

MARK SCHEME for the May/June 2007 question paper

0620 CHEMISTRY

0620/06

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

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

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 discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the May/June 2007 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



Page 2	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2007	0620	06

- 1 (a) A thermometer (1)
 B beaker (1)
 C tripod (1) [3]
- (b) to cool / condense the vapour (1) [1]
- (c) measure the boiling point (1) [1]
- [Total: 5]**
- 2 (a) Correct indication of electrodes (1) [1]
- (b) bubbles / fizz / effervescence (1) / green gas / level of liquid falls (1)
 bulb lights up (1) max 2 [2]
- (c) (i) chlorine / Cl_2 (1) [1]
- (ii) litmus 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 (1)
 two spots present (1) [2]
- (d) to show position of the acids / spots (1) [1]
- [Total: 5]**

Page 3	Mark Scheme	Syllabus	Paper
	IGCSE – May/June 2007	0620	06

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 $\times 2$ (1) [2]

(c) 10.3 (1) cm^3 / ml / cc (1) [2]

(d) change e.g. repeat titrations (1)
 explanation e.g. average reading more accurate (1) [2]

[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
	IGCSE – May/June 2007	0620	06

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]

NB

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]