



Cambridge IGCSE™

PHYSICS

0625/61

Paper 6 Alternative to Practical

May/June 2020

MARK SCHEME

Maximum Mark: 40

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & AS Level components, and some Cambridge O Level components.

This document consists of 7 printed pages.

Question	Answer	Marks
1(a)	0.025, 0.037, 0.050, 0.063, 0.075	1
1(b)	Consistent significant figures	1
	Graph: Axes correctly labelled and right way round	1
	Suitable scales	1
	All plots correct to $\frac{1}{2}$ small square	1
	Good line judgement, thin, continuous line	1
1(c)	(0.02) Method shown clearly on graph	1
1(d)	Value correct to $\frac{1}{2}$ small square	1
	Clear wording or diagram	1
1(e)(i)	Difficult to obtain balance point	1
1(e)(ii)	Idea of obtaining nearest to balance	1

Question	Answer	Marks
2(a)(i)	$V_1 = 3.5$	1
2(a)(ii)	$I_1 = 0.38$	1
2(a)(iii)	$R_1 = 9.21$ (ecf allowed)	1
	Unit Ω	1

Question	Answer	Marks
2(b)	$R_2 = 5.7$ and $R_3 = 4.6$, with consistent 2 sf	1
2(c)	Total $R = 20$	1
2(d)	Statement matches readings (Expect B)	1
	Justification with suitable numbers quoted	1
2(e)	Three lamps in series, correct symbol	1
	Voltmeter across lamp L_3	1
	Other symbols and circuit correct	1

Question	Answer	Marks
3(a)(i)	P_2 at least 5.0 cm from P_1	1
3(a)(ii)	Straight line joining pin positions	1
	Extended at least 7 cm behind mirror	1
3(b)(i)	Correct line and correct position of Y labelled	1
3(b)(iii)	Correct a to within ± 2 mm	1
3(b)(iii)	Correct b to within ± 2 mm	1
3(c)(i)	Correct x measured and correct unit seen at a , b or x and not contradicted	1
3(c)(ii)	Diagram to show image in mirror meeting top of pin above mirror	1
3(d)	Statement to match results	1
	Justification to match statement with correct reference to results	1

Question	Answer	Marks
3(e)	Any one from: Thickness to mirror Thickness of lines Difficulty in judging exact lining up of pins.	1

Question	Answer	Marks
4	MP1 Diagram to show container and thermometer	1
	MP2 Hot water in a container. Record initial temperature and take temperature at intervals as it cools	1
	MP3 Repeat with at least three other colours	1
	Any two from: MP4 Same starting temperature Same room temperature MP5 Use of a lid At least three named colours Same thickness of paint	2
	MP6 Table with clear columns for temperature and / or time (to match method), with appropriate units	1
	MP7 Conclusion: Greatest temperature drop shows best radiator (or reverse argument)	1