Big Chem: Unit 14 Polar Molecules

PRINT Name _____ Period _____

Remember that extra help is found in the Text book, the on-line Research Text, and in Extra Help on our web page.

1. Define *Polar Molecule* and give an example.

2. Define the *Hydrogen Bond* and give an example.

3. What are *Intermolecular Forces* (van der Waals) and how do they compare with covalent bonds in strength?

4. What is the difference between an *Intermolecular Forces* and a *Covalent Bond*?

5. What is a *Hydrogen Bond* and how does it compare in strength with a *Covalent Bond*?

6. Illustrate Symmetric & Asymmetric Molecules. Why are they important?

7. Define *Allotrope*, name two allotropes of oxygen and write their formulas.

8. What is the difference between the molecular structure of liquid water and solid water?

9. Explain why ice floats in water?

10. Show why is water polar?

11. Diagram and explain how *microwave cooking* works?

12. What is *chromatography* and how is it used?

13. How is molecular spectroscopy used in police work?

14. Describe how forces hold molecular substances in the liquid and solid states?
*Hint: this is the attraction between **molecules**, not the chemical bonds between atoms.*

STAPLE THIS PAPER TO YOUR PAPERS (at home).
Turn in at the Beginning of the Period when due.