



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

133/3C

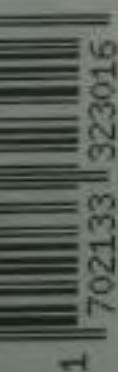
**BIOLOGY 3C
(ACTUAL PRACTICAL C)
(For Both School and Private Candidates)**

Time: 3:20 Hours

Thursday, 18th 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 writings should be in blue or black ink.
5. Calculators and 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 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 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 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 M_1 , M_2 and M_3 .
- (a) (i) Identify the specimens M_1 , M_2 and M_3 by their common names.
(ii) Point out three observable features of each of the specimens M_2 and M_3 which enabled them adapt to their environments.
- (b) (i) Classify the specimens M_1 , M_2 and M_3 to phylum level.
(ii) Draw a large, well labeled diagram of the specimen M_1 .
- (c) Examine the role performed by the specimen M_1 .