NAME: …… STREAM……..

553/1
BIOLOGY
THEORY
PAPER ONE
1¾ Hours

END OF TERM TWO ASSESSMENT, 2026

S.2 BIOLOGY

THEORY

PAPER ONE

DURATION: 1 Hour 45 Minutes.

INSTRUCTIONS.

- ✓ This paper consists of Section A and Section B.
- ✓ Section A consists of three compulsory items.
- ✓ Responses to Section A must be written in the spaces provided and nowhere else.
- ✓ Section B consists of two items. You are required to respond to only one item in Section B.
- ✓ Responses to items in Section B should be written on answer booklets provided. No extra items will be marked.

EXAMINER'S USE ONLY

ITEMS	SCORE	TEACHER'S INITIALS
1		
2		
3		
4/5		

ITEM ONE:

A farmer planted a large garden of cassava expecting a good harvest. A few weeks after planting, he noticed that many of the leaves had been eaten by caterpillars, leaving only the veins behind. As the crops continued to grow, termites attacked the underground roots, boring holes into them and feeding on the tissues. As a result, the cassava plants became stunted, produced few and smaller roots, and the overall yield was greatly reduced.





Figures a) and b) in order above show the affected leaves and the root part of the plant respectively.

Task;

a) Explain how the actions of the termites and caterpillars affected the processes in the cassava plant.

b) The farmer opted to use a particular pesticide that would directly kill the caterpillars an idea that was discouraged by the District Education Officer (DEO) saying that caterpillars would be at a later stage important in the eco system, explain why the DEO thought so.

ITEM TWO;

In Nakanpiginya village, a healthy center reported that several people had developed a disease characterized by fever, dry cough, difficulty in breathing, tiredness, and loss of taste and smell. The healthy workers advised the community to follow preventive measures to reduce the spread of the infection citing that it is the same infection that hit the world in the year 2020.

Task;

a) State the name of the organism responsible for the infection, and with reasons, the Kingdom to which the organism belongs.

Name of the organism; ……..

Kingdom; ……

Reasons;……

b) Suggest the different ways of how the infection can spread from one individual to another.

c) How can the village protect its self from the above mentioned infection?.

ITEM THREE;

A family started a bakery business and stored bread in a warm, damp room. After a few days, some loaves developed cotton-like growths of different colors and became unfit for consumption. At the same time, another member of the family was seen adding packed organisms in form of ingredients while mixing dough, this made it rise before baking.

The family is now confused about how some organisms seemed to spoil food while others were useful.





Pictures a) and b) above show spoilt bread and risen dough respectively.

a) Suggest the names of the organisms involved in both spoilage of the bread and raising of the dough.

b) With reasons, state the kingdom to which the above named organisms belong.

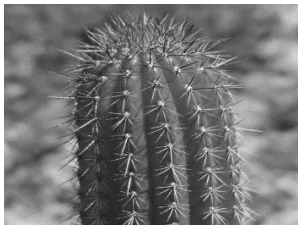
c) Name any other two organisms found in the same Kingdom as mentioned above and give their economic importance to man.

SECTION B.

ITEM FOUR;

A group of S.1 Biology students visited a Botanical Garden to study the adaptations of plants growing in different habitats. During the visit, they observed that although all the plants have leaves, the leaves differ greatly in structure, shape, size, color and function. The Botanist explained that these modifications enable plants to survive in different environments and perform various functions. The learners observed and took pictures of the modified leaves from different spots of the garden but were still puzzled and confused about the Botanist's teaching.



Pictures a), b), c) and d) in that order above were collected by the learners.

Task;

As a senior two student who is well versed with the knowledge of modifications in plant structures, write a report that would solve the learner's problems giving examples of species where applicable.

ITEM FIVE;

Mr. Mungonya is a crop farmer wishes to plant both maize and beans this season. Beans can only grow well when they are planted in soils of a higher percentage water composition, while maize can grow well in soils with a lower percentage water composition. Two soil samples A and B were obtained from two different fields of Mr. Mungonya and same scientific investigation was carried out on them whose results are provided below.

Weight of the dry clean evaporating dish = 5 g
Weight of evaporating dish + fresh soil sample A = 35 g
Weight of evaporating dish + dry soil sample A = 29 g
Weight of evaporating dish + fresh soil sample B = 35 g
Weight of evaporating dish + dry soil sample B = 30 g

Task;

(a) Analyze the above results and advise Mr. Mungonya appropriately on which field he should plant the maize and beans.

(b) Suggest any two possible ways from the results how the student tried to minimize errors in his scientific investigation.

(c) Make a brief write-up showing the importance of the soil component (under investigation) to the growth of both maize and beans.

(d) Apart from Mr. Mungonya identifying the right soils for plantings his crops, suggest other ways how he can improve on the produce from his crops.

END