Centre Number			Candidate Number		
Surname					
Other Names					
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Free-Standing Mathematics Qualification Higher Level June 2013

Financial Calculations

4984

Unit 4

Friday 24 May 2013 9.00 am to 10.15 am

For this paper you must have:

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

Time allowed

1 hour 15 minutes

Instructions

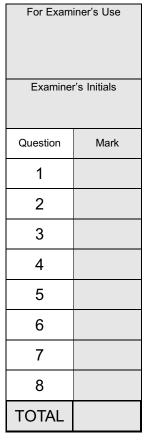
- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page.
- Do all rough work in this book. Cross through any work that you do not want to be 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 marks for questions are shown in brackets.
- The maximum mark for this paper is 50.
- 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.

Answer each question in the space provided for that question.

Use Asif's Electronics on page 2 of the Data Sheet.

1 (a)	Lucy, a student, bought a Kindle which was on sale for £110. She was given the student discount of 14%.
	How much did Lucy pay for the Kindle?
	Answer
	(3 marks)
1 (b)	Michelle bought three electronic books which normally cost £7.89 each. In the sale with the 'buy two get one free' offer, Michelle paid £15.78 for the three books.
	How much did Michelle pay per book?
	Answer
	(2 marks)
1 (c)	In the USA, the price of a Kindle with free 3G was $$202$. The exchange rate was $$1.62$ to £1.
	Calculate the cost of the Kindle in pounds (£).
	Answer(3 marks)
	(5 marks)



8

Section B

Answer all questions.

Answer each question in the space provided for that question.

Use Bank accounts on page 3 of the Data Sheet.

2 (a) Rob deposits £ 1900 in the Winning account for 12 months. It earns compound interest at the rate of 1.21%, paid every 6 months.

Interest is rounded to the nearest penny.

	Starting value (£)	Interest (£)	Final value (£)
First 6 months	1900.00	22.99	1922.99
Second 6 months	1922.99		

2 (b)

2 (c)

Turn over ▶

5

Section C

Answer all questions.

Answer each question in the space provided for that question.

Use Cost of running a car on page 3 of the Data Sheet.

3 (a) Complete the spreadsheet below.

Give the increases as percentages of the costs in 2010.

Give your percentages to one decimal place.

	A	В	C	D	E
1	Item	Cost in 2010 (£)	Cost in 2011 (£)	Increase in cost (£)	Percentage increase in cost
2	Fuel	1400	1721		
3	Insurance	623	815		
4	MOT	54	55		
5	Servicing	301	317		
6	Tax	173	182		
7	Total	2551	3090		

Space for working
State a formula which would give the content of cell E4.
Answer
(1 m



(5 marks)

by 58% since
(3 marks)
e?
(1 mark)

Turn over for the next question



Turn over ▶

Section D

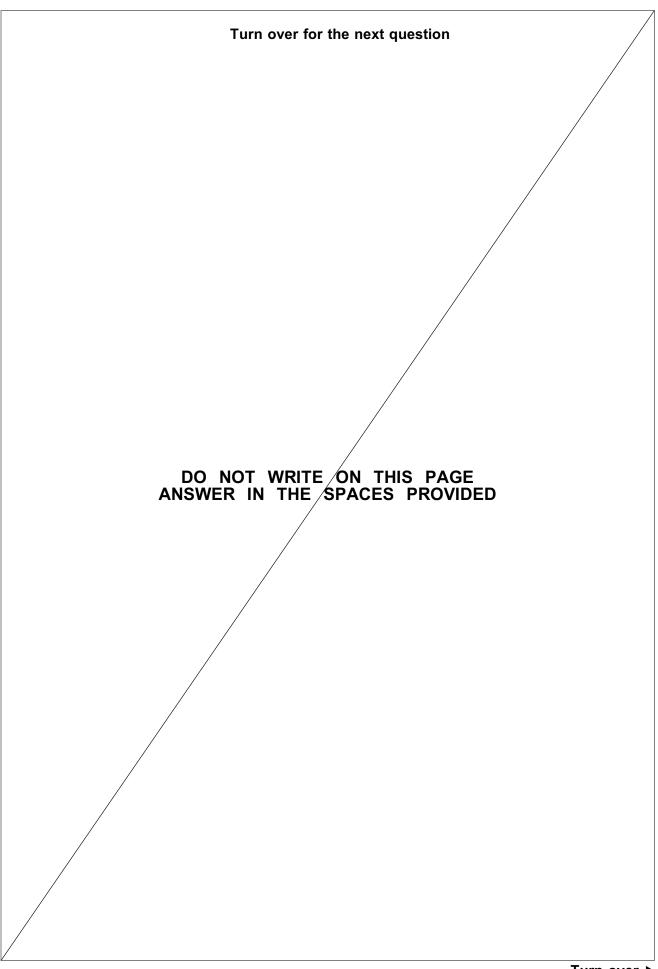
Answer all questions.

Answer each question in the space provided for that question.

Use Guildhall Credit Services on page 4 of the Data Sheet.

5	Harry wants to buy a drum kit. He decides to borrow £4000 and to repay the loan over 36 months.
5 (a)	Write down the monthly repayment that Harry will make.
5 (b)	Answer
5 (c)	Answer
	Answer(2 marks)







Section E

Answer all questions.

Answer each question in the space provided for that question.

Use Taxation 2012–2013 on page 4 of the Data Sheet.

6	Molly earned £4035 per month and had a tax-free allowance of £8105 . Calculate:
6 (a)	Molly's taxable income;
	Answer(3 marks)
6 (b)	the amount of income tax which Molly paid in the year.
	Answer
	(5 marks)



8

7	Luke earns £215 per week. He is contracted out for National Insurance contributions.	
	Calculate the amount that Luke pays per week in National Insurance contributions.	
	Answer(4 marks)	
	(4 marks)	

Turn over for the next question



Turn over ▶

Section F

Answer all questions.

Answer each question in the space provided for that question.

8 (a)	Anna borrows £3000 and is informed that the interest rate which she will be charged
	is 1.9% per month.

A formula which converts a monthly interest rate of r into an annual interest rate of R is:

$$R = (1+r)^{12} - 1$$

where both r and R are expressed as decimals.

Use this formula to find the annual rate of interest, expressing this as a	percentage.
Answer	(3 marks)
	(3 marks)

8 (b) On 1 January 2011, the VAT charged on a computer in the UK was increased from 17.5% to 20%.

Calculate the resulting percentage increase in the cost of a computer.									
	•••••••								•

Answer	 	
		(3 marks)



9

Jon bought a boat. In one year the depreciation was £2880.					
ing approximations, which must be shown, estimate the daily depreciation of the at. There are 365 days in one year.					
Answer(3 marks)					

END OF QUESTIONS





DO NOT WRITE ON THIS PAGE ANSWER IN THE SPACES PROVIDED

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Section C: 'Cost of running a car jumps 20% in just one year fuelled by £300 rise in petrol' by Lydia Warren, Daily Mail, 6 June 2011.

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