CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0653 COMBINED SCIENCE

0653/51

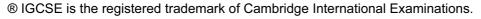
Paper 5 (Practical Test), maximum raw mark 30

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

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2014 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.





Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2014	0653	51

1	(a)	DOU	in temperatures recorded to hearest. C and within range for each water-bath,	ניו
	(b)	all p	east 4 pairs of results recorded; (do not allow $h = 0$) pairs of results recorded in mm and not greater than 200; ght generally higher in B than A ;	[3]
	(c)	at le poi	ear vertical axis labelled with height and units; east 5 correct plots to $\pm \frac{1}{2}$ small square for B (for A if B not plotted); nts plotted for A and B and both labelled; st fit curve or straight lines for A and B ;	[4]
	(d)	car	bon dioxide ;	[1]
	(e)	_	her yeast activity with higher temperature/it increases with temperature/it is faste	er at
			her temperature ; ark may only be awarded if there are results in the table)	[1]
			ח	Гotal: 10]
2	(a)	res	ate: colourless ; idue: brown/black/grey ; lours reversed 1 mark max)	[2]
	(b)	(i)	white ppt. /ppt. disappears to form colourless solution/ppt. soluble in excess (NaOH) ;	[1]
		(ii)	white ppt. /ppt. disappears to form colourless solution/ppt. soluble in excess (ammonia solution);	[1]
	1	(iii)	Zn ²⁺ /zinc; (not Zn) (mark is linked to a correct observation in (b)(i) or (b)(ii))	[1]
	(c)	(i)	bubbles/effervescence (ignore colours);	[1]
		(ii)	filtrate: green/turquoise/blue; residue: brown/black/grey; (colours reversed 1 mark max)	[2]
	(d)		servation: (pale) blue ppt. ; ²⁺ /copper ; (not Cu) <i>(independent mark)</i>	[2]
				гоtal: 10]

[Total: 10]

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – October/November 2014	0653	51

3 (a) (i) all three values present with l = 10 cm and I less than 1; [1] (ii) R value correct for $l = 10 \, \text{cm}$ and minimum of two significant figures; [1] (iii) V values increasing (for increasing length); R values correct for $l = 40 \,\mathrm{cm}$ onwards; consistent two to three significant figures for R; [3] (iv) so that the wire does not become hot/because resistance of wire may increase/as battery or cell may run down; [1] (b) suitable choice of linear scales and use of at least 50% of each axis; (no marks may be awarded in **(b)** for a non-linear scale) at least three plots correct to $\pm \frac{1}{2}$ small square; good best fit straight line judgement; [3] (c) proportional; [1]