Chemistry 115 Name

Dr. Cary Willard

Quiz 9a (20 points) May 15, 2013

1. (9 points) For each of the following pairs of molecules, choose the one that answers the question and explain why you made that choice.
   1. Which substance has the stronger London dispersion forces? NCl3 or NI3?
   2. Which substance is the more polar? CO2 or CO?
   3. Which substance is able to form hydrogen bonds? CH3CH2OH or CH3OCH3? Draw a picture showing the hydrogen bonding interactions.
2. (2 points) If we say that two liquids are miscible, what does that mean?
3. (3 points) A solution is made by dissolving 25.0 gram of sodium nitrate in 135.0 grams of water. What is the mass percent of sodium nitrate in the solution?
4. (3 points) A solution is made by dissolving 15.0 grams of potassium chloride in enough water to make 250.0 mL of solution. What is the molarity of the solution?
5. (3 points) How many mL of a 5.36 M solution of sodium acetate are required to make 2.50 L of a 0.350 M solution of sodium acetate?

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Quiz 9b (20 points) May 15, 2013

1. (9 points) For each of the following pairs of molecules, choose the one that answers the question and explain why you made that choice.
   1. Which substance has the stronger London dispersion forces? CH4 or C8H18?
   2. Which substance is the more polar? CO2 or CO?
   3. Which substance is able to form hydrogen bonds? CH3CH2OH or CH3OCH3? Draw a picture showing the hydrogen bonding interactions.
2. (2 points) If we say that two liquids are immiscible, what does that mean?
3. (3 points) A solution is made by dissolving 35.0 gram of sodium nitrate in 125.0 grams of water. What is the mass percent of sodium nitrate in the solution?
4. (3 points) A solution is made by dissolving 35.0 grams of potassium chloride in enough water to make 250.0 mL of solution. What is the molarity of the solution?
5. (3 points) How many mL of a 7.34 M solution of sodium acetate are required to make 2.50 L of a 0.350 M solution of sodium acetate?