

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

**033/2C**

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

**Time: 2:30 Hours**

**Monday, 16<sup>th</sup> November 2015 a.m.**

**Instructions**

1. This paper consists of **two (2)** questions. Answer **all** the questions.
2. Each question carries **25** marks.
3. Except for diagrams which must be drawn in pencil, all writings should be in blue or black ink.
4. Calculators and cellular phones 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 **L**, **M** and **N**.

- (a)
  - (i) Identify specimens **L**, **M** and **N** by their common name.
  - (ii) Which part of a plant are specimens **L**, **M**, and **N**?
- (b) Observe specimen **N** carefully. Then;
  - (i) Name the structures which constitute the female and male parts of specimen **N**.
  - (ii) Explain how specimen **N** manages to attract insects for pollination.
  - (iii) Explain how fertilization process takes place in specimen **N**.
- (c) Using a scalpel, remove all sepals and petals (including stamen tube) from specimen **N**. Then;
  - (i) Draw a well labeled diagram of the specimen.
  - (ii) Identify which part of the specimen receives the male gametes during pollination.
  - (iii) Identify which part of the specimen transfers the male gametes to the place where fertilization takes place.

2. You have been provided with specimens **R**, **S** and **T**.

- (a) Observe these specimens then;
  - (i) Identify specimens **R**, **S** and **T** by their common names.
  - (ii) Classify specimens **S** and **T** to phylum level.
  - (iii) Name the Class and state two distinctive features for each Class of specimens **R**, **S** and **T**.
- (b) Study specimens **R**, **S** and **T** carefully then answer the following questions:
  - (i) State the habitat of specimens **R** and **S**.
  - (ii) State four adaptation features which indicates how specimen **S** is adapted to its habitat.
  - (iii) In what ways are specimens **S** and **T** considered “useful” and “harmful” to human being and his environment?