

Candidate's Name: .....

Signature: .....

**545/1**  
**CHEMISTRY**  
**Paper 1**  
**2024**  
2 hours

~~TEAS ENGINEERING~~

**UCE PRE- MOCK EXAMINATION**  
**Uganda Certificate of Education**  
**CHEMISTRY**  
**Paper 1**  
2 hours

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of **two** sections: **A** and **B**. It has **six** examination items.  
Section **A** has **two compulsory** items.*

*Section **B** has **two parts, I and II**. Answer **one** item from **each** part  
Answer four items in all.*

*Answers to section **A** **must** be written in the spaces provided while those of section **B** **must** be written on the answer booklet(s) provided.*

*Any additional item(s) answered will **not** be scored.*

## SECTION A

Attempt *all* items from this section in the spaces provided.

### Item 1

Kisakye's son was feeling headache. Kisakye decided to go to a herbalist and bought a herbal medicine. She gave his son this medicine and took him to a bedroom to have some rest. On waking up, the boy complained the headache had increased and Kisakye got worried over the son's situation.



#### Task:

As a chemistry learner,

(a) Point out the problem Kisakye made when choosing the product.

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(b) help Kisakye understand how the product works.

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(c) advise Kisakye on the challenges associated with the long-term use of the product.

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(d) guide her to make an evaluation on the products.

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## Item 2

According to an industrial chemist hosted on a national television, table salt plays a vital role in various industrial applications due to its properties. Your siblings watching the television are left wondering about what the chemist said and want to know the composition and properties of crystals of table salt.



### Task:

As a chemistry student;

(a) help your siblings to

(i) explain category of the product

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(ii) Predict the properties of the product

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(b) Show them the possible uses of the product

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(c) Guide them on whether the product is environmentally friendly or not.

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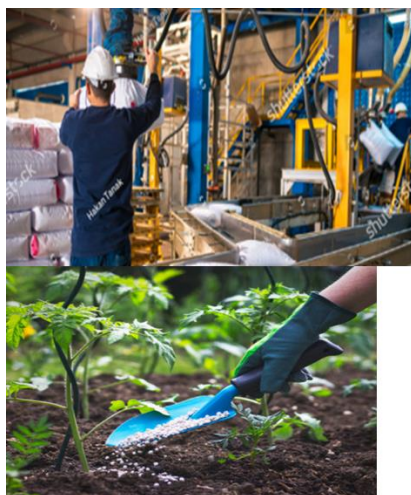
## SECTION B

### Part I.

Answer **one** item from this part

#### Item 3

National Agricultural Research Organization (NARO) has raised a concern of reduced ammonium sulphate fertilizers in the country. The government is seeking to ensure that there is a steady supply of these fertilizers to be used by the farmers in their gardens to improve on soil fertility for proper crop yields. The government has contracted an investor to set up a fertilizer manufacturing plant in Hoima town.



However, the investor has some doubts on his scientific knowledge on the process of production and likely impact on the environment.

#### Task:

As a chemistry student, write a message to the investor to settle his doubts.

#### Item 4

One of the well-known uses of biogas is as a fuel in various industrial processes such as production of cement and steel materials. The Tororo cement manufacturing factory is seeking to ensure that there is a steady supply of biogas by setting up a biogas production plant.



However, the community is concerned about its environmental effects and how the process will occur.

**Task:**

As a chemistry student, make a write up you will use to create awareness during the sensitization workshop organized in this community.

**Part II**

*Answer **one** item from this part*

**Item 5**

Deforestation is a major issue around Budongo forest with large areas of forest being cleared for sugar cane growing, settlement and charcoal burning. This has attracted the attention of the officials from National Forestry Authority (NFA) who are seeking to create awareness through sensitization workshops on the theme “**ENVIRONMENTAL CONSERVATION IS A RESPONSIBILITY FOR US ALL**”



**Task:**

As a chemistry student, prepare a short message you would like to be delivered by one of the officials from NFA during the workshop.



## Item 6

The degradation of natural resources in Uganda is a significant challenge that requires sustainable management practices and conservation efforts to ensure the long-term health and viability of the country's ecosystems.



The officials from National Environment Management Authority (NEMA) are planning to sensitize the people countrywide about sustainability of natural resources through a national wide television broadcast. You have been invited by one of the officials from NEMA to have your say on this matter.

### **Task:**

Prepare a presentation you will deliver on the national wide television broadcast.

**END**