

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

November 2003

INTERNATIONAL GCSE

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 0625/05

PHYSICS
Practical



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1	(b)(c)	Table A, 6 temps, decreasing	1
		Table B, 6 temps, decreasing	1
		Temp unit	1
		Time unit	1
		Evidence of temp to better than 1°C	1
		Consistently better than 1°C	1
	(d)	Graph:	
		Time axis suitable (no '3' scales allowed)	1
		Time axis labeled	1
		Check plots at 210 s and 240 s	1
			1
		lines judgement (best fit curves)	1
		lines thickness	1
	(e)	Both lines correctly labeled	1
		Conclusion:	
Correct statement in relation to candidate's lines		1	
	Explained with correct reference to gradients		
	(if previous mark scored)	1	
			TOTAL 15
2	(b)	x = 20.0 (cm)	1
	(c)	y value less than 25 cm	1
		y value to nearest mm	1
	(d)	d = 25 (cm) (allow e.c.f.)	1
	(e)	t value correct arith	1
	(f)	x = 30 (cm)	1
		y value in range 30.0 – 37.5 (cm)	1
		d = 37.5 (cm) (allow e.c.f.)	1
		all x, y, d consistently in mm, cm or m (unit stated at least once)	1
		x, y d units stated every time	1
		t value correct arith	1
		t values within 0.5 cm of each other	1
	(g)	average t; correct method	1
final answer to 2/3 sf		1	
with correct unit		1	
			TOTAL 15

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3	Trace	
	Neat thin lines	1
	Lines complete	1
	A and B correct positions	1
	New B correct	1
	$i = r$ (by eye)	1
	CD at least 5 cm	1
	Second CD at least 5 cm	1
	Straight lines extended to X	1
	XA drawn and Y labeled	1
(j)	AY correct to 2 mm	1
	YX correct to 2 mm	1
	AY and YX same to within 10 mm	1
(k)	Thickness of mirror OR thickness of pins OR thickness of lines	1
(l)	Precaution (pin separation, view bases, vertical pins)	1
	Reason	1
		TOTAL 15
4.	(b)–(g) x in m, cm or mm	1
	V in V	1
	k in V/m, V/cm or V/mm	1
	correct x values (0.200, 0.400, 0.800 m)	1
	all x to nearest mm	1
	x consistent sf	1
	evidence of V to better than 0.5 V	1
	all V to better than 0.5 V	1
	3 k values	1
	Check second k value, correct	1
	all k to 2 sf OR all k to 3 sf	1
	all k same to within 10%	1
(h)	(voltage increases with length)	1
	OR voltage proportional to length	2
	k = constant OR figures correctly quoted	1
		TOTAL 15