UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0620 CHEMISTRY

0620/51 Paper 5 (Practical), 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.

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

CIE is publishing the mark schemes for the October/November 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

UNIVERSITY of CAMBRIDGE
International Examinations

1 **(a)** Table of results for *Experiment 1*
initial temperature boxes completed correctly (1)
other temperature boxes correctly completed (1)
comparable to supervisors (1) i.e. decreasing [3]

(b) Table of results for *Experiment 2*
initial/final temperature boxes completed correctly (1)
comparable to supervisors (1) i.e. increasing [2]

(c) all points correctly plotted (3), –1 for any incorrect
best fit straight line graphs drawn with a ruler (2)
labels (1) [6]

(d) **(i)** value from graph (1) shown clearly (1) [2]

(ii) value from graph (1) shown clearly (1) [2]

(e) endothermic [1]

(f) temperature (changes) would be smaller owtte (1)
more water (1) ignore references to rate [2]

(g) solid would dissolve/react slower or take longer to observe final temperature (1)
smaller surface area (1) [2]

(h) lag apparatus/use a lid or insulate /use digital thermometer/
use a pipette or burette instead of measuring cylinder/use data logging device owtte
not repeat and average [1]

[Total: 21]

2 **(a)** yellow (1) precipitate (1) [2]

(b) white (precipitate) [1]

(c) effervescence/fizz/bubbles (1)
pH paper blue/purple/> 7 (1)
smell (1) max 2 ignore references to hydrogen [2]

© UCLES 2010

(d) yellow/brown/orange colour hot (1)
faded/goes white when cool (1) [2]

(e) bubbles/fizz etc (1)
limewater turns milky (1) [2]

(f) **(i)** white precipitate (1)
dissolves/clears (1) [2]

(ii) white precipitate (1)
dissolves/clears (1) see Supervisor's report [2]

(g) ammonia ignore hydrogen [1]

(h) silver/lead (1)
nitrate (1) [2]

(i) zinc (1) allow aluminium dependent on **(f) (ii)**
gives off carbon dioxide (when acid added) (1)
carbonate (1) [3]

[Total: 19]

© UCLES 2010