Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

CHEMISTRY **0620/61**

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

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(a)	evaporating basin / dish	**1**
1(b)	zinc oxide	**1**
1(c)(i)	filtration	**1**
1(c)(ii)	no filter paper	**1**
1(d)	heat / boil / evaporate	**1**
	to crystallising point	**1**
	cool / leave to stand	**1**

Question	Answer	Marks
2(a)	average temperatures completed for all five experiments: 18, 31, 41, 53, 63	**1**
	times completed for all five experiments: 210, 111, 84, 66, 54	**1**
	all times in seconds	**1**
2(b)	all five points plotted	**3**
	smooth line graph	**1**
2(c)	value from graph for average temperature 72 °C	**1**
	unit (s)	**1**
	shown clearly	**1**
2(d)	line above experimental line	**1**
2(e)(i)	Experiment 5	**1**

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Question	Answer	Marks
2(e)(ii)	particles move faster / particles have more energy	**1**
	more (frequent) collisions / greater chance of collisions	**1**
2(f)(i)	more accurate	**1**
	comparison to measuring cylinder	**1**
2(f)(ii)	time shorter / cross disappears faster	**1**
	depth greater	**1**

Question	Answer	Marks
3(a)(i)	red-brown	**1**
	precipitate	**1**
3(a)(ii)	insoluble / no change	**1**
3(b)	red-brown precipitate	**1**
3(c)	(red) litmus paper	**1**
	turns blue	**1**
3(d)	ammonia	**1**
3(e)	lithium	**1**
	carbonate	**1**

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Question	Answer	Marks
4	*reaction with acid method* max [6]: **M1** fixed volume of acid **M2** to fixed mass of metal **M3** measure volume of gas / temperature change **M4** named apparatus for the measurement **M5** after time **M6** repeat with other metals **M7** compare / conclude *displacement method* **M1** add each metal to named tin salt solution **M2** observe if deposit is formed **M3** results, e.g. Zn and Fe positive **M4** repeat with named iron salt **M5** results, e.g. Zn positive **M6** conclude	**6**

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