UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2007 question paper

0625 PHYSICS

0625/06

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

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	Page 2		Mark Scheme	Syllabus	Paper
			IGCSE – May/June 2007	0625	6
1	(a)	$\theta_1 = 2$ unit °	23 °C correctly written		[1] [1]
	(b)		C) ecf C) ecf		[1] [1]
	(c)	(i) ł	heat loss (to surroundings)		[1]
		i 	any two from: insulation / mat / foil lid speedier transfer repeats wait to record max temperature stirring		
			include beaker in calculation		[2]
					[Total: 7]
2	(a)	and (k	o) 6 <i>d</i> values correct values for <i>d</i> 5, 10, 15, 20, 25, 30		[1] [1]
	(c)	<i>h</i> ₀ =	100mm (including unit, cm/m allowed)		[1]
	(e)	corre	ect values for b 40, 35, 32, 28, 24, 20 (ecf)		[1]
	(f)	plots best	oh: ect <i>d</i> axis labelled with symbol / unit to nearest ½ sq (-1 each error or omission) fit straight line e line, thin and best fit		[1] [2] [1] [1]
	(g)	line r OR v	not through origin when <i>b</i> increases, <i>d</i> decreases negative gradient		[1]
	(h)	use	of set square / protractor / spirit level / plumbline		[1] [Total: 11]

3	(a)	correct arithmetic for <i>R</i> values 7.92, 1.98 both <i>R</i> to 2sf OR both to 3sf	[1] [1]
		all correct units: V , A , Ω	[1]
	(b)	final box (ecf) second R (or I) about ¼ of first	[1] [1]
	(c)	lamp symbol correct ammeter and voltmeter symbols correct correct parallel circuit (ONE ammeter and ONE voltmeter, no extra components,	[1] [1]
		but accept switch if present, ignore power source or lack of)	[1]
			[Total: 8]
4	(a)	correct arithmetic for f , 0.154, 0.144 (any sf) correct average f (0.149, ecf) average f to 2/3 sf correct unit for average f (m)	[1] [1] [1] [1]
	(b)	precautions: any two from: use darkened area (wtte) metre rule on bench or clamped object and lens same height from bench mark on lens holder to show position of lens centre take more readings choosing mid point between acceptable positions parallax, action and reason	rol
		lens/screen perpendicular to bench	[2]
	(c)	inverted	[1]
			[Total: 7]

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Syllabus 0625 Paper 6

Page 4	Mark Scheme	Syllabus	Paper
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5 (a) weight / load / force / W / L / F [1] length / l [1] extension / e / x / (l - l₀) [1] units N, mm, mm

(b) any three from length of spring / l₀ diameter/thickness of spring range of loads length of wire diameter / thickness of wire number of coils coil spacing do NOT allow 'size' or room temperature

[Total: 7]

[3]