

Student's name..... Signature

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BIOLOGY
(Theory)
Paper 1
NOV. /DEC. 2024
2½ hours

S.3



UGANDA CERTIFICATE OF EDUCATION.
COMPETENCE BASED ASSESSMENT EXAMINATIONS
BIOLOGY (THEORY)
PAPER 1
END OF YEAR EXAMINATIONS
SENIOR THREE

2Hours: 30 Minutes

Instructions.

*The paper consists of seven examination items. It has two sections A and B. Section A has **three compulsory** items. Section B has **four** items, grouped in two parts; **Part I and II**. Attempt **one item** from each part.*

*Answer **five** items in total and any additional item answered won't be scored.*

Poor handwriting leads to loss of marks.

*Responses (answers) for section A must be **written in spaces** provided and those of section B on the answer sheet given.*

Item	1	2	3	4	5	Total score
Scores						

SECTION A.

All items are compulsory.

Item 1

Mrs. Ndagire is a qualified herbalist in Masaka district. She obtains herbal medicine from different plant structures either by plucking off leaves, digging out roots, removing of barks of trees or uprooting out the plants. The population of medicinal plants has reduced due to her poor harvesting methods, which has made her medicine expensive on the market.

Task

(a) Identify the plant processes affected by her poor harvesting methods. **[03 scores]**

(b) Explain how her poor harvesting methods affected the normal functioning of medicinal plants? **[08 scores]**

(c) How are the medicinal plants able to survive despite the poor harvesting methods of Mr. Joseph? [04 scores]

Item 2

Due to peer influence by colleagues, Peter started smoking marijuana and drinking of alcohol at a young age. His 70 year old father has for long experience frequent urination, general body weakness, blurred vision, while the mother has swollen neck; with frequent sharp back pain and bone pain and cannot see near objects well.

Task

- (a) Identify any **four organs** likely to be affected in the members of the family and state the **roles** of the identified organs in body. [04 scores]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings on the paper.

[illegible]

Item 3

From 2022; Joan a 16 year old student started experiencing several physical and behavioral changes in her body. In September 2023, she test HIV positive and was also pregnant for a fellow youth; who denied the pregnancy but had skin rash and swollen lymph nodes, and reduced body size.

Task

- (a) Describe the physical and behavioral changes that occurred in the girl. **[04 scores]**

Behavioral changes

Physical changes

- (b) Explain how the girl could have acquired the pregnancy and HIV. **[05 scores]**

(c) State the likely effects to the girl due to her actions and advise her on how to overcome the likely effects in her life. **[06 scores]**

Effects

Advice

Section B

Attempt **one** item from each part in this section.

PART II

Attempt **one** item from this part.

Item 4.

Basing on the distribution of gross domestic product (GDP) across economic sectors from 2018 to 2021, A report showed that contributions of agriculture sector reduced from 43.34% to 41.85%. The reduction was thought to be due to different agricultural practices/activities by different farmers that have negatively impacted the environment and reduced its sustainability.

Support material



Figure 1: it shows the some of the human activities

Task

- (a) Explain the different ways how several agricultural practices could have negatively impacted the environment. **[07 scores]**
- (b) Describe how the different impacts can be minimized and state the benefits that may result due to practicing the suggested measures. **[08 scores]**

Item 5

A medical research report about the health of people staying near Lake Victoria indicated that the cases of malaria, cholera, HIV and other sexually transmitted diseases have increased greatly. People are worried of the increasing death cases and are calling for government intervention.

Task

- (a) Explain the possible causes of the different diseases affecting people nearer the water body. **[07 scores]**
- (b) Suggest solutions on how to manage the health problems and advise the community on about the benefits of conserving Lake Victoria. **[07scores]**

PART II

Attempt one item from this part.

Item 6

From the time Betty stopped breast feeding her son, the son has been experiencing several healthy conditions most especially developed a swollen belly, had low weight, stunted growth and always sickly. When taken to hospital, the doctor recommended the mother to change the diet of the child by feeding the child on foods like eggs and fish. The mother was surprised since after two months, the child had improved greatly with increasing size and weight.

Task:

- (a) Describe the processes the recommended foods by the doctor underwent to greatly improve child's health condition. **[10 scores]**
- (b) Suggest other recommendations to the mother to ensure normal growth of the child. **[05 scores]**

Item 7.

James has for the past 20 years been smoking tobacco. He started exhibiting signs and symptoms of High blood pressure, shortness of breath, painful gums and bleeding gums, and has developed signs of serious stroke.

Task

- (a) Identify the affected body organs and describe how the normal functioning of the body organs identified was affected. **[09 scores]**
- (b) Suggest possible solutions for James to overcome the health conditions developed. **[06 scores]**

END

WE WISH YOU MERRY CHRISTMAS AND HA PPY NEW YEAR