Centre Number	Candidate Numbe	n Name		
		RNATIONAL EXAMINATION	-	
PHYSICS		,	5054/03	
Paper 3 Pra	actical Test			
		IV	/lay/June 2003	
ANSWER B	OOKLET		2 hours	
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## Section A

1 (a) determination of the average value for T

(b) determination of average values for l and w

(c) record of M

(d) calculation of density using density =  $\frac{\text{mass}}{\text{volume}}$ 

(e) statement of the measurement that causes the greatest uncertainty in the density

reason for your choice

- 2 (b) (i) record of  $h_{\rm O}$ 
  - (ii) record of  $h_{\rm I}$
  - (iii) record of v

(c) (i) calculation of *m* using 
$$m = \frac{h_{\rm I}}{h_{\rm O}}$$

(ii) calculation of f using 
$$f = \frac{V}{m+1}$$

(d) description of the test used to see if the image is inverted

**3** (a) diagram of the circuit that has been set up by the Supervisor

(b) record of  $\theta_1$ 

(c) record of I and V

record of  $\theta_2$ 

(d) calculation of *c* using  $c = \frac{IVt}{m(\theta_2 - \theta_1)}$ , where m = 50 g

## Section **B**

5

- **4** (a) record of *l* 
  - (b) description of the method used to check that the metre rule is horizontal

(c) record of F and d

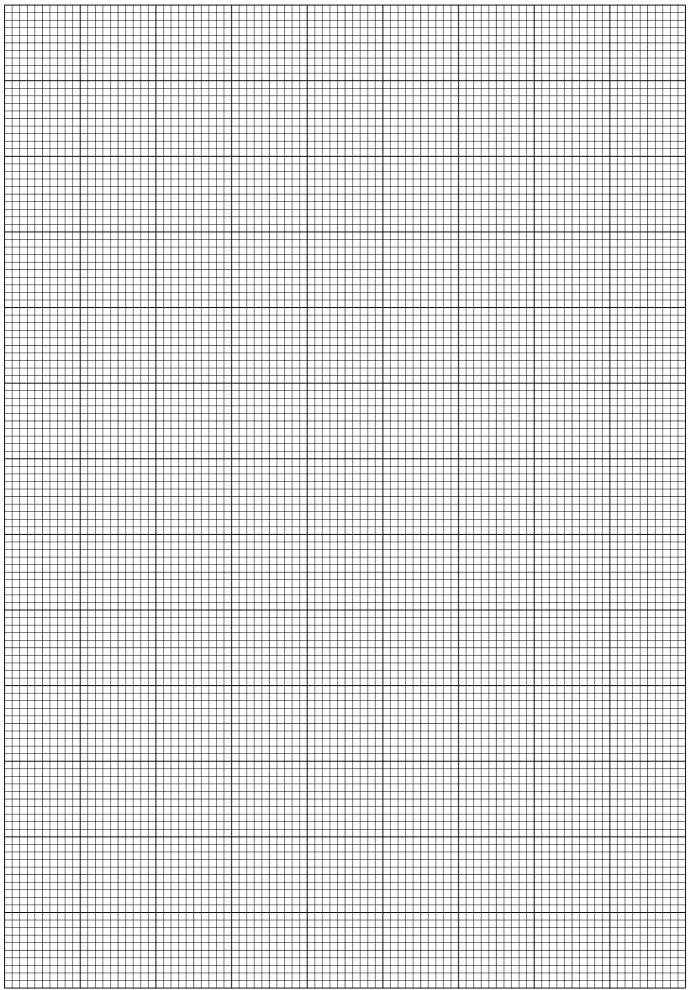
(d) table of values of d, F and 1/d

(e) using the grid on page 7, plot a graph of *F*/N on the *y*-axis against (1/*d*)/(1/cm) on the *x*-axis

6

(f) determination of G

(g) determination of W using W = G/l



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