

Candidate's Name:.....

Signature:.....

545/1

CHEMISTRY

Paper 1

2024

2 hours

ATE MOCK EXAMINATIONS BOARD

Uganda Certificate of Education

CHEMISTRY

Paper 1

2 hours

INSTRUCTIONS TO CANDIDATES:

This paper has **six** examination items which are divided into **two** sections; **A** and **B**.

Section **A** has **two compulsory** items. Answers to section **A** **must** be written in the spaces provided.

Section **B** has **two parts; I and II**. Answer **one** item from **each** part.

Answers to section **B** **must** be written in the answer booklet(s) provided.

Answer **four** items in all.

Any additional item answered will **not** be scored.

	For Examiner's Use Only					
Number	1	2	3	4	5	6
Scores						

SECTION A

Attempt all items in this section in the spaces provided.

Item 1.

Having completed 25 laps during the marathon, Paul felt some pain in his thigh muscles which prompted him to ask permission to be allowed to access his herbalist for medication which the Manager refused and instead instructed him to go the team Doctor. The team Doctor also diagnosed Paul with a bacterial infection. He gave Paul aspirin and penicillin. Having taken them he rested for 3 hours and upon waking up he felt better which surprised him but the infection got cleared 4 days later and Paul is desperately seeking for further information concerning this medication.

Task.

As a chemistry learner, write a message to Paul and;

(a). Explain the category of product that was given to Paul. **(02 scores).**

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(b). describe to him how the product works. **(02 scores)**

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(c). Advise Paul on the problems associated with use of the product. **(03 scores)**

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Item 2.

Magnesium oxide is widely used in making refractory materials and as fire proof in construction. Samuel an environmentalist is very concerned on whether magnesium oxide is environmentally friendly or not and would like to know its properties and composition. Samuel has contacted you for some help;



Task.

As a chemistry learner;

a). explain the category of the product. **(03 scores)**

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b). describe to Samuel the likely properties of the product. **(04 scores)**

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c). advise Samuel on whether the product is environmentally friendly or not **(03 scores)**

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SECTION B

PART I.

Attempt any one item.

Item 3

One of the large scale uses of sulphuric acid is making car batteries. To ensure that sulphuric acid is readily available at a cheaper cost, government has cleared a local investor to set up a sulphuric acid production plant in Kilembe town in Kasese District.

The locals are wondering how the production of sulphuric acid will be done. Your school has decided to sensitize the community as part of its community engagement drive.

Task

Prepare a brief presentation you will make during the sensitization campaign.

Item 4.

Due to the increased demand for aluminium in making satellite dishes worldwide, there has been a surge in its prices on the international market. To meet the local needs, the government is

seeking to revive aluminium production in Kanungu district. This news has left some residents worried about the environment and their land while others are eager to see how the aluminium production will be done.

Task.

A radio talk show has been organized by the Ministry of Minerals Development to sensitize the locals about how the extraction will be done. Write a mini presentation message you will use during the talk show

PART II

Attempt one item.

Item 5.

For the past 20 years, kabale district started developing at a fast pace, with many trading centers being established in different villages. The development has seen many swamps being reclaimed and forests cleared to make space for new buildings. Stone quarrying has become popular to meet the demand for the on-going construction in the area. The senior citizens are wondering why the wells and springs are slowly drying up and the water not being fresh as it used to be. They have also noticed changes in seasons and poor harvests which have led to famine. The issues were communicated to the District Environment Officer who in turn raised them in one of the district council meetings.

Task

Prepare a presentation you would share when asked by the council members, using the knowledge of Chemistry.

Item 6.

Lake Mburo is located in kiruhura District, south western Uganda, a place well known for large scale cattle keeping. The people around the Lake. Have also cut down trees to set up nursery gardens for flowers and exotic tree species along the river and around the lake farmers have been using artificial fertilizers to boost their crop yields. Of recent, the water levels have reduced drastically and the water in the river is not fresh anymore and algal blooms are covering part of lake. This has left the local leaders and residents worried. These developments caught the attention of the Rotary Club which decided to organize a charity run to save Lake Mburo.

Task

As a student of Chemistry, write a message you would share with the runners to achieve the objectives of the charity.

End