EXAMINATIONS COUNCIL OF ZAMBIA

Joint Examination for the School Certificate and General Certificate of Education Ordinary Level

BIOLOGY
PAPER 3 Practical Test

Tuesday 29 OCTOBER 2002 1 hour 15 minutes

Additional materials:
As listed in Instructions to Supervisors.

TIME: 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.
There are two questions in this paper.
Answer both questions.
Write your answers in the spaces provided on the question paper.
Use sharp pencils for your drawings. Coloured pencils and crayons should not be used.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.
1. (a) Take a sample of powdered groundnuts and press it against one end of a strip of paper labelled S1.
Repeat this action on a second strip of paper labelled S2.

(i) State what happens to both strips of paper.

(ii) What food test have you just carried out?

(b) (i) Immerse and shake the part of S1, where the groundnut powder was pressed, in alcohol for 20 minutes. Remove excess liquid.

Observation (S1)

Reason:

(ii) Immerse and shake the part of S2 where the groundnut powder was pressed in distilled water for 20 minutes. Remove excess liquid.

Observation (S2)

Reason:
(iii) Why was it necessary to shake strip S1 and strip S2 in the liquids?

(iv) What was the purpose of using distilled water in the experiment?

(c) (i) Where in the human body is the nutrient you have identified digested?

(ii) Name the enzyme involved in the digestion of the nutrient.

(iii) Name the products of the digestion in (ii) above.

(iv) State three functions, in the human body, of the nutrient you have identified.

1.

2.

3.

(d) Describe another method you would use to confirm the presence of the nutrient you have identified.

Procedure:

Observation:

[Total: 20]
2. You are provided with specimen P.

Using a razor blade, carefully cut a longitudinal section of specimen P. Examine the section using a magnifying hand lens and make a large labelled drawing to show the internal features.

(a)

(b) (i) Measure the length of specimen P. (Draw a line along the length measured.)

Length .............................................................................................................. [1]

(ii) Calculate the magnification of your drawing.

Calculation:

Magnification:

.............................................................................................................. [3]
(c)  
(i) Name the agent of pollination of specimen P

(ii) Give three reasons for the answer.
1. ..................................................................................................................
   ..................................................................................................................
   ..................................................................................................................

2. ..................................................................................................................
   ..................................................................................................................
   ..................................................................................................................

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

[3]

(d) Complete the table given below:

<table>
<thead>
<tr>
<th>FLOWER PART</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anther</td>
<td>Develops into a seed</td>
</tr>
<tr>
<td>Sepal</td>
<td>It is the passage of pollen tubes and their nuclei to the ovary</td>
</tr>
<tr>
<td>Ovary</td>
<td></td>
</tr>
</tbody>
</table>

[5]
[Total: 20]
DOWNLOAD ECZ

PAST PAPERS

FROM YOUR

PHONE OR PC

www.zedpastpapers.com