FINAL COURSE STUDY MATERIAL

PAPER 5

ADVANCED MANAGEMENT ACCOUNTING

MODULE – 1

BOARD OF STUDIES
THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

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PAPER 5: ADVANCED MANAGEMENT ACCOUNTING

(One paper – Three hours – 100 marks)

Level of Knowledge: Advanced knowledge

Objective:
To apply various management accounting techniques to all types of organizations for planning, decision making and control purposes in practical situations.
To develop ability to apply quantitative techniques to business problems

1. Cost Management
   (a) Developments in the business environment; just in time; manufacturing resources planning; (MRP); automated manufacturing; synchronous manufacturing and back flush systems to reflect the importance of accurate bills of material and routings; world class manufacturing; total quality management.
   (b) Activity based approaches to management and cost analysis
   (c) Analysis of common costs in manufacturing and service industry
   (d) Techniques for profit improvement, cost reduction, and value analysis
   (e) Throughput accounting
   (f) Target costing; cost ascertainment and pricing of products and services
   (g) Life cycle costing

2. Cost Volume Profit Analysis
   (a) Relevant cost
   (b) Product sales pricing and mix
   (c) Limiting factors
   (d) Multiple scarce resource problems
   (e) Decisions about alternatives such as make or buy, selection of products, etc.
   (f) Shut down and divestment.

3. Pricing Decisions
   (a) Pricing of a finished product
   (b) Theory of price
(c) Pricing policy  
(d) Principles of product pricing  
(e) New product pricing  
(f) Pricing strategies  
(g) Pricing of services  
(h) Pareto analysis

4. **Budgets and Budgetary Control**  
The budget manual, Preparation and monitoring procedures, Budget variances, Flexible budgets, Preparation of functional budget for operating and non-operating functions, Cash budgets, Capital expenditure budget, Master budget, Principal budget factors.

5. **Standard Costing and Variance Analysis**  
Types of standards and sources of standard cost information; evolution of standards, continuous improvement; keeping standards meaningful and relevant; variance analysis; disposal of variances.  
(a) Investigation and interpretation of variances and their inter relationship  
(b) Behavioural considerations.

6. **Transfer pricing**  
(a) Objectives of transfer pricing  
(b) Methods of transfer pricing  
(c) Conflict between a division and a company  
(d) Multi-national transfer pricing.

7. **Cost Management in Service Sector**

8. **Uniform Costing and Inter firm comparison**

9. **Profitability analysis - Product wise / segment wise / customer wise**

10. **Financial Decision Modeling**  
(a) Linear Programming  
(b) Network analysis - PERT/CPM, resource allocation and resource leveling  
(c) Transportation problems  
(d) Assignment problems  
(e) Simulation  
(f) Learning Curve Theory
A WORD ABOUT STUDY MATERIAL

The Institute of Chartered Accountants of India develops the course curriculum for its students and undertakes the periodic review of the course keeping in mind the developments in different subjects world wide and the objective of equipping the students with necessary knowledge and skill to serve the needs of Indian industry. The essence of successful management is decision making with the help of relevant information. Management Accounting influence decision making capacity and capabilities of a manager. The changes in business process across the globe and the continuous research work have evolved various advanced tools and techniques in the field of management accounting. The Institute has brought the modern techniques like Just in Time (JIT), Total Quality Management (TQM), Life Cycle Costing, Value Analysis, Throughput Accounting etc in the syllabus of Advanced Management Accounting. Equal importance has also been given in traditional tools of management accounting like Standard Costing, Budgeting, CVP Analysis etc which have great role to play in controlling and managing costs as well as decision making.

The Board of Studies which is instrumental in imparting theoretical education for the students of Chartered Accountancy Course develops the Study Materials of all subjects with the objective of developing the clear understanding of the concept of different topics covered in the subject among the students. The Study Material on Advanced Management Accounting covers sixteen chapters and topics included in each chapter are explained in details with explanation, examples and illustrations. As Management Accounting builds on various cross functional areas, comprehensive understanding of the subject is possible if only one covers all the topics of management accounting. A real life problem relates a number of topics of management accounting which are closely linked and its solution asks for clear understanding of all related topics. Thus, the students are advised to go through the whole study material and are expected to supplement their studies by referring to the recommended books of the subject in order to equip themselves with necessary professional knowledge of the subject. If required, they are also advised to brush up their knowledge of related topics of Intermediate (IPC) level.

The book attempts to elaborate and explain the conceptual basis of management accounting and also covers all applicable areas in depth.

The Board of Studies has also developed Practice Manual of the subject to provide an effective guidance material by providing clarification / solution to very important topics / issues, both theoretical and practical, of different chapters. Moreover, it will serve as Revision Help book towards preparing for Final Examination of the Institute and help the students in identifying the gaps in the preparation of the examination and developing plan to make it up. It will also provide standard of solutions to the questions which will act as a bench mark towards developing the skill of students on framing standard answer to a question. For any further clarification/guidance, students are requested to send their queries at bosnoida@icai.in.

Happy Reading and Best Wishes!

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## Significant Changes in the Revised Edition

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STUDY PLAN – KEY TO EFFECTIVE LEARNING

Introduction
Main focus of ‘Advanced Management Accounting’ is on the application of ‘Cost Management’ techniques and ‘Financial Decision Modeling’ tools in various types of decisions making at all levels of management. Application of ‘Advanced Management Accounting’ helps to understand the ways and means to maximize revenue by reducing cost without affecting the essential qualities of products (decisions on what to produce, at what price, how to manage cost to maximize profitability, quality management etc.) and imposing control by classifying divisions as responsibility centres, allocating budgets and performance evaluation by setting various standards and variance analysis. The subject of ‘Advanced Management Accounting’ focuses on developing of knowledge required for analysis of quantitative and qualitative information in order to help the management in decision making. The students are suggested to understand the concept of each topic, use of relevant tools and techniques involved in the analysis of various problem situations covered under the ‘Syllabus’. Students should keep in mind that the problem related to ‘Management Accounting’ in practical situation may often involve various issues together. Students are required to develop a comprehensive understanding of handling multiple issues involved in a problem which are closely linked and take all the factors into consideration (related to that problem) while evolving a rational solution. The basic objective of ‘Advanced Management Accounting’ subject is to apply various ‘Management Accounting’ techniques to all types of organizations for planning, decision making & control purpose in practical situation and to develop ability to apply ‘Quantitative Techniques’ to business problems.

Suggestive Approach to Study
‘Study Material’ of ‘Advanced Management Accounting’ has been developed to explain different concepts, tools and techniques related to ‘Management Accounting’ with examples and illustrations. The students are suggested to go through the ‘Study Material’ and conceptualize the topics given in the ‘Syllabus’ and understand depth of knowledge required for achieving success in the examination. In ‘Advanced Management Accounting’ examination, emphasis is on testing comprehension, self expression and ability to apply knowledge in divergent situations. Success in examinations considerably depends on style of preparation which can be achieved thorough practice, vision and objectivity. Before appearing for the examination, students need to make a comprehensive study plan. Study plan should be developed by keeping adequate time margin for study revision. Students must envisage the whole exercise of preparation before starting the actual work. The time span available till examination may be broken into four stages i.e.
(i) Initial Planning Stage

Students should go through the 'Study Material' for conceptual clarity & understanding and while doing so they should never hesitate to refer some good books so that no doubt can creep into their mind. Make necessary notes for peculiar treatments and important key terms whenever come across. After grasping all the concepts and techniques; the next step is application of these concepts and techniques in solving different varieties of numerical from the ‘Practice Manual’.

(ii) In-Depth Study Stage

Students should go through the 'Study Material' for conceptual clarity & understanding and while doing so they should never hesitate to refer some good books so that no doubt can creep into their mind. Make necessary notes for peculiar treatments and important key terms whenever come across. After grasping all the concepts and techniques; the next step is application of these concepts and techniques in solving different varieties of numerical from the ‘Practice Manual’.

(iii) Revision Stage and

In these two stages students have to concentrate on work done to improve their confidence. Students are advised to solve the question given in the ‘Revision Test Paper (RTP)’ independently without referring to the answer first. To build confidence, pressure tolerant practice under examination condition will definitely help to manage time and answer framing. Take part in ‘Mock Tests’ arranged by the institute. Solving ‘Mock Test’ papers under examination condition is a good idea. Continuous practice under examination condition (Mock Test) will help students to approach examination with greater degree of confidence.

(iv) Examination Stage

Students should go through the 'Study Material' for conceptual clarity & understanding and while doing so they should never hesitate to refer some good books so that no doubt can creep into their mind. Make necessary notes for peculiar treatments and important key terms whenever come across. After grasping all the concepts and techniques; the next step is application of these concepts and techniques in solving different varieties of numerical from the ‘Practice Manual’.

Chapter Specific

Chapter 1 to 9 emphasizes the role of ‘Management Accounting’ in decision making, particularly in providing information and analysis to support strategic management activity. The focus is on evaluating existing competitive strategies, developing new strategies, and monitoring and assessing progress towards chosen strategies.

Chapter-1, Developments in the Business Environment

This chapter introduces students to the area of modern concepts in ‘Cost Management’. It discusses recent developments in business environment and advanced management accounting techniques such as Total Quality Management (TQM), Activity Based Costing (ABC), Target Costing, Life Cycle Costing, Value Chain Analysis, Cost Control and Cost Reduction, Computer-Aided Manufacturing, Just in Time (JIT), Manufacturing Resources Planning, Synchronous Manufacturing, Business Process Re-engineering and Theory of Constraints. While going through these topics students need to link their study with other chapters or previous studies at Intermediate (IPC) level. Some topic wise useful techniques are given as under:

Total Quality Management: This topic is based on continuous effort of management in maintaining quality of a product; believe in the product and improvement in the product. In this
topic students need to get conversant with various techniques of ‘Quality Management’. The concept of ‘Six Sigma’ also shall be thoroughly understood by the students.

**Activity Based Costing:** As said earlier students need to inter-connect their study with other chapters or topics. ABC is connected with ‘Absorption Costing’ studied at Intermediate (IPC) level under the chapter ‘Overheads’. ABC is also used as a tool for ‘Decision Making’, so their learning in this topic may be tested in succeeding chapters of ‘Decision Making’ and ‘Costing for Service Sectors’. Students should be able to use of ‘Direct’ and ‘Activity-Based Cost’ methods in tracing costs to ‘Cost Objects’, such as customers or distribution channels, and the comparison of such costs with appropriate revenues to establish ‘tiered’ contribution levels, as in the activity-based cost hierarchy.

**Target Costing:** Every organization is driven by a corporate strategy which fulfills the mission and goals of an organization. In doing so organizations complying with its long term goal, it fixes its desired profit without losing its market share. In this topic students shall understand how an organization maintains its selling price with variable cost targets. This topic also requires application of decision making techniques used in the succeeding topics.

**Life Cycle Costing, Value Chain Analysis, Cost control and Cost Reduction, Business process re-engineering, Theory of Constraints:** In these topics students are required to identify the factors which have significant implications on product manufacturing and in product’s cost.

**Just in Time (JIT), Computer-aided manufacturing, Manufacturing Resource Planning and Synchronous Manufacturing:** These topics are related with ‘Inventory Control’ and ‘Production Management Techniques’ to reduce or control costs.

This chapter is very important from the students perspective. Generally, students pay less attention to theory based chapters and the theoretical concepts of underlying different topics. But it is very important that students have thoroughly studied the theoretical aspects of the subject so that theoretical aspects help them in understanding the concepts and logic behind the mathematical workings and formulae while solving problems related to that particular concept.

**Chapter-2, Decision Making Using Cost Concepts and CVP Analysis; Chapter-3, Pricing Decisions**

In these two chapters students have to study Different Cost Concepts, Application of Cost Concepts in Decision Making, Cost-Volume-Profit (CVP) Analysis and Pricing Decision. ‘Management Accounting’ is fundamental in strategic planning. ‘Managerial Accounting’ information provides data-driven input to the decisions, which can improve decision-making over the long term. For example- Should a company shut down a division, Should it make or buy a product, Should it export or not, Should it accept an offer? Students should understand the concepts, need and importance of ‘Marginal Costing’ in decision making. *Students should also have understanding of area of ‘Financial Decision Modeling’ and application of the same in predicting product/service costs.* Clarity of concepts and self expression is essential for success.
Chapter-4, Budget & Budgetary Control

This chapter basically tries to impart students the concept of ‘Budgeting’. ‘Budgeting’ and ‘Financial Statement Projections’ are just a few examples of how managerial accounting information is used to provide information to help management to guide the future of a company. By focusing on this data, one can make decisions that aim for continuous improvement and are justifiable based on intelligent analysis of the company data. Students are required to learn the difference between various types of budgets and process of preparation of budgets.

Chapter-5, Standard Costing

This chapter examines the functional-based standard costing systems in managing costs, improving planning and control, and facilitating decision making and product costing. This chapter has very important concepts of standard costing like computation of variances, control through variance analysis, accounting and reporting of variances. Classification of variances and interrelationship could be understood from the chart given in the ‘Study Material’. Students should be versed with variance analysis under marginal costing and absorption costing with concept of reconciliation of actual data and be familiar with the application of learning curve in standard costing. This chapter requires lots of practice. ‘Study Material’ is very helpful for clear understanding of the concept. Students should do thorough practice to avoid computational errors.

Chapter-6, Costing of Service Sector

This chapter introduces students to various costing systems in the service sectors, the different types of cost behavior and their uses for decision making and planning via CVP analysis. It is important for the students to know the concept of relevant costing in relation to pricing decisions, joint cost and service department cost allocations.

Chapter-7, Transfer Pricing

This chapter covers concepts of ‘Transfer Pricing’. ‘Transfer Pricing’ are used to evaluate the goods and services exchanged between profit centers of a decentralized firm. Students should be able to analyze the situation when a division operating at capacity. Students should also be versed with concept of ‘Multinational Transfer Pricing’. Thorough practice of the problems is required for better understanding of transfer pricing concept.

Chapter-8, Uniform Costing

This chapter basically tries to impart about ‘Uniform Costing’. It is a system of cost accounting to be used by the members of the industry. It involves adoption of same costing principles, practices and procedures by the individual members of the industry for inter-firm comparison. This is very important theoretical chapter.

Chapter-9, Profitability Analysis- Product wise/ Segment wise/ Customer wise.

This chapter enables students to understand and analyse the factors responsible for the
variation in the profitability of a company with regard to budgeted or previous year’s figures. This chapter requires the application of Standard Costing techniques to determine the variances in the profitability. In addition to this application of Activity Based Costing (ABC) will be required to determine profitability product wise/ segment wise/ customer wise. To measure the overall performance of an organisation ‘Balanced Scorecard’ is prepared. Balance Scorecard assesses the overall performance of an organisation by taking both financial and non-financial factors into account.

Financial Decision Modeling (Chapter 10-16) has become an essential tool in business applications. Modeling and analysis play major roles in abstract representation of business systems and data analysis and the subsequent generation of relevant information for making more accurate decisions. It consists of mathematical techniques that are increasingly used in decision making process such as Linear Programming, Transportation, Simulation, Network Analysis, Assignment and Learning Curve. ‘Syllabus’ covers applications of quantitative techniques for solving problems in manufacturing and service organizations. Key problem areas include marketing, production, logistics, procurement, and finance etc.

Chapter-10, Linear Programming

‘Linear Programming’ is a mathematical tool for determining the optimum allocation of resources and obtaining a particular objective. Students should be able to solve complex situations involving multiple constraints by various methods.

Chapter-11, Transportation Problem

This chapter deals with a special class of ‘Linear Programming’ problem in which the objective is to ‘transport’ a single commodity from several ‘sources’ to different ‘destinations’ at a minimum total cost. Students should be versed with treatment of unbalanced problem. Students should also learn different methods for finding initial basic feasible solution.

Chapter-12, Assignment Problem

This chapter deals with assigning sources so that the total cost for performing all jobs is minimum. Students should be able to crack scenario of multiple solutions, unbalanced problem and prohibited assignments.

Chapter-13, Critical Path Analysis; Chapter-14, Program Evaluation and Review Technique

Both ‘Critical Path Analysis’ and ‘Program Evaluation and Review Technique’ are ‘Management Accounting’ techniques for planning and control of large complex projects. Both are techniques to network analysis wherein a network is prepared to analyze interrelationships between different activities of a project. Students should be familiar with concept of Resource Leveling, Smoothing and Crashing related to the networking analysis.
Chapter-15, Simulation

It is important for the students to understand the application of ‘Simulation’ techniques in managerial accounting practice for financial forecasting, analyzing capital investment, inventory analysis, production planning, and strategic enterprise management.

Chapter-16, Learning Curve Theory

The principle underlying learning curves is generally well understood - ‘if we perform tasks of a repetitive nature, the time we take to complete subsequent tasks reduces until it can reduce no more’. This is relevant to ‘Management Accounting’ in the two key areas of ‘Cost Estimation’ and ‘Standard Costing’. Students should try to link this chapter with the concept of the ‘Management Accounting’ and try to understand application of the same in predicting product/service costs.
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