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

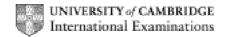
Paper 6 (Alternative to Practical), maximum raw mark 40

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.

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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.



[Total: 9]

Pa	ige 2		abus Paper
		IGCSE – October/November 2010 00	625 63
(a)	all p	ph: axes labelled and scales suitable plots correct to nearest ½ small square Il judged best fit line] []
	thin	n best fit single line/no 'blobs'	[
(b)	just	tement matches line (expect YES) tification matches statement pect straight line through origin)]
	(574)		
(c)		ngle method with more than half the line used ar how obtained – shown on graph]]
		correct in kg, 2 or 3 significant figures 9 – 1.45 kg - unit penalty	[
			[Total: 1
(a)	θ _r =	: 27	I
(b)	(i)	t in s, θ in °C in both tables	[
	(ii)	statement correct (about the same) justified – within limits – numbers similar, etc.	
(c)	-	/ two from: ne starting temperature	
	con carı	nstant room temperature/avoid draughts ry out at same time/place/time interval ne thermometer (wtte)	
	san	ne mass/volume/amount of water	
	san	ne type of beaker	
			[Total:
(a)	(i)	voltmeter symbol correct position	
	(ii)	variable resistor/rheostat	
(b)	2.2	marked	
(c)	(i)	correct values 6.11, 6.03, 6.12, 6.17, 6.09 consistent 2 or 3 significant figures	
	(ii)	V, A, Ω	
	(iii)	statement matches results (expect YES) explanation matches statement (expect same within limits of ex	perimental accuracy)

[Total: 5]

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
	IGCSE – October/November 2010	0625	63

4	(a)	a correct 9.9 – 10cm	[1]			
	(b)	y correct $(3 \times a)$ 30cm allow ecf from (a)				
	(c)	at least two readings recorded d = 2.8cm				
	(d)	(i) s^2 values correct 4.84, 5.76, 6.76, 7.84, 9.61 consistent number of significant figures (2 or 3)	[1] [1]			
		(ii) statement matching results (expect YES) justification matches statement (expect within limits of experimental accuracy,	[1]			
		or 'close enough', or wtte)	[1]			
	(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				
		Γ				
5	(a)	three from: length/diameter/number of coils of spring – any two for 1 mark each mass of spring				
		selection of loads (NOT room temperature)	[3]			
	(b)	$l_{\rm o}$ shown and l shown (consistent with $l_{\rm o}$)	[1]			
	(c)	use of fiducial aid	[1]			