



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY

0620/51

Paper 5 Practical Test

October/November 2016

MARK SCHEME

Maximum Mark: 40

Published

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This document consists of **4** printed pages.

Page 2	Mark Scheme	Syllabus	Paper
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Question	Answer	Marks
1(a)	table of results for Experiment 1 initial and other temperature boxes completed correctly and results comparable to supervisor's and Experiment 1 maximum greater than Experiment 2 maximum	1 1
1(b)	table of results for Experiment 2 initial and other temperature boxes completed correctly and comparable to supervisor's and temperatures stop rising	1 1
1(c)	all points correctly plotted best-fit smooth line graphs labels	2 1 1
1(d)	value from graph shown clearly	1 1
1(e)	phenolphthalein / litmus / suitable named indicator	1
1(f)	Experiment 1 solution N is a stronger acid / has a higher pH	1 1
1(g)	measured results / temperature changes / results would be smaller OR larger / double volume needed to reach same temperature changes	1
1(h)	polystyrene is an insulator / copper is a (good) conductor	1
1(i)	source of error: heat losses / using a measuring cylinder improvement: lag / insulate / use burette;	1 1

Page 3	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
2(a)	white crystals	1
2(b)(i)	melts / liquefies / dissolves / bubbles condensation / drops of liquid cobalt(II) chloride paper turns colourless / light pink	1 1 1
2(b)(ii)	no change / colour	1
2(c)(i)	white precipitate dissolves / clears	1 1 1
2(c)(ii)	white precipitate	1
2(c)(iii)	no reaction / no change	1
2(c)(iv)	white precipitate	1 1
2(d)	not a transition element (cation)	1
2(e)	hydrated / contains water	1
2(f)	it is not any named metal that gives a positive flame test	1
2(g)	aluminium sulfate	1 1

Page 4	Mark Scheme	Syllabus	Paper
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Question	Answer	Mark
3	method adding Agri Lime to acid add weighed amount/known mass of Agri Lime Q to a known volume of acid with a named indicator added to the acid until the indicator changes colour note the mass of Agri Lime Q added repeat with Agri Lime R conclusion, e.g. 'the experiment using the smaller amount of Agri Lime is better' OR method adding acid to Agri Lime use weighed amount/known mass of Agri Lime Q add acid to it gradually /from a burette with a named indicator added to the acid until the indicator changes colour note volume of acid added repeat with Agri Lime R conclusion, e.g. 'the experiment using the larger volume of acid is better'	6