



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

133/3A

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

Time: 3:20 Hours

Tuesday, 09th 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. You have been provided with specimen S_1 . Dissect the specimen S_1 in a usual to fully display the digestive system. Pin the ileum to the right side of the animal.

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

Leave your dissection properly displayed for assessment.

(b) How does the:

- (i) ileum in the specimen S_1 modified to suit its function?
- (ii) specimen S_1 adapt to its mode of life?

2. You are provided with solutions S_2 and S_3 .

(a) Using the reagents provided, carry out a biochemical test to identify the food substances present in solutions S_2 and S_3 . Tabulate your work as shown in the following table:

Food tested	Procedure	Observation	Inference

(b) Why do we use sodium hydroxide and dilute hydrochloric acid in the biochemical experiment?

3. You have been provided with specimens G_3 , G_4 , G_5 , and G_6 .

(a) (i) Identify the specimens G_3 , G_4 , G_5 and G_6 by their common names.
(ii) Classify G_4 , G_5 and G_6 to class level.

(b) What are the observable differences between the specimens G_4 and G_6 at Class level?

(c) In what ways are the specimens G_4 and G_6 important in the ecosystem?

(d) Where can we find the specimen G_6 ?