Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

General Certificate of Secondary Education
June 2005

AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

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

F

Wednesday 29 June 2005 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.

7 (a) Write the number two thousand one hundred and sixty-four in figures.

Answer .... *(1 mark)*

(b) Write the number 4050 in words.

Answer .... *(1 mark)*

(c) Write the number 2765 to the nearest 100.

Answer .... *(1 mark)*

8 A primary school has seven classes.
Five of the classes have 30 pupils each.
The other two classes have 23 pupils each.

Show that there are 196 pupils altogether in the school.

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(3 marks)

9 Here is a list of numbers.

$$\frac{1}{2} \qquad 1 \qquad 1\frac{1}{2} \qquad 2 \qquad 2\frac{1}{2}$$

(a) Write down two numbers from the list that add up to 4.

....

....

Answer .... $^+$ .... $= 4$ *(1 mark)*

(b) Write down two numbers from the list that multiply together to give 3.

....

....

Answer .... $\times$ .... $= 3$ *(1 mark)*

(c) Write down two numbers from the list that have a difference of 1.

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....

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

TURN OVER FOR THE NEXT QUESTION

$\dfrac{\quad}{9}$

Turn over ▶

10 (a) Write 0.25 as a fraction.

....

Answer .... *(1 mark)*

(b) Write three-fifths as a decimal.

....

Answer .... *(1 mark)*

(c) Write $\frac{9}{100}$ as a decimal.

....

Answer .... *(1 mark)*

(d) Write down a decimal number that is between 1.5 and 1.6

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....

Answer .... *(1 mark)*

(e) Calculate $\frac{5}{8} - \frac{1}{4}$

....

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Answer .... *(2 marks)*

11 (a) At 7 pm the temperature was 3 °C.
At midnight, the temperature had fallen by 5 °C.

What was the temperature at midnight?

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Answer .... °C   *(1 mark)*

(b) At 2 am the temperature was −4 °C.
By midday the temperature had risen by 10 °C.

What was the temperature at midday?

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Answer .... °C   *(1 mark)*

12 Work out 264×37

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Answer ....   *(3 marks)*

Turn over ▶

13 Andy scores 12 goals in 10 football matches.
Ben scores 21 goals in 15 football matches.

Which player scores the greater number of goals per match?
You **must** show your working.

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Answer ....   *(3 marks)*

14 You are given that

$$77 \times 81 = 6237$$

(a) For each calculation below, insert a decimal point in the answer to make it correct.

(i) $77 \times 8.1 = 6\ 2\ 3\ 7$

(1 mark)

(ii) $7.7 \times 8.1 = 6\ 2\ 3\ 7$

(1 mark)

(b) Use the given calculation to work out $\dfrac{6237}{7.7}$

....

Answer ....   *(1 mark)*

15 'Soft pink' paint is made by mixing red and white paint in the ratio 2 : 3

(a) Which of these mixes will make 'soft pink' paint?
Write 'yes' or 'no' in the last column of the table.

Mix	Amount of red paint (litres)	Amount of white paint (litres)	'Soft pink' yes or no
A	2	3	yes
B	1	2	
C	3	2	
D	4	5	
E	1	$1\frac{1}{2}$	
F	6	8	
G	4	6	

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(3 marks)

(b) Sam mixed 20 litres of red paint with 35 litres of white paint.

Did he make 'soft pink' paint?
Explain your answer.

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(1 mark)

TURN OVER FOR THE NEXT QUESTION

$\dfrac{}{10}$

Turn over ▶

16 (a) Work out 3^3

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Answer .... *(1 mark)*

(b) Give an example of a cube number that does **not** divide exactly by three.

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Answer .... *(1 mark)*

END OF QUESTIONS