RECOGNISING ACHIEVEMENT

GENERAL CERTIFICATE OF SECONDARY EDUCATION

## MATHEMATICS C

## MODULE M6 - SECTION A

## SPECIMEN

Candidates answer on the question paper.
Additional Materials:
Geometrical instruments
Tracing paper (optional)


Centre
Number


Candidate Number


## 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

- 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 .


## X <br> WARNING You are not allowed to use a calculator in this paper.

For Examiner's Use

Section A

This document consists of $\mathbf{7}$ printed pages and $\mathbf{1}$ blank page.

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


Volume of prism $=($ area of cross-section $) \times$ length

1 Work out.
(a) (i) $4.2-1.78$
(a)(i)
(ii) $0.7 \times 0.4$
(ii)
(iii) $0.95 \div 2$
(iii)
(b) (i) Write $\frac{3}{8}$ as a decimal.
(b)(i)
[2]
(ii) Work out $\frac{2}{3} \times \frac{4}{5}$.
(ii)
(iii) Work out $\frac{7}{10}-\frac{2}{5}$.
(iii)

2 Jasinder has some pens in his school bag.
Some are red, some are black and the rest are blue.
He chooses a pen at random from his bag.

The probability that it is red is 0.2 .
The probability that it is black is 0.5 .
(a) What is the probability that it is blue?
(a)
(b) What is the probability that it is green?
(b)

3 (a) Draw an enlargement of this shape using a scale factor of 3.


3 (b)

(i) Reflect triangle $\mathbf{A}$ in the y -axis.

Label the image $\mathbf{B}$.
(ii) Translate triangle $\mathbf{A} 2$ units right and 3 units down. Label the image $\mathbf{C}$.

4 (a) Multiply out.

$$
4(x-6)
$$

(a)
(b) Work out the value of $x^{2}+3$ when
(i) $x=12$,
(b)(i)
(ii) $\quad x=-5$.
(ii)

5 Solve.
(a) $5 x+2=2 x+17$
(a)
(b) $\quad 2(x-3)=7$
(b)

## Section A Total [25]

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Oxford Cambridge and RSA Examinations General Certificate of Secondary Education

MATHEMATICS C

## MODULE M6 - SECTION A

Specimen Mark Scheme
The maximum mark for this paper is 25 .

| 1 | (a)(i) <br> (ii) <br> (iii) <br> (b)(i) <br> (ii) <br> (iii) | $\begin{aligned} & 2.42 \\ & 0.28 \\ & 0.475 \\ & 0.375 \\ & \frac{8}{15} \\ & \frac{3}{10} \end{aligned}$ | 1 1 2 <br> 2 <br> 1 <br> 2 <br> 9 | M1 <br> M1 <br> M1 | for $0.4 \ldots$ or figs 475 <br> for $0.3 \ldots$ or figs 125 or 375 seen <br> for attempt to write a common denominator or $\frac{4}{10}$ seen |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | (a) <br> (b) | $\begin{aligned} & 0.3 \\ & 0 \end{aligned}$ | $\begin{aligned} & 2 \\ & 1 \\ & 3 \end{aligned}$ | M1 | For $0.2+0.5$ |
| 3 | (a) <br> (b)(i) <br> (ii) | Correct 3 times enlargement <br> Correct reflection <br> Correct translation | 2 <br> 1 <br> 1 <br> 4 |  | 1 for 1 correct sloping side or; for all 3 sides rectangle or; for all sides correct with sf 2 or 4 $\begin{aligned} & (-1,2)(-2,2)(-1,4) \\ & (3,-1)(4,-1)(3,1) \end{aligned}$ |
| 4 | (a) <br> (b)(i) <br> (ii) | $\begin{aligned} & 4 x-24 \\ & 147 \\ & 28 \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 3 \end{aligned}$ |  | mark final answer |


| $\mathbf{5}$ | (a) | $(x=) 5$ | $\mathbf{3}$ | M2 <br> M1 | for $5 x-2 x=17-2$ or: <br> for one correct step in collecting <br> $x ' s$ or numbers (may be first, or <br> second ft) |
| :--- | :--- | :--- | :---: | :---: | :---: | :--- |
| (b) | $(x=) 6.5$ | $\mathbf{3}$ | $\mathbf{M 1}$mor $2 x-6=7$ or $x-3=7 \div 2$ <br> and <br> ft for $2 x=$ their $(6+7)$ or <br> $x=3+$ their $7 / 12$ |  |  |

## Section A Total 25

## Assessment Objectives Grid

| Question | AO2 | AO3 | AO4 | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 9 |  |  | 9 |
| 2 |  |  | 3 | 3 |
| 3 |  | 4 |  | 4 |
| 4 | 3 |  |  | 3 |
| 5 | 6 |  |  | 6 |
| Totals | 18 | 4 | 3 | 25 |

