

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: 2022

Instructions

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



1. You are provided with specimen **C₁**, **D₁** and **E**.

- (a) Observe the displayed reproduction system in the dissected specimen **C₁** and then answer the following questions;
 - (i) What is a sex of the specimen **C₁**? Give a reason to support your answer.
 - (ii) Draw a well labelled diagram of the reproductive system observed in dissected specimen **C₁**.
- (b) Carefully use the hand lens to observe the structures used for reproduction in specimen **D₁** and then draw a diagram of a frond with its reproductive structures.
- (c) What are types of reproduction exhibited by specimen **D₁** and **E**? Give a reason on each to support your answer.
- (d) Briefly explain how the type of reproduction in specimens **D₁** and **E** occurs.
- (e) In what ways are specimens **D₁** and **E** useful to human being. Give two points for each.

2. You are provided with specimens **D**, **F**, and **G**.

- (a) Classify each of the specimens **D**, **F** and **G** to Class level.
- (b) Why specimen **D** and **F** were placed in the same Kingdom but different Division?
- (c) Why is it important for scientist to use natural classification system to classify the specimen **D** and **F**?
- (d) What would be the disadvantages for scientist to use artificial classification system to classify specimen **D** and **F**.
- (e) Draw a well labelled diagram of specimen **F**.
- (f) In what way are the products from specimen **G** useful for industrial development? Give two points.