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

133/3C   **BIOLOGY 3C**

(ACTUAL PRACTICAL C)

(For Both School and Private candidates)

Time: 3:20 Hours   **Year: 2021**

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 **R₁**, dissect to fully display the excretory structures associated with the digestive system and deflect the digestive system to the right hand side.

   Questions

   (a) Draw a large diagram of the dissection and label the digestive system with the attached excretory structures.

   (b) State three economic importance of the specimen.

   (c) Explain how the specimen is adapted to its mode of life by giving four points.

2. You are provided with solution **A₁** which contained protein and glucose.

   (a) Use the chemicals and reagents provided only to identify the food substances present in solution **A₁** and record their experimental work as shown in Table 1

Food tested	Procedures	Observation	Inference

   (b) (i) Mention a disease which develops when the diet provided to a child lacks one of the food identified in 2 (a).

   (ii) State four symptoms of the disease mentioned in 2 (b)(i).

3. You are provided with specimens **R₂, B₁, B₂, B₃** and **B₄.**

   (a) Classify each of the specimen **B₁** and **B₂** to Class level.

   (b) State three ways in which specimen **B₂** is important to the environment.

   (c) State the habitat of each of the specimens **B₁** and **B₂.**

   (d) Construct an indented key for identification of the specimens **R₂, B₁, B₂, B₃** and **B₄** using the following features: (i) Nature of the skeleton (ii) Body segments (iii) Wings and (iv) Legs.