

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

**BIOLOGY 2C
(ACTUAL PRACTICAL C)
(For Both School and Private Candidates)**

033/2C

Time: 2:30 Hours

Monday, 22nd October 2012 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.
- 4 Calculators are **not** allowed in the examination room.
- 5 Cellular phones are **not** allowed in the examination room.
- 6 Write your **Examination Number** on every page of your answer booklet(s).

1. You have been provided with solution N.

- (a) Using the chemicals and reagents provided, carry out food test to identify the food substances present in solution N. Tabulate your work as shown:

Food Tested	Procedure	Observation	Inference

- (b) For the food substances identified in 1(a).
- Name at least two sources for each food substance.
 - Name the food substances which play a vital role in children growth.
 - Mention the disease which could develop to a child whose diet misses the food substance named in (b) (ii).
 - State five symptoms of the condition that will happen to the child in (b) (iii).

2. (a) Observe specimens M_1 , M_2 , M_3 and M_4 then:

- Identify specimens M_1 , M_2 , M_3 and M_4 by their common names.
- Use the scalpel provided to cut specimen M_1 longitudinally into two equal halves. Then, draw a well labeled diagram of one half of a cut section.
- State one function of each part you have labeled in a diagram above.
- State two advantages of specimen M_1 .

(b) Study specimen M_2 and M_3 carefully, then answer the following questions based on the observable structures.

- How do the two specimens differ?
- How similar are the two specimens?

(c) (i) Name the Class in which specimen M_4 belongs. Give two reasons to support your answer.

(ii) State one disadvantage of specimen M_4 .