CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

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0625 PHYSICS

0625/51

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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2012 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

Da	ige 2	Mark Scheme	Syllabus 74 by r
Га	iye z	IGCSE – October/November 2012	0625 2
(a)	Diagrar Correct	than 900mm and sensible n correct : <i>L</i> values (1 – 5), <i>d</i> values present and decreasing : <i>e</i> values	Syllabus 0625 Bhacambridg
(b)		prrectly labelled with quantity and unit and correct way e scales	
	All plots	s correct to 1/2 small square	[1]
	Good li	ne judgement; single, thin, continuous line	[1]
(c)	-	e method used and shown on the graph It least half of line	[1] [1]
			[Total: 10]
(a)	sensible	e value for $ heta_{R}$	[1]
(b)		Table: s, °C, °C Times 0, 30, 60, 90, 120, 150 Both sets of temperatures present and decreasing 0 - 30 s decrease greater than $120 - 150$ s decrease Evidence of temperatures to 1 °C or better	[1] [1] [1] [1] [1]
(c)		ent matches readings d with reference to numbers in table	[1] [1]
(e)		es of water emperature/draughts	
		rater temperature	[2]
			[Total: 10]
(a)	Ammete	symbols for ammeter, voltmeter and lamps er and voltmeter in correct positions parallel circuit	[1] [1] [1]
(b)	All volta	least 2 decimal places ages to at least 1 decimal place calculation of R_A and units V, A, Ω at least once	[1] [1] [1]

(c) (i) All V values present (ii) $V_b \ 1-2.5 \vee$ (d) Statement matches readings Justified with idea of experimental inaccuracy [1] Trace: Normal at 90° in correct position (by eye) Angle of incidence $30° \pm 2°$ All lines present and neat First P ₁ P ₂ distance $\geq 5.0 \text{ cm}$ All pin separations $\geq 5.0 \text{ cm}$ (h) r value correct to $\pm 2°$ unit required (i) <i>i/r</i> value correct (j) r value correct to $\pm 2°$ unit required (j) r value sto 2 or 3 significant figures and no unit (k) Idea of within (or beyond) limits of experimental accuracy	acce: [Total: 10] acce: [1] gle of incidence $30^\circ \pm 2^\circ$ [1] lines present and neat [1] st P ₁ P ₂ distance ≥ 5.0 cm [1] pin separations ≥ 5.0 cm [1] i r value correct to $\pm 2^\circ$ unit required [1] i/r value correct [1] t r value correct to $\pm 2^\circ$ unit required [1] i/r value correct to $\pm 2^\circ$ unit required [1] i / value correct to $\pm 2^\circ$ unit required [1] i / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required [1] j / value correct to $\pm 2^\circ$ unit required <t< th=""><th>Page 3</th><th>Mark Scheme</th><th>Syllabus Syllabus</th></t<>	Page 3	Mark Scheme	Syllabus Syllabus
Trace: Normal at 90° in correct position (by eye)[1]Angle of incidence $30^\circ \pm 2^\circ$ [1]All lines present and neat[1]First P1P2 distance $\geq 5.0 \text{ cm}$ [1]All pin separations $\geq 5.0 \text{ cm}$ [1](h) r value correct to $\pm 2^\circ$ unit required[1](i) i/r value correct[1](j) r value correct to $\pm 2^\circ$ unit required[1](k) Idea of within (or beyond) limits of experimental accuracy[1]	acce: [Total: 10] gle of incidence $30^{\circ} \pm 2^{\circ}$ [1] lines present and neat [1] st P ₁ P ₂ distance $\geq 5.0 \text{ cm}$ [1] pin separations $\geq 5.0 \text{ cm}$ [1] r value correct to $\pm 2^{\circ}$ unit required [1] i/r value correct [1] r value correct to $\pm 2^{\circ}$ unit required [1] both i/r values to 2 or 3 significant figures and no unit [1] Idea of within (or beyond) limits of experimental accuracy [1]		IGCSE – October/November 2012	0625 73
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