



ADVANCED SUBSIDIARY GCE
CHEMISTRY A
 Atoms, Bonds and Groups

F321

Candidates answer on the question paper

OCR Supplied Materials:

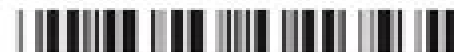
- *Data Sheet for Chemistry A* (Inserted)

Other Materials Required:

- Scientific calculator

Friday 9 January 2009
Afternoon

Duration: 1 hour



Candidate
Forename

Candidate
Surname


Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided, however additional paper may be used if necessary.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
-  Where you see this icon you will be awarded marks for the quality of written communication in your answer.
 This means for example you should:
 - ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear;
 - organise information clearly and coherently, using specialist vocabulary when appropriate.
- You may use a scientific calculator.
- A copy of the *Data Sheet for Chemistry A* is provided as an insert with this question paper.
- You are advised to show all the steps in any calculations.
- The total number of marks for this paper is **60**.
- This document consists of **12** pages. Any blank pages are indicated.

FOR EXAMINER'S USE

| Qu. | Max. | Mark |
|--------------|-----------|------|
| 1 | 11 | |
| 2 | 15 | |
| 3 | 14 | |
| 4 | 8 | |
| 5 | 12 | |
| TOTAL | 60 | |

F321 Jan 2009 Ums Boundaries

M Lipman



F321 Jan 2009 Ums Boundaries:

Decoding **F321 Jan 2009 Ums Boundaries**: Revealing the Captivating Potential of Verbal Expression

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