| Centre Number | Candidate Number | Name |
| :--- | :--- | :--- |

## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

## PHYSICS

Paper 5 Practical Test
May/June 2006
ANSWER BOOKLET
1 hour 15 minutes

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

| For Examiner's Use |  |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| Total |  |

This document consists of 7 printed pages and 1 blank page.

1 (a) (i) $M=$ g
(ii) Calculation of the average mass $m$

$$
m=
$$

g
(b) (i) $h=$ mm
(ii) Calculation of $t$

$$
t=\text {.......................................... } \mathrm{mm}
$$

(c) (i) $l=$ $\qquad$ mm $w=$ mm
(ii) Calculation of $V$ using the equation $V=l t w$

$$
V=
$$

(d) Calculation of $d$ using the equation $d=\frac{m}{V}$

$$
d=
$$

(e) Estimate of the volume $V_{a}$
$V_{a}=$

2 (a) Circuit diagram
(b) $\quad$ (i) $I_{1}=$
$V_{1}=$
(ii) Calculation of $R_{1}$ using the equation $R_{1}=\frac{V_{1}}{I_{1}}$

$$
R_{1}=
$$

(c) (i) $I_{2}=$

$$
V_{2}=
$$

(ii) Calculation of $R_{2}$ using the equation $R_{2}=\frac{V_{2}}{I_{2}}$

$$
R_{2}=
$$

3 (a) Description of how you checked that the metre rule was horizontal.
(b) - (f)

| $F / \mathrm{N}$ | $d / \mathrm{m}$ | $\frac{1}{d} / \frac{1}{\mathrm{~m}}$ |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

(h) Calculation of the gradient $G$ of the graph

$$
G=
$$

(i) Calculation of the weight $W$ of the metre rule using the equation $W=\frac{G}{k}$
$\qquad$
(g)


4 (h) $a=$
(j) $b=$ $\qquad$
(m) $c=$
(n) Calculation of $n$ using the equation $n=\frac{c}{a}$

$$
n=
$$

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