UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2011 question paper for the guidance of teachers

0620 CHEMISTRY

0620/52

Paper 5 (Practical), maximum raw mark 40

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 May/June 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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(a) Table of results for Experiment 1 initial volume box, at time = 0 completed correctly (1) volume boxes correctly completed in ascending order (1) allow maximum of 2 consecutive identical numbers comparable to Supervisor's results (1) ±15 at 180s [3] (b) Table of results for Experiment 2 initial volume box, at time = 0 completed correctly (1) volume boxes correctly completed in ascending order (1) allow maximum of 2 consecutive identical numbers comparable to Supervisor's results (1) ±10 at 180s [3] (c) all points correctly plotted (3), -1 for any incorrect including t = 0two smooth line graphs (2) lines clearly labelled (1) [6] (d) (i) experiment 1 (1) not ecf [1] (ii) acid X stronger/more concentrated or converse (1) allow ecf from (d)(i) [1] (e) reaction finished (1) **note** 'reactants used up' scores this mark [2] all the acid used up (1) **not** all Mg used up (f) value from graph (1) \pm half small square (1.5s) tie line/indication shown (1) [2] (g) to prevent air being displaced into the measuring cylinder/owtte (1) causing inaccurate reading/volume measurement (1) [2] (h) advantage e.g. convenient/easy/quick to use/fairly accurate (1) disadvantage e.g. reference to inaccurate measurement (1) [2]

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2 (a) white (1) [1]

(b) any three from: pH paper turns blue/pH >7 (1) description of sublimate e.g. solid formed on sides of tube (1) reference to smell of the gas (1) description of condensate (1) max [3] (c) (i) white (1) precipitate (1) [2] (ii) paper turns blue/pH>7 (1) [1] (iii) no precipitate/no reaction/no change/colourless/stays clear (1) [1] (d) effervescence/bubbles/fizz (1) limewater (1) milky/cloudy (1) [3] [2] (e) (i) white (1) precipitate (1) [1] (ii) no/thin/slight precipitate/no reaction (1) (f) ammonium (1) chloride (1) [2] [2] (g) calcium (1) carbonate (1)

[Total: 40]