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, 13th May 2019 a.m.**

Instructions

1. This paper of 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. You are provided with specimen **C**. Carry out dissection to display the urinogenital system. **Leave your specimen properly displayed for assessment.**

   (a) Draw a large diagram of your dissection and label the structures related to a displayed system.

   (b) Identify the sex of the specimen.

   (c) From the specimen, name the organ that is
      (i) similar to that of human being and has a function of excreting nitrogenous waste.
      (ii) responsible for production of gametes.

   (d) Classify specimen **C** to class level.

2. You have been provided with solution $\mathbf{X_1}$.

   (a) Using the reagents provided, carry out an experiment to identify food substance(s) contained in Solution $\mathbf{X_1}$. Present your report in a tabular form as follows:

Food Tested	Procedure	Observation	Inference

   (b) From the results obtained, answer the following questions:
      (i) State the role of each food substance(s) identified from solution $\mathbf{X_1}$ in human body.
      (ii) What is the role of dilute HCl in this experiment?
      (iii) State the site of digestion for each food substance(s) identified from solution $\mathbf{X_1}$.
      (iv) Identify any two natural food stuff from which solution $\mathbf{X_1}$ could have been extracted.

3. With the aid of a hand lens, observe specimen **J**, **K**, **L** and **M** provided and then answer the following questions:

   (a) Write the common names of each of the specimen **J**, **K**, **L** and **M**.

   (b) In which class(s) do specimen **J** and **K** belong? Give two reasons that guide you to place them in the mentioned class(s).

   (c) Observe the mouth structure of a specimen **K** and
      (i) suggest the type of food the organism feeds on.
      (ii) state the mechanism by which the organism feeds on.

   (d) Draw diagrams of specimen **L** and **M** and label the structures responsible for reproduction and nutrient absorption.

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