UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2006 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 students, 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.

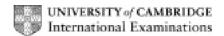
All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

The grade thresholds for various grades are published in the report on the examination for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses.

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

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



Page 2	Mark Scheme	Syllabus	Paper
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1 (a) Boxes filled in correctly to show tongs(1) watch glass/evaporating basin/dish(1) beaker(1) [3] (b) oxidation/combustion/exothermic/redox(1) [1] (c) > 7(1) [1] 2 (a) brown/orange(1) [1] (b) oxygen used in rusting(1) not air [1] $\frac{25}{150} \times 100 \text{ (1)} = 17\% / 16.6 \rightarrow 17\% (1) 2 \text{ for correct answer}$ [2] more rust/quicker to rust/water further up tube/tube fills up(1) (d) [1] 3 table of results all volumes correct (2) 0, 9, 35, 62, 81, 88, 89 [2] -1 for any incorrect (a) graph points (2) S-shaped curve joining all points(1) [3] exothermic/displacement/oxidation/redox(1) (b) [1] (c) slow at start/speeds up/slows down at end max 2 [2] (ii) surface dirty owtte at start/then clean/calcium being used up/warms up max 2 [2]

Page 3	Mark Scheme	Syllabus	Paper
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4 (a) (b) (c)	zinc 24 56 32 iron 25 41 16 magnesium 23 69 46 -1 for each incorrect	[4] [1] [2] [1] [6]
	Time /s zinc magnesium 0 24 26 10 27 54 20 29 62 30 33 67 40 37 68 50 40 67 60 43 65	
(d) (e) (f) (g) (h)	Smooth lines(1) labels(1) temperature after 5s/ 25-26°C ± 0.5°C(1) indication on grid(1) sketch line for Mg below powder Mg(1) sketch line for iron powder below zinc/ any line below top curve(1) prevent heat loss/insulation(1)	[4] [2] [2] [1] [1]
(c)	 (a) (ii) red(1) litmus turns blue(1) reference to smell(1) max 2 (c) weak(1) acid(1) (d) ammonia(1) (e) ammonium chloride(1) (f) potassium iodide(1) 	
6 (a) (b)	solid + organic solvent(1) add to paper(1) chromatography(1) use of solvent(1) description of spots(1) max 4 NB use of water = max 1 for chromatography	

Page 4	Mark Scheme	Syllabus	Paper
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[Total 60]