CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2014 series

0620 CHEMISTRY

0620/52 Paper 5 (Practical), maximum raw mark 40

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1 Experiment 1

Table of Results

initial temperature boxes all completed (1)

final temperature boxes all completed and final > initial (1)

temperature changes completed correctly (1)

temp change increases as length Mg increases (1)

comparable to Supervisor's, highest temp change within +/– 5°C (1) [5]

(f) horizontal scale completed correctly (2 cm = 1 cm magnesium ribbon) (1)

all points plotted correctly (2), 4 points correct (1), 3 or fewer correct (0)

straight line of best fit drawn with a rule (1) [4]

(g) value from graph $^{+}/_{-}$ half a small square (1)

tie line / indication shown (1) [2]

(h) any **two** from: [2]

fizzing / bubbles / effervescence (1)

magnesium / solid gets smaller / disappears (ignore dissolves) (1)

gets hot / warm (1)

(i) experiment 5 / 7cm (1)

more / most magnesium (1) [2]

(j) temperature change / reaction faster (1)

bigger surface area (1) [2]

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(k) shows gas collected over water (1)

in labelled measuring cylinder / graduations shown on collection vessel (1)

OR

shows gas collected in a gas syringe (1)

labelled gas syringe / graduations shown (1) [2]

(l) heat loss / use of measuring cylinder / measurement of volume of acid (1)

insulate / use pipette or burette (1)

note: improvement must match error [2]

[Total: 21]

2 **(a)** white (solid / powder) (1) [1]

(b) any **three** from: [3]

pH paper turns blue / dark(er) green (1)

pH>7 / alkaine (1)

solid on sides of tube / white smoke (1)

reference to smell (1)

(c) **(i)** paper turns blue / pH > 7 / alkaline (1) [1]

(ii) white precipitate (1) [1]

(d) fizz / bubbles / effervescence (1)

limewater milky / cloudy (1) [2]

(e) **(i)** white (1) precipitate (1)

dissolves / disappears / clears (1) only if indication that a solid was made. [3]

(ii) white precipitate (1) **not** slight or feint precipitate

dissolves / disappears / clears (1) only if indication that a solid was made. [2]

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(f) ammonia / alkaline gas (1)

decomposes / sublimes (1) [2]

(g) ammonium (1) chloride (1) [2]

(h) zinc (1) carbonate (1) [2]

[Total: 19]

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