**VSEPR & Polarity Practice**  Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part I:** For each compound…. A. Determine the type of bond

B. Draw the Lewis Dot Structure for the compound

C. Determine the Central Atom

D. Determine the number of bonding pairs on the central atom

E. Determine the number of non-bonding pairs on the central atom

F. Write the ABE formula

G. Determine the molecular geometry

H. Are the bonds in this molecule polar or non-polar?

I. Is this molecule polar or non-polar?

|  |  |  |
| --- | --- | --- |
| **1. CH4**  A.  B.  C.  D.  E.  F.  G.  H.  I. | **2. H2O**  A.  B.  C.  D.  E.  F.  G.  H.  I. | **3. BF3**  A.  B.  C.  D.  E.  F.  G.  H.  I. |
| **4. NH3**  A.  B.  C.  D.  E.  F.  G.  H.  I. | **5. H2S**  A.  B.  C.  D.  E.  F.  G.  H.  I. | **6. PCl3**  A.  B.  C.  D.  E.  F.  G.  H.  I. |

**Part II: Answer each of these questions about bond polarity (not molecule).**

1. Would the following bonds to be polar or non-polar
2. Nitrogen – Oxygen
3. Phosphorous- Fluorine
4. Carbon—Hydrogen
5. Antimony—Bromine
6. Oxygen—Chlorine
7. Which bond would be the most polar?
8. Hg-I
9. P-I
10. Si-F
11. Mg-N
12. Draw the bond polarity for each bond.
13. Hg-I
14. P-I
15. Si-F