Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/62**

Paper 6 Alternative to Practical **October/November 2016**

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Mark
1(a)	(liebig) condenser tripod	**1** **1**
1(b)	sodium chloride crystals: **C** water: **D** silver chloride: **A**	**1** **1** **1**
1(c)	chromatography	**1**

Question	Answer	Mark
2(a)	table of results volume boxes completed correctly (30), 44, 57, 62, 78, 85, 88, 89, 90, 90	**2**
2(b)	all points correctly plotted smooth line graph	**2** **1**
2(c)(i)	point at 60 s / 62 cm^3 / fourth point / measurement 4	**1**
2(c)(ii)	misread measuring cylinder / read too early	**1**
2(c)(iii)	value from graph (68–70) shown clearly	**1** **1**
2(d)	the Reaction has finished all the <u>acid</u> has reacted / HC*l* is the limiting factor	**1** **1**
2(e)(i)	value from graph or table (57–44 = 13 cm^3)	**1**
2(e)(ii)	13 / 20 = 0.65 cm^3 / s	**1** **1**

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Question	Answer	Mark
2(f)	steeper curve to same level	**1** **1**
2(g)	air is displaced (when the acid is added)	**1**
2(h)	improvement explanation use a burette / graduated pipette / gas syringe improves accuracy **OR** use cotton thread to hold a test-tube (containing the acid) in the flask no air is collected **OR** repeat the experiment take average / more frequent readings	**1** **1**

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Question	Answer	Mark
3(a)(i)	pH 1–3	**1**
3(a)(ii)	solid disappears / dissolves blue / green colour	**1** **1**
3(a)(iii)	solid dissolves limewater turns milky	**1** **1** **1**
3(a)(iv)	white precipitate	**1**
3(b)	iron(III) nitrate	**1** **1**

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Question	Answer	Mark
4	clean / sandpaper the metal ring dissolve copper(II) sulfate in water / copper(II) sulfate solution set up circuit / switch on electricity / complete circuit copper rod anode(+ ve electrode) metal ring cathode(– ve electrode) rotate the metal ring / agitate remove the metal ring, wash and dry	**6**

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