

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

033/2C

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

Time: 2:30 Hours

Year: 2024

Instructions

1. This paper consists of **two (2)** questions. Answer **all** the 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 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 solution **B**, specimen **R**, chemical reagents and the required apparatuses. Use them to respond to the following questions:

- (a) Prepare a solution by using specimen **B** and label it as Solution **B**. Outline the procedure you used to prepare it.
- (b) Use the reagents provided to identify the food substance(s) present in solutions **B** and **R**. Record your experimental results as shown in the following Table.

Food tested	Procedures	Observations	Inferences

- (c)
 - (i) Explain the digestion process of the food substance(s) identified in solutions **B** and **R** from the beginning until the end product is formed.
 - (ii) State the enzymes responsible for digestion of the food substance(s) identified in solutions **B** and **R** when reaches the small intestine.
- (d) State the function of each identified food substance(s) in solutions **B** and **R** to the human body.
- (e) Briefly explain the function of the following actions in the experiment:
 - (i) boiling.
 - (ii) cooling.

2. You have been provided with specimens **S₁**, **S₂** and **S₃**. Observe them carefully, then answer the following questions.

- (a) List two observable features used to place specimens **S₁** and **S₂** under their respective Phyla.
- (b) Use the hand lens and the forceps to carefully observe the specimens **S₁**, **S₂** and **S₃**, then identify the structure responsible for the following:
 - (i) feeding
 - (ii) sensitivity
 - (iii) locomotion
- (c) Use the hand lens provided to observe specimen **S₁**:
 - (i) State two features of the Class in which the specimen belongs.
 - (ii) Identify three adaptive features of the specimen in its habitat.
 - (iii) Explain two importance of the specimen.
- (d) Draw a diagram of specimen **S₃** and label four parts.
- (e) Briefly explain two importance of the specimens **S₁**, **S₂** and **S₃** in the ecosystem.