



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**BIOLOGY**

**0610/05**

Paper 5 Practical Test

**May/June 2008**

**1 hour**

Candidates answer on the Question Paper.

Additional Materials: As listed in Confidential Instructions.

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use a pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

Answer **both** questions.

At the end of the examination, fasten all your work securely together.

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

**For Examiner's Use**

<b>1</b>	
<b>2</b>	
<b>Total</b>	

This document consists of **6** printed pages and **2** blank pages.



# 1 Read the whole question before starting work.

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Humans and other mammals are able to maintain a relatively constant body temperature despite widely ranging environmental temperatures.

You are provided with two containers with lids. The containers represent two mammals cooling.

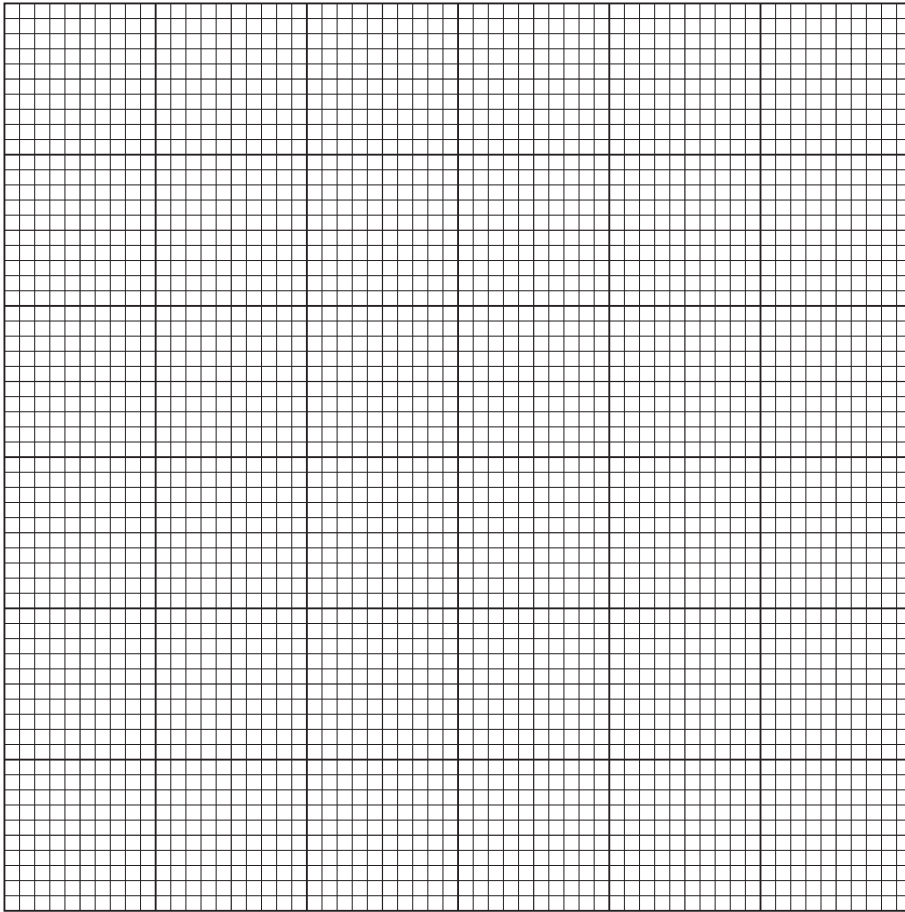
- Wrap a paper towel around each container and secure each towel with an elastic band.
  - Use the pipette to squirt water from the beaker onto the paper towel around **one** of the containers, so that it is wet all over.
  - IF, AT ANY TIME, THE PAPER TOWEL APPEARS TO BE GETTING DRY, ADD MORE WATER FROM THE PIPETTE.
  - The paper towel around the second container should be left dry.
  - When you are ready, raise your hand and ask the supervisor to fill both containers with hot water.
  - BE CAREFUL WITH THE HOT WATER.
  - Cover the containers with the lids.
- (a) (i) **Immediately**, take the temperature of the water in each container by gently putting the thermometer through the hole in the lids and into the water.
- Record the temperature of the water in each container in Table 1.1. This is 'zero' time. [1]
- (ii) Every 2 minutes after zero time, take the temperatures in the two containers and record your readings in Table 1.1.

**Table 1.1**

time from start/min	'dry' container temperature/°C	'wet' container temperature/°C
0 ['zero' time]		
2		
4		
6		
8		
10		

[5]

(b) On the same axes, plot a graph of your results.



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(c) (i) Compare the cooling of the water in the two containers.

[5]

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..... [2]

- (ii) Explain what has happened to produce the results you have obtained.

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..... [3]

- (iii) Describe how the human skin carries out a similar cooling process when the body becomes too hot.

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..... [2]

- (d) (i) Describe **two** ways in which your investigation is a fair test.

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..... [2]

- (ii) Describe **three** improvements you could make to increase the accuracy and reliability of this investigation.

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..... [3]

[Total: 23]

- 2 You are provided with two fruits, **S1** and **S2**, which have been cut in half longitudinally through the middle.

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Use*

(a) Make a large, labelled drawing of the cut surface of **S1**.

[5]

(b) Study the specimens **S1** and **S2**.

(i) Complete Table 2.1 to show four differences between the two fruits, **S1** and **S2**.

**Table 2.1**

	<b>S1</b>	<b>S2</b>
1		
2		
3		
4		

[4]

(ii) Describe two similarities between **S1** and **S2**.

1. ....
2. .... [2]

(c) Describe an investigation you could carry out to compare the reducing sugar content of these two fruits, **S1** and **S2**.

Include any safety precautions you will need to consider.

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..... [6]

[Total: 17]

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