UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

PHYSICS **5054/03**

Paper 3 Practical Test

May/June 2005

2 hours

ANSWER BOOKLET

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 in the spaces provided on this Answer Booklet.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
All of your answers should be written in this Answer Booklet: scrap paper must **not** be used.

Answer **all** questions.
Graph paper is provided in this Answer Booklet. Additional sheets of graph paper should be used only if it is necessary to do so.
At the end of the examination, fasten any additional answer paper used securely to this Answer Booklet.

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	
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Total	

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

2

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Section A

1 **(a)** determination of l

(b) calculation of D given that $D = \dfrac{l}{4\pi}$

(c) record of d

record of h

(d) record of M

calculation of approximate density using

$$\text{approximate density} = \frac{8\,M}{\pi\,D\,(D-d)\,(D+4\,h)}$$

[Turn over

4

2 **(a)** record of cooling time for 100 cm^3 beaker

(b) record of cooling time for 250 cm^3 beaker

(c) precaution 1

precaution 2

(d) beaker in which the water cools more rapidly

reason

3 **(a) (b)** and **(c)**

V /	I /	R /

space for working

(d) comment on the results

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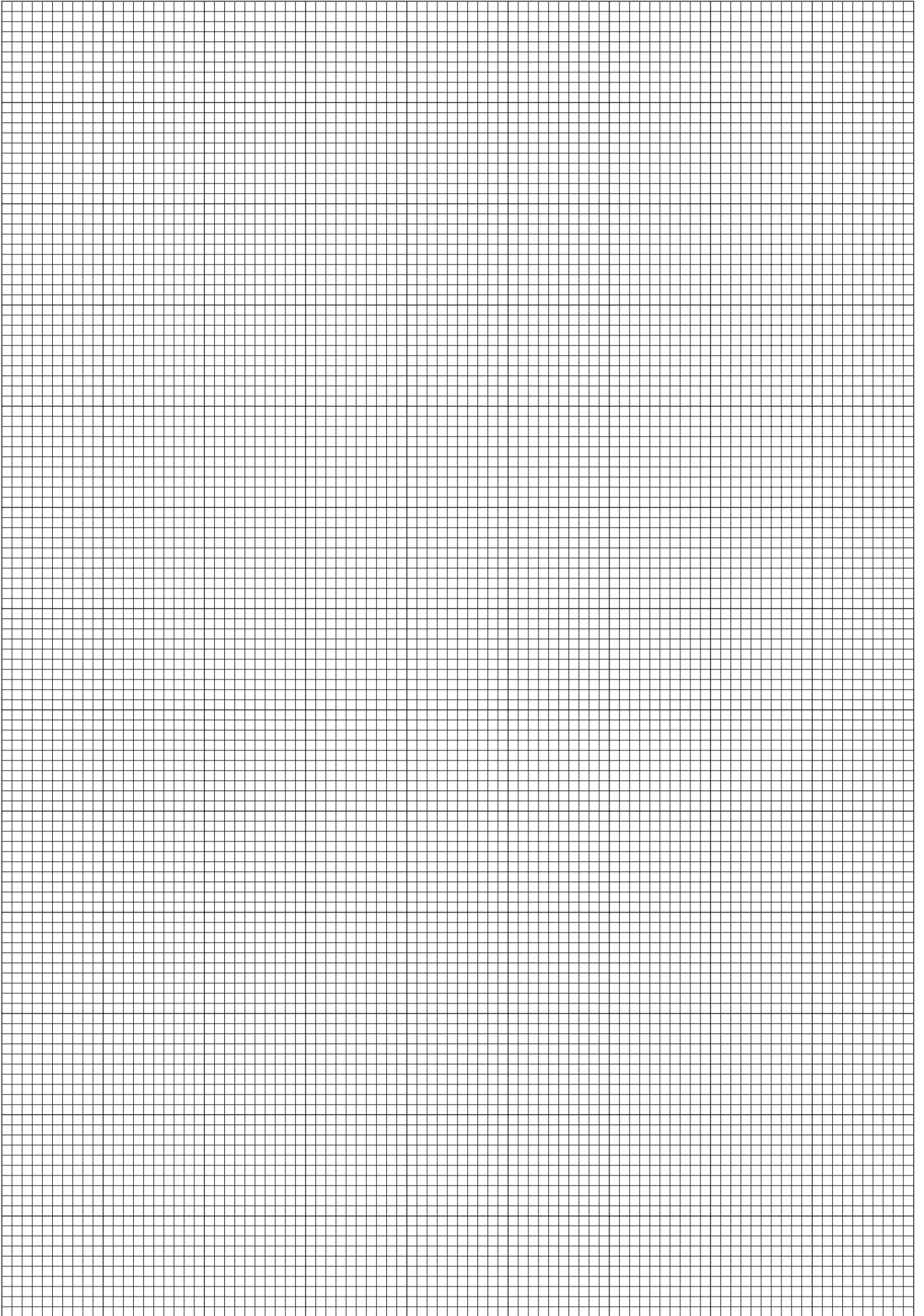
Section B

4 **(a)** record of h

explanation and diagram showing how you ensured that the height measured was vertical

(b) determination of T

(c) and **(d)**

(e) using the grid on page 7, plot a graph of T^2/s^2 on the *y*-axis against h/cm on the *x*-axis

(f) determination of G

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