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

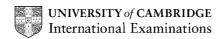
This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking 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 mark available	minimum mark required for grade:				
		А	С	Е	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.



June 2005

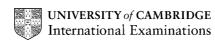
IGCSE

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 0620/06

CHEMISTRY Alternative to Practical



			WW	/w.dynamicpa	pers.com	
	Page 1	Mark So IGCSE – J		Syllabus 0620	Paper 6	
1	(a) boxes					
	(b) by dra	tion/overhamia (1)			[3]	
2		tion/exothermic (1)	do (1)		[1] [1]	
2		(a) electrodes correctly labelled on rods (1)(b) bubbles at positive electrode (1), bubbles at negative electrode (1)				
	(d) bubb bulb l		[3]			
	(c) (i) c	hlorine (1)			[1]	
	(ii) li	tmus/indicator (1)	bleached/colourless (1)	[2]	
3	volumes f	rom syringe diagrams;				
	15, 45, 61	, 73, 74, 80 and 80	all correct (4) (-1 for ea	ch incorrect)	[4]	
		i: ints plotted correctly (3) th curve (1)	(-1 for each incorrect)		[4]	
	(b) volun	ne of acid from graph, 10.5 –	→ 11.5 (1)		[1]	
	(c) volun	ne of hydrogen from graph, 2	9.5 → 30.5 (1)		[1]	
4	table of re	esults:				
	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)					
	(a) neutr	alisation (1)			[1]	
	(b) (i) e	experiment 2 (1)			[1]	
	(ii) experiment 2 more/greater volume (1) x 2 (1)				[2]	
	(iii) N	I more concentrated/stronge	r than N (1) x 2 (1)		[2]	
	(c) 21.2	(1) cm ³ (1)				
	twice	as much calcium hydroxide	(1)		[3]	
	(d) e.g. u	se a pipette/burette <u>instead o</u>	of a measuring cylinder (1)		[1]	
5	(b) (i) fi	zz/bubbles (1)	pops (1)		[2]	
	(ii) fi	zz/bubbles (1)	limewater milky (1)		[2]	
	(c) weak	(1)			[1]	

	www.dynamicpa					apers.com	
	Page 2		Mark Scheme Syllabus			Syllabus	Paper
				IGCSE – JUNE 2005		0620	6
	(d)	(i) hy	ydrogen (1)				[1]
		(ii) ca	arbon dioxide (1)			[1]
	(e)	coppe	er (1) 2+ (1)				[2]
6	(a) no/little water present/little water implied (1)						[1]
	(b)	any va	alue less than 7	(1)			[1]
	(c)	chrom	atography (1)	apply to paper (1)	use of solvent	(1)	
	description of two yellow spots (1)				[4]		
	paper in drink = max 2						
7	(a)	straig	nt line (1)	DRAWN WITH A RU	LER		[1]
	(b) inaccurate point is at pH 5 (1) not on line (1)					[2]	
	(c)	c) % corrosion decreases as pH increases (1)			[1]		
8	same amount/measured volume of peroxide (1)						
	add known mass of metal oxide (1)						
	time (1) measure volume of oxygen (1)						
	repeat with other oxide (1) compare/conclusion (1)					[6]	
	method will not work = 0						

Total 60