

NAME_____SIGN_____

NAJJA EDUCATION CENTRE S.S.
END OF TERM III SUMMATIVE ASSESSMENT 2024
SENIOR TWO
Biology Theory (553/1)
Time: 2 hours

INSTRUCTIONS

- *Attempt all items in section A.*
- *Responses to items of section A should be written in the spaces provided.*
- *Choose two items from section B, one from each part.*
- *Responses to items of section B should be written on answer sheets provided.*
- *Present your responses neatly to avoid loss of marks.*

FOR EXAMINER'S USE ONLY

SECTION	ITEM	SCORES
A	1	
	2	
	3	
B		
TOTAL		

SECTION A

Attempt all items in this section.

Item 1

Kagwa's maize was healthy during the rainy season. However, large sized caterpillars bored in to and destroyed the stems. Kagwa uprooted one of the affected plant and found its roots were also eaten by termites. After some days, the leaves of the maize plants turned yellow. When he was interrogated, Kagwa admitted that he has already made losses this season because he suspected a reduction in the quantity of the yields.

Task

a) Identify the life processes that were affected within the maize plants.

b) Explain how damages of the maize plants by caterpillars and termites made Kagwa to suspect poor yields that season.

c) Suggest how Kagwa can improve his yields to not operate in losses.

Item 2

A village couple gave birth to a son on the road going to the healthy centre. Since they managed to deliver well, they hesitated to reach the health centre. After 5 years, their child was found to have severe headache, paralysis, pain in the limbs and delayed to grow and move. The child also has stiff neck, tender and stiff limbs and trouble in certain body processes. On diagnosis, the child was discovered to have polio.



A polio victim child

Task

a) Identify the body processes that polio can affect in the child's body.

b) Explain how the effects of polio hinder normal functioning of the child's body.

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c) State what the couple should do to overcome such challenges in the family.

Item 3

Kazibwe, a farmer in Kyateri village planted cassava stem cuttings. Immediately after planting, the village experienced heavy rainfall which resulted in to floods that persisted for one week. When the floods dried out, some stems were seen to grow out of the soil after 2 days while most of the stems failed to grow. Kazibwe is worried about the harvests from his cassava plantation.

Task

- a)** Mention the life processes in the stem cuttings that were interrupted by flood.

- b)** Explain how the floods resulted in to the observed differences with in the cassava plantation after some time.

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c) State possible ways that can enable him to improve on the yields.

SECTION B

Attempt two (2) items in this section.

Part 1

Choose one item from this part.

Item 4

In Ssembabule district, cattle farmers have large herds that move long distances looking for water and pasture. They severely eat the plant material in their way leaving almost bare grounds. The place is flat and experiences strong winds, and eventually crop farmers have complained to the government about the low crop products in the district despite of the many cattle.



Fig. Herd of cattle

Task

- a)** Explain the likely dangers of the method used by cattle farmers and how it results in to reduced crop productivity in the area.
- b)** Suggest measures that the government should practice to ensure the challenges are managed and describe the importance of conservation of nature.

Item 5

Walukuba-Masese in Jinja is an industrial area. Due to establishment of many factories, people have severely settled in the area extending to swamps around the industrial area giving up Jinja slum areas. Residents of the area dump domestic wastes in to water streams on addition to the industrial sewage, that end-up in Lake Victoria. This has resulted in to various health-threatening conditions in the area.

Task

- a)** Explain the challenges that are experienced in the area and mention the likely effects of the practices.
- b)** Emphasize the need for maintenance of nature in this area.

Part 2

Choose one item from this part.

Item 6

Shenu is an S.2 student who was sent home for school fees where she spent 2 weeks. Shenu stands 1.6 metres. While at home, she engages in physical exercise, after which she takes many days without doing it again. She consumes a lot of scrambled eggs with much lemon juice. When she started experiencing unusual changes in her body, Shenu decided to measure her weight, that was found to be 38.4 kilograms. She is now scared of going back to school due to the abnormal body size.

BMI	Nutritional status
Below 18.5	Underweight
18.5-24.9	Normal weight
25.0-29.9	Overweight
Above 30	Obese

Task

- Explain how Shenu's lifestyle changed her body shape within the two weeks and give the likely effects of the changes to her life.
- Suggest the possible advice so that she can go back to school without fear.

Item 7

Kagwa went in the village to visit his grandmother in the holiday. In the village, Kagwa has 2 heavy meals of milk with ground nuts in the morning, and beans and posho in the evening, different from the 4 meals he used to have at school. After 1 month of the holiday, Kagwa was diagnosed to have ulcers, which he was told that it caused his weight loss and severe general weakness. Ulcers result in to damage of the walls of the stomach and duodenum. This has worried him since he is most likely to miss school the following term.

Task

- Identify the body processes that are affected by the disease and explain they resulted in to weight loss and weakness despite of the nutrients in Kagwa's diet.
- Mention the possible ways Kagwa can prevent intense effects of digestive diseases.

End