

CANDIDATE'S NAME: SIGNATURE:

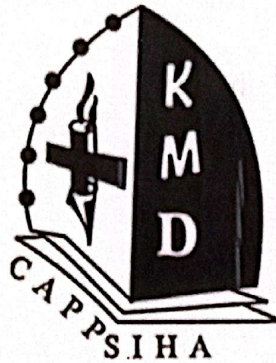
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Biology

Paper 1

2½ Hours

July/August 2024



KIYINDA – MITYANA DIOCESE

CATHOLIC POST PRIMARY SCHOOLS / INSTITUTIONS HEADS ASSOCIATION (C A P P S I H A)

Uganda Certificate of Education
JOINT MOCK EXAMINATIONS 2024
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. Ocen's sorghum plants were growing under a shade of a tree and were very thin. When the shade was removed by pruning the tree, the plants curled their leaves and became hairy and weak. The leaves also turned yellow with purple margins and the roots became stunted but the plants survived. However, upon receiving rains, the plants recovered and gave a high yield.

Task

(a) Which challenges did the plants face?

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(b) Explain how the plants were able to survive amidst the challenges.

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(c) How were the plants able to recover and give a high yield?

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ITEM 2

Due to self-medication, Simon developed health complications including general body weakness and a swelling in his neck. When he reported to hospital, the laboratory report showed that his urine contained sugar and that his bone tissue was soft and spongy. The Doctor informed him that the conditions were due to a faulty endocrine system.

Task

(a) Explain how the various conditions came about.

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(b) What are the challenges associated with his neck condition?

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- (a) How can the condition affecting his urine be managed?

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ITEM 3

Charles and Diana got officially married 20 years ago and have five girl children. After demanding his wife for a boy child for so long, Charles decided to engage a reckless sexual behavior with other women but still got girl children outside the wedlock. Unfortunately, he got infected with HIV. Their first daughter, Jane reached puberty and is experiencing many changes that have brought about many challenges affecting her stay at school.

Task

- (a) Genetically show to Charles why he should stop his demands to the wife.

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- (b) What are the likely challenges that Jane is going through in her current situation?

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- (c) How can Charles overcome the challenges brought about by his behaviour to survive for long?

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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

Recently the Government of Uganda banned the making and transportation of charcoal from areas that have been adversely affected and are prone to desertification. However, Mr. Okot and other residents who have been earning a living from the charcoal business think that the Government is

aiming at keeping them in poverty and are planning to carry out a demonstration. The LCI chairperson and the area police has refused to give them permission claiming that all the challenges that have come up in the area have been brought about by the business.

TASK

Explain to the residents the likely challenges brought about by their business and suggest ways of restoring the affected areas to their original undisturbed state.

Why is it important for the Government to ban that business?

ITEM 5

Due to much demand for fish in the market, Mr. Magembe decided to start using an indiscriminate fishing method. He also cleared the shoreline of all vegetation to establish a large landing site. However, the residents and his customers started complaining of abdominal pain and diarrhoea, the water became smelly, many aquatic animals were seen dead and floating on the water and some were seen on land, destroying peoples' crops, the fish became even scarcer and whenever it rains, the water near the shore becomes unclear.

TASK

Explain the challenges brought about by Mr. Magembe's actions and suggest what could be done to overcome them.

Why is it important for Mr Magembe to stop his actions?

PART II

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

ITEM 6

Mr Mathias has been smoking cigarettes for the last 20 years.

He has persistent cough, started feeling fatigue and one of his hands can no longer move. Nowadays, he is often ill even from simple diseases like flu. The Doctor informed him that his respiratory and circulatory system is unable to function efficiently due to his lifestyle. When he recently needed a blood transfusion, he found difficulty in getting the suitable blood in the hospital. His wife was willing to donate blood to him but after some tests, her blood was rejected, which made her annoyed.

TASK

Assist the wife to understand why her blood was rejected.

Explain the health challenges brought about by Mr. Mathias' lifestyle and how they can be managed.

ITEM 7

In an attempt to maintain her slender figure, Sarah decided to avoid having lunch and supper. She depends mainly on water with simple snacks. However, recently she has become bony, frequently falls sick, has soft bones, cannot see well at night and has turned pale, which has lowered her esteem and this has affected her stay at school. She fainted while giving a presentation in class and was rushed to hospital. The doctor advised her to change her lifestyle if she is to live a healthy life and recommended a diet consisting of maize porridge mixed with milk. He also advised her to take some supplements which if followed can improve her health.

TASK

Describe the processes that the Doctor's recommended diet will undergo in order to benefit her.

Explain how the various challenges will be overcome by the doctor's recommended supplements in order to raise her esteem?

END