THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

ADVANCED CERTIFICATE OF SECONDARY EDUCATION

EXAMINATION

133/3B **BIOLOGY 3B**

(ACTUAL PRACTICAL B)

(For Both School and Private candidates)

Time: 3:20 Hours **Year: 2022**

Instructions

1. This paper consists of **three (3)** questions**.**
2. Answer **all** questions.
3. Question **one (1)** carries **20** marks, and the other **two (2),** carry **15** marks each.
4. Mathematical tables and non-programmable calculators may be used.
5. All writing must be in **blue** or **black** ink **except** drawing which must be in pencil
6. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
7. Write your **Examination Number** on every page of your answer booklet (s).

1. You are provided with specimen **N_1**. Dissect it and display the reproductive and digestive systems and pin the digestive system to the right hand side.

Questions

(a) Draw a neat diagram of the dissected specimen **N_1** and label twelve (12) parts.

(b) Explain the roles played by the labelled parts of the system in the digestion process by giving six points.

2. You are provided with solution **S_2**.

Questions

(a) Identify the food substances present in the solution **S_2** and tabulate the work as shown in the table below:

Food tested	Procedures	Observation	Inference

(b) State two properties of the food substance(s) identified in solutions **S_2**.

(c) State the food substances missing in solution **S_2** to make it a balanced diet.

3. You are provided with specimens **N_2** and **W**:

Questions

(a) State the type of metamorphosis undergone by each of the specimens **N_2** and **W**.

(b) Describe the developmental stages in the life cycles of the specimens **N_2** and **W** with the aid of diagram.

(c) State the advantage and disadvantage of specimen **N_2** in the ecosystem.