UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

8853252376

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	
1	
2	
Total	

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

For Examiner's Use

1 Read the whole question before starting work.

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.

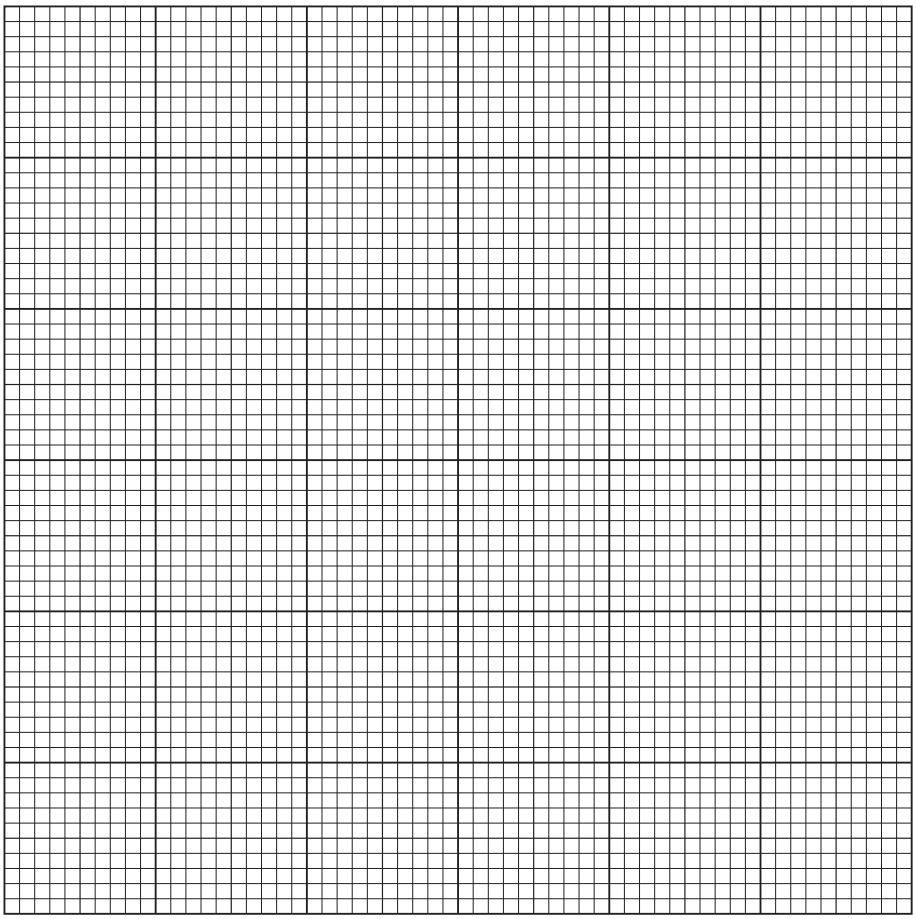
Table 1.1

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.

For Examiner's Use



[5]

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

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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]

For Examiner's Use

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

(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

	S1	**S2**
1		
2		
3		
4		

[4]

For Examiner's Use

(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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