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 / 51 Paper 5 (Practical), maximum raw mark 40

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1 **(a)** Table of results

volume of aqueous potassium chloride boxes completed correctly (1)
1,2,4,5, 6 and 7
heights of solid boxes completed (1) in mm (1)
ascending order / last 2 level out (1) [4]

(b) all points correctly plotted including origin (2), –1 for any incorrect
appropriate scale for y axis(at least half of grid) (1)
best fit straight line graph drawn with a ruler(1) [4]

(c) value from graph (1) unit (1) shown clearly (1) [3]

(d) precipitation / double decomposition (1) [1]

(e) height increases(1) levels off (1) [2]

(f) same heights owtte (1)

` all lead nitrate reacted / / reaction finished / excess potassium chloride (1) [2]

(g) yellow precipitate / solid (1) [1]

(h) improvement (1)

e.g. use burette or pipette / leave solid to settle longer / repeat /
wider range of volumes for KCl
explanation (1)

e.g. instead of a measuring cylinder / heights more accurate / take average /
more reliable / accurate [2]

2 **(a)** white (1) [1]

(b) **(i)** condensation / drops of liquid / water / steam (1)
solid is still white no (colour) change (1) [2]
fizzes / effervescence (1) lighted splint extinguished / owtte (1) [2]

(ii) fizz / bubbles / effervescence (1) limewater(1)
milky / cloudy / white precipitate (1) [3]

(iii) effervescence / fizz / bubbles (1)
darkens / turns black / green (1) ignore: blue [2]

(iv) description of smell of ammonia / sublimate (1)
pH paper turns blue / green or pH > 7 (1) **allow**: litmus goes blue [2]

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(c) initial temperature recorded (1) ^{o}C (1)
final temperature recorded and lower (1) [3]
pH > 7 (1) [1]

(d) carbon dioxide (1) [1]

(e) ammonia (1) **not**: ammonium [1]

(f) endothermic (1) [1]

(g) hydrogencarbonate / carbonate (1) alkaline (1) **not**: sodium hydroxide
non transition metal (1) max 2 [2]

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