

Candidate Name _____

Centre Number

Candidate
Number

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International General Certificate of Secondary Education
UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE
BIOLOGY
PAPER 5 Practical Test
OCTOBER/NOVEMBER SESSION 2001

0610/5

1 hour

Candidates answer on the question paper.
Additional materials:
As listed in Instructions to Supervisors

TIME 1 hour

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

Use a sharp pencil for your drawings. Coloured pencils or crayons should **not** be used.

INFORMATION FOR CANDIDATES

The intended number of marks is given in brackets [] at the end of each question or part question.

FOR EXAMINER'S USE	
1	
2	
3	
TOTAL	

This question paper consists of 5 printed pages, 2 blank pages and a Supervisor's Report.

1 You are provided with a slice of potato tuber and two liquids, **A** and **B**, in labelled tubes. On the surface provided, cut two strips of potato, at least 40 mm long and approximately 5 mm wide. Place one strip in each of the liquids **A** and **B**. Leave the strips, covered by the liquids, for **at least 20 minutes**. During the 20 minutes, continue with **(a)** and **(b)** below.

(a) (i) Use a dropper to remove a sample of each liquid, **A** and **B**, from the tubes containing the potato strips. Carry out a Benedict's test on each sample. Complete the table below.

liquid	observation	conclusion
A		
B		

[4]

(ii) Describe how you carried out the test.

.....

.....

.....

.....

.....

.....[3]

(b) The cells of a potato contain starch.

(i) Describe how you would test a piece of a potato for starch, and state what observation you would expect to make.

test

observation[2]

(ii) State two functions of starch in potato tuber cells.

1.

.....

2.

.....[2]

2 You are provided with specimen **W1**.

(a) (i) Describe **one** visible feature of **W1** that is a characteristic of both fish and reptiles, but **not** of amphibians or mammals.

.....[1]

(ii) List three other visible features of **W1** that indicate that it is a fish.

1.

2.

3.[3]

(b) Place **W1** on its side. Lift the operculum (gill cover) so that you can see the gills.

(i) Suggest **one** function of the operculum.

.....[1]

(ii) In the space below, make a large, labelled drawing of the **head** of the fish, to include the mouth and operculum.

[7]

[Total : 12]

3 You are provided with two leaves, **W2** and **W3**.

(a) The upper surface of **W2** appears a darker green than the lower surface.

(i) Explain this difference in appearance with reference to the internal structure of the leaf.

.....
[1]

(ii) How might this difference in internal leaf structure be an advantage to the plant?

.....

[2]

(iii) Complete the table below to describe **two** other visible differences between the upper and lower surfaces of **W2**.

upper surface of W2	lower surface of W2

[2]

(b) Complete the table below to describe **three** visible differences between **W2** and **W3**.

W2	W3

[3]

[Total : 8]

SUPERVISOR'S REPORT

**The Supervisor or Teacher responsible for the subject is asked to answer the following questions.*

- 1 Was any difficulty experienced in providing the necessary material? If so, give brief details.

- 2 Did the candidate experience any difficulty during the examination as a result of faulty material? If so, give brief details.

- 3 Did the candidate suffer any accidents with apparatus or materials? If so, give brief details.

- 4 Please state any other information that is likely to assist the Examiner, especially if this cannot readily be discovered from the answers.

5 Please identify **W2**.

Please describe the visible differences, apart from colour, between upper and lower surfaces of **W2**.

.....

.....

.....

.....

The preparation of the practical examination has been carried out so as to fully maintain the security of the examination.

Signed

Name (in block capitals)

***Information that applies to all candidates need be given only once.**

N.B. If scripts are required by CIE to be despatched in more than one envelope, it is essential that a copy of the relevant Supervisor's Results (when requested), the Supervisor's Report and the appropriate seating plan are sent inside **each envelope**.