Surname		Other Names	
Centre Number			Candidate Number									
Candidate Signature												

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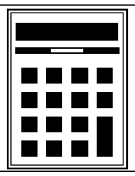
General Certificate of Secondary Education
June 2003

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

Wednesday 25 June 2003 9.00 am to 9.40 am

F

In addition to this paper you will require:
- a calculator
- mathematical instruments
- a treasury tag.



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, 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.

For Examiner's Use			
Section A		**Section B**	
Pages	Mark	Pages	Mark
2-3		**2-3**	
4-5		**4-5**	
6-7		**6**	
Total Section A			
Total Section B			
TOTAL			
Examiner's Initials			

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

1 A list of numbers is given below.

4 5 7 12 15 19

State which of these are

(a) even numbers,

.....

.....

Answer ..... *(1 mark)*

(b) odd numbers.

.....

.....

Answer ..... *(1 mark)*

2 The temperatures in seven towns in Germany at 8 pm on one day were

5 °C 12 °C 7 °C 8 °C –17 °C –9 °C 3 °C

(a) Write down the coldest of these temperatures.

.....

Answer ..... °C *(1 mark)*

(b) Write down the warmest of these temperatures.

.....

Answer ..... °C *(1 mark)*

3 (a) (i) Write 3748 in words.

Answer .....

.....

(1 mark)

(ii) Write 3748 to the nearest 100.

Answer ..... *(1 mark)*

(iii) Write 3748 to the nearest 10.

Answer ..... *(1 mark)*

(b) Here is a list of numbers.

17 21 24 27 35 43 51

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

.....

.....

Answer ..... *(2 marks)*

(c) (i) Write 49.461 correct to 1 decimal place.

.....

.....

Answer ..... *(1 mark)*

(ii) Write 49.461 correct to 2 decimal places.

.....

.....

Answer ..... *(1 mark)*

11

4 The distances, in miles, between seven cities in England are given in the chart below.

Birmingham						
88	Bristol					
101	172	Cambridge				
143	106	92	Guildford			
120	120	61	30	London		
89	172	162	226	204	Manchester	
129	225	157	235	212	71	York

(a) Vicky drives from London to Cambridge.

What is the distance from London to Cambridge?

.....

Answer ..... miles *(1 mark)*

(b) Vicky then drives from Cambridge to Manchester.

What is the distance from Cambridge to Manchester?

.....

Answer ..... miles *(1 mark)*

(c) If Vicky had driven directly from London to Manchester the journey would have been shorter.

How many miles shorter would the direct journey have been?

.....

.....

.....

.....

Answer ..... miles *(2 marks)*

5 Ed thinks that when you square a number you always get an even number.

Give an example to show that Ed is wrong.

.....

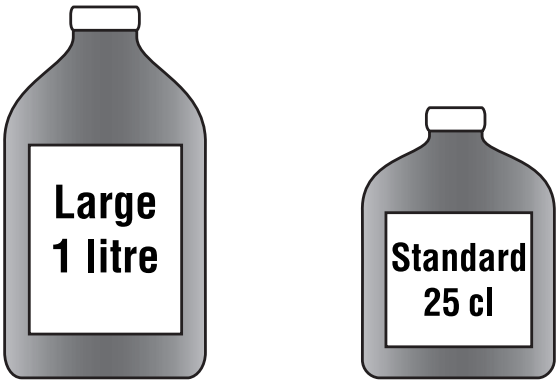
.....

.....

.....

(2 marks)

6 Mineral water is sold in two sizes.



£1.49 **59p**

Which size is the better value for money?
You **must** show all your working.

.....

.....

.....

.....

Answer ..... *(2 marks)*

8

7 Clive spends €1.84 buying an ice cream in Portugal.
The exchange rate is €1.60 to the £1.

Find the cost of Clive's ice cream in pounds.

.....

.....

.....

.....

Answer £ ..... *(2 marks)*

8 The cost of a call at peak rate from Bev's mobile phone is 29p per minute.

For how long can Bev talk, at peak rate, for £10?
Give your answer in minutes and seconds.

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.....

.....

.....

Answer ..... minutes ..... seconds *(4 marks)*

9 Andrew works for 3 hours 20 minutes.
He is paid £5.40 per hour.

How much does Andrew earn?

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.....

.....

.....

Answer £ ..... *(3 marks)*

10 Use your calculator to find the value of $\dfrac{3.4 \times 5.9}{9.9 - 6.2}$

.....

.....

.....

.....

Answer ..... *(2 marks)*

11 Matt spends £48 on travel and admission to a football match.
The cost of travel and the cost of admission are in the ratio 1 : 4
The admission is the greater cost.

Find the cost of admission.

.....

.....

.....

Answer £ ..... *(2 marks)*

END OF SECTION A

Surname		Other Names	
Centre Number						Candidate Number				
Candidate Signature										

General Certificate of Secondary Education
June 2003

ASSESSMENT and QUALIFICATIONS ALLIANCE

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

F

Wednesday 25 June 2003 9.45 am to 10.25 am

In addition to this paper you will require: mathematical instruments. You must **not** use a calculator.	

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, 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.

12 Liz buys three cans of coke at 73p per can.

(a) How much does she pay?

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Answer £ ..... *(2 marks)*

Liz pays with a £10 note.

(b) How much change should she receive?

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Answer £ ..... *(2 marks)*

(c) This change is given using the smallest possible number of notes and coins.

How is the change given?

.....

.....

Answer ..... *(2 marks)*

13 In a school there are 300 students in year 11.
Of these 300 students, 60% have a part-time job on Saturday.

(a) How many have a part-time job on Saturday?

.....

.....

.....

.....

Answer ..... *(2 marks)*

(b) Of these 300 students, $\frac{3}{4}$ decide to stay on at school into the sixth form.

How many do **not** stay on in the sixth form?

.....

.....

.....

.....

Answer ..... *(3 marks)*

(c) Of the 300 students, 24 are in one tutor group.

What percentage are in this tutor group?

.....

.....

.....

Answer ..... % *(2 marks)*

13

14 (a) Write 0.3 as a fraction.

.....

Answer ..... *(1 mark)*

(b) Divide 138 by 6

.....

Answer ..... *(1 mark)*

(c) Work out 600 – 254

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Answer ..... *(2 marks)*

(d) Work out 768 × 24

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Answer ..... *(3 marks)*

(e) Find the value of $2^3 \times 5^2$

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Answer ..... *(2 marks)*

15 The cost of 20 oranges is £9.

Find the cost of one orange.

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.....

.....

Answer ..... *(3 marks)*

16 Asif has a roll of film developed.
He pays for 31 reprints.
The cost of each reprint is 49 pence.

Use suitable approximations to **estimate** how much Asif pays for these reprints.
You **must** show all your working.

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.....

Answer £ ..... *(3 marks)*

15

17 Natasha pays £200 for 150 magazines.

She sells $\frac{3}{5}$ of them for £2 each.

She sells the rest of the magazines for £1 each.

How much money does she receive from selling the magazines?

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Answer £ ..... *(4 marks)*

END OF QUESTIONS

4