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

033/2C

## **BIOLOGY 2C**

## (ACTUAL PRACTICAL C)

(For Both School and Private Candidates)

Time: 2:30 Hours

Wednesday, 15<sup>th</sup> November 2017 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 writing must be in blue or black ink.
- 4. Calculators, cellular phones and any unauthorised materials are **not** allowed in the examination room.
- 5. Write your **Examination Number** on every page of your answer booklet(s).





- 1. You have been provided with solution A. The solution contains various food substances.
  - (a) Use the chemicals and reagents provided to identify the food substances present in solution A. Tabulate your work as shown in Table 1.

#### Table 1

Food Tested	Procedure	Observations	Inference

- (b) State the importance of each food identified in 1(a) in the human body.
- (c) Give two type of food sources from which each food substance identified in 1(a) could have been extracted.
- (d) One of the food substances identified in 1(a) is very important for children under five years.
  - (i) Name the disease which develops when the diet provided to a child lacks that food substance.
  - (ii) State the symptoms of a disease mentioned in (d) (i).
- 2. You have been provided with specimens  $T_1$ ,  $T_2$  and  $T_3$ .
  - (a) Using a hand lens, study the specimens carefully and;
    - (i) Identify each specimen by its common name.
    - (ii) Classify each specimen  $T_1$ ,  $T_2$  and  $T_3$  from Kingdom to Phyla/Division level.
    - (iii) Why specimen  $T_2$  is said to have advantages to a farmer?
    - (iv) Identify four general characteristics which influenced you to place specimen T<sub>3</sub> in the Phylum/Division you named in (a)(ii).
    - (v) Draw a well labelled diagram of specimen  $T_3$ .
  - (b) Study carefully specimen  $T_1$  and  $T_2$  and;
    - (i) State two observable differences between  $T_1$  and  $T_2$ .
    - (ii) State the habitats of each specimen  $T_1$ ,  $T_2$  and  $T_3$ .