UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

General Certificate of Education Ordinary Level

MARK SCHEME for the June 2005 question paper

5070 CHEMISTRY

5070/04

Paper 4 (Alternative to Practical), maximum mark 60

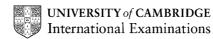
This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking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



June 2005

GCE O Level

MARK SCHEME

MAXIMUM MARK: 60

SYLLABUS/COMPONENT: 5070/04

CHEMISTRY Paper 4 (Alternative to Practical)



	Pag	e 1			Mark Scheme		Syllabus	Paper		
				GCE O	LEVEL – JUN	E 2005	5070	4		
1		syri 12 ([1] [1]							
2	(a)	Wh	[1]							
	(b)	Filtr	[1]							
	(c)	(i)	0.012 (m	oles)				[1]		
		(ii)	0.015 (m	oles)				[1]		
	(d)	(i)	0.012 (m	oles)				[1]		
		(ii)	BaSO ₄					[1]		
		(iii)			796 (2.80) (1) swer for (d)(i) a	g and incorrect form	ula (d)(ii)	[2]		
3	(a)	soli	d does no	t conduct a	current (or sir	nilar)		[1]		
	(b)	(i)	bromine					[1]		
		(ii)	brown ga	IS				[1]		
		(gas or vapour must be mentioned in either (i) or (ii)) (no other gas is acceptable)								
		(iii)	lead					[1]		
		(iv)	on the flo	or of the ce				[1]		
	(c)	(i)	chlorine ((1), bleache	es litmus (1)			[2]		
		(ii)	hydrogen	n (1), pops i	n a flame or w	ith a lighted splint	(1)	[2]		
			if products in (b)(i) and (iii) or gases in (c)(i) and (ii) are correct but reversed, 1 out 2 in each or either case. Ecf test for O ₂ only in (c) , not any other gas.							
	(d)	mol	ten sodiur	n chloride				[1]		
4 t	o 8	(a), (c), (b), (d), (d) 1 mark each.								
9	(a)) 1.98 (g)						[1]		
	(b)	pipette								
	(c)	yellow to orange, red or pink						[1]		
	(d)	25.9		48.7	33.4	1 mark for ea				
		0.0 25.9		23.3 25.4	7.8 25.6	correct row <u>c</u> column	<u>)</u>	[3]		
		mean value: 25.5 (cm ³⁾						[1]		
	(e)	0.0	0204 (mole	es)				[1]		

	Page 2		Mark Scheme	Syllabus	Paper
			GCE O LEVEL – JUNE 2005	5070	4
	(f)	0.001	02 (moles)		[1]
	(g)	0.010	2 (moles)		[1]
	(h)	106 (ថ្	g)		[1]
	(i)	1.081	(g)		[1]
	(j)	0.899	(0.90) (g)		[1]
	(k)	4.90 (5) (accurate answer must be seen to gain this mark)	[1]
10	1. 2 3 4	red-br red-br aq so ammo (or alt (if acid	red solution (no compounds) rown precipitate (1) insoluble in excess (1) rown precipitate (1) insoluble in excess (1) dium hydroxide (1) aluminium foil <u>and</u> warm (1) onia or gas evolved (1) which turns red litmus blue (ternative test for ammonia) d is used instead of NaOH in test, 1 mark lost nonia is used in test, 2 marks lost)	1)	[1] [2] [2] [2]
		Fe(NC	O ₃) ₃		[1]
11	(a)	32, 55	5, 69, 80. All correct (2), one error (1)		[2]
	(b)		ints stated in (a) plotted correctly (1) ht line and curved line (1)		[2]
	(c)		ppriate extrapolations at the lower ends (1) pper ends (1)		[2]
		(i) p	otassium chlorate(V) 0.35 g		[1]
		(ii) p	otassium nitrate 3.30 g		[1]
		(iii) 9	O° O		[1]
	(d)		100 g of water rts (c) and (d) candidate's own graph should be rea	d in marking the	[1] results)
	(e)	solutio	on and solid present		[1]
		Note:	 (i) if potassium chlorate (V) curve is extrapolated to extrapolation mark is lost but (c)(i) can score equivalent (ii)mark (a), (c)(i), (ii) and (d) to nearest <u>half</u> a sm 	of from zero	t
			(Indicate marks awarded for graph at appropriate	points)	