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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0620 CHEMISTRY

0620/63

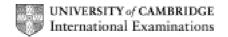
Paper 6 (Alternative to Practical), maximum raw mark 60

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.

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Page 2		ge 2	Mark Scheme: Teachers' version Syllabus		Paper		
				ber/November 2010	0620	63	
1	(a)	(i) fract	ional distillation				[1]
		(ii) A = 1 B = 0	flask (1) condenser (1)				[2]
	(b)	alkanes a	are inflammable / risk	of fire owtte			[1]
	(c)	octane					[1]
	(d)	(d) temperature on the thermometer would rise / be 174°C / pause in the distillation of liquid				n of liquid	[1]
						[Tota	l: 6]
2	(a)	(i) mea	suring cylinder				[1]
		(ii) reac	tion will happen / is fas	st with cold acid			[1]
	(b)	•	owder visible / no more ipitate forms, not stop	e solid dissolves / fizzing stop s reacting	s when powder add	ded	[1]
	(c)	diagram	of funnel (1) and filter	paper within (1)			[2]
	(d)		rystallising point owtte and leave to cool	(1) to prevent loss of water	of crystallisation (1)	[2]
						[Tota	l: 7]
3			eratures correct (1) rises correct (1)	28, 30, 32, 32 7, 9, 11, 11			[2]
	(b)		otted correctly (2), –1 aght lines through point	•			[3]
	(c)		g (1) extrapolation shept extrapolation to ze	nown (1) ro and subsequent mass			[2]
		(ii) all co	opper sulfate solution	used up after 1.5g zinc adde	d / zinc is in excess	s / owtte	[1]
	(d)	_	raph to left of original / ove original (1)	steeper slope than original (1)		[2]
						[Total:	10]

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(a)	final volu 13.0 and			
	initial vol 0.0 and 8			
	differenc 13.0 and			
	–1 if any	readings not to 1 dp, -1 if initial and final readings	are reversed	[4]
(b)	hydroxid	e		[1]
(c)	(i) Expe	eriment 2 / G		[1]
	(ii) Expe	eriment 2 2× volume experiment 1		[1]
		line solution G more concentrated / stronger (1) or one s concentrated (2)	converse	[2]
(d)	13 (1) cn half volui	n ³ (1) me of G used (1)		[3]
(e)	e.g.	sources of error using a measuring cylinder to measure alkalis / goir cal flask or measuring cylinder not cleaned	ng past end point o	owtte / [2]
	e.g.	meaningful improvements related to above use a pipette / burette / repeat experiment or use di n conical flask or measuring cylinder	ifferent indicator /	[2]
				[Total: 16]
(c)	green (so	olid)		[1]
(d)	(i) gree	en (1) precipitate (1)		[2]
	(ii) white	e (1) precipitate (1)		[2]
(e)	ammonia	a e e e e e e e e e e e e e e e e e e e		[1]
(f)	ammoniu	um (1) sulfate (1) not a halide (1)		[3]
				[Total: 9]

Mark Scheme: Teachers' version

Syllabus

Paper

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Pa	age 4	Mark Scheme: Teachers' version	Syllabus	Paper
		IGCSE – October/November 2010	0620	63
6 (a)) powder has larger surface area (1) speeds up reaction / more collisions (1)			
(b)	red / bro	wn / pink		[1]
(c)	the ice /	condensation		[1]
(d)		add anhydrous copper sulfate / cobalt chloride pap turns blue / pink (1)	er (1)	[2]
				[Total: 6]
7 (a)	(i) less	than 7		[1]
	(ii) colo	ur of orange drink obscures indicator colour owtte		[1]
(b)	chromato apply ora use of so			
		son of spot heights or $R_{ m f}$ with E numbers and/or car	rotenes (1)	[4]
				[Total: 6]