UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2011 question paper for the guidance of teachers

0625 PHYSICS

0625/52

Paper 5 (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.

• Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page 2		Mark Scheme: Teachers' version Sylla		Paper
		IGCSE – May/June 2011 00	625	52
(a),	Correct r F column	n complete, all values < 10N and to at least 1d.p.		[1] [1] [1]
(d)	Axes lab Scales s All plots	suitable correct to nearest ½ small square		[1] [1] [1] [1]
(e)				[1] [1]
(f)	Weight/n	mass/force of rule owtte		[1] [Total: 10]
(a)	$ heta_{R}$ sensit	ble value		[1]
(c)	t in s, bo Correct t Uninsula Insulated	t values 30, 60, 90, 120, 150, 180 ated tube temperatures decreasing d tube temperatures decreasing		[1] [1] [1] [1]
(f)				[1] [1]
(g)	initial te temperat tube size thickness volume/a thickness	emperature/starting temperature/temperature of hot water ture/ correct named reference to environmental condition e/same test-tube as of glass amount/level of water as of cotton wool	er (constar	nt) room
		•		[2]
	ŕ			[Total: 10]
	(a), (d) (e) (f) (f)	 (a), (b), (c) Correct F colum F values (d) Graph: Axes lab Scales s All plots Well-jud (e) Correct Clear ho (f) Weight/n (a) θ_R sensif (c) - (e) f in s, bo Correct Uninsula Insulate Slower n (f) Stateme Justified (g) Any two initial temperat tube size thicknes volume/s thicknes depth (o) 	 (a), (b), (c) Correct masses 100, 200, 300, 400, 500 F column complete, all values < 10N and to at least 1d.p. F values increasing (d) Graph: Axes labelled Scales suitable All plots correct to nearest ½ small square Well-judged best fit, thin line (e) Correct F to ½ small square with unit N Clear how obtained (f) Weight/mass/force of rule owtte (a) θ_R sensible value (c) − (e) t in s, both θ in °C Correct t values 30, 60, 90, 120, 150, 180 Uninsulated tube temperatures decreasing Insulated tube temperatures decreasing Slower rate of fall in insulated tube (f) Statement matches readings Justified by reference to temperature differences and time (g) Any two from: 	IGCSE - May/June 2011 0625

	Page 3		Mark Scheme: Teachers' version Syllabus		Paper			
			IGCSE – May/June 2011		0625	52		
3.	(a)	Correct I I values V values R values R consis	n or m, A, V, Ω ingths 50cm, 75cm, 100cm full to at least 2 d.p. (<1A) full to at least 1 d.p. (<3V) full to 1 or 2 d.p. full to within 10%			[1] [1] [1] [1] [1] [1]		
	(b) Statement matches results Justification refers to results and matches statement, including idea of 'withing the content of							
	experimental accuracy'							
	(c)	(c) One of: Switch off between readings Use of low current (owtte)						
	[Tot							
4.	Trace: Normal correct All lines present and neat P_3P_4 distance ≥ 5.0 cm $EFN = 30^{\circ} \pm 2^{\circ}$							
	(h)	a correct	to 2mm			[1]		
	(j)	b correct	to 2mm			[1]		
	(k)	n correct n 1.4 – 1	value, 2 or 3 significant figures, no unit 6			[1] [1]		
		Pin: pins	not vertical/not straight/pins too close/th	nickness of	lines/size of holes	s [1]		
		Ray Box	thickness of ray			[1]		
						[Total: 10]		