

Name: Index No:

School: Signature:

553/2
BIOLOGY
PAPER 2
July/August 2025
2½ hours



WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

BIOLOGY

Paper 2
Practical

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This paper consists of **two** examination items. Answer **all** the 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 will **not** be scored.

FOR SCORERS' USE ONLY

Table 1

Basic code	A	V	H	C	D	AR	Total score	Scorer's initials
Score								

Table 2

Basic code	I	S	DR	Total score	Scorer's initials
Score					

Item 1

James and Simon are farmers in Kiyiki village, who planted Irish potatoes at the same time during the last planting season.

They both applied the same type of fertilizer.

James used the recommended concentration and his plants grew healthy and strong, producing a good harvest.

However, Simon used twice the recommended concentration, thinking that it would boost the yields.

Unfortunately at flowering stage, most of his plants withered and the harvest was poor.

You are provided with the two solutions A and B which are of different concentrations of the fertilizer used by the two farmers and specimen Q which is a plant part obtained from the plants grown by the two farmers.

Task:

Design and carry out a scientific investigation on solutions A and B using Specimen Q and use your results to explain why Simon had a poor harvest and advise the farmers on the correct concentration of the fertilizer to be used.

Your design and investigation should include the following;

- (a) (i) Aim, Hypothesis and variables

Item 2

Mr. Okello, a farmer in Lira grows a number of crops in his garden, including beans and maize. In the middle of the garden he grows crops with broad net veined leaves and grows plants with narrow parallel veined leaves at the edge of the garden.

You are provided with specimens R, S and T obtained from Okello's garden.

Task

- (a) With reasons, identify the plant organs from the specimens that were obtained from Okello's garden.

- (b) Explain how the specimens that were obtained from the middle of the garden are adapted for their functions.

- (c) Draw and label the main parts of a specimen that was obtained from the edge of Okello's garden.