

Surname					Other Names				
Centre Number					Candidate Number				
Candidate Signature									

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General Certificate of Secondary Education  
March 2004



**MATHEMATICS (MODULAR) (SPECIFICATION B) 33003/FA**  
**Module 3 Foundation Tier Section A**

**F**

Thursday 4 March 2004 9.00 am to 9.40 am

<p><b>In addition to this paper you will require:</b></p> <ul style="list-style-type: none"> <li>• a calculator</li> <li>• mathematical instruments</li> <li>• a treasury tag.</li> </ul>	
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For Examiner's Use			
Section A		Section B	
Pages	Mark	Pages	Mark
2 – 3		2 – 3	
4 – 5		4 – 5	
6		6 – 7	
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

Time allowed for Section A: 40 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.
- This paper is divided into **two** sections: Section A and Section B.
- After the 40 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.

**Information**

- The maximum mark for Section A is 32.
- Mark allocations are shown in brackets.
- Additional answer paper will be issued on request and must be tagged securely to this answer booklet.
- You are expected to use a calculator where appropriate.

**Advice**

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

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Answer **all** questions in the spaces provided.

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- 1 (a) Write eight thousand four hundred and thirty one in figures.

Answer ..... (1 mark)

- (b) The number in part (a) is divided by 100.  
What is the value of the digit 8 in the answer?

.....

Answer ..... (1 mark)

- (c) Write 37 258 to the nearest 100.

Answer ..... (1 mark)

- (d) Write 37 258 to the nearest 1000.

Answer ..... (1 mark)

- 2 (a) The cost of postage depends both on the weight of the letter and whether it is sent first class or second class.  
The table shows the cost of posting a letter.

Weight	Up to 60 g	60 g and up to 100 g	100 g and up to 150 g	150 g and up to 200 g
First Class	28p	42p	60p	75p
Second Class	20p	34p	46p	56p

Find the total cost of sending:

- three first class letters, each weighing 40 g,
- one second class letter weighing 110 g,
- and two first class letters, each weighing 175 g.

.....

.....

.....

.....

Answer £ ..... (4 marks)

- (b) Simon buys some stamps.  
They cost him £3.74  
He pays with a £10 note.

How much change does he receive?

.....

Answer £ ..... (1 mark)

- (c) This change is given in the smallest number of notes and coins.

How is the change given?

.....

Answer Notes .....

Coins ..... (2 marks)

Turn over ▶

3 Beth picks 400 roses and takes them to a local market.

(a) Beth sells  $\frac{4}{5}$  of the roses.

(i) How many roses does Beth sell?

.....  
 .....

Answer ..... (2 marks)

(ii) Write  $\frac{4}{5}$  as a percentage.

.....

Answer ..... % (1 mark)

(iii) Write  $\frac{4}{5}$  as a decimal.

.....

Answer ..... (1 mark)

(b) Of the 400 roses, 100 are red.

Write the number of roses which are **not** red as a fraction of the total number of roses.

.....  
 .....

Answer ..... (1 mark)

(c) Of the 400 roses, 48 are yellow.

What percentage of the roses are yellow?

.....  
 .....

Answer ..... % (2 marks)

- 4 Aaron thinks that when you square a whole number you **always** get an even number.

Give an example to show that Aaron is wrong.

.....  
 .....  
 .....

(2 marks)

- 5 In the Czech Republic, Boris pays 922 korunas for a meal.  
The exchange rate is 49.1 korunas to £1.

What is the cost of the meal in pounds?

.....  
 .....  
 .....

Answer £ ..... (2 marks)

- 6 (a) Find the value of  $\frac{1}{0.5^2}$

.....

Answer ..... (2 marks)

- (b) Use your calculator to find the value of  $\frac{29.45 - 7.92}{14.32 + 6.51}$

Give your answer to an appropriate degree of accuracy.

.....  
 .....

Answer ..... (2 marks)

Turn over ►

- 7 Nicole buys 2.3 kg of apples and 1.8 kg of plums.  
She pays £7.18 in total.  
The plums cost £2.20 per kg.

What is the cost of 1 kg of apples?  
Show your working.

.....  
.....  
.....  
.....  
.....  
.....

Answer £ ..... (4 marks)

- 8 Craig and Sophie share 40 chocolates.  
They divide them in the ratio 1 : 4 with Sophie having the larger share.

How many chocolates does Sophie have?

.....  
.....

Answer ..... (2 marks)

**END OF SECTION A**

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General Certificate of Secondary Education  
March 2004



**MATHEMATICS (MODULAR) (SPECIFICATION B) 33003/FB**  
**Module 3 Foundation Tier Section B**

**F**

Thursday 4 March 2004 9.45 am to 10.25 am

<p><b>In addition to this paper you will require:</b> mathematical instruments. You must <b>not</b> use a calculator.</p>	
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Time allowed for Section B: 40 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 32.
- Mark allocations are shown in brackets.
- Additional answer 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.

9 Liam wants to calculate  $\frac{27.89 + 20.17}{3.91}$

(a) Write each of the numbers in Liam's calculation to the nearest whole number.

.....  
 .....

Answer ..... (2 marks)

(b) Use your numbers from part (a) to estimate the answer to Liam's calculation.

.....  
 .....

Answer ..... (3 marks)

10 Kim is making some four digit numbers.  
 Each number contains all the digits 3, 8, 2 and 4.

(a) Write down the smallest number Kim can make.

.....  
 .....

Answer ..... (1 mark)

(b) Write down the largest odd number Kim can make.

.....  
 .....

Answer ..... (2 marks)



11 Here is a list of numbers.

7      9      14      17      23      27      36

(a) Write down the even numbers.

.....

Answer ..... (1 mark)

(b) Write down the cube number.

.....

Answer ..... (1 mark)

**TURN OVER FOR THE NEXT QUESTION**

Turn over ►

**12** Work out

(a)  $500 - 148$

.....  
.....  
.....

Answer ..... (2 marks)

(b)  $243 \times 52$

.....  
.....  
.....  
.....  
.....

Answer ..... (3 marks)

(c)  $903 \div 43$

.....  
.....  
.....  
.....  
.....

Answer ..... (3 marks)

**13** Work out

(a)  $\frac{2}{5} \times \frac{1}{4}$

.....

.....

Answer ..... (1 mark)

(b)  $\frac{3}{4} - \frac{1}{5}$

.....

.....

Answer ..... (2 marks)

**TURN OVER FOR THE NEXT QUESTION**

Turn over 

14 Packets of chocolate biscuits are sold in two sizes.



**£1.09**



**£3.17**

Which size is the better value for money?

You **must** show your working.

.....  
.....  
.....  
.....

Answer ..... (2 marks)

15 A trader pays £14.80 for 20 melons.

How much does he pay for one melon?

.....  
.....  
.....  
.....

Answer ..... (3 marks)

16 Abby sees the same model of digital camera for sale in two different shops.

**DIGICAM**  
Our Price  
15% off Normal Price  
of £288

**Pictures4u**  
Our Price  
 $\frac{1}{6}$  off Normal Price  
of £288

Calculate the final cost of the camera from

(a) Digicam,

.....  
.....  
.....

Answer £ ..... (3 marks)

(b) Pictures4u.

.....  
.....  
.....

Answer £ ..... (3 marks)

**END OF QUESTIONS**