Rosary School – Marj Elhamam

Worksheet 2

Name: _____ Date: / 11/ 2025

Grade: 6 (A,B,C,D,E)

Question 1:

The solubility of blue Copper Sulfate is 32g per 100g of water at 20°C.

A. Which has the higher solubility in water, Copper Sulfate or Sodium Chloride?

_____

_____

B. State the largest mass of Copper Sulfate that would dissolve in 600g of water at 20°C.

C. A saturated solution of Copper Sulfate at 20°C is cooled to 5 °C. Describe what you see when the solution cools. Explain your answer.

_____

_____

_____

_____

D. Explain what would happen if you add 25g of copper sulfate to 50g of water at 20°C.

Question 2:

a. 50g of Sugar is stirred into 160g of ethanol. What is the mass of the solution formed?

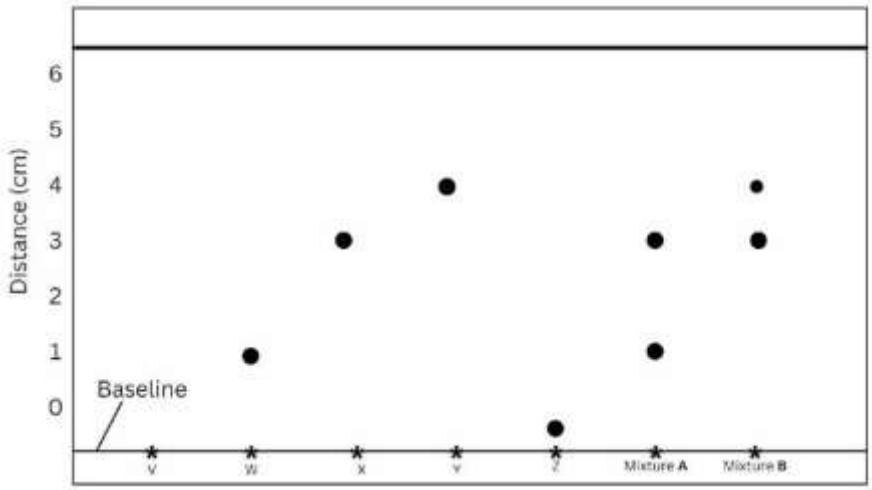
b. Explain your answer to part a.

_____

_____

Question 3:

The following chromatogram was obtained in an experiment to analyze two mixtures, A and B. Use it to answer the questions below:



a. How many components were in each mixture?

Mixture A _____ Mixture B _____

b. Which pure substance was:

. Least soluble: _____ Most soluble: _____

c. Which pure substances were in the mixture:

A: _____

B: _____

d. Which component was present in both mixtures? _____

e. Which pure substance is not found in either mixture? _____

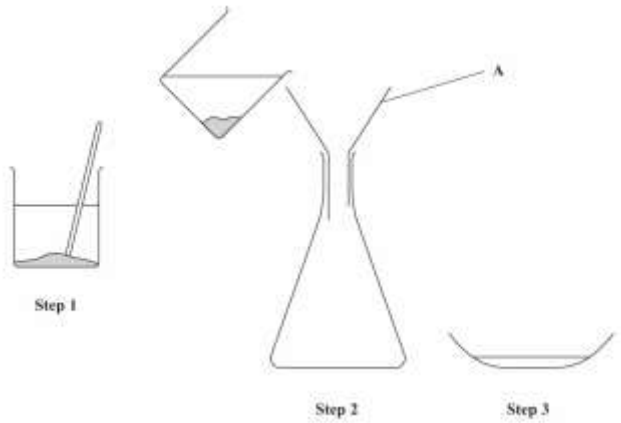
2. If you mark the starting line, how will you make sure it won't disappear? Explain your answer

_____

_____

Question 4:

Salt is soluble in water, but sand is insoluble in water. This difference allows a mixture of salt and sand to be separated using this apparatus.



(a) Use words from the box to complete the sentences. Each word may be used once, more than once or not at all.

beaker	Bunsen burner	conical flask	funnel
glass rod	thermometer	water	

In **Step 1**, the mixture of salt and sand is placed in a_____ containing _____and stirred with a _____.

In **Step 2**, the mixture from **Step 1** is poured through a _____ into a _____.

In **Step 3**, the liquid is transferred to a basin to allow the _____ to be removed.

(b) (i) What should be placed in **A** before the mixture from **Step 1** is poured through it?

_____

(ii) What is the solid removed in **Step 2**?

_____

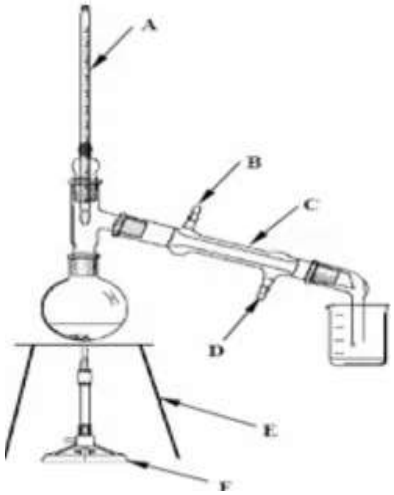
(c) Name the methods used in this separation.

_____

Question 5:

The apparatus below can be used to distil a mixture of ethanol and water.

The water and ethanol mixture was placed in the round-bottomed flask and heated gently. The temperature of the mixture was carefully monitored.



(a) Why are anti-bumping granules needed to carry out a distillation experiment?

_____

(b) What enters at D and leaves at B?

_____

(c) Name the piece of apparatus labelled C in the diagram.

_____

(d) Name the liquid that forms first in the beaker.

_____