

Candidate's Name:

Signature: Personal No.

553/1

BIOLOGY

Paper 1 2024

2½ Hours

ASSHU BUSHENYI MOCK EXAMINATIONS 2024

Uganda Certificate of Education

BIOLOGY

Paper 1

Theory

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.

For Examiners' use only

Item	Score	Examiners' Initials
1		
2		
3		
4		
5		
Total		

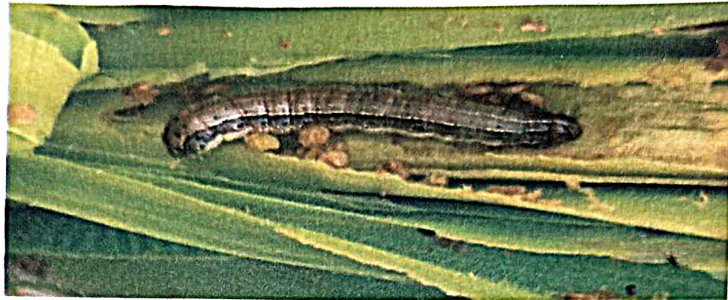
SECTION A

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

ITEM 1.

Mr. Kizito's maize was growing well before the rains stopped suddenly. In the absence of rains, his garden became infested with caterpillars at the flowering stage, damaging various structures. However, the caterpillars later disappeared when the rains came back and the maize gave some yield.

Support Material



Task

- (a) Which plant structures were affected by the infestation?

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- (b) Explain how the various processes were affected during the period when it was infested.

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- (c) How was the maize able to give some yield?

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ITEM 2

Annet has been having eye strain for the last two months. Her seat is located at the back of the class room. When she tries to view what is written or drawn on the chalk board from her seat, the words or drawings are unclear and her work has gaps. Last week, the Biology teacher entered their class to check for notes and drawings and Annet's heart beat and breathing rate increased when the teacher was approaching her.

Support Material



Task

(a) Explain how Annet's conditions were brought about as the teacher approached her.

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(b) Using illustrations, explain the condition of her eyes.

(c) Explain how Annet can overcome her challenge to study more comfortably.

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ITEM 3

Mary, aged 15 years and a student at Kabale High School engaged in a relationship with Peter, a business man in Kabale. After a few months, she got pregnant. Peter went on the run and Mary went through many challenges but fortunately gave birth to a baby boy who is a sickler. Upon Peter's return, blood tests were carried out for blood groups and results obtained. Peter denied being the father of the child basing on the results.

Support material

Individual	Blood group
Mary	A
Peter	B
Child	O

Task

- (a) Explain how it is possible for Peter to be the father of the child.

- (b) What are the likely risks and challenges that Mary went through before delivery?

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- (c) How can Mary ensure the child's survival?

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SECTION B

PART I

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

ITEM 4

An investor was given permission to set up a factory in a wetland in a suburb in Kampala city. He poured large volumes of soil in the wetland, leveled it before construction was done. However, the residents involved in weaving complain about scarcity of natural raw materials, the beautiful crested cranes that used to attract tourists to the area are now rare, cases of respiratory diseases are on the increase and during the recent rains, the water channel in the area burst its banks and people's property was destroyed.

Support Material



Task

Explain the challenges faced by the residents in the area and suggest what can be done to address the challenges. Why is it important to cancel out the permission given to the investor in that area?

ITEM 5

During the recent dry season as Mr Opio was clearing his small garden for agriculture, he set the vegetation on fire. The fire spread over the entire large wetland nearby, producing thick fumes into the atmosphere and heat. People in the area are now complaining of destruction of their crops by monkeys, scarcity of raw materials for construction and the hunters can no longer get any catch.

Support Material



Task

Explain how Mr Opio's action affected the area and suggest what can be done to avoid further negative effects.

Why was it important to keep that area undestroyed?

PART II

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

ITEM 6

Mr Kasozi had a starchy meal before going for his garden work. He started digging with vigor but later felt muscle pain and fatigue. He decided to sit down but continued to experience rapid breathing which later stopped and the pain later disappeared. When he ate some sugarcane from the garden, he was able to dig again and later walked home.

Task

Explain the processes that the starchy meal went through to benefit Mr Kasozi in his work and how the challenges he experienced during digging came about.

How was his body able to overcome the challenges experienced until he reached home?

ITEM 7

In an attempt to maintain her slender figure, Aisha decided to avoid having solid meals. She depends mainly on some little snacks and water. However, she has become bony, is stressed, frequently falls sick, requires transfusions, and has started developing a swelling in the neck. Recently, she fainted while giving a presentation in a workshop. The doctor advised her to change her lifestyle if she is to live a healthy life. He recommended a diet consisting of posho, egg albumen, green vegetables, citrus fruits and Iodised salt, which if followed can improve her health.

Task

Describe the processes that the egg albumen will undergo in order to benefit her. Explain the challenges that her body is going through and how the doctor's recommended diet will overcome them.

END