

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**MARK SCHEME for the May/June 2012 question paper  
for the guidance of teachers**

**0620 CHEMISTRY**

**0620/53**

Paper 5 (Practical), maximum raw mark 40

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

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.

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- 1 (a) experiment 1 all boxes completed (1)  
 results show a regular pattern (1) [2]
- (b) experiment 2 all boxes completed (1)  
 results show a regular pattern (1) [2]
- (c) all points correctly plotted (+/- ½ small square) (2), -1 for any incorrect  
 Should have a y axis:  
 linear scale and points extend over at least 4 big squares (8 cm) (1)  
 two × smooth lines (curved or straight) (2)  
**both** lines labelled (1) [6]
- (d) (i) value from graph (+/- ½ small square) (1) shown clearly (1) [2]  
 (ii) value from graph (+/- ½ small square) (1) shown clearly (1) [2]
- (e) endothermic (1) [1]
- (f) lower temperature (changes) (1)  
 greater volume/more water (1) [2]
- (g) room temperature or initial temperature from table (1)  
 reaction finished/all dissolved/warms up (1) [2]
- (h) more readings/points (1)  
 better graph/more reliable/more accurate/owtte (1) [2]
- [Total: 21]

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- 2 (a) green (1) **reject**: any other colours, **ignore**: dark/light [1]
- (b) (turns) black (1) condensation/drops at top of tube/steam/water (1)  
limewater (1) milky/cloudy/white ppt (1) max 3 [3]
- (c) (i) fizz/bubbles etc. (1)  
blue solution/liquid (1) [2]
- (ii) blue (1) **ignore**: qualifiers such as dark/light precipitate (1)  
blue precipitate (1) (ignore qualifiers such as dark/light)  
dark/royal/deep blue (1) must be some indication it is darker than the ppt  
solution/soluble/dissolves (1) [3]
- (d) appearance: colourless (1)  
smell: vinegar/pungent/sharp/sour/strong (1) [2]
- (e) pH2–6 (1) [1]
- (f) green or blue-green solution/liquid (1)  
fizz/bubbles (1) [2]
- (g) copper (1) carbonate (1) [2]
- (h) acid/organic/ethanoic/acetic/vinegar [1]

[Total: 19]