

June 2004

INTERNATIONAL GCSE

MARK SCHEME

**MAXIMUM MARK: 40**

SYLLABUS/COMPONENT: 0625/06

**PHYSICS**  
Alternative to Practical



Page 1	Mark Scheme	Syllabus	Paper
	PHYSICS - JUNE 2004	0625	6
1	(a)	0.63 – 0.65 (A) (strictly)	1
		1.64 – 1.66 (V) (strictly)	1
		3.32 (g)	1
		150 (cm <sup>3</sup> )	1
		8 (mm) or 0.8 (cm)	1
		All units correct	1
	(b)	Remove electrodes from beaker	1
		A method to ensure gap remains the same (or other suitable suggestion e.g. measurement arrangement that the beaker sits on)	1
	(c)	New variable (e.g. temperature, surface area / vol / size of electrodes, power source setting, depth of immersion)	1
	<b>TOTAL</b>		
2	(a)	All T values correct (0.34, 0.44, 0.49, 0.53, 0.60, 0.63)	1
		All T values to 2 sf OR all to 3sf	1
	(b)	Graph:	
		Scales suitable	1
		Scales labeled and with units	1
		Plots correct to ½ sq (-1 each error)	2
		Line judgement	1
	Line thickness (and small, neat plots)	1	
	(c)	T = 0.51 (s) correct answer only; NO ecf	1
	(d)	Statement: NO	1
Reason: line not through origin (or equivalent)		1	
(allow mark if candidate describes str. line or constant gradient)			
<b>TOTAL</b>			<b>11</b>
3	(a)	Correct voltmeter	1
		Correct ammeter	1
	(b)	R = 3.3, 2/3 sf	1
		Unit $\Omega$ or ohm	1
	(c)	Circuit with correct parallel connections	1
		Ammeter and ONE voltmeter correct	1
		Variable resistor correct	1
<b>TOTAL</b>			<b>7</b>

Page 2	Mark Scheme	Syllabus	Paper
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<b>4</b>	<b>(a)</b>	<b>(i)</b> $x = 14 - 16\text{mm}$	1
		<b>(ii)</b> $y = 76.5 - 78.5 \text{ mm}$	1
		<b>(iii)</b> $u = 75\text{mm}$ (ecf) and $v = 390\text{mm}$ (ecf)	1
		$x, y, u$ and $v$ all correct and with no unit	1
		<b>(iv)</b> $m = 5.2$ (ecf) 2/3 sf and with no unit	1
<b>4</b>	<b>(b)</b>	Upside down	1
		Precaution 1	1
		Precaution 2	1
		(e.g. repeats, use mark on block supporting lens to show centre of lens, place metre rule on bench to take readings or clamp rule in position, use a dark area, explanation of how to avoid parallax error, vertical screen/lens/both, centres of lens and object in line)	
		<b>TOTAL</b>	<b>8</b>
<b>5</b>	<b>(a)</b>	22	1
	<b>(b)</b>	<b>(i)</b> 14 (ecf)	1
		<b>(ii)</b> 64	1
		units all correct	1
<b>(c)</b>	So that heat is not lost (wtte)	1	
	<b>TOTAL</b>	<b>5</b>	

**PAPER TOTAL = [40]**