UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2009 question paper for the guidance of teachers

0653 COMBINED SCIENCE

0653/05

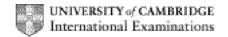
Paper 5 (Practical Test), maximum raw mark 30

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.

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

CIE is publishing the mark schemes for the October/November 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



	Page 2		Mark Scheme: Teachers' version	Syllabus	Paper		
			IGCSE – October/November 2009	0653	05		
1	(a)	good qua chloroph	ality of drawings ; yll label ;			[2]	
	(c)	leaf B and C same shape as in part (a); leaf A only one containing starch, correctly labelled; ignore small traces of starch in B and C pattern of starch matches chlorophyll pattern in (a); [3]					
	(d)	(leaf A starch present) light and carbon dioxide both needed (for photosynthesis); starch only found where chlorophyll is;					
			synthesis because carbon dioxide is absent ; low if stated that water also absent				
		leaf C no photo	synthesis because light is absent ;			[4]	
	(e)	to remov	re carbon dioxide ; OWTTE			[1]	
					[Total:	10]	
2	(a)	recording	g the refractive index ;			[1]	
	(d)		e drawings ;; e ONE mark if only 4		(2)		
			f i are about 60°, 55°, 40°, 30° and 20° and r values E mark if only 4 values	;;;	(2)		
		angles of	f r decrease appropriately ;		(1)	[5]	
	(e)	Graph scale plott suita				[3]	
	(f)	correctly	read from graph ;			[1]	

[Total: 10]

	Page 3		Mark Scheme: Teachers' version	Syllabus	Paper
			IGCSE – October/November 2009	0653	05
3	(a)	accept a	nything between 0.03 and 0.08 ;		[1]
	(c)	value for value for	or all three; B is half A within 2 drops; C is half B within 2 drops; C within 2 drops of Supervisors value;		[4]
	(d)		ncentrated is A ; e largest number of drops ;		[2]
	(e)	brown <u>pr</u>	<u>ot</u> .;		[1]
	(f)	green pp	<u>t</u> .;		[1]

[1]

[Total: 10]

(g) one mark for iron(II);