

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

033/2B

**BIOLOGY 2B
(ACTUAL PRACTICAL B)
(For Both School and Private Candidates)**

Time: 2:30 Hours

Thursday, 14th November 2013 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 phones 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 S_1 and S_2 for food substances identification.
- (a) Explain how you will prepare specimens S_1 and S_2 for identification of food substances they contain.
- (b) Carry out food test experiments to establish the food substances present in specimen S_1 and S_2 . Tabulate your experimental work as shown in the table below:

Food tested	Procedure	Observations	Inference

- (c) For the food substance identified in (b) above:
- Name the end products of their digestion.
 - State the part of the body where excess end products in (i) are stored.
 - State the function in the human body of each food substance identified in (b).
 - Mention the enzymes responsible for their digestion.
 - Name the medium under which the digestion of food substances in S_1 is favourable.
 - Name the part of alimentary canal in which absorption of the food substances identified in (b) above takes place.

2. You have been provided with specimens K_1 , K_2 , X_1 and X_2 .

- (a) Study carefully specimens K_1 and K_2 then:
- Identify specimens K_1 and K_2 by their common names.
 - Name the habitats for each of specimen K_1 and K_2 .
 - Briefly explain the features which enable specimen K_1 to survive in its habitat.
 - What terms are used to describe these organisms in relation to water economy?
 - Suggest the mode of reproduction of specimen K_2 . Give reason to support your answer.
- (b) Study carefully specimens X_1 and X_2 then:
- Identify specimens X_1 and X_2 by their common names.
 - Classify specimen X_1 to class level.
 - State the features used to place specimens X_1 and X_2 in their respective kingdom.
 - Write down the advantages and disadvantages of each specimen X_1 and X_2 .