Surname		Other Names			
Centre Number		Candidate Number			
Candidate Signature					

For Examiner's Use

MATHEMATICS (MODULAR) (SPECIFICATION B)   **43003/FA**
Module 3   Foundation Tier Section A

F

**ASSESSMENT and
QUALIFICATIONS
ALLIANCE**

Monday 3 March 2008   9.00 am to 9.40 am

For this paper you must have:
- a calculator
- mathematical instruments
- a treasury tag.

Time allowed for Section A: 40 minutes

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			

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 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.
- The marks for questions are shown in brackets.
- You may ask for more answer paper. This must be tagged securely to this answer book.

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

43003/FA

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

1 Here is a list of numbers.

22   8   48   6   10   25   36   21

(a) From this list write down

(i) the multiple of 7

Answer .... *(1 mark)*

(ii) the **two** factors of 24

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

(iii) the even square number.

Answer .... *(1 mark)*

(b) Work out the largest answer that can be obtained when two numbers from the list are multiplied together.

....

Answer .... *(2 marks)*

2   The mileage chart shows the distances, in miles, between five cities.

York

24	Leeds			
81	73	Lincoln		
184	171	128	Oxford	
212	199	142	57	London

For example, the distance from Leeds to Oxford is 171 miles.

(a)   What is the distance from York to Lincoln?

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

(b)   Which city is the furthest distance from Leeds?

Answer .... *(1 mark)*

(c)   Helen travels to work from Oxford to London in the morning.
In the evening she travels from London back to Oxford.
She works for five days every week.

Work out how many miles she travels to and from work in a week.

....

....

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

Turn over for the next question

10

Turn over ▶

3 Ticket prices for a theme park are shown.

Single tickets	**Family tickets**
Adult £12.50 Child £ 8	1 adult and 2 children £25 1 adult and 3 children £30 2 adults and 2 children £35 2 adults and 3 children £40

Mr and Mrs Shah and their two children visit the theme park.
They buy a family ticket.

How much money is saved compared to the total cost of single tickets?
You **must** show your working.

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....

Answer £ .... *(4 marks)*

4 Work out

(a) $23 \times (101 - 57)$

Answer .... *(1 mark)*

(b)   the cube of 8

Answer .... *(1 mark)*

(c) 3.91^2

(i)   Write down your full calculator display.

Answer .... *(1 mark)*

(ii)   Write your answer to two decimal places.

Answer .... *(1 mark)*

5 (a)   Sue took a holiday in Scotland.
She arrived on 26 April 2007.
She departed on 9 May 2007.

How many days did the holiday last?
Include the arrival and departure days.

....

....

....

Answer .... *(2 marks)*

(b)   Sue travelled to Scotland by car.
Her average speed was 36 miles per hour.
Her journey time was 4 hours 15 minutes.

How many miles did she travel?

....

....

....

....

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

13

Turn over ▶

6 You are given that 1 foot = 0.3 metres and 1 mile = 1600 metres.
An aeroplane is flying at a height of 35 000 feet.

Show that this height is greater than $6\frac{1}{2}$ miles.

....

....

....

....

(3 marks)

7 Adam scored 24 marks out of 40 in a test.
Ben scored 65% in the same test.

Who obtained the better result?
You **must** show your working.

....

....

Answer .... *(2 marks)*

8 (a) In 2006 the population of a town was 68 000.
By 2007 the population had decreased by 3.2%.

Work out the population of the town in 2007.

....

....

....

....

Answer .... *(3 marks)*

(b) A village has a population of 9000 to the nearest thousand.

What is the greatest possible population?

....

Answer .... *(1 mark)*

END OF SECTION A

There are no questions printed on this page

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

General Certificate of Secondary Education
March 2008

MATHEMATICS (MODULAR) (SPECIFICATION B)   **43003/FB**
Module 3   Foundation Tier   Section B

F

Monday 3 March 2008   9.45am to 10.25 am

For this paper you must have:
- 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.
- Answer the questions in the spaces provided.
- Do all rough work in this book.
- 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.
- The marks for questions are shown in brackets.
- You may ask for more answer paper. This must be tagged securely to this answer book.

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

43003/FB

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

9 Write as a decimal

(a) two and a half

Answer .... *(1 mark)*

(b) nine-tenths

Answer .... *(1 mark)*

(c) one-thousandth

Answer .... *(1 mark)*

(d) the value of $62 \div 10$

Answer .... *(1 mark)*

10 Tom's Transport is used for a trip to Blackpool.

Coaches	Minibuses
25 seaters	11 seaters

75 people are going on the trip.

(a) If they hire coaches, work out the smallest number needed.

....

Answer .... *(1 mark)*

(b) If they hire minibuses, work out the smallest number needed.

....

....

Answer .... *(2 marks)*

11 Write down the number that is

(a) 100 more than 2480

....

....

Answer .... *(1 mark)*

(b) 10 less than 305

....

....

Answer .... *(1 mark)*

(c) 30 multiplied by 20

....

....

Answer .... *(1 mark)*

(d) 2 less than 0

....

Answer .... *(1 mark)*

(e) 1 more than –5

....

Answer .... *(1 mark)*

(f) –6 divided by –2

....

Answer .... *(1 mark)*

13

Turn over ▶

12 (a) Shaun gets £5 pocket money.
He is given an increase of £1.

   (i) Write down £1 as a fraction of £5.

Answer .... *(1 mark)*

   (ii) Write your answer as a percentage.

....

....

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

(b) Dave gets £8 pocket money.
He is given a 15% increase.

Work out the increase.
Give your answer in £.

....

....

....

Answer £ .... *(2 marks)*

13 Work out

(a) $87 + 56$

....

....

....

Answer .... *(1 mark)*

(b) 10^4

....

....

Answer .... *(1 mark)*

(c) $\dfrac{3}{5} \div 4$

....

....

Answer .... *(2 marks)*

14 A train arrives in Bristol at 4:25 in the afternoon.
The train is three-quarters of an hour late.

Work out the time that the train should have arrived in Bristol.
Give your answer using the 24-hour clock.

....

....

....

....

Answer .... *(3 marks)*

11

Turn over ▶

15 Given that $3.75 \times 38 = 142.5$

   (a) work out 37.5×0.38

....

        Answer .... *(1 mark)*

   (b) work out 3.75×39

....

....

....

        Answer .... *(2 marks)*

16 Year 10 and Year 11 pupils are in an assembly.
Here are some facts about the pupils in the assembly.

Year	boys : girls	Pupil data
10	4 : 5	84 boys
11	2 : 3	150 pupils

Work out the total number of girls in the assembly.
You **must** show your working.

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....

        Answer .... *(5 marks)*

END OF QUESTIONS

8

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