THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
DIPLOMA IN SECONDARY EDUCATION EXAMINATION

733/2B

BIOLOGY 2B
(ACTUAL PRACTICAL B)

Time: 3 Hours **Wednesday, 14th May 2014 a.m.**

Instructions

1. This paper consists of **three (3)** questions.
2. Answer **all** questions.
3. Question number 1 carries 40 marks and the rest carry 30 marks each.
4. Cellular phones are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

Scanned by CamScanner

1. You are provided with specimen **Q**. Dissect the specimen in the usual way to display the excretory system. Deflect the alimentary canal to the left of the specimen.

   (a) Draw a neat, large diagram of your dissection and label the structures of excretory system.

   (b) Name the function of each excretory structure you have labeled in (a).

   (c) State how each structure labeled in (a) is adapted to perform its function.

   (d) Classify specimen **Q** to its class level.

   (e) Outline any two characteristics of the phylum to which specimen **Q** belong.

   (f) Give five differences between the class of specimen **Q** and the class Arachnida.

   (g) Briefly describe two adaptations of specimen **Q** to harsh dry conditions.

   (h) **Leave your dissection properly displayed for assessment.**

2. You have been provided with solutions S_1, S_2 and S_3.

   (a) Using the chemicals and reagents provided carry out the food test experiment to identify the food substances present in solutions S_1, S_2 and S_3.

Record your work as shown in the following table:

Food tested	Procedure	Observation	Inference

   (b) For each food substance identified in (a) name one common source for it.

   (c) State the role played by each food substance identified in 2(a) above.

3. Carefully study the provided specimens K_1, K_2 and K_3.

   (a) Identify each specimen by its common name.

   (b) Name the phylum/division of each specimen provided.

   (c) Draw a labeled diagram of specimen K_3.

   (d) Describe the life cycle of specimen K_3. (Diagrams are not necessary).

   (e) How does specimen K_3 differ from higher plants.

   (f) Enumerate five adaptations of specimen K_1 to its environment.

   (g) Which part of specimen K_2 store food.

   (h) Which type of food substance is stored in specimen K_2.

   (i) Name three usefulness of specimen K_2 to human being.

Scanned by CamScanner