Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/53**

Paper 5 Practical Test **May/June 2017**

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(a)	volume at time = 0 s completed correctly	**1**
	all volumes completed and in ascending order	**1**
1(b)	volume at time = 0 s completed correctly **AND** all volumes completed and in ascending order	**1**
	gas volumes increase less quickly at the start of Experiment 2 than at the start of Experiment 1	**1**
1(c)	all points correctly plotted	**2**
	two smooth lines	**1**
	labelled	**1**
1(d)	Experiment 1	**1**
	more concentrated / stronger acid / the acid has a lower pH	**1**
1(e)	volume of gas at 30 s	**1**
	correct calculation of rate	**1**
	unit: cm^3/s **OR** $cm^3 s^{-1}$	**1**
1(f)	all the magnesium will have reacted	**1**
1(g)	faster reaction / increased rate	**1**
	magnesium powder has a higher surface area	**1**

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Question	Answer	Marks
1(h)	advantage: easy to use / quick	**1**
	disadvantage: not accurate	**1**
1(i)	use of burette / pipette / gas syringe / weighed amount of magnesium / repeat experiment (and average) / clean the magnesium / remove oxide layer	**1**

Question	Answer	Marks
2(a)	black (powder)	**1**
2(b)(i)	bleached / white / decolourised	**1**
2(b)(ii)	brown	**1**
	precipitate	**1**
2(c)	chlorine	**1**
2(d)	any 3 from: • turns yellow • bubbles / fizz • red / brown / orange • precipitate	**3**
2(e)	yellow / brown	**1**
	blue / black	**1**
2(f)	turns colourless	**1**

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Question	Answer	Marks
2(g)	fizz / bubbles	**1**
	glowing splint	**1**
	relights	**1**
2(h)	oxygen	**1**

Question	Answer	Marks
3	any 6 from: • crush lumps • pestle and mortar • weigh cassiterite • heat / reduce • with carbon / CO / more reactive metal, e.g. Zn • weigh tin • (mass of tin / initial mass) × 100 (%)	**6**

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