THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2A **BIOLOGY 2A**

(ACTUAL PRACTICAL 2A)

Time: 3 Hours **Year: 2021**

Instructions

1. This paper consists of **three (3)** questions.
2. Answer **all** questions.
3. Question number **one (1)** carries **twenty (20)** marks and the rest carry **fifteen (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. Dissect specimen X in the usual way to display the digestive system. The candidates were supposed to deflect the gut to their right hand side and respond to the following questions:

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

(b) Give the role of each part of the digestive system labeled in (a).

(c) Classify specimen X to the order level.

(d) Briefly describe four adaptations of specimen X to its mode of life.

(e) State two advantages of specimen X in the ecosystem.

2. Extract food solution from raw food stuff labelled as specimen B . Then label the prepared food solution as solution B and answer the following questions:

(a) State the procedures to be followed in preparing solution B from specimen B.

(b) Design an experiment to find out the classes of carbohydrates contained in solution B. Tabulate your results as shown in the following table.

Food Test	**Procedure**	**Observation**	**Inference**

(c) State the role of food substance(s) identified in solution B in your body.

(d) What is the role of HCl in testing for carbohydrates?

3. You are provided with specimen **M**:

(a) Carefully examine the specimen and then answer the following questions:

(i) Identify the specimen by its common name.

(ii) Classify the specimen to the Class level.

(iii) Draw a well labelled floral diagram for the specimen.

(iv) Write a floral formula for the floral diagram you have drawn in 3 (a) (iii).

(b) By using a scalpel, cut the longitudinal section of specimen M. Take one part with the cut surface facing upwards. Observe it using a hand lens and then, draw a well labelled diagram showing internal and external parts of the specimen **M.**