

Name: _____

Period: _____

Seat#: _____

Answer the following questions about compounds and molecules:

- 1) Fill in each blank with the word *high* or *low* – you can use the same word multiple times if needed.
Covalent bonds form when you have two (or more) atoms with _____ electronegativity and _____ ionization energy
- 2) Fill in each blank with the word *high* or *low* – you can use the same word multiple times if needed.
Ionic bonds form when you have one type of atom with _____ electron affinity and one type of atom with _____ ionization energy
- 3) Draw a diagram of a metallic substance, showing what is unique about the electrons in such a material. Then draw a second drawing showing how the electrons behave when a charge is applied to the material.

Write the names of the following covalent molecules:

4) P ₄ S ₅		5) O ₂	
6) SeF ₆		7) Si ₂ Br ₂	
8) SCl ₄		9) CH ₄	
10) B ₂ Si		11) NF ₃	
12) PCl ₃		13) H ₂ O	

Write the formulas for the following covalent molecules:

14) Antimony tribromide		15) Hexaboron monosilicide	
16) Chlorine dioxide		17) Hydrogen monoiodide	
18) Iodine pentafluoride		19) Dinitrogen trioxide	
20) Phosphorus triiodide		21) Disulfur decafluoride	
22) Dicarbon hexahydride		23) Iodine heptafluoride	

Dougherty Valley HS Chemistry
Bonding and Structure – Nomenclature Practice

Write the names of the following ionic compounds:

24) $\text{Ni}_3(\text{PO}_4)_2$		25) FeI_2	
26) MnF_2		27) NaCN	
28) CuS		29) Li_2O	
30) BeCl_2		31) TiN	
32) MgO		33) NH_4NO_3	
34) Ag_2CO_3		35) $\text{Zn}(\text{OH})_2$	
36) $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$		37) NaHCO_3	
38) Mg_3P_2		39) $\text{Al}_2(\text{CO}_3)_2$	

40) Draw a graph that shows the relationship between the energy of two atoms and the distance between the two when forming a bond <i>*hint* was in our notes!</i>	41) Explain the graph you just drew in the previous question.
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