UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2007 question paper

0620 CHEMISTRY

0620/06

Paper 6 (Alternative to Practical), maximum raw mark 60

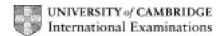
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Page 2		ge 2	Mark Scheme	Syllabus	Paper
			IGCSE – May/June 2007	0620	06
1 (a)	B beak	mometer (1) ker (1) kd (1)		[3]
(b)	to cool / c	condense the vapour (1)		[1]
((c) measure the boiling point (1)				[1]
					[Total: 5]
2 (a)	Correct ir	ndication of electrodes (1)		[1]
(b)	bubbles / bulb lights	fizz / effervescence (1) / green gas / level of liquid falls (1 s up (1) max 2)	[2]
(c)	(i) chlor	rine / C l ₂ (1)		[1]
		(ii) litmu	us paper / indicator (1) bleaches (1)		[2]
					[Total: 6]
3 (a)	does not	dissolve in solvent / interfere with results owtte (1)		[1]
(b)	1 and 3 (1)		[1]
(c)	sample 4 two spots	s present (1)		[2]
(d)	to show p	position of the acids / spots (1)		[1]
					[Total: 5]

Page 3 Mark Scheme		Syllabus	Paper
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4 Table of results

Experiment 1

final reading box correctly completed, 39.2 (1)

Experiment 2

final reading box correctly completed (1) differences completed correctly, 39.2 (1) and 20.6 (1)

[4]

(a) as an indicator owtte

[1]

(b) (i) Experiment 1 (1)

[1]

(ii) more in Experiment 1 / greater volume (1)

[1]

(iii) solution **A** more concentrated / stronger than **B** (1) approx ×2 (1)

[2]

(c) 10.3 (1) cm³ / ml / cc (1)

[2]

[2]

(d) change e.g. repeat titrations (1) explanation e.g. average reading more accurate (1)

[Total: 13]

5 (c) bubbles / fizz (1) limewater (1) milky (1)

[3]

(d) yellow (1) precipitate (1)

[2]

(f) carbon dioxide (1)

[1]

(g) ammonia (1)

[1]

(h) iron (1) (II) (1) ammonium (1) sulphate (1)

[4]

[Total: 11]

Page 4	Mark Scheme	Syllabus	Paper
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6 table correctly completed

catalyst W	catalyst X
0	0
16	29
32	34
36	36
37	37
37	37
all correct (3)	-1 each incorrect

[3]

(b) graph

choice of suitable scale for y-axis (1) all points correctly plotted (3) smooth curves (1) labelled (1)

[6]

(c) solid X (1)

faster reaction / more gas given off at 20/40 s (1)

[2]

(d) same volume of hydrogen peroxide used in both experiments (1)

[1]

(e) line sketched on grid with steeper slope than for catalyst **X** at 25°C (1) levelling out at same level (1)

[2]

[Total: 14]

7 (a) initial temperature of cold water or cement (1)

add cement (1)

using thermometer / in beaker etc. (1)

measure temperature (1)

temperature rise (2) max 4

[4]

NΒ

no water = 0

no cement = 0

use of heat = 0

wrong chemicals = 0

would not work = 0

(b) sodium hydroxide (1) white precipitate (1) or flame test (1) red (1)

[2]

[Total: 6]