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

033/2B

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

Time: 2:30 Hours

Thursday, 14th 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 specimens $S_1$ and $S_2$ for food substances identification.

(a) Explain how you will prepare specimens $S_1$ and $S_2$ for identification of food substances they contain.

(b) Carry out food test experiments to establish the food substances present in specimen $S_1$ and $S_2$. Tabulate your experimental work as shown in the table below:

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

(c) For the food substance identified in (b) above:

(i) Name the end products of their digestion.
(ii) State the part of the body where excess end products in (i) are stored.
(iii) State the function in the human body of each food substance identified in (b).
(iv) Mention the enzymes responsible for their digestion.
(v) Name the medium under which the digestion of food substances in $S_1$ is favourable.
(vi) Name the part of alimentary canal in which absorption of the food substances identified in (b) above takes place.

2. You have been provided with specimens $K_1$, $K_2$, $X_1$ and $X_2$.

(a) Study carefully specimens $K_1$ and $K_2$ then:

(i) Identify specimens $K_1$ and $K_2$ by their common names.
(ii) Name the habitats for each of specimen $K_1$ and $K_2$.
(iii) Briefly explain the features which enable specimen $K_1$ to survive in its habitat.
(iv) What terms are used to describe these organisms in relation to water economy?
(v) Suggest the mode of reproduction of specimen $K_2$. Give reason to support your answer.

(b) Study carefully specimens $X_1$ and $X_2$ then:

(i) Identify specimens $X_1$ and $X_2$ by their common names.
(ii) Classify specimen $X_1$ to class level.
(iii) State the features used to place specimens $X_1$ and $X_2$ in their respective kingdom.
(iv) Write down the advantages and disadvantages of each specimen $X_1$ and $X_2$. 