Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

General Certificate of Secondary Education
June 2004

MATHEMATICS (MODULAR) (SPECIFICATION B)   33003/IB
Module 3 Intermediate Tier Section B

Wednesday 30 June 2004 9.45 am to 10.25 am

AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

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/IB

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

10 Four melons cost £4.28

How much will five melons cost?

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Answer £ ....   *(3 marks)*

11 (a) While in the USA, John pays $30 for a pair of trainers.
The exchange rate is $1.50 to £1.

Calculate the cost of the pair of trainers in £.

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Answer £ ....   *(2 marks)*

(b) John also buys an ink cartridge which costs $25.
He has to pay a tax of 6% which is added onto this cost.

Calculate the total cost of the ink cartridge in $.

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

12 (a) Kim buys 71 stamps which cost 19 pence each.

By using suitable approximations, **estimate** the total cost of the stamps.
You **must** show your working.

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Answer £ .... *(2 marks)*

(b) Liz has 40 postage stamps.
The ratio of the number of first class stamps to the number of second class stamps
is 1 : 4.

How many second class stamps does Liz have?

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Answer .... *(2 marks)*

TURN OVER FOR THE NEXT QUESTION

12

Turn over ▶

13 (a) Find the value of 2×3^2

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Answer .... *(2 marks)*

(b) What is 80 as a percentage of 500?

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

(c) Find the value of 0.2^2

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Answer .... *(1 mark)*

14 (a) Express 96 as a product of its prime factors.
Give your answer in index form.

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Answer .... *(3 marks)*

(b) Find the Highest Common Factor (HCF) of 36 and 96.

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Answer .... *(2 marks)*

TURN OVER FOR THE NEXT QUESTION

15 (a) Find an approximate value of $\dfrac{296 \times 8.13}{0.39}$

You **must** show all your working.

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Answer .... *(3 marks)*

(b) Work out $4\frac{1}{3} - 1\frac{2}{5}$

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Answer .... *(3 marks)*

(c) Find the value of $\dfrac{\frac{1}{4} \times 16}{\frac{1}{27} \times (3)^2}$

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Answer .... *(3 marks)*

(d) Write 0.000274 in standard form.

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Answer .... *(1 mark)*

END OF QUESTIONS

$\dfrac{}{10}$

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