
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.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2017 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.

© IGCSE is a registered trademark.

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

This document consists of **4** printed pages.

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	<p><i>reaction with acid method</i></p> <p>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</p> <p><i>displacement method</i></p> <p>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</p>	6