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.
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) ± 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]
2  (a) white (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]