

Surname					Other Names				
Centre Number					Candidate Number				
Candidate Signature									

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General Certificate of Secondary Education
March 2005



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

33003/FA

F

Monday 28 February 2005 9.00 am to 9.40 am

<p>In addition to this paper you will require:</p> <ul style="list-style-type: none"> • a calculator • mathematical instruments • a treasury tag. 	
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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 – 7		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.

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

- 1 (a) (i) Write six million in figures.

.....

Answer (1 mark)

- (ii) Write three thousand two hundred and four in figures.

.....

Answer (1 mark)

- (b) Here is a list of numbers.

10 11 27 37 45 53 71

- (i) Write down two numbers from the list which add up to 80.

.....

Answer (1 mark)

- (ii) Write down two numbers from the list which have a difference of 60.

.....

Answer (1 mark)

- (iii) What is the largest number you can make when you multiply together two of the numbers on the list?

.....

.....

Answer (2 marks)

- 2 Natasha buys a box of chocolates which costs £8.70
She pays with a £10 note.

(a) How much change does she receive?

.....

Answer £ (1 mark)

(b) This change is given in the smallest number of coins.

How is the change given?

.....

.....

Answer (1 mark)

- 3 (a) In the number 4926, what does the digit 2 represent?

.....

Answer (1 mark)

(b) The number 4926 is multiplied by 10.

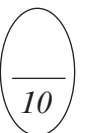
In the new number, what does the digit 9 represent?

.....

.....

Answer (1 mark)

Turn over ►



4 Tom works from 1.45 pm to 5.30 pm every weekday.

(a) How long does Tom work each day?

.....

Answer hours minutes (2 marks)

(b) On Saturday Tom works $6\frac{1}{2}$ hours.
 He is paid £5.40 per hour.

How much is Tom paid for Saturday's work?

.....

Answer £ (2 marks)

5 In the summer, Nisha sells ice creams on the beach.
 She is paid £3 per hour and 5p for every ice cream which she sells.
 On one day, Nisha works 4 hours and sells 200 ice creams.

How much is she paid for that day?

.....

Answer £ (3 marks)

6 In the USA, a leather jacket costs \$96.
The exchange rate is \$1.60 to £1.

Find the cost of the jacket in £.

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

Answer £ (2 marks)

7 There are 800 pupils at a school.

Of these 800 pupils, $\frac{1}{10}$ are under 12, and $\frac{1}{5}$ are over 16.

(a) How many pupils are **not** under 12 **and** are **not** over 16?

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

Answer (4 marks)

(b) Of the 800 pupils, 320 are girls.

What percentage of the pupils in the school are girls?

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

Answer % (2 marks)

Turn over ►

8 Work out

(a) 10^5

.....

Answer (1 mark)


(b) the cube of 7.

.....

Answer (1 mark)

- 9 Two advertisements for the same type of sun oil are shown.
The sun oil is usually sold in 100 ml bottles which cost £4 each.

Holiday Shop
125 ml only £4



25% extra
free

125 ml

**Southern
Pharmacy**
Normal price £4
for 100 ml
Special offer



Buy
one
100 ml

2nd
HALF
PRICE
100 ml

Which offer gives the better value for money?
You **must** show all your working.

.....

.....

.....

.....

.....

.....

Answer (5 marks)

END OF SECTION A

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General Certificate of Secondary Education
March 2005




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

33003/FB

F

Monday 28 February 2005 9.45 am to 10.25 am

<p>In addition to this paper you will require: mathematical instruments. You must not 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.

10 Angela wants to calculate an approximate value of $\frac{24.18}{5.98}$

(a) Write each of these numbers to the nearest whole number.

.....
.....

Answer (2 marks)

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

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

Answer (1 mark)

11 The distances, in miles, between seven cities in Britain are given in the chart below.

Cardiff						
302	Carlisle					
401	172	Edinburgh				
155	313	413	London			
192	119	219	204	Manchester		
202	164	247	169	37	Sheffield	
141	343	442	80	233	207	Southampton

(a) Kim drives from Cardiff to Carlisle.

What is the distance from Cardiff to Carlisle?

.....

Answer miles (1 mark)

(b) Kim then drives from Carlisle to Sheffield.

What is the distance from Carlisle to Sheffield?

.....

Answer miles (1 mark)

(c) Kim then returns to Cardiff directly from Sheffield.

How many miles does Kim travel in total?

.....

.....

.....

.....

Answer miles (2 marks)

Turn over 



12 Work out

(a) 25% of 40

.....
.....

Answer (2 marks)

(b) $700 - 381$

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

Answer (2 marks)

(c) 268×72

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

Answer (3 marks)

- 13** There are 50 people waiting for a ride at a theme park.
Each car can carry 4 people.

How many cars are needed?

.....

.....

.....

.....

.....

Answer (3 marks)

- 14** Jim receives his electricity bill.
The bill is for £140 plus VAT at 5%.

Calculate the VAT.

.....

.....

.....

Answer £ (2 marks)

TURN OVER FOR THE NEXT QUESTION

Turn over ▶

- 15** Jenny buys 4 bottles of cola at £1.49 each.
She says that the total cost is £5.96

This is how she worked it out.

$$4 \times \text{£}1.50 = \text{£}6$$

$$\text{£}6 - 4\text{p} = \text{£}5.96$$

Use a similar method to work out $4 \times \text{£}4.98$
Show your working.

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

(2 marks)

- 16** Alan drove 12 miles.
The journey took 15 minutes.

What was Alan's average speed?

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

Answer (4 marks)

17 (a) Work out $\frac{3}{7} \times 28$

.....
.....

Answer (2 marks)

(b) Work out 0.3×0.1

.....
.....

Answer (1 mark)

(c) Work out $\frac{3}{5} \div 6$

.....
.....

Answer (2 marks)

(d) Work out $\frac{3}{5} - \frac{1}{4}$

.....
.....

Answer (2 marks)

END OF QUESTIONS