THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2B **BIOLOGY 2B**

(ACTUAL PRACTICAL B)

Time: 3 Hour. **Wednesday 15/05/2002 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 the provided specimen V in the usual way to display both reproductive and digestive systems.

   (a) Draw the dissected specimen and label five parts of the digestive system and two parts of the reproductive system.

   (b) Identify three organs associated with food digestion.

   (c) Give one observable difference between male and female specimen V.

2. You are provided with specimen Y. Perform the following:

   (i) Cut into pieces and grind with sand.

   (ii) Divide into two portions: test tube 1 and test tube 2.

   (iii) Add H_2O_2 to both tubes.

   (iv) Boil the second before adding H_2O_2.

   (v) Observe reaction and test for gas with a glowing splint.

   Questions:

   (a) What was the aim of this experiment?

   (b) Why was sand used when grinding?

   (c) What were the observations in each test tube?

   (d) Identify the active component in specimen Y responsible for the reaction.

   (e) Write the chemical equation of the reaction.

   (f) Name the gas evolved and give a reason.

   (g) What conclusion can you draw from this investigation?

3. Observe specimens A, B and C. Then answer:

   (a) State three differences between specimen A and B.

   (b) How is specimen C adapted to capturing prey? Give three points.

   (c) Draw specimen C and label four parts.

   (d) Name three structural features placing all three specimens under Arthropoda.