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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0625 PHYSICS

0625/63

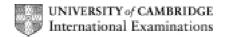
Paper 6 (Alternative to Practical), maximum raw mark 40

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 October/November 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



Page 2		2	Mark Scheme: Teachers' version Sylla				
			IGCSE – October/November 2010 062	25 63			
1 (a)	all p	aph: axes labelled and scales suitable plots correct to nearest ½ small square ell judged best fit line n best fit single line/no 'blobs'					
(b)	just	atement matches line (expect YES) stification matches statement spect straight line through origin)					
(c)	tria clea m c 1.3	[1] [1] [1] [Total: 10]					
2 (a)	θ _r =	27		[1]			
(b)	(i)	t in s	s, θ in °C in both tables	[1]			
	(ii)		ement correct (about the same) ified – within limits – numbers similar, etc.	[1] [1]			
(c)	san con car san san	ne stant ry out ne the ne ma	from: arting temperature t room temperature/avoid draughts at same time/place/time interval ermometer (wtte) ass/volume/amount of water pe of beaker	[2]			
				[Total: 6]			
3 (a)	(i)		meter symbol rect position	[1] [1]			
	(ii)	varia	able resistor/rheostat	[1]			
(b)	2.2	mark	ked	[1]			
(c)	(i)		rect values 6.11, 6.03, 6.12, 6.17, 6.09 sistent 2 or 3 significant figures	[1] [1]			
	(ii)	V, A	A,Ω	[1]			
	(iii)		ement matches results (expect YES) lanation matches statement (expect same within limits of expe	[1] erimental accuracy) [1]			
				[Total: 9]			

	Page 3			Mark Scheme: Teachers' version Syllabus			•			
				GCSE – O	ctober/Nov	ember 2010	0625		63	
4	(a)	a correct 9.9 – 10cm								
	(b)	y correct $(3 \times a)$ 30cm allow ecf from (a)								
	(c)	at least two readings recorded d = 2.8cm								
	(d)	(i) s² values correct 4.84, 5.76, 6.76, 7.84, 9.61 consistent number of significant figures (2 or 3)							[1] [1]	
		(ii) st	atement ma	atchina resi	ults (expect	YES)			[1]	
		(ii) statement matching results (expect YES) justification matches statement (expect within limits of experimental accuracy								
		OI	or 'close enough', or wtte)							
	(e)	any two of: use of darkened room how to avoid parallax when measuring distances use of marks paper on screen to aid measurements repeat (and average) screen/object card perpendicular to bench							[2]	
								L	Total: 10]	
5	(a)	three from: length/diameter/number of coils of spring – any two for 1 mark each mass of spring selection of loads								
			room temp						[3]	
	(b)	$l_{\rm o}$ show	vn and <i>l</i> sh	own (consi	stent with $l_{\rm o}$)			[1]	
	(c)	use of	fiducial aid						[1]	

[Total: 5]