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 **Friday, 07th November 2014 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 and cellular phone 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_4.

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

Table 1

Food tested	Procedure	Observations	Inference

(b) State one function of the food substance(s) identified in 1 (a).

(c) For the food substance(s) identified in 1(a), name one source in which each substance can be obtained.

(d) One of the food substances contained in A_4 is important for a child's development.
(i) Identify the food substance.
(ii) State the parts of the alimentary canal where digestion of this food subst takes place.
(iii) In each part, name the enzymes involved in the digestion.

2. You have been provided with specimens **P, Q** and **R**.

(a) Study specimens **P** and **Q** carefully, then:
(i) Identify specimens **P** and **Q** using their common names.
(ii) Draw a well labelled diagram of specimen **Q** showing external structures.
(iii) Name the Kingdom and Class in which each specimen **P** and **Q** belongs.
(iv) Give four examples of plants for each Class you named in 2 (a) (iii).
(v) State four distinctive features of the Classes in which specimens **P** and **Q** belongs.

(b) State the importance of each specimen **P** and **Q**.

(c) Observe the structure of specimen **R**.
(i) Give the name of specimen **R**.
(ii) Name the Class of an organism from which specimen **R** was obtained.
(iii) Explain the advantages of specimen **R** to the organism.