RACHUONYO SOUTH DISTRICT JOINT EVALUATION TEST

Kenya Certificate of Secondary Education (K.C.S.E.)

Biology Practical

INSTRUCTIONS TO CANDIDATES:

- Write your name and index number in the spaces provided.
- Sign and write date of examination in the spaces provided above.
- Answer all the questions in section A and B.
- You are required to spend the first 15 minutes of the 1 ¾ hours allowed for this paper reading the whole paper carefully.

For Examiner’s Use Only:

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>MAXIMUM SCORE</th>
<th>CANDIDATES SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

This paper consists of 4 printed pages. Candidates should check to ascertain that all papers are printed as indicated and that no questions are missing.

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1. The photographs below show evidences of different structures that indicate evidences of evolution.

(a) Identify the type of structure represented by photographs

1. .................................................................

3. .................................................................

(b) Define each of the type of structures you have identified in (a) above.

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(c) State and explain the type of evolution exhibited by photographs.

Photograph 1.................................................................

Photograph 2.................................................................

Explanation

1. ........................................................................

2. ........................................................................
(d) List two vestigial structures. (2mks)
…………………………………………………………………………………………………..………
……………………………………………………………………………………………………....….

(e) List two other evidences of evolution. (2mks)
…………………………………………………………………………………………………..………
……………………………………………………………………………………………………....….

2. Use the photograph below to answer the questions that follow.

(a) Using observable features only, identify the class to which the specimen belongs. (1mk)
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(b) State three observable features you have used to identify the class to which the specimen above belongs. (3mk)
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……………………………………………………………………………………………………....….
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(c) (i) Comment on the arrangement of the structures labeled G. (1mk)
…………………………………………………………………………………………………..………

(ii) State the significance of the arrangement of the structures labelled G above. (2mks)
…………………………………………………………………………………………………..………
……………………………………………………………………………………………………....….

(d) Label the parts F and J (2mks)
F…………………………………………………
J…………………………………………………

(e) Give the function of the part labeled H (1mk)
…………………………………………………………………………………………………..………
……………………………………………………………………………………………………....….
(f) Measure in millimeters the length of the specimen.

(i) From the tip of mouth to tip of tail. ................................................................. (1mk)

(ii) From anus to tip of tail ................................................................................... (1mk)

(iii) Using the measurements in f (i) and f (ii), calculate the tail power. .......... (2mks)

3. You are provided with solution A, solution B and reagents DCPIP, benedicts solution, distilled water, source of heat and test tubes.

Use solution A to carry out food tests and record in the table below. (10mks)

<table>
<thead>
<tr>
<th>Solution</th>
<th>Food substance</th>
<th>Procedure</th>
<th>Observation</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

(b) Using a clean dropper, take a drop of solution B and place on a filter paper, warm the filter paper over a flame until it is dry.

(i) Record your observation. ................................................................. (1mk)
..................................................................................................................
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(ii) Give one functions of the food value in solution B. ...... (1mk)
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