

**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)  $\pm 15$  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)  $\pm 10$  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]**