MMM. Afrenne Pabers Con

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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1 (a) graph: axes labelled and scales suitable all plots correct to nearest ½ small square	Page 2		je 2			Paper	
all plots correct to nearest ½ small square well judged best fit line thin best fit single line/no 'blobs' [1] (b) statement matches line (expect YES) justification matches statement (expect straight line through origin) [1] (c) triangle method with more than half the line used clear how obtained – shown on graph m correct in kg, 2 or 3 significant figures 1.39 – 1.45 kg - unit penalty [1] 2 (a) θ ₇ = 27 [1] (b) (i) t in s, θ in °C in both tables [1] (ii) statement correct (about the same) justified – within limits – numbers similar, etc. [1] (c) any two from: same starting temperature constant room temperature/avoid draughts carry out at same time/place/time interval same thermometer (wite) same mass/volume/amount of water same type of beaker [2] 3 (a) (i) voltmeter symbol [1] (ii) variable resistor/rheostat [1] (b) 2.2 marked [1] (c) (i) correct values 6.11, 6.03, 6.12, 6.17, 6.09 [1] consistent 2 or 3 significant figures [1] (iii) statement matches results (expect YES) explanation matches statement (expect same within limits of experimental accuracy) [1]				IGCSE – October/November 2010	0625	63	
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(iii) statement matches results (expect YES) [1] explanation matches statement (expect same within limits of experimental accuracy) [1]		(c)	(i)				
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[Total: 9]		(i	iii)	` · · · /	limits of experimental acc		
						[Total: 9]	

	Page 3			Scheme: Teach		Syllabus	Paper			
				IGCSE	= October/Nov	ember 2010	0625	63		
4	(a)	a co	rrect	9.9 – 10cm				[1]		
	(b)	у со	y correct (3 × 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)								
		 (ii) statement matching results (expect YES) justification matches statement (expect within limits of experimental accuracy 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								
								[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 (NOT room temperature)						[3]		
	(b)	l₀ sh	nown	and <i>l</i> shown (consistent with $l_{ m c}$.)		[1]		
	(c)	use	of fid	lucial aid				[1]		

[Total: 5]