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

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.

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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**

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**

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**