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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2011 question paper for the guidance of teachers

0620 CHEMISTRY

0620/63

Paper 6 (Alternative to Chemistry), maximum raw mark 60

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 October/November 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

	1 4	ge z	IGCSE – October/November 2011	0620	63	
1	(a)	funnel (1) stirrer/glass rod (1) evaporating dish (1)	0020	[3]	
	(b)	filtration	(1)		[1]	
	(c)	C/A (1)			[1]	
2	(a)		tures correctly recorded (3) -1 for each incorrect 44, 29, 31			
			ture rises correct (1) 19, 4, 6		[4]	
	(b)	bars con	ate scale for y axis (1) note must be greater than harect heights (2) plotting final temps = max 2 elled correctly (1) no bar chart = max 1	alf of grid	[4]	
	(c)	(i) calc	ium (1)		[1]	
			emperature rise (1) eaction/unreactive (1) not low/less reactive		[2]	
	(d)	least	order of reactivity (2), two in wrong order (1) copper iron zinc magnesium calcium		[2]	
	(e)		ture changes/rises would be less/lower/half (1) d/volume (1)		[2]	
3	(a)	smooth o	curve missing anomalous points (1)		[1]	
	(b)	at 20 °C (1)				
	(c)	decrease	es (1)		[1]	
	(d)	line sket	ched below original curve (1)		[1]	
4	(c)	final read	results adings completed correctly 0.0, 1.9, 11.1 (1) dings completed correctly 10.4, 22.7, 16.3 (1) all es completed correctly 10.4, 20.8, 5.2 (1)	I readings to 1 dp (1) [4]	

Mark Scheme: Teachers' version

Syllabus

Paper

Page 2

Page 3			Syllabus	Paper			
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(d)	pinl	k (1) to colourless(1) not clear		[2]			
(e)	neu	utralisation/exothermic (1)		[1]			
(f)	(i)	C/3 smallest, B/2 largest (1)		[1]			
	(ii)	order is C/3, A/1, B/2 (2) one correct = 1		[2]			
(g)	Exp	periment 2 2x volume Experiment 1 or converse (1)		[1]			
(h)	10.4	4 (1) cm ³ (1) allow ecf from (c)		[2]			
(i)	use	a pipette/burette		[1]			
(j)		effect/owtte (1) change in concentration/temperature has no effect on qu	antities/only affec	ts speed (1) [2]			
(k)	san	correct method that would work – precise details not nemethod using different acids = 0 gents (1) method (1) result (1)	eded	[3]			
	mea	e.g. to sodium hydroxide add named acid (1) measure temperature change (1) largest change = strongest/more concentrated solution (1)					
	filte	to sodium hydroxide add named (excess) metal salt solution (1) filter precipitate (1) largest mass = strongest/more concentrated solution (1)					
(a)	(i)	yellow/brown/orange (1)		[1]			
(b)	(i)	no change/no reaction/owtte (1)		[1]			
	(ii)	white (1) precipitate (1)		[2]			
	(iii)	brown (1) precipitate (1)		[2]			
	(iv)	brown precipitate (1)		[1]			
(d)	carl	bon dioxide (1)		[1]			
(e)		bonate/hydrogen carbonate (1) n transition metal/named metal e.g. sodium (1)		[2]			

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	Page 4	Mark Scheme: Teachers' version	Syllabus	Paper
	-	IGCSE – October/November 2011	0620	63
6	(a) substan	ce/liquid that dissolves/owtte (1)		[1]
	(b) (in)flamr	mable/catches fire easily (1)		[1]
	(c) fractiona	al distillation (1)		[1]
	apply sp	ography (1) not of oil to paper (1) use of solvent (1) ion of process (1) results (1)		max [4]

[Total: 60]