Chemistry 115 Name

Dr. Cary Willard

Quiz 10a (20 points) May 3, 2011

All work must be shown to receive credit.

1. (4 points) Define the term miscible.

Two liquids are miscible if they are completely soluble in each other. Soluble in all proportions.

1. (4 points) If a solution is made by combining 45.2 grams of glucose, 85.2 grams of fructose and 752 grams of water, what is the percent concentration of glucose?
2. (4 points) How many grams of silver nitrate, AgNO3, are required to make 450.0 mL of a 0.4233 M solution of silver nitrate?
3. (4 points) How many mL of water needs to be added to 150.0 mL of a 2.534 M solution of iron(II) sulfate, FeSO4, to make a 0.8332 M solution?

1. (4 points) Given the following balanced chemical equation, calculate the mass of sodium hydroxide, NaOH, that will react with 57.33 mL of 0.8359 M phosphoric acid, H3PO4.

3 NaOH(aq) + H3PO4(aq) 🡪 Na3PO4(aq) + 3 H2O(l)

Chemistry 115 Name

Dr. Cary Willard

Quiz 10b (20 points) May 3, 2011

All work must be shown to receive credit.

1. (4 points) Define the term immiscible.

Two liquids are immiscible if they are not soluble in each other and form two distinct layers when mixed.

1. (4 points) If a solution is made by combining 45.2 grams of glucose, 85.2 grams of fructose and 752 grams of water, what is the percent concentration of fructose?
2. (4 points) How many grams of silver nitrate, AgNO3, are required to make 450.0 mL of a 0.6445 M solution of silver nitrate?
3. (4 points) How many mL of water needs to be added to 150.0 mL of a 2.534 M solution of iron(II) sulfate, FeSO4, to make a 0.5977 M solution?

1. (4 points) Given the following balanced chemical equation, calculate the mass of sodium hydroxide, NaOH, that will react with 39.74 mL of 0.8359 M phosphoric acid, H3PO4.

3 NaOH(aq) + H3PO4(aq) 🡪 Na3PO4(aq) + 3 H2O(l)

Chemistry 115 Name

Dr. Cary Willard

Quiz 10c (20 points) May 5, 2011

All work must be shown to receive credit.

1. (4 points) A solution is composed of 68.4 grams of ethanol and 32.4 grams of benzene. Identify the solvent and the solute..

Ethanol is the solvent and benzene is the solute

1. (4 points) If a solution is made by combining 38.7 grams of glucose, 96.7 grams of fructose and 615 grams of water, what is the percent concentration of fructose?
2. (4 points) How many mL of a 0.2533 M solution of silver nitrate, AgNO3, can be made from 74.83 g of silver nitrate?
3. (4 points) If 35.00 mL of a 3.874 M solution of iron(II) sulfate, FeSO4, is diluted to 175.0 mL, calculate the concentration of the resulting solution?
4. (4 points) Given the following balanced chemical equation, calculate the volume (in mL) of 0.8359 M phosphoric acid, H3PO4, required to react with 2.589 g of sodium hydroxide, NaOH.

3 NaOH(aq) + H3PO4(aq) 🡪 Na3PO4(aq) + 3 H2O(l)

Chemistry 115 Name

Dr. Cary Willard

Quiz 10c (20 points) May 5, 2011

All work must be shown to receive credit.

1. (4 points) A solution is composed of 49.8 grams of ethanol and 88.3 grams of benzene. Identify the solvent and the solute..

Benzene is the solvent and ethanol is the solute.

1. (4 points) If a solution is made by combining 38.7 grams of glucose, 96.7 grams of fructose and 615 grams of water, what is the percent concentration of glucose?
2. (4 points) How many mL of a 0.2533 M solution of silver nitrate, AgNO3, can be made from 36.27 g of silver nitrate?
3. (4 points) If 55.00 mL of a 3.874 M solution of iron(II) sulfate, FeSO4, is diluted to 175.0 mL, calculate the concentration of the resulting solution?
4. (4 points) Given the following balanced chemical equation, calculate the volume (in mL) of 0.8359 M phosphoric acid, H3PO4, required to react with 3.668 g of sodium hydroxide, NaOH.

3 NaOH(aq) + H3PO4(aq) 🡪 Na3PO4(aq) + 3 H2O(l)