

Candidate's Name:	Random No.	Personal No.
Signature:		

(Do not write your School Name or Number anywhere on this booklet.)

553/1
BIOLOGY
(Theory)
Paper 1
Jul./Aug. 2024
2½ hours



WAKISO-KAMPALA TEACHERS' ASSOCIATION (WAKATA)

WAKATA MOCK EXAMINATIONS 2024

Uganda certificate of Education

**BIOLOGY
(THEORY)**

Paper 1

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of seven examination items. It has two sections; A and B.

Section A has three compulsory items.

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

Answer five items in all.

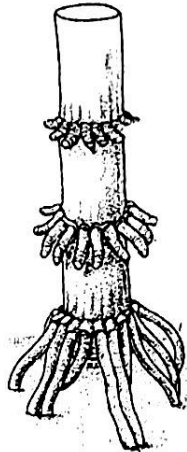
Any additional item(s) answered will not be scored.

SECTION A

Answer all the items in this section in the spaces provided.

Item 1.

Mr. omunyokol is a senior farmer in Serere district. His crops are close to a football pitch where young boys of Abuket primary school play football when at home. Due to the closeness to the football pitch, the young boys uprooted Mr. Omunyokols crops and kept throwing them all over the roads that lead to the pitch. Figure 1 below shows the root of one crop uprooted in the garden.



Task:

Fig. 1

- (a) Identify the root modification shown in the photo of the crop uprooted. (01 score)

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- (b) State the role of the modification to the plant. (01 score)

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- (c) Mention any **three** plants with the above root modification. (03scores)

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- (d) Outline any **five** functions of roots to plants apart from that shown in the modification above. (05 scores)

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Item 2.

A group of learners had a nature walk study around the game park in which they observed the following organisms; antelopes, lions, zebras, grasses, eagles and vultures.

Task:

- (a) Use the food web to show how the organisms interact in the above ecosystem (06 scores)

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- (b) Explain what will happen to the population of other organisms if the **lions** were eliminated in the park (04 scores)

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Item 3.

In 2023, three different groups of learners of S1 undertook a project of maize growing in the same area. A team of examiners moved around their plots and made the following observations as shown in the table below.

Group	Observations			
	Colour of maize leaves	Maize intercropped with groundnuts	Chicken and goats droppings added	Maize yield
A	GREEN	YES	YES	HIGH
B	YELLOW	NO	NO	LOW
C	GREEN	YES	NO	AVERAGE

[illegible]

SECTION B

Part I

Answer only one item from this part. Answers should be written in the answer booklet(s) provided.

Item 4.

Communities that live near fresh water bodies in Uganda usually suffer from diseases caused or transmitted by organisms that live in or near water. The diseases are malaria and bilharzia. The ministry of health would like to have a vector and disease control program targeting people living near water bodies and you have been invited to be part of the sensitization team.

Task:

As a biology student, prepare a short presentation you will deliver to the locals to control any one of the diseases using the knowledge of life cycles of the organisms. (15 scores)

Item 5.

In your community there was a disease outbreak that spread rapidly in crowded places especially when one gets in Contact with body fluids of an infected person. The disease has spread to many parts of the country, causing fear among people as the hospitals are being overwhelmed by the great number of patients.

Task:

As a biology student, devise a plan sensitizing your community about the disease outbreak. (15 scores)

Part II

Answer only one item from this part. Answers should be written in the answer booklet(s) provided.

Item 6.

The government of Uganda has been championing the program of wealth creation all over the country especially in the rural areas. This has been boosted through parish development model (PDM) funds. One of the groups in your village ventured in fish farming project on receiving the PDM funds, this project grew well but after two years the fish started dying mysteriously in the pond. Also noted was bad smell and the entire water turning green. The group members have failed to understand this calamity and have come to you for help.

Task:

Prepare a report you will give to the group to help them address the problem. (15 scores)

Item 7.

Amese village in eastern part of Serere district is faced with a problem of drought. This has made plants to shed off their leaves making photosynthesis difficult in these plants. The community members are scared of famine since their plants won't give good crop yields. The LC 1, Mr inyaliio Christopher has planned to hold a training in his village to educate locals on how to overcome this challenge so that plants can photosynthesise. However, being a P.7 drop out, he lacks more knowledge on what a good plant should have in order to make food.

Task:

As a student of biology, site out the various adaptations that a good plant should have for photosynthesis to occur in it such that the LC1 can develop a good basis of his meeting?

(15 scores)