## 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

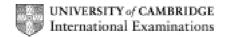
Paper 6 (Alternative to Practical), maximum raw mark 40

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.



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	tificati	nt matches line (expect YES) tion matches statement straight line through origin)	[1] [1]		
(c)	clea m c	ar hov correc	method with more than half the line used w obtained – shown on graph ct in kg, 2 or 3 significant figures .45 kg - unit penalty	[1] [1] [1] <b>[Total: 10]</b>		
2 (a)	θ <sub>r</sub> =	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	any two from: same starting temperature constant room temperature/avoid draughts carry out at same time/place/time interval same thermometer (wtte) same mass/volume/amount of water same type of beaker				
				[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	$A,\Omega$	[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				Paper			
				IGCSE	– October/No	ovember 2010	0625	63		
4	(a)	a co	orrect	9.9 – 10cm				[1]		
	(b)	y co	orrect	(3 × a) 30cm	allow ecf fror	m <b>(a)</b>		[1]		
	(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)								
		(ii)	state	ement matchin	g results (expe	ct YES)		[1]		
		justification matches statement (expect within limits of experimental accur or 'close enough', or wtte)								
			or c	iose enougn ,	or wite)			[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								
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)	l₀ sł	nown	and <i>l</i> shown (	consistent with	<i>l</i> <sub>o</sub> )		[1]		
	(c)	use	of fid	lucial aid				[1]		

[Total: 5]