UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2011 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.

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

Cambridge is publishing the mark schemes for the October/November 2011 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 for 0.0, 0.5 and 1.0 min (1)
other temperature boxes correctly completed ascending (1)
comparable to supervisors (1) [3]

(b) table of results for experiment 2
initial and final temperature boxes completed correctly for 0.0, 0.5 and 1.0 min (1)
other temperature boxes correctly completed ascending (1)
comparable to supervisors (1) [3]

(c) all points correctly plotted (3), –1 for any incorrect
best fit smooth line graphs (1)
labels (1) [5]

(d) value from graph (1) unit (1) shown clearly (1) [3]

(e) exothermic / redox / displacement (1) [1]

(f) **(i)** temperature rises greater / faster in experiment 1 or converse (1)

(ii) zinc is more reactive (1) [2]

(g) temperature changes would be larger / faster / owtte (1)
less solution (1) [2]

(h) solid would react slower / temperature rises would be slower (1)
smaller / less surface area (1) [2]

[Total: 21]

2 **(a)** **(i)** P colourless no smell
Q colourless no smell
R colourless smells acidic/vinegar
all colours correct (1)
correct smells (1) [2]

(ii) P red pH 1–3
Q green pH 6–7
R orange pH 4–5
all colours correct (1)
pH values correct order (1) [2]

(b) P fizzes / effervescence (1)
lighted splint (1) pops (1) [3]
Q no reaction (1)
R fizzes (1) [2]

(c) P effervescence / fizz / bubbles (1)
Q no reaction (1)
R fizzes (1) [3]

(d) blue colour (1) [1]
white precipitate (1) [1]

(e) 98–102 (1) [1]

(f) sulfuric (1) acid (1) [2]

(g) water (1) [1]

(h) organic / weak / ethanoic / acid (1) [1]

[Total: 19]