

THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

033/2B

BIOLOGY 2B
(ACTUAL PRACTICAL B)
(For Both School and Private Candidates)

Year: 2025

Duration: 2:30 Hours

Instructions

1. This paper consists of **two (2)** questions. Answer **all** questions.
2. Each question carries **twenty five (25)** marks.
3. All writings should be in **blue** or **black** ink, except diagrams which must be in pencil.
4. Communication devises and any unauthorised materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).



1. (a) You have been provided with solutions **P** and **Q** each containing a mixture of food substances. Carry out the experiment to identify the food substances present in the solutions provided. Your experimental report should be tabulated as shown in the Table 1.

Table 1: Identification of Food Substances in the Solutions **P** and **Q**

Food Tested	Procedure	Observation	Inference

- (b) Specimen **N** contains lipid among others. Prepare the specimen for the lipid test experiment using a filter paper then, outline the procedure used to prepare it.
- (c) Use the filter paper provided to identify the presence of lipid in the specimen **N**. Present your findings as shown in Table 2.

Table 2: Identification of Lipid in Specimen **N**

Food Tested	Procedure	Observation	Inference

- (d) State the function(s) of each food substance identified in the solutions and specimen **N** to the human body.
- (e) Why boiling was important in some procedures of the experiments conducted?
2. You have been provided with specimens **I**, **J**, **K** and **L**. Carefully, study them and answer the following questions:
- (a) State two distinctive features of each specimen **I**, **J** and **K** at Class level.
- (b) Specimens **I** and **J** belong to the same major group. State two characteristics they have in common.
- (c) How do the specimens **I** and **L** adopted to survive in their natural habitats? Give one point for each.
- (d) State two ways the farmers benefit from the availability of the specimen **L** in their farms.
- (e) Outline three advantages and one disadvantage of the specimen **I** in nature.