

**Pearson LCCI  
Level 2 Certificate in Business  
Calculations  
(ASE2003)**

**Annual Qualification  
Review  
2014/2015**

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## INTRODUCTION

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The annual qualification review provides qualification-specific support and guidance to centres. This information is designed to help teachers preparing to teach the subject and to help candidates preparing to take the examination.

The reviews are published in September and take into account candidate performance, demonstrated in both on demand and series examinations, over the preceding 12 months. Global pass rates are published so you can measure the performance of your centre against these.

The review identifies candidate strengths and weaknesses by syllabus topic area and provides examples of good and poorer candidate responses. It should therefore be read in conjunction with details of the structure and learning objectives contained within the syllabus for this qualification found on the website.

The review also identifies any actual or proposed changes to the syllabus or question types together with their implications.

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## PASS RATE STATISTICS

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The following statistics are based on the performance of candidates who sat this qualification between 1 October 2012 and 31 August 2013.

Global pass rate    70.9%

Grade distributions of candidates achieving pass or higher

Pass                    12.2%

Merit                   17.1%

Distinction           44.4%

\* This figure excludes absences on the day of the exam

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## GENERAL STRENGTHS AND WEAKNESSES

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### General candidate strengths and weaknesses

In each series, examiners reported a very wide range of responses, reflecting a very wide range of ability and level of preparation.

A significant number of candidates showed a mastery of the subject across a wide range of topics. Often the level was so high that many of these may have simultaneously prepared well for the related level 3 specification.

There were also a significant number of candidates who demonstrated a very poor understanding across a wide range of topics.

A similar variation is seen in terms of presentation.

Hence, a significant proportion of candidates were very well prepared for this examination and demonstrated

- clear layout of answers
- good level of overall numeracy
- good understanding of business calculations
- strengths in all areas

As a consequence distinctions were common.

Similarly, a significant proportion of candidates appeared unprepared for this examination and demonstrated

- poor layout of answers
- poor level of overall numeracy
- poor understanding of business calculations
- weakness in most or all areas

As a consequence poor grades were also common.

There were no syllabus areas that were particular strengths or weaknesses overall.

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## TEACHING POINTS BY SYLLABUS TOPIC

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### **Syllabus Topic 1: Simple and compound interest**

During the year, this syllabus section was examined in each series paper, with both simple and compound interest being examined in the period. The topics were examined within business topics, including within questions on other syllabus topics.

Questions on this topic were generally well answered. Candidates occasionally used simple interest when compound interest was asked for, and less frequently used compound interest when simple interest was asked for. Questions were intended to test a specified method or methods, and using a method other than the one specified in that part of the question lost marks.

Candidates should understand that interest is normally paid or received to the nearest penny, and that giving answers to an inappropriate degree of accuracy is inaccurate, and will be penalised.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- identify the method of interest required by the question
- perform all calculations accurately
- be familiar with the difference between principle, interest, and amount (principle plus interest), and make this clear in their answers
- when using simple interest, be careful to apply the factor of 100 correctly, and not to apply it twice
- be aware of and be able to use correctly the 'products method', based on simple interest, where the balance over a particular period is multiplied by the number of days as the first stage of the calculation
- when using compound interest, convert percentage interest to a decimal correctly, and vice versa
- when using compound interest, be able to calculate using the year on year method and also using the formula, and use the appropriate method when specifically required
- when using compound interest, be careful to apply the factor of 100 correctly
- understand and apply the requirement to give answers to the nearest penny or pound, or to a given number of significant figures or decimal places
- where no requirement for a particular level of accuracy is stated, understand the need to give answers to a suitable degree of accuracy. If in doubt, this should be to two decimal places of a pound.

## **Syllabus Topic 2: The small business**

Candidates are required to understand and use the concepts of gross profit, net profit and overheads, to perform simple job costing, and to make simple calculations of shares, specifically relating to cost per share and number of shares purchased.

The topic was examined in each paper during the period.

Questions on this topic were generally well answered. Candidates were generally familiar with all topics, though sometimes with not all aspects of a calculation.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- take care in identifying the method appropriate to the question
- perform all calculations accurately
- for a compound calculation such as job costing, take special care to carry out all steps correctly
- take special care when the 'unit' cost is 'per 100' or 'per box of 8', for example
- take care to apply a percentage charge or discount to the correct figure
- understand that, where there are two discounts such as trade discount and discount for prompt payment, the latter discount will not normally be calculated on the original amount, but instead on the already discounted figure

## **Syllabus Topic 3: Wages and commission**

Candidates are required to calculate gross wages including overtime, commission, net wages including deductions, and annual salaries for individual and multiple employees.

The topic was examined in each paper during the period.

Questions on this topic were often well answered. Candidates were generally familiar with the basic concepts of all topics, but some had difficulty in applying these beyond the more straightforward calculations.

Candidates often have particular difficulty with:

- overtime pay, for example 'time and a half'
- deductions from salary
- splitting up a figure for sales to apply graduated commission
- the number of weeks in a year

The teaching points for candidates are:

- be familiar with all methods required by the syllabus
- identify the method appropriate to the question
- practice applying standard calculations in a range of situations
- pay particular attention during revision to the points in the previous

paragraph

- understand, for example, that 'time-and-a-quarter' means that payment is made for one-and-a-quarter (one point two five) times the time worked
- know that there are 12 months in a year, and 52 weeks in a year

#### **Syllabus Topic 4: Buying and selling**

Candidates are required to be able to understand and use invoices and statements of account, and to perform appropriate calculations on the cost of an order and discounts.

The topic was examined in each paper during the period.

Questions on this topic were generally well answered. Candidates were generally familiar with all topics, though sometimes with not all aspects of a calculation.

The teaching points for candidates are:

- be familiar with all methods required by the syllabus
- take care in identifying the method appropriate to the question
- perform all calculations accurately
- be able to apply standard calculations in a range of situations
- for a compound calculation such as calculating the cost of an order, take special care to carry out all steps correctly
- take special care when the 'unit' cost is 'per 10' or 'per pack of 12', for example
- take care to apply a percentage charge or discount to the correct figure, and know which are added and which deducted
- when there is more than one discount in a question, such as 'trade discount' and 'prompt payment', be aware that the second should normally be applied after the deduction of the other, and not to the original figure.

#### **Syllabus Topic 5: Insurance**

Candidates are required to calculate premiums for buildings and contents and for motor vehicles, including no claims bonus, monthly premium and service charge. Candidates are also required to perform calculations related to underinsurance.

The topic was examined in each paper during the period.

Questions on this topic were often well answered. Candidates were generally familiar with the basic concepts of all topics, but mistakes were frequently made when calculating a monthly premium that includes a service charge, and when dealing with underinsurance.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- identify the method appropriate to the question
- be able to apply standard calculations in a range of situations
- for a compound calculation such as calculating the monthly premium, take special care to carry out all steps correctly
- be aware of the basic concept of underinsurance, which is that the item, often a car, has been insured for a value less than the actual one. In such cases, insurance company will not pay the full value of your claim, and will also require an increase in premium to cover the full value

### **Syllabus Topic 6: Foreign currencies**

Candidates are required to calculate using rates of exchange in various business and finance related situations. These are often examined within questions primarily on other syllabus sections.

The topic was examined in each paper during the period.

Questions on this topic were often well answered. However, a number of mistakes were made based upon a confusion over whether to multiply or divide.

A range of currencies is generally used for currency conversion and for the calculations of other syllabus topics. These include, but are not limited to, pounds, euros and dollars.

The teaching points for the candidates are:

- be aware that all questions may be set in currencies other than pounds sterling, for example euros
- be aware that this does not change the method of calculation
- for currency conversion, be familiar with the method of calculating using ratio
- in particular be aware that addition and subtraction are not appropriate for currency conversion
- a useful tip: when provided with an initial ratio, such as £1 = €1.20, take note of which currency's figure is the higher, and check your answer to make sure that this is still true
- make sure that a final currency answer has the correct units

### **Syllabus Topic 7: Hire purchase**

Candidates are required to calculate the amount or percentage of a deposit, the balance outstanding, the rate and amount of interest on the subsequent loan, and the resulting instalment payment per month or week. Candidates are also required to use these figures to compare different sets of hire purchase terms.

The topic was examined in each paper during the period.

Questions on this topic were often well answered. Candidates were generally familiar with the basic concepts of all topics, but mistakes were frequently made

when calculating a weekly or monthly premium that includes interest.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- identify the method appropriate to the question
- be able to apply standard calculations in a range of situations
- for a compound calculation such as calculating a monthly premium, take special care to carry out all steps correctly, and in the correct order
- when calculating the total cost of the purchase, be aware that this can be done either by adding deposit to the total of monthly payments, or by adding the interest to the original cost

### **Syllabus Topic 8: Partnerships**

Candidates are required to calculate interest on and changes to capital, the division of profits in equal amounts and in proportion to invested capital, and partners' salaries.

The topic was examined in each paper during the period.

Questions on this topic were often well answered. Candidates were generally familiar with the basic concepts of this topic, but mistakes were frequently made when calculating a salary over a period other than a year.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- identify the method appropriate to the question
- be able to apply standard calculations in a range of situations
- be familiar with the method of calculating using ratio
- check that you have calculated the salary for the period given

### **Syllabus Topic 9: Averages**

Candidates are required to calculate using both simple and weighted averages. These topics are often examined within questions on other syllabus areas.

Questions on simple averages were often well answered, but weighted averages and grouped frequency tables rather less so.

The teaching points for the candidates are:

- be familiar with all methods required by the syllabus
- identify the method appropriate to the question
- be able to apply standard calculations in a range of situations
- revise the methods for weighted averages and grouped frequency tables
- when using a grouped frequency table, start by identifying the number of individual values it contains

### **Further guidance**

Candidates should read each question carefully and pay attention to key words and phrases. Candidates should be familiar with all methods required in the syllabus. In particular candidates should identify the appropriate method and not offer an alternative method where a specific one is specified.

In examination papers on this syllabus, it is common for a question to incorporate elements from different syllabus sections. This is felt to reflect business calculations found in practice.

Accuracy is important in business calculations, and this applies equally to:

- reading the question
- carrying out the calculation
- laying out the answer
- stating the final answer

Candidates are advised to provide workings and not just numerical answers.

## EXAMPLES OF CANDIDATE RESPONSES

### Series 3 2015 – Question 6

At a retail store the hire purchase terms are as follows:

- a deposit of 25% of the cash price
- simple interest on the amount outstanding (after payment of the deposit) is to be charged at a rate of 20% per annum
- the amount outstanding plus the interest is to be paid in 12 equal monthly payments.

Four customers, Kris, Letitia, Marshawm and Fenella, buy items from the store on hire purchase.

Kris buys a tablet priced at £365 and pays £91.25 deposit.

(a) Calculate the interest Kris pays on the amount outstanding. (3)

Letitia buys a tablet priced at £282, pays £70.50 deposit and is charged £42.30 interest on the amount outstanding.

(b) Calculate how much Letitia pays for each monthly payment. (4)

Marshawm buys a television and his payments are £54 per month.

(c) Calculate the cost of the television if purchased for cash, i.e. without requiring hire purchase. (4)

Fenella finds that the total of her deposit and 12 monthly payments is equivalent to an average payment of £57.50 per month.

(d) Calculate the total amount Fenella paid. (2)

**LOW RESPONSE:**

**Examiner's response:**

Candidate response A is a bare pass response, scoring 7 marks, which is approximately 54% of the question total, and hence represents a pass grade. In section 6(a), the candidate has a fully correct answer, in a more condensed form than provided in the mark scheme.

In section 6(b), the candidate has calculated monthly payments for interest only, but has earned 1 mark for identifying that monthly payments will involve division by 12.

In section 6(c), the candidate has calculated the monthly payments as an annual figure, before carrying out further incorrect calculations, and has been credited for the first step.

The calculation in section 6(d) is entirely correct.

6. a)	The interest Kris pays on the amount outstanding $= \pounds (365 - 91.25) \times 20\%$ $= \pounds 54.75$	3
b)	The money that Letitia pays for each monthly payment $= \pounds (42.30 \div 12)$ $= \pounds 3.53$ (correct to 2 decimal places)	1
c)	The cost of the telephone if purchased for cash $= \pounds [54 \times 12 \div 20\% \div (1 - 2.5\%)]$ $= \pounds 3323.08$ (correct to 2 decimal places)	1
d)	The total amount Fenella paid $= \pounds (57.50 \times 12)$ $= \pounds 690$	2
		(7)

**MEDIUM RESPONSE:**

**Examiner's response:**

Candidate response B earned 8 marks, representing approximately 67% and hence a merit grade.

In sections 6(a) and 6(b), the candidate has provided fully correct calculations in an abbreviated form.

In section 6(c), the candidate has calculated the monthly payments as an annual figure, for the first mark, and then stopped prematurely.

In section 6(d), the candidate has provided the required calculation but has incorporated it within an incorrect one. In this section, the calculation of annual amount is not the first part of a further calculation, and so has not been credited – the answer required is a single step calculation, and the answer offered is incorrect.

6.			
a)	The interest paid = <del><math>£365 \times 25\%</math></del> $(£365 - 91.25) \times 20\%$ <del><math>£365 \times (1 - 25\%)</math></del> = <u>£54.75</u>		3
b)	The amount Gloria pays = $(£282 - 20.50 + 42.30) \div 12$ = <u>£21.15</u>		4
c)	The cost of television = $£54 \times 12$ = <u>£648</u>		1
d)	The total amount paid = $£(57.50 \times 12) \div (1 + 20\%)$ = <u>£575</u>		0 8

## HIGH RESPONSE:

### Examiner's response:

Candidate C has sections 6(a), 6(b) and 6(d) fully correct, scoring 10 marks overall, representing approximately 77% and hence a distinction grade.

In section 6(c), the candidate starts with a conversion of monthly payment to annual, and gains the first mark. The candidate addresses the 25% deposit next, but applies the percentage to the incorrect figure. Finally, the candidate addresses the 20% interest, but multiplies by 1.2 instead of dividing.

6a	The interest Kris pays on the amount outstanding. $(£365 - £91.25) \times 20\%$ <u><math>= £54.75</math></u>	3
b	The amount Letitia pays for each monthly payment $[(£282 - £70.50) + £42.30] \div 12$ <u><math>= £21.15</math></u>	4
c	The cost of the television if purchased for cash $£54 \times 12 \times (1 + 25\%) \times (1 + 20\%)$ <u><math>= £972</math></u>	1
d	The total amount Fenella paid $£57.50 \times 12$ <u><math>= £690</math></u>	2
		(10)

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