THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

033/2A **BIOLOGY 2A**
(ACTUAL PRACTICAL A)
(For Both School and Private Candidates)

TIME: 2:30 Hours ***Monday, 07th November 2016 a.m.***

Instructions

1. This paper consists of two (**2**) questions. Answer **all** the questions.
2. Each question carries 25 marks.
3. Except for diagrams which must be drawn in pencil, all writings should be in blue or black ink.
6. Calculators and cellular phones are not allowed in the examination room.
7. Write your **Examination Number** on every page of your answer booklet(s).

This paper consists of 2 printed pages

SECTION A (20 Marks)

Answer **all** questions in this section.

1. You have been provided with solution **Z**.

   (a) Perform experiments using the reagents provided to identify the type of food substance(s) present in solution **Z**. Tabulate your results as shown in Table 1.

   Table 1

Food tested	Procedure	Observations	Inference

   (b) (i) Name two sources of food from which each of the food substances identified in 1 (a) could have been extracted.
   (ii) For each food substances identified in 1(a), give the name of the end product of digestion in human being.

   (c) Why is it important to use Iodine solution in this experiment?

   (d) Explain what happens in human body when the end products named in (b) (ii) are in excess.

2. You have been provided with specimens **R**, **S**, **T**, and **U**.

   (a) Study specimens **R**, **S**, **T**, and **U** carefully, then:
   (i) Identify specimens **R**, **S**, **T**, and **U** using their common names.
   (ii) Classify specimens **S** and **U** to Class level.

   (b) (i) Draw a well labelled diagram of specimen **R**.
   (ii) State six advantages of specimen **R**.

   (c) Observe the structures of specimen **T**.
   (i) Name the Kingdom and Division in which the specimen **T** belongs.
   (ii) Explain five general characteristics of the Division in which specimen **T** belongs.