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, 08th November 2013 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 phones 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 B.

(a) Identify the food substances present in solution B by using the reagents provided. Tabulate your work as shown in the following Table:

<table>
<thead>
<tr>
<th>Food tested</th>
<th>Procedure</th>
<th>Observation</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) For each food substance identified in 1(a);
   (i) Name two common sources.
   (ii) State their role in the body of human being.

(c) The digestion of one of the identified food substance in 1(a) starts in the mouth.
   (i) Name this food substance.
   (ii) Identify the enzyme responsible for its digestion in the mouth.

(d) The digestive system of human being has several parts.
   (i) Name the part of digestive system in which most of digestion and absorption of food takes place.
   (ii) Explain how the named part in (d) (i) is adapted for absorption of digested food substances.

2. You have been provided with specimens S₁, S₂, S₃ and S₄.

(a) Use the hand lens to observe these specimens then:
   (i) Identify specimen S₁, S₂, S₃ and S₄ by their common names.
   (ii) Classify specimen S₁, S₂ and S₃ to Class level.

(b) Study specimen S₃ carefully then answer the following questions:
   (i) Draw a neat, large and well labeled diagram of specimen S₃.
   (ii) State the habitat of specimen S₃.
   (iii) In what ways is specimen S₃ important to a farmer?

(c) State two advantages of specimen S₁.

(d) State four advantages of specimen S₄.

(e) Give reason why specimen S₄ was formally placed in the Kingdom Plantae.