



Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

COMBINED SCIENCE

0653/52

Paper 5 Practical Test

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MARK SCHEME

Maximum Mark: 30

Published

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Question	Answer	Marks				
1(a)	quality of drawing using at least half the box ; root correctly labelled ; shoot correctly labelled ;	3				
1(b)(i)	sensible measurement in mm ;	1				
1(b)(ii)	correct measurement in mm ;	1				
1(b)(iii)	magnification correctly calculated ;	1				
1(c)(i)	<table><tr><td>biuret</td><td>iodine</td></tr><tr><td>purple ;</td><td>blue-black ;</td></tr></table>	biuret	iodine	purple ;	blue-black ;	2
biuret	iodine					
purple ;	blue-black ;					
1(c)(ii)	reducing sugar, protein and starch ;; all 3 for 2 marks, 1 or 2 named for 1 mark	2				

Question	Answer		Marks
2(a)(i)	solution	observation	4
	ammonium sulfate	no reaction / no ppt. ;	
	copper sulfate	blue ppt ;	
	iron(III) sulfate	brown / orange ppt ;	
	zinc sulfate	white ppt ;	
2(a)(ii)	red litmus goes blue ;		1
2(b)	different coloured ppts. / different results ; same coloured ppts. as NaOH or ammonia ; ammonia from ammonium (as with NaOH) / no ammonia from ammonium (unlike NaOH) ;		3
2(c)(i)	bubbles / effervescence ;		1

Question	Answer	Marks
2(c)(ii)	should have added dilute nitric acid or dilute hydrochloric acid before adding the barium chloride ;	1
3(a)(i)	θ recorded at $t = 0$ for 200 cm^3 ;	1
3(a)(ii)	for 200 cm^3 ; t values correct ; all values of temperature recorded ; θ values decreasing ;	3
3(b)	larger change over 180 s for 100 cm^3 beaker ;	1
3(c)	to allow maximum temperature of hot water to be recorded / wtte ;	1
3(d)	statement matching temperature changes and justification referring to results ; justification referring to temperature changes <u>in the same time</u> ;	2
3(e)	any two from: room temperature / <u>initial</u> water temperature / same volume(s) of water / keep thermometer the same depth ;;	2