

NAME: \_\_\_\_\_

BLOCK: \_\_\_\_\_

DATE: \_\_\_\_\_

**CHEMISTRY-I: SOLUTIONS WORKSHEET #12.1.5**

**INSTRUCTIONS FOR PART-A:** Write the **BEST ANSWER** for each of the following statements or phrases on the line at the end of the statements or phrases. **Refer to your Vocabulary List for possible answers.**

1. Equal masses of sand and water are placed in a test tube. The contents of the tube may best be described as a **(mixture or solution?)** \_\_\_\_\_.
2. A beaker contains 2.45g of sugar dissolved in 100g of water. If it is possible to dissolve additional sugar in the solution, the resulting contents of the beaker may best be described as a \_\_\_\_\_ (choose one: saturated solution; unsaturated solution; or supersaturated solution).
3. A sample of table salt is completely dissolved in water. The table salt is the \_\_\_\_\_ and the water is the \_\_\_\_\_.
4. A small amount of rubbing alcohol is dissolved in water. Because the alcohol and water when mixed can not be seen as separate and distinct substances, and are evenly dispersed throughout the mixture, this mixture is called a \_\_\_\_\_ mixture.
5. A small amount of cooking oil is placed in a test tube containing water. Because the oil and water do not mix, and two separate and distinct layers of water and oil can be seen, this is a **(homogeneous or heterogeneous?)** \_\_\_\_\_ mixture.
6. When particles of the solute are completely dispersed and surrounded by particles of the solvent, this process is called \_\_\_\_\_.
7. When two or more substances are combined to form a substance which has properties that are different from the substances used to make it, this is called a **(chemical or physical?)** \_\_\_\_\_ change.
8. When a substance changes phase or color and does not produce different substances during the change, this is called a **(chemical or physical?)** \_\_\_\_\_ change.
9. Sugar is **(miscible or immiscible?)** \_\_\_\_\_ in water.
10. **ANSWER** each of the following questions as either **TRUE or FALSE**
  - a) All mixtures are solutions. \_\_\_\_\_
  - b) All solutions are mixtures. \_\_\_\_\_
  - c) To make a solution, more solute must be used than solvent. \_\_\_\_\_
11. An **alloy** is a mixture of metals that have been melted together and then cooled to form a solid. **CIRCLE** the following substance(s) which is/are alloys (you may need to refer to a dictionary or chemistry text book to answer this question):  
a) steel      b) iron      c) brass      d) gold      e) zinc      f) bronze

**(Continued on the next page)**