

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

133/3A

**BIOLOGY 3A
(ACTUAL PRACTICAL 3A)
(For Both School and Private Candidates)**

Time: 3:20 Hours

Year: 2024

Instructions

1. This paper consists of **three (3)** questions.
2. Answer **all** the questions.
3. Question **one (1)** carries **twenty (20)** marks and the other **two (2)**, carry **fifteen (15)** marks each.
4. All writing should be in **blue** or **black** ink, **except** diagrams which must be in pencil.
5. Communication devices and any unauthorised materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).



1. You have been provided with specimen **C₁**. Dissect the specimen in a usual way and display the digestive system and pin it to your right hand side.
 - (a) Draw a large, neat diagram of your dissection and label twelve parts.
Leave your dissection properly displayed for assessment.
 - (b) What are the roles played by digestive parts you have labelled in 1(a)? Give five points.

2. You have been provided with specimen **N**.
 - (a) Observe the specimen carefully then answer the following questions:
 - (i) What function do the structures constituting the female and male parts play in the specimen?
 - (ii) How does the specimen manage to attract insects for pollination?
 - (iii) How does fertilization process take place in the specimen?
 - (b) Using a scalpel, remove all petals and sepals from the specimen then answer the following questions:
 - (i) Draw a neat and well labelled diagram of the remaining part of the specimen.
 - (ii) Which part of the specimen receives the male gametes during pollination?
 - (iii) How the part responsible for transfer of male gametes to the place where fertilization takes place adapted to its function?

3. You have been provided with specimens **R**, **S** and **T**. Study the specimens and answer the following questions.
 - (a)
 - (i) What are the common names of specimens **R**, **S** and **T**?
 - (ii) Specimens **S** and **T** belong to which Class(s)?
 - (iii) Why do specimens **R**, **S** and **T** placed in the Class they belong?
 - (b)
 - (i) Where is the habitat for specimens **R** and **S**?
 - (ii) How does specimen **S** adapted to its habitant?
 - (iii) In what ways do specimens **S** and **T** considered useful to human being?