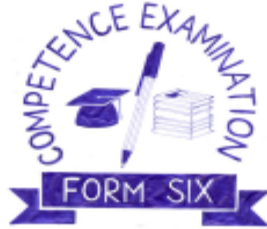


PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
FORM SIX COMPETENCE EXAMINATIONS (FOSCE) - 2025



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