Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/61**

Paper 6 Alternative to Practical **May/June 2017**

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(a)(i)	stirrer / glass rod	**1**
1(a)(ii)	Spatula	**1**
1(a)(iii)	nitric (acid)	**1**
1(a)(iv)	bubbles / fizz / effervescence	**1**
1(b)	the reaction is (fast) at room temperature	**1**
1(c)	strontium carbonate	**1**
	solid is left behind	**1**
1(d)	filter	**1**
	heat / evaporate	**1**
	to crystallising point / glass rod test / until saturation point	**1**

Question	Answer	Marks
2(a)	initial and final readings completed correctly: 4.1, 38.3	**1**
	difference completed correctly: 34.2	**1**
2(b)	initial and final readings completed correctly: 3.7, 20.8	**1**
	difference completed correctly: 17.1	**1**
2(c)(i)	solution **C** is more concentrated	**1**
	a greater volume of thiosulfate was needed	**1**
2(c)(ii)	2 · as concentrated	**1**

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Question	Answer	Marks
2(d)	1.5 · value from table in **(b)** for Experiment 2	**1**
	unit: cm^3	**1**
2(e)(i)	2 sources of error, e.g.: using a measuring cylinder to measure solution **C** / solution **D** only carrying out the experiments once going past the end-point	**2**
2(e)(ii)	2 meaningful improvements **related to (e)(i)**: use a pipette / burette repeat the experiment improvement linked to going past the end-point	**2**

Question	Answer	Marks
3(a)	solid spits out of the tube / the tube might crack	**1**
3(b)	carbon dioxide	**1**
3(c)	copper / Cu^{2+}	**1**
	carbonate / CO_3^{2-}	**1**
3(d)	white	**1**
3(e)(i)	no reaction / change	**1**
3(e)(ii)	yellow	**1**
	precipitate	**1**
3(f)	lilac	**1**

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Question	Answer	Marks
3(g)	any 2 from: blue / roaring / hot flame use of a splint / wire to introduce the solid into the flame use of (concentrated) hydrochloric acid	**2**

Question	Answer	Marks
4(a)	(red) litmus turns blue	**1**
4(b)	heat / boil the mixture	**1**
	condense the vapour	**1**
4(c)	filter / decant	**1**
	wash residue (with water)	**1**
	dry	**1**

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