

Name.....

Signature.....

553/1
BIOLOGY
Paper 1
Nov./Dec. 2024
2½ hours.



ACHOLI REGIONAL SESEMAT EXAMINATION

Uganda Certificate of Education

S.3 BIOLOGY

Paper 1

Time: 2 hours 30 minutes

INSTRUCTIONS TO ITEM TAKER:

*This paper has **two** Sections; A and B. It consists of **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** examination items in all.*

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

| FOR SCORER USE ONLY | | |
|---------------------|--------|-------|
| SECTION | | SCORE |
| A | ITEM 1 | |
| | ITEM 2 | |
| B | ITEM | |
| | ITEM | |
| TOTAL | | |

Turn over

SECTION A

Answer *all* the items in the section in the spaces provided

ITEM 1

Majority of the people in Nwoya district are farmers. Most of their farming is done during rainy seasons in order to maximize crop yield during time of harvest. However, a long dry spelt appeared during the rainy season which made most of the crops(plants) to shed off their leaves, flowers and withered, leading to low crop yield. This affected the farmers causing them to make a lot of losses.

Task

(a) Identify the processes being affected by the loss of these plant organs

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(b) Explain the roles, played by the different processes which contributed to the reduced crop yields.

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(c) Advise the farmers on what they could have done to avoid the losses.

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ITEM 2

Otim a senior 3 joined a group of young boys who smoke marijuana frequently in Lacor Trading Center. The group has become known for crime and violence around the trading centre.

One day Otim and the group were surrounded by the police who fired a bullet at them. This caused Otim to run away.

Task

- (a) What challenges do you think Otim may face if he continues associating with this group of young boys?

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- (b). Describe how Otim's body reacted to the gun bullet.

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- (c). Advise Otim on how he can avoid challenges associated with being in such a group.

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SECTION B

Part I

Answer one item from this part. Answers should be written in the answer booklets provided.

ITEM 3

Mr. Okello has been using his piece of land for farming and have been heavily spraying the land with weed killer and various types of insecticide after first uprooting all the trees before ploughing, he also destroyed all the ant hills in that area. This time on planting maize, Okello noticed poor growth of the maize and very low harvest, he then wondered why the poor harvest even when there were no weeds.

Task

- (a). Explain to Mr. Okello why his harvest was low
- (b). Advise him why he should not continue with such practices on other pieces of farmland

ITEM 4

A survey on lifestyle of farmers in hilly areas of Luturu in Lamwo district was recently carried out. It was found that Many of these farmers practice indiscriminate cutting of trees for farmland and charcoal production, they keep large number of animals on the same piece of land. This has led to increased washing of topsoil and flooding of the low land areas whenever it rains. The doctors in the nearby health centre also complained of the increased number of patients. The surveyor attributes the above observations to the farmers' activities.

Task

- (a). Explain to these farmers the likely causes of the above problems and advise them on the possible measures that can be used to overcome the above problem.
- (b). Why should the environment used by these farmers be conserved?

Part II

Answer one item from this part. Answers should be written in the answer booklets provided.

ITEM 5

After a morning heavy carbohydrates meal. Okello started to warm up in preparation for a competition in long races. He competed favorably, but towards the end he developed muscle cramp and was breathing heavily. However, he endured and finally won the race. After finishing his heavy breathing continued, while the muscle cramps progressively reduced. He even managed to walk back home from where he took another meal.

Task

- (a). Explain how Okello's body utilized the morning meals to enable him to win the competition.
- (b). Describe how his body overcame the challenges and successfully finished the race.

ITEM 6

S.3 student of Madi Opei S.S were to go for a study tour on Agoro hills. For the successful climbing of the hill they packed food which was majorly composed of protein. They continuously climbed the hill with a lot of excitement.

On their way up the hill, at a high altitude, they started complaining of difficulty in breathing, general body weakness and dry mouth lips, though they kept feeding on the packed food. These experiences forced them not to continue with the journey and returned to school.

Task

- (a). Explain the body changes experienced by these students.
- (b). Advise the students on how best they could have prepared to overcome the above challenges.

THE END

Name Sign

School

545/1
CHEMISTRY
Paper 1
Nov./Dec. 2024
1½ hour.



ACHOLI REGIONAL SESEMAT EXAMINATION

Uganda Certificate of Education

S.2 CHEMISTRY

Paper 1

1 hour 30 minutes

INSTRUCTIONS TO ITEM TAKER:

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

*Section **A** has **one** compulsory item. 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 **three** items in total.*

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

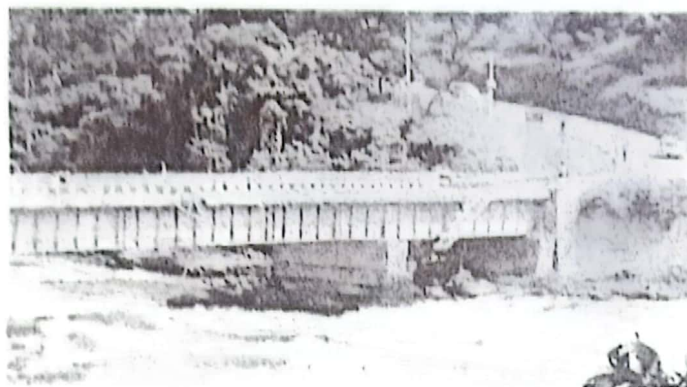
Turn over

SECTION A

Attempt all items in this section.

ITEM 1

In 1963, Uganda Government built Karuma Bridge. Due to overstay, the bridge developed cracks and the government stopped flow of traffic and movement through the bridge. Because of urgent need to use the bridge, the government has contracted a Company to rebuild using quality materials basing on their properties and nature.



As a chemistry learner

(a) explain the categories of materials the Company can use to construct the bridge.

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(b) explain the suitability of the materials you have identified.

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(c) state for what other purposes the materials can be used.

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(d) advise the company on the side effects of using the materials and how to avoid them.

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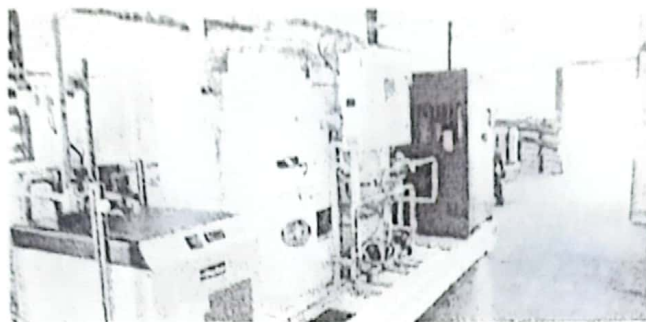
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SECTION B

Part I (compulsory)

ITEM 2

The leaders of science club of Koro SS visited Lacor Hospital known to provide oxygen to patients from its own oxygen manufacturing plant. On returning to the school, other members wanted to know the process of production, social benefits, side effects, and how to avoid them.



Task:

As a chemistry learner, make a report one of the leaders of the club would present to the rest of the members.

Part II

Attempt one item from this section

ITEM 3

Many people of Laroo in Eastern Division of Gulu City work at a stone quarry which is the main source of their income. They use hammers to break big rocks into small stones (aggregates). However, they do not know the composition, other benefits of the rocks and the impact of their activity.



Task:

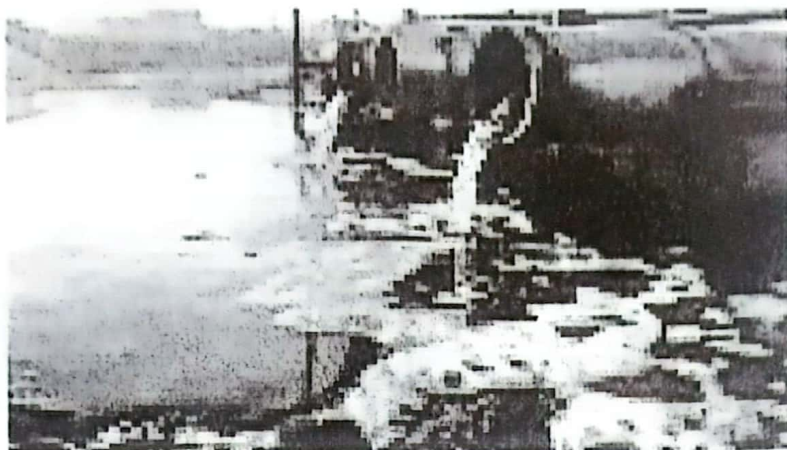
As a chemistry learner, prepare a write up to help this people understand their concerns.

ITEM 4

A Company has set up an industry near **River Ayago** in Nwoya District. The industry relies on water from this river for its operation. As a result, people near the river are complaining of unpleasant smell and colour of the water. The community near the river has reported their concern to the **Area LC1** who has called for a meeting with the Factory management.

ITEM 4

A Company has set up an industry near River Ayago in Nwoya District. The industry relies on water from this river for its operation. As a result, people near the river are complaining of unpleasant smell and colour of the water. The community near the river has reported their concern to the Area LCI who has called for a meeting with the Factory management.



Task.

As a chemistry learner, prepare a written speech you would present during the meeting upon invitation.

END