NAME .....ADM. NO. .....CLASS.....

CHEMISTRY
THEORY PAPER
233/1 & 2
TIME: 2 30 MINUTES
MARCH/APRIL 2019
FORM ONE CHEMISTRY

INSTRUCTIONS TO CANDIDATES

- *Write your name and index number in the spaces provided.*
- *All questions should be answered in English.*
- *K.N.E.C mathematical tables and non-programmable electronics calculators may be used.*

FOR EXAMINERS USE ONLY

SECTION	TOTAL MARKS	CANDIDATES SCORE
A	35	
B	65	
TOTAL	100	

CHEMISTRY FORM 1 SECTION A

1. a) Define the following terms

i) Drug (1mark)

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ii) O.T.C (1mark)

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(iii) Chemistry

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b) Given three commonly abused drugs by students and youths of Kenya (3marks)

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2. a) State three reasons why most laboratory apparatus are made of glass. (3marks)

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b) State three reasons why laboratory rules are important to observe. (3marks)

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3. a) List three differences between temporary and permanent changes. (3marks)

	Temporary change		**Permanent change**
i)		i)	
ii)		ii)	
iii)		iii)	

b) Fill the blanks spaces in the table below (4marks)

	Elements name		**Symbol**
i)	Argon	i)	i)_____
ii)	_____	ii)	Ca
iii)	Sodium	iii)	_____
iv)	Silicon	(iv)	_____

4. Draw and label non-luminous flame of the Bunsen burner. (4 marks)

5.. a) Use diagrams to show how a mixture of sodium chloride and iodine can be separated. (3marks)

b) Use diagrams to show how a filter paper is folded during filtration. (2marks)

c) State two reasons why dry ice is preferred to ordinary ice by ice cream vendors. (2marks)

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6. a) Define

i) Saturated solution

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ii) Crystallisation

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b) State three applications of crystallization. (3marks)

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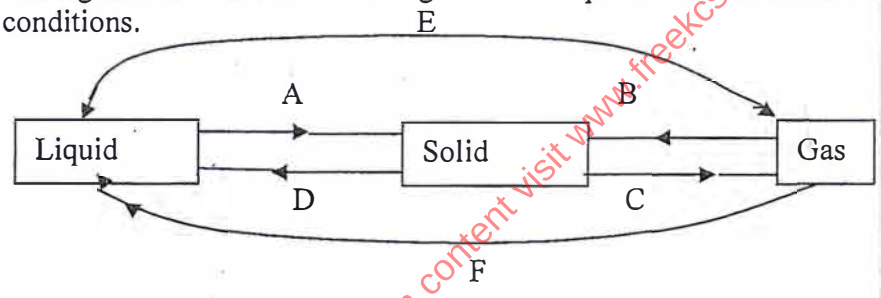
SECTION B

7. The figure below shows the changes that take place when matter is subjected to some environn conditions.



a) Identify processes labeled. (4marks)

A .....

B.....

C.....

D .....

F.....

b) Name five substances that undergoes process C (5marks)

c) State the condition necessary for process E to take place.(1mark)

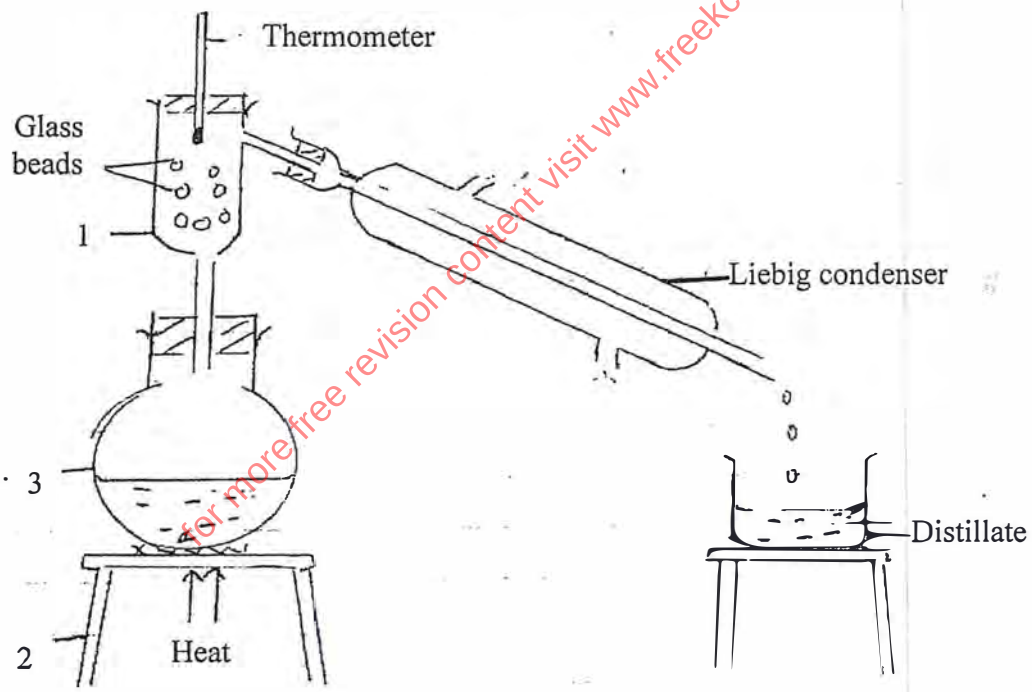
d) Using water as an example, write expressions to show process:-

(i) B (2marks)

(ii) A (2marks)

e) Give one application of process C (1mark)

8. The diagram below represents a set up of apparatus used to separate two liquids. Liquid W has a boiling point of 110℃ and liquid X has a boiling point of 90℃.



a) Name the apparatus labeled

1.....(1 mark)

2. .....(1 mark)

3. .....(1mark)

b) On the diagram, show the inlet and the outlet. (2marks)

c) Which liquid will be collected first as a distillate? Explain (2marks)

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d) State the role of the glass beads. (1mark)

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e) State the reason why a mixture of the two liquids W and X is separated using the above (1mark)

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f) Give two large scale applications of the above method of separating mixture.

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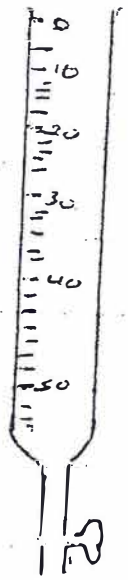
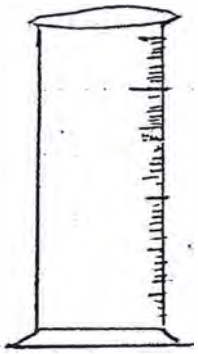
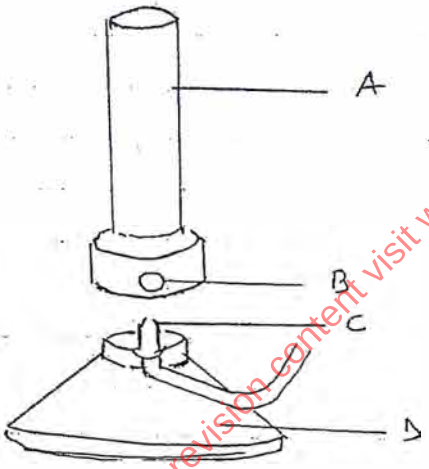
9. Complete the table below on apparatus and their uses.

Apparatus	Name	Uses
a) (1mark)	(1mark)	To separate Immiscible liquids
b) 	Dropping funnel	

c)	Dropper	Used to deliver liquids drops by Drop/dropwise (1mark)
d) 	(1mark	Used for gas collection
e) 	(1mark)	(1mark)

f) 	(1mark)	(1ma

10. The diagram below shows part of a Bunsen burner



a) State and explain the functions of the parts labeled A,B,C and D. (2marks)

A Name .....

Function .....

B Name .....

Function .....

C Name .....

Function .....

b) What makes part D adaptable for its function? (1mark)

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11. State the laboratory apparatus that can be used to separate the following substances.

i) Kerosene and water. (1mark)

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ii) Sulphur powder and iron fillings (1mark)

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iii) Mud from muddy water (1mark)

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b) State three characteristics of mixtures. (3marks)

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c) Describe how the following substances can be obtained in the laboratory.

i) Oil from castors seeds. (3marks)

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ii) Iodine from a mixture of iodine and lead (II) Chloride. (3marks)

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12. A student performed chromatography on a sample athlete urine. The dyes of the urine A,B,C and D were found to have travelled 6cm , 8cm, 11cm and 13 cm from the baseline respectively. Draw a diagram to represent the above information. (6marks)

b) Name two applications of chromatography (2marks)

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13.
14.
15.
16.
17.
18.