



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

133/3B

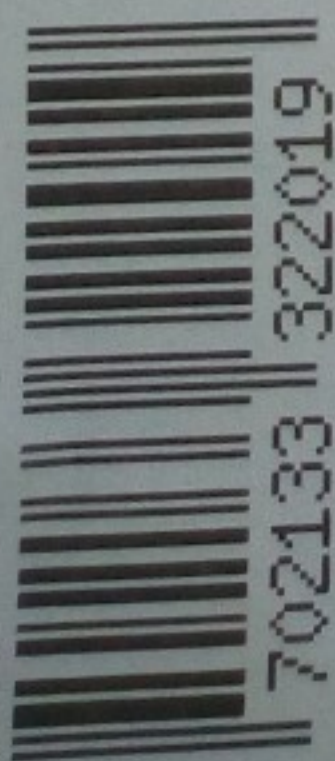
BIOLOGY 3B
(ACTUAL PRACTICAL B)
(For Both School and Private Candidates)

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).



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1. Dissect specimen **A₂** 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 **A₂**. 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 **A₂** 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 **M₁**, **M₂** and **M₃**.

- (a)
 - (i) Identify the specimens **M₁**, **M₂** and **M₃** by their common names.
 - (ii) Point out three observable features of each of the specimens **M₂** and **M₃** which enabled them adapt to their environments.
- (b)
 - (i) Classify the specimens **M₁**, **M₂** and **M₃** to phylum level.
 - (ii) Draw a large, well labeled diagram of the specimen **M₁**.
- (c) Examine the role performed by the specimen **M₁**.