

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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- 1 (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 = 0
 two 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
 all the acid used up (1) **not** all Mg used up [2]
- (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]
- (e) (i)** white (1) precipitate (1) [2]
- (ii)** no/thin/slight precipitate/no reaction (1) [1]
- (f)** ammonium (1) chloride (1) [2]
- (g)** calcium (1) carbonate (1) [2]

[Total: 40]