THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2B **BIOLOGY 2B**

(ACTUAL PRACTICAL B)

Time: 3 Hour. **Wednesday, 11 May 2016**

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 **U** (a rat or guinea pig) to expose the digestive system.

(a) Draw a labelled diagram showing six parts of the digestive system.

(b) Identify organs responsible for:

(i) Transferring food from mouth to stomach

(ii) Production of ptyalin

(iii) Bile secretion

(c) Is a gall bladder present in specimen U? Justify your answer.

2. You are provided with specimen **N**. Carry out the following experiment:

(a) Cut specimen N into two. Grind one half and place into test tube A.

(b) Put the other half whole into test tube B.

(c) Add 2 ml of 2% hydrogen peroxide into both tubes. Observe and test for gas using a glowing splint.

Questions:

(i) What is the aim of this experiment?

(ii) Which test tube serves as control?

(iii) What are your observations and explanations in both tubes?

(iv) Name the enzyme responsible and the evolved gas.

(v) Write the chemical equation and give two deductions from this experiment.

3. Observe specimens **H**, **I**, **J**, **K**, and **L**.

(a) State five observable features shared by specimens H and J.

(b) How is specimen L useful in industries? Give four ways.

(c) Observe the lower side of specimen K.

(i) Identify any structures present.

(ii) State their function.

(d) Give three observable features placing specimens H, I, and J into one phylum.