MARK SCHEME for the October/November 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 October/November 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 IGCSE – October/November 2011	Syllabus 0625	Paper 52
1	(a)	x and y c	values present both less than 40 cm consistently in either mm, cm or m ct in g, with unit	0023	[1] [1] [1]
	(b)	two new sets of x, y and m; both $x + y = 40 \pm 0.5$ cm second new set of x, y and $m (m_3 < m_2)$ $m_2 + m_3$ correct (= $m_1 \pm 2$ g) correct unit for x and y at least once (in (a) or (b))			[1] [1] [1] [1]
	(c)	NOT just more diff any <u>expli</u> more rea rounding difficult to	: g clay remaining on knife/rule/fingers/lost in <u>cutting</u> t 'dropped'/'lost' – must mention cutting ficult to balance with smaller pieces <u>icit</u> idea of why two pieces not so accurate adings so more inaccuracies errors in extra calculations o find centre of misshapen cube g clay might not have uniform density		[2]
	(d)	mark cer	ntre of bottom of cube / take readings at either side o	of cube	[1] [Total: 10]
2	(a)	$\theta_{\rm h}$ and $\theta_{\rm c}$	sensible values		[1]
	(b)		/ values in table 10, 20, 30, 40, 50, 60 s decreasing and all between $\theta_{\rm r}$ and $\theta_{\rm h}$		[1] [1]
	(c)	all plots o well-judg	elled and scales suitable correct to nearest ½ small square jed best-fit line and small plots		[1] [1] [1] [1]
	(d)	 any two from: same hot water temperature/initial temperature constant room/surrounding temperature/other suitable named environment constant cold water temperature same amount/rate of stirring time taken for transfer or wtte 		d environmental c	ondition
					[2]
	(e)		from: ce of parallax explained (thermometer or measuring emperature to stabilise	cylinder)	[1] [Total: 10]

	Page 3		Mark Scheme: Teachers' version	Syllabus	Paper	
			IGCSE – October/November 2011	0625	52	
3	(a)	all V valu unit at lev $V_A > V_B$ $V_C > V_A$ a		[1] [1] [1] [1]		
	(b)	correct s	= V _c (within 10%) tatement matching results on matching statement and referring to results		[1] [1] [1]	
	(c)		e value and to at least 2 decimal places t (ecf), 2 or 3 significant figures, with unit		[1] [1]	
	(d)	voltmete	r correctly shown		[1] [Total: 10]	
4	trace:					
	(a)	normal a	t 90° to MR in correct position		[1]	
	AB in corr both P ₂ P ₃		thes neatly drawn in correct position in correct position P_2P_3 distances ≥ 5.0 cm ositions correct		[1] [1] [1] [1]	
	(g)	table: <i>i</i> values o <i>r</i> values all <i>i</i> = <i>r</i> (v	correct		[1] [1] [1]	
	(i)	thickness	s of lines s of pin holes/pins s of mirror			
		thickness	s of protractor		[2]	
					[Total: 10]	