Candidate's Name:	•••••	•••••	• • • • • • • • • • • • • • • • • • • •
Signature:	••••••		
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CHEMISTRY			
Paper 1			
2024			

CHEMISTRY DEPARTMENT 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.

2 hours

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

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1	2	3	4	5	6

SECTION A

Attempt all items from this section in the spaces provided.

Item 1

Atim and Oyam were both suffering from a sickness and Oyam was also feeling a headache. They were both diagonized with a certain bacterial infection and thus they rushed to a pharmacy where Atim bought a certain medicinal drug and his sickness later healed, Oyam bought another type of medicinal drug but only the headache healed and the sickness persisted.



Task:

As a	chemistry student;		
(a)	Identify the categories of the drug products used by Atim and Oyam(04 scores)		
(b)	Explain to Atim and Oyam the dangers associated with the drug products.		
		(03 scores)	
(c)	Evaluate the products used by Atim and Oyam	(02 scores)	

Item 2

While investigating the reaction of period 3 elements with water, Juma first considered two elements $\bf A$ and $\bf B$ and the results of their reaction with water is summarized in the table below.

Element	Observations		
A	Reacted violently while floating on surface of cold water forming		
	an alkaline solution with evolution of hydrogen gas.		
	Reacted slowly with cold water forming an alkaline solution and		
В	hydrogen gas but when heated with steam formed a white solid		
	and hydrogen gas		

Task:

As a	chemistry learner;		
(a)	Give the category of elements A and B .	(03 scores)	
(b)	Predict the reaction of other elements in period 3 with water	(04 scores)	
(c)	Advice Juma about the dangers associated with the reaction of these elements with water.		

3 Turn Over

SECTION B

Part I

Attempt **one** item from this part in the answer booklet(s) provided.

Item 3

One of the large scale use of sulphuric acid is to manufacture paints. Due to increased demand of paints countrywide, the government is seeking to ensure that there is a steady supply of sulphuric acid to be used to manufacture the needed paints. The government has hired an investor to set up a sulphuric acid manufacturing plant in Kimu town.



The locals of Kimu town are concerned about how the production process will be conducted, its environmental effects and how will they benefit when the plant is constructed in their town.

Task:

Prepare a presentation you will make answering concerns of the locals. (11 scores)

Item 4

Rocky ores found in Kiremu district are found to be rich in iron, a mineral used to make steel bars. The government has cleared a local investor to set up an iron extracting plant to extract vast quantities of iron from the rocky ores with minimal environmental impact. However, due to inadequate resources, the local investor has promised to first extract the <u>iron in its impure form which</u> the government accepted.



The district officials would like to know how the extraction process will be conducted and how the plant will impact their area.

Task:

Prepare a short message you would tell one of the officials concerning the plant

Part II

Answer **one** *item from this part in the answer booklet(s) provided.*

Item 5

Jombo is a swampy village with a forest reserve on its hill side. People of this village have for a long time cleared the swamps for settlement, rice farming and dumping of human waste as well as cutting down trees from forest reserve for charcoal burning. This has attracted the attention of the officials who are seeking to create awareness about conservation of the village environment through a radio talk show.



Task:

As a chemistry student, prepare a short message you would like to be delivered by one of the officials on the radio talk show. (11 scores)

Item 6

There has been a rise in destruction of natural resources countrywide for the last ten years and this has attracted the attention of officials from National Environment Management authority (NEMA).



Turn Over

The officials are planning to sensitize the people countrywide about sustainability of natural resources through a national wide television broadcast.

Task:

As a chemistry learner, prepare a write up you would deliver upon invitation to be one of the presenters on the national wide television broadcast. (11 scores)

6 END