



JUNE AND DECEMBER 2009 – STUDY GUIDE  
CERTIFIED ACCOUNTING TECHNICIAN EXAMINATION

Paper 4  
Accounting for Costs

# Introduction

This booklet contains the Study Guide for Paper 4: Accounting for Costs.

The Study Guide is designed to help you plan your studies and to provide more detailed interpretation of the syllabus for ACCA's Certified Accounting Technician examinations. It contains both the Syllabus and the Study Sessions for the paper, which you can follow when preparing for the examination.

The Syllabus outlines the content of the paper and how that content is examined. The Study Sessions take the syllabus and expand it into teaching or study sessions of similar length. These sessions indicate what the examiner expects of candidates for each part of the syllabus, and therefore gives you guidance in the skills you are expected to demonstrate in the examinations. The time to complete each session will vary according to your individual capabilities and the time you have available to study. Tuition providers offering face-to-face tuition are recommended to design courses with a minimum of two hours tuition per study session. However, repeated coverage of the material is vital to ensure your understanding and recall of the subject. Be sure to practice past examination questions to consolidate your knowledge and read your *student accountant* magazine regularly.

If you have any queries concerning the study guide, please direct them to:

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## **ABOUT ACCA**

ACCA is the largest and fastest-growing international accountancy body with 296,000 students and 115,000 members in 170 countries. We aim to offer first choice qualifications to people of application, ability and ambition around the world who seek a rewarding career in accountancy, finance and management. ACCA works to achieve and promote the highest professional, ethical and governance standards and advance the public interest.

## AIMS

To develop knowledge and understanding of how organisations record, analyse and report current and future costs and revenue data for use within the organisation.

## OBJECTIVES

On completion of this paper, candidates should be able to:

- explain the role of management accounting within an organisation and the requirement for management information
- describe costs by classification and behaviour
- identify appropriate material, labour and overhead costs
- understand and be able to apply the principles of marginal costing and absorption costing
- understand and be able to calculate product and service costs
- understand and be able to apply methods of estimating costs and revenues.

## POSITION OF THE PAPER IN THE OVERALL SYLLABUS

Knowledge of Paper 2, *Information for Management Control*, is required before commencing study for Paper 4.

This paper provides the basic techniques required to enable candidates to develop the various methods for recording and evaluating costs into more complex problems at the Advanced Level.

Candidates will need a sound understanding of the methods and techniques introduced in this paper to ensure that they can take them further in subsequent papers. The methods introduced in this paper are revisited and extended in Paper 7, *Planning, Control and Performance Management*.

## SYLLABUS CONTENT

### 1 Management information

- (a) Nature and purpose of internal reporting
  - (i) financial and non-financial information for managers
  - (ii) cost centres, profit centres and investment centres and the impact of these on management information and appraisal
- (b) Management information requirements
  - (i) definition and importance of good information

- (ii) presentation of information
- (iii) role of accounting technicians and accounting information
- (iv) role of information technology
- (c) Maintaining an appropriate cost accounting system
  - (i) cost units and responsibility centres
  - (ii) sources of relevant information
  - (iii) methods for recording, processing and storing relevant information
  - (iv) analysis and dissemination of output information

### 2 Cost classification and cost behaviour

- (a) Cost classification
  - (i) classifications used in cost accounting according to purpose
- (b) Cost behaviour
  - (i) cost behaviour patterns
  - (ii) identification of fixed, variable and semi-variable costs
  - (iii) use of fixed, variable and semi-variable costs in cost analysis
  - (iv) analysis of the effect of changing activity levels on unit costs

### 3 Elements of cost

- (a) Materials
  - (i) direct and indirect material costs
  - (ii) methods of inventory control and valuation including First In First Out, Last In First Out and weighted average cost
  - (iii) relationship between the materials costing system and the inventory control system
- (b) Labour
  - (i) direct and indirect labour costs
  - (ii) methods of payment for and calculation of payments for labour
  - (iii) relationship between the labour costing system and the payroll accounting system
- (c) Overheads
  - (i) direct and indirect expenses
  - (ii) procedures and documentation relating to expenses

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- (iii) relationship between the accounting system and the expenses costing system

## 4 Marginal costing and absorption costing

- (a) Marginal costing
- (b) Absorption costing
  - (i) bases of allocating and apportioning indirect costs (overheads) to responsibility centres
  - (ii) bases of absorption
  - (iii) over and under absorption of overheads
- (c) Marginal versus absorption costing for costing and reporting purposes

## 5 Product and service costs

- (a) Job and batch costing
  - (i) characteristics
  - (ii) direct and indirect costs
- (b) Process costing
  - (i) characteristics
  - (ii) normal losses and abnormal losses and gains
  - (iii) accounting for scrap
  - (iv) closing work in progress and equivalent units
  - (v) joint products and by-products
- (c) Service costing
  - (i) characteristics
  - (ii) cost units

## 6 Estimating costs and revenues

- (a) CVP analysis
  - (i) break-even analysis
  - (ii) margin of safety
  - (iii) target profit
  - (iv) contribution / sales ratio
  - (v) simple break-even chart and profit/volume graph
- (b) Decision-making
  - (i) concept of relevant costs
  - (ii) short-term decisions
  - (iii) optimal production plan given a scarce resource
- (c) Discounted cash flow techniques
  - (i) simple and compound interest
  - (ii) nominal and effective interest

- (iii) discounted cash flow
- (iv) annuities and perpetuities
- (v) payback period.

## EXCLUDED TOPICS

The following topics are specifically excluded from Paper 4:

- activity based costing
- process costing – opening work in progress
- process costing – losses and work in progress in same process
- multi-product cost / volume / profit analysis
- linear programming.

## KEY AREAS OF THE SYLLABUS

All areas of the syllabus are equally important.

## APPROACH TO EXAMINING THE SYLLABUS

Paper 4 is a two-hour paper. It can be taken as a written paper or a computer based examination. The questions in the computer based examination are objective test questions – multiple choice, number entry and multiple response. The written examination consists of two sections, structured as follows:

	<i>No. of marks</i>
Section A – 20 compulsory multiple choice questions of two marks each	40
Section B – four compulsory written questions of between 10 and 20 marks each	60
Total	<hr/> 100

## RELEVANT TEXTS

There are a number of sources from which you can obtain a series of materials written for the ACCA CAT examinations. These are listed below:

ACCA's official publishers:

### BPP Learning Media

Contact number: +44(0)20 8740 2222

Website: [www.bpp.com](http://www.bpp.com)

## Kaplan Publishing

Contact number: +44(0)118 989 0629

Website: [www.kaplanpublishing.co.uk](http://www.kaplanpublishing.co.uk)

Additional reading:

Accountancy Tuition Centre (ATC)

International

Contact: [ronnie.smith@atc-global.com](mailto:ronnie.smith@atc-global.com)

Website: [www.atc-global.com](http://www.atc-global.com)

Wider reading is also desirable, especially regular study of relevant articles in ACCA's *student accountant* magazine.

## STUDY SESSIONS

### 1 Management information

- (a) Discuss the purpose of management information: planning, control and decision-making
- (b) Describe the features of useful management information
- (c) Discuss the nature, source and importance of both financial and non-financial information for managers
- (d) Describe management responsibilities (for cost, profit and investment) and their effect on management information and performance measurement
- (e) Discuss the role of information technology in management information
- (f) Discuss the role of the accounting technician
- (g) Present management information in suitable formats according to purpose

### 2 Maintaining an appropriate cost accounting system

- (a) Explain the relationship between the cost/management accounting system and the financial accounting/management information systems (including interlocking and integrated bookkeeping systems)
- (b) Describe the process of accounting for input costs and relating them to work done
- (c) Identify the documentation required, and the flow of documentation, for different cost accounting transactions
- (d) Explain the use of codes in categorising and processing transactions, and the importance of correct coding

- (e) Explain and illustrate the concept of cost units
- (f) Describe the different methods of costing final outputs and their appropriateness to different types of business organisation
- (g) Describe methods of capturing, processing, storing and outputting cost and management accounting data by computer

### 3 Cost classification and cost behaviour

- (a) Describe the variety of cost classifications used for different purposes in a cost accounting system, including by responsibility, function, direct/indirect, behaviour
- (b) Explain and illustrate the nature of variable, fixed and mixed (semi-variable, stepped-fixed) costs
- (c) Use the high-low method to separate semi-variable costs
- (d) Use variable, fixed and semi-variable costs in cost analysis
- (e) Analyse the effect of changing activity levels on unit costs

### 4 Costing of materials

- (a) Describe the main types of material classification
- (b) Describe the procedures and documentation required to ensure the correct authorisation, coding, analysis and recording of direct and indirect material costs
- (c) Explain, illustrate and evaluate the FIFO, LIFO and weighted average methods used to price materials issued from inventory
- (d) Describe and illustrate the accounting for material costs
- (e) Calculate material input requirements, and control measures, where wastage occurs

### 5 Material stock control

- (a) Describe the procedures required to monitor inventory and to minimise discrepancies and losses
- (b) Explain and illustrate the costs of holding inventory and of being without inventory
- (c) Explain, illustrate and evaluate inventory control levels (minimum, maximum, re-order)
- (d) Calculate and interpret optimal order quantities
- (e) Discuss the relationship between the materials costing system and the inventory control system

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## 6 Costing of labour

- (a) Explain, illustrate and evaluate labour remuneration methods
- (b) Describe the operation of a payroll accounting system
- (c) Distinguish between direct and indirect labour costs
- (d) Describe the procedures and documentation required to ensure the correct coding, analysis and recording of direct and indirect labour
- (e) Describe and illustrate the accounting for labour costs
- (f) Discuss the relationship between the labour costing system and the payroll accounting system
- (g) Explain the causes and costs of, and calculate, labour turnover
- (h) Describe and illustrate measures of labour efficiency and utilisation (efficiency, capacity utilisation, production volume and idle time ratios)

## 7 Costing of other expenses

- (a) Describe the nature of expenses by function
- (b) Describe the procedures and documentation required to ensure the correct authorisation, coding, analysis and recording of direct and indirect expenses
- (c) Describe capital and revenue expenditure and the relevant accounting treatment
- (d) Calculate and explain depreciation charges using straight-line, reducing balance and machine hour methods
- (e) Discuss the relationship between the expenses costing system and the expense accounting system

## 8 Overhead allocation and apportionment

- (a) Explain the rationale for absorption costing
- (b) Describe the nature of production and service cost centres and their significance for production overhead allocation, apportionment and absorption
- (c) Describe the process of allocating, apportioning and absorbing production overheads to establish product costs
- (d) Apportion overheads to cost centres using appropriate bases
- (e) Re-apportion service cost centre overheads to production cost centres using direct and step down methods

## 9 Overhead absorption

- (a) Justify, calculate and apply production cost centre overhead absorption rates using labour hour and machine hour methods
- (b) Explain the relative merits of actual and pre-determined absorption rates
- (c) Describe and illustrate the accounting for production overhead costs, including the analysis and interpretation of over/under absorption
- (d) Describe and apply methods of attributing non-production overheads to cost units
- (e) Calculate product costs using the absorption costing method

## 10 Absorption and marginal costing

- (a) Prepare profit statements using the absorption costing method
- (b) Explain and illustrate the concept of contribution
- (c) Prepare profit statements using the marginal costing method
- (d) Compare and contrast the use of absorption and marginal costing for period profit reporting and inventory valuation
- (e) Reconcile the profits reported by absorption and marginal costing
- (f) Discuss the usefulness of profit and contribution information respectively

## 11 Job and batch costing

- (a) Describe the characteristics of job and batch costing respectively
- (b) Identify situations where the use of job or batch costing is appropriate
- (c) Calculate unit costs using job and batch costing
- (d) Discuss the control of costs in job and batch costing
- (e) Apply cost plus pricing in job costing

## 12 Process costing - losses

- (a) Describe the characteristics of process costing
- (b) Identify situations where the use of process costing is appropriate
- (c) Calculate unit costs and prepare process accounts where

losses occur in process

- (d) Explain and illustrate the nature of normal and abnormal losses/gains
- (e) Calculate unit costs where losses are separated into normal and abnormal
- (f) Prepare process accounts where losses are separated into normal and abnormal
- (g) Account for scrap

### 13 Process costing - work-in-progress

- (a) Describe and illustrate the concept of equivalent units
- (b) Calculate unit costs where there is closing work-in-progress in a process
- (c) Allocate process costs between finished output and work-in-progress
- (d) Prepare process accounts where there is closing work-in-progress

### 14 Process costing - joint products and by-products

- (a) Distinguish between joint products and by-products
- (b) Explain the treatment of joint products and by-products at the point of separation
- (c) Apportion joint process costs using net realisable values and weight/volume of output respectively
- (d) Discuss the usefulness of product cost/profit data from a joint process
- (e) Evaluate the benefit of further processing

### 15 Service costing

- (a) Describe the characteristics of service costing
- (b) Describe the practical problems relating to the costing of services
- (c) Identify situations (cost centres and industries) where the use of service costing is appropriate
- (d) Illustrate suitable cost units that may be used for a variety of services
- (e) Calculate service unit costs in a variety of situations

### 16 Cost / volume / profit (CVP) analysis

- (a) Calculate contribution per unit and the contribution/sales ratio
- (b) Explain the concept of break-even and margin of safety
- (c) Use contribution per unit and contribution/sales ratio to calculate break-even point and margin of safety
- (d) Analyse the effect on break-even point and margin of safety of changes in selling price and costs
- (e) Use contribution per unit and contribution/sales ratio to calculate the sales required to achieve a target profit
- (f) Construct break-even and profit/volume charts for a single product or business

### 17 Decision-making

- (a) Explain the importance of the limiting factor concept
- (b) Identify the limiting factor in given situations
- (c) Formulate and determine the optimal production solution when there is a single resource constraint
- (d) Solve make/buy-in problems when there is a single resource constraint
- (e) Explain the concept of relevant costs
- (f) Apply the concept of relevant costs in business decisions

### 18 & 19 Discounted cash flow

- (a) Explain and illustrate the difference between simple and compound interest, and between nominal and effective interest rates
- (b) Explain and illustrate compounding and discounting
- (c) Explain the distinction between cash flow and profit and the relevance of cash flow to capital investment appraisal
- (d) Explain and illustrate the net present value (NPV) and internal rate of return (IRR) methods of discounted cash flow
- (e) Calculate present value using annuity and perpetuity formulae
- (f) Calculate payback (discounted and non-discounted)
- (g) Interpret the results of NPV, IRR and payback calculations of investment viability

### 20 Revision