


General Certificate of Secondary Education
June 2006

## MATHEMATICS (MODULAR) (SPECIFICATION B) Module 1 Foundation Tier Section B

 33001/FBMonday 19 June 20062.00 pm to 2.25 pm

| For this paper you must have: |
| :--- | :--- |
| • mathematical instruments |
| You must not use a calculator. |

## Time allowed for Section B: 25 minutes

## Instructions

- Use blue or black ink or ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- Answer the questions in the spaces provided.
- Do all rough work in this book.
- You may not use your calculator in Section B. Your calculator must remain on the floor under your seat.
- When you have answered Section B you may work again on Section A but you may not use your calculator. It must remain on the floor under your seat.
- At the end of the examination tag Section A and Section B together with Section A on top.


## Information

- The maximum mark for Section B is 20 .
- The marks for questions are shown in brackets.
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer book.


## Advice

- In all calculations, show clearly how you work out your answer.

Answer all questions in the spaces provided.

6 The table shows the favourite milk shakes of fifty students.

| Flavour | Tally | Frequency |
| :--- | :--- | :--- |
| Strawberry (S) |  |  |
| Banana (B) |  | $\\|$ |
| Raspberry (R) |  |  |
| Chocolate (C) | $\\|$ |  |

(a) Complete the frequency column. (1 mark)
(b) Draw a bar chart to show these results.


Flavour
(3 marks)
(c) Which is the least popular flavour?
$\qquad$
(1 mark)

7 The pictogram shows the number of houses with two, three and four bedrooms built on a housing estate.

(a) How many houses with three bedrooms were built?
$\qquad$
Answer $\qquad$ (1 mark)

There were also 15 houses with five bedrooms built.
(b) Complete the pictogram to show this information.
(c) How many houses were built altogether on this housing estate?
$\qquad$
$\qquad$
Answer $\qquad$

8 The midday temperatures $\left({ }^{\circ} \mathrm{C}\right)$ in Madrid for 14 days are shown.

| 32 | 27 | 29 | 35 | 24 | 24 | 32 | 34 | 27 | 26 | 24 | 25 | 31 | 36 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

(a) Calculate the median temperature.
$\qquad$
$\qquad$
Answer
${ }^{\circ} \mathrm{C}$ (2 marks)
(b) Calculate the range of these temperatures.
$\qquad$

Answer ${ }^{\circ} \mathrm{C}$ (1 mark)

9 Here are two fair spinners.
Spinner A has three equal sectors numbered 2,4 and 6.
Spinner B has four equal sectors numbered 1,2,3 and 4.

Spinner A

Spinner B

Each spinner is spun once.
The numbers that each spinner lands on are added to get the score.
(a) Complete the table to show all the possible scores.

(b) Calculate the probability of scoring
(i) 4
$\qquad$
Answer (1 mark)
(ii) more than 7 .
$\qquad$
Answer $\qquad$

10 Jenny plays hockey.
The probabilities of her scoring certain numbers of goals in a match are shown in the table.

| Number of goals | 0 | 1 | 2 | 3 or more |
| :---: | :---: | :---: | :---: | :---: |
| Probability | 0.2 | 0.4 |  | 0.1 |

Jenny plays 20 matches in one season.
In how many of these matches would you expect her to score exactly 2 goals?
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Answer $\qquad$ matches (3 marks)

There are no questions printed on this page

There are no questions printed on this page

