

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

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Free-Standing Mathematics Qualification
 January 2005
 Intermediate Level



CALCULATING FINANCES
Unit 4

6984/2

Wednesday 2 February 2005 Morning Session

In addition to this paper you will require:

- a calculator;
- a clean copy of the Data Sheet (enclosed);
- a ruler.

For Examiner's Use			
Number	Mark	Number	Mark
1			
2			
3			
4			
5			
6			
7			
Total (Column 1)	→		
Total (Column 2)	→		
TOTAL			
Examiner's Initials			

Time allowed: 1 hour 15 minutes

Instructions

- Use blue or black ink or ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want marked.
- You may **not** refer to the copy of the Data Sheet that was available prior to this examination. A clean copy is enclosed for your use.

Information

- The maximum mark for this paper is 50.
- Mark allocations are shown in brackets.
- You are expected to use a calculator where appropriate.

Advice

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

SECTION A

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

Use **Flights offer** on page 2 of the Data Sheet.

- 1 (a) The newspaper offer for the flight from London to Tampa is £351 for two people.

The conditions of the offer state that taxes of £62 per person are not included in the advertised offer.

What is the cost, including taxes, for two people to fly to Tampa?

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Answer
(2 marks)

- (b) The standard price for the same flight is £292 per person, inclusive of taxes.

What is the percentage reduction for two people who travel using the newspaper offer?

Give your answer as a percentage of the standard airline price.

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Answer
(4 marks)

- (c) After four flights to Tampa at the standard airline price, travellers are able to claim a fifth flight “free”. A traveller who uses a “free” flight still has to pay the taxes.

Find the average cost, inclusive of taxes, of a flight to Tampa for one person who makes five such journeys.

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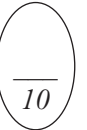
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Answer

(4 marks)



TURN OVER FOR THE NEXT QUESTION

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SECTION B

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

Use **Credit4U** on page 2 of the Data Sheet.

- 2** Jason borrows £5000 to buy a car. He repays the loan over 36 months without protection cover.

- (a) Find the monthly repayments Jason makes.

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Answer

(1 mark)

- (b) By finding the total repayments which Jason makes to repay the loan, calculate the total interest which he is charged for borrowing this money.

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Answer

(3 marks)

- (c) Express the total interest which he is charged for borrowing this money as a percentage of the amount borrowed.

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Answer

(2 marks)

(d) A formula which may be used to work out the APR charged when you borrow money is:

$$\text{APR} = \frac{2mT}{A(n+1)} \times 100$$

where m is the number of repayments made per year,
 T is the total interest charged,
 A is the amount borrowed, and
 n is the total number of repayments to be made.

Use this formula to find the APR which Jason is charged.

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Answer
(3 marks)



TURN OVER FOR THE NEXT QUESTION

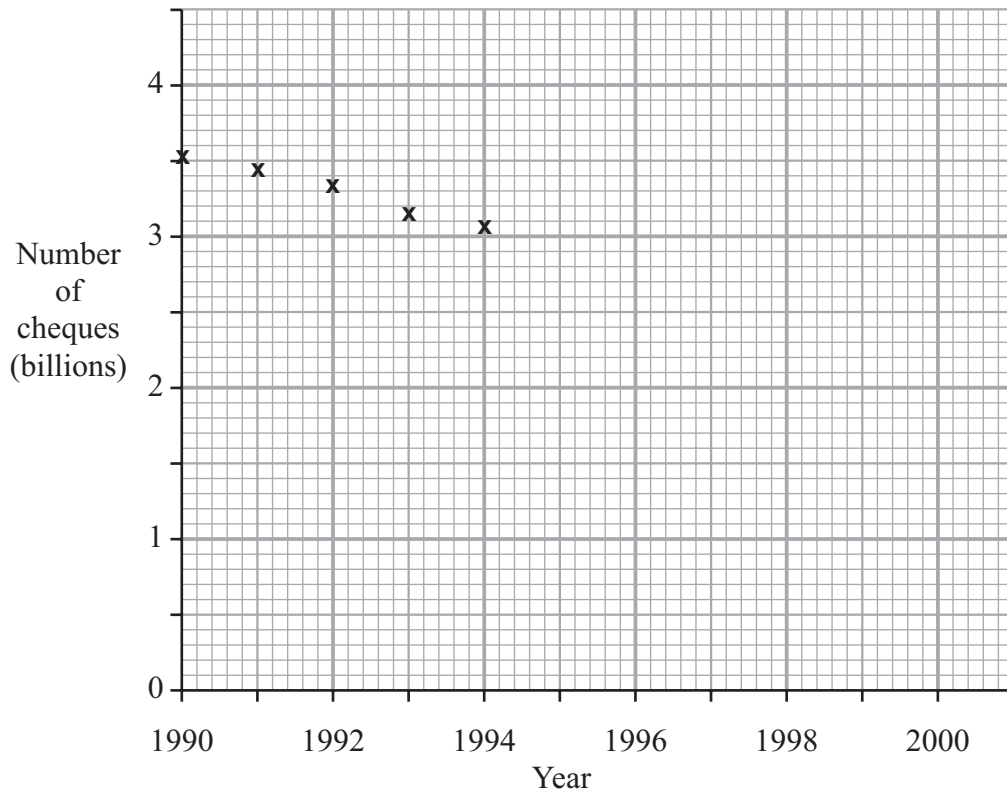
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SECTION C

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

Use **Cheque payments** on page 3 of the Data Sheet.

- 3 (a) Add the data for the years 1995 – 2000 to the time-series graph below.



(3 marks)

- (b) Comment on the trend in the use of cheque payments as shown by the graph.

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(1 mark)

SECTION D

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

Use **Taxation 2004–2005** on page 4 of the Data Sheet.

- 4 (a) Some furniture costs £1700 plus VAT.

Calculate the selling price inclusive of VAT.

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Answer
(3 marks)

- (b) Selina bought some furniture for £2000, inclusive of VAT.

Calculate the VAT which Selina paid.

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Answer
(3 marks)

6

TURN OVER FOR THE NEXT QUESTION

Turn over ►

5 In one year, Venus earned £2183 per month and had a tax-free allowance of £4745.

Calculate:

(a) Venus's annual taxable income;

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Answer
(3 marks)

(b) the amount of Income Tax which Venus paid in that year.

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Answer
(4 marks)



6 Maria earns £39 000 per year and she is paid monthly.
Maria is not contracted out for National Insurance contributions.

(a) Calculate her monthly pay.

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Answer
(2 marks)

(b) Calculate the amount Maria pays monthly in National Insurance contributions.

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Answer
(4 marks)

(c) Calculate the annual amount that Maria pays in National Insurance contributions.

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Answer
(1 mark)

(d) Calculate the percentage of her pay which Maria pays in National Insurance contributions.

Give your answer to three significant figures.

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Answer
(3 marks)

10

Turn over ►

SECTION E

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

- 7 The price of a house increased by 20% in 2002.
In 2003, the price of the same house increased by 15%.

What is the percentage increase in the price of the house over the two years?
Give your answer as a percentage of the price at the beginning of 2002.

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Answer
(4 marks)

END OF QUESTIONS



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