

MENTOR HIGH SCHOOL KITENDE

COMPETANCE BASED ASSESSMENT EXAM

BEGINNING OF TERM 1 EXAMS 2025

S.4 BIOLOGY PAPER I

TIME 2 ½ HOURS

NAME.....SIGN.....

INSTRUCTIONS TO CANDIDATES

Attempt all items

ITEM 1

Fred a farmer in Kitale village established a large tree plantation. His young trees were growing well but at some point he noticed that a large number of trees were drying up.

On close examination, he noticed that some of the roots had been destroyed, bark stripped off from the lower part of the stem. Trees on the hilly areas were also stunted with yellow leaves while those at the bottom of the hill were taller with green leaves.

Task

- (a) Explain to Fred why some of his trees were drying up, others being stunted with yellow leaves. (6 scores)

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(b) Advice Fred on what he can do to reduce further damage to his trees (3 scores)

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ITEM 2.

Derrick a 17 year old boy, who is bright in class. However as a result of his peers, he started taking alcohol and marijuana which prompted him to always escape from school, declined in performance, stealing plenty of cash from parents. One day when the subject teacher Mr.Ssematimba was organizing the class, Derrick refused to sit at the back insisting that he could not see clearly on the chalk board while at the back.

SUPPORT MATERIAL



Task

- (a) Explain the reason as to why Derrick insisted not to sit at the back of the class room when the teacher was pushing him (6 scores)

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- (b) What are the likely outcomes of Derrick's Lifestyle? (3 scores)

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(c) What advice can you give him (3 scores)

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ITEM 3

Fifteen years ago, Reign was very small, short and young girl. Last time her aunt visited their home and found out that she had undergone a lot of changes allover her body. She noticed that she had added a lot of weight and was very tall like one of her parents. In her family, the father is very tall while the mother is very short. Now days her mother oftenly ensures that Julianna is at home to protect her from attempts of early childhood pregnancies and other reproductive problems.



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(c) Explain to Reign the likely effects associated with early childhood pregnancies and other related reproductive problems encountered by youth today (3 scores)

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SECTION B (Choose 1 item from each part)

PART 1 CHOOSE ONE ITEM

ITEM 4

Many farmers practicing farming in hilly areas in Uganda especially in Bulambuli are facing many challenges in their farmlands due to landslides that occurred in that area recently increased washing of top soils to low lying areas during rainy season. This has greatly affected productivity in such area and many people have lost their lives.

SUPPORT MATERIAL



TASK

As a soil scientist, explain to these farmers the likely causes of the above problem. Advise them on the possible measures that can be used to overcome the above problem. (15 scores)

ITEM 5.

River Mpologoma is covered by thick papyrus vegetation and slow moving waters. Residents are cutting the papyrus, cultivate along river banks and use mosquito nets for fishing. Recently, many residents are falling sick and they complain of reduced fish in the river.

SUPPORT MATERIAL



TASK

- (a) Explain how the activities of the residents have caused the challenges they are facing.**
- (b) Suggest the possible recommendations to address these challenges. (15 scores)**

PART II (CHOOSE I ITEM)

ITEM 6

Fatumah a senior 4 girl was experiencing general body weakness a week towards school inter-house athletic competitions and thus was scared that she may not participate in these competitions. The school nurse didn't find her with any disease and advised her to first eat before engaging in any sports activities especially on the competition day, which she did by taking a meal containing posho and beans.

After resting for about an hour, she felt stronger and managed to even win her race. However after the competition, Fatumah experienced deep breathing and muscle pain causing her to walk with a lot of difficulty.

SUPPORT MATERIAL



TASK

Describe the process that led to the success of Sarah and why she experienced deep breathing and difficulties in walking. How did she eventually recover? (15 scores).

ITEM 7

John, whose mother has hepatitis B was involved in a motor accident. He hit his head, lost a lot of blood and became unconscious. He rushed to a nearby health center IV where they found that he is of blood group AB and also had injured his kidneys. The doctor advised that John should undergo blood transfusion in addition to other medication.

The health Centre did not have blood but John's relative with safe blood were willing to donate blood to save his life. However, they were confused as to who of them could donate blood.

Table 1 below shows groups of John's available relatives.

Relative of John	Blood group
Cousin	A
Mother	B
Sister	AB
Brother	O

SUPPORT MATERIAL



TASK

- (a) Explain how the accident affected the functioning of John's body.
- (b) Without referring John to another hospital, suggest with reasons, which relative could donate blood to John. (15 scores)

END

DONOT GIVE UP, U'RE ALMOST THERE.