

Name:..... Adm No.....

Signature:.....

**CHEMISTRY
THEORY
TERM 3 2017
TIME: 2 HOURS**

Date:.....

2017

FORM 1

Chemistry

2 hours

INSTRUCTIONS TO CANDIDATES

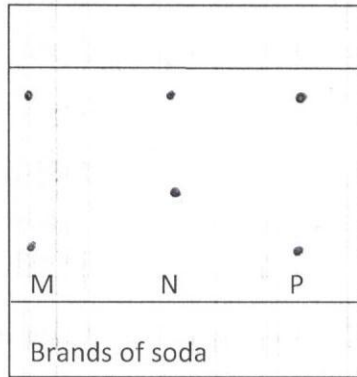
- Write your name and admission number in the spaces provided.
- Mathematical tables and non-programmable calculators may be used.
- Attempt all the questions in the spaces provided.
- ALLOW working MUST be clearly shown.

For Examiner's Use

QUESTION	MAXIMUM SCORE	STUDENT'S SCORE
1 - 15	70	

This question paper has 9 printed pages. Check to ascertain that all pages are printed as indicated and that no question is missing.

1. The spots in the diagram below represents a paper chromatogram for three brands of Soda suspected to contain unwanted food additive



The results showed the presence of unwanted food additive in n and p only. On the diagram:

a) Circle the spots which show unwanted food additive (2mks)

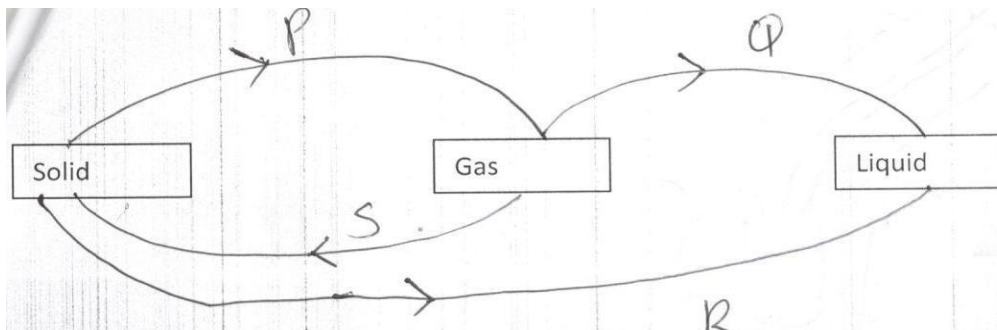
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b) Label the solvent front and the base line of the diagram (2mks)

2. Sodium chloride is contaminated with copper (ii) oxide. Explain how pure sodium chloride can be obtained from the mixture (3mks)

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3. The diagram below shows the relationship between the physical states of matter . Study it and answer the question which follows;



a) Identify the process PQRS

(4mks)

b) Name two substances that undergo the process P and S

(2mks)

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4. State and explain the changes in mass that occur when the following are heated separately in open crucibles

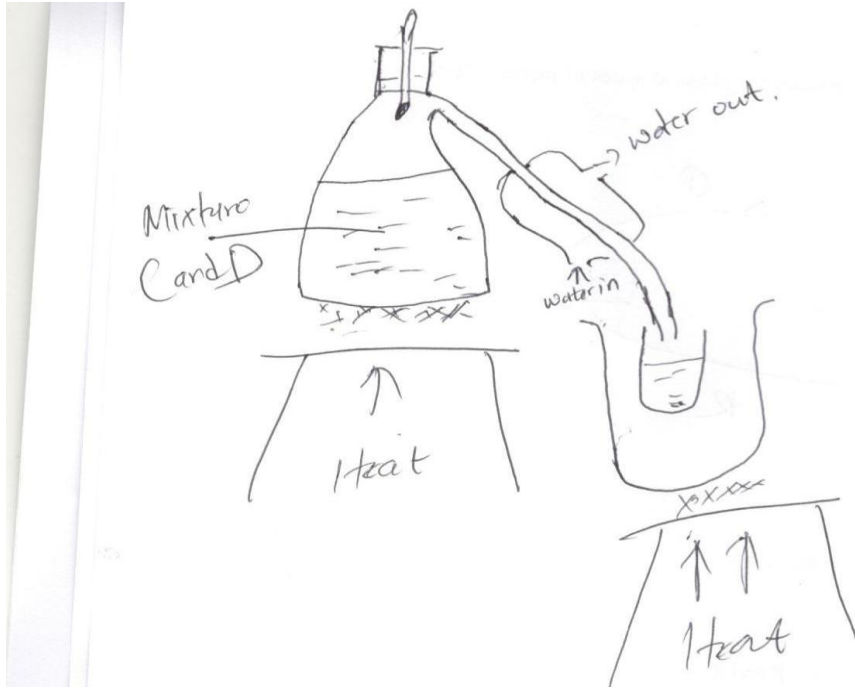
a) Zinc metal

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b) zinc carbonate

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.....

5. the set up 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 respectively.



i) Label C (1mk)

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ii. What is the purpose of the thermometer (1mk)

.....

iii. Which liquid was collected first? Explain (2mks)

.....

6. Draw and name the apparatus you would use in the separation of kerosene and water (2mks)

7. Name the elements present in the following compound

(10mks)

a) Sodium Bromide

.....

b) Zinc Sulphide

.....

c) Lead Oxide

.....

d) Magnesium Nitride

.....

e) Potassium Iodide

.....

8. Complete the table below

(6mks)

Element	Symbol
Carbon	
	N
Oxygen	
	H
copper	
	Mg

9. Explain why most laboratory apparatus are made up of glass

(4mks)

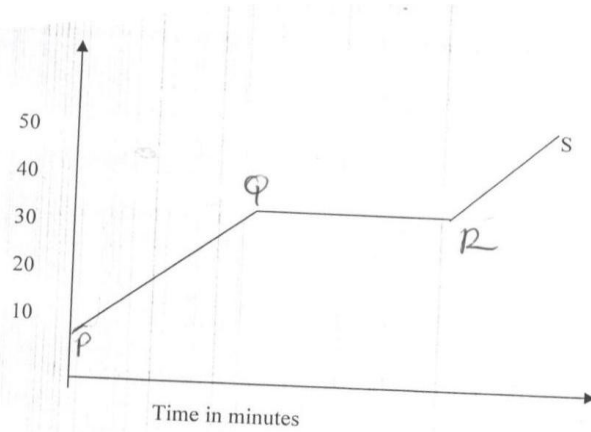
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10. A non luminous flame is preferred for heating give two reasons and explain.

(4mks)

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11. The graph below shows the shape of the curve obtained by a student when solid x was heated to boiling.



a) Determine the melting point of solid X

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b) State and explain what portions PQ, QR and RS represent in each case give the physical state of the solid (9mks)

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12. Name three frequently abuse drugs (3mks)

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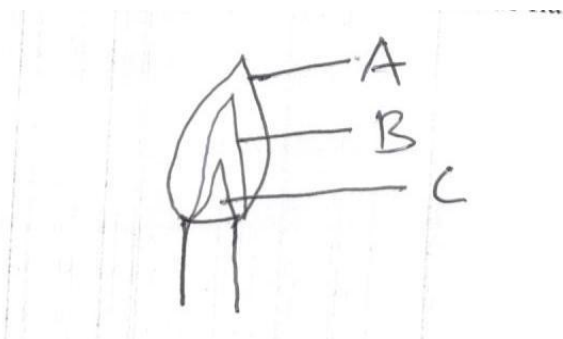
13. What will you do immediately if a chemical gets on your skin? (2mks)

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14. State three safety rules in the laboratory (3mks)

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15. The following diagram represents a non-luminous flame of the Bunsen burner



a) Name the parts of the flame labelled A,B and C (3mks)

A

B

C

b) Which part in a) above is the hottest? Explain (2mks)

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