## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2009 question paper for the guidance of teachers

## 0625 PHYSICS

0625/05

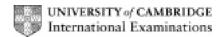
Paper 5 (Practical), maximum raw mark 40

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.

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	Page 2		Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – May/June 2009	0625	05
1	(a)	d value 1 diagram correct c		[1] [1] [1]	
	(b)	mass of	tube 20–35 (g)		[1]
	(c)	V <sub>i</sub> record	led and correct calculation of density		[1]
	(d)	$V_1$ , $V_2$ an $m_2$ 20–38 volumes		[1] [1] [1]	
	(e)		Int, $ ho$ values same to within 0.5 g/cm $^3$ init and 2/3 sf		[1] [1] [Total: 10]
2	(a)-	$t$ in s $\theta$ in $t$ values (Thermon Thermon Thermon	n °C 0, 30, 60, 90, 120, 150, 180 meter <b>A</b> , temperatures decreasing meter <b>B</b> , temperatures decreasing meter <b>B</b> , temperatures decreasing less rapidly e of temperatures to 1°C		[1] [1] [1] [1] [1]
	(e)	Justified	nt matches readings by reference to readings son given of drops in temperature with numbers		[1] [1]
	(f)	constant carry out same the same the	from: arting temperature room temperature t at same time ermometer (words to that effect) ermometer positions ne intervals		[2]
		Janno IIII	io mortalo		
					[Total: 10]

Page 3		ge 3	Mark Scheme: Teachers' version	Syllabus	Paper				
			IGCSE – May/June 2009	0625	05				
3 (	d)	I in A to 2	2 d.p. < 2 A		[1]				
(	a)_	–(h)							
·		Table:							
		V values	values (0.1, 0.3, 0.5, 0.7, 0.9) all < 2.5 V and to at least 1 d.p.		[1] [1]				
		R values	correct		[1]				
(	i)	Graph:							
`	•	Axes lab	elled and scales suitable correct to ½ square		[1] [1]				
		•	ged line, continued to an axis		[1]				
(.			nt proportional (words to that effect, including as $x$ in tion straight line through origin	creases, R increas	ses) [1]				
(	•		lication of method on graph value to ½ square		[1] [1]				
					[Total: 10]				
4 (	a)–	<b>(g)</b> Table:							
		correct u	values 25.0 (cm), 45.0 (cm)		[1]				
		u and v in v values	n cm 35–40 and 20–25		[1] [1]				
		f values of in cm	consistent 3 or more significant figures		[1] [1]				
(			verage value for <i>f</i> ficant figures		[1]				
		•	f 14–16 cm		[1] [1]				
(1			statement (1) with matching explanation (1) from: arkened room; to see image clearly (1 + 1)						
		•	oving screen back and forth; to get clear image (1 - le or place on bench; to obtain accurate distance me	•	1)				
		avoid par	rallax; looking perpendicularly at rule (1 + 1) of object and lens; to obtain clear image (1 + 1)	(	,				
		mark cer	ntre of lens on block; to obtain accurate distance me	asurement (1 + 1	)				
			ens vertical; to obtain clear image (1 + 1) nd lens same height from bench; to obtain clear imag	ge (1 + 1)	[2]				
					[Total: 10]				