

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

**733/2A**

**BIOLOGY 2A  
(ACTUAL PRACTICAL A)**

**Time: 3 Hours**

**Monday, 14<sup>th</sup> May 2018 a.m.**

**Instructions**

1. This paper consists of **three (3)** questions.
2. Answer **all** questions.
3. Question number 1 carries **20** marks and the rest carry **15** marks each.
4. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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1. You have been provided with specimen **A**. Dissect the specimen in the usual way to fully displaying the visceral system. Deflect the gut to the left side of the animal. Leave your dissection properly displayed for assessment.

- (a) Draw a large, neat and well labeled diagram of your dissection.
- (b) Identify five parts involved in digestion of food from your diagram in part (a).
- (c) State the role of each part you listed in part (b).
- (d) Classify the specimen **A** to its Order level.
- (e) Briefly describe four adaptation of specimen **A** to its mode of life.

2. You have been provided with solution **B**.

- (a) Perform the biochemical test to identity the food substance(s) contained in solution **B** by using the chemical reagents provided. Tabulate your result as shown in table 1.

Table 1

Test For	Procedure	Observation	Inference

- (b) State one role of each food substance obtained from solution **B** in human body.
- (c) Name three key common elements to all food substances identified in solution **B**.
- (d) From the food substances identified in solution **B**, which one is mostly required by children and elders? Give a reason to support your answer.

3. You are provided with two samples of specimen **Z**. Carefully examine them by using the following guidelines:

- (a) Identify specimen **Z** by its common name.
- (b) Classify the specimen **Z** to Class level.
- (c) Remove all petals and sepals from specimen **Z**. Then, draw and label five remained parts of specimen **Z**.
- (d) Take another sample of specimen **Z** and carefully remove all the sepals, petals and the male part. Then, by using scalpel cut the cross section of a female part. Take one of the parts with the cut surface facing upwards and observe it using a hand lens, then draw a well labeled diagram.