

CAMBRIDGE INTERNATIONAL EXAMINATIONS**Cambridge International General Certificate of Secondary Education****MARK SCHEME for the March 2016 series****0620 CHEMISTRY****0620/52**

Paper 5 (Practical Test), maximum raw mark 40

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Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Abbreviations used in the Mark Scheme

- ; separates marking points
- / separates alternatives within a marking point
- () the word or phrase in brackets is not required but sets the context
- **A** accept (a less than ideal answer which should be marked correct)
- **I** ignore (mark as if this material were not present)
- **R** reject
- ecf credit a correct statement that follows a previous wrong response
- ora or reverse argument
- owtte or words to that effect (accept other ways of expressing the same idea)

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Question	Answer	Marks
1(a)	initial, final and average temperature boxes completed correctly; times completed, in seconds; comparable to supervisor's results;	2 1 1
1(b)	appropriate scale for y-axis; all points plotted correctly; smooth line graph;	1 2 1
1(c)	value from graph; extrapolation;	1 1
1(d)(i)	experiment 4 / 50 °C;	1
1(d)(ii)	more energy / higher temperature; more chance of collisions;	1 1
1(e)(i)	more accurate; than a measuring cylinder;	1 1
1(e)(ii)	insulation / use a lid; to reduce heat losses; or repeats; average results; or measure water using a burette / pipette / use a 2d.p. stopwatch / digital thermometer; reference to accuracy; or use a calorimeter; more reliable;	2

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Question	Answer	Marks
2(a)	green / blue (solid / crystals);	1
2(b)(i)	blue; precipitate; deep blue; solution;	1 1 1 1
2(b)(ii)	blue precipitate;	1
2(b)(iii)	white precipitate;	1
2(b)(iv)	no reaction / change / precipitate;	1
2(c)	copper chloride;	1 1
2(d)	purple vapour / gas; description of sublimate; litmus paper turns blue;	1 1 1
2(e)(i)	litmus paper turns blue;	1
2(e)(ii)	yellow precipitate;	1
2(f)	ammonium iodide;	1 1

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Question	Answer	Marks
3	any six from: • chromatography; • pencil base line/origin; • apply orange colouring to the paper; • and samples of both E110 and E129; • run in solvent/named solvent; • check heights of spots of E110 and E129 against orange colouring; • conclusion;	6