

Centre Number	Candidate Number	Name
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**CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
International General Certificate of Secondary Education

**BIOLOGY** **0610/05**

Paper 5 Practical Test May/June 2003

**1 hour**

Candidates answer on the Question Paper.  
Additional Materials:  
As listed in Instructions to Supervisors.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces provided at the top of this page.  
Write in dark blue or black pen in the spaces provided on the Question Paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.  
The number of marks is given in brackets [ ] at the end of each question or part question.

If you have been given a label, look at the details. If any details are incorrect or missing, please fill in your correct details in the space given at the top of this page.

Stick your personal label here, if provided.

FOR EXAMINER'S USE	
1	
2	
<b>TOTAL</b>	

- 1 You are provided with two samples of bread dough in test-tubes, labelled **S1** and **S2**.

Do **not** remove the dough from the tubes.

Support the tubes vertically and measure the highest level of the dough in each tube immediately and note the time on the clock.

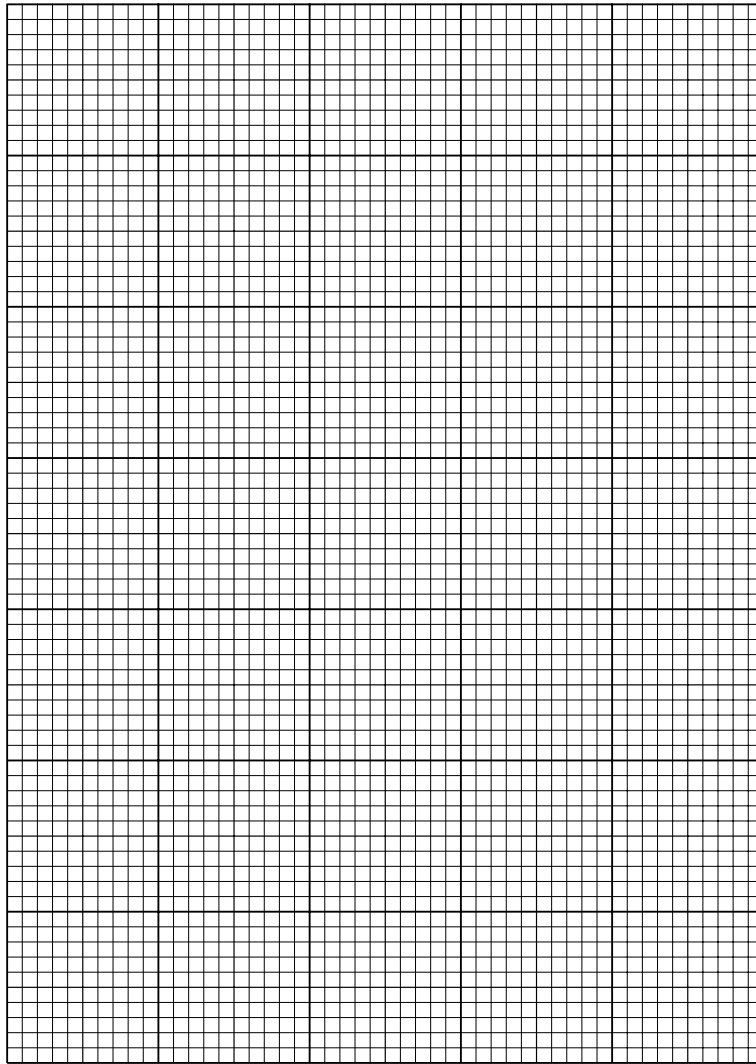
Record these heights and the time the readings were taken in the space below.

- (a) At 5 minute intervals over the next 30 minutes, measure the levels of the dough for **S1** and **S2**. Record the heights and times in a suitable table in the space below.

**You should start Question 2 whilst you continue with your readings.**

[5]

(b) On the grid below, plot your measurements for **S1** and **S2** as two curves on one set of axes.



[6]

(c) Describe the two curves on the graph for both dough samples, **S1** and **S2**.

**S1** .....

.....

**S2** .....

.....[3]

- (d) The two dough samples are similar in content of flour and water but dough sample **S1** also contains yeast and a small amount of sugar.

Use this information to explain your recorded data.

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.....[6]

[Total : 20]

- 2 (a) You are provided with a test tube **S3** containing a material similar to mollusc secretion, suspended in water.

Test the contents of the tube for the presence of protein.

- (i) Record your results in the table below.

	Observation after testing for protein	Conclusion
<b>S3</b>		

[2]

- (ii) Describe how you carried out the test for protein.

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.....[2]

(b) You have been provided with specimen **S4**.

- Take care **not** to touch or disturb the animal.
- Examine the specimen carefully, using the hand lens.

(i) Make a large, labelled drawing of **S4** in the space below.  
Label those features which enable you to recognise this specimen as a mollusc.

[6]

(ii) Measure the length of specimen **S4** and your drawing of specimen **S4**. Calculate the magnification of your drawing.

*length of specimen S4* .....

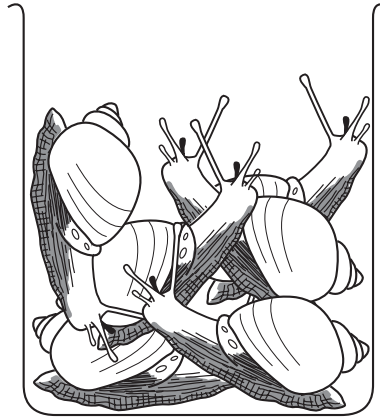
*length of your drawing of specimen S4* .....

*magnification* .....

[2]

- (c) It has been suggested that the body temperature of molluscs is the same as the temperature of their environment.

Fig. 2.1 shows some snails in a beaker.



**Fig. 2.1**

Plan, but do **not** carry out, an experiment to find out if the temperature of the snails in the beaker in Fig. 2.1 is the same as their environment.

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.....[3]

(d) Specimen **S5** is part of a mollusc and was formed by the animal when it was alive.

(i) Describe the appearance and structure of specimen **S5**.

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.....  
.....[2]

(ii) Dilute hydrochloric acid reacts with calcium carbonate to produce carbon dioxide gas.  
Place the specimen on the tile provided. **Carefully** add a few drops of dilute hydrochloric acid on to the specimen and observe the effect.

Comment on your observation and suggest an explanation.

*observation* .....  
.....  
*explanation* .....  
.....[2]

(iii) Suggest a function of **S5** in the living animal.

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

[Total: 20]

**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 **S4** and **S5**.

**S4** .....

**S5** .....

Please describe briefly the appearance of any features likely to assist the Examiner.

*Declaration (to be signed by the Principal, and completed on the top script from the Centre)*

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