



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY

0620/63

Paper 6 Alternative to Practical

October/November 2016

MARK SCHEME

Maximum Mark: 40

Published

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This document consists of **5** printed pages.

Page 2	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
1(a)	(clamp/retort) stand trough	1 1
1(b)	to absorb/hold/keep/soak up/contain the paraffin oil	1
1(c)	M1 bromine (aqueous/in cyclohexane) M2 turns colourless/decolourised	1 1
1(d)	to prevent suck back (of water)	1

Page 3	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
2(a)	table of results for Experiment 1 temperature boxes completed correctly 20, 20, 20, 25, 28, 31, 33, 34, 35, 36, 36	2
2(b)	table of results for Experiment 2 temperature boxes completed correctly 22, 22, 22, 71, 76, 75, 72, 70, 67, 65, 64	2
2(c)	all points correctly plotted \pm half a small square smooth line graphs labelled	2 1 1
2(d)(i)	working shown clearly as construction lines or cross value from graph ($29-30\text{ }^{\circ}\text{C} \pm 0.5\text{ }^{\circ}\text{C}$)	1 1
2(d)(ii)	value from graph (72 s) –60 s	1 1
2(e)	room temperature or initial temperature from table ($20-22\text{ }^{\circ}\text{C}$) reaction has finished/stopped	1 1
2(f)	more readings/points/data smoother curve/better or more accurate graph	1 1
2(g)	polystyrene is an insulator/copper is a (good) conductor reduced heat losses	1 1

Page 4	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
3(a)(i)	pH 1–3	1
3(a)(ii)	effervescence/fizzing/bubbling/solid disappears/dissolves lighted splint 'pops'	1 1 1
3(a)(iii)	effervescence/fizzing/bubbling/solid disappears/dissolves limewater milky	1 1 1
3(a)(iv)	white precipitate	1
3(b)	calcium/Ca ²⁺ hydroxide/OH ⁻	1 1

Page 5	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
4	<p>silica filter (the cleaner) wash the residue dry the residue</p> <p>water heat (the filtrate / cleaner) condense the vapour</p> <p>sodium carbonate heat to dryness / no liquid left (then solid) sodium carbonate is left</p> <p>OR heat until saturated then cool to crystallise / leave to crystallise</p>	6