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## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2010 question paper for the guidance of teachers

## 0625 PHYSICS

0625/52

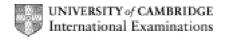
Paper 52 (Practical), maximum raw mark 40

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.

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

CIE is publishing the mark schemes for the May/June 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



age 2	Mark Scheme: Teachers' version	Syllabus	Paper		
	IGCSE – May/June 2010	0625	52		
	table: 5 $d$ values in cm (all < 50) 1/ $d$ values correct (at least 2 significant figures)				
scales su plots all o	uitable, plots occupying at least half grid correct to ½ square		[1] [1] [1] [1]		
			[1] [1]		
	, <del>-</del> ,		[1] [1] <b>[Total: 10]</b>		
times 30 beaker A dish B te	, 60, 90, 120, 150, 180 A temperatures decreasing emperatures decreasing more rapidly		[1] [1] [1] [1]		
) both tem	perature falls correct (ignore unit or lack of unit)		[1]		
, ,	\	t' or 'it')	[1] [1]		
same sta stir/same same into constant same voi avoid dra (NOT ref	arting temperature the thermometer position terval time troom temperature/carry out at same time flume/amount/mass of water flumes or wite ference to container, insulation, precaution)		[2]		
			[Total: 10]		
	) table: 5 d value 1/d va	IGCSE – May/June 2010  ) table: 5 d values in cm (all < 50) 1/d values correct (at least 2 significant figures)  ) graph: axes labelled scales suitable, plots occupying at least half grid plots all correct to ½ square well judged line thin line  ) triangle method used and shown (any indication on graph) (triangle) using at least half line (can be seen in calculation)  ) μ 27 – 33 (g) 2 or 3 significant figures and unit g  ) table: t in s, θ both in °C times 30, 60, 90, 120, 150, 180 beaker A temperatures decreasing dish B temperatures decreasing more rapidly evidence of temperatures to 1 °C  ) both temperature falls correct (ignore unit or lack of unit)  ) justification matches statement (expect B) and by reference to readings (need a comparison – not 'hea B & temp fall for this mark	IdCSE – May/June 2010  1 table: 5 d values in cm (all < 50) 1/d values correct (at least 2 significant figures)  1 graph:     axes labelled     scales suitable, plots occupying at least half grid     plots all correct to ½ square     well judged line thin line  1 triangle method used and shown (any indication on graph)     (triangle) using at least half line (can be seen in calculation)  1 μ 27 – 33 (g) 2 or 3 significant figures and unit g  1 table:     /i in s, θ both in °C     times 30, 60, 90, 120, 150, 180     beaker A temperatures decreasing     dish B temperatures decreasing more rapidly     evidence of temperatures to 1 °C  1 both temperature falls correct (ignore unit or lack of unit)  3 justification matches statement (expect B)     and by reference to readings (need a comparison – not 'heat' or 'it')     B & temp fall for this mark     in same time  3 any two from:     same starting temperature     stir/same thermometer position     same interval time     constant room temperature/carry out at same time     same volume/amount/mass of water     avoid draughts or wtte     (NOT reference to container, insulation, precaution)		

Page 3		ge 3		me: Teachers' version	Syllabus	Paper	
			IGCSE	E – May/June 2010	0625	52	
3	(a)	I to a		1A		[1] [1] [1] [1]	
	(f)			ircuit		[1] [1] [1]	
	(g)		nt matches readings ion matches stateme	s (expect NO) ent and by reference to res	sults	[1] [1] [Total: 10]	
4	ray	ray trace: one set of lines present, thin, neat and in correct areas normal drawn EF at $30^{\circ}$ to normal (by eye) one $P_1P_2$ distance at least 5 cm one $P_3P_4$ distance at least 5 cm					
	(h)	heta correct	[1]				
	(i)	$(\theta-2i)$ c	[1]				
	(j)	$\theta$ and ( $\theta$	[1]				
	(k)	justificati (within lir	nent matches results (YES or NO) cation matches statement and by reference to results in limits of experimental inaccuracy, wtte	sults	[1]		
		or <u>too</u> dif	fferent, wtte)			[1]	
						[Total: 10]	