UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the June 2005 question paper

0620 CHEMISTRY

0620/06

Paper 6 (Alternative to Practical), maximum mark 60

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

• CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the June 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



Grade thresholds for Syllabus 0620 (Chemistry) in the June 2005 examination.

	maximum	minimum mark required for grade:				
	mark available	А	С	E	F	
Component 6	60	48	38	27	22	

The threshold (minimum mark) for B is set halfway between those for Grades A and C. The threshold (minimum mark) for D is set halfway between those for Grades C and E. The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.

Grade A* does not exist at the level of an individual component.

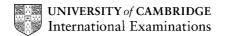
IGCSE

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 0620/06

CHEMISTRY
Alternative to Practical



			IGCSE – JUNE 2005 0620			6	
1	(a)	(a) boxes completed retort/clamp stand (1) (teat) pipette/dropper (1) Bunsen burner (1)					
						[3]	
	(b)	b) hydration/exothermic (1)				[1]	
2	(a)	(a) electrodes correctly labelled on rods (1)					[1]
	(b)	(b) bubbles at positive electrode (1), bubbles at negative electrode (1) bulb lights up/smells of bleach/greenish gas (1)				[3]	
	(c)	(c) (i) chlorine (1)				[1]	
		(ii) li	tmus/indicator	· (1)	bleached/colourless (1)		[2]
3	volu	volumes from syringe diagrams;					
	15,	45, 61	, 73, 74, 80 aı	nd 80	all correct (4) (-1 for each	ch incorrect)	[4]
	(a)	graph					
	all points plotted correctly (3) (-1 for each incorrect) smooth curve (1)					[4]	
	(b) volume of acid from graph, $10.5 \rightarrow 11.5$ (1)					[1]	
	(c)	volum	ume of hydrogen from graph, 29.5 → 30.5 (1)			[1]	
4	tabl	table of results:					
	all initial and final volume boxes correctly completed 0.0, 10.6, 14.9 36.1 (3))	
	difference boxes correctly completed, 10.6, 21.2 (1)					[4]	
	(a) neutralisation (1)				[1]		
	(b) (i) experiment 2 (1)				[1]		
	(ii) experiment 2 more/greater volume (1) x 2 (1)					[2]	
	(iii) M more concentrated/stronger than N (1) x 2 (1)					[2]	
	(c) 21.2 (1) cm ³ (1)						
		twice as much calcium hydroxide (1)					[3]
	(d) e.g. use a pipette/burette instead of a measuring cylinder (1)					[1]	
5	(b)	_	zz/bubbles (1)		pops (1)		[2]
	. ,		zz/bubbles (1)		limewater milky (1)		[2]
	(c)	` '		,	, ,		[1]
	(c) weak (1)					1.1	

Mark Scheme

Syllabus

Paper

Page 1

				IGCSE – JUNE 2005	<u>-</u>	0620	6	
	(d)	(i) h	nydrogen (1)			[1]		
		(ii) c	carbon dioxide (1)					[1]
	(e)	coppe	er (1) 2+ (1)					[2]
6	(a)	no/litt	no/little water present/little water implied (1)					[1]
	(b)	any v	any value less than 7 (1)					[1]
	(c)	chron	matography (1)	apply to paper (1)	use of solvent	(1)		
		description of two yellow spots (1)						[4]
		paper in drink = max 2						
7	(a)	straig	tht line (1)	DRAWN WITH A RUL	.ER			[1]
	(b)	inacc	ccurate point is at pH 5 (1) not on line (1)					[2]
	(c)	% cor	orrosion decreases as pH increases (1)					[1]
8	san	ame amount/measured volume of peroxide (1)						
	add	d known mass of metal oxide (1)						
	time	e (1) measure volume of oxygen (1)						
	repe	eat with other oxide (1) compare/conclusion (1)						[6]
	met	ethod will not work = 0						

Mark Scheme

Syllabus

Paper

Page 2

Total 60