

## General Certificate of Secondary Education

June 2006

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

Practice Paper (Two-tier Specification) 2008

| For this paper you must have: <br> - a calculator <br> - mathematical instruments <br> - a treasury tag |  |
| :---: | :---: |

Time allowed for Section A: 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.
- Use a calculator where appropriate.
- Do all rough work in this book.
- This paper is divided into two sections: Section A and Section B.
- After the 25 minutes allowed for Section A, you must put your calculator on the floor under your seat. You will then be given Section B.
- 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.


ASSESSMENT and
OUALIFICATIONS
ALLIANCE

| For Examiner's Use |  |  |  |
| :---: | :---: | :---: | :---: |
| Section A |  | Section B |  |
| Question | Mark | Question | Mark |
| 1 |  | 6 |  |
| 2 |  | 7 |  |
| 3 |  | 8 |  |
| 4 |  | 9 |  |
| 5 |  | 10 |  |
|  |  | 11 |  |
| Total Section A |  |  |  |
| Total Section B |  |  |  |
| TOTAL |  |  |  |
|  |  |  |  |
| Examiner's Intitials |  |  |  |

## Information

- The maximum mark for Section A 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.

1 The dual bar chart shows how many pupils were absent from a school in one week.

(a) How many boys were absent on Wednesday?
$\qquad$
(b) On which day were most girls absent?

Answer
(1 mark)
(c) How many pupils were absent on Monday?
$\qquad$
Answer $\qquad$ (2 marks)
(d) Graham says that, in this week, there were more boys absent than girls.

Is he correct?
You must show your working.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

2 The letters of the word 'arithmetic' are written on cards.


A card is chosen at random.
The probabilities of the following events have been marked on the probability scale below.
T: The letter chosen is a T.
$\mathbf{N}$ : The letter chosen is not an I.
$\mathbf{P}$ : The letter chosen is a P .


Label each arrow with the letter to show which event it represents.

3 Martin spent $£ 720$ last month.
The table shows how he spent this money.

|  | Amount spent (£) |
| :--- | :---: |
| Rent | 280 |
| Food | 170 |
| Leisure | 120 |
| Clothes | 90 |
| Other | 60 |

Draw and label a pie chart to show this information.
$\qquad$
$\qquad$
$\qquad$

(4 marks)

4 The number of magazines sold each day by a village shop is recorded for one month.

| Number of magazines | Frequency |  |
| :---: | :---: | :---: |
| 0 | 6 |  |
| 1 | 7 |  |
| 2 | 9 |  |
| 3 | 4 |  |
| 4 | 3 |  |
| 5 | 1 |  |
| Total | 30 |  |

Calculate the mean number of magazines sold each day.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$ magazines (3 marks)

5 A three-sided spinner has sections numbered 1,2 and 3.
It is spun 20 times.
The results are shown below.

| 2 | 1 | 1 | 3 | 1 | 2 | 3 | 3 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 1 | 3 |

$\qquad$
$\qquad$
(a) Use these results to calculate the relative frequency of each number.

| Number | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
| Relative frequency |  |  |  |

(b) The following table shows the relative frequency of each number after 100 spins.

| Number | 1 | 2 | 3 |
| :---: | :---: | :---: | :---: |
| Relative frequency | 0.14 | 0.45 | 0.41 |

Rafiq says that this table gives a better estimate for the probability of spinning the number 1.
Is he correct?
Give a reason for your answer.
$\qquad$

