

NAME:.....SIGN:.....

525/1
Chemistry
Paper 1
2 hours

UGANDA CERTIFICATE OF LOWER SECODARY EDUCATION

END OF TERM II EXAMINATION 2023

CHEMISTRY

Paper 1

2 Hours

INSTRUCTIONS:

- This paper has *two* (2) sections A and B.
- Attempt all questions in *section A* and any *two* (2) from *section B*.
- Answers to questions in section A should be written in the spaces provided
- Answers to questions in section B must be written on answer sheets provided.
- Use a neat handwriting to avoid loss of marks.

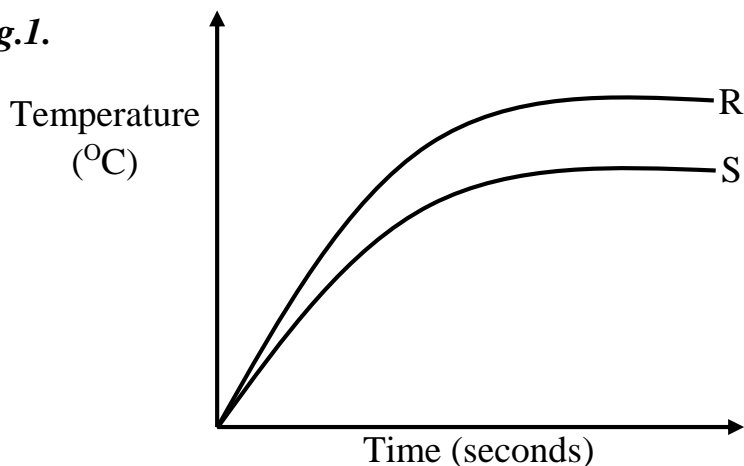
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SECTION A							SECTION B		TOTAL
1	2	3	4	5	6	7	No.	No.	

SECTION A

1. *Fig.1.* shows two the boiling curves of pure water and an aqueous solution of sodium chloride over a given range of time. One of the curves is represents by R and another by S. Use it to answer questions that follow.

Fig.1.



- a) Define the term boiling point. (02marks)

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- b) Which curve represents water and an aqueous solution of sodium chloride?
Explain your answer. (05marks)

For water.....

Reason.....

For sodium chloride.....

Reason

- c) State two other factor that affects the boiling point of a liquid. (02marks)

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- d) State one other method used to determine the criteria of purity of a liquid
other than boiling point and melting point. (01mark)

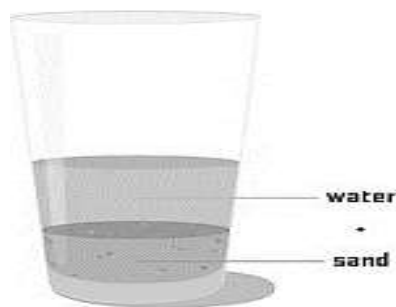
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2. **Fig.2.** shows two substances A and B that are commonly used in our daily life.

Fig.2.



A



B

a) Identify the above substances. **(02marks)**

A.....B.....

b) Mention any two properties of: **(02marks)**

(i) A

.....
.....

(ii) B

.....
.....

c) Suggest examples of:

(i) Naturally occurring mixtures. **(01mark)**

.....

(ii) Artificial mixtures. **(01mark)**

.....

d) How are metals important in our daily life. **(04marks)**

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3. During the separation of components of air, carbon dioxide is first removed from air before liquefaction of the remaining air.

a) (i) How is carbon dioxide removed from air? **(02marks)**

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(ii) Why is carbon dioxide removed before liquefaction of air? **(01mark)**

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b) (i) Name the physical process used to separate oxygen from liquid air. **(01mark)**

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(ii) Why is it possible to use the process named in b) (i) above. **(01mark)**

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c) State the role of different components of air. **(05marks)**

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4. a) (i) What is meant by the term water pollution? **(01mark)**

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(ii) Some power stations use river water for cooling and dump it back in the river still hot. Explain how this affects the river. **(03marks)**

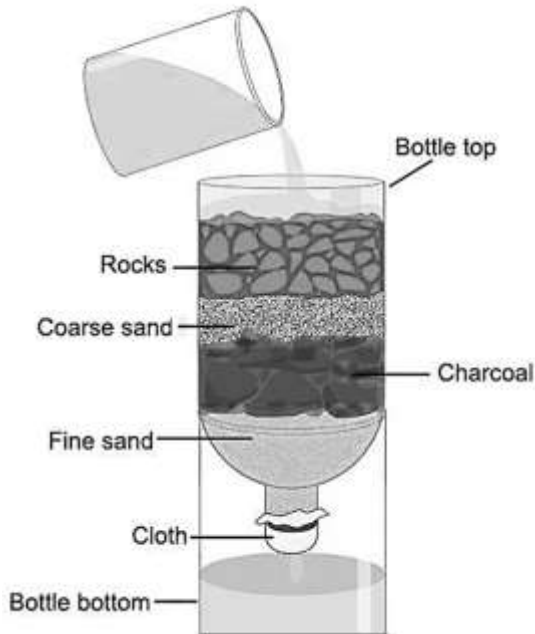
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b) **Fig.3.** setup was used to obtain clean water from muddy water at home. Gravel, sand and charcoal were firmly packed.

Fig.3.



(i) State the role of the following in this set-up:
Gravel. (01mark)

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Sand. (01mark)

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Charcoal. (01mark)

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(i) Is this water safe for drinking? Give a reason for your answer. (02marks)

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5. Fig. 4. Shows different materials that are used in our daily life. Use them to answer questions that follow.

Fig. 4.



K



L



M



N



O



P

a) Name the above materials from K to P. (03marks)

K.....L.....

M.....N.....

O.....P.....

b) From fig.4, list down the materials that are

(i) Naturally occurring. (1¹/₂marks)

.....

(ii) Artificially occurring. (1¹/₂marks)

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c) State the role of the above materials to man. (04marks)

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6. Fig.5. shows the different physical changes that occur in different states of matter. Use the figures to answer questions that follow.

Fig.5.



P



Q



R

a) (i) Which physical change occurs in each case? (03marks)

P.....Q.....R.....

(ii) State two substances that undergo the above changes in P. (02marks)

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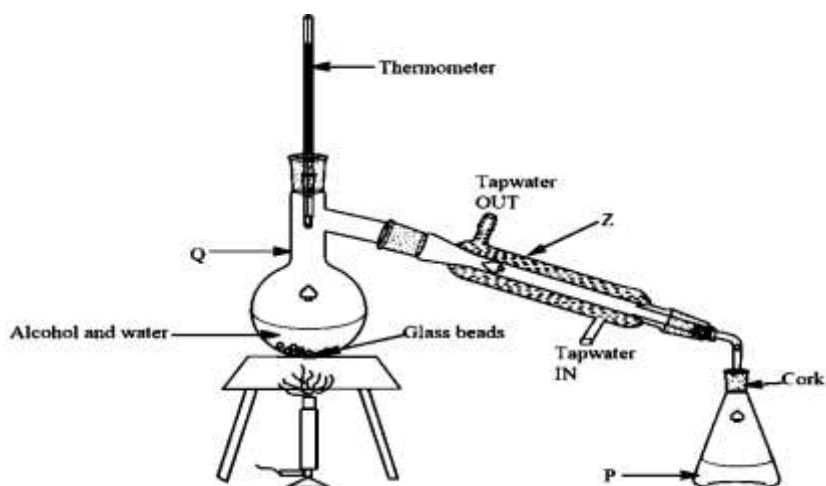
b) State the main conditions that affect the above changes. (02marks)

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c) Discuss the application of temporary and permanent changes in our daily life. (03marks)

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7. Fig.6. shows an experimental setup in the laboratory used to separate certain mixtures in to their components. Read it carefully and use it to answer questions that follow.



a) (i) Identify the name of the above method used in separation of mixtures. (01mark)

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(ii) Name the parts labelled Q, Z and P. (03marks)

Q.....

Z.....

P.....

b) Explain how the above experiment is used to separate mixtures. (04marks)

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c) How is the above method used in our daily life? (02marks)

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SECTION B

8. a) Iron is the commonly used metal. Give the properties of iron which make it suitable for its as:

- (i) Roofing materials (02marks)
- (ii) School bell (01mark)
- (iii) Cloth hanger. (01mark)

b) Apart from the above functions, given any other uses of iron. (06marks)

c) In which ways is iron weakened from performing its role? (05marks)

9. a) Discuss the importance of common salts in our daily lives. (06marks)

b) Common salt from *Lake Katwe* is obtained by fractional crystallization.

Explain the term;

- (i) Fractional crystallization (02marks)
- (ii) Crystal (01mark)

c) Describe what happens during fractional crystallization of salt. (04marks)

d) Identify two crystalline substances at home. (02marks)

10. a) Mention any four Earth resources you know. (02marks)

b) State one function of each resource. (04marks)

c) How are the above resources misused by man? (05marks)

d) In which ways can we preserve the Earth resources? (04marks)

END