Centre Number	Candidate Number	Name	
UNIVER	SITY OF CAMBRIDG General Certificate	E INTERNATIONAL EXAMINATIONS	
PHYSICS		5054/	03
Paper 3 Pra	ctical Test	May/ June 20	206
ANSWER BOOKLET		May/Julie 2006	
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5054/03/AB/M/J/06

## Section A

- 1 (a) (ii) determination of L
  - (iii) determination of D
  - (b) explanation of how you made sure that *L* was determined as precisely as possible

- (c) (ii) record of V
- (d) calculation of  $V_{\rm s}$

(e) calculation of 
$$\frac{V_s}{V_s + V}$$

2 (a) (ii) determination of x

(b) explanation of how you made sure that the metre rule was vertical

- (c) (i) time for 20 oscillations
  - (ii) statement of one precaution
  - (iii) calculation of T

(d) calculation of 
$$\frac{T^2}{x}$$

**3** (a) circuit diagram of the arrangement set up by the Supervisor

5

(b) record of  $I_1$ 

- (c) record of  $I_2$
- (d) record of  $I_{\rm T}$
- (e) estimation of the resistance of  ${\rm R}_{\rm 2}$

6

- (iii) determination of  $m_{\rm W}$
- (b) (iii) record of  $\boldsymbol{\theta}_{\text{R}}$

## (c) table of values of t and $\theta$

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- (d) using the grid on page 7, plot a graph of  $\theta/^{\circ}C$  on the *y*-axis against *t*/s on the *x*-axis
- (e) determination of the rate of rise of temperature at t = 150 s
- (f) calculation of power using power =  $(m_W c_W + m_B c_B) \times (\text{rate of rise of temperature})$



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