www. tremepapers.com

## **UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2010 question paper for the guidance of teachers

## 0625 PHYSICS

0625/63

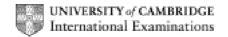
Paper 63 (Practical), maximum raw mark 40

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

• CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the May/June 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



	Page 2		Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – May/June 2010	0625	63
1	(a)	table: 1/d values correct 0.0331, 0.0418, 0.0500, 0.0585 (0.058 to 2 sig. fig.), 0.0662 consistent 2 or 3 significant figures			[1] [1]
	(b)	plots all owell judg	elled uitable, <u>plots</u> occupying at least half grid correct to ½ square (ecf) – take centre of plot if large ged line thin line (≤½ square) or if plots > ½ square)	9	[1] [1] [1] [1]
	(c)		method used and shown (any indication on graph) ) using at least half line (can be seen in calculation)		[1] [1]
	(d) $\mu$ 27 – 33 (NO ecf) 2 or 3 significant figures and unit g				[1] [1] [Total: 10]
2	(a)	table: $t$ in s, $\theta$ in (NOT de times 30	ds)	[1] [1]	
	(b)	both tem	perature falls correct (ignore unit or lack of unit) 26,	30	[1]
	(c)	•		t' or 'it')	[1] [1]
	(d)	stir/s sam cons sam avoi (NO	from: the starting temperature same thermometer position the interval time stant room temperature/carry out at same time the volume/amount/mass of water and draughts or wtte T reference to container, insulation, precaution) tra answers: -1 if incorrect, ignore if neutral)		[2]
					[Total: 7]

Page 3		ge 3	Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – May/June 2010	0625	63
3	(a)	diagram: correct s (lamp – c voltmete lamps in	[1] [1] [1]		
	(b)	Correct F	(any in symbols, words or a mixture) R values 6.13, 6.00, 3.11 ent 2 or 3 significant figures		[1] [1] [1]
	(c)	justificati	nt matches readings (expect NO) ion matches statement eference to <u>resistance results</u> (don't need numbers)		[1] [1] [Total: 8]
4	(a)	normal la	abelled (allow N N' on end or N, N' alone)		[1]
	(b)	P <sub>1</sub> P <sub>2</sub> dist	tance at least 3 cm		[1]
	(c)	$\theta$ correct $(\theta - 2i)$ c	drawn neatly and correctly t to ±1° 60 correct 0 (ecf) (ignore sign) least once in <b>(c)</b> and not contradicted		[1] [1] [1] [1]
	(d)	2° (ignor	re unit and sign)		[1]
	(e)	expect Y NO only justificati	nt matches results (ecf) 'ES if 0 and 2, if 'too different' or wtte in justification ion matches statement and by reference to results most/nearly the same or within expt accuracy)		[1] [1] [Total: 9]

Page 4	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSE – May/June 2010	0625	63

(a) x = 3.9 and y = 5.4 (any answer correct when rounded to 2 sf) [1] both with correct unit [1] m = 1.38 no unit, 2 or 3 significant figures (allow x for unit) or correct calculation from correct x and y [1]

**(b)** any two from:

clamp rule or place on bench
use area away from direct sunlight/dark room/bright object
ensure object and lens same height (from bench)
mark on lens holder (accept on lens)
screen and lens perpendicular to bench/aligned/in straight line/on principle axis
move lens slowly (backwards and forwards)
repeats
avoid parallax (or wtte) with action given

(c) scale drawn on paper on screen/graph paper on screen/ mark on screen (then) measure/clamp ruler on scale/

use translucent screen and measure from other side [1]

[Total: 6]

2