

KIYALA HIGH SCHOOL

MID-TERM ASSESSMENT TEST 2025

BIOLOGY

S.2

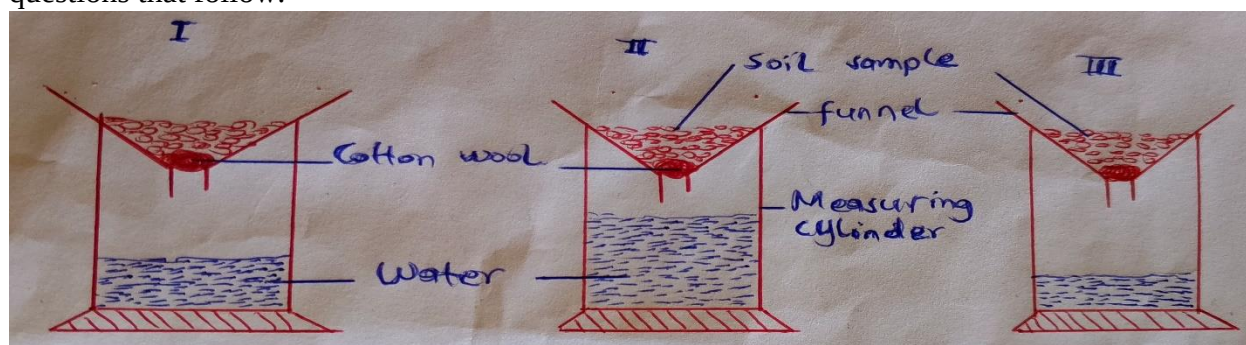
Time: 2 Hours

INSTRUCTIONS:

- The paper contains **three** items.
- Attempt **ALL the** items.

Item 1

In an experiment to determine the properties of different types of soil sample the sets of apparatus were arranged. 250 cm^3 of water was poured into each funnel containing a soil sample. The following observations were made at the end of the experiment and the amount of water that collects in each measuring cylinder is noted. Study the figure below and answer the questions that follow.



Task

a) State the aim of the experiment.

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b) With reasons, state the type of the soil sample used in Experiment I

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Experiment II

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Experiment III

c) Identify the methods that can be used to improve on soil sample II

d) What conclusion can you make on the above experiment.

Item 2

Okello S.2 learner carried out an investigation to determine the percentage of air in a given soil sample and obtained the following values;

Volume of soil used = 40 cm^3

Volume of water added to soil = 50 cm^3

Find volume of water + soil after mixing = 80 cm^3

Task

a) Determine the volume of air in the soil sample.

b) Calculate the percentage of air in the soil sample.

[illegible]

During a practical lesson of biology, an S.2 student dug out some soil sample and various living organisms in the soil. Other students wondered how these living organisms were able to survive in the soil.

As a learner who has studied about biology of soil, help the S.2 class to;

- [illegible]

- [illegible]

c) Explain how the following are important to the soil.

i) Living organisms.

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ii) Water.

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iii) Air.

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SUCCESS