#### 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

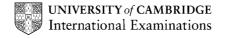
## GCE O Level

# MARK SCHEME

**MAXIMUM MARK: 60** 

SYLLABUS/COMPONENT: 5070/04

CHEMISTRY
Paper 4 (Alternative to Practical)



www.dynamicpapers.com

Pag		e 1		Mark Scheme Sylla				Paper
					_EVEL – JUN		5070	4
1		syringe 12 cm <sup>3</sup>						[1] [1]
2	(a)	Wh	[1]					
	(b)	Filtration						[1]
	(c)	(i)	0.012 (m	oles)				[1]
		(ii)	0.015 (m	oles)				[1]
	(d)	(i)	0.012 (m	oles)				[1]
		(ii)	BaSO <sub>4</sub>					[1]
		(iii)			96 (2.80) (1) wer for <b>(d)(i)</b>	g and incorrect form	ula <b>(d)(ii)</b>	[2]
3	(a)	soli	d does no	t conduct a	current (or sir	milar)		[1]
	(b)	(i)	bromine					[1]
		(ii)	brown ga	is				[1]
		(iii)	lead					[1]
		(iv)	on the flo	oor of the ce	II			[1]
	(c)	(i)	chlorine (	(1), bleache	s litmus (1)			[2]
		(ii)	hydroger	ı (1), pops iı	n a flame or w	vith a lighted splint	(1)	[2]
			eversed, 1 out of					
	(d)	mol	ten sodiur	m chloride				[1]
4 to 8 (a), (c)			(c), (b), (d	<b>d)</b> , <b>(d)</b> 1 ma	ırk each.			[5]
9	(a)	1.98	8 (g)					[1]
	(b)	) pipette						[1]
	(c)	yellow to orange, red or pink					[1]	
	(d)	25.9 0.0		48.7 23.3	33.4 7.8	1 mark for ea		
		25.9		25.4	25.6	column	<u></u>	[3]
		mean value: 25.5 (cm <sup>3)</sup>					[1]	
	(e)	0.00204 (moles)					[1]	

www.dynamicpapers.com

Page 2	Mark Scheme	Syllabus	Paper
	GCE O LEVEL – JUNE 2005	5070	4

	(f)	0.00102 (moles)					
	(g)	0.0102	(moles)	[1]			
	(h)	106 (g)		[1]			
	(i)	1.081 (g		[1]			
	(j)	0.899 (0.90) (g)					
	(k)	4.90 (5) (accurate answer must be seen to gain this mark)					
10	1. 2 3 4	red-brown precipitate (1) insoluble in excess (1) red-brown precipitate (1) insoluble in excess (1)					
		Fe(NO <sub>3</sub>	)3	[1]			
11	(a)	) 32, 55, 69, 80. All correct (2), one error (1)					
	(b)	all points stated in (a) plotted correctly (1) straight line and curved line (1)					
	(c)	Appropriate extrapolations at the lower ends (1) and upper ends (1)					
		(i) potassium chlorate(V) 0.35 g		[1]			
		(ii) pot	assium nitrate 3.30 g	[1]			
		(iii) 90 °C					
	(d)	52 g/100 g of water (in parts <b>(c)</b> and <b>(d)</b> candidate's own graph should be read in marking the results)					
	(e)	solution and solid present		[1]			
		·	<ul> <li>(i) if potassium chlorate (V) curve is extrapolated through zero, first extrapolation mark is lost but (c)(i) can score ecf from zero</li> <li>(ii) mark (a), (c)(i), (ii) and (d) to nearest half a small square</li> </ul>				
		(	(Indicate marks awarded for graph at appropriate points)				