Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

General Certificate of Secondary Education
November 2004

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

Wednesday 17 November 2004 9.00 am to 9.40 am

AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

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 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.

33003/FA

NO QUESTIONS APPEAR ON THIS PAGE

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

1 Write the number 2764

(a) to the nearest 10,

....

Answer .... *(1 mark)*

(b) to the nearest 100.

....

Answer .... *(1 mark)*

2 Fill in the missing numbers in these calculations.

(a) 12 + ☐ = 30

(b) 14 − ☐ = 8

(c) 16 × ☐ = 48

(3 marks)

TURN OVER FOR THE NEXT QUESTION

3 Sue and Chris go on a skiing holiday.

(a) The holiday costs 876 Euros (€).
Sue and Chris share the cost equally.

How much does each person pay?

....

....

Answer € .... *(2 marks)*

(b) The cost of a ski pass is €28.50

What is the cost of two ski passes?

....

....

Answer € .... *(2 marks)*

(c) The table shows the temperature at 9 am on each day of the holiday.

Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
$-1°C$	$-2°C$	$-3°C$	$-1°C$	$1°C$	$1°C$	$2°C$

What is the difference in temperature between the warmest day and the coldest day?

....

....

Answer .... °C *(2 marks)*

(d) Chris pays €18 for a meal.
     The exchange rate is £1 = €1.60

     What is the price of the meal in pounds?

     ....

     ....

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

4 A garden centre has tomato plants for sale.

> # Tomato plants
>
> 40 pence each
> or
> £5 for a box of 20

Work out the cheapest price for 24 tomato plants.

....

....

....

....

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

Turn over ▶

5 (a) Work out two-thirds of 144.

....

....

Answer .... *(2 marks)*

(b) Work out 20% of 155.

....

....

Answer .... *(2 marks)*

(c) Steve has a ribbon 4 metres long.
He says, "I need 6 pieces each 0.72 metres long."

Will Steve have enough ribbon?
Explain your answer.

....

....

....

(2 marks)

(d) Work out $\dfrac{1}{3.2 - 2.7}$

Answer .... *(1 mark)*

6 Rick buys a drink costing £1.35 and some packets of sweets costing 65 pence for each packet.
The total cost is £3.95

How many packets of sweets does Rick buy?

....

....

....

Answer .... *(3 marks)*

7 (a) An athlete runs 15 miles at an average speed of 6 miles per hour.

How long does he take to run the 15 miles?
Give your answer in hours and minutes.

....

....

....

....

Answer .... hours .... minutes   *(3 marks)*

(b) Another athlete runs 18 miles in $2\frac{1}{4}$ hours.

What is her average speed?

....

....

....

Answer .... *(3 marks)*

END OF SECTION A

16

General Certificate of Secondary Education
November 2004

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

F

Wednesday 17 November 2004 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 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.

33003/FB

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

8   Jim has six 5 pence coins, four 10 pence coins and one 50 pence coin.

How much money does he have altogether?

....

....

Answer £ ....   *(2 marks)*

9   Here is a list of numbers.

1   2   3   4   5   6   7   8   9   10   11   12

(a)   Write down all the square numbers in the list.

....

....

Answer ....   *(2 marks)*

(b)   Write down two numbers in the list that multiply together to give 40.

....

Answer ....   *(1 mark)*

(c)   Which number in the list is one quarter of 36?

....

Answer ....   *(1 mark)*

10 (a) Write $\frac{1}{5}$ as a decimal.

....

Answer .... *(1 mark)*

(b) Write 0.7 as a fraction.

....

Answer .... *(1 mark)*

(c) Write 50% as a fraction.

....

Answer .... *(1 mark)*

11 (a) A television programme starts at quarter to eight and lasts for 25 minutes.

At what time does it end?

....

....

Answer .... *(1 mark)*

(b) Later, there is a film lasting 1 hour 50 minutes and a quiz lasting 45 minutes.

What is the total time for the film and the quiz?

....

....

Answer .... hours .... minutes *(1 mark)*

11

Turn over ▶

12 (a) Fill in the missing numbers in these sentences.

    (i) When 20 is divided by 6, the remainder is ....

(1 mark)

    (ii) When 20 is divided by .... , the remainder is 4.

(1 mark)

  (b) Keith says, "When 20 is divided by an odd number, the remainder is always odd."

    Give an example to show that Keith is wrong.

....

....

....

(2 marks)

13 Work out

(a) (i) 3.5×10

....

Answer .... *(1 mark)*

(ii) 3.5×40

....

....

....

Answer .... *(1 mark)*

(b) 241×35

....

....

....

....

....

Answer .... *(3 marks)*

(c) 5^3

....

....

....

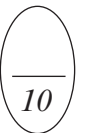Answer .... *(1 mark)*

$\dfrac{}{10}$

Turn over ▶

14 There are 30 pupils in a class.
The number of pupils in the class on a school trip is 24.

(a) What percentage of the class are on the school trip?

....

....

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

(b) On the trip, 18 pupils go on a ride costing £2.15 each.

Estimate the cost of the 18 rides.

....

....

Answer £ ....   *(2 marks)*

15 Work out

(a) 0.2×0.4

....

....

Answer ....   *(1 mark)*

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

....

....

Answer ....   *(1 mark)*

16 The table shows the amounts of tomatoes, onions and water needed to make tomato sauce for 4 people.

Fill in the amounts needed to make tomato sauce for 10 people.

	4 people	**10 people**
Tomatoes	200 g	………… g
Onions	2	5
Water	50 ml	………… ml

....

....

....

(2 marks)

17 A map has a scale of 1 : 5000
On the map, the length of a sports field is 3 cm.

What is the actual length of the sports field?
Give your answer in metres.

....

....

....

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

END OF QUESTIONS