UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2009 question paper for the guidance of teachers

0620 CHEMISTRY

0620/05

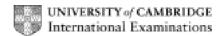
Paper 5 (Practical Test), maximum raw mark 40

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, which would have considered the acceptability of alternative answers.

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

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CIE is publishing the mark schemes for the October/November 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



| | Page 2 | | | | Syllabus | Paper | | | | | |
|---|--|--|------------------------------------|---|----------------------------|----------------|-----|--|--|--|--|
| | | | IC | GCSE – October | /November 2009 | 0620 | 05 | | | | |
| 1 | obse | observations bubbles/fizz/tube feels hot/magnesium dissolves | | | | ssolves | [1] | | | | |
| | lighted splint (1) pops (1) | | | | | | [2] | | | | |
| | initia | table of results initial boxes correctly completed (1) final boxes correctly completed (1) | | | | | | | | | |
| | com | comparable to supervisor's results (1) decreasing order (1) | | | | | | | | | |
| | (a) differences correctly completed | | | | | | | | | | |
| | (b) all five bars correctly drawn (3), -1 for each incorrect labelled (1), if points plotted for graph = 1 | | | | | | | | | | |
| | (c) | (i) hydr | rogen | | | | [1] | | | | |
| | | | | dox/displacemer tion/oxidation/red | | | [1] | | | | |
| | (d) | (i) expe | eriment 1 | 'A or from stude | ent's results ecf | | [1] | | | | |
| | | (ii) sulfu | ıric acid v | vas the most con | centrated/strongest | | [1] | | | | |
| | (e) | (i) grea | iter/highe | r ignore rate | | | [1] | | | | |
| | (ii) half the value or half the value from the table/lower/decrease or less | | | | | | [1] | | | | |
| | | (iii) more | e/larger v | olume of acid | | | [1] | | | | |
| | | | | | | | | | | | |
| | (f) one error source from e.g. heat losses/use of measuring cylinders/magnesium pieces vary in mass/length | | | | | | [1] | | | | |
| 2 | ` , | solution solution solution | L | colourless colourless colourless (1) | for all three correct n | ot white/clear | [1] | | | | |
| | | check ph pH of so pH of so pH of so | lution K lution L | upervisor's result approx 8–12 approx 11–14 approx 0–3 (2) | ss –1 for any incorrect | | [2] | | | | |

| Page 3 | Mark Scheme: Teachers' version | Syllabus | Paper | | | |
|---------------------|--------------------------------|----------|-------|--|--|--|
| | IGCSE – October/November 2009 | 0620 | 05 | | | |
| tests on colution K | | | | | | |

tests on solution K

| (c) | (i) | blue precipitate (1) deep/royal blue solution or precipitate dissolves (1) | [2] | | | | | | |
|---------------------|---------------------------|--|-----|--|--|--|--|--|--|
| | (ii) | white (1) precipitate (1) | [2] | | | | | | |
| | (iii) | no reaction/change/colourless solution | [1] | | | | | | |
| tests on solution L | | | | | | | | | |
| (d) | (i) | blue precipitate (1) | [1] | | | | | | |
| | (ii) | white precipitate (1) dissolves/clears (1) | [2] | | | | | | |
| | (iii) | brown (1) | [1] | | | | | | |
| tests on solution M | | | | | | | | | |
| (e) | white (1) precipitate (1) | | | | | | | | |
| (f) | wea | ak (1) alkali/base (1) or ammonia (2) | [2] | | | | | | |
| (g) | stro | ong (1) alkali/base/hydroxide (1) or sodium hydroxide (2) | [2] | | | | | | |
| (h) | acio | oride (1) not chlorine ion d (1) nydrochloric acid (2) | [2] | | | | | | |