SPRING BENCHMARK #1 Review Problems – CHUNK #1

DO THE WORK ON NOTEBOOK PAPER PAGE \_\_\_\_\_\_

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| Q# | Question |
| 1 | What are the main types of IMFs |
| 2 | Look through your notebook and give two examples of compounds that only have London Forces, two that have dipole-dipole, and two that have hydrogen bonding |
| 3 | What are the two main “real life biology” examples of hydrogen bonding that you learned about |
| 4 | Identify the main/dominant/strongest type of IMF present in each of the following: H2O, SiF4, CH3NH, CH3OH, H2S, O2, CH3COCH3 |
| 5 | What are three types of inter molecular forces and two types of intra molecular forces |
| 6 | What is polarity?  |
| 7 | What are three ways you can draw the polarity of a molecule (hint…it was in your notes! |
| 8 | Label the following as either polar or non polar: H2O, H2S, CO2, SiO2, CH4, CH3OH, C2H6 |
| 9 | Why is it important to know that water is bent? Make sure your answer talks about polar vs non polar |
| 10 | Rank the following from highest to lowest surface tension: CH4, CH3OCH3 CH3OH |
| 11 | Which should have a higher boiling point? Why? CH3OCH3 or CH3CH2OH |
| 12 | In one paragraph explain the point of the lab you did on IMFs. Describe the results you found and how that relates to IMFs. Think of it like a conclusion for a miniature lab report. |
| 13 | What are three examples of bulk solids that have unique properties due to the combination and interaction of inter and intra molecular forces? |
| 14 | What could you predict about the boiling point or melting point of a network covalent molecule? |
| 15 | What are two examples of network covalent molecules? (We talked about two during lecture). Which do you expect to have a higher melting point? |
| 16 | What is the definition of physical change? |
| 17 | What is the definition of chemical change? |
| 18 | What is the definition of physical property? |
| 19 | What is the definition of chemical property? |
| 20 | List 5 examples of physical changes |
| 21 | List all the types of phase changes |
| 22 | What are some signs that a chemical change has taken place? |
| 23 | MEMORIZE YOUR COMMON IONS! |