MARK SCHEME for the October/November 2015 series

0620 CHEMISTRY

0620/52

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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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Abbreviations used in the Mark Scheme

- ; separates marking points
- / separates alternatives within a marking point
- () the word or phrase in brackets is not required but sets the context
- A accept (a less than ideal answer which should be marked correct)
- I ignore (mark as if this material were not present)
- R reject
- ecf credit a correct statement that follows a previous wrong response
- ora or reverse argument
- owtte or words to that effect (accept other ways of expressing the same idea)

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| Question | Answer | Marks | Guidance |
|-----------|---|-------|-------------------------------|
| 1(d) | time boxes correctly completed, ascending in magnitude; in seconds; | 3 | I: decimal places if given |
| 1(e) | any two from: effervescence / bubbles; lighted splint pops; temperature increased; | 2 | |
| 1(f) | <pre>points correctly plotted: 4 correct = 2 3 correct = 1 2 or fewer correct = 0 smooth line graph;</pre> | 2 | |
| 1(g)(i) | value from the graph quoted; clearly shown on the graph; | 1 | |
| 1(g)(ii) | value from the graph quoted; extrapolation shown clearly; | 1 | |
| 1(h) | idea of fair test/comparability; | 1 | A: variable was sulfuric acid |
| 1(i)(i) | exothermic/redox/displacement; | 1 | I: neutralisation |
| 1(i)(ii) | hydrogen; | 1 | |
| 1(i)(iii) | values halved; | 1 | A: smaller temperature change |
| 1(j) | apparatus gas syringe/measuring cylinder over water/thermometer; | 1 | |
| | <i>measurements</i> volume of gas/temperature of reaction; over time; | 1 | |

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| Question | Answer | Marks | Guidance |
|----------|---|-------------|--|
| 2(a) | yellow/green; | 1 | R: precipitate / solid compare with Supervisor's result |
| 2(b) | white; precipitate; | 1 1 | |
| 2(c) | green precipitate; brown colour on sides/top of tube; | 1 | |
| 2(d) | green precipitate; | 1 | |
| 2(e) | (pink to) colourless; brown; precipitate; | 1 1 1 | |
| 2(f) | white precipitate; | 1 | |
| 2(g) | brown precipitate; bubbles; litmus paper turns blue/pH 10–12; | 1 1 1 | I: black |
| 2(h) | yellow; precipitate; | 1 | |
| 2(i) | iron; (II); chloride; | 1 1 1 | |
| 2(j) | silver/lead; nitrate; | 1 | |