UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2012 question paper for the guidance of teachers

0653 COMBINED SCIENCE

0653/53

Paper 5, (Practical Test), maximum raw mark 30

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 must be read in conjunction with the question papers and the report on the examination.

• Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2012 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page 2		2	Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – May/June 2012	0653	53
1	(a) (i)	gree chlo	en ; rophyll ;		[2]
	(ii)	B : b	lue-black/black/blue/violet; rown/orange/yellow; ch present in A AND starch absent in B ;		[3]
	(b) (i)	to so	often leaf/to kill leaf ;		[1]
	(ii)	to pr	revent alcohol from igniting;		[1]
	(iii)	due	tosynthesis occurred in leaf A ; to light ; ting starch/making glucose ;		
			reverse argument for leaf B)		[3]
					[Total: 10]
2	(a) (i)	(a) (i) V and I reading for 20 cm, AND V and I same order of magnitu			
		supervisor, AND V greater than I ;			[1]
	(ii)	V an	nd I reading for 40 cm, AND V greater than I ;		[1]
	(iii)		nd I readings for 60, 80 and 100 cm ; creases and I decreases down the table ;		[2]
	(iv)	all R place	values calculated for 5 or 4 sets of readings to sares;	ne number of decima	ıl [1]
	(b) (i)		ats: 4 points plotted correctly within $\frac{1}{2}$ square; best straight line passing through (0,0) within $\frac{1}{2}$ square	uare ;	[2]
	(ii)		king shown on graph or below graph ; dient calculated correctly ;		[2]
	(iii)	cros	s-sectional area, C calculated correctly to 2 significa	ant figures ;	[1]
					[Total: 10]

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
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3 (a) (i) residue: green; filtrate: colourless; [2] (ii) observations: bubbles/fizzes/effervesces; conclusion: carbonate / CO_3^{2-} ; [2] (iii) observation: blue ppt; conclusion: copper/Cu²⁺/Cu(II); [2] (b) (i) observation: white ppt;

conclusion:
chloride / Cl⁻;

(ii) observation:
no change;
conclusion:

not sulfate/not SO_4^{2-} ; [2]

[Total: 10]

[2]