

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

**033/2A**

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

**Time: 2:30 Hours**

**Friday, 06<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 phone 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 **A**, **B** and **C**.
  - (a)
    - (i) Identify specimens **A**, **B** and **C** by their common names.
    - (ii) Name the agent of pollination in specimen **A**.
    - (iii) Give five reasons which suggest the pollinator you named in (a) (ii).
  - (b)
    - (i) Briefly explain the importance of pollination in specimen **A**.
    - (ii) Describe how the process of fertilization is likely to occur in specimen **A**.
  - (c) Study specimens **B** and **C** carefully then:
    - (i) Identify which one developed from an ovum? Give two reasons.
    - (ii) Which one developed from the ovary? Give one reason.
  - (d) Using a scalpel, prepare a longitudinal section of specimen **A**. Then draw a well labelled diagram of the cut surface of specimen **A** to show its internal and external structures.
2. You have been provided with specimens **D**, **E**, **F** and **G**.
  - (a) Observe these specimens then:
    - (i) Identify specimens **E** and **G** by their common names.
    - (ii) Classify specimens **D**, **E**, **F** and **G** to Class level.
  - (b) Study specimens **D** and **G** carefully then state why these specimens are said to belong to the same Kingdom but not the same Class?
  - (c) State the advantage and disadvantage of each specimen **E** and **F**.