THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2B **BIOLOGY 2B**

(ACTUAL PRACTICAL B)

Time: 3 Hour. **Wednesday 14/05/2003 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 W to display the reproductive system. Then answer:

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

   (b) Identify the sex of the specimen W. Give four evidences for your answer.

   (c) Explain why it is necessary to place the specimen on a dissecting board before cutting.

2. You are provided with specimen K. Use the following procedures to perform an experiment:

   (i) Cut specimen K into two equal halves.

   (ii) Grind one half and label as test tube X.

   (iii) Leave the second half untouched and label as test tube Y.

   (iv) Add 2% hydrogen peroxide to both tubes and observe changes.

   (v) Use a glowing splint to test gas in both tubes.

   Questions:

   (a) What was the aim of this experiment?

   (b) Which test tube acted as a control and why?

   (c) What were the observations after adding H2O2? Provide reasons.

   (d) Identify the active substance in specimen K responsible for observed change.

   (e) Write the chemical equation for the reaction observed.

   (f) Name the evolved gas and explain your reasoning.

   (g) Give two conclusions that can be drawn from this experiment.

3. Observe the provided specimens J, L, M, N and O. Then:

   (a) List five observable features shared by specimens J and L.

   (b) State four ways specimen N is important to humans.

   (c) Examine the lower surface of specimen O.

      (i) Identify any visible structures.

      (ii) State their functions.

   (d) Provide three features placing specimens J, L, and M in the same phylum.