

Candidate's name:Signature

School:Personal No.

553/2
BIOLOGY
(Practical)
Paper 2
Jul/Aug. 2025
2 ½



**SENIOR EDUCATION CONSULTANTS (SEC)
JOINT MOCK EXAMINATIONS, 2025**

Uganda Certificate of Education

**BIOLOGY
(Practical)**

Paper 2

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

- *This paper consists of two examination items. Answer all the examination items in the spaces provided.*
- *Drawings should be made in the spaces provided. Use sharp pencils for your drawings. Coloured pencils or crayons should not be used.*
- *No additional sheets of writing paper are to be inserted in the booklet.*
- *Work on additional sheets of paper will not be scored.*

Turn Over

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Item 1

Item 1

James grows tomato seedlings in two different nursery beds A and B. He waters his tomato seedlings using rain water that he harvests from his house. Recently, a dry spell set in which caused his water tanks to dry. He then picked water from two different swamps which he used to irrigate his plants in the nursery beds separately. James realized that using water from the Eastern swamp caused the plants in nursery bed A to droop shortly after irrigation, while water from the Western swamp made plants in nursery bed B become healthier. This left James wondering what caused the plants to behave like this. You are provided with specimen R with similar tissues as tomato plants grown by James and water samples M and N from different swamps.

Task

Design and carry out a scientific investigation to determine the swamp from which the water samples M and N were obtained. Use your results to explain the effect of water from the different swamps on James' seedlings.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Handwritten notes on lined paper, including a faint diagram of a flower or plant structure in the center.

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Tasks

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- This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper. A faint, light-colored watermark or smudge is visible near the top center of the page.

How is the structure of specimen P suited for its role?

(b) Draw and label the specimen responsible for crushing bones in Mick's animal

END