

YESMARK TUTION SERVICES
DECEMBER 2015 TUITION
CHEMISTRY FOR FORM1
40 MARKS 1 HOUR



1. State one use of each of the following.
 - i. Luminous flame (1mk)
 - ii. Non-luminous (1mk)
2. Name the most appropriate apparatus you can use to do the following activities.
 - i. Measure 20.2cm³ of water (1mk)
 - ii. Heat 200cm³ of a solution (1mk)
 - iii. Measure about 100cm³ of water. (1mk)
 - iv. Heat 2g of copper (II) sulphate on salt the Bunsen flame (1mk)
 - v. Separate a mixture of paraffin and water. (1mk)
 - vi. Put 1g of sugar into a test tube. (1mark)

vii. Place steel wool on Bunsen burner. (1mark)

viii. Boil 5cm³ of water. (1mark)

3. Define the following terms:

i. Solute (1mark)

ii. Saturated solution (1mark)

iii. Solvent (1mark)

4. (a) The following procedure can be used to obtain crystals of copper (ii) sulphate from its solution in a process called crystallization. Arrange the steps in the order in which the

process can be carried out. (2marks)

i. Filter the mixture to obtain copper (ii) sulphate crystals.

ii. Evaporate the solution to make it saturated. iii. Allow the solution to cool for crystallization to take place.

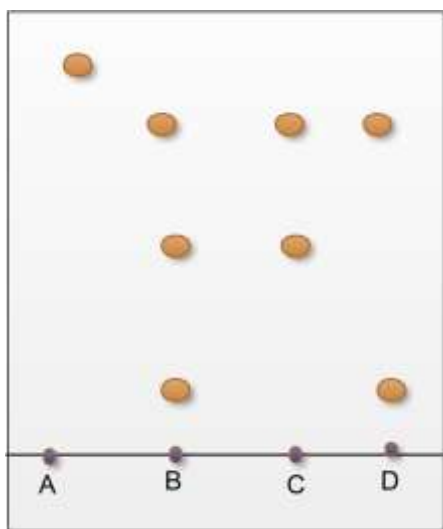
iv. Keep the crystals in the sun to dry.

(b) Explain why copper (ii) sulphate salt crystals cannot be obtained through evaporating the solution to dryness. (2marks)

(c) State two industrial application of crystallization.

(2marks)

5. Below is a chromatogram of four dyes. A, B, C and D. Study it and answer the questions that follow.



- i. Which is the purest dye (1mk)
- ii. Which two dyes when mixed result to one of the dyes? (1mks)
- iii. Show the solvent line on the chromatogram. (1mk)
- iv. Circle the component of the dyes which is most soluble in the moving solvent? (1mark)
6. State one industrial application of each of the following methods of separation of mixtures.

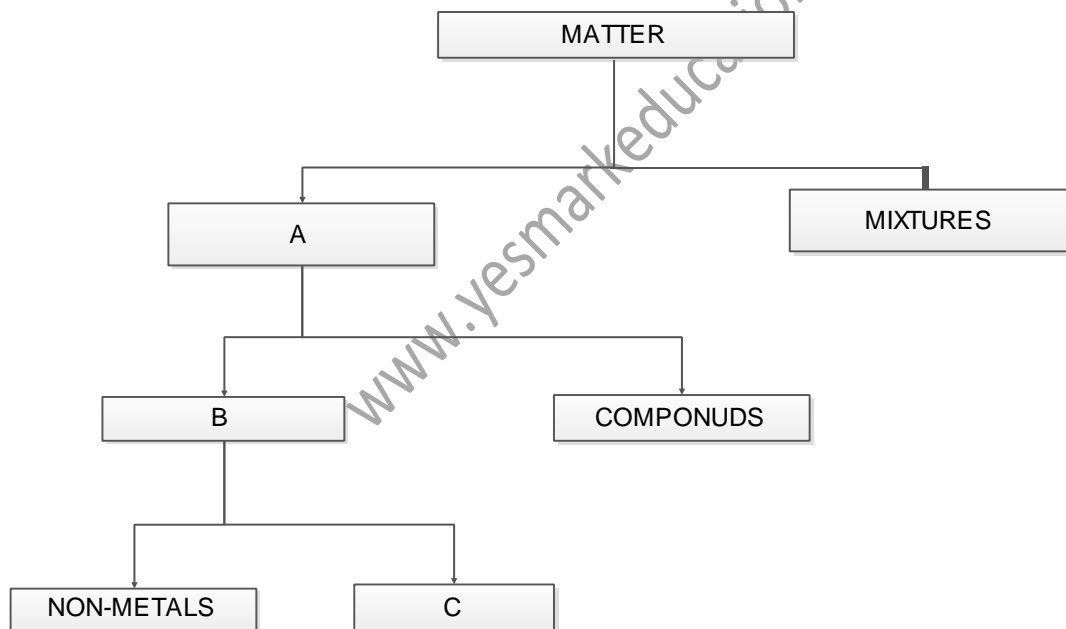
i. Sublimation (1mk)

ii. Fractional distillation (1mk)

iii. Filtration (1mark)

iv. Solvent extraction. (1mark)

7. (a) The flow chart below shows general classification of matter. Fill the missing parts by identifying A, B, and C. (3marks)



(b) Give two examples of each of the following substances: (6marks)

A

Compounds

C

8. Give three advantages of using glass apparatus in the laboratory (3marks)
9. Draw a well labeled set-up of apparatus you would use to separate a mixture of ethanol and water. (3marks)

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