons are _____.

16. In a metallic bond the valence electrons form a _____

17. Rank the bonds (ionic, covalent, metallic) in order from strongest to weakest.

18. Classify each of the following compounds as either: Ionic, Covalent, Metallic.

I , C , M

a. H_2O _____
b. NaCl _____
c. $MgSO_4$ _____
d. CsCl _____
e. Fe _____
f. Hg _____
g. He _____
h. $Ca_3(PO_4)_2$ _____
i. NH_4Cl _____
j. NH_3 _____
k. P_2O_5 _____
l. Ag _____
m. $AgNO_3$ _____
n. AgCl _____
o. Titanium _____
p. Barium Phosphate _____
q. Sulfur Dioxide _____
r. Bromine _____
s. Tungsten V Bromide _____