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, 06th 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.