| Surname |  |  | Other Names |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Centre Number |  |  |  |  |  | Candidate Number |  |  |  |  |
| Candidate Signature |  |  |  |  |  |  |  |  |  |  |

General Certificate of Secondary Education June 2005


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

Friday 17 June 20052.00 pm to 2.25 pm

In addition to this paper you will require:
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 in the spaces provided.
- Do all rough work in this booklet.
- 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.
- Mark allocations are shown in brackets.
- Additional answer paper and graph paper will be issued on request and must be tagged securely to this answer booklet.


## Advice

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

Answer all questions in the spaces provided.

5 The bar chart shows the numbers of boys and girls who went to the cinema each day last week.

(a) How many boys went to the cinema on Monday?

Answer $\qquad$ (1 mark)
(b) On which day did most girls go to the cinema?

Answer $\qquad$
(c) On which day was the number of boys equal to the number of girls?

Answer $\qquad$ (1 mark)
(d) How many more boys than girls went to the cinema on Wednesday?
$\qquad$

## Answer

(e) Kirk says, "On Sunday twice as many boys as girls went to the cinema."

Is he correct?
Explain your answer.
$\qquad$
$\qquad$
$\qquad$

6 David is playing a game with a fair coin and a set of four cards.
The cards are numbered 1,2,3 and 4.
David spins the coin and then chooses a card at random.
If the coin shows heads David's score is the same as the number on the card. If the coin shows tails David's score is twice the number on the card.
(a) Complete the table to show all possible scores.

(b) Work out the probability that David's score is
(i) 3

> Answer ........................................................................ (1 mark)
(ii) an even number.
$\qquad$
$\qquad$
Answer $\qquad$

7 The number of patients seen each day by Dr Watson is shown in the ordered stem-and-leaf diagram.

| Key | 1 | 2 | represents 12 patients |
| :--- | :--- | :--- | :--- |


| 0 | 4 | 6 | 8 | 8 | 9 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 0 | 2 | 2 | 3 | 5 | 6 | 7 |
| 2 | 0 | 1 | 1 | 3 | 8 | 9 |  |
| 3 | 2 | 3 | 5 |  |  |  |  |

(a) What was the greatest number of patients seen in a day by Dr Watson?
Answer ....................................................................... (1 mark)
(b) On how many days were 20 or more patients seen by Dr Watson?

Answer
(1 mark)
(c) Write down the range of the number of patients seen by Dr Watson.

Answer $\qquad$ (1 mark)

8 The value of six houses in 2000 is compared to the value of similar houses in 2004. Here are the results.

| House value in 2000 <br> (thousands of pounds) | 20 | 30 | 40 | 60 | 70 | 90 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| House value in 2004 <br> (thousands of pounds) | 40 | 60 | 70 | 100 | 140 | 170 |

(a) Draw a scatter graph of these results.

(b) Describe the relationship shown in the scatter graph.
$\qquad$
$\qquad$
(c) In 2000 a house was valued at $£ 80000$.

Estimate the value of a similar house in 2004.
$\qquad$
$\qquad$

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE

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