

Candidate's Name: .....

Random No.						Personal No.		

Signature: .....

545/1  
Chemistry  
(Theory)  
Nov/Dec 2023  
Paper 1



## MATIGO EXAMINATIONS BOARD

Uganda Certificate of Lower Secondary Education

### S3 END OF YEAR ASSESSMENT 2023

CHEMISTRY

(THEORY)

2 Hours

#### INSTRUCTIONS TO CANDIDATES

*All tasks are compulsory*

*All items carry equal scores*

*Responses to questions in section B should be written on a separate answer booklet.*

*Drawings or any illustration may be used to illustrate your response*

#### FOR EXAMINER'S USE

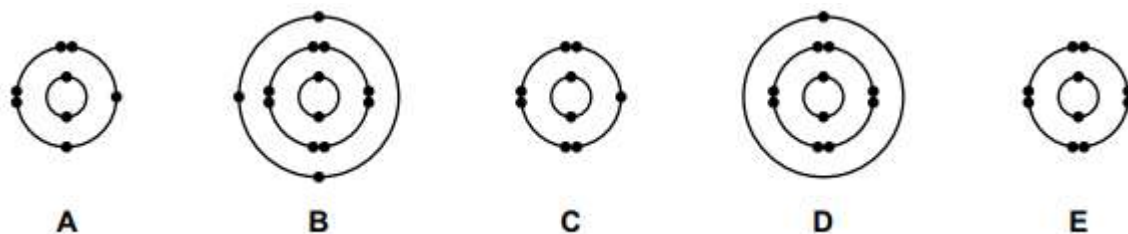
SECTION	Marks	Initials
A		
B		
<b>Total</b>		

**Turn Over**

## SECTION A

*(Short answer questions)*

1. Fig. 1 shows the electronic configurations of five atoms, A, B, C, D and E



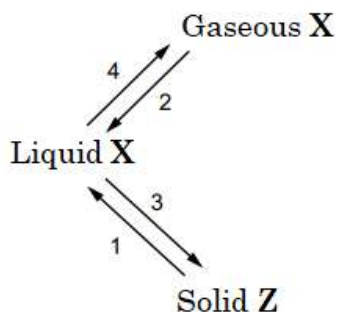
Answer the following questions.

(4 scores)

Each letter may be used once, more than once or not at all.

Give the letter of the atom, A, B, C, D or E, that:

- (i) ..... is in Group III of the Periodic Table
  - (ii) ..... has 13 protons
  - (iii) ..... is a noble gas
  - (iv) ..... forms a stable ion with a single negative charge.
2. Element X can undergo the following physical changes.

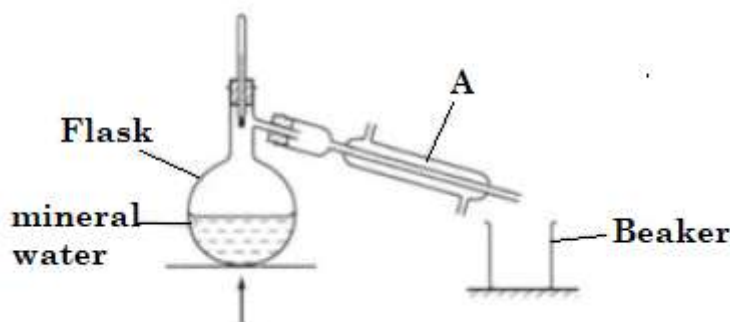


Name each of the numbered physical changes shown in Fig above.

(4scores)

- 1.....
- 2.....
- 3.....
- 4.....

3. Pure water can be obtained by distilling mineral water using the apparatus below



- (i) State the name of the piece of apparatus A (1 score)

.....

.....

- (ii) Where does the pure water collect (1 score)

.....

.....

- (iii) Compare the boiling point of mineral water and that of pure water. (2 scores)

.....

.....

## SECTION B

### *Extended questions*

4. John kept two jericans of rain water and when washing he decided to use little rain water for washing and rinsed his clothes from the lake and their sister washed her clothes using tap water and detergent. Evaluate the three children's choice in washing. (20 scores)
5. The president of Uganda wants to donate fire extinguishers to schools to reduce on the dangers associated with the fire outbreak but the Carbondioxide produced locally is not enough to support the program. He is looking for an investor to set up Carbondioxide processing industry in Harugongo in kabarole district. Advise the investor. (20 scores)
6. A farmer in a rural area cleared his land to grow maize for sale. The rainfall was very favorable but the yields were very poor because the soil was not fertile and he made loses. He was advised to buy and apply one of the ammonium fertilizers. Make a presentation of about 400 words to guide him. (C=12, O=16, S=32, P=31. N=14, H=1) (20 scores)
7. The quality of air, water and soil has always changed over time in your district. The chairperson LCV of your district is so much concerned with the changes observed. Make a write up to make people in your district to be aware of what is happening. (20 scores)

END