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Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2014 series

0620 CHEMISTRY

0620/53 Paper 5 (Practical), maximum raw mark 40

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1 **(d)** table of results
initial temperature boxes completed correctly (1)
final temperature boxes correctly completed (1)
differences correct (1) include minus signs
comparable to supervisors (1) [4]

(e) bubbles / fizzing / effervescence (1)
blue precipitate (1) [2]

(f) all bars at correct levels (2),
suitable scale (1)
labels (1) [4]

(g) **(i)** experiment 2 (1) [1]

(ii) experiments 2 and 3 (1) temperature decreased (1) [2]

(h) **(i)** half temperature change / half value in table (1) [1]

(ii) half temperature change / half value in table (1) [1]

(iii) half amount of solid used (1) [1]

(i) room temperature / value from table (1)
finished dissolving / reacting (1) [2]

(j) carbonate (1) carbon dioxide (1) acid (1)
Cu^{2+} (1) max [2]

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2 tests on solution M

(a) colourless see test **(e) ignore** clear
pH 1–3 (1) [1]

(b) bubbles (1) lighted splint goes out (1) [2]

(c) fizz / bubbles etc. (1)
lighted splint (1) pops (1) [3]

(d) white (1) precipitate (1) [2]

(e) appearance colourless (1) must have **(a)** correct as well [1]
pH 11–14 (1) [1]

(f) colourless / no change (1)
with excess white (1) precipitate (1) [3]

(g) litmus paper turns blue (1) pungent smell (1) [2]
do not allow: strong

(h) (i) hydrogen (1) [1]

(ii) ammonia (1) [1]

(i) hydrochloric acid (2) [2]
note: acid / chloride only (1)

(j) (sodium / potassium) hydroxide (1) [1]

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