## Questions

1. Water is a polar molecule. Explain how the polarity of water accounts for its lattice structure. K/U
2. How does the structure of water account for its properties, such as its boiling point, surface tension, and adhesion? K/U
3. Potassium bromide, KBr, is an ionic compound. Describe what happens to its ions when it is dissolved in water. K/U
4. Will water form a surface coat around a molecule such as octane, $CH_3(CH_2)_6CH_3$ (**Figure 7**)? Explain. K/U

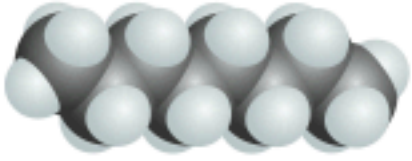

**Figure 7**

5. How does polarity influence water's role as a solvent? K/U
6. How do acids and bases differ in terms of how they behave when added to pure water? K/U T/I
7. What determines whether an acid or a base is classified as strong or weak? Explain your answer. K/U
8. Why is it important that we help to maintain the proper pH of our environment? Make a connection between the proper pH of our environment and your life and surroundings. K/U A
9. How do buffers in your cells help to keep your body functioning properly? K/U
10. Why would it be inaccurate to say that a buffer is a solution that maintains a constant pH? K/U
11. Vitamin C is also known by its chemical name, ascorbic acid. T/I
    (a) What does this name suggest about its chemical and physical properties?
    (b) Which of these properties might you notice if you ate some pure vitamin C?
12. Ants belong to the family Formicidae, named after their ability to release formic acid (**Figure 8**). Do online research to find out why ants produce formic acid. What other well-known insects produce formic acid? T/I

**Figure 8**

WEB LINK