UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2006 question paper

0620 CHEMISTRY

0620/06

Paper 6, maximum raw mark 60

These mark schemes are published as an aid to teachers and students, to indicate the requirements of the examination. They show the basis on which Examiners were initially instructed to award marks. They do 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*.

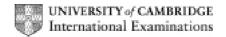
All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

The minimum marks in these components needed for various grades were previously published with these mark schemes, but are now instead included in the Report on the Examination for this session.

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

CIE is publishing the mark schemes for the May/June 2006 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



	Page	: 1		rk Scheme	Syllabus	Paper
			IGCSE -	- May/June 2006	0620	06
1	(a) E	Boxes cor	npleted	tubes (1) hydrochloric acid (1) electrodes (1)		[3]
	(b) E	Electrolys	sis (1)			[1]
	(c) L	₋itmus pa	per (1), bleaches/white ((1)		[2]
2	(a) T	Γο extract	t the colour owtte (1)			[1]
	(b) To remove solid/insoluble impuri			es (1)		[1]
	(c) H	Heating/e	evaporation (1)			[1]
	(d) [Diagram s	showing spots (1)	3 at different levels (1)		[2]
3	Maxii	mum tem	peratures reached			
	22 3	4 46 48	44 40 (2)			[2]
	-1 for	any inco	orrect			
	(a) S	So that th	e solutions are at same/	lab/room temperature (1)		[1]
	(b) 2	22°C (1)				[1]
	(c) (Good insu	ulator owtte (1)			[1]
	(d) (Graph all	points correct (2)	-1 for any incorrect		
	2	2 straight	lines (1)			[3]
	(e) (i) 50°C	(1)			[1]
	(ii) Indica	ation where lines intersed	ct (1)		[1]
	(iii) 24 cm	m³ or from graph (1)			[1]
	(f) E	Exotherm	ic (1)			[1]
4	Volur	nes from	cylinder diagrams			
	Expe	riment 2				
	0 16	31 39		all correct (2)		[2]
	-1 for	any inco	orrect			
	Expe	riment 3				
	0 9	17 21		all correct (2)		[2]

Page 2	Mark Scheme		Paper
	IGCSE – May/June 2006	0620	06

Experiment 4

	0 6	11	14 all correct (2)	[2]					
	(a)	(a) Graph. All points plotted correctly (3)1 for each incorrect							
	smooth curves (1), labels (1)								
	(b)	(i)	Experiment 1 (1)	[1]					
		(ii)	Most concentrated solution (1), more collisions (1)	[2]					
	(c)	(i)	Two errors (2)						
			e.g. amount of catalyst/timing/volume of solution	[2]					
		(ii)	Two improvements (2)						
			e.g. measure mass of catalyst/use burette or pipette/data logging	[2]					
	(d)	(d) Filter (1), same mass of catalyst before and after (1)/repeat experiment and compare volumes of gas collected							
5	(b)	(i)	white (1), precipitate (1), dissolves/soluble (1)	[3]					
		(ii)	white (1), precipitate (1), dissolves/soluble (1)	[3]					
	(d)	refe	rence to water (1) e.g. hydrated salt	[1]					
	(e)	sulp	hate (1), not a chloride (1)	[2]					
	(f)	cart	oon dioxide (1), from a carbonate (1)	[2]					
6	Add Add Unti	indi nan I col	ed volume of oven cleaner (1) cator/named indicator (1) ned acid (1), from a burette/pipette (1) our change/end point (1), measure/record volume of acid (1) with other cleaner (1), compare (1)						
			Max 6	[6]					

Total for paper = 60