THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2A **BIOLOGY 2A**

(ACTUAL PRACTICAL A)

Time: 3 Hour. **Tuesday 15/05/2007 a.m**

Instructions

1. This paper has three papers.
2. Answer **all** questions.
3. Question **1** contains 30 marks while question 2 and 3 have 10 marks each.
4. Mobile phones are not allowed inside the examination room.
5. Write your Examination Number on every page of your answer booklet.

1. Dissect specimen **T** to expose the reproductive and excretory systems.

(a) (i) Draw a well-labelled diagram showing two parts of the reproductive system and two of the excretory system.

(ii) Label the position of the heart and crop on the diagram.

(b) (i) State one function of each reproductive and excretory part drawn.

(ii) Describe how waste is removed from the body of specimen T.

(c) (i) Identify the sex of specimen T.

(ii) Give three justifications based on observable features.

2. You are given solutions **V** and **W**.

(a) (i) Carry out food tests using iodine, Benedict's, Biuret, and ethanol solutions.

(ii) Complete the following table:

Food Test	Procedure	Observation	Inference

(b) (i) Name the enzyme that digests the substance found in solution V.

(ii) State the final product of digestion and where it is absorbed.

(c) (i) What is the importance of each food substance to a growing child?

(ii) Explain how temperature affects the biochemical test for reducing sugar.

3. Observe specimens **X**, **Y** and **Z**.

(a) (i) List three observable similarities between Y and Z.

(ii) List two features that distinguish X from both Y and Z.

(b) (i) Explain three reasons why Y is classified in class Insecta.

(ii) Describe two benefits of Y to crop production.

(c) (i) Draw specimen Z and label five external structures.

(ii) How do these structures assist in survival?