

Candidate's Name:

School:.....

Signature:.....

Centre No.				Personal No.		
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553/1
BIOLOGY
 (Theory)
 Paper 1
 July/Aug. 2025
 2½ hours



HOIMA DIOCESE EXAMINATIONS BOARD

UCE Mock Examination, 2025

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.

Answers to section B should be written on the answer booklet provided.

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

For Assessment use only		
Item	Score	Scorer's initials
1		
2		
3		
4		
5		
6		
7		
Total		

SECTION A

Attempt all items in this section in the spaces provided.

Item 1

Peter planted beans in his piece of land located in a valley. The plants had green leaves and had many flowers. Due to stagnant water in the garden, the leaves of the bean plants turned yellow and later fell off, many flowers withered and fell off and the roots became rotten leading to death of most the bean plants. However, the cocoyam plants in the same piece of land with numerous adventitious roots, broad leaves with thin cuticle, and large air spaces in their stems survived.

Task

(a) Explain how the stagnant water affected the normal functioning of Peter's bean plants.

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(b) How did the cocoyams manage to survive the conditions in the garden?

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A ₁		
A _c		

Item 2

James was persuaded by a criminal gang to plant marijuana for sale. One day, the police wanted to arrest him. As he was running away, he accidentally stepped on a sharp thorn and suddenly limped. He managed to remove the thorn from his foot and ran to safety. However, the wound from the injury could not heal. He has also developed excessive thirst and urinates frequently. He has also developed a large swelling in the neck region.

When he went to hospital, he was informed that his health challenges were due to insufficient hormone secretion.

Task

(a) Identify the health conditions causing James' challenges.

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(b) Explain how his body reaction came about as he got the sudden accident.

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U ₁		
U _c		

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U _i		
U _e		

(b) What advice can you give to Jane so as to live a better life?

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A _i		
A _e		

SECTION B

Answer two items from this section.

PART I

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

Item 4

A certain city has been faced with many challenges due to wetland destruction. People near these wetlands have cleared vegetation, pour large volumes of soil in swamps to construct houses and factories, they also dump plastics into the wetlands and release untreated industrial wastes in these wetlands.

The authorities attribute the challenges to these practices and recently, they decided to demolish/destroy buildings that had been constructed in a large wetland and evicted/chased away all the people who were staying in the wetland area. However, the evicted people were unhappy with the authorities' action.

Task

- (a) Explain how people's actions caused challenges in the area.
- (b) What could be done to minimize the challenges in the area?

Item 5

Last year, residents near a certain lake faced many challenges, including frequent flooding, reduction in fish caught from the lake, disappearing of birds that used to stand on the lake shore and change in colour and smell of the lake water. This was attributed mainly to the illegal sand mining activities from Lake by some investor.

The Authorities intervened and stopped all the activities but the investor was unhappy.

Task

- (a) Explain how the challenges were brought about by the investors' actions.
- (b) Why was it important for the authorities to intervene?

PART II

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

Item 6

During the inter-team football competitions, Nile team had a match against Victoria team. Ten minutes to the start of the match, the team manager of Victoria team served his players with a heavy meal of posho and beans while that of Nile team served his with glucose and water. During the match, Victoria team players were feeling weak and were beaten by Nile team. After the match, one of the Nile team players was seen breathing rapidly, over sweating and his heart pumping rapidly but he later cooled down. However, Victoria team managed to win their second match when they played with another team, 3 hours after the meal.

Task

- (a) Explain the processes that the meal given to Victoria team members went through to benefit the players in the second match.
- (b) How did the body changes observed on the Nile team player enable him to overcome challenges in his body?

Item 7

Robert has been working in a cigarette factory for 10 years. He smokes with fellow workers inside the poorly ventilated factory building. He rarely brushes his teeth and also has low appetite for solid meals prepared at home. He instead enjoys cold snacks sold in the open on the streets as he goes home after work. He developed an illness characterized by breathing difficulties, weight loss, diarrhoea and toothache. In the hospital, Robert of blood group O needed a blood transfusion but it was difficult to get a suitable donor. Robert's wife of blood group A was ready to offer a blood donation to save her husband but got annoyed with the Doctor upon being informed that she could not do so.

Task

- (a) Convince the wife to understand the Doctor's information.
- (b) Explain how the illness was brought about by his working conditions and diet.
- (c) Suggest what can be done to manage Robert's illness to enable him survive for long?

END