

# END OF TERM 1 EXAMS

# CHEMISTRY

## FORM ONE

TIME: 1 ½ HOURS

NAME.....ADM NO:.....

SIGN..... INDEX NO:.....

Answer all the questions in the spaces provided.

1) a).Define the term chemistry.

1mk

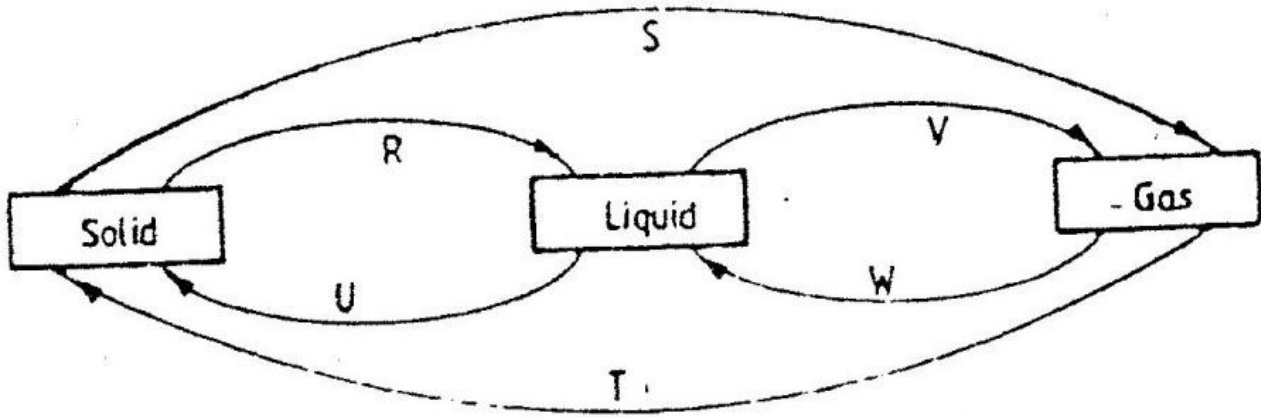
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b).State three importance of studying chemistry.

3mks

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2) The diagram below shows the relationship between the physical state of matter .study it and answer the questions that follows.



a) Identify the processes R,V,W and U. 2mk

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b) Name two substances which under the process represented by S and T.2mks

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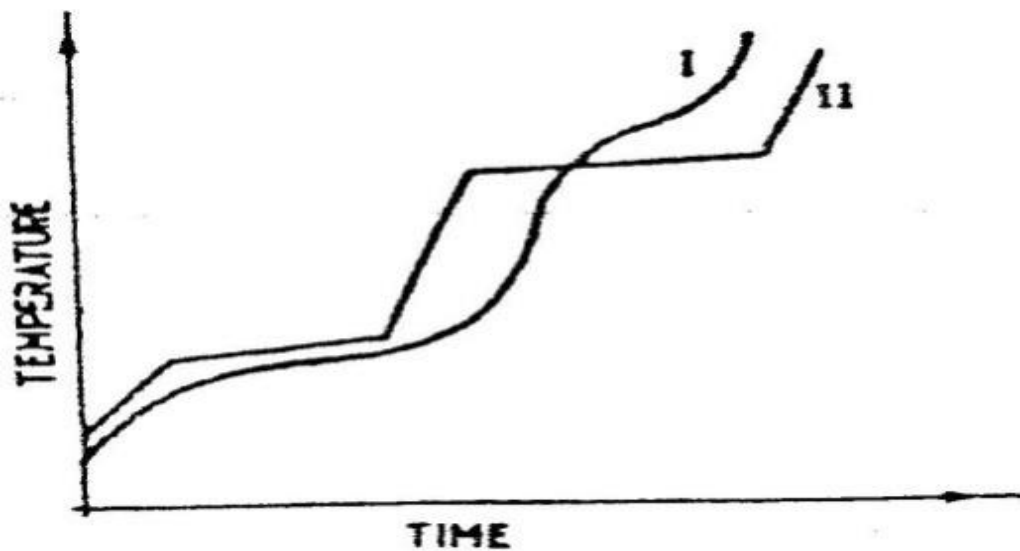
3) Draw and name the apparatus you would use in the separation of a mixture of kerosene and water. 2mks

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4) The curve below represents the variation of temperature with time when pure and impure samples of solid were heated separately



Which curve shows the variation of temperature for the pure solids? Explain 2mks

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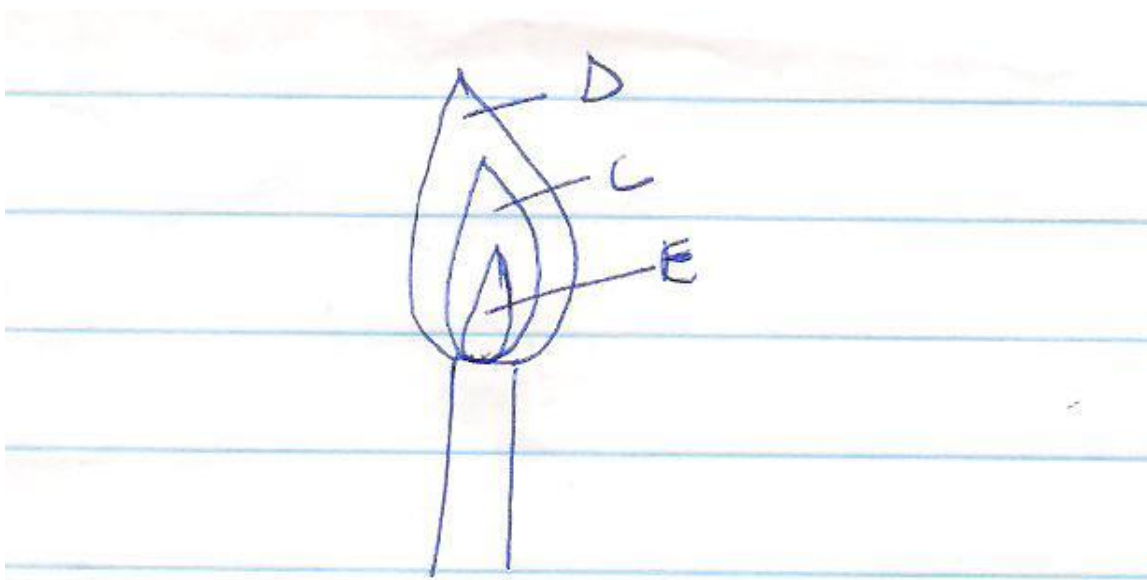
5) a).State the effect of an impurity on the melting and boiling point of a pure substance. 2nks

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b).Sate four differences between temporary physical change and temporally chemical change.  
4mks

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7) The diagram below shows a Bunsen burner in use.



a) Name the regions labeled D, C, and E. 3mks

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b) Identify the hottest part of the flame.1mk

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8) Differentiate the following terms.

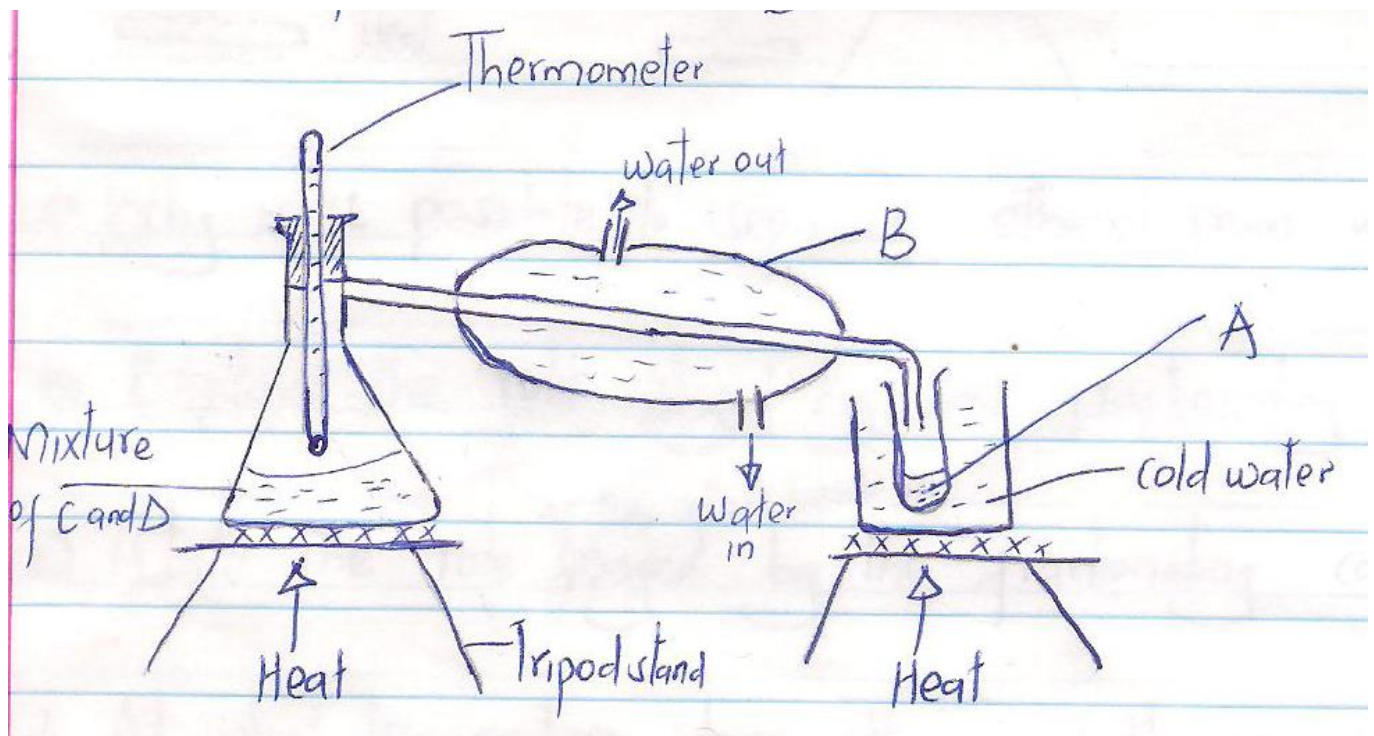
a) Drug abuse and prescription.2mks

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b) Conductors and non –conductors.2mks

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9) The diagram below represents the apparatus that may be used to separate a mixture of two miscible liquids C and D whose boiling points are 80°C and 110°C



a) Name A and B 2mks

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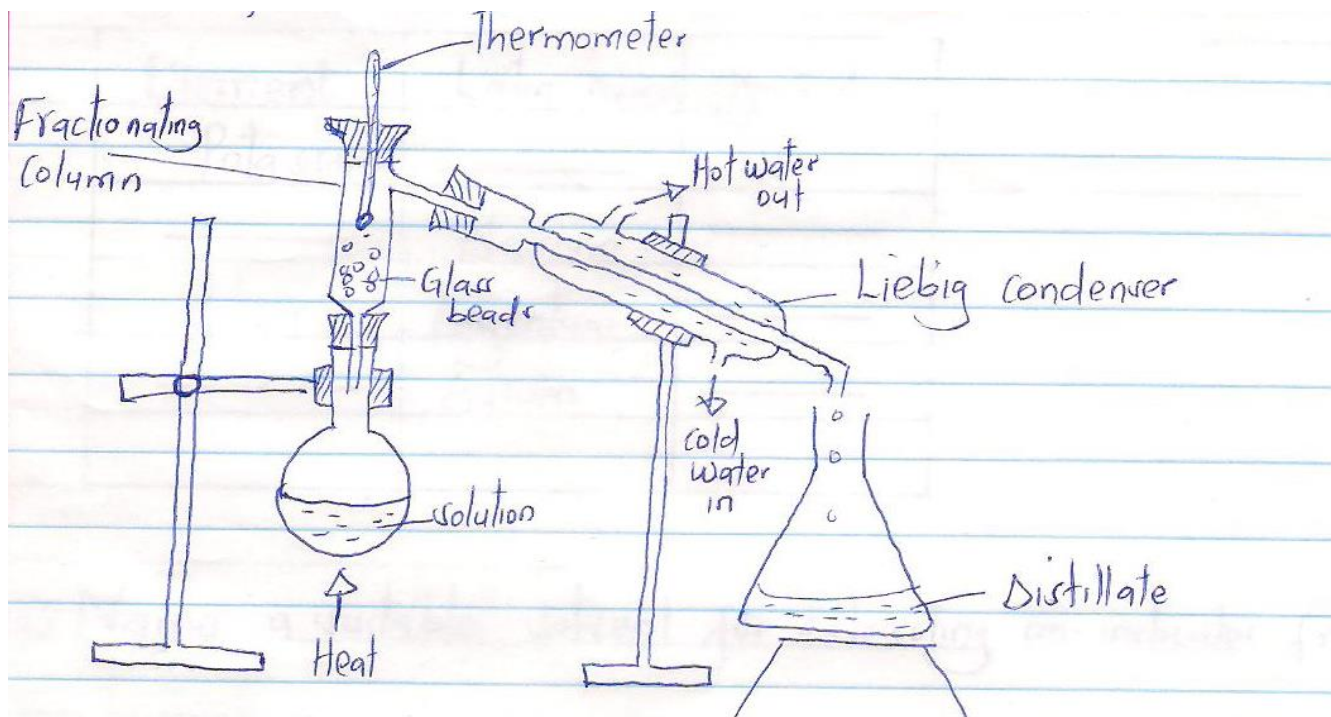
b) What is the purpose of the thermometer? 1mk

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c) Which liquid was collected first? Explain. 2mks

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10) The set up below represent the apparatus that may be used to separate ethanol from water.



a) Why is it possible to separate ethanol from water.2mks?

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b) Explain the role played by the fractionating column.2mks

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c) State the role of the glass beads in the fractionating column.1mk

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d) At what temperature does ethanol distill off.1mk?

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e) What would happen if the inlet and outlet were exchanged in the Liebig's condenser .2mks?

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11) Define the following terms .3mks

a) Atom

b) Molecule

c) Compound

12) Fill the following table 3mks

Element	Latin name	Symbol
Potassium		K
	Natrium	
silver	Argentums	
	Aurum	

13) a). Name the suitable solvent for extracting an indicator from flowers. 1mk

b). Give a reason why solvent named in A above is used. 1mk

14) Explain the differences between solid, liquid, and gaseous state using theoretical model of matter in terms of kinetic theory. 6mks

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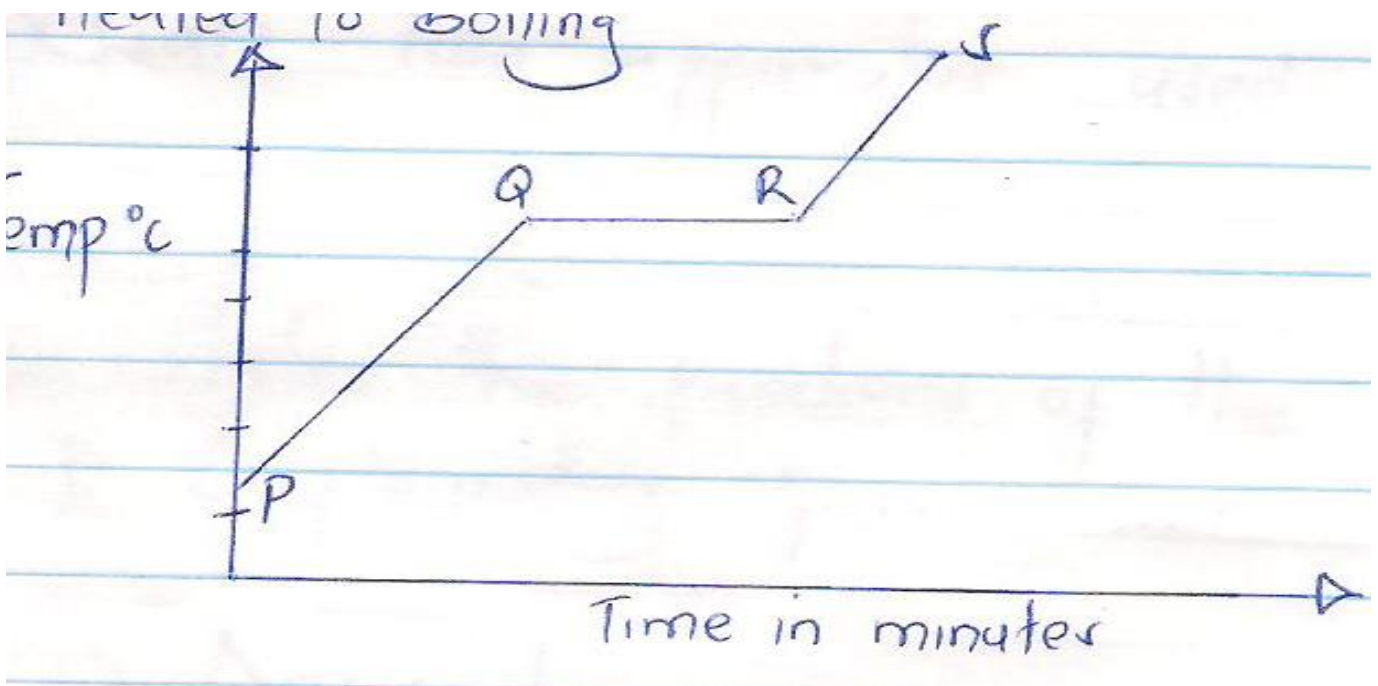
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15) The graph below shows the shape of the curve obtained by a student when solid X was heated to boiling determine the melting point of solid X .1mk



State and explain what proportion PQ, QR and RS represent.6mks

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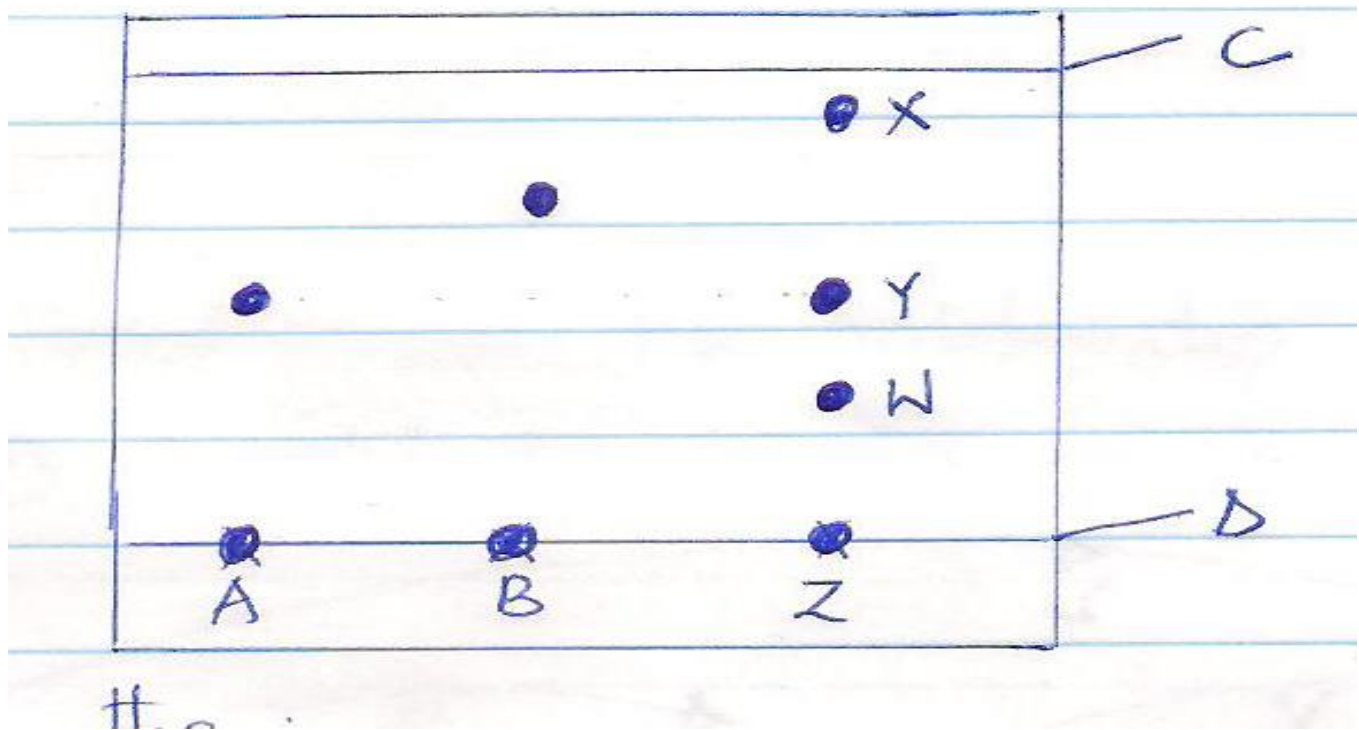
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16) Spots of pure pigment A and B and a mixture Z were placed on a filter paper and allowed to dry. The paper was then dipped in a solvent and results obtained as follows on a paper chromatogram.



a) Which is the  
i. Baseline 1mk

ii. Solvent front 1mk

b) Which of the pure pigment was component of Z . explain. 2mks

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c) Name a solvent that is suitable in paper chromatography. 1mk

17) State two apparatus used as a source of heat in a laboratory. 2mks

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18) State the function of the following apparatus in the laboratory. 2mks

i. Deflagrating spoon

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ii. Desiccators

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