CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2013 series

0620 CHEMISTRY

0620/52

Paper 5 (Practical), maximum raw mark 40

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 May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.



Page 2			Mark Scheme	Syllabus	Paper			
	<u> </u>		IGCSE – May/June 2013	0620	52			
(a)	Table of results for Experiment 1							
	initi	initial and final volumes and differences completed correctly (1)						
	within ± 2 Supervisor (1)							
	all results (both tables) to 1 or 2 decimal places (including 0.0) (1)							
(b)	b) Table of results for Experiment 2							
	initial and final volumes and differences completed correctly (1)							
	titre	lowe	er than experiment (1)					
	with	nin ± 2	2 Supervisor (1)		[3]			
(c)	(i)	to sp	peed up the reaction / owtte (1)		[1]			
	(ii)	colo	urless (1) not: clear, to brown / pink / purple / lilac /	mauve (1)	[2]			
	(iii)		an acid / alkali reaction or potassium manganate is indicating owtte (1)	coloured /	[1]			
(d)	(i)	expe	eriment 1 allow: ecf from results (1)		[1]			
	(ii)	•	eriment 1 (about) 2x volume experiment 2 – <u>quantita</u> w: ecf from results	ative relationship re	<u>quired</u> . [1]			
	(iii)	solut	tion B / experiment 1 more concentrated / stronger	or converse (1)				
		(abo	out) 2x as concentrated - quantitative statement (1)		[2]			
(e)	half	value	e from table result for experiment 2 (1) cm ³ (1)					
	half	volui	me / amount (of C) used (1)		[3]			
(f)	•	,	ridation (1) duction (occur) (1)					
	accept: answers using definitions of oxidation in terms of: oxygen / hydrogen / electrons / oxidation numbers							
	tran	ısfer o	of electrons scores 2		[2]			
(g)	adv	antag	ge: easy to use / quick / convenient (1)					

[2]

disadvantage: not accurate owtte (1)

	Page 3	Mark Scheme	Syllabus	Paper
		IGCSE – May/June 2013	0620	52
2	bubbles / fizz	z (ignore references to colour / ppt) (1)		[1]
	(a) pH = 7 (accept any in range 5 to 7, must be a number) (1)		[1]
		te precipitate (1) solves / clears (1)		[2]
	` '	te precipitate (1) bluble / does not dissolve (1) (dependent on a ppt ha	ving been formed) [2]
	(c) no chan	ge / colourless solution / no ppt / no reaction (1)		[1]
	(d) white (1)) precipitate (1)		[2]
	(e) bubbles	/ fizz / effervescence (1)		
	limewate	er (1) milky (1)		[3]
	white (1) precipitate (1)		[2]
	(f) aluminiu	um (1) sulfate (1)		[2]
	(g) carbon o	dioxide (1)		[1]
	(h) calcium	(1) carbonate (1)		[2]