

Candidates name: .....

Signature: .....

Random No.						Personal No.		

(Do not write your School/Centre name or Number anywhere on this Booklet)

**553/2**  
**Biology**  
**Paper 2**  
**(Practical)**  
**July/Aug., 2025**  
**2 ½ hours**



**MATIGO EXAMINATIONS BOARD**

Uganda Certificate of Education

**BIOLOGY**  
**Paper 2**  
**(Practical)**  
**2 hours 30 minutes**

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of **two** examination items. Answer **both** items in the spaces provided.*

*Drawings should be made in the spaces provided. Use **sharp pencils** for your drawings. Coloured pencils or cryons 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.*

### Item 1

Siza is a university student preparing for his final examinations, which are three months away. He feeds on one type of snack which he buys from the University Canteen. Recently he started suffering from frequent infections and easily becomes tired after reading for only 30 minutes. To overcome his health challenges and increase the amount of time he could spend reading, Siza's friends advised him to change his diet. Now, he is wondering which food nutrients should be included in his diet.

You are provided with food samples **P** and **Q** which have been prepared from food substances sold at the University Canteen.

### Task:

Design and carry out a scientific investigation on samples **P** and **Q**. Use your results to identify a food sample that you would recommend to be part of Siza's diet and explain your recommendation.

Your design and investigation should include the following:

- (a) Aim, hypothesis, variables and apparatus/requirements.

[illegible]

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(b) Procedure and results of the investigation.

[illegible]

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(c) (i) Identify the food sample you would recommend to be part of Siza's diet.

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(ii) Explain why you have recommended the sample in (c)(i) above to be part of Siza's diet.

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## Item 2

Duku has three decorative plants in his compound, two on the right side and one on the left side. His home area experienced a long dry season that was characterized by high temperatures which caused drying up of plants on the right side while that on the left side survived. When the dry season ended, rains began and he noticed that some of the organs from the plant on the left side had developed into new plants. Duku wonders how some the plants on the left side were able to develop into new plants.

You have been provided with specimens **A**, **B** and **C** which are organs picked from plants similar to those that Duku planted in his compound.

### Task

- (a) Using observable structural features, identify the specimens.

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- (b) Identify the specimen that was planted on the left side of the compound, and explain how its structural features enabled it to survive the dry season and later reproduce.

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- (c) Draw specimen C and label only the lamina.

**END**