

**JUNE 2002**

**INTERNATIONAL GCSE**

**MARK SCHEME**

**MAXIMUM MARK : 40**

**SYLLABUS/COMPONENT : 0620/5**

**CHEMISTRY  
(EXTENDED)**



Question Number	Mark Scheme Details	Part Mark
1	<p>observation - red-brown (1) precipitate (1)</p> <p>Table of results.</p> <p>Initial readings recorded (1) } Wrong way  Final readings recorded (1) } read = (1)</p> <p>Differences calculated correctly (1)</p> <p>Final readings comparable to supervisors (2)</p> <p>Volumes recorded to 1 d.p. (1)</p>	2
(a)	purple (1)	1
(b)	colourless (1) to pale green / yellow (1) <u>not</u> clear / brown	2
(c)	(i) Experiment 1 (1)	1
	(ii) More in Experiment 1 (1) $2 \times$ as much (1)	2
	(iii) Solution <u>B</u> more concentrated than <u>A</u> (1) <u>not</u> stronger	1
	(iv) Double volume recorded for Experiment 2	2
	in table (1) $\frac{\text{cm}^3}{\text{ml}}$ (1)	2
(d)	iron (iii) ions (1)	1
	iron (ii) oxidised / brown precipitate with NaOH (1)	2
(e)	change (1) eg use burette instead of m/graduate	2
	explanation (1) more accurate (1)	2
	Sub total	21

Question Number	Mark Scheme Details	Part Mark
2 (a)	S - black solid (1) T - black solid (1) / dark brown	2
(b) (i)	no reaction or similar (1) / bubbles <sup>see</sup> superior	1
	glowing splint extinguished (1) / does not relight	1
(ii)	rapid / violent / very reactive (1) bubbles / fizz etc (1) glowing splint lights up (1)	2
(c) (i)	blue litmus paper → <sup>red/</sup> pink (1) → bleached (1) / white	2
(ii)	solution is green (1)	1
(d) (i)	green (1) precipitate (1)	2
(ii)	green (1) precipitate (1) / blue	2
	deep blue solution (1) / dissolves / soluble	1

Question Number	Mark Scheme Details	Part Mark
2 (e)	oxygen (1) / $O_2$	1
(f)	chlorine (1) / $Cl_2$ <u>not</u> chloride.	1
(g)	transition metal (1) copper (1) compound oxide (1) max 2	2
	Sub-total	9
	Total for paper	<u>40</u>

Question Number	Question (including any Source Details)	Part Mark
1	<p>burette readings obtained</p> <p>for Experiment 1. 24.50 cm<sup>3</sup>, 24.70 cm<sup>3</sup></p> <p>2. 12.50 cm<sup>3</sup>, 12.50 cm<sup>3</sup></p>	