


## class assignment #2

Turn in the answers to the questions either by e-mail or in word processed form (handwritten will not be graded) no later than **1:30 p.m. on Friday, 11 October**. For e-mail, the subject is **101#2 Your Name**. 11 points

1. (4 pts) For each of these four diagrams, does the squiggly line (  ) represent a covalent, an ionic or a hydrogen bond?

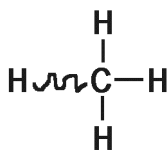


diagram A



diagram B

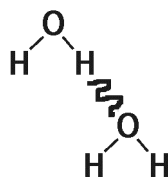


diagram C

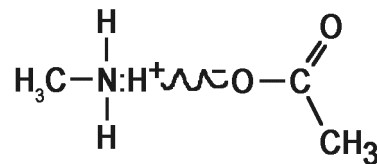
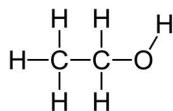


diagram D

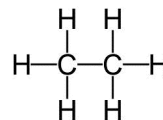
2. (5 pts) Consider the three molecules below as you answer these questions.



A.



B.



C.

- Which is the most polar, and why?
- Which is the least polar, and why?
- Rank the three according to their ability to dissolve into water:

least soluble in water is molecule \_\_\_\_

somewhat soluble in water is molecule \_\_\_\_

most soluble in water is molecule \_\_\_\_

3. (2 pts) Most rocks thrown into water will quickly sink. However, if you were to take these same rocks and incorporate them into the cement of a cement-hulled ship, the ship, if designed properly, will float. Explain why this is so.