

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

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General Certificate of Secondary Education
March 2003



**MATHEMATICS (MODULAR) (SPECIFICATION B) 33003/FA
MODULE 3 FOUNDATION TIER SECTION A**

F

Tuesday 4 March 2003 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 ● a treasury tag. 	
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For Examiner's Use			
Section A		Section B	
Page	Mark	Page	Mark
2-3		2-3	
4-5		4-5	
6-7		6-7	
		8	
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. Diagrams should be drawn 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, make sure that you hand in **both** Section A and Section B securely tagged 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) Nick goes shopping.
This is his bill.

- (i) Fill in the total.

Item	Price (£)
Eggs	0.87
Coffee	2.28
Bread	0.63
Flowers	2.00
Butter	0.84
Total	

(1 mark)

- (ii) Nick pays with a £20 note.

How much change does he get?

.....
.....

Answer £ (1 mark)

- (b) Kate has £20.
She spends £4 on flowers.

- (i) What fraction of her money does Kate spend on flowers?

.....

Answer (1 mark)

- (ii) What percentage of her money does Kate spend on flowers?

.....

Answer % (1 mark)

- (c) One kilogram of cheese costs £4.60
Liz buys half a kilogram of cheese.

How much does Liz pay?

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

Answer £ (2 marks)

- 2 (a) Rearrange these cards to make the largest possible even number.

6	5	8	7

(2 marks)

- (b) Round your number to the nearest 100.

.....

Answer (1 mark)

3 The table shows the midday temperatures of five cities on a Sunday in January.

City	Temperature (°C)
Copenhagen	- 2
Geneva	0
London	3
Moscow	- 4
Paris	- 1

(a) Which city was the warmest?

Answer (1 mark)

(b) Which city was the coldest?

Answer (1 mark)

(c) How much warmer was Paris than Moscow?

.....

Answer °C (1 mark)

(d) On Monday, the midday temperature in Copenhagen was 3 °C higher than it was on Sunday.

What was the midday temperature in Copenhagen on Monday?

.....

Answer °C (1 mark)

4 The table shows the calories used in one minute for different activities.

Activity	Calories used in one minute
Walking	4.8
Cycling	5.4
Running	8.4
Swimming	7.0

(a) Sofia walks for twenty minutes.

How many calories does she use?

.....

.....

.....

Answer calories (2 marks)

(b) Sofia cycles and uses 81 calories.

For how many minutes does she cycle?

.....

.....

Answer minutes (2 marks)

5 Mary buys a new kitchen for £5390.

(a) Mary pays a 10% deposit.

How much is the deposit?

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

Answer £ (1 mark)

(b) After paying the deposit, Mary pays the rest of the cost in 12 equal instalments.

How much is each instalment?

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

Answer £ (3 marks)

6 Dave drives 15 miles to work.
The journey takes 20 minutes.

What is Dave's average speed in miles per hour?

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

Answer mph (3 marks)

- 7 Pauline goes on holiday.
She changes £200 into Euros (\square).
The exchange rate is £1 = \square 1.7

(a) How many Euros does Pauline receive for £200?

.....
.....

Answer \square (2 marks)

(b) Pauline spends one quarter of her Euros on presents.

How many Euros does she spend on presents?

.....
.....

Answer \square (2 marks)

- (c) A bag is priced at \square 68.
In a sale, this price is reduced by 25%.
Pauline buys the bag.

How much does she save?
Give your answer in pounds.

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

Answer £ (4 marks)

END OF SECTION A

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General Certificate of Secondary Education
March 2003



**MATHEMATICS (MODULAR) (SPECIFICATION B) 33003/FB
MODULE 3 FOUNDATION TIER SECTION B**

F

Tuesday 4 March 2003 9.45 am to 10.25 am

<p>No additional materials are required.</p> <p>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. Diagrams should be drawn 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, make sure that you hand in **both** Section A and Section B securely tagged 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.

8 (a) Write seven million in figures.

.....

Answer (1 mark)

(b) Write three thousand and fifty four in figures.

.....

Answer (1 mark)

9 From this list of numbers

16 24 26 34 46 56 64

write down

(a) two numbers that add up to 80,

.....

Answer and (1 mark)

(b) two numbers that have a difference of 40.

.....

Answer and (1 mark)

10 Estimate the cost of 20 meals at £2.97 each.

.....

Answer £ (2 marks)

11 These are the prices of tickets at a theme park.

Adult	£22
Child 4 - 12 years	£18
Pensioner	£12
Child under 4 years	Free

Tom goes to the theme park with his two children and his mother.
 Tom's children are aged 8 and 6.
 Tom's mother is a pensioner.

(a) What is the total cost of the four tickets?

.....

.....

.....

.....

.....

Answer £ (2 marks)

(b) Tom can buy a family ticket for £65.

How much would he save?

.....

.....

.....

Answer £ (1 mark)

12

45 divided by 6 is 7.5

- (a) How many 6-seater taxis are needed for 45 people?

.....

Answer (1 mark)

- (b) What is the greatest number of £6 cinema tickets you can buy for £45?

.....

Answer (1 mark)

- 13 Sue pays £180 rent every 4 weeks for her flat.

How much is this per week?

.....

.....

Answer £ (2 marks)

14 Jane says,

“To multiply a number by 10, put a zero on the end.”

She uses her rule to write these examples.

A $53 \times 10 = 530$

B $0.53 \times 10 = 0.530$

C $530 \times 10 = 5300$

D $5.3 \times 10 = 5.30$

(a) State which of Jane’s examples are incorrect.

.....

Answer (2 marks)

(b) Choose one of Jane’s incorrect examples.

Write the example in the box below with the correct answer.

..... $\times 10 =$

(1 mark)

TURN OVER FOR THE NEXT QUESTION

15 Sarmad swims 80 lengths of a swimming pool every day.
The swimming pool is 20 metres long.

(a) (i) How far does Sarmad swim each day?

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

Answer metres (2 marks)

(ii) What is this distance in kilometres?

.....

Answer kilometres (1 mark)

(b) Sarmad swims lengths of front crawl and lengths of backstroke in the ratio 1:3

How many lengths of front crawl does he swim each day?

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

Answer (2 marks)

- 16 (a) Jake earns £4 an hour for a basic 35 hour week.
 He earns £6 an hour for overtime.
 One week he works the basic 35 hour week and 2 hours overtime.

How much does he earn altogether?

.....

.....

.....

.....

.....

.....

Answer £ (4 marks)

- (b) One morning, Jake works from 0815 to 1210.

How long does he work?
 Give your answer in hours and minutes.

.....

.....

Answer hours minutes (2 marks)

TURN OVER FOR THE NEXT QUESTION

17 Use the calculation

$$58.5 \times 27 = 1579.5$$

to write down the answer to

(a) 585×27

Answer (1 mark)

(b) $1579.5 \div 27$

Answer (1 mark)

18 The cost of 30 bottles of water is £21.

What is the cost of 45 bottles of water?

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

Answer (3 marks)

END OF QUESTIONS