

KIYALA HIGH SCHOOL
MID-TERM TWO ASSESSMENT TEST 2024
BIOLOGY
S.3

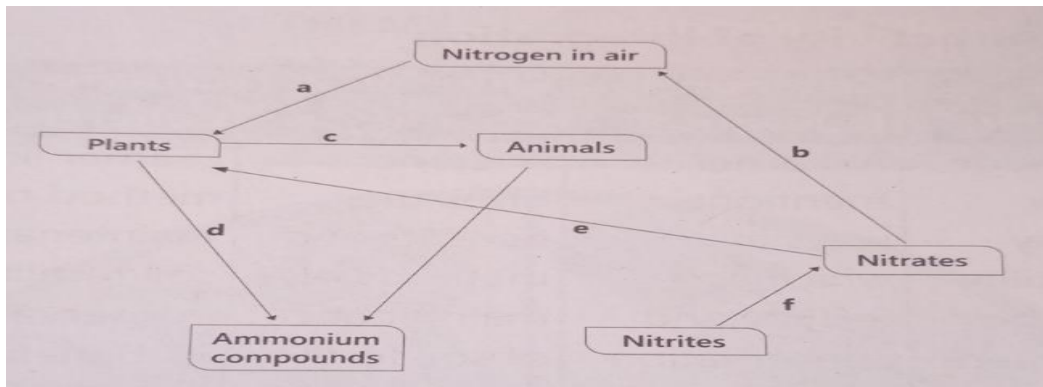
Time: 1 Hours: 30 minutes

INSTRUCTIONS:

- *This paper consists of **three items.***
- *Answer **all** the items.*

item 1

nitrogen is one of the components of atmosphere. Nitrogen gas continuously circulates from air to the soil and back to the atmosphere this constitutes a nitrogen cycle as shown below.



Task

a) Name the processes (a) to (f).

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b) How do processes (a) and (b) affect the fertility of the soil.

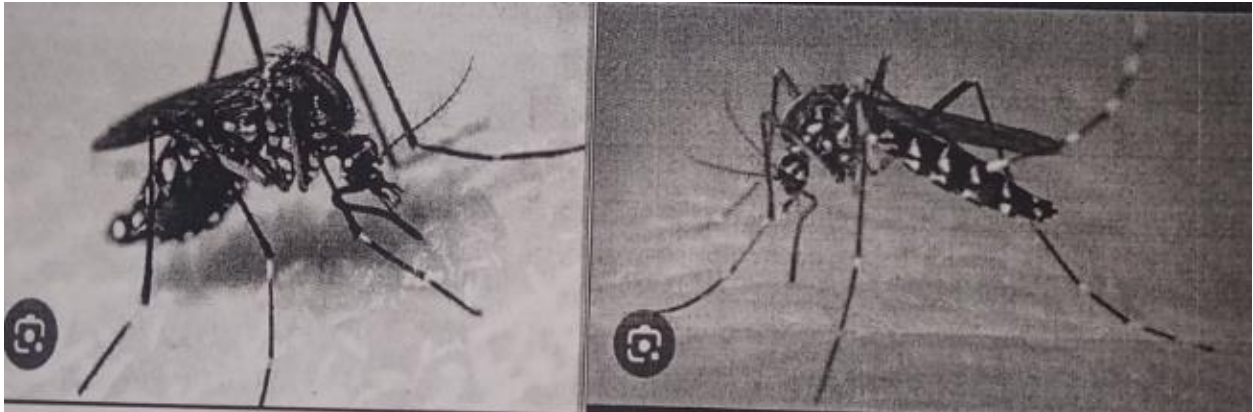
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c) Identify microorganisms involved in processes **a, b, d** and **f**

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Item 2

Malaria is a leading disease affecting people mainly in the tropics. Its caused by an organism **Z** that is transmitted by the female anopheles' mosquito.



Task

a) Identify organism **Z** and state why it mainly affects people from the tropics.

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b) Why is organism **Z** transmitted by the above mentioned vector?

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c) How do would your advice people from your community to avoid dangers of malaria.

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Item 3

Soil is a covering of the earth surface in which plants grow and some microorganisms and animals live.

Task

a) State any six components of soil.

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b) A sample of soil was obtained from the school garden. It was found to contain some microorganisms and water. State the role played by.

i) Microorganisms in the soil.

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ii) Water in the soil.

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c) A group of S.3 learner obtained the following results while analyzing a soil sample.

Volume of soil = 200 cm³
Volume of water = 300 cm³
Volume of water and sand after staring = 450 cm³

i) Determine the components of soil being investigated.

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ii) Calculate the percentage composition of the above component in the soil.