



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CHEMISTRY

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Paper 5 Practical Test

May/June 2017

MARK SCHEME

Maximum Mark: 40

Published

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Question	Answer	Marks
1(b)	initial and final readings completed correctly	1
	differences completed correctly	1
	all readings to 1 d.p.	1
	results comparable to the Supervisor's results	1
1(c)	red / brown / amber / orange	1
1(d)	(becomes) yellow / orange / paler	1
1(e)	yellow to blue / black	1
1(f)(i)	solution C is more concentrated	1
	a greater volume of thiosulfate was needed	1
1(f)(ii)	ratio of the candidate's differences from the table in (b)	1
1(g)	$1.5 \times$ value from table in (b) for Experiment 2	1
	unit: cm^3	1
1(h)(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
1(h)(ii)	2 meaningful improvements related to (h)(i) : • use a pipette / burette • repeat the experiment • improvement linked to going past the end-point	2

Question	Answer	Marks
2(a)	green	1
2(b)	any 2 from: • turns black • condensation / drops of liquid formed • moves / jumps around	2
2(c)(i)	any 3 from: • blue (solution) • bubbles / fizz • limewater • milky	3
2(c)(ii)	blue	1
	precipitate	1
	(with excess) deep / royal blue solution / clear / precipitate dissolves	1
2(d)	blue-green	1

Question	Answer	Marks
2(e)	copper / Cu^{2+}	1
	carbonate / CO_3^{2-}	1
2(f)	white	1
2(g)(i)	no reaction / no change	1
2(g)(ii)	yellow precipitate	1
2(h)	lilac	1
2(i)	potassium / K^+	1
	iodide / I^-	1

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