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

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2016 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.

This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

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**

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

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**

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**