## OXFORD CAMBRIDGE AND RSA EXAMINATIONS

General Certificate of Secondary Education
MATHEMATICS C (Graduated Assessment)

MODULE M5 - SECTION B
Wednesday
28 JUNE 2006
Candidates answer on the question paper.
Additional materials:
Geometrical instruments
Tracing paper (optional)
Pie chart scale (optional)
Electronic calculator
Candidate Name


Centre Number


Candidate Number


## TIME 30 minutes

## INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the boxes above.
- Answer all the questions.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure you know what you have to do before starting your answer.
- In many questions marks will be given for a correct method even if the answer is incorrect.
- Do not write in the bar code.
- Do not write outside the box bordering each page.
- WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED. ANSWERS WRITTEN ELSEWHERE WILL NOT BE MARKED.


## INFORMATION FOR CANDIDATES

- You are expected to use a calculator in Section B of this paper.
- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this Section is 25 .
- Section B starts with question 8 .

FOR EXAMINER'S USE

## Section B

## Formula Sheet

Area of trapezium $=\frac{1}{2}(a+b) h$


PLEASE DO NOT WRITE ON THIS PAGE

8 A party of schoolchildren and two teachers visit a museum. This is a list of their ages.

$$
\begin{array}{lllllllllllllll}
9 & 9 & 9 & 9 & 10 & 10 & 10 & 10 & 11 & 11 & 11 & 11 & 11 & 34 & 45
\end{array}
$$

(a) Complete this table.

| Mode | Median | Mean |
| :---: | :---: | :---: |
| 11 | 10 |  |

(b) Explain why the mean is not the best value to use for the average age of this group.
$\qquad$
$\qquad$


9 (a) Here are four solids, A, B, C and D.




Here are three views of one of the solids.

Plan view (from $\mathbf{P}$ )
Front view (from F)


Which solid is it?
(a)
(b) Here is another solid.

It is made from seven one-centimetre cubes.


Draw the plan view (from P).


10 (a) (i) A cruise ship has 850 cabins.
$60 \%$ of the cabins have a sea view.
Of those cabins with a sea view, $\frac{2}{5}$ have a balcony.
How many cabins have both a sea view and a balcony?

(a)(i)
(ii) The cruise ship has 1450 passengers on board.

522 of these are children.
What is 522 out of 1450 as a percentage?
(ii)
(b) Another cruise ship has 2864 passengers and crew on board.

Write 2864 correct to 1 significant figure.
(b)


11 Solve.
(a) $9=x-6$
(a)
.[1]
(b) $4 x=20$
(b)
.[1]
(c) $2 x-7=8$
(c)


12 This diagram shows an 8 cm cube.

(a) Calculate the volume of the cube.

Give the units of your answer.
(a)
[3]
(b) Calculate the total surface area of the cube.
(b) ..cm ${ }^{2}$ [3]


