

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

033/2A

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

Duration: 2:30 Hours

Year: 2025

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 devices and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).



1. You have been provided with specimens **O** and **M**, the chemical reagents and apparatus. You are required to identify the food substances present in the specimens.

- (a) Prepare the solutions from specimen **O** and **M** for the food test experiments then, outline the procedures used to prepare each solution.
- (b) Carry out experiments to identify the food substances present in specimens **O** and **M**. Your experimental report should be tabulated as shown in the following Table:

Identification of Food Substances in Specimens **O** and **M**

Food Tested	Procedure	Observation	Inference

- (c) State the function(s) of each food substance identified in 1(b) to the human body.
- (d) Apart from the specimen provided, give another one example of natural source from which the food substances identified in 1(b) could be obtained.
2. You have been provided with specimens **E**, **F** and **G** obtained from different habitat. Carefully study them and answer the following questions:
- (a) Identify the Phylum/Division and the Kingdom in which each specimen **E**, **F** and **G** belongs.
- (b) For each of specimens **E**, **F** and **G** state three observable features which are characteristic of its respective Phylum/Division.
- (c) Name the habitat of each of specimens **E**, **F** and **G**.
- (d) For each of specimens **E**, **F** and **G** state whether it is a producer, consumer or decomposer in its natural habitat. Give reason for each case.
- (e) State two advantages and one disadvantage of specimen **E** to other living organisms.