

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

June 2003

INTERNATIONAL GCSE

MARK SCHEME

MAXIMUM MARK: 40

SYLLABUS/COMPONENT: 0625/06

PHYSICS
Alternative to Practical



Page 1	Mark Scheme	Syllabus	Paper
	IGCSE EXAMINATIONS – JUNE 2003	0625	6
1	(a)	Seven correct values: 0, 2, 3, 6, 9, 10, 12 (-1 each error)	2
	(b)	Graph: Scales, labelled, suitable size Axes, right way round Plots to $\frac{1}{2}$ sq (-1 each error)	1 1 2
	(c)	Line shape Line thickness Triangle greater than $\frac{1}{2}$ line and method used Correct interpolation to $\frac{1}{2}$ sq	1 1 1 1
		TOTAL	10
2	(a)	$36^\circ (\pm 1^\circ)$	1
	(b)	Refracted ray drawn $22^\circ (\pm 1^\circ)$ normal correct (by eye) neat, thin, correct lines	1 1 1 1
	(c)	Correct refracted ray (by eye) with arrow	1
	(d)	Separation (LHS) at least 5cm Separation (RHS) at least 5cm	1 1
		TOTAL	8
3	(a) (i)	Voltmeter across lamp	1
	(ii)	Variable resistor/rheostat	1
	(b)	Correct position	1
	(c)	V A Ω correct R at 9.8V = 8.16666 (any sf) all R to 2/3 sf consistent 2 sf or consistent 3 sf	1 1 1 1 1 1
		TOTAL	9
4	(a) (i)	6.8cm (68mm)	1
	(ii)	6.8 unit, mm	1 1
	(b) (i)	3.8/3.77 or 0.38/0.377 mm or cm as appropriate	1 1

Page 2	Mark Scheme	Syllabus	Paper
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	(ii)	0.94/0.95 (or evidence of division by 4)	1
	(iii)	0.75094/0.75095	1
	(c)	Thickness of string/thickness of marks on string/stretching of string/metre rule measures to 1mm	1
		TOTAL	8
5	(a)	(i) polystyrene	1
		(ii) Least steep curve (or numbers suitably quoted)	1
	(b)	Three from: Thickness of insulator Room temp. Starting temp. Mass/vol./amount of water Using same can	3
		TOTAL	5