THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2B **BIOLOGY 2B**

(ACTUAL PRACTICAL B)

Time: 3 Hour. **Wednesday 14/05/2008 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 **P** to expose the digestive system.

(a) (i) Draw and label a diagram showing at least seven parts of the digestive system.

(ii) Show the direction of food flow using arrows.

(b) (i) Name the organ responsible for enzyme production.

(ii) Identify the part where nutrient absorption takes place.

(iii) State the organ that stores bile.

(c) (i) Mention three precautions taken during dissection.

(ii) What is the significance of using pins while displaying internal parts?

2. You are given specimen **U** for a catalase experiment.

(a) (i) Grind half of U and leave the other half whole.

(ii) Add 2 ml of 2% hydrogen peroxide into both and observe.

(iii) Test the evolved gas using a glowing splint.

(b) (i) State the purpose of this experiment.

(ii) Which test tube serves as control? Explain.

(iii) What did you observe in each test tube and why?

(c) (i) Name the enzyme responsible for the reaction.

(ii) Write the chemical equation for the reaction.

(iii) Identify the gas evolved and explain its significance in biology.

3. Observe specimens **A**, **B** and **C**.

(a) (i) State five features common in A and B.

(ii) List two distinguishing features of specimen C.

(b) (i) Mention two economic roles of specimen A.

(ii) In what class is specimen A placed? Give three reasons.

(c) (i) Draw specimen B and label five external parts.

(ii) What adaptation allows B to survive in its environment?