

NAMUNGOONA SALAF SECONDARY SCHOOL

END OF YEAR ASSESSEMENT, 2022

DEPARTMENT OF BIOLOGY

SENIOR TWO

BIOLOGY P1

(THEORY)

1hour 30minutes.

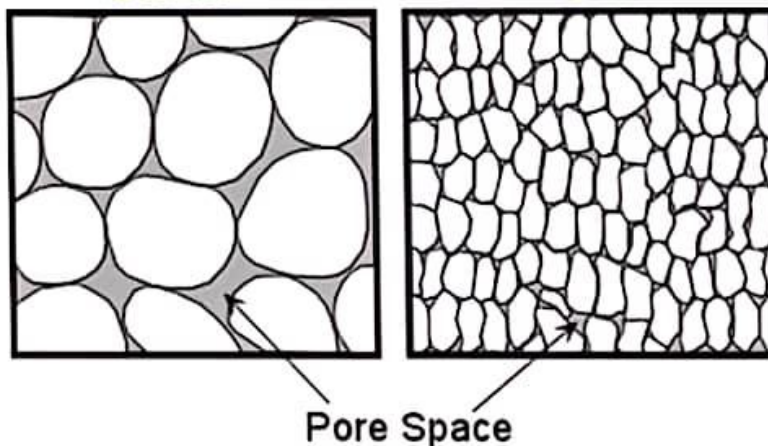
Name.....Stream.....

Instructions

- This paper consists of two sections **A** and **B**. All questions in section **A** are **compulsory**
 - For section **B** attempt only **one** question
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SECTION A. (45marks)

1. The figures below show soil samples A and B collected by senior two students. Study them carefully and answer the questions that



- a) Identify each soil sample and give reason for each. (04marks)

Soil sample A.....

Reason.....

Soil sample B.....

Reason

- b) Equal volumes of the soil were put in a funnel resting on a beaker and then 20cm^3 of water was poured into them. The volume of water collected was then determined.

Soil sample	Volume of water added (cm^3)	Volume of water collected(cm^3)
A	20	8
B	20	15

- i) Identify the property being investigated in part (b).(01mark)

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- ii) Calculate the percentage of water retained by each soil sample. (03mark)

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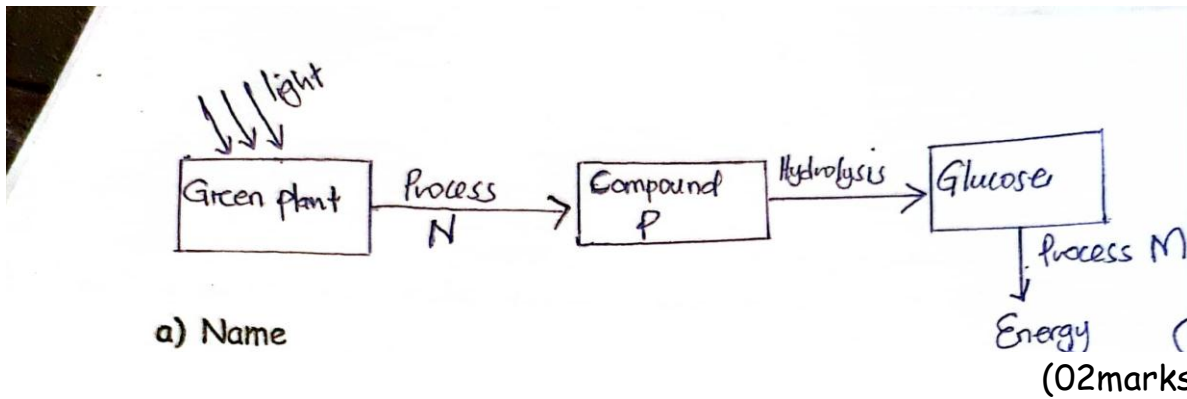
- iii) From the above results in b(ii), state the soil sample suitable for plant growth and give a reason for your answer. (02marks)

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2. The illustration below shows a set of biological processes which occur in a green plant



Process N

Process M

- a) Identify compound P. (01mark)

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- b) State any other environmental condition for process N to occur.

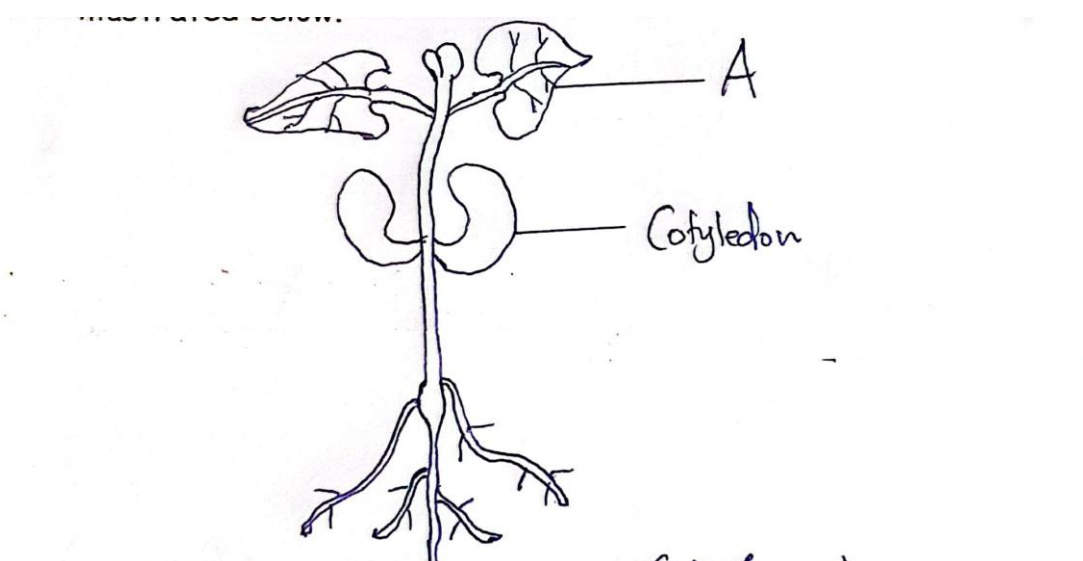
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- c) How is process N different from process M? (01mark)

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3. A group of S.2 class planted seeds in a **well-watered** soil. After 5 days they uprooted the seedling and drew its structure as illustrated below.



- a) With a reason, identify. (04marks)

- i) Type of seed grown

Reason

ii) Type of germination.....

Reason

b) Describe the root system of the above structure. (02marks)

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c) How is structure labelled A important to the above seedling?

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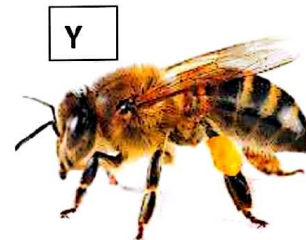
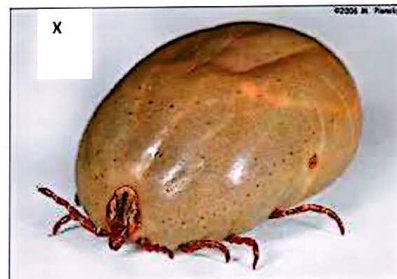
d) Give the advantage of growing such plants as illustrated at your home gardens. (02marks)

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4. The photographs below are Arthropods collected by students on their ecological tour. Study them carefully and answer the questions that follow.

2.



a) Name the class to which X, Y and Z belong. (03marks)

X.....

Y.....

Z.....

b) How is organism Y economically important to man? (02marks)

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c) Give 3 harmful effects of X (03MarKS)

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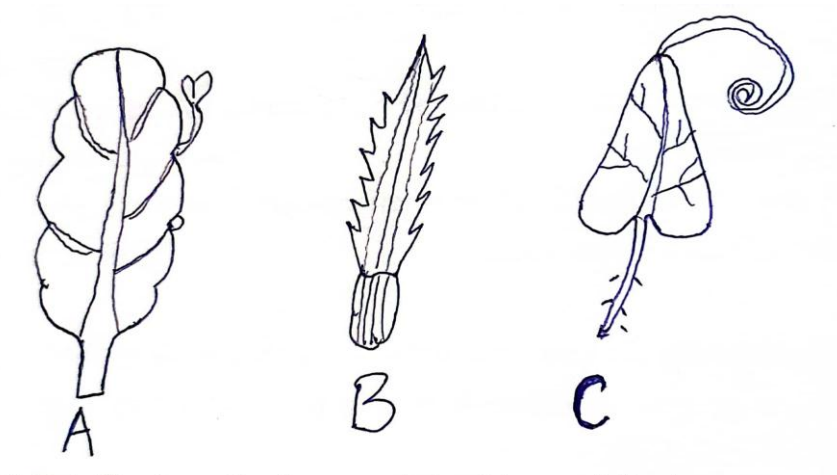
d) With reasons, identify two modes of locomotion of Y (02Marks)

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e) Basing on the pictures, how is X structurally different from Y.

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5. All leaves have common primary function, but some leaves are modified to perform specific function. Study the figures below of modified leaves and answer the questions that follow



- a) Briefly describe how each leaf is modified to perform its function
Leaf A (02marks)

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- Leaf B.** (02marks)

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- Leaf C.** (02marks)

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- b) Explain Why plants leaving in deserts have small leaves. (02marks)

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SECTION B (35marks)

6. In the recent years, **Namikamba** Village started developing at a very high rate. Most of the people in that village have been employed in the newly established **paper processing industry, Diary processing industry, Oil refinery** and **charcoal burning**. During a heavy rain, the Big portion of land of Namikamba region was observed to have developed **very big tunnels** that even started to accommodate large volumes of water.

- a) Identify the process that caused the development of tunnels in the soil. (02marks)
b) What could have caused the land of Namikamba to appear in that way after heavy rain. (10marks)
c) How can you advice people of Namikamba such that rest of their land is not affected the same. (08marks)

7. Malaria is the leading disease that affect people mainly in the tropics. It is caused by **organism X** that is transmitted by the female anopheles' mosquito. (03marks)

- a) Identify organism X and state why it mainly affects people from the tropics (03marks)
b) Why is organism X transmitted by the above mentioned vector?
c) How would you advice people from your community to avoid dangers of malaria. (09marks)