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

133/3B **BIOLOGY 3B**
(ACTUAL PRACTICAL B)
(For Both School and Private Candidates)

Time: 3:20 Hours **Monday, 15th May 2017 a.m.**

Instructions

1. This paper consists of **three (3)** questions.
2. Answer **all** the questions.
3. Question **one (1)** carries **20** marks and the other **two (2)**, 15 marks each.
4. Except for diagrams which must be drawn in pencil, all writing should be in blue or black ink.
5. Cellular phones are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s).

1. Dissect specimen $\mathbf{A_2}$ in a usual way to fully display the reproductive and excretory system. Pin the ileum to your right hand side.

Leave your dissection properly displayed for assessment.

(a) Draw a large, neat and well labeled diagram of your dissection.

(b) (i) Identify the sex of the specimen $\mathbf{A_2}$. Give two reasons to justify your answer.
(ii) Name the tube which carries the gametes from the area where they are produced to the exit.
(iii) Identify the structure responsible for gamete production.

(c) (i) Identify the structure present in the specimen $\mathbf{A_2}$ which is involved in excretion.
(ii) How is the structure you named in (c) (i) adapted to its role?

2. You have been provided solutions **A** and **B** which contain various food substances.

(a) Use the chemicals and reagents provided to identify the food substances present in solutions **A** and **B**. Tabulate your work as showing in following table.

Food Tested	Procedure	Observation	Inference

(b) For any two types of food identified in (2)(a) name;
(i) The type of bond which holds up its constituent units.
(ii) Enzymes responsible for digestion.

3. You have been provided with specimens $\mathbf{M_1}$, $\mathbf{M_2}$ and $\mathbf{M_3}$.

(a) (i) Identify the specimens $\mathbf{M_1}$, $\mathbf{M_2}$ and $\mathbf{M_3}$ by their common names.
(ii) Point out three observable features of each of the specimens $\mathbf{M_2}$ and $\mathbf{M_3}$ which enabled them adapt to their environments.

(b) (i) Classify the specimens $\mathbf{M_1}$, $\mathbf{M_2}$ and $\mathbf{M_3}$ to phylum level.
(ii) Draw a large, well labeled diagram of the specimen $\mathbf{M_1}$.

(c) Examine the role performed by the specimen $\mathbf{M_1}$.