PRESIDENT'S OFFICE

REGIONAL ADMINSTRATION AND LOCAL GOVERNMENT

FORM SIX COMPETENCE EXAMINATIONS (FOSCE) - 2025

133/3A **BIOLOGY 3A**

Time: 3:20 Hours **26th February 2025, AM**

Instructions

1. This paper consists of **three (3)** questions
2. Answer all questions
3. Question one (1) carries **twenty (20)** marks and the other two (2) carry **fifteen (15)** marks
4. Except for diagrams which must be drawn in pencil, all writing should be in blue or black ink.
5. Cellular phones and any unauthorized materials are **not** allowed in the examination room.
6. Write your **Examination Number** on every page of your answer booklet(s)

1. You have been provided with specimen **A1.** dissect the specimen **A1** in a usual way to fully display the visceral general and pinout the alimentary canal to your right-hand side.

   (a) Draw a neat well labelled diagram of your dissection
   LEAVE YOUR DISSECTION PROPERLY DISPLAYED FOR ASSESSMENT

   (b) i. Identify the sex of the specimen **A1**. Give two external features to support your answer
   ii. Write the role of any five parts labelled in (a) above
   iii. Why blood hemolymph is not as red as in human
   iv. Specimen **A1** eats own species, what name is given to this species
   v. Explain in short, the process of blood circulation in specimen **A1**

2. You have been provided with three test tubes, label them as test tube **1, 2** and **3**. Prepare a solution from specimen **z** by adding 15ml of water and label it as solution **z.**
Procedures

(a) Poor 3ml of solution **z** in a test tube **1**, and **3** drops of iodine solution, heat gently to boiling point and record your:
   i. Observation
   ii. What does this suggest?

(b) Poor **3ml** of solution **z** in a test tube **2**, add **3m**l of benedicts solution, heat gently to boiling point and record your:
   i. Observation
   ii. What does this suggest?

(c) Poor 3ml of solution **z** in test tube **3**, add **2ml** of dilute NaOH followed by three drops of 1% copper (II) sulphate and shake gently after each drop. Record your**:**
   i. Observation
   ii. What does this suggest?

(d) Name the food substance (s) present in solution **z**
   i. Name the type of bond present in the food substance (s) identified in solution **z** which holds up its constituents (monomers)
   ii. Draw the structure of the monomers of the food substance present in solution **z**
   iii. Is the food substance present in solution z stored or not stored in the human body? Explain what happens when in excess
   iv. What is the name of the biochemical test for the food substance present in solution **z?**
   v. State the basis of the test for the food substance present in solution **z.**

3. You have been provided with specimens, **W1, W2, W3, W4, W5, W6 and W7**

i. Identify the specimens **W1, W2, W3, W4, W5, W6 and W7** by their common names.

ii. Name the features do all the specimens **W1, W2, W3, W4, W5, W6** have in common.

iii. Construct a simple numbered key that would separate specimens **W1, W2, W3, W4, W5 and W6.**

iv. State the distinctive features of the division in which specimen **W7** belong

v. Explain giving reasons why specimen **W7** is said to be an amphibian of the plant world

vi. Specimen **W5** contain spiracle, antennae and tympanum for its adaptation to the surrounding environment. In tabular form name the organs in mammals with similar functions as those organ mention in specimen **w5**.