Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/62**

Paper 6 Alternative to Practical **October/November 2017**

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(a)	water	**1**
1(b)(i)	arrow under mineral wool **AND** arrow under magnesium ribbon	**1**
1(b)(ii)	boiling tube	**1**
1(c)	use sandpaper / glass paper / steel wool	**1**
1(d)(i)	gas syringe / measuring cylinder over a trough of water	**1**
	labelled	**1**
1(d)(ii)	'pops'	**1**
1(e)	**large** amount of energy released / **high** temperature reached	**1**

Question	Answer	Marks
2(a)	initial and final temperature boxes completed: 21, 21, 21, 32, 37, 48 all readings correct = [2] 4 or 5 readings correct = [1]	**2**
2(b)	initial and final temperature boxes completed: 23, 23, 23, 23, 20, 18, 16, 12 all readings correct = [2] 6 or 7 readings correct = [1]	**2**
2(c)	all points plotted	**2**
	two straight lines of best fit drawn with a ruler	**1**
	both graphs appropriately labelled	**1**
2(d)(i)	value from graph	**1**
	shown clearly	**1**

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Question	Answer	Marks
2(d)(ii)	value from graph	**1**
	shown clearly	**1**
2(e)	exothermic	**1**
2(f)	*change to the experiments* use burette / pipette use insulation / lid use a new cup / dry the cup	**1**
	explanation (to match change) more accurate (than measuring cylinder) reduce heat losses remove water left from the previous experiment	**1**
2(g)	repeat experiments	**1**
2(h)	lower temperatures measured / smaller temperature changes	**1**
	changed is halved / more water (to heat)	**1**

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Question	Answer	Marks
3(a)	white (crystals)	**1**
3(b)	bubbles / fizz	**1**
	limewater	**1**
	(turns) milky	**1**
3(c)	carbon dioxide	**1**
3(d)	yellow	**1**
3(e)	non-transition metal / Group II metal / barium / calcium / magnesium	**1**
3(e)	chloride	**1**

Question	Answer	Marks
4	*max [6]:* **M1** weigh specified number of nail(s) / specified number of nails **M2** immerse in same volume **M3** samples of tap water and distilled water (in two test-tubes) **M4** for suitable time **M5** dry (in oven) **M6** reweigh nails **M7** compare / conclusion	**6**

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