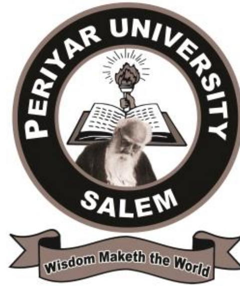

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BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

SECOND YEAR

PAPER – IV : FINANCIAL AND MANAGEMENT ACCOUNTING

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BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

SECOND YEAR

PAPER – IV : FINANCIAL AND MANAGEMENT ACCOUNTING

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)
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PAPER – IV : FINANCIAL AND MANAGEMENT ACCOUNTING

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1.0 Introduction

In the olden days, buying and selling of goods were on barter system and the accounting system was not in practice. The accounting system came into existence after the invention of money, a common instrument for exchange of goods. As the result of Industrial Revolution in the 19th century, Commercial activities were flourished and it paved way to mass production and credit terms. Thus it became necessary to record the business transactions. In the earlier stages the method of keeping accounts was under Book-keeping and the modern method of Accounting was introduced by Luco Pacioli of Itali, a Franciscan Monk, in the year 1494 AD.

1.1.1 Need and Importance of Accounting

The aim of trade is earning profit. A business man invests money into a business in the form of capital. He spends money for the purchase of goods and he pays for rent, salaries, wages, stationery etc. He also receives money on sale of goods, commission, interest on deposit etc. He acquires various assets like building, machinery, furniture to produce goods and generates revenue during the course of the business. It is difficult for a business man to keep in memory all his business transactions. Moreover he will be interested in knowing the progress of his business operations and the trading results at the end of every year. So, it becomes necessary to record all the business transactions in a clear and systematic manner. Proper method of recording the business transactions helps the proprietor to find out:

i) Various kinds of expenses and earnings during the period.

ii) Amount due from customers and due to suppliers.

iii) The result of the business such as profit earned or loss suffered.

iv) The value of assets and liabilities in the business

v) Other information to provide the outsiders like Income tax and Sales tax authorities, to submit in court to prove their claims etc.

Thus accounting is the language of business. It is the application of theory and principles of accounting to find out the trading results and financial position of a business concern.

1.1.2 Meaning of Book-keeping

Book-keeping is the art of keeping accounts in a regular and systematic manner. Book-keeping is responsible for recording the business transactions in the journal, posting the journals in the ledger, balancing all the ledgers and the preparation of Trial balance.

1.1.3 Definition of Book-keeping

Accounting to R.N.Carter, "Book-keeping is the science and art of correctly recording in the books of account all those business transactions that result in the transfer of money or money's worth."

1.2.2 Objectives of Book-keeping

The objectives of book-keeping are:

i) to have permanent record of all the business transactions.

ii) to keep all the records of income and expenses in order to find out the results of the business concern such as profit or loss.

iii) to keep control over the business by minimizing the cost and maximizing the profit.

iv) to keep records of assets and liabilities which will help to find out the financial position of the business.

v) To know the amount due from customers and the amount due to suppliers.

vi) To provide necessary information for legal and tax purposes.

1.3.1 Meaning of Accounting

Accounting is concerned with collection and procession financial information of a business and interpreting the results to the users to enable them to make appropriate decisions. Accounting begins where book-keeping ends.

1.3.2 Definition of Accounting

American Accounting Association (AAA) defines accounting as "the process of identifying, measuring and communication economic information to permit informed judgements and decision by users of the information"

According to the **American Institute of Certified Public Accountants (AICPA),** "Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events which are, in part at least, of a financial character and interpreting the results thereof."

1.3.4 Process of Accounting

i) Identifying : Under this process the business transactions are identified for the source documents.

ii) Recording : Recording of all business transactions is the first step in the process of accounting. The business transactions are identified and recorded in the journal or in the subsidiary books.

iii) Classifying : In this process the similar type of recorded transactions are grouped at one place in the ledger. Separate ledger accounts are opened for each income, expenses, property etc.

iv) Summarising : The process of summarising involves the preparation of Trial Balance, Profit and Loss Account and the Balance Sheet.

v) Analysing : This helps to find out the financial position of the business concern. The process of analysis facilitates to establish the relationship between the figures in the profit and loss account and the Balance Sheet.

vi) Interpreting the results : Interpretation is usually made in the form of Ratios and flow statements. They are useful to evaluate the past performance and they will provide guidance for future plans and operations.

vii) Communicating : The results obtained from the summarized, analysed and interpreted information are communicated to the interested parties.

1.3.4 Objectives of Accounting

The following are the important objectives of accounting.

i) Maintaining the accounting records of a business. A business concern involves various kinds of transactions like purchase, sales, receipts, payments etc. Accounting helps business concerns proper maintenance of records for all financial transactions.

ii) Ascertaining of profit or loss. A business concern would be interested to know the trading results at the end of each year. Even non-profit organisations like hospital, educational institutions would be interested to know whether the current incomes are enough to meet its current expenditure or not. Financial accounting enables to find out net result of the organisation and thus profit or loss for a particular period can be ascertained.

iii) Ascertaining the financial position. The financial position of a firm can be ascertained by maintaining proper accounting records. This shows the value of assets possessed by a firm and the amount owing to others.

iv) Communicating the information to various groups or users.

The results obtained from the accounting records are communicated to the proprietor and the accounting information is also made available to creditors, shareholders, customers, tax authorities etc.

1.3.5 Distinction between Book-keeping and Accounting

Basis of distinction	Book-keeping	Accounting
1. Objective	To maintain systematic records of business transactions.	To ascertain the net results of the business operations.
2. Scope	Recording and maintenance of books of accounts.	Not only recording and maintenance of books of account but also analysis, interpreting and communicating the information.
3. Stage	Book-keeping is the primary stage. It prepares the ground work of accounting.	Accounting is the secondary stage.
4. Nature	The work of book-keeper is clerical and routine in nature	The work of the accountant is analytical and executive in nature.
5.Responsibililty	A book-keeper is responsible for recording business transactions.	An accountant is responsible for preparing accounts.
6.Supervision	The book-keeper does not supervise and check the work of an Accountant.	An accountant supervises and checks the works of the book-keeper.

1.4.6 GROUPS INTERESTED IN ACCOUNTING INFORMATION.

The primary objective of accounting is providing information to various groups of persons interested inside and outside the organisation. They are:

I - INTERNAL USERS : The internal users comprises of owners, management, employees and trade unions.

1. Owners. The proprietor of a business will be eager to know whether the capital invested in to the business has earned a profit or loss during a particular period. They also want to know the financial position of the business concern.

2. Management. The management of an organisation needs accounting information for planning, controlling and decision making.

3. Employees. Employees are interested in the profitability of the organisation which is the basis for their salary, bonus, incentives, pension scheme.

4. Trade Unions. Trade unions use the accounting data in their bargaining strategies with the management.

II - EXTERNAL USERS : External users are those groups and individuals who are outside the organisation. They are:

1. Creditors: Suppliers of goods and services on credit, Bankers, public deposit holders, debenture holders etc., will be interested in knowing the liquidity position and repaying capacity of the concern.

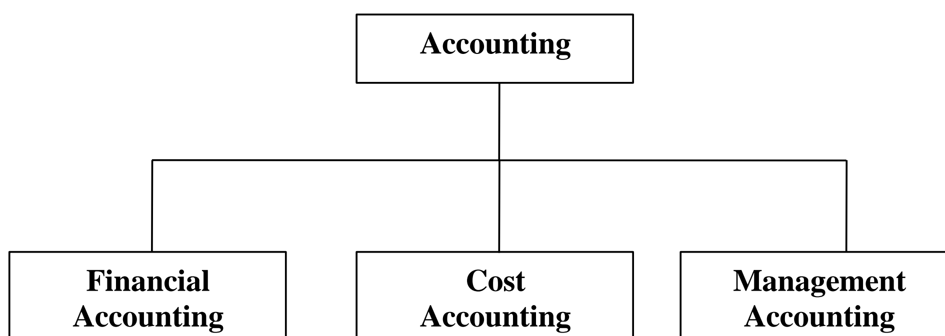
2. Investors : Those who are interested in investing in the shares of a company will tend to know the financial position and solvency to ensure the safety of their investment. They will decide whether to invest or not in the business in knowing the future earnings and risk.

3. Government and Tax Authorities : Financial statements are used by the government in compiling national accounts which helps in formulation of polities for the development of trade and industry. Accounting information also helps the tax authorities to compute the income.

4. Research scholars. The published financial statements are useful to the researchers to evaluate the performance of an organisation and to complete their research projects.

1.5 BRANCHES OF ACCOUNTING

The following are the main branches of accounting.



1. Financial Accounting : It is concerned with recording of business transactions in the books of accounts to find out the profit or loss of a business concern during a particular period. The financial position on a particular date can also be ascertained.

2. Cost Accounting. Cost accounting is the process of classifying, recording, allocating, summarising and reporting the various costs incurred in the operation of an enterprise. It is the ascertainment of expenditure incurred on a particular process, product or service.

3. Management Accounting. It provided necessary accounting information to the management to discharge its various functions like planning, organizing, controlling, decision-making and evaluation of performance.

Other branches of accounting:

4. Social Responsibility Accounting
5. Government Accounting
6. Integral Accounting
7. Inflation Accounting
8. Mechanized & Computerized Accounting
9. Human Resource Accounting
10. Environmental Accounting

1.5.1 ADVANTAGES OF ACCOUNTING

1. Maintenance of business records. All the business transactions are systematically recorded. This replaces memory and provides a permanent record.

2. Ascertainment of profit and loss. Maintaining systematic record enables to prepare financial statements which helps to find out the net trading results.

3. Ascertainment of financial position. Accounting helps to ascertain the financial position of a business concern. It helps the management to plan the future policies and programs.

4. Assessment of progress. Accounting enables to compare the profit of one year with those of other years and find out the growth of the business.

5. Good evidence in court. Accounting records are treated as authentic evidence for and against the firm in court of law for the settlement of disputes.

6. Provide information to interested groups. Accounting provides necessary information to various interested groups such as owners, creditors, investors, suppliers, tax authorities etc.

7. Fixing the selling price. Accounting information such as cost of purchase, cost of production, other expenses are essential for determining the selling price.

8. Taxation Problems. Accounting enables the businessman in settling the income tax and sales tax liabilities.

9. Valuation of business. When two or more concerns decide to merge, accounting records helps to determine the purchase or sale price easily.

1.5.2 LIMITATIONS OF ACCOUNTING

1. Records only monetary transactions. Accounting records only the transactions which can expressed in terms of money. Non-monetary

transactions, such as management reputation, employee morale etc., are not entered.

2. Price level changes are not considered. Accounting transactions are recorded at cost in the books. The effect of price level changes are not brought into the accounting books.

3. Personal bias of the Accountant. Accounting statements are influenced by the personal judgement of the accountant selecting the method of depreciation, method of valuation of stock by the accountant will affect the financial statements.

4. Historical in nature. Accounting provides information on historical nature. The financial statements only gives a post-mortem analysis of business transactions.

1.6 BASIS OF ACCOUNTING :

Usually, there are three basis of Accounting are in practice. They are:

1. Cash Basis of Accounting
2. Accrual or Mercantile basis of Accounting
3. Hybrid or Mixed basis of Accounting

1.Cash Basis of Accounting

In this system of accounting entries are made only when cash is received or paid. It records the actual cash receipts and actual cash payments only. This basis does not record outstanding transactions like outstanding expenses, prepaid expenses, outstanding income and income received in advance. Professional like doctors, Lawyers prefer this system. Non-trading concerns and Government Accounts are also on cash basis only. As the cash basis of Accounting does not make a complete record of financial transactions, it is difficult to disclose exact profit or loss for a particular period and it will not reveal the true financial position of the business on a particular day.

2. Accrual or Mercantile basis of Accounting

Under this system Accounting entries are made on the basis of amounts having become due for payment or receipt. In this accrual basis of accounting, the income whether received or nor but has been earned during the accounting period is taken into account. In the same manner, the expenses whether paid or not but the firm has taken the benefit during the accounting period, such amount of expenses should be taken into account.

All outstanding expenses and prepaid expenses, accrual incomes and income received in advance are taken into account for the current period.This system is more scientific and is followed by merchants and business concerns.

3. Hybrid or Mixed basis of Accounting

Under this basis, both cash and accrual basis are followed. Adopting the conservative principle, incomes are shown on cash basis and entered only after the actual receipt but the expenses are shown on accrual basis. This system is practices by professionals like Doctors, Lawyers etc

SELF - EVALUATION QUESTIONS – I

1. Modern method of Accounting was introduced by ________________.
2. The aim of trade is earning ____________________.
3. Under Cash System of Accounting only _________________ transactions are recorded.
4. Accounting begins where ______________________ ends.
5. Management accounting provides necessary _________________ information to the management.

B) Give Short Answer:

1. What is book-keeping?

……………………………………………………………………………………

2. What do you mean by Accounting?

……………………………………………………………………………………

3. What is cost accounting?

……………………………………………………………………………………

4. What is accounting process?

……………………………………………………………………………………

5. Give the meaning of Mercantile system of accounting.

……………………………………………………………………………………

1.7 METHODS OF ACCOUNTING

There are two methods of Accounting. They are

1. Single Entry System
2. Double Entry System

1.7.1 Single Entry System. It is an incomplete system of recording business transaction. Under this system, only cash book and personal accounts of debtors and creditors are maintained. Impersonal accounts such as sales account, purchases account and assets accounts are ignored. As the two fold effect of every transaction is ignored, we cannot prepare trial balance. This system is incomplete and the final results are inaccurate. This system is followed by small traders whose transactions are limited.

1.7.2 Double Entry System. Every transaction is having a two fold effect. Under this double entry system both the receiving aspect and the giving aspect of a transaction are re corded. The receiving or incoming aspect is known as debit and the giving or outgoing aspect is known as credit. For every debit, there must be a corresponding credit of equal amount and for every credit, there must be a corresponding debit of equal amount.

According to J.R.Batliboi, " Every business transaction has a two fold effect and that it affects two accounts in opposite directions and if a complete record were to be made of each such transaction, it would be necessary to debit one account and credit another account. It is the recording of the two fold effect of every transaction that has given rise to the term Double Entry System."

1.7.3 ADVANTAGES OF DOUBLE ENTRY SYSTEM

1. Complete record of transactions. This system records both the aspects of transactions, personal or impersonal.

2. Ascertainment of profit or loss. Profit and loss account can be easily prepared and the results are ascertained accurately.

3. A check on accuracy of accounts. Arithmetical accuracy can be verified by preparing the Trial balance of Ledger accounts.

4. Ascertainment of financial position. The financial position of the business can be known by preparing the Balance Sheet.

5. No scope for fraud. It provides full particulars of assets and liabilities. So, business concerns are saved from frauds and misappropriations.

6. Information to tax authorities. It provides information to authorities like sales tax, income tax etc.

7. Comparative Study. Results of one year may be compared with those of the previous years and reasons for changes may be ascertained.

8. Helps management in decision making. Double entry system provides necessary information to the management for making decisions.

9. Amount due from customers and due to suppliers. It helps to find out the amount due from customers and due to suppliers easily.

10. Scientific system. Based on accounting principles, business transactions are recorded.

1.9 BASIC ACCOUNTING TERMS.

1. Transaction : The transfer of money or goods or services from one person to another or from one account to another is called a transaction.

For example, purchase of goods, sale of goods, depositing money into bank, withdrawal of money from bank, buying stationery, postage, paying rent,

interest etc. there are two types of transactions; they are cash transactions and credit transactions.

Cash transaction : When a transaction involves cash receipt or payment, it is a cash transaction. For example, bought goods for cash Rs.5,000.

Credit transaction : In such transactions the cash payment will not be made immediately but on a later date. For example, sold goods to David on credit Rs.7,000.

2. Capital. Capital is the amount invested by the proprietor in the business. Capital represents owners' claim against the assets in the business. Capital may be classified into fixed capital and working capital.

3. Assets. Anything possessed by a concern that has a money value is an asset. Cash in hand, cash at bank, stock, debtors, furniture, plant and machinery, land and building, goodwill etc., are the examples of assets. There are various types of assets as follows.

Fixed Assets : These are acquired to be used in the business and not for resale purpose, for example, plant and machinery, land and building etc.

Current Assets : Current assets are those assets which are easily convertible into cash with in a period of one year. (e.g.) cash at bank, stock , debtors, etc.

Liquid Assets: Assets those already in the form of cash or readily convertible into cash are liquid assets. Current assets include liquid assets also. (e.g.) cash in hand, cash at bank and easily marketable securities.

Wasting Assets : Certain fixed assets will lose their value after their use. Mines will be useless after the mineral are extracted. Such assets are known as wasting assets.

Tangible assets : Assets which have physical existence are known as tangible assets. They can be seen and touched. (e.g.) stock, furniture and fittings etc.

Intangible assets : Assets which do not have physical existence are termed as intangible assets. They cannot be seen and touched. But their possession gives rise to some rights and benefits to the owner. (e.g.) Goodwill, Trade mark, Patent rights etc.

Fictitious Assets : These are valueless assets. Usually the unadjusted losses like preliminary expenses are termed as fictitious assets and they are shown on the assets side of the balance sheet.

4. Liabilities. Amount repayable to outsiders are termed as liabilities. For example, outstanding expenses, bill payable, creditors for goods supplied, bank overdraft etc.

Current liabilities : Current liabilities are those liabilities which are payable within one year in the normal course of the business.

Long term liabilities : Liabilities which are repayable over a period of more than one year are known as long term liabilities.

5. Drawings : Any amount or goods withdrawn from the business by the proprietor for his personal use is called drawings. It reduces capital. It is deducted from the capital.

6. Purchases : Purchases refers to the amount of goods bought by a business for resale or for use in the production. Purchases may of two types, cash purchases and credit purchases.

7. Sales : Sales refers to the amount of goods sold that are already bought or manufactured by the business. Sales may be classified into cash sales and credit sales.

8. Purchase Returns or Returns Outward : The buyer may return the goods to the seller due to defect in the quality or not as per the terms of purchase. This termed as purchase returns. This is deducted from the purchases to arrive the net purchases.

9. Sales Returns or Returns Inward : When the goods are retuned from the customer due to defective in the goods, or not as per the terms of sale, it is known as sales returns. Net sales is arrived at by deducting the sales returns.

10. Debtors : A person who receives a benefit without giving money or money's worth immediately, but liable to pay in future or in due course of time is a debtor. Debtor is one of the assets of the business.

11. Creditors : Creditor is a person who gives a benefit without receiving money or money's worth immediately but to claim in the future. He supplies goods without getting money immediately or rends money to others. Creditor is a liability to the business.

12. Stock-in-trade : Stock refers to the goods lying unsold in the business on a particular date. Stock may be opening and closing stock. Stock at the end of the year is known as closing stock and in the beginning of the year is opening stock.

13. Revenue : It is the amount receivable or realized from sales and other earnings like interest, commission, brokerage, commission, delivered etc.

14. Expense : It is the amount spent by the proprietor to produce and sell the goods and services. Expenses may be capital / Revenue expenses. Capital expenses includes purchase of fixed assets, Revenue expenses includes payment of rent, salaries, wages, interest etc.

15. Voucher : It is the written record and evidence of a transaction. Vouchers are necessary to audit the accounts. For example cash receipts, invoices etc.

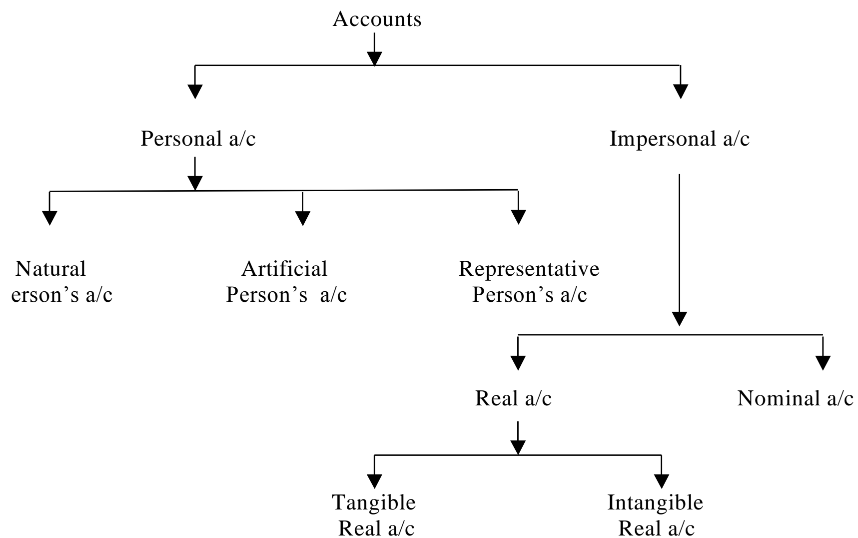
16. Invoice : It is prepared by the seller when the goods are sold. This document contains the name of the seller and buyer, quantity, price value of the goods and any discount given and the net amount payable by the buyer.

17. Goods : The commodities which are bought for the purpose of reusable are terms as goods. Purchase of furniture to be used in the business premises is known as purchase of asset whenever purchase of furniture by a furniture vendor is treated as purchase of goods.

1.9.1 ACCOUNT

Account is a summary of relevant business transactions at one place relating to a person, asset, expense or revenue named in the heading. An account is a brief history of financial transactions of a particular person or item. An account, has two sides, the benefits received being on the debit side and the benefits giving being on the credit side.

1.9.2 CLASSIFICATION OF ACCOUNTS



1.9.3 Personal Account : The accounts which relate to persons are known are personal account.

(i) Natural Person's A/c : Accounts which relate to individual persons.

For example, Adam's account, Vijay's account etc.

(ii) Artificial Person's A/c : Accounts which relate to artificial persons like firms, institutions, Association of persons etc.

For example, Bharat Ltd. a/c, Indian Bank a/c, Ramani & Co a/c etc.

(iii) Representative Persons A/c : Accounts which represent a particular person.

For example, Outstanding Salary a/c, prepaid insurance a/c etc..

Note : The proprietor being an individual, his capital a/c and Drawings a/c are also personal accounts.

Impersonal Accounts:

All those accounts which do not belong to persons are known as impersonal accounts. This is further divided into real and nominal accounts.

1.9.4 Real Account : All the assets are brought together under real a/c. This can be classified into two categories as follows.

(i) Tangible Real Account : This accounts belongs to assets those can be seen, touch and measurable. For example, Cash a/c, Machinery a/c, Furniture a/c etc.

(ii) Intangible Real Account : Accounts which relate to assets those can not be seen and touched physically but can be measured in value are known as intangible real accounts. For example, Goodwill a/c, Patent a/c, Trade marks a/c, Copy Rights Account a/c.

1.9.5 Nominal Account:

These accounts do not have any existence, form or shape. They relate to income and expenses, gains and losses of a business concern. E.g., Salary a/c, Wages a/c, Interest a/c, Rent a/c etc.

1.9.6 GOLDEN RULES OF ACCOUNTING

1. Personal Account. The accounts of a person or firm is known as personal account. The person involved in the transaction will be either Receiver or Giver. The Receiver is given a debit and the Giver is given a credit.

2. Real Account. The accounts of assets in the business are known as Real account. Assets brought into the business are given debit and assets leaving the business are given credit.

3. Nominal Account. Accounts of expenses or losses and incomes or gains which do not have the material existence are know as nominal account. Expenses and losses are debited and Incomes and gains are credited.

Personal Account	Debit the Receiver; Credit the Giver.
Real Account	Debit what comes in; Credit what goes out.
Nominal Account	Debit all expenses and losses; Credit all incomes and gains.

SELF - EVALUATION QUESTIONS - II

A) Fill in the blanks :

1. _______________ is the amount invested by the proprietor in the business.

2. The accounts of a person or firm is known as ______________________ .

3. Purchases may of two types, _______________ and ________________ .

4. Any amount or goods withdrawn from the business by the proprietor for his personal use is called ___________________ .

5. Capital may be classified into _________________ and __________________.

B) Choose the correct answer:

1. Assets minus Liabilities is known as

a) drawings b) capital c) profit

Answer : ________________________ .

2. A written document in support of a transaction is called

a) debit note b) credit note c) voucher

Answer : ________________________ .

3. Owner of the business is called

a) Creditor b) Proprietor c) Debtor

Answer : ________________________ .

4. Machinery account belongs to

a) personal a/c b) real a/c c) nominal a/c

Answer : ________________________ .

C) Give Short Answer:

1. What are the important branches of accounting?

……………………………………………………………………………………

2. Give the Golden Rules of Accounting?

……………………………………………………………………………………

3. What is single entry system?

……………………………………………………………………………………

1.10 SUMMARY

Accounting is the language of business. Modern method of Accounting was introduced by Luco Pacioli of Itali in the year 1494 AD. In the olden days accounting was kept under the system of book-keeping. Book-keeping is the recording of transactions that result in the transfer of money or money's worth.

Accounting is concerned with collecting and processing financial information of a business and interpreting the results to the users to enable them to make appropriate decisions. Financial accounting, Cost accounting and Management accounting are the three main branches of accounting. The two basis of accounting are Cash system and Mercantile system. Cash system of accounting records only the cash transactions. Under the mercantile system of accounting the transactions are recorded on accrual basis.

Account is a summary of relevant business transactions at one place relating to a person, asset, expense or revenue named in the heading. Accounts are classified into Personal account, Real account and Nominal account.

The basic principles or rules of accounting are :

Personal account : Debit the receiver; Credit the giver.

Real account : Debit what comes in; Credit what goes out.

Nominal account : Debit all expense and losses; Credit all incomes and gains.

Single entry system and Double entry system are the two methods of accounting. Single entry system is the incomplete records obtained from the small traders. Under this double entry system both the receiving aspect and the giving aspect of a transaction are recorded.

1.11 Theoretical Questions:

A) Short answer type:

1. Define Book-keeping.
2. Define Accounting.
3. What are the objectives of book-keeping?
4. Explain the process of accounting.
5. What are the objectives of accounting?
6. What do you mean by cost accounting?
7. Write short notes on a) Debtors b) Creditors c) Purchase of goods
8. Briefly explain: a) Account b) Voucher c) Invoice
9. Give the meaning of current assets and current liabilities.
10. State the golden rules of double entry system.

B) Essay type :

1. What are the advantages and limitations of accounting?
2. Distinguish between book-keeping and accounting.
3. Explain the various groups interested in accounting.
4. Explain the branches of accounting?
5. Explain the basis of accounting.
6. Explain Single entry system and double entry system.

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Answers for Self-Evaluation Questions.

SELF - EVALUATION QUESTIONS - I

A) 1. Luco Pacioli 2. profit 3. cash 4. book-keeping 5. accounting

B) 1. Book-keeping is the art of keeping accounts in a regular and systematic manner. Book-keeping is responsible for recording the business transactions in the journal, posting the journals in the ledger, balancing all the ledgers and the preparation of Trial balance.

2. Accounting is concerned with collection and procession financial information of a business and interpreting the results to the users to enable them to make appropriate decisions.

3. Cost accounting is the process of classifying, recording, allocating, summarising and reporting the various costs incurred in the operation of an enterprise. It is the ascertainment of expenditure incurred on a particular process, product or service.

4. Accounting process refers to identifying the business transactions of financial nature from the source document, recording the transactions, classifying, analysing and summarizing in a significant manner, interpreting the results thereof and communication to the interested parties.

5. Under the Mercantile or Accrual system Accounting entries are made on the basis of amounts having become due for payment or receipt. The income whether received or nor but has been earned during the accounting period is taken into account. In the same manner, the expenses whether paid or not but the firm has taken the benefit during the accounting period, such amount of expenses should be taken into account. All outstanding expenses and prepaid expenses, accrual incomes and income received in advance are taken into account for the current period.

SELF - EVALUATION QUESTIONS - II

A) 1. Capital 2. Personal account 3. Cash purchases and Credit purchases 4. Drawings 5. Fixed capital and Working capital.

B) 1. Capital 2. Voucher 3. Proprietor 4. real account

C) 1. a) Financial accounting b) Cost accounting and c) Management accounting.

2. Personal account : Debit the receiver; Credit the giver.

Real account : Debit what comes in; Credit what goes out.

Nominal account : Debit all expense and losses; Credit all incomes and gains.

3. Single entry system is the incomplete records obtained from the small traders. Under this system, only cash book and personal accounts of debtors and creditors are maintained. Impersonal accounts such as sales account, purchases account and assets accounts are ignored. As the two fold effect of every transaction is ignored, we cannot prepare trial balance. This system is incomplete and the final results are inaccurate.

NOTES

Chapter – II
ACCOUNTING PRINCIPLES

2.0 Introduction
2.1 Accounting principles
2.2.0 Accounting Concepts
2.2.1 Business entity concept
2.2.3 Money Measurement Concept
2.2.4 Going Concern Concept
2.2.5 Cost Concept
2.2.6 Dual Aspect Concept or Equality Concept
2.2.7 Accounting Period Concept
2.2.8 Revenue Realisation Concept
2.2.9 Matching Concept
2.2.10 Objective Evidence Concept
2.2.11 Accrual Concept
2.3.0 Accounting conventions
2.3.1 Convention of Full Disclosure
2.3.2 Convention of Consistency
2.3.3 Convention of Conservatism
2.3.4 Convention of Materiality

SELF - EVALUATION QUESTIONS

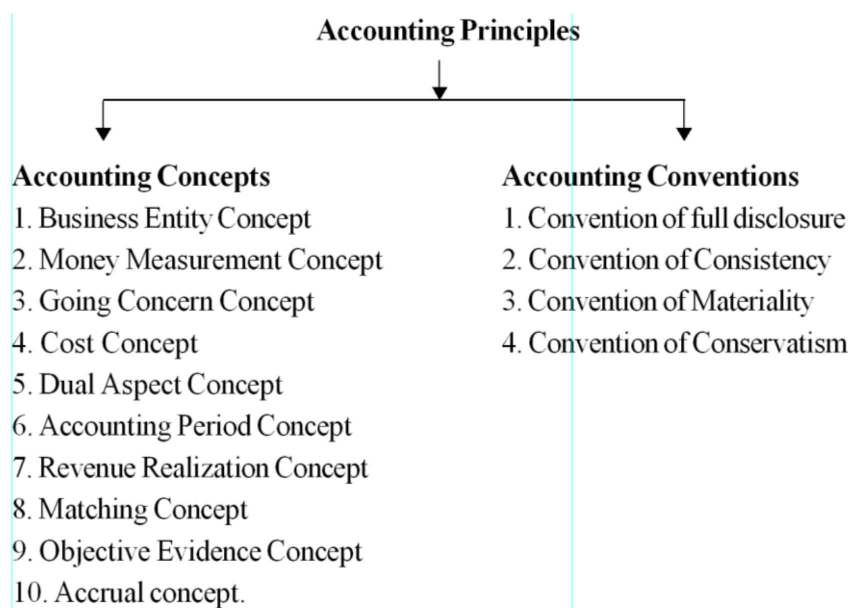
2.4 Summary
2.5 Theoretical Questions
2.6 Books for Reference

Answers for self-evaluation questions

2.0 Introduction :

Accounting is the language of business. It records the business transactions and communicates the result of the business. To make the language understandable to all the groups interested in accounting, it should be based on certain uniform, scientifically and universally accepted principles. AICPA termed such principle as, 'Generally Accepted Accounting Principles' (GAAP). The accounting principles are classified into two categories.

2.1.1 Accounting Principles



2.2.0 ACCOUNTING CONCEPTS:

Accounting Concepts are the assumptions or ideas or conditions upon which the science of accounting is based. These are essential to prepare the financial statements. The following are the generally accepted accounting concepts.

2.2.1 Business Entity Concept

Business is treated as a separate entity from its owners, creditors and others. The proprietor of a business concern is always considered to be separate and distinct from his business. All transactions of the business are recorded in the books of the firm. The proprietor is treated as a creditor to the extent of his capital.

2.2.3 Money Measurement Concept

Accounting records only those transactions which are expressed in terms of money. The health condition of the proprietor, the relationship between the superior and the sub-ordinate quality of products introduced are not recorded in

the books of account. Because these facts can not be measured in terms of money.

2.2.4 Going Concern Concept

A business is intended to continue for a long period and transactions are recorded from this point of view. This concept is important for the valuation of assets and liabilities. Fixed assets are recorded at its original cost and are depreciated in a proper manner.

2.2.5 Cost Concept

Under this concept, fixed assets are recorded at the price at which they are acquired. This cost is the basis for all subsequent accounting for the asset. For example a car is purchased for Rs.2,00,000 but the market value of the car is Rs.3,00,000. In this case Rs.2,00,000 is recorded in the books of account and not the market value.

2.2.6 Dual Aspect Concept or Equality Concept

This is the basis for doubt entry system. Each and Every business transaction involves a several aspect or two fold effect.

a) Benefit receiving aspect and

b) Benefit giving aspect. Both the aspects of each transaction must be recorded in approximate accounts of the business. Thus every receiver is a giver and every giver is a receiver.

For example, Mr. X purchases a machinery worth Rs.25,000. In this transaction Mr. X receives the machinery and he pays the cash. So every debit must have a corresponding credit and every credit must have a corresponding debit. As we record both the aspects, the assets of a business entity will always be equal to its equities.

i.e., Total Assets = Total liabilities

Total Assets = Outsides Liabilities + Capital

Capital = Total Assets - Outsides Liabilities.

2.2.7 Accounting Period Concept

It is assumed that business is continued for a longtime. But every businessman wants to know the result of his investment at frequent intervals. Therefore one year or 52 weeks has been accepted as the accounting period. One year accounting period has been recognized by law and the tax authorities.

2.2.8 Revenue Realisation Concept

Under this concept, revenue is considered or the income earned on the date when it is realized. Unearned or unrealized revenue should not be taken

into account. This helps the business men to prevent the business firms from inflating their profits by recording sales and incomes that are likely to accrue.

2.2.9 Matching Concept

This concept is based on the accounting period concept. The expenses incurred during the accounting period are matched with the revenues earned during the same period. All the revenue expenses and incomes associated with the accounting period have to be identified. Outstanding and prepaid expenses and incomes have to be properly adjusted. Depreciation and necessary provisions have to be made. This helps the proprietor to know his profit and loss easily.

2.2.10 Objective Evidence Concept

This implies that all accounting transactions should be evidenced and supported by business documents such as vouchers, invoices etc. The documentary evidence of transactions should be free from any bias. Accounting records based on documentary evidence are readily verifiable and they are universally acceptable.

2.2.11 Accrual Concept

This is the basis for mercantile system of accounting. Under this concept revenue is recognized when, it is realized or earned and not money is received or paid. Similarly the costs are recognized when they are incurred and not when payment is made. As a result of this, all expenses and incomes relating to the current year are taken into account whether it is paid, received or not.

2.3.0 ACCOUNTING CONVENTIONS

The term "Conventions" denotes customs or traditions or usage which guide the accountant for the preparation of accounting statements. These are also known as doctrine. Following are the important accounting conventions.

2.3.1 Convention of full disclosure

Accounting statements should be honestly prepared and it should disclose fully and completely all the significant information. Various parties interested in accounting information such as owners, investors, creditor etc. will take decisions based on the information provided in the accounting statements. So, it involves proper classification, summarization and explanation of the numerous business transactions.

2.3.2 Convention of Consistency

According to this Convention, Rules and practices and principles of accounting should be continuously observed and applied year after year. It should not be changed from one period to another. Comparisons can be possible only when consistent practices were followed. For example method of

providing depreciation on assets, method for valuing stock should not be changed year after year.

2.3.3 Convention of Conservatism

Under this principle, showing the assets better than what it is and showing the liabilities lower that what it is, are not allowed. "Anticipate no profit and provide for all possible losses" is the essence of this principle. This principle considers all possible losses but leaves all prospective profits. For example, while valuing stock in trade, market price or cost price whichever is lower is considered. This principle helps to present a true and fair value of business in the financial statement.

2.3.4 Convention of Materiality

This convention implies that all important and relevant information should be disclosed in the financial statements. Unimportant and irrelevant information are either left out or merged with other items.

SELF - EVALUATION QUESTIONS:

A) Choose the best options:

1. The system of recording transactions based on dual aspect concept is called

(i) Single entry system (ii) Double entry system (iii) Double account system.

Answer : ____ .

2. The policy of 'anticipate no profit and provide for all possible losses', arises due to

(i) Conservatism concept (ii) Consistency concept (iii) Materiality concept.

Answer : ____ .

3. Cost incurred should be matched with the revenues of the particular period is based on

(i) Matching concept (ii) Historical cost concept (iii) Full disclosure concept

B) Give short answer:

1. What do you mean by Accounting Principles?

……………………………………………………………………………………

2. What is Accounting period concept?

……………………………………………………………………………………

3. Give the meaning of Convention of materiality.

……………………………………………………………………………………

2.4 SUMMARY

Accounting is the language of business. To make the language understandable to all the groups interested in accounting, it should be based on certain uniform, scientifically and universally accepted principles. AICPA termed such principle as, 'Generally Accepted Accounting Principles' (GAAP). It refers to a set or rules, concepts and guidelines used in recording financial transactions and in preparing financial accounting reports. The accounting principles are classified into two categories as Accounting concepts and Accounting Conventions.

Accounting Concepts are the assumptions or ideas or conditions upon which the science of accounting is based. These are essential to prepare the financial statements. The generally accepted accounting concepts are 1. Business Entity Concept 2.Money Measurement Concept 3.Going Concern Concept 4.Cost Concept 5.Dual Aspect Concept or Equality Concept 6.Accounting Period Concept 7.Revenue Realisation Concept 8.Matching Concept 9.Objective Evidence Concept and 10.Accrual Concept

The term "Conventions" denotes customs or traditions or usage which guide the accountant for the preparation of accounting statements. These are also known as doctrines. The important accounting conventions are 1.Convention of full disclosure 2.Convention of Consistency 3.Convention of Conservatism and 4.Convention of Materiality.

2.5 THEORETICAL QUESTIONS :

A) Give short Answer :

1. What is Generally Accepted Accounting Principles?
2. What do you mean by going concern concept?
3. Explain: Convention of consistency.
4. List out the various accounting concepts.
5. List out the various accounting conventions.

B) Essay Type :

1. What are the various accounting concepts? Explain them in detail.
2. Briefly explain the various accounting principles.
3. Explain in detail the modifying principles of accounting.

2.6 BOOKS FOR REFERENCE :

1. T.S.Reddy & A.Murthy, Financial Accounting, Margham publications, Chennai-17.
2. R.S.N. Pillai, Bagavathi & S.Uma, Fundamentals of Advanced Accounting, S.Chand & Company Ltd., RamNagar, New Delhi - 110 055.
3. R.L.Gupta & V.K.Gupta, Financial Accounting, Sultan Chand and Sons, New Delhi-2.
4. Dr.S.Ganeson & S.R.Kalavathi, Financial and cost accounting, Thirumalai Publication, Nagercoil -1.
5. M.C.Shukla, T.S.Grewal, S.C.Gupta, Advanced Accounts - Volume I, S.Chand & Company Ltd., RamNagar, New Delhi - 110 055.
6. S.P.Jain & K.L.Narang, Financial Accounting, Kalyani Publishers, Chennai.

ANSWERS FOR SELF-EVALUATION QUESTIONS.

A) Choose the best options:

1. (ii) Double entry system.

2. (i) Conservatism concept.

3. (i) Matching concept

B) Give short answer:

1. Accounting Principles refers to a set or rules, concepts and guidelines used in recording financial transactions and in preparing financial accounting reports. AICPA termed such principle as, 'Generally Accepted Accounting Principles' **(GAAP).** It helps to make the accounting language easily understandable to all the groups interested in accounting.

2. It is assumed that business is continued for a longtime. But every businessman wants to know the result of his investment at frequent intervals. Therefore one year or 52 weeks has been accepted as the accounting period. One year accounting period has been recognized by law and the tax authorities. This is known as Accounting period concept.

3. Convention of materiality implies that all important and relevant information should be disclosed in the financial statements. Unimportant and irrelevant information are either left out or merged with other items.

NOTES

Chapter – III

JOURNAL, LEDGER AND TRIAL BALANCE

3.0 Introduction
3.1 Meaning of Journal
3.2 The Columns in the Journal
3.3 Steps in Journalising
3.4 Analysis of Transactions
3.5 Compound Journal
3.6 Bad Debts
3.6.1 Opening Entry
3.7 Ledger
3.7.3 Format of a Ledger
3.7.4 Posting of Journal (into ledger)
3.7.5 Procedure of Posting.
3.7.6 Balancing of Ledger Accounts
3.8 Difference between Journal and Ledger.
3.9.0 Trial Balance
3.9.1 Meaning of Trial Balance
3.9.2 Definition of Trial Balance
3.9.3 Objectives of preparing Trial Balance
3.9.4 Methods of preparing Trial Balance
3.9.5 Ruling of a Trial Balance
3.9.6 Sundry Debtors and Sundry Creditors

Self - Evaluation Questions - I
3.10 Summary
3.11 Illustrative Problems
3.12 Theoretical Questions
3.13 Exercise Problems
3.14 Books for Reference

Answers for Self-Evaluation questions.

3.0 Introduction : Accounting process starts with identifying the transactions which involve money. These transactions are identified by sorting out various source documents like cash memo, invoice, bill, debit note, credit note, pay-in-slip, cheque, vouchers etc.

The transactions identified from the source documents are recorded in the books of original entry in chronological order following the rules of debit and credit.

3.1 Meaning of Journal: Journal is a date-wise record of transactions showing the names of accounts to be debited and credited and the amount of each transaction. The form of journal is given below.

Journal

Date		Particulars	LF	Debit Amount		Credit Amount	
				Rs.	P.	Rs.	P.
Year Month	Date	Name of the account to be debited Dr.		xxxx	xx		
		To Name of the account to be credited				xxxx	xx
		(Narration)					

3.2 The columns in the journal.

Date: The date of the transaction in entered in this column. The year is written only in the first entry on each page. The date column is further divided into two parts. The name of the month is written in the first part and the date in the second part. We need repeat year and month for each transaction till they change.

Particulars: In this column, the accounts to be debited and credited are written with a small explanation. The name of the account to be debited is written first, very near to the margin in the particular column. In the next line the name of the account to be credited is written with a prefix 'To', leaving a little space away from the margin to make is distinct from debit account.

Narration: A small explanation written in the particular column after each entry providing details about the transaction with in brackets is called narration.

Ledger Folio: When the entries are posted into the ledger accounts, the page number or Folio number of the ledger where the entry has been posted in written in the (LF) Ledger Folio column.

Debit Amount: In this column the amount of account to be debited is entered.

Credit Amount: In this column the amount of the account to be credited is entered.

3.3 Steps in Journalising.

By applying the rules of debit and credit, passing journal entries in the books of prime entry is called journalising. The following are the steps for journalising.

(i) Identify the two accounts involved in the given transaction.

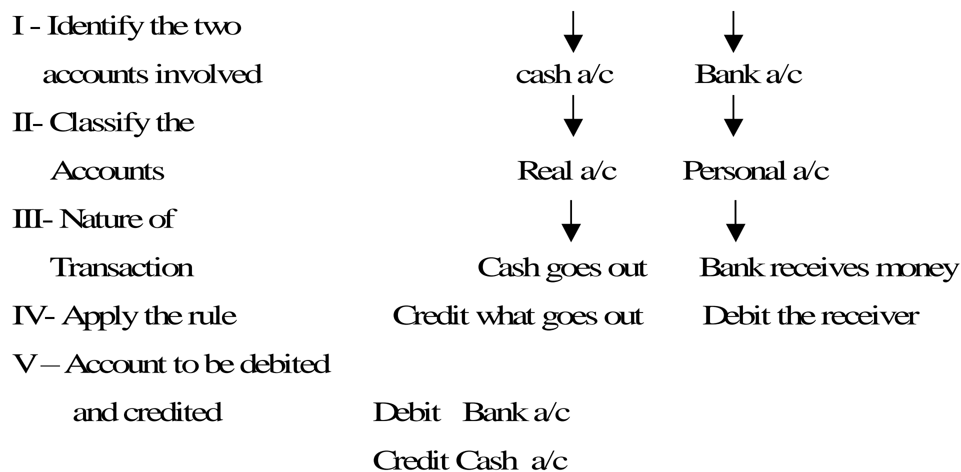
(ii) Classify the above two accounts under Personal, Real or Nominal a/c.

(iii) Apply the rules of debit and credit appropriately and find out which account is to be debited and which account is to be credited.

(iv) Pass the journal by entering the date, name of the accounts and the amount in the appropriate columns.

(v) Write the narration with in brackets in the particulars column and leave a line space to separate between two journals.

Ascertain the account to be debited and credited in the following transaction.



3.4 ANALYSIS OF TRANSACTIONS

Transaction	Accounts involved	Classification of accounts	Nature of transaction	Rules of Debit and Credit	Account to be debited & Account to be credited
1.Started business with Rs.50,000	Cash a/c Capital a/c	Real a/c Personal a/c	Cash comes into the business Proprietor gives the cash	Debit what comes in Credit the giver	Debit Cash a/c Credit Capital a/c
2. Bought furniture for cash Rs.10,000	Furniture a/c Cash a/c	Real a/c Real a/c	Furniture comes into the business Cash goes out from the business	Debit what comes in Credit what goes out	Debit Furniture a/c Credit Cash a/c
3. Deposited cash into bank Rs.25,000	Bank a/c Cash a/c	Personal a/c Real a/c	Bank receives the money Cash goes out from the business	Debit the receiver Credit what goes out	Debit Bank a/c Credit Cash a/c
4. Paid salary Rs.5,000	Salary a/c Cash a/c	Nominal a/c Real a/c	Paid Salary is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Salary a/c Credit Cash a/c
5. Received rent Rs.3,000	Cash a/c Rent a/c	Real a/c Nominal a/c	Cash comes in Received Rent is an income	Debit what comes in Credit all incomes and gains	Debit Cash a/c Credit Rent a/c
6. Purchased goods for cash Rs.7,000	Goods a/c (Purchases) Real a/c	Real a/c Real a/c	Good comes in Cash goes out	Debit what comes in Credit what goes out	Debit Purchases a/c Credit Cash a/c
7. Bought goods from Wilson Rs.5,000	Goods a/c (Purchases) Wilson a/c	Real a/c Personal a/c	Good comes in Wilson gives	Debit what comes in	Debit Purchases a/c Credit

8.Returned goods to Wilson Rs.750	Wilson a/c Purchase Returns a/c	Personal a/c Real a/c	Wilson receives the goods Good goes out	Debit the receiver Credit what goes out	Debit Wilson a/c Credit Purchase Returns a/c (or) Return outwards a/c
9.Paid cash to Wilson Rs.4,000	Wilson a/c Cash a/c	Personal a/c Real a/c	Wilson receives cash Cash goes out	Debit the receiver Credit what goes out	Debit Wilson a/c Credit Cash a/c
10. Bought Machinery for Rs.12,000	Machinery a/c Cash a/c	Real a/c Real a/c	Machinery comes in Cash goes out	Debit what comes in Credit what goes out	Debit Machinery a/c Credit Cash a/c
11. Sold goods for cash Rs.20,000	Cash a/c Good a/c (Sales a/c)	Real a/c Real a/c	Cash comes in Goods goes out	Debit what comes in Credit what goes out	Debit Cash a/c Credit Sales a/c
12. Sold goods to Nelson Rs.25,000	Nelson a/c Good a/c (Sales a/c)	Personal a/c Real a/c	Nelson receives goods Goods goes out	Debit the receiver Credit what goes out	Debit Nelson a/c Credit Sales a/c
13. Returned goods from Nelson Rs.5,000	Goods a/c (Sales returns a/c) Nelson a/c	Real a/c Personal a/c	Goods comes in Nelson gives goods	Debit what comes in Credit the giver	Debit Sales Returns a/c or Return inwards a/c Credit Nelson a/c
14. Received cheque from Nelson Rs.19,500	Bank a/c Nelson a/c	Personal a/c Personal a/c	Bank receives money Nelson gives money	Debit the receiver Credit the giver	Debit Bank a/c Credit Nelson a./c
15. Bought stamp, cover etc. Rs.500	Postage a/c Cash a/c	Nominal a/c Real a/c	Postage is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Postage a/c Credit Cash a/c
16. Paid for Stationery Rs.600	Stationery a/c Cash a/c	Nominal a/c Real a/c	Stationery is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Stationery a/c Credit Cash a/c
17. Received Commission Rs.2,000	Cash a/c Commission a/c	Real a/c Nominal a/c	Cash comes in Commission received is an income	Debit what comes in Credit all income and gains	Debit Cash a/c Credit Commission a/c
18. Paid interest	Interest a/c	Nominal a/c	Interest paid is an	Debit all expenses and	Debit Interest a/c
18. Paid interest Rs.1,500	Interest a/c Cash a/c	Nominal a/c Real a/c	Interest paid is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Interest a/c Credit Cash a/c
19. Amount withdrawn from bank Rs.10,000	Cash a/c Bank a/c	Real a/c Personal a/c	Cash comes in Bank gives the money	Debit what comes in Credit the giver	Debit Cash a/c Credit Bank a/c
20. Proprietor withdrew cash for his personal use Rs.1,000	Drawings a/c Cash a/c	Personal a/c Real a/c	Proprietor receives money Cash goes out	Debit the receiver Credit what goes out	Debit Drawings a/c Credit Cash a/c
21. Sold old furniture Rs.1,500	Cash a/c Furniture a/c	Real a/c Real a/c	Cash comes in Furniture goes out	Debit what comes in Credit what goes out	Debit Cash a/c Credit Furniture a/c
22. Paid rent by cheque Rs.3,000	Rent a/c Bank a/c	Real a/c Personal a/c	Rent paid is an expense Bank gives money	Debit all expenses and losses Credit the giver	Debit Rent a/c Credit Bank a/c
23. Received dividend Rs.5,000	Cash a/c Dividend a/c	Real a/c Nominal a/c	Cash comes in Dividend receives is an income	Debit what comes in Credit all incomes and gains	Debit Cash a/c Credit Dividend a/c
24. Travelling expenses Rs.700	Travelling expenses a/c Cash a/c	Nominal a/c Real a/c	Travelling expenses is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Travelling expenses a/c Credit Cash a/c
25. Paid insurance premium by cheque Rs.2,000	Insurance premium a/c Cash a/c	Nominal a/c Real a/c	Insurance premium is an expense Cash goes out	Debit all expenses and losses Credit what goes out	Debit Insurance premium a/c Credit Cash a/c

3.5 Compound Journal

When two or more transactions of similar nature occur on a particular day, such transactions can be entered in the journal by means of a combined journal entry, known as Compound Journal Entry. While passing the compound entry care should be taken that the total debits should be equal to total credits.

3.6 Bad debts

When the goods are sold to a customer on credit, the amount due from him may be irrecoverable due to his insolvency or some other reason. The amount not recovered is a loss and should be debited to Bad Debts account and credited to Customers account.

Some times, bad debts previously written off may be recovered on a later date. In such case, cash account is debited and bad debts recovered account is credited.

3.6.1 Opening Entry

The closing balance of assets and liabilities of one year will be carried forward as the opening balance of the next year. An opening entry is passed to record the opening balances, by debiting assets account and crediting liabilities and capital accounts. If the capital is not given, it can be ascertained by deducting the liabilities from the assets.

3.7 LEDGER

Business transactions are entered in the books of journal in the date-wise order. Transactions of similar nature is recorded in different places as they occur on different dates. To get a whole picture of a particular account such as sales, purchases, cash, customers, suppliers, etc., the journal have te be processed further. So, in order to ascertain the net effect of all transactions relating a particular account are collected at one place in the ledger.

3.7.1 Definition of Ledger

"A ledger is a summary of statement of all transactions relating to an account personal, real or nominal which have taken place during a given period of time and shows their net effect".

3.7.2 Uses of a Ledger.

All the transactions pertaining to an account are collected at one place in the ledger. This helps to get clear idea of an account at a glance. The total sales, Total purchases, amount due from customer, amount due to customers, cash balance, bank balance can be ascertained at any time from the ledgers. Ledgers help to prepare the Trial Balance and the final accounts.

3.7.3 FORMAT OF A LEDGER

Dr. Name of Account Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
Year Month Date	To Name of credit account in journal		xxxx	Year Month Date	By Name of debit account in journal		xxxx

Each ledger account is divided into two parts. The left hand side is known as Debit side and denoted by 'Dr.' and the right hand side is Credit side and denoted by 'Cr.' The name of the account is written on the top centre of the ledger.

3.7.4 Posting of Journal (into ledger)

Every transaction is first entered in the books of journal or subsidiary books. Then they are posted into ledger accounts. The process of transferring the entries recorded in the journal or subsidiary books to the respective ledger accounts is known as posting.

3.7.5 Procedure of Posting.

Let us take an example to know the process of posting.

2005 August 1 Purchased goods for cash Rs.10,000.

The following is the journal for the above transaction.

Journal

Date		Particulars	LF	Debit Amount		Credit Amount	
2005				Rs.	P.	Rs.	P.
August	1	Purchases a/c Dr.		10,000			
		To Cash a/c				10,000	
		(Being cash purchases)					

In the above journal Purchases a/c is debited for Rs.10,000 and Cash a/c is credited for Rs.10,000. To post this journal into the ledger, the following are the steps.

I - To post the Account which is debited in the above journal,

i) Locate the purchases account in the ledger and enter the date on the debit side.

ii) Write the name of the account credited in the journal, in the particulars column on the debit side as "To Cash a/c"

iii) Record the page number of the journal in the J.F. column.

iv) Enter the relevant amount in the amount column on the debit side.

II - To post the account which is credited in the above journal,

i) Locate the Cash account in the ledger and enter the date on the credit side.

ii) Write the name of the account debited in the journal, in the particulars column on the credit side as "By Purchases a/c"

iii) Record the page number of the journal in the J.F. column.

iv) Enter the relevant amount in the amount column on the credit side.

By following the above procedure, the ledger accounts will appear as follows.

Dr. **Purchases Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2005 August 1	To Cash a/c		10,000				

Dr. **Cash Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
				2005 August 1	By Purchases a/c		10,000

3.7.7 Balancing of Ledger Accounts

It is the process of ascertaining the difference between the total of the debit side and credit side and writing the difference on the side where the amount is less in order to make the totals of the two sides become equal.

Steps for balancing of accounts

i) Find the total of the debit side and credit side separately and ascertain the difference between the totals of two sides.

ii) If the debit side total exceeds the credit side total, enter the difference in the amount column on the credit side and write "By Balance c/d" (c/d means carried down) in the particulars column.

i) If the credit side total exceeds the debit side total, enter the difference in the amount column on the debit side and write "To Balance c/d" in the particulars column.

ii) Now the balance of the two sides will agree. Put the total on both sides on the same line and draw a line above and a line below the totals.

iii) Brought forward the balance to the next period on the first day of the next month. The debit balance (excess of debit total over credit total) is written along with the words "To Balance b/d" (brought down) with the relevant amount.

The credit balance (excess of credit total over the debit total) is written on the credit side as "By Balance b/d" with the relevant amount.

3.8 Difference between Journal and Ledger.

Basis of Distinction	Journal	Ledger
1. Book	It is the book of original entry.	It is the main book of account.
2. Stage	Entering the transactions in the journal is the primary stage.	Posting the journals in the ledger is the secondary stage.
3. Order of recording	Transactions are recorded in chronological order	Transactions are recorded in an analytical order.
4. Transactions	Transactions related to a particular account are scattered.	Transactions related to a particular account appear at one place.
5. Balancing	Balancing is not done in the books of journal.	All ledger accounts are balanced at regular intervals.
6. Timing of recording	Journal is a book of daily record.	Posting in the ledger is done periodically – (weekly or monthly)
7. Process	Recording transactions in the journal is called Journalising.	Entering the journals into the ledger is called Posting.

3.9 TRIAL BALANCE

Introduction:

The basic principle of the double entry system is that for every debit, there must be a corresponding credit. When we record the transactions in the form of journal, we pass debit entry and credit entry and enter an equal amount on both sides. In the next step we post the journals into ledger accounts. In this process we debit one account and we credit another account with an equal amount. If we post all the journals into the ledger accounts on proper side, the total of debit side must be equal to the total of credit side. Alternatively, if we take only the debit and credit balances of all ledgers, the total of both the sides must agree. If the totals do not agree, there are chances for errors in the preparation of ledgers. The errors must be detected and rectified.

3.9.1 MEANING OF TRIAL BALANCE

Trial balance is a statement prepared with the balances or total of debits and credits of all the accounts in the ledger to test the arithmetical accuracy of the ledger accounts. A business concern usually prepares Trial balance at the end of the accounting period.

3.9.2 DEFINITION OF TRIAL BALANCE

According to J.R.Batlibai, "Trial balance is a statement, prepared with the debit and credit balances of ledger accounts to test the arithmetical accuracy of the books"

According to M.S.Gosav, "Trial balance is a statement containing the balances of all ledger accounts, as at any given date, arranged in the form of

debit and credit columns placed side by side and prepared with the object of checking the arithmetical accuracy of ledger postings".

3.9.3 OBJECTIVES OF PREPARING TRIAL BALANCE

1. To check the arithmetical accuracy of the ledger accounts.
2. To locate the errors, if any and
3. To facilitate the preparation of final accounts

3.9.4 METHODS OF PREPARING TRIAL BALANCE

The following are the methods of preparing Trial balance.

1. Total Method : Under this method the totals of debits and credits of all accounts are shown respectively in the debit and credit columns of the trial balance. This is known as **Gross Trial Balance.**

2. Balance Method: In this method, only the balances of the accounts either debit or credit, as the case may be, are recorded against their respective accounts. The balance method is widely used.

3.9.5 Ruling of a Trial Balance

Trial Balance of Victory Ltd. as on ……..

Sl.No	Name of Account	L.F.	Debit Rs.	Credit Rs.
	Total			

3.9.6 Important Note on Nature of Balance of Accounts

While preparing trial balance, it should be noted that all the Accounts of Assets, Expenses, Losses, and Drawings will always have debit balance. Likewise all the Accounts of Liabilities, Capital, Incomes and Gains will always have Credit balance.

3.9.7 Sundry debtors and sundry creditors

There are many personal accounts in the ledgers. While closing these accounts some may have debit balances and the others may have credit balances. If the names of all the personal accounts are written in the trial balance, it will be too lengthy. Therefore, a list of debtors with their individual debit balances is prepared and totalled. This list of debtors is known as 'Sundry Debtors'. Similarly a list of Creditors with their individual credit balances is prepared and totalled. This list of creditors is known as 'Sundry Creditors'.

SELF - EVALUATION QUESTIONS - I

A) Fill in the blanks:

1. The transaction are first entered in the books of accounts in the form of ___________________.
2. The combined journal entry is otherwise known as ______________________________ .
3. In double entry system, every transactions affects at least two _______________ .
4. ___________________ is a summary of statement of all transaction relating to an account.
5. The process of ascertaining the difference between the total of the debit side and credit side is known as _______________________ of ledgers.

B) Short Answer Type:

1. What is a Journal?

………………………………………………………………………………………

2. What do you mean by compound entry?

………………………………………………………………………………………

3. How can you balance a ledger account?

………………………………………………………………………………………

4. Give the meaning of Trial Balance:

………………………………………………………………………………………

3.10 Summary

Journal is a date-wise record of transactions showing the names of accounts to be debited and credited and the amount of each transaction. When two or more transactions of similar nature occur on a particular day, such transactions can be entered in the journal by means of a combined journal entry, known as Compound Journal Entry.

A ledger is a summary of statement of all transactions relating to an account personal, real or nominal which have taken place during a given period of time and shows their net effect.

The balancing of ledgers is the process of ascertaining the difference between the total of the debit side and credit side and writing the difference on the side where the amount is less in order to make the totals of the two sides become equal. Ledgers are balanced every month.

Trial balance is a statement prepared with the balances or total of debits and credits of all the accounts in the ledger to test the arithmetical accuracy of

the ledger accounts. A business concern usually prepares Trial balance at the end of the accounting period.

3.11 ILLUSTRATIVE PROBLEMS

Illustration : 1.

Journalise the following transaction in the books of Kishore.

2007

Jan 1. Started business with a capital of Rs.1,00,000

2. Paid into bank Rs.25,000

3. Purchased furniture for cash Rs.7,000

4. Bought a typewriter from Facit & Co. Rs.12,000

7. Purchased goods for cash Rs.30,000

10. Paid for stationery Rs.1,200

12. Sold goods for cash Rs.!2,000

15. Sold goods to Somu Rs.6,000

17. Withdrew from bank for personal use Rs.2,000

18. Withdrew from bank for office use Rs.7,500

20. Issued a cheque to Facit & Co. Rs.12,000

22. Purchased goods from Samson Rs.20,000

25. Returned goods from Somu Rs.1,000

27. Received from Somu Rs.4,750 and discount allowed to him Rs.250

28. Returned goods to Samson Rs.2,000

29. Paid Samson Rs.19,500 and discount received from him Rs.500

30. Dividend received Rs.2,250

31. Paid insurance premium by cheque Rs.1,250

Solution

Journal entries in the books of Kishore

Date		Particulars	LF	Debit Amount		Credit Amount	
2007				Rs.	P.	Rs.	P.
January	1	Cash a/c Dr.		1,00,000			
		To Capital a/c				1,00,000	
		(Being the Capital brought into business)					
	2	Bank a/c Dr.		25,000			
		To Cash a/c				25,000	
		(Being cash paid into bank)					
	3	Furniture a/c Dr.		7,000			
		To Cash a/c				7,000	
		(Being the purchase of furniture for cash)					
	4	Typewriter a/c Dr.		12,000			
		To Facit & Co. a/c				12,000	
		(Being the purchase of typewriter on credit)					
	7	Purchase a/c Dr.		30,000			
		To Cash a/c				30,000	
		(Being the cash purchases)					
	10	Stationery a/c Dr.		1,200			
		To Cash a/c				1,200	
		(Being the cash purchase of stationery)					
	12	Cash a/c Dr.		12,000			
		To Sales a/c				12,000	
		(Being the cash sales)					
	15	Somu a/c Dr.		6,000			
		To Sales a/c				6,000	
		(Being the credit sales)					
	17	Drawings a/c Dr.		2,000			
		To Bank a/c				2,000	
		(Being the amount withdrawn for personal use)					
	18	Cash a/c Dr.		7,500			
		To Bank a/c				7,500	

Date	Particulars		Dr. Amount	Cr. Amount
18	Cash a/c To Bank a/c (Being the amount withdrawn from bank for off	Dr.	7,500	7,500
20	Facit & Co. a/c To Bank a/c (Being the amount paid by cheque)	Dr.	12,000	12,000
22	Purchases a/c To Samson a/c (Being the credit purchases)	Dr.	20,000	20,000
25	Sales Returns a/c (Returns inward a/c) To Somu a/c (Being the goods returned by Somu)	Dr.	1,000	1,000
27	Cash a/c To Somu a/c (Being the amount paid by Somu)	Dr.	4,750	4,750
,,	Discount a/c To Somu a/c (Being the discount allowed to him)	Dr.	250	250
28	Samson a/c To Purchase Returns a/c (Return outwards a/c) (Being the returns to Samson)	Dr.	2,000	2,000
29	Samson a/c To Cash a/c (Being the amount paid to Samson)	Dr.	19,500	19,500
,,	Samson a/c To Discount (earned) a/c (Being the discount earned)	Dr.	500	500
30	Cash a/c To Dividend a/c (Being the dividend received)	Dr.	2,250	2,250
31	Insurance premium a/c To Bank a/c (Being the insurance premium paid by cheque)	Dr.	1,250	1,250

Note : 1.In a Cash transaction omit the Personal account.

2.In a Credit transaction omit Cash account

3.We should not Debit or Credit the name of a person in his own book.

Illustration : 2

Pass journal entries for the following.

2005

June 15. Paid for telephone charges Rs.1,460; Postage Rs.120; Rent Rs.3,600; Salary Rs.5,400.

18. Received a cheque from Muthu Rs.9,800 in full settlement of his account Rs.10,000.

20. Received commission Rs.500; received interest Rs.1,450.

22. Issued a cheque for Rs.1,900 to Sweetson and received discount from him Rs.100.

Solution :

Journal

Date		Particulars		LF	Debit Amount		Credit Amount	
					Rs.	P.	Rs.	P.
2005 June	15	Telephone Charges a/c	Dr.		1,460			
		Postage a/c	Dr.		120			
		Rent a/c	Dr.		3,600			
		Salary a/c	Dr.		5,400			
		To Cash a/c					10,580	
		(Being cash paid for various expenses)						
	18	Bank a/c	Dr.		9.800			
		Discount a/c	Dr.		200			
		To Muthu a/c					10,000	
		(Amount received from Muthu and discount allowed thereon)						
	20	Cash a/c	Dr.		1,950			
		To Commission a/c					500	
		To Interest a/c					1,450	
		(Being the receipt of commission and interest)						
	22	Sweetson a/c	Dr.		2,000			
		To Bank a/c					1,900	
		To Discount a/c					100	
		(Being payment made to Sweetson and the discount earned thereon)						

llustration : 3

Rajan was carrying on business as a timber merchant on 1st April 2004, his assets and liabilities were: cash Rs.12,000; Bank Rs.46,000; Stock Rs.74,000; Debtors Rs.28,000; Land and Building Rs.1,20,000; Bills Payable 36,000 and Creditors Rs.94,000.

His transactions during April 2004 were as follows.

April	1.	Bought timber from Anthony Rs.60,000.
	2.	Bought office furniture Rs.7,600
	5.	Paid rent by means of a cheque Rs.4,000
	7.	Sold timber for cash Rs.25,000
	,,	Sold timber to Nathan Rs.40,000
	10.	Bought paper, pencil, ink, etc. Rs.270
	12.	Returned goods to Anthony Rs.8,000
	15.	Paid Anthony Rs.50,000 in full settlement of his account.
	18.	Received Commission Rs.1,200
	,,	Received interest Rs.2,400
	20.	Sold goods to Suresh Rs.6,000
	22.	Returned goods from Nathan Rs.5000
	24.	Received a cheque from Nathan for Rs.44,000 and allowed him discount Rs.1,000
	25.	Suresh became insolvent and 75 paise in a rupee was realized from his estate.
	27.	Purchased Government Bonds Rs.20,000
	28.	Paid for advertising Rs.6,450
	29.	Paid telephone charges Rs.975
	30.	Received interest Rs.1,800; Paid salaries Rs.4,200

Solution:

Journal entries in the books Mr.Rajan

Date		Particulars	LF	Debit Amount Rs.	P.	Credit Amount Rs.	P.
2004 April	1	Cash a/c Dr.		12,000			
		Bank a/c Dr.		46,000			
		Stock a/c Dr.		74,000			
		Debtors a/c Dr.		28,000			
		Land and Building a/c Dr.		1,20,000			
		To Bills Payable a/c				36,000	
		To Creditors a/c				94,000	
		To Capital a/c				150,000	
		(Being assets and liabilities brought forward)					
	,,	Purchases a/c Dr.		60,000			
		To Anthony a/c				60,000	
		(Being credit purchases)					
	2	Office Furniture a/c Dr.		7,600			
		To Cash a/c				7,600	
		(Being furniture bought for cash)					
	5	Rent a/c Dr.		4,000			
		To Bank a/c				4,000	
		(Being rent paid by cheque)					
	7	Cash a/c Dr.		25,000			
		Nathan a/c Dr.		40,000			
		To Sales a/c				65,000	
		(Being cash and credit sales)					
	10	Stationery a/c Dr.		270			
		To Cash a/c				270	
		(Being purchase of stationery for cash)					
	12	Anthony a/c Dr.		8,000			
		To Returns outwards a/c				8,000	
		(Being the purchase returns)					
	15	Anthony a/c Dr.		52,000			
		To Cash a/c				50,000	
		To Discount a/c				2,000	
		(Being amount paid to Anthony and the discount received thereon)					

Date	Particulars		Debit	Credit
18	Cash a/c	Dr.	3,600	
	To Commission a./c			3,600
	To Interest a/c			
	(Being the receipt of commission and interest)			
20	Suresh a/c	Dr.	6,000	
	To Sales a/c			6,000
	(Being the credit sales)			
22	Return Inwards a/c	Dr.	5,000	
	To Nathan a/c			5,000
	(Being the sales returns)			
24	Bank a/c	Dr.	44,000	44,000
	Discount a/c	Dr.	1,000	1,000
	To Nathan a/c			
	(Being cheque received from Nathan and discount allowed to him)			
25	Cash a/c	Dr.	4,500	
	Bad debts a/c	Dr.	1,500	4,500
	To Suresh a/c			1,500
	(Being 75 paise in a rupee was received as full settlement from Suresh)			
27	Government Bonds a/c	Dr.		
	To Cash a/c		20,000	
	(Being the purchase of govt. bonds)			20,000
28	Advertisement a/c	Dr.	6.450	
	To Cash a/c			6.450
	(Being amount paid for advertisement)			
29	Telephone Charges a/c	Dr.		
	To Cash a/c		975	
	(Being the remittance of telephone charges)			975
30	Cash a./c	Dr.		
	To Interest a/c		1800	
	(Being the interest received)			1800
	Salaries a/c	Dr.		
	To Cash a/c		4,200	
	(Being the salaries paid)			4,200

Illustration : 4

Enter the following transactions in the books of Mr.Sagay, post them in the ledger, balance the same and also prepare a Trial Balance at the end of the month.

2006

Jan 1. Mr.Sagay commenced his business with cash Rs.75,000

3. Paid into Bank Rs.25,000.

5. Bought goods for cash Rs.20,000

7. Bought goods from Chandran Rs.15,000

10. Paid Salary Rs.4,000

12. Issued a cheque for Insurance premium Rs.680

15. Received commission Rs.1,200

18. Sold goods for cash Rs.18,000

19. Sold goods to Somu Rs.10,000

20. Sold goods to Anand Rs.24,000

22. Paid Chandran Rs. 12,000

25. Received a cheque from Anand Rs.10,000

27. Received Rs.9,800 from Somu in full settlement.

28. Withdrew cash from Bank Rs.5,000

31. Paid for Stationery Rs.450

32. Paid for Postage Rs.150.

Solution :

Journal of Mr.Sagay

Date		Particulars	LF	Debit Amount Rs.	P.	Credit Amount Rs.	P.
2006 January	1	Cash a/c Dr.		75,000			
		To Capital a/c				75,000	
		(Being cash brought into business)					
	3	Bank a/c Dr.		25,000			
		To Cash a/c				25,000	
		(Being cash paid into bank)					
	5	Purchases a/c Dr.		20,000			
		To Cash a/c				20,000	
		(Being the cash purchases)					
	7	Purchases a/c Dr.		15,000			
		To Chandran a/c				15,000	
		(Being the credit purchases)					
	10	Salary a/c Dr.		4,000			
		To Cash a./c				4,000	
		(Being salary paid)					
	12	Insurance Premium a/c Dr.		680			
		To Bank a/c				680	
		(Being premium paid by cheque)					
	15	Cash a/c Dr.		1,200			
		To Commission a/c				1,200	
		(Being Commission received)					
	18	Cash a/c Dr.		18,000			
		To Sales a/c				18,000	
		(Being cash sales)					
	19	Somu a/c Dr.		10,000			
		To Sales a/c				10,000	
		(Being credit sales)					
	20	Anand a/c Dr.		24,000			
		To Sales a/c				24,000	
		(Being credit sales)					
	22	Chandran a/c Dr.		12,000			
		To Cash a/c				12,000	

22	Chandran a/c	Dr.	12,000	
	To Cash a/c			12,000
	(Being amount paid to Chandran)			
25			10,000	
	Bank a/c	Dr.		10,000
	To Anand a/c			
	(Cheque received from Anand)			
27				
	Cash a/c	Dr.	9,800	
	Discount allowed a/c	Dr.	200	
	To Somu a/c			10,000
	(Being the amount received and the discount allowed thereon)			
28	Cash a/c	Dr.		
	To Bank a/c		5,000	
	(Being amount withdrawn from bank)			5,000
31	Stationery a/c	Dr.		
	Postage a/c	Dr.		
	To Cash a/c		450	
	(Being the payment made for stationery and postage)		150	600

Ledger accounts in the books of Mr.Sagay

Dr. **Cash Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006				2006			
Jan.	To Capital a/c		75,000	Jan.	By Bank a/c		25,000
1	,, Commission a/c		1,200	3	,, Purchases a/c		20,000
	,, Sales a/c		18,000		,, Salary a/c		4,000
15	,, Somu a/c		9,800	5	,, Chandran a/c		12,000
	,, Bank a/c		5,000		,, Stationery a/c		450
18				10	,, Postage a/c		150
22				22	,, Balance c/d		47,400
			1,09,000				1,09,000
28				31			
	To Balance b/d		47,400				
				,,			
				,,			
Feb. 1							

Dr. **Capital Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 31	To Balance c/d		75,000	2006 Jan. 1	By Cash a/c		75,000
			75,000				75,000
				Feb. 1			75,000

Dr. **Bank Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 3	To Cash a/c		25,000	2006 Jan. 12	By Insurance premium a/c		680
25	,, Anand a/c		10,000	28	,, Cash a/c		5,000
				31	,, Balance c/d		29,320
			35,000				35,000
Feb. 1	To Balance b/d		29,320				

Dr. **Purchases Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 5	To Cash a/c		20,000	2006 Jan. 31	By Balance c/d		35,000
7	,, Chandran a/c		15,000				
			35,000				35,000
Feb. 1	To Balance b/d		35,000				

Dr. **Chandran Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 22	To Cash a/c		12,000	2006 Jan. 7	By Purchases a/c		15,000
31	,, Balance c/d		3,000				
			15,000				15,000
				Feb. 1	By Balance b/d		3,000

Dr. **Salary Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006				2006			
Jan.	To Cash a/c		4,000	Jan.	By Balance c/d		4,000
10			4,000	31			4,000
	To Balance b/d		4,000				
Feb. 1							

Dr. **Insurance Premium Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006				2006			
Jan.	To Bank a/c		680	Jan.	By Balance c/d		680
12			680	31			680
	To Balance b/d		680				
Feb. 1							

Dr. **Commission Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006				2006			
Jan.	To Balance c/d		1,200	Jan.	By Cash a/c		1,200
12			1,200	15			1,200
					By Balance b/d		1,200
				Feb. 1			

Dr. **Sales Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006				2006			
Jan.	To Balance c/d		680	Jan.	By Cash a/c		18,000
31				18	,, Somu a/c		10,000
					,, Anand a/c		24,000
			52,000	19			52,000
				20	By Balance b/d		52,000
				Feb. 1			

Dr. **Anand Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 20	To Sales a/c		24,000	2006 Jan. 25	By Bank a/c		10,000
				31	By Balance c/d		14,000
			24,000				24,000
Feb. 1	To Balance b/d		14,000				

Dr. **Discount Allowed Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 27	To Somu a/c		200	2006 Jan. 31	By Balance c/d		200
			200				200
Feb. 1	To Balance b/d		200				

Dr. **Somu Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 19	To Sales a/c		10,000	2006 Jan. 27	By Cash a/c		9,800
				,,	,, Discount allowed a/c		200
			10,000				10,000

Dr. **Stationery Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 31	To Cash a/c		450	2006 Jan. 31	By Balance c/d		450
			450				450
Feb. 1	To Balance b/d		450				

Dr. **Postage Account** Cr.

Date	Particulars	JF	Amount Rs. P.	Date	Particulars	JF	Amount Rs. P.
2006 Jan. 31	To Cash a/c		150	2006 Jan. 31	By Balance c/d		150
			150				150
Feb. 1	To Balance b/d		150				

Trial Balance of Mr. Sagay as on 31st January 2006

Sl.No.	Name of the Account	L.F.	Debit Rs.	Credit Rs.
1	Cash		47,400	
2	Capital			75,000
3	Bank		29,320	
4	Purchases		35,000	
5	Chandran			3,000
6	Salary		4,000	
7	Insurance Premium		680	
8	Commission			1,200
9	Sales			52,000
10	Anand		14,000	
11	Discount allowed		200	
12	Stationery		450	
13	Postage		150	
	Total		1,31,200	1,31,200

Illustration : 5

From the following particulars you are required to prepare a Trial balance of Mr.Santhosh as on 31st March 2005

	Rs.
Capital	9,20,000
Creditors	1,88,520
Bills Payable	69,300
Sales	12,18,500
Provision for doubtful debts	13,200
Interest (Cr.)	3,400
Buildings	7,00,000

Machinery	1,20,000
Furniture	16,400
Debtors	1,56,000
Opening Stock	1,50,400
Cash in hand	9,880
Cash at Bank	1,45,340
Bills Receivable	58,440
Purchases	8,55,220
Carriage inwards	12,910
Carriage outwards	8,000
General Expenses	60,850
Insurance	7,830
Bad debts	6,130
Audit fees	4,000
Travelling expenses	3,250
Discount (Dr.)	6,200
Sales returns	2,850
Investments	89,220

(B.Com., Manonmaniam Sundaranar University)

Solution:

Trial Balance of Mr.Santhos as on 31st March 2005

Sl.No.	Name of the Account	L.F.	Debit Rs.	Credit Rs.
1	Capital			9,20,000
2	Creditors			1,88,520
3	Bills Payable			69,300
4	Sales			12,18,500
5	Provision for doubtful debts			13,200
6	Interest (Cr.)			3,400
7	Buildings		7,00,000	
8	Machinery		1,20,000	
9	Furniture		16,400	
10	Debtors		1,56,000	
11	Opening Stock		1,50,400	
12	Cash in hand		9,880	
13	Cash at Bank		1,45,340	
14	Bills Receivable		58,440	
15	Purchases		8,55,220	
16	Carriage inwards		12,910	
17	Carriage outwards		8,000	
18	General Expenses		60,850	
19	Insurance		7,830	
20	Bad debts		6,130	
21	Audit fees		4,000	
22	Travelling expenses		3,250	
23	Discount (Dr.)		6,200	
24	Sales returns		2,850	
25	Investments		89,220	
	Total		24,12,920	24,12,920

3.12 THEORETICAL QUESTIONS

A) Short Answer Type

1.What is a compound entry?

2. What are the steps in Journalising?

3. What is a Ledger?

4. What is a Trial Balance?

B) Essay Type

1. What are the differences between Journal and Ledger?
2. Explain the procedure for posting the journal into the ledger:-

3.13 EXERCISE PROBLEMS

Exercise : 1

Enter the following transactions in the journal of Mr.Rahul.

2007

August 1 Rahul commenced his business with the following assets and liabilities.

Plant and Machinery Rs.2,50,000

Stock Rs.90,000

Furniture Rs.7,000

Cash Rs.50,000

Sundry Creditors Rs.1,50,000

2 Sold goods to Suresh Rs.1,50,000

5 Bought goods from Natesan Rs.65,000

7 Suresh paid cash Rs.1,25,000

12 Returned damaged goods to Natesan Rs.2,000

24 Paid Natesan Rs. 28,000

31 Paid Rent Rs.5,000

,, Paid Salaries Rs.9,000

Exercise : 2

The following are the transactions taken from the books of Mr.Dhayalan. You are required to pass journal entries, post them into ledger and prepare a trial balance.

2005

April 1. Started business with a capital of Rs.50,000

2. Bought goods for cash Rs.20,000

3. Bought goods from Anderson Rs.16,000

5. Bought office furniture from Royal furniture mart Rs.7,000

6. Bought paper, pencil, ink etc Rs.250

7. Paid rent Rs.3,000

10. Sold goods for cash Rs.24,000

12. Paid into bank Rs.25,000

15. Returned damaged goods to Anderson Rs.800

18. Credit sales to Allen Rs.18,000

20. Issued a cheque to Anderson for Rs.15,000 in full settlement

21. Cash sales Rs.12,000

25. Telephone charges paid Rs.750

27. Sold goods to Abdullah Rs.14,000

28. Return inwards from Allen Rs.2,000

29. Received Rs.15,750 from Allen and allowed him discount Rs.250

30. Bought an electronic typewriter for office use Rs.9,000

31. Withdrew from bank Rs.3,000 for office use and Rs.2,000 for personal use.

Exercise : 3

From the following ledger balances taken from the books of Mansingh, prepare a Trial Balance as on 31st March 2007.

	Rs.
Capital	40,000
Sundry Creditors	12,000
Sundry Debtors	20,000
Cash in hand	400
Cash at Bank	10,000
Purchases	36,000
Sales	60,000
Discount (Dr)	1,200
Carriage on Purchases	8,700
Carriage on Sales	2,300
Sales Returns	300
Purchase Returns	500
Rent and Taxes	1,200
Plant and Machinery	10,500
Opening Stock	15,800
Commission (Dr)	1,600
Furniture and Fittings	4,500

(Answer: Total of Trial Balance Rs.1,12,500)

3.14 Books for Reference :

1. T.S.Reddy & A.Murthy, Financial Accounting, Margham publications, Chennai-17.
2. R.S.N. Pillai, Bagavathi & S.Uma, Fundamentals of Advanced Accounting, S.Chand & Company Ltd., RamNagar, New Delhi-110 055.
3. R.L.Gupta & V.K.Gupta, Financial Accounting, Sultan Chand and Sons, New Delhi-2.
4. Dr.S.Ganeson & S.R.Kalavathi, Financial and cost accounting, Thirumalai Publication, Nagercoil -1.
5. M.C.Shukla, T.S.Grewal, S.C.Gupta, Advanced Accounts - Volume I, S.Chand & Company Ltd., RamNagar, New Delhi - 110 055.
6. S.P.Jain & K.L.Narang, Financial Accounting, Kalyani Publishers, Chennai.

Answers for Self-Evaluation Questions

A) 1.Journal 2. Compound entry 3. accounts 4. Ledger
5. balancing

B) Short Answer Type:

1. Journal is a date-wise record of transactions showing the names of accounts to be debited and credited and the amount of each transaction.
2. When two or more transactions of similar nature occur on a particular day, such transactions can be entered in the journal by means of a combined journal entry, known as Compound Journal Entry.
3. Balancing of ledgers is the process of ascertaining the difference between the total of the debit side and credit side and writing the difference on the side where the amount is less in order to make the totals of the two sides become equal.
4. Trial balance is a statement prepared with the balances or total of debits and credits of all the accounts in the ledger to test the arithmetical accuracy of the ledger accounts. A business concern usually prepares Trial balance at the end of the accounting period.

NOTES

Chapter - IV
SUBSIDIARY BOOKS

4.0 Introduction
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SELF - EVALUATION QUESTIONS - I
4.9 Summary
4.10 Illustrative Problems
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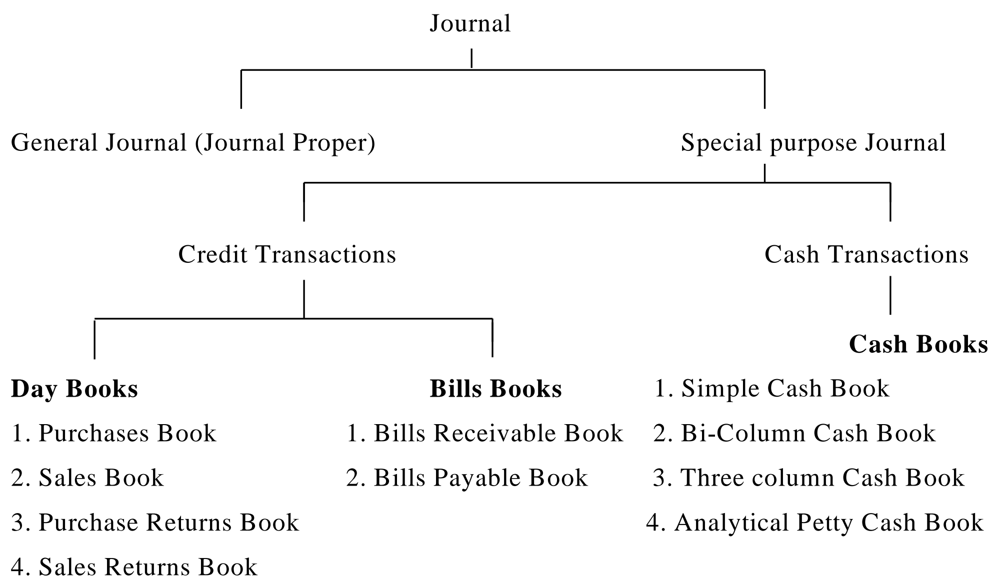
Answers for Self-Evaluation Questions

4.0 Introduction:

Usually, transactions are first entered in the journal and they are posted to the respective ledger accounts. In large concerns, the number of transactions will be large and it is difficult to write all the transactions through journal. Because it involves tremendous amount of work and it needs several accounts assistants. So the transactions of similar nature are recorded as special journals or sub-divisions of journal to minimize the work. These sub-divisions of journals into various books recording transactions of the similar nature are called subsidiary books.

4.1 KINDS OF SUBSIDIARY BOOKS

Subsidiary books are sub-divisions of journal. Various kinds of subsidiary books are used to record cash and credit transactions. We can understand the classification of journal and various kinds of subsidiary books from the following diagram.



4.2.1 General journal (Journal Proper)

General journal is the simple type of journal which is capable of recording all kinds of transactions. This record the entries which cannot be entered in any of the subsidiary books.

4.2.2 Special Purpose Journal

Special purpose journals are sub-divisions of journal which are known as subsidiary books. Different types of subsidiary books are used to record the credit transactions and cash transactions.

4.3.0 SUBSIDIARY BOOKS FOR CREDIT TRANSACTIONS.

The following are the subsidiary books maintained to record credit transactions.

4.3.1 Purchase Book. This book records only credit purchase of goods by the trader. This is also known as Purchase Journal, Bought Book, Purchase day book, or Invoice book. Cash purchases and purchases of assets are not entered in this book.

4.3.2 Sales Book. This book records only credit sales of goods. This is also known as Sales Day Book. Cash Sale and sale of assets are not entered in this book.

4.3.3. Purchase Return Book. This book enters all the purchase returns to the supplier of goods. This is also known as Return Outward Book.

4.3.4 Sales Return Book. This book records the goods returned by the customers. This is also known as Return Inward Book

4.3.5 Bill Receivable Book. This is kept to record the bill received from the customers.

4.3.6 Bills Payable Book. This is kept to record the bill issued to the suppliers.

PURCHASES BOOK

Date	Name of the supplier	LF	Inward Invoice no.	Details Rs.	Amount Rs.

SALES BOOK

Date	Name of the customer	LF	Outward Invoice no.	Details Rs.	Amount Rs.

PURCHASE RETURNS BOOK

Date	Name of the Supplier	Debit Note no.	LF	Amount Rs.

SALES RETURNS BOOK

Date	Name of the Customer	Credit Note no.	LF	Amount Rs.

To make entries in the above subsidiary books, we must know the following important terms.

4.3.7 Trade Discount. When a customer purchases goods above a certain amount, the seller will give the buyer an allowance or concession called Trade Discount. The net price payable by the customer is arrived after deducting the trade discount for the invoice. Trade discount is not recorded in the books of account.

4.3.8 Cash Discount. The goods are sold on credit or for cash. When the goods are sold on credit, the payment will be made by the customer on a later date. In order to encourage the customer to make the payment before the expiry of the credit period, a deduction is offered. This deduction is known as cash discount. This is recorded in the books of account. Cash discount is deducted form the amount due from the customer.

4.3.9 Debit Note. When the goods are returned to the suppliers, a statement is sent to them informing about the debit given to their account. This statement is called Debit Note.

4.3.10 Credit Note. When the goods are returned by our customers to us, we send them a statement intimating the credit given to their account. This statement is called Credit Note.

4.4.0 SUBSIDIARY BOOKS FOR CASH TRANSACTIONS

In large business concerns, cash transactions are numerous. Even the credit transactions will become cash transactions when payment is made. Since, cash transactions form a major portion of business transaction. It is better to keep a separate cash book to record only the cash transactions.

4.4.1 Meaning of cash book

A cash book is a special journal which is used to record all cash receipts and cash payments. Cash book is a book of original entry. As the cash book is designed in the form of cash account, it serves as a journal and as a ledger. Cash receipts are entered on the debit side and cash payments are entered on the credit side.

4.4.2 Types of Cash Book

The following are different types of cash book maintained by business concerns

1. Simple Cash Book (Cash column only)
2. Bi-Column Cash Book or Double column Cash Book
   a) with Cash and Discount column or
   b) with Cash and Bank column or
   c) with Discount and Bank column
3. Three column Cash Book (with Discount, Cash and Bank columns)
4. Analytical Petty Cash Book.

4.4.3 Simple Cash Book or Single column Cash Book

A simple cash book has one amount column on each side. It is ruled exactly like a ledger. Cash receipts are recorded on the debit side and Cash payments are entered on the credit side. The following is the specimen for simple cash book.

Dr. **Simple Cash Book** Cr.

Date	Particulars	R. No.	L. F.	Amount	Date	Particulars	V. No.	L. F.	Amount

Cash book is balanced like any other ledger. Cash book will always have a debit side balance.

4.4.4 Bi-column Cash Book

Cash book prepared with two columns on each side is known as Bi-column cash book or Double column cash book.

a) Cash book with Discount and Cash columns.

In this cash book discount column is added on each side in addition to the cash column. Discount allowed is entered on the debit side and discount earned on the credit side of this cash book. While closing the double column cash book, only the cash column is balanced and discount column is merely totalled on each side. The total of the discount column on the debit side is the total discount allowed and the total of the discount column on the credit side is the total of the discount received. The following is the specimen for double column cash book with discount and cash columns.

Double column cash book (Discount and Cash columns)

Dr. Cr.

Date	Particulars	R. No.	L. F.	Discount Allowed	Cash	Date	Particulars	V. No.	L. F.	Discount Earned	Ca:

4.4.5 Three Column Cash Book

On both sides of this cash book, separate columns are opened for discount, cash and Bank. Discount allowed, Cash receipts, and Deposits into

bank are recorded on the debit side. Discount received, Cash payments and withdrawals are entered on the credit side of this cash book.

Triple Column Cash Book

Dr. Cr.

Date	Particulars	R. No.	L. F.	Discount Allowed	Cash	Bank	Date	Particulars	V. No.	L. F.	Discount Earned	Cash	Ba

While closing the cash book, only cash and bank columns are balanced. The discount column is merely totalled on each side.

4.4.6 Petty Cash Book

The word 'Petty' is derived from a French word called 'PETIT' which means small. So, petty cash book is a small cash book which maintained to record petty or small payments like postage, stationary, carriage, cartage, telegram, refreshment, cleaning etc. The person who maintains the petty cash book is called the 'Petty Cashier'.

4.4.7 Imprest System

Imprest means 'Money advanced on Loan'. The amount needed during a specified period or making small payments is estimated and fixed as 'Imprest Amount'. At the beginning of the period the imprest amount is handed over by the main cashier to the petty cashier. The petty cashier makes all the small payments and enters in the petty cash book. He also collects vouchers for all payments. Al the end of the given period or earlier, when petty cashier has spent the petty cash amount, he submits the Account and Vouchers to the main cashier. The main cashier verifies them and after satisfying himself about the correctness of the payments, he hands over to the petty cashier sufficient amount to make up the imprest amount. Thus the system of reimbursing the amount spent by the petty cashier at fixed period is known as the imprest system of petty cash book.

4.4.8 Analytical Petty Cash Book

The analytical petty cash book has debit side and credit side. The amount received from the main cashier is entered on the debit side. All the petty payments are recorded on the credit side. The petty cashier makes a detailed

analysis of petty payments and records under suitable heading or column. These analytical columns helps to know the actual amount spent on each and every type of petty expenses for the specified period. Each petty payment is first entered in the total payments column, and then recorded in the respective analytical column.

At the end of the period, the total payment column and individual expenses column are totalled. The total of the individual expenses column and the total payment column must be the same. The total payment column and the total receipt column are compared and balanced. The petty cashier will receive an equal amount from the main cashier for the total amount spent, and this has to be entered on the debit side.

Specimen for Analytical Petty Cash book

Dr. Cr.

Receipt	C.B.F.N.	Date	Particulars	V.N.	Total Payments	Postage & Telegrams	Printing & Stationery	Carriage	Travelling Expenses	Office Exp.	Sundries	L.F.	Personal Accounts
Rs.					Rs.	Rs.	Rs.	Rs	Rs.	Rs	Rs		Rs.

SELF - EVALUATION QUESTIONS - I

A) Fill in the blanks by choosing the correct options given in the brackets.

1. Subsidiary books are known as ________________________ .

(Journal proper / Sub-divisions of journal)

2. Journal proper refers to ________________________ .

(General journal / Special purpose journal)

3. Analytical petty cash book is used to record ________________________ .

(small payments / large payments)

4. Bills receivable book is one of the subsidiary books which is used to record _________ . (Cash transactions / Credit transactions)

5. Cash Purchases is recorded in the ___________________ .

(Cash Book / Purchases Day Book)

B) Give short answer :

1. What are subsidiary books?

………………………………………………………………………………………

2. What do you mean by 'Trade discount' and 'Cash Discount'?

…………………………………………………………………………………………

3. What is a contra entry?

…………………………………………………………………………………………

4. List out the various kinds of cash book.

…………………………………………………………………………………………

4.9 SUMMARY

In large business concerns, where the transactions are numerous, special purpose journals are sub-divisions of journals are used. These are known as subsidiary books.

To record the cash transactions and credit transactions different kinds of subsidiary books are used. Credit purchases are recorded in Purchases Day book. Credit sales are entered through the Sales Day book. Purchase returns or Return outwards are recorded in Purchases returns book. Sales returns or Return inwards are entered through Sales returns book. Bills Receivable book, Bills Payable book are used to record the bills.

To record the cash transactions, simple cash book, double column cash book, triple column cash book and petty cash book are used.

General journal or Journal Proper is maintained for recording those transactions which do not find place in any of the subsidiary books.

4.10 ILLUSTRATIVE PROBLEMS

Illustration : 1

Enter the following transactions in the purchase books Mr.Khan.

2002

May 5 Bought goods from Abdullah Rs.7,000

10 Purchased goods from Basha Rs.12,000

12 Cash Purchases Rs.10,000

20 Bought goods from Mohammed Rs.20,000

Solution :

PURCHASES BOOK

Date	Name of the supplier	LF	Inward Invoice no.	Details Rs.	Amount Rs.
2002					
May 5	Abdullah				7,000
10	Basha				12,000
20	Mohammed				20,000
					39,000

Illustration : 2

Prepare a Sales Day book to enter the following transactions.

2004

July 1 Sold good to Abraham Rs.6,000

5 Sold goods to Lincoln Rs.9,500

8 Received Rs.7,500 from Thomas for the sale of goods.

12 Sold goods to Ronald and Received a cheque from him Rs.4,000

18 Sold good to Kennedy Rs.15,000

24 Cash Sales Rs.10,000

31 Sold goods to George Rs.20,000

SALES BOOK

Date	Name of the customer	LF	Outward Invoice no.	Details Rs.	Amount Rs.
July 1	Abraham				6,000
5	Lincoln				9,500
	Kennedy				15,000
18	George				20,000
					50,500
31					

Illustration : 3

Enter the following transactions in the Purchases Book, Sales Book, Purchases Return Book and Sales Return Book.

2006

Oct. 1 Bought goods for cash Rs.5,000

2 Purchased goods from Jasper Rs.8,700

5 Sold goods to Jasinth Rs.6,400

8 Cash Sales Rs.7,000

10 Purchased goods from John Rs.22,000

11 Bought goods from James Rs.17,000

14 Bought goods from Jacob Rs.14,500

15 Returned goods to John Rs.2,000

17 Sold goods to Jithesh Rs.28,000

18 Sold old furniture Rs.1,500

20 Sold good to Jerome Rs.12,000

21 Returned goods from Jasinth Rs.1,400

24 Cash purchases Rs.7,200

25 Credit sales to Jegan Rs.4,680

26 Bought office equipment for Rs.2,000

27 Credit purchases from Jeeva Rs.10,000

28 Returned goods from Jegan Rs.400

29 Returned goods to Jacob Rs.1,200

30 Sales made to Jiju and received a cheque Rs.7,900

31 Returned goods to James Rs.2,000.

Solution :

PURCHASES BOOK

Date	Name of the supplier	LF	Inward Invoice no.	Details Rs.	Amount Rs.
2006					
Oct 2	Jasper				8,700
10	John				22,000
11	James				17,000
14	Jacob				14,500
27	Jeeva				10,000
					39,000

SALES BOOK

Date	Name of the customer	LF	Outward Invoice no.	Details Rs.	Amount Rs.
July 5	Jacinth				6,400
	Jithesh				28,000
17	Jerome				12,000
	Jegan				4,680
20					51,080
25					

PURCHASE RETURNS BOOK

Date	Name of the Supplier	Debit Note no.	LF	Amount Rs.
2006				
Oct.	John			2,000
15	Jacob			1,200
29	James			2,000
31				5,200

SALES RETURNS BOOK

Date	Name of the Customer	Credit Note no.	LF	Amount Rs.
2006				
Oct.	Jacinth			1,400
21	Jegan			400
28				1,800

Illustration : 4

From the following particulars, prepare a simple cash book.

2005

Dec. 1 Cash in hand Rs.15,000

5 Cash purchases Rs.7,000

9 Bought goods from Sundar Rs.6,000

10 Cash sales Rs.10,000

11 Paid into Bank Rs.5,000

15 Bought stationery for cash Rs.200

18 Paid Salaries Rs. 2,000

20 Received interest Rs.3,000

27 Sold goods to Sukumaran Rs.7,500.

28 Withdrawn from bank Rs.2,000

Simple Cash Book

Dr. Cr.

Date	Particulars	R. No.	L. F.	Amount	Date	Particulars	V. No.	L. F.	Amount
2005					2005				
Dec. 5	To Balance b/d			15,000	Dec. 5	By Purchases			7,000
10	To Sales			10,000	11	By Bank			5,000
20	To Interest			3,000	15	By Stationery			200
28	To Bank			2,000	18	By Salaries			2,000
					31	By Balance c/d			15,800
				30,000					30,000
2006									
Jan 1	To Balance b/d			15,800					

Illustration : 5

The following particulars are taken from the books of a firm. You are required to prepare a double column cash book with discount and cash columns.

2006

October 1 Opening cash balance Rs.24,000

2 Bought goods for cash Rs.6,000

5 Paid into Bank Rs.12,000

7 Bought goods from Nathan Rs.7,000

10 Paid interest Rs.1,200

12 Cash sales Rs.15,000

18 Sold goods to Arun Rs.10,000

20 Received Commission Rs.750

22 Paid Nathan Rs.6,800 and he allowed a discount of Rs.200

25 Bought furniture from Elite & Co Rs.3,000

28 Received Rs.9,500 from Arun in full settlement

29 Sold old machinery Rs.2,000

30 Withdrawn from bank for official use Rs.5,000

31 The proprietor withdrew cash Rs.500 for his personal use.

Solution :

Double column cash book (Discount and Cash columns)

Dr. Cr.

Date	Particulars	R. No.	L. F.	Discount Allowed	Cash	Date	Particulars	V. No	L. F.	Discount Earned	Cash
2006						2006					
Oct.1	To Bal. b/d				24,000	Oct.3	By Purchase				6,000
12	To Sales				15,000	5	By Bank				12,000
20	To Commn.				750	12	By Interest				1,200
28	To Arun			500	9,500	22	By Nathan			200	6,800
29	To Mach.a/c				2,000	31	By Drawing				500
30	To Bank a/c				5,000						
						,,	By Bal. c/d				29,750
				500	56,250					200	56,250
Nov.1	To Bal. b/d				29,750						

Illustration : 6

Enter the following transactions in a Bi-column cash book with discount and bank columns.

2000

August 1 Opening bank balance Rs.40,000

3. Bought Typewriter from Facit & Co and issue a cheque Rs.7,500
4. Withdrawn from bank for office use Rs.5,000
5. Bought goods from Damodharan Rs.12,000
9. Cash sales Rs.6,000
10. Sold goods to Durai Rs.10,000
12. Paid rent by means of a cheque Rs.3,000
15. Received a Cheque from Durai for Rs.9,750 in full settlement.
18. Paid cash for telephone charges Rs.380

20. Issued a Cheque to Damodharan for Rs.11,600 and he allowed a discount Rs.400

21. Cash Sales Rs.11,400

24. Sold goods to Raveendran Rs.5,000

27. Issued a cheque for Rs.1,400 for advertisement.

29. Paid into bank Rs.10,000

30. Received a pay order for Rs.2,700 from a Raveendran and it was deposited in to bank.

Solution :

Double column cash book (Discount and Bank columns)

Dr. Cr.

Date	Particulars	R. No.	L. F.	Discount Allowed	Bank	Date	Particulars	V. No.	L. F.	Discount Earned	Ban
2000 Aug.1	To Bal. b/d				40,000	2000 Aug.6	By Office equipment				7,5(
15	To Durai			250	9,750	7	By Cash				5,0(
29	To Cash				10,000	12	By Rent				3,0(
30	To Raveendran				2,700	20	By Damodharan			400	11,6(
						27	By Advt.				1,4(
						30	By Bal. C/d				33,9:
				250	62,450					400	62,4:
Sep.1	To Bal. b/d				33,950						

Illustration : 7

From the following particulars, prepare a double column cash book with cash and bank columns.

2007

Feb. 1 Cash at Bank Rs.27,000

Cash in hand Rs. 30,000

5 Cash Sales Rs.6,000

7 Received cash from Baskar Rs.12,000

10 Cash purchases Rs.7,500

12 Paid into bank Rs.15,000

18 Paid Kareem Rs.4,000 by cheque

20 Withdrawn from bank Rs.7,000

28 Paid trade expenses Rs.600

Solution:

Double column cash book (Cash and Bank columns)

Dr. Cr.

Date	Particulars	R. No.	L. F.	Cash	Bank	Date	Particulars	V. No.	L. F.	Cash	Ban
2007						2007					
Feb.1	To Bal. b/d			27,000	30,000	Feb 10	By Purchase			7,500	
5	To Sales			6,000		12	By Bank		C	15,000	
7	To Baskar			12,000		18	By Kareem				4,0
12	To Cash		C		15,000	20	By Cash		C		7,0
20	To Bank		C	7,000		28	By Trade Exp.			600	
						28	By Bal. c/d			28,900	34,0
				52,000	45,000					52,000	45,0
Mar.1	To Bal. b/d			28,900	34,000						

Illustration : 8

Enter the following transactions in a three column cash book of Mr.Tamilarasu

2002

May 1 Cash in hand Rs.27,000

Cash at bank Rs.45,000

3 Received cheque for goods sold to Pragash and banked it Rs.7,500

4 Paid to Balu by cheque Rs.5,700 in full settlement of his account Rs.6,000

5 Interest allowed by bank Rs.645

10 Paid into bank Rs.15000

14 Rent paid Rs.3,500

16 Received cash from Subash Rs.4600 in full settlement of his account Rs.5,000

18 Insurance premium paid by bank on standing instruction Rs.1,200

20 Withdrew cash for personal use Rs.4,000; for office use Rs.6,000

22 Cash sales Rs.5,800

25 Paid for stationery Rs.300

28 Dividend collected and credited by bank Rs.2,500

30 Cash purchases Rs.9,000

Solution :

Triple Column Cash Book

Date	Particulars	R. No.	L. F.	Dis. Allo- wed	Cash	Bank	Date	Particulars	V. No.	L. F.	Dis. Earned	Cash	Ban
2002							2002						
May1	To Bal.b/d				27,000	45,000	May4	By Balu			300		5,7
3	To Pragash					7,500	10	By Bank		C		15,000	
5	To Interest					645	14	By Rent				3,500	
10	To Cash		C			15,000	18	By Insuran.					
16	To Subash			400	4,600			Premium					1,2
20	To Bank		C		6,000		20	By Cash		C			6,0
22	To Sales				5,800		,,	By Drawings					4,0
28	ToDividend					2,500	25	ByStationery				300	
							30	ByPurchase				9,000	
							31	By Bal. b/d				15,600	53,7
				400	43,400	70,645					300	43,400	70,6
June1	To Bal. b/d				15,600	53,745							

Illustration : 9

Prepare Petty Cash Book on imprest system from the following particulars.

2007

Nov. 1. Received from main cashier for petty cash payments Rs.1,000.

2. Paid for Postage Rs.70

5. Paid for Stationery Rs.120

8. Paid for Printing charges Rs.150

9. Paid for carriage Rs.90

12. Paid for Telegrams Rs.45

21. Purchased stamps and envelopes Rs.25

22. Miscellaneous Expenses Rs.30

24 Paid for office cleaning Rs.50

27 Travelling Expenses Rs.60

30 Paid to Madhavan Rs.180

Solution :

Analytical Petty Cash book

Receipt	C.B.F.N.	Date	Particulars	V.N.	Total Payments	Analysis of Payments							
						Postage & Telegrams	Printing & Stationery	Carriage	Travelling Expenses	Office Exp.	Sundries	L.F.	Personal Accounts
Rs.		2007			Rs.	Rs.	Rs.	Rs	Rs.	Rs	Rs		Rs.
1,000		Nov. 1	To Bal. b/d										
		2	By Postage		70	70							
		5	By Stationery		120		120						
		8	By Printing		150		150						
		9	By Carriage		90			90					
		12	By Telegram		45	45							
		21	By Stamps		25	25							
		22	By Misc.Exp.		30						30		
		24	By Cleaning		50					50			
		27	ByTravelling		60				60				
		30	By Madavan		180								180
					820	140	270	90	60	50	30		180
		30	By Bal. C/d		180								
1,000					1,000								
180		Dec. 1	To Bal. b/d										
820		1	To Cash										

4.11 THEORETICAL QUESTIONS :

A) Short Answer Type:

1. What is journal proper?
2. What is Sales book?
3. Give a short note on a) Debit note b) Credit note
4. What is the difference between Trade Discount and Cash Discount?
5. What is Triple column cash book?
6. Explain Imprest System?

B) Essay Type :

1. Explain the various types of Subsidiary books for recording cash and credit transactions:

4.12 EXERCISE PROBLEMS

Exercise : 1

Prepare a Sales book from the following transactions.

2003

Nov. 5 Sold goods to Newton Rs.5,000

6 Cash sales to Jerald Rs.2,500

10 Credit sales to Veerappan Rs.3,000

16 Sold goods to Amudhan Rs.7,200

20 Sold goods to Alamelu Rs.9,000

Answer : Total of Sales book Rs.24,200

Exercise : 2

Enter the following transactions in proper subsidiary books.

2006

July 1 Bought goods from Vedanandha Rs.7,000

4 Sold goods to Suddhanandha Rs.10,400

7 Credit sales to Nithyanandha Rs.14,300

12 Credit purchases from Paramanandha Rs.5,900

17 Purchase returns to Vedanandha Rs.700

18 Return inwards from Nithyanandah Rs.300

22 Bought goods from Kirubanandha Rs.9,500

24 Return outwards to Paramanandha Rs.650

27 Sales returns from Suddhanandha Rs.400

28 Sold goods to Sugabothanandha Rs.5,000

30 Bought goods from Sadhanandha Rs.6,500

Answer : Total of Sales Book : Rs.28,700; Purchases Book: Rs.28,900

Purchase Returns Book : Rs.1,350; Sales Returns Book : Rs.700

Exercise : 3

Enter the following transactions in a simple cash book.

2005

April 1 Cash in hand Rs.75,000

5 Purchased good from Madhan Rs.6,000

10 Cash purchases Rs.30,000

14 Paid Gopi Rs.7,000

22 Received cash from Selvam Rs.5,000

24 Commission received Rs.400

27 Paid interest Rs.600

Answer: Cash Balance Rs.42,800

Exercise : 4

Enter the following in a double column cash book:

1999			Rs.
Jan	1	Cash balance	13,750
	2	Received from Balan by Cheque	2,500
		Discount allowed to him	125
	3	Purchased good for cash	2,150
	4	Paid into bank	1,100
	5	Withdrew from Bank for Personal use	1,500
	7	Paid office rent by cheque	800

(B.Com. Bharathiyar University)

Answer: Closing cash balance Rs.10,500; Discount allowed Rs.125

Exercise : 5

Enter the following transactions in a Triple column cash book:

1999			Rs.
Jan.	1	Cash in hand	410
		Balance at Bank	8,920
	2	Cash Sales	4,500
	3	Paid into Bank	4,000
	5	Purchased Stationery	100
	8	Paid Mahesh by cheque	280
		Discount received	20
	12	Gave a cheque for cash purchases	1,500
	15	Cash withdrawn for personal use	500
	18	Received from Surendar, a cheque for Rs.1,970 in full settlement of account for Rs.2,000 and deposited it in bank	
	20	Drew from Bank	1,000
	21	Paid wages	800
	25	Bank returned cheque of Surendar dishonoured	
	31	Bank charges as per pass Book	10

(B.Com. Osmania University)

Answer : Cash balance Rs.510; Bank balance Rs.10,130;

Exercise : 6

A trader maintains Petty cash book under imprest system. Record the following transactions in his Petty Cash book.

2005			Rs.
Sep.	1	Received for Petty payments	500
	2	Postage	40
	5	Paid stationery	25
	8	Paid for advertising	50
	12	Paid wages	20
	16	Carriage	15
	20	Conveyance	25
	25	Travelling Expenses	80
	27	Postage paid	50
	28	Wages paid for office cleaning	10
	29	Telegram	20
	30	Registered Postage	10

(Adapted, B.Com. Bharathidasan University)

Answer: Total Payments Rs.345; Closing Balance Rs.155

4.12 BOOKS FOR REFERENCE :

1. T.S.Reddy & A.Murthy, Financial Accounting, Margham publications, Chennai-17.
2. R.S.N. Pillai, Bagavathi & S.Uma, Fundamentals of Advanced Accounting, S.Chand & Company Ltd., RamNagar, New Delhi-110 055.
3. R.L.Gupta & V.K.Gupta, Financial Accounting, Sultan Chand and Sons, New Delhi-2.
4. Dr.S.Ganeson & S.R.Kalavathi, Financial and cost accounting, Thirumalai Publication, Nagercoil -1.
5. M.C.Shukla, T.S.Grewal, S.C.Gupta, Advanced Accounts - Volume I , S.Chand & Company Ltd., RamNagar, New Delhi - 110 055.
6. S.P.Jain & K.L.Narang, Financial Accounting, Kalyani Publishers, Chennai.

Answers for Self-Evaluation Questions.

SELF - EVALUATION QUESTIONS - I

A) 1. Sub-divisions of journal

2. General journal

3. Small payments

4. Credit transactions

5. Cash Book

B) 1. In large concerns, the number of transactions will be large and it is difficult to write all the transactions through journal. So the transactions of similar nature are recorded as special journals or sub-divisions of journal to minimize the work. These sub-divisions of journals into various books recording transactions of the similar nature are called subsidiary books.

2. **Trade Discount:** When a customer purchases goods above a certain amount, the seller will give the buyer an allowance or concession called Trade Discount. Trade discount is not recorded in the books of account.

Cash Discount: When the goods are sold on credit, to encourage the customer to make prompt payment, a deduction is offered. This deduction is known as cash discount. This is recorded in the books of account.

3. When the cash is paid into bank or withdrawn from bank it affects both cash and bank accounts. It is entered on both side of the cash book and known as contra entry. Such contra entries are denoted by writing 'C' in the L.F. column on both sides of the cash book.

4. **a) For Credit Transactions :** 1.Purchases Book 2. Sales Book 3.Purchase Returns Book

4. Sales Returns Book 5.Bills Receivable Book 6. Bills Payable Book b) For Cash Transactions : 1. Simple Cash Book 2. Bi-Column Cash Book

3. Three column Cash Book 4. Analytical Petty Cash Book

NOTES

Chapter – V
FINAL ACCOUNTS

5.0 Introduction
5.1 Final accounts
5.2 Trading Account
5.3 Profit and Loss Account
5.4 Balance Sheet.
5.5 Closing entries.
5.6 Adjustments
5.7 Proforma of Trading Account
5.8 Proforma of Profit And Loss Account
5.9 Proforma of Balance Sheet (Order of Liquidity)
5.10 Difference between Trial Balance and Balance Sheet.

Self - Evaluation Questions - I

5.11 Summary
5.12 Illustrative Problems
5.13 Theoretical Questions
5.14 Exercise Problems
5.15 Books for Reference

Answers for Self-Evaluation Questions

5.0 Introduction:

Every business concern will be eager to know how much profit they have earned from their business. At the end of each accounting period, all the ledger accounts are closed. By extracting the ledger balances, Trial balance is prepared in order to check the accuracy of the accounts. To fulfill the objective of accounting, i.e., to find out the trading results, final accounts are prepared.

5.1 Final accounts

At the end of each accounting period, the following accounts are prepared in a business concern.

1. Trading Account
2. Profit and Loss Account and
3. Balance Sheet.

The first two accounts, Trading account and Profit and loss account are prepared to ascertain the trading results. The Balance Sheet is prepared to find out the financial position of the concern. In case of manufacturing concerns producing and selling goods will prepare Manufacturing Account prior to the Trading account.

5.2 Trading Account

Trading account is prepared to find out the Gross trading results. This account begins with opening stock and ends with closing stock. Net Purchases (Purchases less Returns), expenses on Purchases and other direct expenses on production such as wages, power, fuel etc., will be entered on the debit side of the Trading account.

Net Sales (Sales less Returns) will be entered on the credit side of the Trading account. By closing this account, we can get either Gross Profit or Gross Loss. This balance should be transferred to Profit and Loss Account. In case of manufacturing concerns, they will prepare a Manufacturing Account in addition to Trading account, to find out the Cost of Production, which is transferred to trading account.

5.3 Profit and Loss Account

Profit and Loss Account is prepared to find out the Net trading results. Profit and loss account begins with the balance transferred from Trading account. All the indirect expenses such as Office expenses, Administrative expenses, Financial expenses (interest paid on loan), Selling expenses, Distribution expenses and other non-cash expenses like depreciation, provision for bad and doubtful debts, provision for tax etc., are entered on the debit side of the Profit and Loss Account.

On the credit side of Profit and Loss account Gains and Incomes of the business are entered. By closing the profit and loss account, we can get either Net Profit or Net Loss. Net Profit should be added with the capital in the balance sheet at the end. If any Net Loss, it must be deducted from the Capital.

5.4 Balance Sheet.

Balance Sheet is a statement showing the financial position of a business concern. Balance sheet is not an account. So there is neither debit side nor credit side in the balance sheet. All the assets are shown on the right hand side. Capital and liabilities are shown on the left hand side. By closing this balance sheet, both the totals of the Assets and Liabilities side will get agreed. The affairs shown in the balance sheet represent on a particular day only and not for a year. The arrangement of assets and liabilities in the balance sheet is known as Marshalling of Balance Sheet. It can be arranged either in the order of Liquidity or in the order of performance.

5.5 Closing entries.

The trial balance shows the balances of all the ledgers personal, real and nominal. All the personal accounts and Assets accounts are taken to the balance sheet and the remaining accounts are transferred to the Trading and Profit and loss account. The following are the closing entries for transferring such ledger balances.

1. For Transferring items on the debit side of Trading account.

Trading a/c	Dr.	xxxx
To Opening stock a/c		xxxx
To Purchases a/c		xxxx
To Carriage inwards a/c		xxxx
To Wages a/c		xxxx
To Other direct expenses a/c		xxxx

2. For transferring the Purchases returns a/c

Purchases returns a/c	Dr.	xxxx
To Purchases a/c		xxxx

3. For transferring Sales account

Sales a/c	Dr.	xxxx
To Trading a/c		xxxx

4. For transferring Sales return account

Sales a/c	Dr.	xxxx
To Sales return a/c		xxxx

5. When closing stock is brought into the final accounts

Closing stock a/c	Dr.	xxxx
To Trading a/c		xxxx

6. When Gross profit is arrived

Trading a/c	Dr.	xxxx
To Profit and Loss a/c		xxxx

7. When gross loss is occurred

Profit and Loss a/c	Dr.	xxxx
To Trading a/c		xxxx

8. For transferring the items of expenses and losses on the debit side of Profit and loss a/c

Profit and Loss a/c	Dr.	xxxx
To Each item of expenses or loss		xxxx

9. For transferring incomes and gains on the credit side of Profit and loss a/c

Each item of incomes and gains a/c	Dr.	xxxx
To Profit and Loss a/c		xxxx

10. For transferring the Net Profit to Capital account in the Balance sheet

Profit and Loss a/c	Dr.	xxxx
To Capital a/c		xxxx

11. For transferring the Net Loss to Capital account in the Balance sheet

Capital a/c	Dr.	xxxx
To Profit and Loss a/c		xxxx

5.6 Adjustments

Usually, final accounts are prepared from the trial balance with some additional information. The information included in the trial balance is already balanced, i.e., the total of the debit side and total of the credit side in the trial balance are agreed. While preparing the final accounts, the items appearing in the trial balance will be entered only once in the Trading account or in the Profit and loss account or in the Balance sheet appropriately. All the debit items appearing in the trial balance will be taken to either debit side of the Trading and Profit & Loss account or on the Assets side of the Balance sheet. All the credit items appearing in the trial balance will be taken either credit side of the Trading and Profit & Loss account on the Liabilities side of the Balance sheet.

The information given out of the trial balance are called adjustments. When an adjustment is done in the final accounts, it will affect two accounts and it should be entered appropriately in :

a) Trading account and Profit & Loss account or

b) Trading account and Balance sheet or

c) Profit & Loss account and Balance sheet

While doing each and every adjustment, we must check, whether one debit effect and another credit effect is given. Then only, the total of the Balance sheet will get agreed. Let us see the adjustments and their treatment in the final accounts one by one.

1. Closing Stock

This is the stock at the end of the year. This should be taken to the a) **credit side of the Trading account** as the last item and b) on the **assets side of the Balance sheet.**

Adjusting entry:

Closing stock a/c Dr. xxxx

To Trading a/c

Note : When 'Adjusted Purchases' (Opening Stock + Purchases - Closing Stock) is given in the trial balance, opening stock will not appear anywhere in the question. But the closing stock will appear in the trial balance. In such case, the closing stock should be taken to the balance sheet only.

An important note on Expenses and Incomes:

All the revenue expenses and incomes should be taken to the Trading and Profit & Loss account on accrual basis. Only the current year's portion of income and expenses should be taken into account. Expenses paid for the previous year or Expenses paid in advance for the next year if any, it should be excluded from the Trading and Profit & Loss account. If any expense is payable or outstanding in the current year it should be added with the corresponding expense in the Trading and Profit & Loss account.

Likewise income received for the previous year or received in advance for the next year should be deducted from the corresponding income in the Profit and Loss account. If any income is accrued or earned but not received in the current year it should be added with the corresponding income in the Profit and Loss account.

Outstanding income or Income accrued but not received - **Asset**

Income received in advance - **Liability**

Outstanding Expenses or Expenses Payable - **Liability**

Prepaid expenses or Expenses paid in advance - **Asset**

2. Outstanding Expenses or Expenses Payable :

Expenses which are due in the current year but not paid, are known as outstanding expenses.

If outstanding expenses is given in the Trial balance, it should be taken to the liability side of the balance sheet.

If outstanding expenses is given in the adjustment a) it should be added with the corresponding expenses in the Trading and Profit & Loss account and b) it should be taken to the liability side of the balance sheet.

Adjusting entry:

(Particular) Expenses a/c Dr. xxxx

To Outstanding expenses a/c xxxx

3. Expenses paid in advance or Prepaid expenses:

Prepaid expenses area the expenses the benefit of which has not been fully enjoyed before the end of the accounting year. It is also known as unexpired expenses.

If any prepaid expense is given in the trial balance, it should be shown on the assets side of the balance sheet.

If any prepaid expense is appearing in the adjustment, a) it should be deducted from the respective expenses in the Trading and Profit & loss account and b) it should be shown on the assets side of the balance sheet.

Adjusting entry:

Prepaid expenses a/c Dr. xxxx

To (Particular) Expenses a/c xxxx

4. Income accrued or earned but not received (Outstanding income)

Sometimes interest on investments, commission etc., are earned during the current year but not received. Such incomes are known as outstanding incomes.

If any outstanding income is given in the trial balance, it has to be taken to the assets side of the balance sheet.

If any outstanding income is given in the adjustments, a) it should be added with the corresponding income in the Profit and Loss account and b) it should be shown on the asset side of the balance sheet.

Adjusting entry:

Accrued (O/s) income a/c Dr. xxxx

To (Particular) Income a/c xxxx

5. Income received in advance

Sometimes a portion of an income may be received in advance for the future period. Such part of the income should not be included in the current year's profit.

If any income received in advance is given in the trial balance it has to be shown on the liabilities side of the balance sheet.

If any income received in advance is given in the adjustment a) it should be deducted from the corresponding income in the Profit and loss account and b) it should be taken to the liabilities side of the balance sheet.

Adjusting entry:

(Particular) Income a/c Dr. xxxx

To Income received in advance a/c xxxx

6. Depreciation :

Depreciation is the fall in the value of an asset. It is one of the non cash expenses debited to balance sheet.

If depreciation is given in the trial balance it should be taken to the debit side of the Profit and Loss account.

If depreciation appears in the adjustment it is a) debited to the Profit and Loss account and b) deducted from the corresponding asset in the balance sheet.

Adjusting entry

Depreciation a/c Dr. xxxx

To (Particular) Asset a/c xxxx

7. Bad Debts.

The amount irrecoverable from the sundry debtors is known as bad debts. It is a loss. It is treated as a non-cash expense and debited to Profit and loss account.

If bad debts appears in the trial balance, it is already adjusted in the sundry debtors and it should be taken to the debit side of the Profit and loss account only.

If bad debts appears in the adjustments it should be a) deducted from the sundry debtors in the balance sheet and b) debited to the Profit and Loss account.

Adjusting entry:

Bad debts a/c Dr. xxxx

To Sundry Debtors a/c xxxx

8. Provision for Bad and Doubtful Debts.

After deducting the bad debts from the debtors, a Reserve or Provision is created on sundry debtors to meet the loss if any default on payment by the debtors. This is also treated as a non-cash expenses and debited to Profit and loss a/c.

If the Provision for bad and doubtful debts appeared in the trial balance, it refers to the existing provision for the previous year. The existing provision should be deducted from the Bad debts and Current year's Provision on the debit side of the Profit and loss account. (or it should be taken to the credit side of the Profit and loss a/c when there is no provision for the current year)

If the Provision for bad and doubtful debts appeared in the adjustments a) it should be deducted from the sundry debtors in the balance sheet and b) it should be added with the bad debts on the debit side of the Profit and loss a/c.

Adjusting entry:

Profit and loss a/c Dr. xxxx

To Provision for bad and doubtful debts a/c xxxx

9. Provision for discount on debtors.

Discount will be allowed to debtors when they make prompt payment. This is also one of the non-cash expenses debited to profit and loss a/c.

If the provision for discount on debtors appears in the adjustment, a) it should be deducted on the debtors considered as good (after deducting bad debts and provision for bad and doubtful debts) and b) added with the discount allowed on the debit side of the Profit & Loss a/c.

Adjusting entry:

Provision for discount on debtors a/c Dr. xxxx

To Sundry debtors a/c xxxx

10. Reserve for discount on creditors.

If prompt payment is made to the creditors, it will be resulted in getting discount. It is one of the income credited to Profit and loss a/c.

If Reserve for discount on creditors is given in the adjustment, it should be calculated on sundry creditors at the given percentage and a) deducted from sundry creditors and b) to be added with the discount earned on the credit side of the profit and loss a/c.

Adjusting entry:

Sundry Creditors a/c Dr. xxxx

To Reserve for discount on creditors a/c xxxx

11. Interest on Capital

Interested on capital is treated as an expenses to business. It is a) debited to Profit and Loss account and b) added with the capital in the balance sheet.

Adjusting entry:

Interest on Capital a/c Dr. xxxx

To Capital a/c xxxx

12. Interest on Drawings

Interest on Drawings is an income to the business concern. It is a) taken to the credit side of the profit and loss account and b) (added with the drawings and) deducted from the capital in the balance sheet.

Adjusting entry:

Drawings a/c Dr. xxxx

To Interest on drawings a/c xxxx

13. Goods taken by the proprietor for his personal use

When the proprietor takes some goods for his personal use, it is treated as drawings. It should be a) deducted from Purchases account if he takes the goods at cost price, otherwise it is deducted from Sales account it he takes the goods at selling price and b) added with drawings and deducted from his capital account.

Adjusting entry:

Drawings a/c Dr. xxxx

To Purchases a/c xxxx

14. Transfer to Reserve

A portion of the profit may be kept as Reserve to save the business from future losses and for expansion of business in future. It is a) shown on the debit side of the Profit and loss account and b) on the liability side of the balance sheet.

Adjusting entry:

Profit and loss a/c Dr. xxxx

To Reserve a/c xxxx

15. Provision for Income Tax

A portion of the profit is reserved in order to pay the income tax. The provision for tax is shown on the a) debit side of the Profit and loss account and on the b) liability side of the balance sheet.

Adjusting entry:

Profit and Loss a/c Dr. xxxx

To Provision for Income Tax a/c xxxx

16. Loss of goods destroyed by fire or accident

The loss of goods destroyed by fire or accident is an extraordinary loss. In order to find out the gross profit the loss is credited to Trading account. If the goods are insured, the can be recovered from the insurers in full or a part. If the goods are not insured nothing can be claimed.

To bring such loss in the books of account a) the Trading account should be credited with the amount of stock destroyed by fire.

b) (i) If nothing is covered by the insurers.

Transfer entire amount of loss on the debit side of Profit and loss account

(ii) If the total loss is admitted by the insurers in full,

Show the insurance company account on the assets side of the balance sheet.

(iii) If a part amount is covered by the insurers and another part is irrecovered.

Transfer the loss (irrecovered) to the debit side of Profit and loss a/c and

Show the insurance company account on the assets side for the amount admitted as claims by the insurers.

17. Goods distributed as free samples

In order to promote the sale of goods, some of the produced goods are distributed as free samples. It is an advertisement for the business concern.

a) If Free samples appears in the trial balance, take the item to the debit side of the Profit and loss account.

b) If Free samples appears in the adjustments, it should be taken to the (i) debit side of the Profit and Loss account and (ii) to deducted from the Purchases account.

18. Commission payable to Manager as a percentage on Net Profit

Sometimes, the manager of a concern is entitled to get a commission out Net Profit earned by the business concern. This commission may be a fixed percentage on the Net Profit before charging such commission or a fixed percentage on the Net Profit before after charging such commission. The commission should be calculated and shown on the a) debit side of the profit and loss account and on the b) liability side of the balance sheet.

Calculation of Commission payable to Manager.

The net profit of a business concern is Rs.11,000. The manager of the concern is entitled to get a commission of a) 10% on the net profit before charging such commission or b) 10 % on the net profit after charging such

commission. Calculate the amount of commission payable to the manager in each case.

a) 10% on the net profit **before charging** such commission

$$11,000 \times \frac{10}{100} = \text{Rs.}1,100$$

b) 10% on the net profit **after charging** such commission

If the net profit is Rs.100 the commission payable is Rs.10

Thus the net profit before paying such commission is 100 + 10 = Rs.110

Commission will be $11,000 \times \frac{10}{110} = \text{Rs.}1000$

5.7 PROFORMA OF TRADING ACCOUNT

Trading account for the year ended 31st March .....

	Rs.		Rs.
To Opening stock	xxxx	By sales xxxx	
To Purchases xxxx		Less: Returns xxxx	xxxx
Less: Returns xxxx	xxxx	By Closing stock	xxxx
	xxxx		
	xxxx		
To Carriage inward	xxxx	By Gross Loss c/d (Transferred to Profit and loss account)*	
To Wages	xxxx		
To Freight	xxxx		
To Import Duty	xxxx		
To Octroi Duty	xxxx		
To Clearing charges	xxxx		
To Gas, Fuel and Power	xxxx		
To Royalty on Production			
To Factory expenses	xxxx		
To Gross Profit c/d (Transferred to Profit and loss account)			
	xxxx		xxxx

*** Note:** There can be either Gross profit or Gross loss and not both at the same time.

5.8 PROFORMA OF PROFIT AND LOSS ACCOUNT

Profit and Loss Account for the year ended 31st March ……..

	Rs.		Rs.
To Gross Loss b/d		By Gross Profit b/d (Transferred from Trading	xxxx
Office and Administrative		account.)	xxxx
expenses	xxxx	By Interest received	xxxx
To Salaries	xxxx	By Commission received	xxxx
To Rent, Rate and Taxes	xxxx	By Rent received	xxxx
To Printing and Stationery	xxxx	By Discount received	xxxx
To Postage and Telegrams	xxxx	By Income from investments	xxxx
To Telephone Charges	xxxx	By Dividend from shares	xxxx
To Office Lighting	xxxx	By Interest from Debentures	xxxx
To Legal Charges	xxxx	By Profit on sale of	
To Audit Fees	xxxx	investments	xxxx
To Insurance	xxxx	By Special bonus received	xxxx
To General/Sundry expenses		from	xxxx
		Suppliers	
Financial Expenses	xxxx	By Bad debts recovered	
To Interest on Capital	xxxx	By Miscellaneous receipts	
To Interest on Loans	xxxx		
To Bank Charges	xxxx		
To Discount allowed		By Net Loss (Transferred to Capital Account)	
Selling and Distribution expenses	xxxx		
To advertising	xxxx		
To Travelling expenses	xxxx		
To Commission	xxxx		
To Bad debts	xxxx		
To Carriage outwards	xxxx		
To Godown rent			
Depreciation and Maintenance	xxxx		
To Depreciation	xxxx		
To Repairs and Renewals	xxxx		
To Upkeep/ Maintenance			
Other Losses	xxxx		
To Loss on sale of investments	xxxx		
To Loss on sale of fixed assets			
Extraordinary Expenses			
To Loss by fire (not covered by insurance)	xxxx		
	xxxx		
To Net Profit (Transferred to Capital Account)	xxxx		xxxx

5.9 PROFORMA OF BALANCE SHEET (ORDER OF LIQUIDITY)

Balance sheet as 31st March …..

LIABILITIES		Rs.	ASSETS	Rs.
Sundry Creditors		xxxx	Cash in hand	xxxx
Bills Payable		xxxx	Cash at Bank	xxxx
Bank overdraft		xxxx	Bills Receivable	xxxx
Outstanding expenses		xxxx	Sundry Debtors	xxxx
Mortgage Loans		xxxx	Stock in trade	xxxx
Reserve Fund		xxxx	Investments	xxxx
Capital	xxxx		Prepaid expenses	xxxx
Add: Net Profit (or)	xxxx		Loose tools	xxxx
Less: Net Loss	____		Furniture and fittings	xxxx
	xxxx		Plant and Machinery	xxxx
Less: Drawings	xxxx	xxxx	Equipments	xxxx
	____		Land and Buildings	xxxx
			Business Premises	xxxx
			Patent Rights	xxxx
			Trademarks	xxxx
			Goodwill	xxxx
		xxxx		xxxx

5.10 Difference between Trial Balance and Balance Sheet.

Sl. No.	Basis of Distinction	Trial Balance	Balance Sheet
1	Objective	To know the arithmetical accuracy of the accounting work.	To know the true and fa financial position of a busines
2	Format	The columns are debit balance and credit balances	The two sides are assets sic and liabilities side.
3	Content	It is the summary of all the ledger balances – personal, real and nominal accounts.	It is a statement showin closing balances of person and real accounts.
4	Stage	It is the middle stage in the preparation of accounts.	It is the last stage in th preparation of accounts.
5	Period	It can be prepared periodically, say at the end of the month, quarterly or half yearly etc.	It is generally prepared at th end of the accounting period.
6	Preparation	It is prepared before the preparation of Trading, Profit and loss account.	It is prepared after th preparation of trading an profit and loss account.
7	Stock	It shows opening stock only	It shows closing stock only
8	Order	Balances shown in the trial balance are not in order	Balances shown in the Balanc sheet must be in order.
9	Evidence	It cannot not be produced as documentary evidence in the court.	It can be produced documentary evidence in th court.
10	compulsion	Preparation of trial balance is not compulsory.	Preparation of balance sheet a must.

SELF - EVALUATION QUESTIONS - I

A) Choose the correct answer:

1. Profit and Loss account is prepared to find out

a) Gross profit or loss b) Net profit or loss c) Financial position

Answer:___________________________ .

2. Direct expenses appear on the

a) debit side of the of the Trading account b) debit side of the Profit and Loss account c) assets side of the balance sheet.

Answer:___________________________ .

3. Indirect expenses appears on the

a) debit side of the of the Trading account b) debit side of the Profit and Loss account c) assets side of the balance sheet.

Answer:___________________________ .

4. Wages is an example of

a) direct expenses b) indirect expenses c) capital expenditure

Answer:___________________________ .

5. Net profit is added to

a) gross profit b) capital c) cash at Bank

Answer:___________________________ .

B) Fill in the blanks:

1. By preparing the Trading account, we can find out ___________________ .

2. Balance sheet shows the ______________________ of the business concern.

3. Cash at Bank is a _____________ asset.

4. Drawings must be deducted from _______________ .

5. Carriage inwards is debited to ___________________ account.

c) Give short Answer:

1. What is the objective of preparing Trading account?

……………………………………………………………………………………

2. Give a short note on Balance sheet.

……………………………………………………………………………………

3. What are current assets?

……………………………………………………………………………………

5.11 SUMMARY

Final accounts are prepared at the end of the Accounting year. Trading account, Profit and loss account and Balance sheet are prepared to find out the trading results.

Trading account is prepared to find out the gross profit or gross loss. It is debited with opening stock, purchases, direct expenses and credit with sales and closing stock.

Profit and loss account is debited with all indirect expenses such as office and administrative expenses, selling and distribution expenses, financial expenses and some non-cash expenses. All incomes and gains are credited to this account. By closing this account, we can get either net profit or net loss which adjusted with capital.

Balance sheet shows the financial position of a business. It is neither an account nor a ledger but a statement. The assets and liabilities are shown in the balance sheet either in the order of liquidity or in the order of performance.

5.12 ILLUSTRATIVE PROBLEMS

Illustration : 1

The following are the balances extracted from the books of Mr. Thomas as on 31st March 2007.

Particulars	Debit Rs.	Credit Rs.
Stock on 1.4.2006	12,500	
Purchases	1,00,000	
Sales		1,50,000
Return outwards		5,000
Return inwards	10,000	
Carriage inwards	2,500	
Carriage outwards	750	
Power, Coal, Gas	1,500	
Salaries	7,500	
Wages	6,500	

Stock on 31.12.2000 was valued at Rs.7,400

You are required to prepare a Trading account for the year ending 31st March 2007.

Solution :

Trading Account of Mr. Thomas for the year ending 31st March 2007

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Stock		12,500	By Sales	1,50,000	
To Purchases	1,00,000		Less : Returns	10,000	1,40,000
Less: Returns	5000	95,000			
			By Closing Stock		7,400
To Carriage inwards		2,500			
To Wages		6,500			
To Power, Coal, Gas		1,500			
To **Gross Profit** c/d		29,400			
(Transferred to Profit and					
Loss account)					
		1,47,400			1,47,400

Illustration : 2

From the following particulars, prepare a Profit and loss account of Mr.Balan for the year ending 31st December 2006.

	Rs.		Rs.
Gross Profit	3,50,000	Office expenses	2,500
Salaries and Wages	80,000	Rent	10,000
Interest on loan	6,000	Depreciation	4,500
Distribution charges	3,000	Salesmen salary	9,000
Printing and Stationery	1,000	Bad Debts	3,200
Discount allowed	1,750	Discount earned	2,450
Commission received	3,600	Interest paid	1,500
Advertising	12,000	Taxes and Insurance	7,000
Postage	780	Travelling Expenses	2,000
Miscellaneous Expenses	1,000		

Solution :

Profit and Loss Account of Mr. Balan for the year ending 31st December 2006

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Salaries and Wages	80,000	By Gross Profit b/d (Transferred from Profit and loss account)	3,50,000
To Office Expenses	2,500	By Commission received	3,600
To Rent	10,000	By Discount earned	2,450
To Taxes and Insurance	7,000		
To Printing & Stationery	1,000		
To Postage	780		
To Misc. expenses	1,000		
To Interest on loan	6,000		
To Salesmen salary	9,000		
To Travelling Expenses	2,000		
To Distribution charges	3,000		
To Advertising	12,000		
To Bad debts	3,200		
To Discount allowed	1,750		
To Depreciation	4,500		
To **Net Profit** (Transferred to Capital account)	2,06,320		
	3,50,050		3,56,050

Illustration : 3

From the following particulars prepare a Balance sheet as on 31st March, 2006

	Rs.		Rs.
Cash in hand	10,000	Cash at Bank	12,500
Goodwill	10,000	Capital	1,10,000
Land and Buildings	25,000	Drawings	12,500
Investment	10,500	Sundry Creditors	31,500
Bills Receivable	6,500	Bills Payable	6,250
Furniture	10,750	Plant and Machinery	20,000
Sundry Debtors	25,000	Patent rights	10,000
Closing Stock	40,000	Net Profit	45,000

Solution:

Balance Sheet as on 31st March, 2006

Liabilities		Rs.	Assets	Rs.
Capital	1,10,000		Cash in hand	10,000
Less : Drawings	12,500		Cash at Bank	12,500
	------------		Bills Receivable	6,500
	97,500		Sundry Debtors	25,000
Add : Net Profit	45,000			
	------------	1,42,500	Closing stock	40,000
Bills payable		6,250	Investments	10,500
Sundry Creditors		31,500	Furniture	10,750
			Plant and Machinery	20,000
			Land and Buildings	25,000
			Patent Rights	10,000
			Goodwill	10,000
		1,80,250		1,80,250

Illustration : 4

The following is the Trial Balance of Tom & Co. as on 31st March 2005.

Particulars	Debit Rs.	Credit Rs.
Capital		95,000
Land and Building	30,000	
Furniture & Fittings	15,000	
Plant and Machinery	17,000	
Goodwill	20,000	
Opening Stock	18,000	
Bills Receivable and Bills Payable	4,000	6,000
Sundry debtors and Sundry creditors	16,000	18,000
Purchases and Sales	80,000	1,50,000
Returns	1,000	2,000
Carriage outwards	500	
Freight & Duty	1,200	
Wages	22,800	
Factory expenses	6,000	
Salaries	24,000	
Commission	2,500	
Discount		9,000
Printing and Stationery	4,500	
Trade expenses	1,800	
Cash in hand	700	
Cash at Bank	15,000	
	2,80,000	2,80,000

Adjustments:

1. Closing stock was valued at Rs.70,000.
2. Depreciate Land and Building at 10%, Furniture and fittings at 20%.
3. Wages outstanding during the year was Rs.1,200; Salaries outstanding Rs.12,000.

Prepare a trading and Profit and Loss Account for the year ending 31st March 2005 and also a Balance sheet as on that date.

Solution :

Trading and Profit and Loss Account of Tom & Co. for the year ending 31st March 2005

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Stock		18,000	By Sales	1,50,000	
To Purchases	80,000		Less : Returns	1,000	1,49,000
Less: Returns	2,000			----------	
	----------	78,000	By Closing Stock		70,000
To Freight and Duty		1,200			
To Wages	22,800				
Add: Outstanding	1,200	24,000			

To Factory expenses		6,000			
To **Gross Profit** c/d (Transferred to Profit and Loss account)		91,800			
		2,19,000			2,19,000
To Salaries	24,000				
Add: Outstanding	12,000		To **Gross Profit** b/d		91,800
	----------	36,000	(Transferred from		
To Printing & Stationery		4,500	Trading account)		
To Trade expenses		1,800			9,000
To Carriage outwards		500	By Discount		
To Commission		2,500			
To Depreciation :					
Land & Building	3,000				
Furniture	3,000				
	----------	6,000			
To **Net Profit** (Transferred to Capital Account)		49,500			
		1,00,800			1,00,800

Balance Sheet as on 31st March, 2005

Liabilities		Rs.	Assets		Rs.
Capital	95,000		Cash in hand		700
Add : Net Profit	49,500	1,44,500	Cash at Bank		15,000
	-----------		Bills Receivable		4,000
Bills payable		6,000	Sundry Debtors		16,000
Sundry Creditors		18,000	Closing stock		70,000
Outstanding Expenses:			Furniture	15,000	
Wages	1,200		Less: Depreciation 2%	3,000	
Salaries	12,000			---------	12,000
	-----------	13,200	Plant and Machinery		17,000
			Land and Buildings	30,000	
			Less: Depreciation 10%	3,000	
				---------	27,000
			Goodwill		20,000
		1,81,700			1,81,700

Illustration : 5

From the following Trial balance of Mr. Deiveegam as at 31st December 2007, you are required to prepare a Trading and Profit and loss account for the year ended 31st December 2007 and a Balance sheet as on that date after making the necessary adjustments.

Trial Balance

	Debit Rs.	Credit Rs.
Deiveegam's Capital		80,000
Deiveegam's Drawings	6,000	
Machinery (Balance 1st January, 2007)	20,000	
Machinery (Addition on 1st July, 2007)	5,000	
Stock on 1st January 2007	15,000	
Purchases	82,000	
Return Inwards	2,000	
Sundry Debtors	20,600	
Furniture & Fixtures	5,000	
Freight & Duty	2,000	
Carriage outwards	500	

Rent	4,600	
Printing and Stationery	800	
Trade expenses	400	
Sundry creditors		10,000
Sales		1,20,000
Return outwards		1,000
Postage and Telegrams	800	
Provision for doubtful debts		400
Discount		800
Rent of premises sublet for the year (Up to 30th June, 2008)		1,200
Insurance charges	700	
Salaries and wages	21,300	
Cash in hand	6,200	
Cash at Bank	20,500	
	2,13,400	2,13,400

Adjustments:

1. Stock on 31st December 2007 was valued at Rs.14,600.
2. Write off Rs.600 as bad debts.
3. The provision for doubtful debts is to be maintained at 5% on sundry debtors.
4. Create a provision for discount on debtors and on creditors at 2%.
5. Provide depreciation on furniture and fixtures at 5% p.a. and on machinery at 20% p.a.
6. Insurance prepaid was Rs.100
7. A fire occurred on 20th December 2007, in the godown and stock of the value of Rs.5,000 was destroyed. It was fully insured and the insurance company admitted the claim in full.

   (B.Com. Periyar University)

Solution :

Trading and Profit and Loss A/c of Mr.Deiveegam for the year ending 31st December 2007

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Stock		23,800	By Sales	1,20,000	
To Purchases Less: Returns	82,000 1,000 ----------	81,000	Less : Returns	2,000	1,18,000
To Freight and Duty		2,000	By Closing Stock		14,600
To **Gross Profit** c/d (Transferred to Profit and Loss account)		39,600	By Stock destroyed by fire		5,000
		1,37,600			1,37,600
To Salaries and Wages		21,300			
To Rent		4,600	To **Gross Profit** b/d (Transferred from Trading account)		39,600
To Printing & Stationery		800			
To Trade expenses		400			
To Carriage outwards		500	By Discount	800	
To Postage and Telegram		800	Add: Reserve for discount on creditors	200 ----------	1,000
To Insurance Less : Prepaid	700 100 ----------	600	By Rent	1,200	
To Depn. on Furniture		250	Less: Received in adv.	600 ----------	600
To Depn.on Machinery (4,000 + 500)		4,500			
To Bad debts written off **Add:** Provision for Bad and doubtful debts required	600 1,000 --------- 16,00				
Less: Existing Provision	400 ----------	1,200			
To Discount on Debtors		380			
To **Net Profit** (Transferred to Capital Account)		5,870			
		41,200			41,200

Balance Sheet as on 31st December 2007

Liabilities		Rs.	Assets		Rs.
Capital	80,000		Cash in hand		6,200
Less: Drawings	6,000		Cash at bank		20,500

	74,000		Debtors	20,600	
Add: Net profit	5,870	79,870	Less : Bad debts	600	
	----------			---------	
				20,000	
Creditors	10,000		Less: Provision for bad debts required	1,000	
Less: Reserve for discount on Creditors	200	9,800		---------	
	----------			19,000	
Rent received in advance		600	Less: Provision for Discount on Debtors	380	18,620

			Closing Stock		14,600
			Insurance Claim		5,000
			Prepaid Insurance		100
			Furniture	5,000	
			Less: Depreciation	250	4,750

			Machinery	20,000	
			Add: Additions	5,000	

				25,000	
			Less: Depreciation	4,500	20,500

		90,270			90,270

Illustration : 6

The following is the Trial balance of Karunya Agencies as on 31st March 2004. You are required to prepare a Trading and Profit and Loss Account for the year ended 31st March 2004 and also a Balance sheet as on that date after making necessary adjustments.

	Debit	Credit
	Rs.	Rs.
Capital		1,00,000
Drawings	18,000	
Buildings	15,000	
Furniture and Fittings	7,500	
Motor Van	25,000	
Loan from Mr.A @12% interest		15,000
Interest paid on above loan	900	

Purchases	75,000	
Sales		1,00,000
Opening stock	25,000	
Establishment Expenses	15,000	
Wages	2,000	
Insurance	1,000	
Commission		7,500
Sundry Debtors	28,100	
Sundry Creditors		10,000
Bank balance	20,000	
	---------	----------
	2,32,500	2,32,500
	---------	----------

Adjustments :

1. The value of closing stock on 31st March 2004 was Rs.32,000.
2. Outstanding Wages Rs.500
3. Prepaid Insurance Rs.300
4. Commission received in advance Rs.800.
5. Allow interest on Capital @ 10% per annum.
6. Depreciate Building by 2.5%, Furniture and Fittings by 10% and Motor Van by 10%
7. Charge interest on Drawings Rs.500
8. Balance of interest due on the loan is also to be provided for.

(B.Com. Madurai Kamaraj University & University of Madras)

Solution :

Karunya Agencies

Trading Account of Tom & Co. for the year ending 31st March 2004

Dr. Cr.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
To Opening Stock		25,000	By Sales		1,00,000
To Purchases		75,000	By Closing Stock		32,000
To Wages	2,000				
Add : Outstanding	500	2,500			

To **Gross Profit** c/d (Transferred to Profit and Loss account)		29,500			
		1,32,000			1,32,000
			To **Gross Profit** b/d (Transferred from Trading account)		29,500
To Insurance	1000				
Less: Prepaid	300	700			

	900		By Interest on Drawings		500
To Interest on Loan			By Commission	7,500	
Add: Outstanding	900	1,800	Less: Received in Adv.	800	6,700
	---------			----------	
To Establishment Exp.		15,000			
To Depreciation:					
Buildings	375				
Furniture and Fittings	750				
Motor Van	2,500	3,625			

To Interest on Capital		10,000			
To **Net Profit** (Transferred to Capital Account)		5,575			
		36,700			36,700

Balance Sheet as on 31st March 2004

Liabilities	Rs.	Assets	Rs.
Capital 1,00,000		Cash at bank	20,000
Add: Interest on Capital 10,000		Sundry Debtors	28,100

1,10,000		Closing Stock	32,000
Less: Drawings 18,000		Prepaid Insurance	300
Int. on Drawings 500			
---------- 18,500		Buildings 15,000	
----------		Less: Depreciation 375	14,625
91,500		---------	
Add: Net profit 5,575	97,075	Furniture and Fittings 7,500	
----------		Less: Depreciation 750	6,750

Sundry Creditors	10,000	Motor Van 25,000	
Outstanding Wages	500	Less : Depreciation 2,500	22,500

Commission received in advance	800		
	1,24,275		1,24,275

5.13 THEORETICAL QUESTIONS

A) Short Answer Type:

1. What are the final accounts prepared in a trading concern?
2. What do you mean by current liabilities?
3. What is 'marshalling of balance sheet?
4. Give short notes on: a) Provision for Bad and Doubtful debts
   b) Provision for Discount on Debtors
   c) Reserve for Discount on Creditors
5. What is the purpose of preparing 'Manufacturing Account'?

B) Essay Type:

1. What are final accounts? How they are prepared?
2. What are the differences between Trial Balance and Balance Sheet?

5.14 EXERCISE PROBLEMS

Exercise : 1

From the following information, prepare a Trading Account.

	Rs.
Opening Stock	1,00,000
Purchases	1,50,000
Purchase returns	25,000
Direct expenses	10,000
Carriage inwards	5,000
Sales	4,00,000
Closing stock	50,000

(B.Com. Manonmaniam Sundaranar University)

Answer : Gross Profit Rs.2,10,000

Exercise : 2

From the following balances as at 31st December 2002 of a trader, prepare a Trading and Profit and Loss account for the year 2002 and a Balance Sheet as on that date.

	Rs.		**Rs.**
Salaries	5,500	Creditors	9,500
Rent	1,300	Sales	32,000
Cash	1,000	Capital	30,000
Debtors	40,000	Loans	10,000

Trade Expenses	600		
Purchases	25,000		
Advances	2,500		
Bank balance	5,600		
	--------		-------
	81,500		81,500
	--------		-------

Adjustments: 1. The closing stock was amounted to Rs.9,000.

2. One month's salary is outstanding.

3. One month's rent has been paid in advance.

4. Provide 5% on debtors for bad and doubtful debts.

(B.Com. University of Madras)

Answer: Gross Profit -16,000; Net Profit - 6,200; Total of Balance sheet 56,200

Exercise : 3

You are required to prepare the Trading and Profit and Loss account for the year ended 31st March 2004 and a Balance sheet as at that date:

Trial Balance

Dr.Balances	**Rs.**	**Credit Balances**	**Rs.**
Stock (1-4-2003)	95,280	Capital	1,46,900
Purchases	2,62,590	Loan (Interest @ 6%	35,000
Manufacturing wages	45,970	Sundry Creditors	86,270
Fixtures and Fittings	13,970	Provision for doubtful debts	8,500
Sundry Debtors	67,500	Commission received	10,640
Bills receivable	15,000	Purchase Returns	13,360
Sales Returns	8,780		
Salaries	16,000		
Bad Debts	8,620		
Repairs and renewals	9,370		
Rent and Taxes	11,120		
Travelling expenses	6,880		
Insurance	6,400		
Drawings	16,050		
Cash in hand	8,030		
Cash at Bank	24,970		

Interest and Discount 11,370

Adjustments:

1. Closing stock is valued at Rs.1,27,000.
2. Depreciate Plant and Machinery by 5%, Fixtures and fittings by 10%.
3. Outstanding interest on loan is Rs.350
4. Sales include Rs.1,030 worth of goods taken by the proprietor for his private use.
5. The manager is entitled to a commission of 10% on the net profit after charging such commission.

(B.Com. Madurai Kamaraj University)

Answer: Gross Profit-89,770;Net Profit-24,694;Total of Balance sheet 2,78,603

Exercise : 4

Prepare Trading & Profit and Loss Account and Balance sheet as on 31st March 1994.

	Rs.		Rs.
Chandran's Capital	1,19,400	Manufacturing wages	40,970
Chandran's Drawings	10,550	Sales	3,56,430
Sundry Creditors	59,630	Return Inwards	2,780
6% Loan A/c (Credit)	20,000	Salaries	11,000
Cash at Bank	18,970	Rent and Taxes	5,620
Cash in hand	3,030	Interest and discount (Dr.)	5,870
Sundry Debtors (including		Travelling Expenses	1,880
Krishna for dishonoured		Repairs and renewals	3,370
Bill)	62,000	Insurance (including premium	
Bills Receivable	9,500	of Rs.300 p.a. paid up to	
Provision for doubtful debts	2,500	30th September, 1994)	400
Fixtures and fittings	8,970	Bad debts	3,620
Stock 1st April, 1993	89,680	Commission received	5,640
Purchases	2,56,590	Plant and Machinery	28,800

Adjustments:

1. Stock on hand on 31st March 1994 was Rs.1,28,960.
2. Write off half of Krishna's dishonoured bill.
3. Create a provision of 5% on sundry debtors.
4. Charge 5% interest on capital.

5. Manufacturing wages include Rs.1,200 for erection of new machinery purchased in the previous year.
6. Depreciate plant and machinery by 5% and fixtures and fittings by 10% per annum.
7. Commission earned but not received amount to Rs.600.
8. Interest on loan for the last two months is not paid.

(B.Com. University of Madras)

Answer: Gross Profit - 96,570; Net Profit - 61,583;
Total of Balance sheet 2,56,233.

5.15 Books for Reference :

1. T.S.Reddy & A.Murthy, Financial Accounting, Margham publications, Chennai-17.
2. R.S.N. Pillai, Bagavathi & S.Uma, Fundamentals of Advanced Accounting, S.Chand & Company Ltd., RamNagar, New Delhi– 110 055.
3. R.L.Gupta & V.K.Gupta, Financial Accounting, Sultan Chand and Sons, New Delhi-2.
4. Dr.S.Ganeson & S.R.Kalavathi, Financial and cost accounting, Thirumalai Publication, Nagercoil -1.
5. M.C.Shukla, T.S.Grewal, S.C.Gupta, Advanced Accounts - Volume I , S.Chand & Company Ltd., RamNagar, New Delhi - 110 055.
6. S.P.Jain & K.L.Narang, Financial Accounting, Kalyani Publishers, Chennai.

Answers for Self-Evaluation Questions.

SELF - EVALUATION QUESTIONS - I

A) 1.b) Net profit or loss 2. a) debit side of the of the Trading account

3. b) debit side of the Profit and Loss account 4. a) direct expenses 5. b) capital

B) 1. gross profit 2. financial position 3. current 4. capital 5.trading

c) Give short Answer:

1. The objective of preparing Trading account is to find out the Gross profit earned or Gross loss occurred in a business concern during a particular period.

2. Balance Sheet is a statement showing the financial position of a business concern. Balance sheet is not an account. So there is neither debit side nor credit side in the balance sheet. All the assets, Capital and liabilities are shown in the balance sheet. The assets and liabilities can be arranged either in the order of Liquidity or in the order of performance.

3. Current assets are those assets which can be converted into cash within a period of 12 months or one year. For example, cash in hand, cash at bank, debtors, B/R, stock, prepaid expenses etc.

NOTES

Chapter - VI
MANAGEMENT ACCOUNTING

6.0 Introduction

6.1 Definition.

6.2 Characteristics of Management Accounting

6.3 Scope of Management Accounting

6.4 Objectives of Management Accounting

6.5 Functions of Management Accounting

SELF-EVALUATION QUESTIONS - I

6.6 Advantages of Management Accounting

6.7 Limitations of Management Accounting

6.8 Duties of Management Accountant

6.9 Distinction between Financial Accounting and Management Accounting

6.10 Distinction between Cost Accounting and Management Accounting

SELF-EVALUATION QUESTIONS - II

6.11 Summary

6.12.1 Theoretical Questions

6.12.2 Books for Reference

Answer for Self-Evaluation Questions

6.0 Introduction :

The term 'Management Accounting' is of a recent origin and was first used in USA in the year 1950. Management accounting is concerned with accounting information which is useful to the management in maximising profits or minimising losses. It provides necessary accounting information to enable the management to carryout its functions such as formation of policy, control of execution and appreciation of effectiveness.

6.1 Definition.

Anglo American Council on Productivity defines, "Management accounting is the presentation of accounting information in such a way as to assist management in the creation of policy and the day-to-day operation of an undertaking".

Robert N.Anthony defines, "Management Accounting is concerned with the accounting information that is useful to management".

John Sizer defines, "Management Accounting may be defined as the application of accounting techniques to the provisions of information designed to assist all levels of management in planning and controlling the activities of the firm".

J.Batty defines, "Management Accounting is the term used to describe the accounting methods, systems and techniques which, coupled with special knowledge and ability, assist management in its task of maximising profits and minimising losses".

6.2 CHARACTERISTICS OF MANAGEMENT ACCOUNTING.

Management Accounting is the accounting for the management. It enables management to carry out its functions effectively. The following are the important characteristics of management accounting.

1. Providing accounting information. Management Accounting helps in redesigning the accounting information and presenting them to different levels of management that suits the managerial needs.

2. Cause and Effect Analysis. If there is a profit or loss, the reasons for probing a loss or influencing the profit are analysed. This helps the management in maximising the profit and minimising the loss.

3. Using special techniques and concept. Management Accounting uses special techniques such as marginal costing, standard costing, budgetary control etc. Using the special techniques make the accounting data more useful.

4. Forecasting. Management Accounting is concerned with the future. Based on the historical data, it helps in planning for the future course of action.

5. Increase in efficiency. A comparative study over the performance with that of the predetermined goals for each department or section helps to make an effort to take corrective measures so that efficiency is improved.

6. No fixed norms. In financial accounting certain rules and formats are followed. The management accounting has no set of fixed rules and formats. Though the tools of management accounting are the same but their use differs from concern to concern.

7. Supply information and not decisions. Management Accounting supplies only necessary accounting information to the management. The decisions are taken by the top management of the concern.

6.3 SCOPE OF MANAGEMENT ACCOUNTING

Management Accounting is a new approach to accounting. The scope of management accounting is very wide and broad. It includes within its fold, all aspects of business operations. The following areas indicate the s cope of management accounting.

1. Financial Accounting. Financial accounting records the business transactions and helps to find out profit or loss and financial position. This is the basis for future course of action such as planning and financial forecasting. A well designed financial accounting system is essential for securing full control and co-ordination of business operations.

2. Cost Accounting : Cost Accounting provides various tools such as marginal costing, standard costing, budgetary control, inventory control etc. These techniques are very essential to carryout the basic managerial functions like planning, decision making etc.

3. Budgeting and forecasting. It is concerned with the preparation of budgets and setting targets and responsibilities for different department. The performance is appraised by comparing the actual performance with that of the budgeted one.

4. Inventory Control. It includes control over inventory from the time it is acquired till its final disposal. Inventory control is very useful for taking managerial decisions.

5. Statistical methods. Statistical tools such as graphs, charts, diagrams, index numbers are used for planning and forecasting and to present information to various departments.

6. Reporting to Management. Various reports related to income statement cash and fund flow statement are prepared and submitted to the management and these reports may be monthly, quarterly or half-yearly.

7. Internal Audit. Suitable internal audit system helps the management in fixing responsibility of different individuals.

8. Taxation It is presenting to the management about the tax burden and the effect of tax on capital expenditure proposals.

9. Office services. Management accountant is expected to deal with data processing, filing, copying, printing, communicating etc.

6.4 OBJECTIVES OF MANAGEMENT ACCOUNTING

The primary objective of management accounting is to enable the management to maximize profits and minimize losses by improving efficiency. The following are the important objectives of management accounting.

1. Planning and policy formulation. Planning is the primary function of management. It involves forecasting, setting goals and deciding alternative course of action. Management accounting provides necessary information for planning and policy formulation.

2. Interpreting financial information. The management accounting presents accounting information in an intelligible manner explains to the management in a simple language with the help of statistical devices like charts, diagrams, index numbers etc.

3. Decision making. Management accounting provides information relating to various alternatives in terms of cost and revenue. This makes decision making process more modern and scientific.

4. Controlling performance. Management accounting helps to compare the actual performance with the pre-determined one. This enables to identify the deviations and their causes and take necessary corrective measures.

5. Reporting to management. Informing the latest position of the concern, helps the management to take proper and timely decisions. The performance of various departments and other financial reports are communicated to the management at regular intervals.

6. Motivating employees. Targets are laid down for the employees. Employees are encouraged and motivated by providing incentives for achieving their targets.

7. Co-ordination. Management accounting helps in overall control and co-ordination of business operations. It is done through functional budgeting.

6.5 FUNCTIONS OF MANAGEMENT ACCOUNTING.

Management accounting is a part of accounting. It helps to carry out the managerial functions effectively. The functions of management accounting includes all activities connected with collecting, processing interpreting and

presenting data to management. The following are the main functions of management accounting.

1. Planning and forecasting The most important function of management accounting is making short-term and long-term forecasts and planning for the future operations of the business.

2. Modification of Data Management accounting modifies the accounting data to become useful for management for taking managerial decisions for example, sales figures for a period may be classified into monthly-wise, product-wise, salesmen-wise and area-wise.

3. Organising By organising individual responsibilities of different people, management accounting helps in organising human and physical resources of the business.

4. Communication. Management accounting helps to communicate the results of business and various reports to different levels of management within the organisation and outsiders such as bankers, investors, creditors, government etc.

5. Use of qualitative information. Management accounting uses not only financial data but also qualitative information such as case studies, special surveys, productivity reports for decision making and preparation of budgets.

6. Controlling The actual performance is compared with that of standard performance and deviations are calculated. This helps the management to assess and control the performance of everyone in the organisation.

7. Co-ordinating The performances of different departments are communicated to the management by using different tools like budgeting, financial analysis, interpretation etc.

SELF-EVALUATION QUESTIONS - I

A - Choose the best option:

1. The term 'Management Accounting' was first used in :

   a) 1940

   b) 1950

   c) 1960

Answer: ____

2. Management Accounting is related to :

   a) Recording of Accounting data

   b) Recording of Costing data

   c) Redesigning the accounting information useful to management.

Answer: ____

B - Give Short Answer

1. Give the meaning of management accounting.

…………………………………………………………………………………

2. Define Management Accounting.

…………………………………………………………………………………

3. Explain the controlling function of management accounting.

…………………………………………………………………………………

6.6 ADVANTAGES OF MANAGEMENT ACCOUNTING

Management accounting guides and advice the management at every step to increase its efficiency. The following are the advantages of management accounting.

1.Increasing efficiency. Management accounting increases the efficiency of business operations. Targets are fixed for different departments and efficiency is measured by evaluating the performance.

2. Helps in planning With the help of accounting information, management accounting helps in planning through the preparation of budget, profit planning etc.

3. Organising Management accounting provides necessary accounting information to the management to estimate the production, fixing the price by using various tools like budgeting, marginal costing, standard costing etc.

4. Evaluation of performance and controlling. The system of budgetary control and standard costing are used to evaluate the performance and to find out the deviations. It helps in controlling by taking corrective actions.

5. Co-ordinating. The functional budgets such as purchase budget, Sales budget, and overhead expenditure budget are integrated into a single budget known as Master budget.

6. Communication. Management accounting helps in communicating up-to-date information to all levels of management.

7. Service to customers. The management accounting aims at improving the quality and controlling the costs. This enables the customers to get good quality goods at reasonable prices.

8. Economic appraisal The appraisal of government policies, social and economic forces helps the management to assess their impact on the business.

6.7 LIMITATIONS OF MANAGEMENT ACCOUNTING

Management accounting is a new discipline and developing one. It suffers from the following limitations.

1. Dependence on Accounting Information. Management accounting derives information from financial accounting. If the past records were not reliable and suffered by limitations, it will also affect the correctness, reliability and efficiency of the management accounting.

2. Wide Scope. The scope of the management accounting includes many disciplines. This may be resulted in practical difficulties and inaccuracy.

3. Costly installation. The installation of management accounting system needs a large organisation. It needs heavy investment and only larger concerns can afford it.

4. Lack of knowledge and understanding. Management accounting is related to various disciplines such as Financial accounting, Cost accounting, Statistics, Economics etc. Deficiency in knowledge of any of these subjects limits the use of management accounting.

5. Intuitive decisions. Though management accounting uses scientific approaches in decision-making, the management may avoid a lengthy course adopting formalities and may take an easy course of arriving decisions using intuition.

6. Evolutionary stage. Management accounting is a new discipline and only in the developing stage. The principles, conventions, tools and techniques are not fully developed.

7. Personal Bias. While interpreting the financial information personal prejudices and bias of the management accountant will affect the objectivity of decisions.

8. Non-implementation. There is no necessity to implement the reports received from management accounting. It is the discretion of the top management to accept or reject the reports of management accounting.

9. Psychological Resistance. The installation of management accounting system requires a number of changes in the organisational structure, rules and regulations. These changes ill affect a number of personnel and may not be liked by the people involved.

10. Not an alternative to management. Management accounting is only a tool to management. It cannot replace the management or administration.

6.8 DUTIES OF MANAGEMENT ACCOUNTANT.

The primary duty of management accountant is to help the management to carryout the managerial functions effectively and efficiently. The following are the duties of the management accountant.

1. Collection of information. The management accountant will decide the type of information required and then he will collect relevant data from various sources from financial accountant, cost accountant and other departments.

2. Evaluation of Information. The information colleted will be evaluated by the management accountant. He will leave irrelevant information and consider the necessary information in a systematic manner.

3. Interpretation of information. Management accountant gives facts and figures about various policies. He provides his opinion about various alternative courses of action to enable the management for taking decisions.

4. Reporting information. The management accountant reports necessary accounting information whenever needed by the management.

5. Tax administration. The management accountant advises the management regarding the effect of taxation on capital expenditure proposals and tax planning.

6. Protection of Assets. The management accountant protects the assets of the business through the maintenance of internal control, auditing and proper insurance coverage to assets.

7. Appraisal of External Affairs. It is the duty of the management accountant to assess the effect of various economic and fiscal policies of the government.

6.9 DISTINCTION BETWEEN FINANCIAL ACCOUNTING AND MANAGEMENT ACCOUNTING

Financial accounting is concerned with the recording of daily business transactions. Management accounting uses financial data and supplies necessary accounting information to the management to carryout the managerial operations. Though financial accounting and management are closely related, there are some distinctions between the two. They are as follows.

1. Objective. The primary objective of financial accounting is recording business transactions and to find out trading results and financial position of a business concern. These are useful to outsiders like shareholders, creditors, government etc.

But the objective of management accounting is to provide necessary information to help the management in formulating policies and plans.

2. Nature of data used. Financial accounting is concerned with historical records relating to past whereas management accounting is mainly concerned with future plans and policies.

3. Performance analysis Financial accounting deals with the overall performance of the business whereas management accounting deals with evaluating the performance of each department.

4. Precision. The transactions are recorded with perfect accuracy and precision under financial accounting. But in management accounting approximations and estimates are allowed.

5. Legal compulsion. The preparation of financial accounting is made compulsory for business concerns. But the management accounting is optional and not compulsory.

6. Period. Financial accounting is prepared annually and sometimes half yearly whereas the management accounting is prepared as and when the management is required.

7. Accounting Principles. Financial accounting is governed by the generally accepted principles and conventions. But there is no such general principles for management accounting the forms and methods presenting the figures differ from concern to concern.

8. Publication Financial statements are published for the use of general public whereas the reports and forecasts provided by the management accounting is used for the internal use of the management.

9. Audit. Financial accounts are audited and it is made compulsory for corporate bodies. But there is no need of auditing the management accounting.

10. Monetary transactions. Financial accounting records the monetary transactions only whereas the management accounting records both monetary and non-monetary transactions.

11. Control. Financial accounting is the record of past events and it has no control over the expenses. But in management accounting the actual performance is compared with the standard one and deviations and their causes are found out. This will enable to control and minimize the expenditure.

6.10 DISTINCTION BETWEEN COST ACCOUNTING AND MANAGEMENT ACCOUNTING

The purpose of cost accounting is ascertaining and controlling the cost. The purpose of management accounting is to provide accounting information to the management in formulation of policies and procedures. The following are the differences between management accounting and cost accounting.

1. Objective. The primary objective of cost accounting is ascertaining and control of cost of products and services. The objective of management accounting is to provide information to the management to carryout the managerial functions effectively.

2. Nature. Management accounting is generally concerned with the projection of figures for future. The policies and plans are prepared for providing future guidelines.

3. Scope. The scope of management accounting is very wide. It includes financial accounting cost accounting, budgeting, tax planning etc. But cost accounting primarily deals with ascertaining and controlling the cost.

4. Data Used. The transactions which can be expressed in figures are considered in cost accounting. Only quantitative aspect is recorded in cost accounting. Management accounting uses both quantitative and qualitative information

5. Accounting Principles. Certain principles and procedures are followed in cost accounting whereas no such principles are followed in management accounting. The information is prepared and presented according to the requirement of the management.

SELF-EVALUATION QUESTIONS - II

A - State whether the following statements are 'True' or 'False':

1. Management accounting deals with both quantitative and qualitative information. (True/False)

2. Management accounting provides decisions to the management.(True/ False)

3. Management accounting has no set of fixed rules (True / False)

B - Give Short Answer

1. Whether management accounting is an alternative to management?

………………………………………………………………………………

2. What is the primary objective of management accounting and financial accounting?

…………………………………………………………………………………

6.11 SUMMARY :

Management accounting provides necessary accounting information to the management to formulated plans and policies and to increase the efficiency and productivity.

The scope of management accounting is wide and broad. As it is a new discipline, in includes financial accounting, cost accounting, budgeting, Tax planning etc.

Objectives of management accounting includes providing necessary accounting information to the management to plan and formulated policies, decision making, controlling the performance, co-ordinating and motivating the employees.

Management accounting is suffered by some limitations. It depends on accounting information. It has a very wide scope and the installation is costly. Personal bias of the management accountant and intuitive decision will affect the objective of the business. It cannot replace the management.

The management accountant collects accounting information from various sources, evaluates, interprets and reports to the management as and when required. He also helps in tax planning and to protect the assets.

There are some differences between financial accounting and management accounting. Financial accounting records the transactions and finds out the trading results. Only quantitative transactions are recorded on some General accounting principles and as required by law. But management accounting is optional; it redesigns the accounting data to improve the efficiency and controls the performance which leads to increase in productivity and profitability.

6.12.1 THEORETICAL QUESTIONS

A - Short Answer Type

1. Define Management Accounting:
2. What are the characteristics of management accounting?
3. What are the functions of management accounting?
4. Explain the scope of management accounting
5. What are the duties of management accounting?

B - Essay Type Questions

1. Explain the term 'management accounting' and state the objectives of management accounting:
2. Explain the advantages and limitations of management accounting:
3. How does Management accounting differs from Financial accounting?
4. Distinguish between Management accounting and Cost accounting:

6.12.2 BOOKS FOR REFERENCE:

1. R.K.Sharma and Shashi K.Gupta, Management Accounting, Kalyani Publilshers, Madras - 17.
2. S.Ganeson and S.R.Kalavathi, Management Accounting, Thirumalai Publications, Nagarcoil - 1
3. R.Ramachandran and R.Srinivasan, Management Accounting, Sriram Publications, Tennur, Trichy - 17.
4. R.S.N.Pillai and Bagavathi, Management Accounting, S.Chand & Company Ltd., NewDelhi - 53.
5. V.R. Palanivelu, Accounting for management, Laxmi Publications (P) Ltd., NewDelhi-02

Answers for Self-evaluation questions - I

A - 1. (B) 1950

2. (C) Redesigning the accounting information useful to management.

B - 1. Management accounting provides necessary accounting information to the management to formulated plans and policies and to increase the efficiency and productivity.

2. Robert N. Anthony defines, "Management accounting is concerned with the accounting information that is useful to management.

3. Management accounting helps to compare the actual performance with the standard performance. This helps to find out the deviations and take corrective actions.

Answers for Self-evaluation questions - II

A - 1. True

2. False

3. True

B - 1. Management accounting is not an alternative to management. It is an useful tool to management to formulate plans and policies and decision making. It cannot replace the management or administration.

2. The primary objective of financial accounting is recording business transactions and to ascertain trading results and financial position of a business concern. The objective of management accounting is to redesign and provide necessary accounting information to the management in formulating policies and plans.

NOTES

Chapter - VII
RATIO ANALYSIS

7.0 Introduction
7.1 Meaning of Ratio
7.2 Steps in Ratio Analysis
7.3 Significance and Managerial Uses of Ratio Analysis
7.4 Limitations of Ratio Analysis
7.5 Classification of Ratios.
7.5.1 Short - Term Solvency Ratios
7.5.2 Long Term Solvency Ratios
7.5.3 Turnover or Activity Ratios
7.5.4 Profitability Ratios

Self - Evaluation questions
7.6 Summary
7.7.1 Illustrative Problems
7.7.2 Theoretical Questions
7.7.3 Exercise Problems
7.5.4 Books for Reference

Answer for Self - Evaluation questions

7.0 Introduction

Management accounting uses various tools and techniques to interpret the financial statements. Ratio analysis is one of the most powerful tools for analysing financial statements.

7.1 Meaning of Ratio

A Ratio is the mathematical expression of the relationship between two figures. A ratio can be calculated by dividing one number by another number. A ratio can also be expressed as percentage by multiplying the ratio by 100.

Ratio analysis is a technique of analysis and interpretation of financial statements. It is the process of establishing and interpreting various ratios for helping in making certain decisions.

7.2 Steps in Ratio Analysis

1. Selection of relevant data from the financial statements depending upon the objective of the analysis.
2. Calculation of appropriate ratios from the data selected.
3. Comparison of the ratios with the ratios of the same firm in the past or with standard ratios. Comparison can also be made within the concern and with other concerns.
4. Interpretation of the ratios, drawing of inferences and report writing.

7.3 Significance and Managerial Uses of Ratio Analysis.

Ratio analysis is one of the most powerful tools of financial analysis. It is used as a device to analyse and interpret the financial health of an organization. It helps the management in decision making, evaluating the financial position and performance of a firm. Ratio analysis is used by creditors, banks, financial institutions, investors, shareholders and management. The wide applications and managerial uses of ratio analysis are as follows.

1. Simplification of Financial Statements.

Financial statements can not explain the financial position and the profitability of a business concern. Ratio analysis expresses the financial position in simplified form.

2. Helps In Decision-Making.

From the information provided in financial statements, we can not draw meaningful conclusions. Ratio analysis helps in making decisions form the information provided in financial statements.

3. Evaluation of Performance.

Ratios are helpful to the management to ascertain the financial position and development of the business concern. Ratios are useful to find out the solvency, rigidity and profitability of a concern.

4. Helps in Forecasting and Planning.

Planning is looking ahead and the ratios calculated for a number of years work as a guide for future. Trend analysis helps the management to forecast the sales and profitability for a future period.

5. Facilitates Comparison.

Ratio analysis helps the management to make comparison over a period of years with in a firm and with other firms in the similar like of business.

6. Helps in Communicating.

With the help of the ratios, the financial strength and weakness of a firm can be communicated in an easy understandable manner.

7. Helps in Co-Ordination.

Ratio analysis communicates the efficiency and weakness of a concern. This helps in better co-ordination in the concern.

8. Helps in Control.

Ratio analysis is an effective tool in controlling, by comparing actual ratios with the standard one, the deviations and the weakness can be found. This helps to take corrective action at the right time.

9. Other Uses

Ratios are also helpful to share holders and investors to find out the priority, liquidity and solvency position of a business concern. Profitability ratios help the employees to put forward their viewpoints for the increase of wages and other benefits. Various financial statements published by industrial units enable the government to prepare the government plans and policies.

7.4 LIMITATIONS OF RATIO ANALYSIS:

Ratio analysis is one of the important tools for analyzing financial statements. Financial statements are suffered by various limitations. The ratios derived from such financial statements are also suffered by the following limitations.

1. Lack of adequate standards.

It is difficult to find out standard ratio, because it differs from firm to firm. Ratios are useful only if they are compared with some standards.

2. Limitations of financial statements.

Ratio analysis is based on financial statements. Financial statements suffer from a number of limitations. Thus, ratios derived from such financial statements, also suffered by the same limitations.

3. Limited use of single ratio.

A single ratio can not convey much of a sense. To make better interpretation, a number of ratios have to be calculated. This may leads to confusion.

4. Changes in price level

When the ratios are calculated, no consideration is made to the changes in price levels. This will make the interpretation of the ratios become invalid.

5. Changes in accounting procedure.

Different methods are followed by different firms in valuation of stock, providing depreciation etc. This makes the comparison with other firms no use.

6. Window dressing.

Financial statements can easily be window dressed to present a better picture of its financial and profitability position to outsides. Hence, necessary care should be taken while making decision from ratios calculated from such financial statements.

7. Personal Bias.

Ratios are only a means of financial analysis and not an end in themselves. While interpreting the ratios, different people may interpret the same ratio in different ways.

8. Ratios are no substitutes.

Ratio analysis is merely a tool of interpreting financial statements. Hence, ratios become useless, if separated from the statements from which they are calculated.

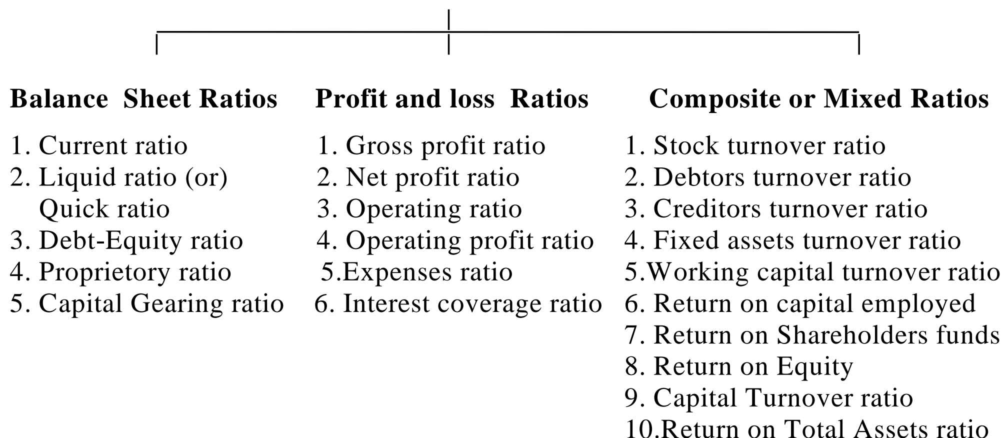
9. No indicators of future.

Ratios are computed on the basis of past financial records. Past is not an indicator of future. Therefore ratios based on financial statements are not indicators of future.

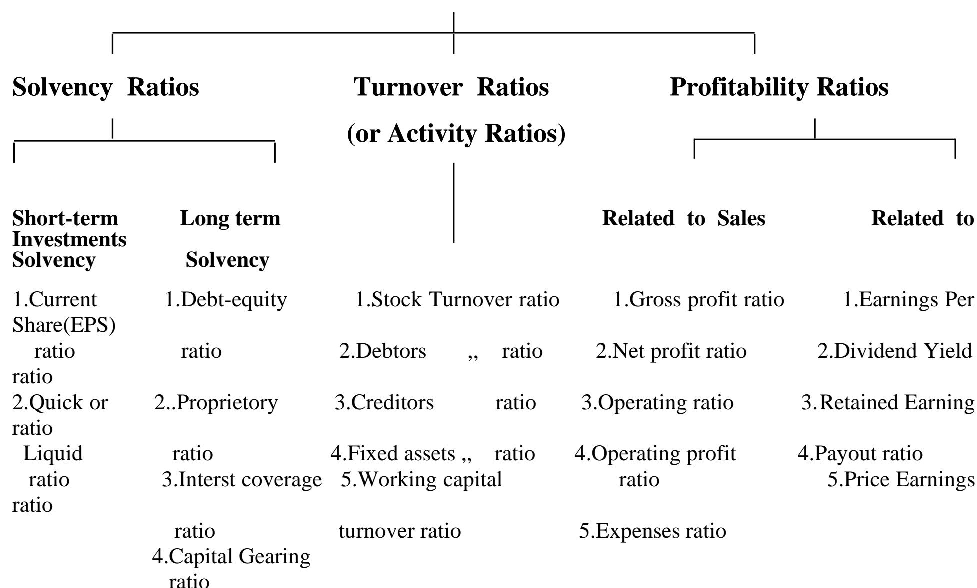
7.5 CLASSIFICATION OF RATIOS.

Different parties are interested in the ratio analysis for knowing the financial position of the firm for different purposes. Accounting ratios can be classified into various types. They are as follows.

Classification According to statements



Classification According to Functions



7.5.1 SHORT - TERM SOLVENCY RATIOS

1. Current Ratio: Current Ratio explains the relationship between current assets and current liabilities. Current ratio is calculated by dividing current assets by current liabilities.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Current assets are those assets which can be converted into cash within a period of one year. For example: cash in hand, cash at bank, debtors, B/R, outstanding income, prepaid expenses, stock, short term investments etc.

Current liabilities are those liabilities which are payable within a period of one year. E.g.: Creditors, B/P, Bank overdraft, Expenses outstanding, Income received in advance etc.

A current ratio of 2:1 is considered ideal. It shows that every one rupee of current liabilities, current assets of rupees two is available. If the ratio is less than two, it may be difficult for a firm to pay its current liabilities. If the ratio is more than two, it will be resulted in idle of funds.

2. Quick Ratio or Liquid Ratio:

Quick ratio express the relationship between quick assets and quick liabilities. The ratio can be obtained by dividing the quick assets by quick liabilities.

$$\text{Quick Ratio} = \frac{\text{Quick / Liquid Assets}}{\text{Quick / Liquid Liabilities}}$$

Quick Assets = Current assets - (stock and prepaid expenses)

Quick Liabilities = Current Liabilities - Bank overdraft

A quick ratio of 1:1 is considered satisfactory. It measures the firm's capacity to pay off its current obligations immediately. It is supplementary to the current ratio.

7.5.2 LONG TERM SOLVENCY RATIOS:

Long term solvency refers to the ability of a concern to meet its long term liabilities. Share holders, Debenture holders, bankers, creditors are mot interested in knowing the long term solvency position of a firm. The following ratios are used to ascertain the solvency of a firm.

1. Debt - Equity Ratio.

This ratio indicates the relationships between the outsides funds and the shareholders funds and the shareholders fund.

$$\text{Debit-equity Ratio} = \frac{\text{Debt}}{\text{Equity}} = \frac{\text{Outsiders funds}}{\text{Shareholders funds}}$$

Outsiders Funds = Short term + Long term debts

Share holder funds = Pref. Share capital + Equity Share Capital + Reserves and surplus.

The debt-equity ratio helps to analyse the capital structure of a company. It indicates the proportion of shareholders funds and outsiders funds in the capital structure. A ratio of 2:1 is considered standard for debt-equity ratio.

2. Proprietory Ratio

Proprietory ratio establishes the relationship between proprietor funds and total tangible assets.

Share holders funds
Proprietory ratio = ----------------------
Total tangible Assets

Total Tangible Assets = Total Assets - Intangible Assets.

This ratio indicates the proportion of shareholders funds in the total assets. It shows the general strength of the company. A ratio above 50% indicates less danger and risk for creditors in the event of liquidation.

3. Interest coverage Ratio

This ratio helps to measure the debt servicing capacity of a company. This ratio is calculated by dividing the Earnings (Net profit) Before Interest and Tax (EBIT) by fixed interest changes.

EBIT
Interest coverage ratio = ------------------------
Fixed Interest Changes

A higher ratio indicates better position of long- term creditors.

4. Capital Gearing Ratio

This is used to analyse the capital structure of a company. Capital gearing ratio explains the relationship between equity shareholder funds and preference share capital plus fixed interest bearing securities.

Preference Share Capital + Fixed Interest Securities
Capital Gearing Ratio = --
Equity share holders funds.

7.5.3 TURNOVER OR ACTIVITY RATIOS

Turnover ratios or activity ratios measure how efficiently the assets are employed by the firm. These ratios indicate the speed with which assets are being converted into sales. An activity ratio explains the relationship between sales and various assets of the firm. The following are the widely used activity ratios.

1. Stock (Inventory) Turnover Ratio

This ratio expresses the number of times stock is turned over during a year.

Cost of good sold
Stock Turnover Ratio = ---------------------
Average Stock

Cost of goods sold = Opening stock + Purchases - Closing Stock

$$\text{Average Stock} = \frac{\text{Opening Stock + Closing Stock}}{2}$$

A high ratio indicates quick movement of stock and a low ration indicates slow movement of stock.

2. Debtors Turnover Ratio

This is also known as Debtors Velocity or Receivables Turnover ratio. This ratio explains the number of times the debtors turned over during a year.

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

$$\text{Average Debtors} = \frac{\text{Opening Debtors + Closing Debtors}}{2}$$

Average Collection Period.

This ratio represents the speed or no. of days at which the debtors / account receivables are collected.

$$\text{Average Collection Period} = \frac{\text{Debtors + Bills Receivable}}{\text{Credit Sales}} \times \text{No. of working days in a year.}$$

This ratio measures the quality of debtors. A lower ratio or shorter collection period indicates quick recovery of money from debtors.

Note: If information about credit sales is not available, the total sales may be taken for calculating the ratio.

3. Creditors Turnover Ratio

This ratio indicates the number of times the creditors are turned over in a year.

$$\text{Creditors Turnover Ratio} = \frac{\text{Credit Purchases}}{\text{Average Creditors}}$$

$$\text{Average Creditors} = \frac{\text{Opening Creditors + Closing Creditors}}{2}$$

Average Payment Period.

This ratio helps to find out the number of days taken by a firm to make payment to its creditors.

$$\text{Average Payment Period} = \frac{\text{Creditors + Bills Payable}}{\text{Credit Purchases}} \times \text{No. of working days in a year.}$$

A lower ratio or shorter payment period indicates better liquidity position of the firm.

Note: If information about credit purchases is not available, the total purchases may be taken for calculating the ratio.

4. Fixed Assets Turnover Ratio

This ratio explain the relationship between sales and fixed assets. A higher ratio indicates greater efficiency in utilisation of fixed assets.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Net fixed assets}}$$

5. Working Capital Turnover Ratio

This ratio indicates the number of times the working capital is turned over in a year

$$\text{Working Capital Turnover Ratio} = \frac{\text{Cost of Sales}}{\text{Net Working Capital}}$$

A higher ratio indicates efficient utilisation of working capital and there is more profit.

7.5.4 PROFITABILITY RATIOS

A business needs profit for its survival and expansion. Various parties like investors, creditors, customers employees, government etc., are interested in knowing the profitability of a concern. Profitability ratios measure the overall efficiency of the business. Profitability ratios are related to sales or investments. Widely used profitability ratios are as follows.

Profitability Ratios related to Sales

1. Gross Profit Ratio

Gross profit ratio explains the relationship between Gross profit and Net sales.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

Gross profit ratio indicates the efficiency with which a firm produces its products. A high gross profit ratio indicates low cost of production and ensures more profit.

2. Net Profit Ratio

Net profit ratio explains the relationship between net profit and net sales. It indicates the efficiency of the overall operations of the business. An increase in net profit ratio year after year is an indication of reduction in overhead expenses and improving working conditions.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

3. Operating Ratio

This ratio establishes the relationship between cost of goods sold and other operating expenses on the one hand and sales on the other hand

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold + Operating expenses}}{\text{Sales}} \times 100$$

4. Operating Profit Ratio

Operating profit ratio shows the relationship between Operating profit and Net sales.

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

Operating Profit = Net profit + Non-operating Expenses -Non-operating income.

5. Expenses Ratio

Expenses ratios indicate the relationship of various expenses to net sales. The lower the ratio, the greater is the profitability and higher the ratio, lower is the profitability.

$$\text{a) Particular Expenses Ratio} = \frac{\text{Particular Expenses}}{\text{Net Sales}} \times 100$$

$$b)\ \text{Cost of Goods sold Ratio} = \frac{\text{Cost of Goods sold}}{\text{Net Sales}} \times 100$$

$$c)\ \text{Factory Expenses Ratio} = \frac{\text{Factory Expenses}}{\text{Net Sales}} \times 100$$

$$d)\ \text{Office and Administrative expenses Ratio} = \frac{\text{Office and Administrative Expenses}}{\text{Net Sales}} \times 100$$

$$e)\ \text{Selling and Distribution expenses Ratio} = \frac{\text{Selling and Distribution Expenses}}{\text{Net Sales}} \times 100$$

6. Return on Capital Employed.

Return on capital employed establishes the relationship between profits and the capital employed. It is used to measure the overall profitability and efficiency of the business

$$\text{Return on Capital Employed} = \frac{\text{Net Profit + Interest + Taxes}}{\text{Average Capital Employed}} \times 100$$

Capital Employed = Fixed Assets + Current Assets - Current Liabilities

(or) Shareholders Funds + Long term Liabilities

$$\text{Average Capital Employed} = \frac{\text{Opening Capital Employed + Closing Capital Employed}}{2}$$

(or) = Closing Capital employed - ½ of Net profit

(or) = Opening Capital employed - ½ of Net profit

Profitability Ratios related to Investments

1. Earnings Per Share (EPS)

Earnings per share can be calculated by dividing the net profit after tax less preference dividend by the total number of equity shares.

$$\text{EPS} = \frac{\text{Net profit after Tax - Preference Dividend}}{\text{No. of equity shares}}$$

2. Dividend Yield Ratio

Dividend yield ration shows the amount of dividend per share against the market value per share.

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per Share}}{\text{Market Value per Share}}$$

3. Dividend Payout Ratio

This ratio helps to find out the extent to which earnings per share have been retained in the business.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend per Equity share}}{\text{Earnings per share}}$$

4. Retained Earnings Ratio

Retained earnings ratio expresses the relationship between Retained earnings and the profit available to equity shareholders.

$$\text{Retained earnings ratio} = \frac{\text{Retained earnings}}{\text{Net Profit - Tax - Preference Dividend}}$$

Retained earnings = Net Profit - Tax - Preference Dividend - Equity Dividend

Alternatively

Retained earnings ratio = 1 - Payout Ratio

5. Price Earning Ratio

Price earning ratio explains the relationship between market price per equity share and earnings per share. This ratio helps the investors to decide whether to buy or not the shares of a particular company.

$$\text{Price Earning Ratio} = \frac{\text{Market Price per share}}{\text{Earnings per share}}$$

SELF - EVALUATION QUESTIONS.

A - Objective Type Questions:

1. Current ratio is the relationship between

i) Total assets and Total liabilities

ii) Current assets and current liabilities

iii) Current assets and Fixed assets

2. Cost of goods sold:

i) Opening stock + Closing stock - Purchases

ii) Sales - Purchases

iii) Opening stock + Purchases - Closing stock

B - Fill in the blanks with appropriate words:

1. Liquid ratio is also known as ____________________ ratio.

2. Debt - Equity ratio is the relationship between Outsiders' funds and _________

3. The standard ratio for current ratio is _____________________ .

C - Short Answer Type:

1. Explain Current Ratio

……………………………………………………………………………………

2. What are the components of Shareholders funds?

……………………………………………………………………………………

7.6 SUMMARY

A Ratio is the mathematical expression of the relationship between two figures. It is an important tool to analyse financial statements.

The managerial uses of ratio analysis includes, simplification of financial statements, helping in decision making, comparison and evaluation of performance etc. Ratio analysis suffered by some limitations such as, lack of adequate standards, changes in price level and accounting procedure and personal bias of the accountant.

Ratios are classified into various types. To find out the short-term solvency of a business, current ratio, and liquid ratio are used. To ascertain long-term solvency, debt-equity ratio, Proprietary ratio, Interest coverage ratio and Capital gearing ratios are used.

To measure the turnover or activity, Stock turnover ratio, Debtors turnover ratio, Creditors turnover ratio, Fixed assets turnover ratio, and working capital turnover ratios are used.

To analyse the profitability of a business concern, Gross profit ratio, Net profit ratio, Operating ratio, Operating profit ratio, Pay-out ratio, Price earnings ratio, Retained earnings ratio, Earnings Per Share and Dividend Yield ratio are calculated.

7.7.1 ILLUSTRATION PROBLEMS

Illustration : 1

The following is the Balance sheet of ABC Ltd. as on 31st March 2007

Liabilities	Rs.	Assets	Rs.
Share Capital	3,00,000	Fixed Assets	2,00,000
Reserve and Surplus	50,000	Stock	75,000
Creditors	60,000	Debtors	40,000
Bills Payable	30,000	Bills Receivable	25,000
Outstanding expenses	20,000	Prepaid Expenses	25,000
Provision for Tax	40,000	Cash at Bank	1,00,000
		Cash in hand	35,000
	5,00,000		5,00,000

Calculate a) Current Ratio and b) Quick Ratio.

Solution :

$$\text{a) Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets	**Rs.**	**Current Liabilities**	**Rs.**
Stock	75,000	Creditors	60,000
Debtors	40,000	Bills Payable	30,000
Bills Receivable	25,000	Outstanding expenses	20,000
Prepaid Expenses	25,000	Provision for Tax	40,000
Cash at Bank	1,00,000		
Cash in hand	35,000		1,50,000
	3,00,000		

$$\text{Current Ratio} = \frac{3,00,000}{1,50,000} = \mathbf{2 : 1}$$

$$\text{b) Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}}$$

Quick Assets or Liquid Assets = Current Assets - (Stock + Prepaid Expenses)

= 3,00,000 - (75,000 + 25,000) = 2,00,000

$$\text{Quick Ratio} = \frac{3,00,000}{2,00,000} = 1.33 : 1$$

Illustration : 2

The following is the Balance sheet of XYZ Ltd. as on 31st March 2004.

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	2,00,000	Land and Buildings	1,50,000
Preference Share Capital	2,00,000	Plant and Machinery	2,50,000
General Reserve	80,000	Furniture and Fittings	50,000
Profit and Loss a/c	40,000	Stock	1,50,000
12% Debentures	2,20,000	Debtors	70,000
Creditors	1,00,000	Bills Receivable	80,000
Bills Payable	50,000	Cash at Bank	1,00,000
		Cash in hand	40,000
	8,90,000		8,90,000

Calculate: a) Current Ratio b) Liquid Ratio c) Debt - Equity Ratio d) Proprietary Ratio e) Fixed assets to Net worth Ratio and f) Capital Gearing Ratio.

(B.Com. Madurai Kamaraj University)

Solution :

$$\textbf{b) Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$$

Quick Assets or Liquid Assets = Current Assets - (Stock + Prepaid Expenses)

= 4,40,000 - (1,50,000) = 2,90,000

$$\text{Quick Ratio} = \frac{2,90,000}{1,50,000} = 1.93 : 1$$

$$\textbf{c) Debt-Equity Ratio} = \frac{\text{Debt}}{\text{Equity}} = \frac{\text{External Equities}}{\text{Internal Equities}} = \frac{\text{Long term debt + Current Liabilities}}{\text{Shareholder / Proprietor Funds}}$$

Debt = Debentures + Creditors + Bills Payable

= 2,20,000 + 1,00,000 + 50,000 = 3,70,000

Shareholder Funds = Eq.Sh.Capital+Pref.Sh.Capital+Gen.Reserve+P&LA/c

= 2,00,000+2,00,000+80,000+40,000=5,20,000

$$\text{Debt-Equity Ratio} = \frac{3,70,000}{5,20,000} = 0.71 : 1$$

$$\textbf{e) Proprietary Ratio} = \frac{\text{Shareholders Funds}}{\text{Total Tangible Assets}}$$

Where total tangible Assets = Total Assets - Intangible Assets = 8,90,000

$$\text{Proprietary Ratio} = \frac{5,20,000}{8,90,000} = 0.58 : 1$$

$$\textbf{f) Capital Gearing Ratio} = \frac{\text{Pref. Capital + Long term debt bearing fixed interest}}{\text{Equity Share Capital + Reserves and Surplus}}$$

$$= \frac{2,00,000 + 2,20,000}{2,00,000 + 80,000 + 40,000}$$

$$= \frac{4,20,000}{3,20,000} = 1.31 : 1$$

Illustration : 3

Following information is given to you.

i) Current Ratio = 2.5 ii) Liquid Ratio = 1.5 iii) Working Capital = Rs.90,000

Find out : a) Current Assets b) Current Liabilities c) Liquid assets and d) Stock.

(B.Com. Periyar University)

Solution :

$$\text{a) Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = 2.5 : 1$$

Current Assets - Current Liabilities = Working Capital

2.5 - 1 = 1.5

If working capital is 1.5, Current assets are 2.5

If working capital is 90,000 , Current Assets are :

$$90{,}000 \times \frac{2.5}{1.5} = \text{Rs.}1{,}50{,}000$$

b) Current Liabilities :

If Current Assets are 2.5, Current Liabilities are 1

If Current Assets are Rs.1,50,000 , Current Liabilities are:

$$1{,}50{,}000 \times \frac{1}{2.5} = \text{Rs.}60{,}000$$

c) Liquid Assets or Quick Assets :

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}} = 1.5 : 1$$

Liquid Liabilities or Quick Liabilities = Current Liabilities - Bank Overdraft

Assume that there is no Bank overdraft, then Current liabilities = Liquid Liabilities

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{60{,}000} = 1.5$$

Adopting cross multiplication, Liquid Assets = 60,000 x 1.5 = Rs.90,000

d) Stock

Stock = Current Assets - Liquid Assets

= 1,50,000 - 90,000 = 60,000

Illustration : 4

From the following information you are required to calculate i) Gross profit ratio ii) Operating ratio iii) Operating profit ratio and iv) Net profit ratio

	Rs.
Sales	21,000
Sales returns	1,000
Cost of good sold	16,400
Interest paid (non-operating)	100
Income from Investments	200

Administration Expenses		1,300
Selling expenses		700
Depreciation		200

Solution :

Income Statement

		Rs.	Rs.
Sales			21,000
Less: Returns			1,000

Net Sales			20,000
Less : Cost of goods sold			16,400

Gross Profit			3,600 (contd.)
(Gross Profit			3,600)
Less: Operating Expenses:			
Administration exp.	1,300		
Selling Expenses	700		
Depreciation	200		
	------	2,200	

Operating Profit		1,400	
Add: Non-Operating income			
Income from Investment	200		

	1,600		
Less: Non-operating expenses			
Interest Paid	100		

Net Profit	1,500		
	---------		

i) Gross Profit Ratio $= \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$

$$= \frac{3,600}{20,000} \times 100 = 18\ \%$$

$$\text{ii) Operating Ratio} = \frac{\text{Cost of goods sold + Operating Expenses}}{\text{Sales}} \times 100$$

$$= \frac{16,400 + 2,200}{20,000} \times 100 = 93\%$$

$$\text{iii) Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

$$= \frac{1,400}{20,000} \times 100 = 7\%$$

Alternatively Operating Ratio can be ascertained as 100 - Operating Ratio

$$= 100 - 93 = 7\%$$

$$\text{iv) Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100$$

$$= \frac{1,500}{20,000} \times 100 = 7.5\%$$

Illustration : 5

The Trading and Profit & Loss A/c of Omega Ltd. for the year ending 31st March,2007 is given below.

Trading and Profit & Loss A/c of Omega Ltd.
for the year ending 31st March, 2007.

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Opening stock	40,000	By Sales	5,00,000
To Purchases	4,00,000	By Closing Stock	1,00,000
To Direct Expenses	60,000		
To Gross Profit c/d	1,00,000		
	6,00,000		6,00,000
To Operating Expenses			
a) Administrative expenses	20,000	By Gross Profit b/d	1,00,000
b) Selling expenses	10,000		
To Finance expenses	20,000		
To Income Tax	10,000		
To Net Profit	40,000		
	1,00,000		1,00,000

You are required to find out a) Gross Profit Ratio b) Net Profit Ratio c) Operating Ratio and d) Operating Profit Ratio

Solution :

a) Gross Profit Ratio $= \dfrac{\text{Gross Profit}}{\text{Sales}} \times 100$

$= \dfrac{1,00,000}{5,00,000} \times 100 = 20\%$

b) Net Profit Ratio $= \dfrac{\text{Net Profit}}{\text{Sales}} \times 100$

$= \dfrac{40,000}{5,00,000} \times 100 = 8\%$

c) Operating Ratio $= \dfrac{\text{Cost of goods sold + Operating Expenses}}{\text{Sales}} \times 100$

Cost of good sold = Sales - Gross Profit

= 5,00,000 - 1,00,000 = 4,00,000

$$\text{Operating Ratio} = \frac{4,00,000 + 30,000}{5,00,000} \times 100 = 86\%$$

$$\textbf{d) Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

Operating Profit =Net Profit + Non operating expenses - Non operating income

= 40,000 + 30,000 = 70,000

$$= \frac{70,000}{5,00,000} \times 100 = 14\%$$

Alternatively

Operating Profit Ratio = 100 - Operating Ratio

= 100 - 86 = 14%

Illustration : 6

From the following Trading and Profit and loss a/c and the Balance Sheet of Nirma Traders Ltd. for the year ended 31.12.87, you are required to ascertain: a) Gross Profit Ratio b) Net Profit Ratio c) Operating Ratio and d) Operating Profit Ratio e) Expenses Ration f) Stock Turnover Ratio g) Return on total resources h) Turnover of fixed assets and i) Turnover to total assets.

Trading and Profit and Loss A/c of Nirma Ltd. for the year ending 31-12-87.

Particulars	Rs.	Particulars	Rs.
To Opening stock	75,000	By Sales 5,20,000	
To Purchases	3,25,000	Less: Returns 20,000	
To Gross Profit c/d	2,00,000	-----------	5,00,000
		By Closing Stock	1,00,000
To Operating Expenses			6,00,000
a) Admn.Expenses 40,000		By Gross Profit b/d	2,00,000
b) Selling and Distribution		By Non-Operating Income	
Expenses 25,000	65,000	Dividend 9,000	
---------		Profit on sale of shares 11,000	20,000
To Non-operating Expenses		--------	
To Loss on sale of assets	5,000		
To Net Profit	1,50,000		
	2,20,000		2,20,000

Balance Sheet as on 31-12-87

Liabilities	Rs.	Assets	Rs.
Issued Capital:		Land and Building	1,50,000
2000 Eq. Shares of		Plant and Machinery	80,000
Rs.100 each	2,00,000	Stock	1,60,000
Reserves	90,000	Debtors	80,000
Current Liabilities	1,50,000	Cash at Bank	30,000
Profit and Loss A/c	60,000		
	5,00,000		5,00,000

(B.Com. Madurai Kamaraj University)

Solution :

a) Gross Profit Ratio $= \dfrac{\text{Gross Profit}}{\text{Sales}} \times 100$

$= \dfrac{2,00,000}{5,00,000} \times 100 = 40\%$

b) Net Profit Ratio $= \dfrac{\text{Net Profit}}{\text{Sales}} \times 100$

$= \dfrac{1,50,000}{5,00,000} \times 100 = 30\%$

c) Operating Ratio $= \dfrac{\text{Cost of goods sold + Operating Expenses}}{\text{Sales}} \times 100$

Cost of good sold = Sales - Gross Profit

= 5,00,000 - 2,00,000 = 3,00,000

Operating Ratio $= \dfrac{3,00,000 + 65,000}{5,00,000} \times 100 = 73\%$

d) Operating Profit Ratio $= \dfrac{\text{Operating Profit}}{\text{Sales}} \times 100$

Operating Profit =Net Profit + Non operating expenses - Non operating income

$$= \quad 1,50,000 + 5,000 - 20,000 = 15,000$$

$$= \frac{1,35,000}{5,00,000} \times 100 = 27\%$$

Alternatively

Operating Profit Ratio = 100 - Operating Ratio

= 100 - 73 = 27%

e) Expenses Ratio:

$$\text{i) Administrative Expenses Ratio} = \frac{\text{Administrative Expenses}}{\text{Sales}} \times 100$$

$$= \frac{40,000}{5,00,000} \times 100 = 8\%$$

$$\text{ii) Selling and Distribution Expenses Ratio} = \frac{\text{Selling and Distribution Expenses}}{\text{Sales}} \times 100$$

$$= \frac{25,000}{5,00,000} \times 100 = 5\%$$

$$\textbf{f) Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

$$\frac{75,000 + 1,00,000}{2} = 87,500$$

$$\text{Stock Turnover Ratio} = \frac{3,00,000}{87,500} = 3.43 \text{ times}$$

g) Return on Total Resources = $\frac{\text{Net Profit}}{\text{Total Assets}} \times 100$

$= \frac{1,50,000}{5,00,000} \times 100 = 30\%$

h) Turnover of Fixed Assets= $\frac{\text{Net Sales}}{\text{Fixed Assets}}$

$= \frac{5,00,000}{2,30,000}$ 2.17 :1

i) Turnover to Total Assets = $\frac{\text{Net Sales}}{\text{Total Assets}}$

$= \frac{5,00,000}{5,00,000}$ 1 :1

Illustration : 7

Calculate the earnings per share from the following data:

Net profit before tax	Rs.1,00,000
Tax rate	50%
10% Pref. share capital (Rs.10 each)	Rs.1,00,000
Equity share capital (Rs.10 each)	Rs.1,00,000

(B.Com. University of Madras)

Solution :

Earnings per share = $\frac{\text{Net profit after Tax - Preference Dividend}}{\text{No. of equity shares}}$

Net Profit before Tax	1,00,000
Less: Tax at 50%	50,000

Net Profit after Tax	50,000
Less: Preference Dividend (10% on 1,00,000)	10,000

Net earnings	40,000

$$\text{Earnings per share} = \frac{\text{Rs.}40{,}000}{10{,}000 \text{ shares}} = \text{Rs.}4 \text{ per share}$$

Illustration : 8

Compute the pay-out ratio and retained earnings ratio form the following data.

	Rs.
Net Profit	10,000
Provision for Tax	5,000
Preference Dividend	2,000
No. of Equity shares	3,000
Dividend per equity share	Re.0.40

(B.Com. University of Madras)

Solution :

$$\textbf{i)Pay out Ratio} = \frac{\text{Dividend per equity share}}{\text{Earnings per equity share}} \times 100$$

$$\text{Earning per share(EPS)} = \frac{\text{Net profit - Tax - Preference Dividend}}{\text{Earnings per equity share}} \times 100$$

$$\text{EPS} = \frac{10{,}000 - 5{,}000 - 2{,}000}{3{,}000} \times 100 = \frac{3{,}000}{3{,}000} = \text{Re.}1$$

$$\text{Payout Ratio} = \frac{DPS}{EPS} \times 100 = \frac{Re.0.40}{Re.1} \times 100 = \mathbf{40\%}$$

$$\textbf{ii) Retained Earnings Ratio} = \frac{\text{Retained Earnings}}{\text{Net profit – Tax – Preference Dividend}}$$

Retained Earnings = Net profit – Tax – Pref. Dividend – Equity Dividend

= 10,000 – 5,000 – 2,000 – 1,200 = 1,800

$$\text{Retained Earnings Ratio} = \frac{1,800}{10,000 - 5,000 - 2,000} = \frac{1,800}{3,000} = \mathbf{60\%}$$

Alternatively

Retained Earnings Ratio = 1 – Payout Ratio

= 1 – 40 = **60%**

Illustration : 9

The following balances have been extracted from the books of accounts of a company.

Opening Debtors	Rs.60,000
Opening Bills Receivable	Rs.10,000
Closing Debtors	Rs.90,000
Closing Bills Receivable	Rs.20,000
Credit allowed to Debtors	One month / 12 times
Gross Profit	20% on cost
Stock turnover Ratio	10 times

Opening stock was Rs.10,000 more than closing stock

Calculate the value of opening stock and closing stock (B.Com. University of Madras)

Solution :

Workings :

$$\text{i) Average Debtors} = \frac{\text{Opening Debtors + Closing Debtors}}{2}$$

$$= \frac{60,000 + 90,000}{2} = 75,000$$

ii) Average Bill Receivable $= \dfrac{\text{Opening B/R} + \text{Closing B/R}}{2}$

$= \dfrac{10,000 + 20,000}{2} = 15,000$

iii) Sales:

Debtors Turnover Ratio $= \dfrac{\text{Sales}}{\text{Average Debtors} + \text{Average B/R}}$

$12 = \dfrac{\text{Sales}}{75,000 + 15,000}$

Sales = 12 x 90,000 = Rs.10,80,000

v) Gross Profit:

Gross profit = 20% on cost

Let cost price be Rs.100; Profit on cost is 20% or Rs.20.

Selling price will be Cost + Profit = 100 + 20 = 120

Profit on Sales will be 20 / 120 or 1/6

If sales is Rs.10,80,000 Gross Profit $= 10,80,000 \times \dfrac{20}{120} = 1,80,000$

v) Cost of goods sold = Sales - Gross Profit

= 10,80,000 - 1,80,000 = 9,00,000

vi) Average stock

Stock Turnover Ratio $= \dfrac{\text{Cost of Goods sold}}{\text{Average Stock}}$

$10 = \dfrac{9,00,000}{\text{Average Stock}}$

Average Stock $= \dfrac{9,00,000}{10} =$ Rs.90,000

Opening and Closing Stock

Average Stock = $\frac{\text{Opening Stock + Closing Stock}}{2}$ = 90,000

Opening Stock + Closing Stock = 90,000 x 2 = Rs.1,80,000

Less : Excess of Opening Stock = Rs. 10,000

Rs.1,70,000

Closing Stock = $\frac{1,70,000}{2}$ = **Rs.85,000**

Opening Stock = 85,000 + 10,000 = **Rs.95,000**

Illustration : 10

The following information is taken from the books of a firm.

	Rs.
Sales	33, 984
Sales Returns	380
Opening Stock	1,378
Closing Stock	1,814
Gross Profit	8,068

Calculate i) Purchases ii) Stock Turnover Ratio and iii) Gross Profit Ratio

(M.C.A. Bharathidasan University)

Solution :

i) Purchases:

Net Sales = Sales - Sales returns

= 33,984 - 380 = Rs.33,604

Cost of sales = Sales - Gross Profit

= Rs.33,604 - 8,068 = Rs.25,536.

Cost of Sales = Opening stock + Purchases - Closing Stock

Rs.25,536 = 1,378 + Purchases - 1,814

Purchases = 25,536 + 1,814 - 1,3,78 = Rs.25,972.

ii) Stock Turnover Ratio $= \dfrac{\text{Cost of goods sold}}{\text{Average Stock}}$

Average Stock $= \dfrac{\text{Opening Stock + Closing Stock}}{2}$

$= \dfrac{1{,}378 + 1{,}814}{2} = \text{Rs.}1{,}596$

Stock Turnover Ratio $= \dfrac{25{,}536}{1{,}596} =$ **16 times.**

iii) Gross Profit Ratio $= \dfrac{\text{Gross Profit}}{\text{Sales}} \times 100 \quad \dfrac{8{,}068}{33{,}604} \times 100 = 24\%$

Illustration : 11

Find the value of Debtors from the following information:

	Rs.
Total Sales	5,00,000
Cash Sales	2,00,000
Bills Receivable	5,000
Debtors Velocity	30 days

Solution :

i) Debtors:

Credit Sales = Total sales - Cash sales = 5,00,000 - 2,00,000 = 3,00,000

Debtors Velocity $= \dfrac{\text{Debtors + Bills Receivable}}{\text{Credit Sales}} \times \text{No. of working days}$

$= \dfrac{\text{Debtors + Bills Receivable}}{3{,}00{,}000} \times 360 = 30$

By applying cross multiplication,

Debtors + Bills Receivable $= \dfrac{30 \times 3{,}00{,}000}{360} = \text{Rs.}25{,}000$

Less: Bills Receivable = Rs. 5,000

Debtors = Rs.20,000

Illustration : 12

Find the value of Creditors from the following information:

	Rs.
Opening Stock	5,000
Closing Stock	10,000
Sales	50,000
Bills Payable	3,000
Gross Profit on Sales	10%
Creditors Velocity	73 days.

Solution :

Workings :

Gross Profit = 10% on Sales = 10% on Rs.50,000 = Rs.5,000

Cost of goods sold = Sales - Gross Profit

= 50,000 - 5,000 = 45,000

Cost of goods sold = Opening stock + Purchases - Closing Stock

Rs.45,000 = 5,000 + Purchases - 10,000

Purchases = 45,000 + 10,000 - 5,0000 = Rs.50,000

$$\text{Creditors Velocity} = \frac{\text{Creditors + Bills Payable}}{\text{Credit Purchases}} \times \text{No. of working days}$$

$$= \frac{\text{Creditors + Bills Payable}}{50,000} \times 365 = 73$$

By applying cross multiplication

$$\text{Creditors + Bills Payable} = \frac{73 \times 50,000}{365} = \text{Rs.}10,000$$

Less: Bills Payable = Rs. 3,000

Creditors Rs. 7,00

7.7.2 THEORETICAL QUESTIONS

A - Short Answer Type :

1. What are the uses of Ratio Analysis?
2. Explain Short-term solvency ratios:
3. Explain Profitability ratios:
4. Give the meaning of the term 'Capital employed'
5. List out the limitations of Ratio analysis

B - Essay Type

1. What is ratio analysis? Explain the managerial uses of Ratio analysis.
2. Explain the various classifications of Accounting Ratios:
3. What are the advantages and limitations of Accounting Ratios?

7.7.3 EXERCISE PROBLEMS

Exercise : 1

The following is the Balance sheet of XYZ Ltd. as on 31st March 2005

Liabilities	Rs.	Assets	Rs.
Share Capital	6,00,000	Fixed Assets	4,00,000
Reserve and Surplus	1,00,000	Stock	1,50,000
Creditors	1,20,000	Debtors	80,000
Bills Payable	60,000	Bills Receivable	50,000
Outstanding expenses	40,000	Prepaid Expenses	50,000
Provision for Tax	80,000	Cash at Bank	2,00,000
		Cash in hand	70,000
	10,00,000		10,00,000

Calculate a) Current Ratio and b) Quick Ratio.

(**Answer:** a) Current Ratio - 2:1 b) Quick Ratio - 1.33:1)

Exercise : 2

From the following information, calculate:

a) Current assets B) Current liabilities c) Liquid assets and d) Stock

Current Ratio 3.5; Liquid Ratio 2.5; Working capital Rs.1,00,000

(B.Com. University of Madras)

(Answer : a) Current assets 1,40,000 B) Current liabilities 40,000

c) Liquid assets 1,00,000 d) Stock 40,000)

Exercise : 3

The following is the Balance sheet of Oracle Ltd. as on 31st March 2002

Liabilities	Rs.	Assets	Rs.
Share Capital	2,00,000	Land and Building	1,40,000
12% Debentures	4,20,000	Plant and Machinery	3,50,000
General Reserve	40,000	Stock	2,00,000
Profit and Loss A/c	30,000	Debtors	1,00,000
Sundry Creditors	1,00,000	Bills Receivable	10,000
Bills Payable	50,000	Cash at Bank	40,000
	8,40,000		8,40,000

Calculate: i) Current Ratio ii) Quick Ratio iii) Debt Equity Ratio

iv) Proprietary Ratio v) Inventory to working capital vi) Current Assets to Fixed Assets vii) Capital Gearing Ratio

(**Answer:** i) Current Ratio 2.33:1 ii) Quick Ratio1:1 iii) Debt Equity Ratio 1.56:1

iv) Proprietary Ratio 0.6:1 v) Inventory to working capital 1:1

vi) Current Assets to Fixed Assets 0.71:1 vii) Capital Gearing Ratio 2.1:1)

Exercise : 4

From the following particulars, calculate Stock Turnover Ratio:

Opening stock	Rs.40,000
Closing stock	Rs.44,000
Sales	Rs.4,15,000
Gross Profit Ratio	20%

(M.Com. University of Madras)

Answer: Stock turnover ratio 7.9

Exercise : 5

From the following information calculate:

i) Debtors Turnover Ratio and ii) Average collection period

	Rs.
Total sales during the year	5,81,000
Cash sales during the year	1,50,000
Returns inward	20,000
Opening balance of Debtors	55,000
Closing balance of Debtors	45,000

(B.Com. University of Madras)

Answer : i) 5 times ii) 73 days or 2.4 months.

Exercise : 6

From the following information calculate:

i)Sundry Debtors and ii) Closing stock

Debtors velocity	-	3 months
Stock velocity	-	8 months
Gross profit ratio	-	25%

Gross profit amounted to Rs.2,00,000. Closing stock of the year is Rs.5,000 above the opening stock .

(B.Com. University of Madras)

Answer : i)Sundry Debtors Rs.2,00,000 ii) Closing stock Rs.4,02,500.

Exercise : 7

Following is the Profit and Loss A/c of Genesis Ltd. for the year ending 31st March,2005

Profit and Loss Account

Particulars	Rs.	Particulars	Rs.
To Opening stock	1,00,000	By Sales	5,60,000
To Purchases	3,50,000	By Closing stock	1,00,000
To Wages	9,000		
To Gross Profit c/d	2,01,000		
	6,60,000		6,60,000
To Administrative expenses	20,000	By Gross profit b/c	2,01,000
To Selling and Distribution exp.	89,000	By Interest on investments	10,000
To Non- Operating expenses	30,000	By Profit on sale of investment	8,000
To Net Profit	80,000		
	2,19,000		2,19,000

Calculate : a) Gross Profit ratio b) Net Profit ratio c) Operating ratio and d) Operating profit Ratio.

(B.Com. University of Madras)

Answer : a) Gross Profit ratio 35.89% b) Net Profit ratio 14.29%

c) Operating ratio 83.57% d) Operating profit Ratio16.43% .

Exercise : 8

You are given the following:

Sales	Rs.6,00,000
Cost of goods sold	Rs.4,00,000
Operating expenses	Rs.1,20,000

Non-operating expenses Rs.4,000

Non-operating income Rs.12,000

You are required to calculate:

i) Gross Profit Ratio ii) Operating Ratio

iii) Operating Profit Ratio iv) Net Profit Ratio

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Answer : i) Gross Profit ratio 33.33% ii) Operating Ratio 86.67%

iii) Operating profit ratio 13.33% iv) Net profit ratio 14.67%

Exercise : 9

Sun shine Ltd presents to you the following Balance Sheet as on 31-12-1986.

Liabilities	Rs.	Assets	Rs.
Equity Share Capital	1,00,000	Fixed Assets	1,75,000
8% Pref. Share Capital	20,000	Investments	50,000
Reserve Fund	80,000	Stock	60,000
6% Debentures	40,000	Sundry Debtors	27,000
Sundry Creditors	60,000	Bank	14,000
Profit and Loss A/c	42,000	Preliminary expenses	16,000
	3,42,000		3,42,000

Calculate : a) Return on capital employed and b) Fixed assets to Net worth

(B.Com. University of Madras)

Answer: a) 15% b) 0.77:1

Exercise : 10

Calculate Earning Per Share from the following.

Net profit before Tax Rs.50,000

Tax Rate 50%

10% Preference share capital (Rs.10 each) Rs.50,000

Equity Share Capital (Rs.10 each) Rs.50,000

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Answer: a) EPS Rs.4

Exercise :11

The following is the summarised Profit and Loss A/c of Arasan Ltd. for the year ending 31st March 2002 and the Balance sheet as on that date.

Trading and Profit and Loss Account

Particulars	Rs.	Particulars	Rs.
To Opening stock	49,750	By Sales	4,25,000
To Purchases	2,72,625	By Closing stock	74,500
To Incidental expenses	7,125		
To Gross Profit c/d	1,70,000		
	4,99,500		4,99,500
To Administrative expenses	75,000	By Gross profit b/c	1,70,000
To Selling and Distribution exp.	15,000	By Interest	1,500
To Other Operating expenses	7,500	By Profit on sale of shares	3,000
To Loss on sale of Assets	2,000		
To Net Profit	75,000		
	1,74,500		1,74,500

Balance Sheet

Liabilities	Rs.	Assets	Rs.
Issued Capital:		Land and Building	75,000
2,000 Equity Shares of		Plant and Machinery	40,000
Rs.50 each	1,00,000	Stock in trade	74,500
Reserves	45,000	Sundry Debtors	35,500
Current liabilities	65,000	Cash and Bank	15,000
Profit and Loss A/c	30,000		
	2,40,000		2,40,000

From the above statements you are required to calculate the following ratios:

i) Current Ratio ii) Operating Ratio iii) Return on net worth iv) Return on Total resources

v) Stock Turnover Ratio vi) Turnover of fixed assets.

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Answer : i) 1.92:1 ii) 82.94% iii) 0.43 iv) 0.31 v) 4.11 vi) 3.7

7.7.4 Books for Reference :

1. R.K.Sharma and Shashi K.Gupta, Management Accounting, Kalyani Publilshers, Madras - 17.
2. S.Ganeson and S.R.Kalavathi, Management Accounting, Thirumalai Publications, Nagarcoil - 1
3. R.Ramachandran and R.Srinivasan, Management Accounting, Sriram Publications, Tennur, Trichy - 17.
4. R.S.N.Pillai and Bagavathi, Management Accounting, S.Chand & Company Ltd., NewDelhi - 53.
5. V.R. Palanivelu, Accounting for management, Laxmi Publications (P) Ltd., NewDelhi-02

Answer for Self - Evaluation questions.

A - 1. (ii) Current assets and Current liabilities

2. (iii) Opening stock + Purchases - Closing stock

B - 1. Quick

2. Shareholders funds

C - 1. The Relationship between current assets and current liabilities. It reveals the short-term solvency position.

2. Components of Shareholders funds = Preference share capital + Equity share capital + Reserves and surplus.

NOTES

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Chapter – VIII
FUND FLOW ANALYSIS

8.0 Introduction
8.1.1 Meaning of Funds Flow Statement
8.1.2 Definition
8.1.3 Objectives of Funds Flow Statement
8.1.4 Meaning of Funds
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8.1.10 Examples of transactions which result in NO FLOW OF FUNDS
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SELF - EVALUATION QUESTIONS
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Answers for Self-Evaluation Questions

8.0 INTRODUCTION

The accounting transactions are first entered in the books of Journal and then they are posted in to the Ledger. At the end of the accounting period, final accounts are prepared to find out the trading results. The balance sheet reveals the financial position of the company. The profit and loss account reflects the results of business for a particular accounting period. But the income statement and balance sheet do not present a detailed analysis for the periodic increase or decrease in the working capital position of a concern. The balance sheet does not show the movement of funds between two periods. Thus another statement is necessary to show the changes in the assets and liabilities during a particular period. This statement is called funds flow statement.

8.1.1 Meaning of Funds Flow Statement

The funds flow statement is the report on the movements of funds or working capital of a business. It indicated various means by which funds were obtained during a particular period and the ways in which these funds were employed. Funds flow statement is otherwise known as Statement of Sources and Application of Funds, Statement of Sources and Uses of Funds, Statement of Changes in Financial Position, Where Got Where Gone Statement, Statement of Resources Provided and Applied, Statement of Funds Received and Disbursed etc.

8.1.2 Definition

Foulke defines as, "A statement of sources and application of funds is a technical device designed to analyse the changes in the financial condition of a business enterprise between two dates."

Robert N.Anthony defines as, "The funds flow statement describes the sources from which additional funds were derived and the uses to which these funds were put."

8.1.3 Objectives of Funds Flow Statement

Funds or working capital is like the blood of any business. The following are the objectives of funds flow statement.

1. To show how the resource have been derived and used.
2. To find out the causes for the change in assets and liabilities
3. To find out the funds from operation or funds lost in operation.
4. To show how the expansion of business or additional capital expenditure has been financed.
5. To ascertain the causes for the changes in working capital position.

8.1.4 Meaning of Funds

The term funds is used in a number of ways. In a narrow sense, the term 'funds' refers to cash only. In a broader sense the term 'funds' refers to all financial resources used in the business. In a popular sense, the term 'funds' refers to working capital and it is widely accepted. Working capital is the excess of current assets over current liabilities.

8.1.5 Concept of Flow of Funds

The term 'flow' means movement of change. The term 'funds' means working capital. 'Flow of funds' means movement of funds or changes in working capital. Flow of funds includes both inflow and outflow. Flow of funds may be resulted in either increase or decrease in working capital. If the effect of a transaction results in the increase of funds, it is called a sources of funds. If the effect of a transaction results in the decrease of funds it is called an application of funds.

The flow of funds takes place when a transaction involves between one current and another non-current account. There will be no flow of funds, if the transaction occurs between two current accounts or two non-current accounts.

To find out the flow of funds, it is necessary to classify the balance sheet items into current and non-current items. Assets are divided into current assets and non-current or fixed assets. Such as liabilities are divided into current liabilities and non-current or permanent liabilities.

8.1.6 Current assets: Current assets are those assets which can be converted into cash within a shorter period of 12 months or one accounting year.

8.1.7 Current Liabilities: Current liabilities are those liabilities which is payable within as shorter period of 12 months or one accounting year.

8.1.8 LIST OF CURRENT ASSETS AND CURRENT LIABILITIES

CURRENT LIABILITIES	CURRENT ASSETS
7 Bills Payable	7 Cash in hand
8 Sundry Creditors (or) Accounts Payable	8 Cash at Bank
9 Accrued or Outstanding Expenses	9 Bills Receivable
10 Dividends Payable	10 Sundry Debtors (or) Accounts Receivable
11 Bank Overdraft	11 Marketable securities(Investments)
12 Short-term loans advances and deposits	12 Short term loans and advances
13 Provision against current assets	13 Stock in trade
14 Provision for tax (may be non-current)	14 Prepaid Expenses
Proposed Dividend (may be non-current)	Accrued Income

8.1.9 LIST OF NON-CURRENT ASSETS AND NON-CURRENT LIABILITIES

NON-CURRENT LIABILITIES		NON-CURRENT ASSETS	
7	Equity share capital	7	Goodwill
8	Preference share capital	8	Land
9	Debentures	9	Building
10	Long-term loans	10	Plant and Machinery
11	Share Premium	11	Furniture and Fittings
12	Forfeited shares A/c	12	Trade Marks
13	Profit & Loss A/c (credit balance)	13	Patent Rights
14	Capital Reserve	14	Long-term investment
15	Capital Redemption Reserve	15	Debit balance of P & L A/c
16	Provision for depreciation against fixed assets.	16	Discount on issue of shares
17	Appropriation of Profits:	17	Discount on issue of debentures
17.5	General Reserve	18	Preliminary expenses
17.6	Dividend Equalisation Fund	19	Other Deferred expenses
17.7	Insurance Fund		
17.8	Compensation Fund		
17.9	Sinking Fund		
17.10	Investment Fluctuation Fund		
17.11	Provision for Taxation (may be current)		
17.12	Proposed Dividend (may be current)		

8.1.10 Examples of transactions which result in NO FLOW OF FUNDS.

1. Cash collected from debtors.
2. Bills receivable realized.
3. Cash paid to trade creditors.
4. Payment to Bills payable
5. Issued Bills payable to trade creditors.
6. Received acceptances from customers.
7. Raising of short term loans
8. Sale of temporary or marketable investments
9. Goods purchased for cash or credit
10. Purchase of new Assets in exchange of existing assets.
11. Conversion of Debentures into Shares
12. Redemption of Preference shares in exchange of Debentures
13. Transfer to General Reserve
14. Issue of Bonus shares
15. Issue of shares for the purchase of Fixed Assets

16. Writing off Goodwill, Preliminary expenses , Discount on shares etc.

8.1.11 Examples of transactions which result in FLOW OF FUNDS

1. Issue of Shares for cash
2. Issue of Debentures
3. Raising of Long-term loans
4. Sale of Fixed Assets for cash or credit
5. Sale of long term investments
6. Redemption of Preference shares
7. Redemption of Debentures
8. Purchase of Fixed assets on cash or credit
9. Purchase of long-term trade investments
10. Payment of bonus to shareholders in cash
11. Repayment of long-term loans
12. Issue of shares against purchase of stock-in-trade.

8.2 IMPORTANCE OR MANAGERIAL USES OF FUNDS FLOW STATEMENT.

Funds flow statement is an important tool for financial statement analysis. The main purpose is to find out the changes in the working capital and causes for the changes. The following are the significance of funds flow statement.

1. Analysis of financial operations.

The main purpose of funds flow statement is to analyse the financial operations. This statement explains what has happened to the profit of the firm and shows the reasons for the changes in assets and liabilities during a period.

2. Answers to questions of general interest.

The funds flow statement answers for the questions of general interest such as,

i) What are the sources used for capital expenditure?

ii) What are the sources for repayment of debt?

iii) How much funds were generated from operation or lost in operation?

iv) How was the increase in working capital financed?

v) Why more dividends could not be declared in spite of available profits?

3. Helps in the formation of a realistic dividend policy

Some times a company may find it difficult to distribute dividend when it has sufficient profit but lack of cash resources. In such time, the funds flow statement helps to formulate a realistic dividend policy.

4. Proper allocation of resources.

The resources of a concern are always limited. A projected funds flow statement helps the management to take decisions in discharging its financial obligations.

5. Guide to future.

A projected funds flow statement helps to know the future need of funds. This helps the management to arrange for the needs.

6. Appraising the use of working capital.

This statement shows how efficiently the management has used its working capital and also suggests ways to improve the working capital position.

8.3 LIMITATIONS OF FUND FLOW STATEMENT

The following are the limitations of funds flow statement.

1. Funds flow statement is no a substitute to income statement or balance sheet. It is complementary to financial statements and provides some additional information regarding changes in working capital.
2. It cannot reflect continuous changes. Because the information for only two years are taken into account.
3. It is not an original statement but rearrangement of data given in the income statement and balance sheet.
4. It shows the past year's performance and projected funds flow statement cannot be prepared with much accuracy.

8.4 PROCEDURE FOR PREPARING FUND FLOW STATEMENT

Funds flow statement is prepared by comparing the two years balance sheets with the help of the additional information. The following are the steps involved in the preparation of funds flow statement.

Step - I Schedule of changes in working capital

Working capital represents excess of current assets over current liabilities. By comparing the current assets and current liabilities of the previous year with that of the current year, we can find out increase or decrease in the working capital during the year.

Increase in current assets results in increase in working capital.

Decrease in current assets results in decrease in working capital.

Increase in current liabilities results in decrease in working capital.

Decrease in current liabilities results in increase in working capital.

By closing this statement, we can get the net result, either increase in working capital or decrease in working capital. Increase in working capital will

be taken to the application side and decrease in working capital will be entered on the sources side of the funds flow statement.

Step - II Opening of separate accounts for non-current items.

We have to prepare separate ledger account for non-current items wherever necessary. If there is any adjustment given in the non-current item, we have to prepare a separate account to find out inflow or outflow of funds. If there is no adjustment, there is no need of opening separate account and we can compare the figures for the two year and find out flow of funds.

Step - III Preparation of Adjusted Profit and Loss Account.

The profit and loss arrived in the income statement is derived after adjusting all fund and non-fund items as well as operating and non-operating items. While preparing funds flow statement, only funds from operation or funds lost in operation should be considered. The non-fund items and non-operating items should not be taken into account. Depreciation, transfer to general reserve are some of the non-fund expenses and fund do not move out of business. Non-operating items are those which are not related to the trading operations of the business. For example, profit or loss on sale of fixed assets, payment of dividend etc.

By closing this adjusted profit and loss account, we can get either Funds From Operation (sources) or Funds Lost in Operation (Application)

Step - IV Preparation of Funds flow statement

All the available information ascertained in the first three steps are incorporated and thus the funds flow statement is prepared. Various Sources of funds and decrease in working capital are taken to the sources side. Various Application of funds and Increase in working capital are taken to the application side. By closing this statement the total of both sides will get agreed and the preparation of funds flow statement will be completed.

8.5.1 SPECIMEN FORM OF FUNDS FLOW STATEMENT

Sources	Rs.	Application	Rs.
Issue of shares	xxx	Redemption of Preference shares	xxx
Issue of Debentures	xxx	Redemption of Debentures	xxx
Long term borrowings	xxx	Repayment of Loans	xxx
Sale of Fixed Assets	xxx	Purchase of fixed assets	xxx
Sale of Investments	xxx	Payment of tax	xxx
Income from long-term investment	xxx	Payment of dividend	xxx
Funds from operation	xxx	Purchase of investment	xxx
Net Decrease in Working Capital	xxx	Funds lost in operation	xxx
		Net Increase in Working Capital	xxx
Total	xxx	Total	xxx

8.5.2 CALCULATION OF FUNDS FROM OPERATION

Net profit earned during the year		xxxx
Add : Non-fund and Non-operating items which are already debited to Profit and Loss A/c		
Depreciation on fixed assets	xxxx	
Goodwill written off	xxxx	
Discount on issue of shares written off	xxxx	
Preliminary expenses written off	xxxx	
Patents written off	xxxx	
Transfer to Reserve	xxxx	
Loss on sale of fixed assets	xxxx	
	------	xxxx
Less :Non-fund and Non-operating items which are Already credited to Profit and Loss A/c		
Profit on sale of Fixed assets	xxxx	
Profit on revaluation of assets	xxxx	
Rent received	xxxx	
Dividend received	xxxx	
Refund of Income tax	xxxx	
	------	xxxx

Funds from operation		xxxx

SELF - EVALUATION QUESTIONS:

A - Choose the best options:

1. There will be a flow of fund, when the transactions occur between:

   a) one current item and another non-current item.

   b) one current item and another current item.

   c) one non-current item and another non-current item.

Answer : ____

2. State, which of the following is a non-current asset:

   a) Furniture and fittings

   b) Trade inventory

   c) Cash at Bank

Answer : ____

3. Find out the current liability from the following:

   a) Mortgage loan

   b) Debentures

   c) Sundry Creditors

Answer : ____

B - Fill in the blanks with appropriate words:

1. Working capital is the difference between ___________ and __________ .

2. Increase in current assets will be resulted in __________in working capital.

3. Prepaid expense is a _____________ asset.

C - Short Answer Type:

1. What is a fund flow statement?

……………………………………………………………………………………

2. Explain current assets with examples:

……………………………………………………………………………………

3. Name various sources of funds:

……………………………………………………………………………………

8.6 SUMMARY

Funds flow statement is the report on the movement of funds or working capital of a business. Working capital is the different between current assets and current liabilities. The flow of funds takes place when a transaction involves between one current account and another non-current account.

Funds flow statement is an important tool to analyse financial operations, to know the sources and application funds during a period, to know the changes in working capital and its causes. It also helps to allocate resources properly and to formulate dividend policy.

Funds flow statement is not a substitute for income statement. It doesn't show the continuous changes in the business.

8.7.1 ILLUSTRATION PROBLEMS

Illustration 1:

Prepare a statement of changes in working capital from the following details of 'T' Ltd.

Balance Sheets

Liabilities	31-12-98	31-12-99	Assets	31-12-98	31-12-99
Equity Capital	5,00,000	5,00,000	Fixed Assets	6,00,000	7,00,000
Debentures	3,70,000	4,50,000	Long-term		
Provision for	77,000	43,000		2,00,000	1,00,000
Tax	96,000	1,92,000	Investments	80,000	90,000
Creditors	87,000	80,000	Work-in-progress	1,50,000	2,25,000
Dividends			Stock	70,000	1,40,000
payable			Debtors	30,000	10,000
	11,30,000	12,65,000	Cash	11,30,000	12,65,000

(B.Com. University of Madras)

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Cash	30,000	10,000	---	20,000
Debtors	70,000	1,40,000	70,000	
Stock	1,50,000	2,25,000	75,000	
Work-in-Progress	80,000	90,000	10,000	
Total	3,30,000	4,65,000		
Less				
Current Liabilities				
Tax Payable	77,000	43,000	34,000	
Creditors	96,000	1,92,000	---	96,000
Dividend Payable	87,000	80,000	7,000	
Total	2,60,000	3,15,000	1,96,000	1,06,000
Working Capital	70,000	1,50,000		
Net increase in Working Capital (?)	80,000			80,000
	1,50,000	1,50,000	1,96,000	1,96,000

Note : Provision for Tax is treated as a current liability

Illustration 2:

The following are the summarized Balance Sheets of Johnson Ltd. as on 31st December 2003 and 2004.

Balance Sheets

Liabilities	2003	2004	Assets	2003	2004
Equity	1,00,000	1,00,000	Fixed Assets	95,000	1,20,000
ShareCapital	---	50,000	Investments	---	10,000
Pref. Share	30,000	40,000	Current Assets:		
Capital	25,000	70,000	Stock	40,000	60,000
General Reserve			Debtors	20,000	40,000
Profit and Loss	20,000	10,000	Bills Receivable	5,000	2,000
Current	---	2,000	Prepaid Expenses	5,000	18,000
Liabilities:	3,000	---	Cash	20,000	10,000
Creditors	7,000	12,000	Advances	10,000	40,000
Bills Payable	10,000	16,000			
Bank Overdraft	1,95,000	3,00,000		1,95,000	3,00,000
Taxation					
Provision					
Proposed					
Dividend					

(B.Com. University of Madras)

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Stock	40,000	60,000	20,000	---
Debtors	20,000	40,000	20,000	---
Bills Receivable	5,000	2,000	---	3,000
Prepaid Expenses	5,000	18,000	13,000	---
Cash	20,000	10,000	---	10,000
Advances	10,000	40,000	30,000	---
Total	1,00,000	1,70,000		
Less Current Liabilities				
Creditors	20,000	10,000		
Bills payable	---	2,000		
Overdraft	3,000	---		
Taxation Provision	7,000	12,000		
Proposed Dividend	10,000	16,000		
	40,000	40,000	96,000	26,000
Working Capital	60,000	1,30,000		70,000
Net increase in Working Capital (?)	70,000			
	1,30,000	1,30,000	96,000	96,000

Illustration 3:

Compute funds from operation from the following.

Profit and Loss Account

	Rs.		Rs.
To Salaries	10,000	By Gross profit b/d	2,000
To Rent paid	4,000	By Rent received	10,000
To Depreciation	2,000	By Interest on investments	8,000
To Goodwill written off	4,000	By Net Loss	10,000
To Loss on sale of	10,000		
investments	30,000		30,000

(B.Com. Bharathidasan University)

Solution:

Adjusted Profit and Loss Account

	Rs.		Rs.
To Depreciation	2,000	By Rent received	10,000
To Goodwill written off	4,000	By Interest on investments	8,000
To Loss on sale of	10,000		
investments	12,000	By Net Loss	10,000
To Funds lost in Operations	28,000		28,000
(?)			

Illustration 4:

Calculate Funds from Operation from the following.

Profit and Loss Appropriation Account

	Rs.		Rs.
To Salaries	10,000	By Gross profit b/d	1,00,000
To Rent	6,000	By Profit on sale of	10,000
To Depreciation on Plant	10,000	equipment	
To Stationery	6,000		
To Preliminary Exp. Written	4,000		
off	6,000		
To Goodwill written off	8,000		
To Provision for Tax	12,000		
To Proposed Dividends	48,000		
To Net Profit	1,10,000		1,10,000

(B.Com. University of Madras)

Solution:

Adjusted Profit and Loss Account

	Rs.		Rs.
To Depreciation on Plant	10,000	By Gross profit b/d	---
To Preliminary Exp. Written off	4,000	By Profit on sale of equipment	10,000
To Goodwill written off	6,000		
To Provision for Tax	8,000		
To Proposed Dividends	12,000	By Funds from Operation (?)	78,000
To Balance c/d	48,000		
	88,000		88,000

Illustration 5:

From the following details, ascertain 'Funds from Operation'.

Particulars	01.01.2005 Rs.	31.12.2005 Rs.
Profit and Loss A/c balance at the end	50,000	60,000
General Reserve	30,000	40,000
Goodwill	20,000	12,000
Preliminary Expenses	6,000	4,000
Depreciation Provision (accumulated)	25,000	40,000
Income from non-trading investments	---	20,000

Preference shares of the face value of Rs.1,00,000 were redeemed during the year at a premium of 10 %. The premium on redemption was charged to the profit and loss a/c.

(B.Com. Madurai Kamaraj University)

Solution:

Adjusted Profit and Loss Account

	Rs.		Rs.
To Transfer to General Reserve	10,000	By Balance b/d	50,000
To Preliminary Exp. Written off	8,000	By Income from non-trading investment	20,000
To Goodwill written off	2,000	By Funds from Operation (?)	35,000
To Provision for Depreciation	15,000		
To Premium on Redemption of Preference Shares	10,000		
To Balance c/d	60,000		
	1,05,000		1,05,000

Illustration 6:

The following are the summarized balance sheets of Orient Ltd as on 31st December 1998 and 31st December 1999

Liabilities	31-12-98	31-12-99	Assets	31-12-98	31-12-99
7 % Redeemable Pref. Shares	---	10,000	Fixed Assets	41,000	40,000
Equity Shares	40,000	40,000	Less: Depreciation	11,000	15,000
General Reserve	2,000	2,000		30,000	25,000
Profit and Loss a/c	1,000	1,200	Currents Assets:		
Debentures	6,000	7,000	Debtors	20,000	24,000
Current Liabilities:			Stock	30,000	35,000
Creditors	12,000	11,000	Prepaid Expenses	300	500
Provision for Tax	3,000	4,200	Cash	1,200	3,500
Proposed Dividend	5,000	5,800			
Bank Overdraft	12,500	6,800			
	81,500	88,000		81,500	88,000

You are required to prepare:

i) a statement showing changes in the working capital and

ii) a statement of sources and application of funds.

(B.Com. University of Madras)

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Debtors	20,000	24,000	4,000	---
Stock	30,000	35,000	5,000	---
Prepaid Expenses	300	500	200	---
Cash	1,200	3,500	2,300	---
Total	51,500	63,000		
Less Current Liabilities				
Creditors	12,000	11,000	1,000	---
Provision for Tax	3,000	4,200	---	1,200
Proposed Dividend	5,000	5,800	---	800
Bank Overdraft	12,500	6,800	5,700	---
Total	32,500	27,800		
Working Capital	19,000	35,200	18,200	2,000
Net increase in Working Capital (?)	16,200	---	---	16,200
	35,200	35,200	18,200	18,200

Statement of Sources and Application of Funds

Sources	Rs.	Application	Rs.
Issue of 7 % Redeemable Preference Shares	10,000	Increase in Working Capital	16,200
Issue of Debentures	1,000		
Sale of Fixed Assets	1,000		
Funds from operations	4,200		
	16,200		16,200

Fixed Assets Account

	Amount Rs.		Amount Rs.
To Balance b/d	41,000	By Cash (Sale) (?)	1,000
		By Balance c/d	40,000
	41,000		41,000

Provision for Depreciation Account

	Amount Rs.		Amount Rs.
		By Balance b/d	11,000
To Balance b/d	15,000	By Adjusted P&L a/c (current	4,000
	15,000	year's provision)	15,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Provision for Depreciation	4,000	By Balance b/d	1,000
To Balance c/d	1,200	By Funds from Operation (?)	4,200
	19,160		19,160

Illustration 7:

From the following two balance sheets as on 31st December 1996 and 1997, you are required to prepare:

a) Schedule of changes in working capital, and

b) Funds flow statement.

Balance Sheets Rs. in '000

Liabilities	31-12-96	31-12-97	Assets	31-12-96	31-12-97
Share Capital	300	325	Land and Buildings	450	510
Profit and Loss	100	170	Plant & Machinery	100	90
A/c	200	150	Stock	80	110
Debentures	75	98	Debtors	46	30
Trade Creditors	5	2	Cash	4	5
O/s Creditors	680	745		680	745

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Cash	4,000	5,000	1,000	---
Debtors	46,000	3,0000	---	16,000
Stock	80,000	1,10,000	30,000	
Total	1,30,000	1,45,000		
<u>Less</u> Current Liabilities				
Trade Creditors	75,000	98,000		23,000
Outstanding Creditors	5,000	2,000	3,000	---
Total	80,000	1,00,000		
Working Capital	50,000	45,000	34,000	39,000
Net increase in Working Capital (?)	---	5,000	5,000	---
	50,000	50,000	39,000	39,000

Funds Flow Statement

Sources	Rs.	Application	Rs.
Issue of Shares	25,000	Redemption of Debentures	50,000
Funds from operation	80,000	Purchase of Land and	60,000
Decrease in Working capital	5,000	Building	
	1,10,000		1,10,000

Plant & Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d	1,00,000	By Adjusted P&L a/c (Depn)	10000
		(?)	90,000
	1,00,000	By Balance c/d	1,00,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Depreciation on Plant & Mach.	10,000	By Balance b/d	1,00,000
To Balance c/d	1,70,000	By Funds from Operation (?)	80,000
	1,80,000		1,80,000

Liabilities	1.1.99	31.12.99	Assets	1.1.99	31.12.99
Creditors	40,000	44,000	Cash	10,000	7,000
Mrs.White's Loan	25,000	---	Debtors	30,000	50,000
			Stock	35,000	25,000
Loan from	40,000	50,000	Machinery	80,000	55,000
Indian Bank	1,25,000	1,53,000	Land	40,000	50,000
Capital			Building	35,000	60,000
	2,30,000	2,47,000		2,30,000	2,47,000

During the year a machine costing Rs.10,000 (accumulated depreciation Rs.3,000) was sold for Rs.5,000. The provision for depreciation against machinery as on 1.1.99 was Rs.25,000 and on 31.12.99 Rs.40,000. Net Profit for the year 1999 amounted to Rs.45,000. You are required to prepare a funds flow statement.

(B.Com. Madras; M.C.A. Bharathiyar)

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Cash	10,000	7,000	---	3,000
Debtors	30,000	50,000	20,000	---
Stock	35,000	25,000	---	10,000
Total	75,000	82,000		
Less Current Liabilities				
Creditors	40,000	44,000	---	4,000
Working Capital	35,000	38,000	20,000	17,000
Net increase in Working Capital (?)	3,000	---	---	3,000
	38,000	38,000	20,000	20,000

Funds Flow Statement

Sources	Rs.	**Application**	Rs.
Sale of Machinery	5,000	Purchase of Land	10,000
Loan from Indian Bank	10,000	Purchase of Building	25,000
Funds from operation	65,000	Drawings	17,000
		White's Loan repaid	25,000
		Increase in working capital	3,000
	80,000		80,000

Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d (80,000+25,000)	1,05,000	By Cash (Sale)	5,000
		By Provision for depreciation	3,000
		By Adjusted P&L a/c(loss on sale)	2,000
		By Balance c/d (55,000+40,000)	95,000
	1,05,000		1,05,000

Provision for depreciation on Machinery

	Amount Rs.		Amount Rs.
To Machinery a/c (Depreciation on Mach. sold)	3,000	By Balance b/d	25,000
To Balance c/d	40,000	By Adjusted P&L a/c (current year's provision) (?)	18,000
	43,000		43,000

Capital A/c

	Amount Rs.		Amount Rs.
To Drawings	17,000	By Balance b/d	1,25,000
To Balance c/d	1,53,000	By Net Profit	45,000
	1,70,000		1,70,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Machinery a/c (loss on sale)	2,000	By Balance b/d	---
To Provision for depreciation	18,000	By Funds from operation (?)	65,000
To Balance c/d	45,000		
	65,000		65,000

Illustration 9:

The following is the summarized balance sheets of ITC Ltd. as on 31st March 1983 and 31st March 1984.

Balance sheet as on 31st March 2004

Liabilities	Amount Rs.	Assets	Amount Rs.
Share capital	4,50,000	Fixed Assets	4,00,000
General Reserve	3,00,000	Investments	50,000
Profit and Loss Account	56,000	Stock	2,40,000
Sundry Creditors	1,68,000	Sundry Debtors	2,10,000
Provision for Taxation	75,000	Bank	1,49,000
	10,49,000		10,49,000

Balance sheet as on 31st March 2005

Liabilities	Amount Rs.	Assets	Amount Rs.
Share capital	4,50,000	Fixed Assets	3,20,000
General Reserve	3,10,000	Investments	60,000
Profit and Loss Account	68,000	Stock	2,10,000
Mortgage Loan	2,70,000	Sundry Debtors	4,55,000
Sundry Creditors	1,34,000	Bank	1,97,000
Provision for Taxation	10,000		
	12,42,000		12,42,000

Additional information available:

i) Investments costing Rs.8,000 were sold during the year for Rs.8,500 and further investments were purchased during the year for Rs.18,000.

ii) The net profit for the year was Rs.62,000 after charging depreciation on fixed assets Rs.70,000 for the year and Provision for Taxation Rs.10,000.

iii) During the year part of fixed assets costing Rs.10,000 was disposed for Rs.12,000 and the profit is included in the profit and loss account.

iv) Dividend paid during the year amounted to Rs.40,000.

Prepare a statement of Sources and Application of Funds for the year ended 31st March 1984.

Solution :

Schedule of changes in Working Capital

Particulars	1998 Rs.	1999 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Stock	2,40,000	2,10,000	---	30,000
Sundry Debtors	2,10,000	4,55,000	2,45,000	---
Bank	1,49,000	1,97,000	48,000	---
Total	5,99,000	8,62,000		
Less Current Liabilities				
Sundry Creditors	1,68,000	1,34,000		
Working Capital	4,31,000	7,28,000	3,27,000	30,000
Increase in Working Capital (?)	2,97,000			2,97,000
	7,28,000	7,28,000	3,27,000	3,27,000

Funds Flow Statement

Sources	Rs.	Application	Rs.
Sale of Fixed assets	12,000	Purchase of Investment	18,000
Sale of Investments	8,500	Payment of Tax	75,000
Mortgage loan raised	2,70,000	Payment of Dividend	40,000
Funds from operation	1,39,500	Increase in working capital	2,97,000
	4,30,000		4,30,000

Fixed Assets Account

	Amount Rs.		Amount Rs.
To Balance b/d	4,00,000	By Adjusted P&L a/c (Depn)	70,000
To Adjusted P&L a/c(loss on sale)	2,000	By Cash (Sale)	12,000
		By Balance c/d	3,20,000
	4,02,000		4,02,000

Investments Account

	Amount Rs.		Amount Rs.
To Balance b/d	50,000	By Cash (sale)	8,500
To Adjusted P&L a/c (profit on sale)	500	By Balance c/d	60,000
To Cash (purchase)	18,000		
	68,500		68,500

Provision for Taxation Account

	Amount Rs.		Amount Rs.
To Cash (Tax paid)	75,000	By Balance b/d	75,000
To Balance c/d	10,000	By Adjusted P&L a/c (current year's provision) (?)	10,000
	85,000		85,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Fixed Assets (depreciation)	70,000	By Balance b/d	56,000
To General Reserve	10,000	By Fixed Assets (profit on	2,000
To Provision for Tax	10,000	sale)	500
To Dividend	40,000	By Investments (profit on sale)	1,39,500
To Balance c/d	68,000	By Funds from operation (?)	
	1,98,000		1,98,000

Illustration 10:

The following are the Balance sheets Sun Ltd., prepare a fund flow statement for the year ended 30th June 2006.

Balance Sheets

Liabilities	2005	2006	Assets	2005	2006
Share capital	2,00,000	2,50,000	Goodwill	70,000	50,000
Debentures	50,000	1,50,000	Machinery	3,10,000	4,40,000
General Reserve	70,000	1,20,000	Investments	30,000	80,000
Profit and Loss	50,000	60,000	Discount on issue		
a/c	90,000	1,30,000	of	5,000	----
Depreciation	75,000	1,10,000		20,000	30,000
Creditors	10,000	15,000	debentures	70,000	1,80,000
Bank overdraft			Bank	40,000	55,000
	5,45,000	8,35,000	Debtors	5,45,000	8,35,000
			Stock		

During the year investments costing Rs.30,000 was sold for Rs.27,000. A new a machine was bought for Rs.40,000 and the payment was made in fully paid sharers.

(B.Com. Madurai Kamaraj University)

Solution :

Schedule of changes in Working Capital

Particulars	2005 Rs.	2006 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Bank	20,000	30,000	10,000	---
Debtors	70,000	1,80,000	1,10,000	---
Stock	40,000	55,000	15,000	---
Total	1,30,000	2,65,000		
Less Current Liabilities				
Sundry Creditors	75,000	1,10,000	---	35,000
Bank Overdraft	10,000	15,000	---	5,000
Total	85,000	1,25,000		
Working Capital	45,000	1,40,000	1,35,000	40,000
Increase in Working Capital (?)	95,000			95,000
	1,40,000	1,40,000	1,35,000	1,35,000

Funds Flow Statement for the year ending 30th June 2006

Sources	Rs.	**Application**	Rs.
Issue of shares for cash	10,000	Purchase of Investment	80,000
Issue of Debentures	1,00,000	Purchase of Machinery	90,000
Sale of Investment	27,000	Increase in working capital	95,000
Funds from operation	1,28,000		
	2,65,000		2,65,000

Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d	3,10,000	By Balance c/d	4,40,000
To Share capital(Purchase by issue of shares)	40,000		
To Bank	90,000		
	4,40,000		4,40,000

Investments Account

	Amount Rs.		Amount Rs.
To Balance b/d	30,000	By Cash (sale)	27,000
To Cash (purchase)	80,000	By Adjusted Profit and Loss a/c (loss on sale)	3,000
		By Balance c/d	80,000
	1,10,000		1,10,000

Provision for Depreciation on Machinery

	Amount Rs.		Amount Rs.
		By Balance b/d	90,000
		By Adjusted P&L a/c (current	40,000
To Balance c/d	1,30,000	year's provision) (?)	
	1,30,000		1,30,000

Discount on issue of Debentures

	Amount Rs.		Amount Rs.
To Balance b/d	5,000	By Adjusted Profit and Loss	5,000
	5,000	a/c	5,000
		(written	
		off)	

Goodwill Account

	Amount Rs.		Amount Rs.
To Balance b/d	70,000	By Adjusted Profit and Loss	20,000
		a/c(?)	50,000
	70,000	By Balance c/d	70,000

General Reserve Account

	Amount Rs.		Amount Rs.
		By Balance b/d	70,000
To Balance c/d	1,20,000	By Adjusted P&L a/c (current	50,000
	1,20,000	year's transfer) (?)	1,20,000

Share Capital Account

	Amount Rs.		Amount Rs.
		By Balance b/d	2,00,000
		By Machinery (issue of shares for	
To Balance c/d	2,50,000		40,000
			10,000
	2,50,000	assets)	2,50,000
		By Bank	

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Prov. for depn. on Machinery	40,000	By Balance b/d	50,000
To Investments (loss on sale)	3,000		
To Discount on issue of debentures	5,000		
To Goodwill written off	20,000		
To General Reserve	60,000	By Funds from operation (?)	128,000
To Balance c/d	50,000		
	1,78,000		1,78,000

Illustration 11:

From the following information relating to Star Ltd., prepare a fund flow statement for the year ended 31st December 2006.

Balance Sheets

Liabilities	2005	2006	Assets	2005	2006
Share capital	3,00,000	4,00,000	Cash	30,000	90,000
General Reserve	1,00,000	50,000	Accounts	1,05,000	1,50,000
Retained	30,000	60,000	Receivable	1,50,000	1,95,000
Earnings	45,000	1,35,000	Inventories	1,90,000	2,10,000
Accounts	4,75,000	6,45,000	Fixed assets	4,75,000	6,45,000
Payable					

The company issued bonus shares for Rs.50,000 and for cash Rs.50,000. Depreciation written off during the year Rs.15,000.

(B.Com. University of Madras)

Solution :

Schedule of changes in Working Capital

Particulars	2005 Rs.	2006 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Cash	30,000	90,000	60,000	---
Accounts Receivable	1,05,000	1,50,000	45,000	---
Inventories	1,50,000	1,95,000	45,000	---
Total	2,85,000	4,35,000		
Less Current Liabilities				
Accounts Payable	45,000	1,35,000	---	35,000
Total	45,000	1,35,000	---	5,000
Working Capital	2,40,000	3,00,000	1,50,000	90,000
Increase in Working Capital (?)	60,000	---	---	60,000
			1,50,000	90,000

Funds Flow Statement for the year ending 31st December 2006

Sources	Rs.	Application	Rs.
Issue of Shares	50,000	Purchase of fixed assets	35,000
Funds from operation	45,000	Increase in working capital	60,000
	95,000		95,000

Fixed Assets Account

	Amount Rs.		Amount Rs.
To Balance b/d	1,90,000	By Adjusted P & L A/c	15,000
To Cash (Purchases) (?)	35,000	(Depn.)	2,10,000
	2,25,000	By Balance c/d	2,25,000

Share Capital Account

	Amount Rs.		Amount Rs.
		By Balance b/d	3,00,000
To Balance c/d	4,00,000	By Cash	50,000
		By General Reserve (Bonus	50,000
	4,00,000	issue)	4,00,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Fixed Assets (Depreciation)	15,000	By Balance b/d	30,000
To Balance c/d	60,000	By Funds from operation	15,000
	75,000		45,000

Illustration 12:

From the following balance sheets Venus Ltd., you are required to prepare

i) a Schedule of Changes in Working Capital and

ii) a Statement of Sources and Uses of Funds.

Balance Sheets as on 31st December 1998 and 1999

Liabilities	1998 Rs.	1999 Rs.	Assets	1998 Rs.	1999 Rs.
Equity Capital	3,00,000	4,00,000	Goodwill	1,00,000	80,000
8 % Redeemable			Land and building	2,00,000	1,70,000
Pref. Share	1,50,000	1,00,000	Plant	80,000	2,00,000
Capital	---	20,000	Investments	20,000	30,000
Capital Reserve	40,000	50,000	Sundry Debtors	1,40,000	1,70,000
General Reserve	30,000	48,000	Stock	77,000	1,09,000
Profit and Loss	42,000	50,000	Bills receivable	20,000	30,000
a/c	25,000	47,000	Cash in hand	15,000	10,000
Proposed	20,000	16,000	Cash at Bank	10,000	8,000
Dividend	30,000	36,000	Preliminary	15,000	10,000
Sundry Creditors	40,000	50,000	expenses		
Bills Payable	6,77,000	8,17,000		6,77,000	8,17,000
Liability for expenses					
Provision for Tax					

Additional information available:

i) A piece of land had been sold out in 1999 and profit on sale has been credited to Capital Reserve.

ii) A machine has been sold for Rs.10,000. The written down value of the machine was Rs.12,000. Depreciation of Rs.10,000 was charged to plant in 1999.

iii) The investments are trade investments. Rs.3,000 by way of dividend is received including Rs.1,000 from pre-acquisition profit which has been credited to the investment account.

iv) An interim dividend of Rs.20,000 has been paid in 1999.

(M.Com. University of Madras)

Solution :

Schedule of changes in Working Capital

Particulars	2005 Rs.	2006 Rs.	Increase in Working Capital Rs.	Decrease in Working Capital Rs.
Current Assets				
Debtors	1,40,000	1,70,000	30,000	---
Stock	77,000	1,09,000	32,000	---
Bills Receivable	20,000	30,000	10,000	---
Cash	15,000	10,000	---	5,000
Bank	10,000	8,000	---	2,000
Total	2,62,000	3,27,000		
Less Current Liabilities				
Creditors	25,000	47,000	---	22,000
Bills Payable	20,000	16,000	4,000	---
Liability for expenses	30,000	36,000	---	6,000
Provision for taxation	40,000	50,000	---	10,000
Total	1,15,000	1,49,000		
Working Capital	1,47,000	1,78,000	76,000	45,000
Increase in Working Capital (?)	31,000	---	---	31,000
	1,78,000	1,78,000	76,000	76,000

Statement of Sources and Uses of Funds

Sources	Rs.	Uses	Rs.
Issue of Shares	1,00,000	Redemption of Pref. Shares	50,000
Sale of land	50,000	Purchase of Plant	1,42,000
Sale of Plant	10,000	Purchase of Investments	11,000
Dividend received	1,33,000	Proposed dividend	42,000
Funds from operation	3,000	Interim dividend	20,000
		Increase in working capital	31,000
	2,96,000		2,96,000

Land Account

	Amount Rs.		Amount Rs.
To Balance b/d		By Cash (sale) (?)	
To Capital Reserve(profit on sale)		By Balance c/d	

Plant Account

	Amount Rs.		Amount Rs.
To Balance b/d	80,000	By Cash (sale)	10,000
To Cash (Purchases) (?)	1,42,000	By Adjusted P & L A/c	10,000
		(Depn.)	2,000
		By Adjusted P & L A/c	2,00,000
	2,22,000	(loss on	2,22,000
		sale)	
		By Balance c/d	

Investment Account

	Amount Rs.		Amount Rs.
To Balance b/d	20,000	By Adjusted P & L A/c	1,000
To Cash (Purchases) (?)	11,000	(Depn.)	30,000
	31,000	By Balance c/d	31,000

Note : Dividend received during the year is Rs.3,000. This includes pre-acquisition profit of Rs.1,000. This should be credited to investments a/c. The remaining Rs.2,000 is Post-acquisition profit which should be credited to Adjusted Profit and Loss Account. The following journal entries will help to understand better.

a) Cash a/c Dr. 3,000

To Dividend a/c 3,000

b) Dividend a/c Dr. 3,000

To Investments a/c 1,000

To Adjusted P&L a/c 2,000

Proposed Dividend Account

	Amount Rs.		Amount Rs.
To Cash	42,000	By Balance b/d	42,000
To Balance c/d	50,000	By Adjusted P & L a/c (?)	50,000
	92,000		92,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Plant a/c (loss on sale)	2,000	By Balance b/d	30,000
To General Reserve	10,000	By Dividend	2,000
To Proposed dividend	50,000	By Funds from operation (?)	1,33,000
To Interim dividend	20,000		
To Goodwill written off	20,000		
To Depreciation	10,000		
To Preliminary Exp. Written off	5,000		
To Balance c/d	48,000		
	1,65,000		1,65,000

8.7.2 THEORETICAL QUESTIONS

A - Short Answer Type:

1. Define Funds flow statement.
2. What are the Objectives of Funds flow statement?
3. What are the Limitations of Funds flow Statement?
4. How can you calculate Funds from operation?

B - Essay Type:

1. What are the Managerial uses of Funds flow statement?
2. What are the advantages and limitations of Funds flow statement?
3. What are the steps involved in the preparation of funds flow statement?

8.7.3 EXERCISE PROBLEMS

Exercise 1: From the following prepare a statement showing changes in working capital during 1985.

Balance Sheets as on 31st December 1998 and 1999

Liabilities	31-12-94 Rs.	31-12-95 Rs.	Assets	31-12-94 Rs.	31-12-95 Rs.
Share Capital	5,00,000	6,00,000	Fixed Assets	10,00,000	11,20,000
Reserves	1,50,000	1,80,000	Less: Depreciation	3,70,000	4,60,000
Profit and Loss a/c	40,000	65,000		6,30,000	6,60,000
Debentures	3,00,000	2,50,000	Stock	2,40,000	3,70,000
Creditors	1,70,000	1,60,000	Debtors	2,50,000	2,30,000
Provision for Tax	60,000	80,000	Cash in hand	80,000	60,000
			Preliminary Expenses	20,000	15,000
	12,20,000	13,35,000		12,20,000	13,35,000

(B.Com. Bharathidasan University)

Exercise 2: Calculate Funds from Operations for the following information.

	Rs.		Rs.
Salaries	5,000	Profit on sale of land	5,000
Rent	3,000	Closing balance of P & L A/c	60,000
Depreciation on Plant	5,000	Discount on issue of Debentures	2,000
Provision for Tax	4,000	Provision for Bad Debts	1,000
Loss on sale of Plant	2,000	Preliminary expenses written off	3,000
Opening balance of P & L A/c	25,000	Proposed Dividend	6,000
Transfer to General Reserve	1,000		
Goodwill written off	2,000		

(B.Com. University of Madras)

Exercise 3: Calculate Funds from Operations from the following Profit and Loss Account.

Profit and Loss A/c

Particular	Amount Rs.	Particulars	Amount Rs.
To Salaries	28,000	By Gross Profit	1,50,000
To Rent	12,000	By Profit on sale of Furniture	12,000
To Printing and Stationery	6,000	By Int. on investments	8,000
To Depreciation on plant	25,000		
To Goodwill written off	10,000		
To Loss on sale of plant	5,000		
To Provision for tax	15,000		
To Provision for dividend	14,000		
To Net Profit	55,000		
	1,70,000		1,70,000

(B.Com., University of Madras)

Exercise 4: Calculate funds from operations from the following profit and loss account.

Profit and Loss A/c

	Rs.		Rs.
To Expenses paid and outstanding	3,00,000	By Gross Profit	4,50,000
To Depreciation	70,000	By Gain on sale of land	60,000
To Loss on sale of machine	4,000		
To Discount	200		
To Goodwill	20,000		
To Profit	1,15,800		
	5,10,000		5,10,000

(B.Com., University of Madras)

Exercise 5: Balance Sheets of M/s. Black and White as on 1.1.99 and 31.12.1999 were as follows.

Sheets as on 31st December 1998 and 1999

Liabilities	1.1.99 Rs.	31.12.99 Rs.	Assets	1.1.99 Rs.	31.12.99 Rs.
Creditors	40,000	44,000	Cash	10,000	7,000
Mrs. White's loan	25,000	---	Debtors	30,000	50,000
Loan from State		50,000	Stock	35,000	25,000
Bank of India	40,000	1,53,000	Machinery	80,000	55,000
Capital	1,25,000		Land	40,000	50,000
			Building	35,000	60,000
	2,30,000	2,47,000		2,30,000	2,47,000

During the year a machine costing Rs.10,000(accumulated depreciation Rs.3,000) was sold for Rs.5,000. The provision for depreciation against machinery as on 1.1.1999 was Rs.25,000 and on 31.12.1999 Rs.40,000. Net profit for the year 1999 amounted to Rs.45,000. You are required to prepare Funds flow statement.

(B.Com., Madurai Kamaraj University, University of Madras)

Exercise 6 : The Balance Sheets of Jupiter Limited for the year ended 31st December 1998 and 1999 are as follows:

Liabilities	1998 Rs.	1999 Rs.	Assets	1998 Rs.	1999 Rs
Share Capital	80,000	1,20,000	Freehold premises	55,400	1,13,200
Share premium	8,000	12,000	Plant and Machinery	35,600	51,300
General reserve	6,000	9,000	Furniture and Fixtures	2,400	1,500
Profit and Loss			Stock	22,100	26,000
Account	19,500	20,800	Debtors	36,500	39,100
5% Debentures	----	26,000	Bank	4,800	4,000
Income Tax					
Provision	9,800	10,900			
Creditors	33,500	36,400			
	1,56,800	2,35,100		1,56,800	2,35,100

Depreciation written off during the year 1999 was as under:

Plant and Machinery - Rs.12,800

Furniture and Fixtures - Rs. 400

Prepare a Statement of Sources and Uses of Funds.

(B.Com. Madurai Kamaraj University)

8.7.4 Books for Reference :

1. R.K.Sharma and Shashi K.Gupta, Management Accounting, Kalyani Publilshers, Madras - 17.
2. S.Ganeson and S.R.Kalavathi, Management Accounting, Thirumalai Publications, Nagarcoil - 1
3. R.Ramachandran and R.Srinivasan, Management Accounting, Sriram Publications, Tennur, Trichy - 17.
4. R.S.N.Pillai and Bagavathi, Management Accounting, S.Chand & Company Ltd., NewDelhi - 53.
5. V.R. Palanivelu, Accounting for management, Laxmi Publications (P) Ltd., NewDelhi-02

Answers for Self-Evaluation Questions:

A - 1. (a) one current item and another non-current item.

2. (a) furniture and fittings

3. (c) sundry creditors

B - 1. Current assets and Current liabilities

2. increase

3. current

C - 1. The funds flow statement is the report on the movement of funds or working capital of a business. It indicates how funds were obtained and employed in the business during a period.

2. Current assets are those assets which can be converted in to cash with in a period of 12 months or 1 year. For example: Cash in hand, Stock, Debtors etc.

3. Sources of funds :

Issue of shares and debentures

Raising of long term loans

Sale of fixed assets, investments

Funds from operation

Decrease in working capital.

NOTES

Chapter – IX
CASH FLOW ANALYSIS

9.0 Introduction:
9.1 Meaning of Cash Flow Statement.
9.2 Uses of Cash Flow Statement.
9.3 Limitations of cash flow statement
9.4 Difference between Cash flow statement and Fund flow statement.

Self Evaluation Questions
9.5 Procedure for preparing Cash Flow Statement
9.6 Difference between Cash flow statement and Fund flow statement.
9.7 Specimen for Cash Flow Statement
9.8 Calculation of Cash from Operation
9.9 Summary
9.10 Illustrative Problems
9.10.1 Theoretical Questions
9.10.2 Practical Problems
9.10.3 Books for Reference

Answer for Self-Evaluation Questions

9.0 Introduction:

Cash plays a significant role in the economic life of a business. A firm receives cash from various sources like issue of shares, sale of goods, collection from debtors, sale of assets etc. It needs cash to make payments to its suppliers, to incur day-to-day expenses and to pay salaries, wages, rent, etc. It is very essential for a business man to maintain sufficient balance of cash. So, the analysis of inflow and outflow of cash helps the management to maintain adequate balance of cash.

9.1 Meaning of Cash Flow Statement.

A statement of changes in the financial position of firm on cash basis is called a cash flow statement. It deals with the inflow and outflow of cash between two balance sheet dates. It shows the causes for the change in the cash position in the beginning of the year and at the end of the year. The term 'cash' refers both cash and bank balances.

9.2 Uses of Cash Flow Statement.

Cash flow statement is one of the important tools for financial analysis. The important uses are as follows.

1. Cash flow statement helps to evaluate the current cash position.
2. Cash flow statement facilitates to prepare sound financial policies of the firm.
3. It helps in planning the repayment of loans, replacement of fixed assets etc.
4. A projected cash flow statement can be prepared to know the future cash position of the concern.
5. The comparison of actual cash flow statement with the projected cash flow statement helps to find out the variations and controlling cash expenditure.

9.3 Limitations of cash flow statement

Cash flow statement suffers from the following limitations.

1. It is difficult to define the term 'cash'. There are controversies over a number of items like cheques, stamps, postal orders etc.
2. A Cash flow statement cannot be equated with the income statement. An income statement considers both cash and non-cash items. Hence, cash fund does not mean the net income of the business.
3. Working capital being a wider concept of fund, a fund flow statement presents a more complete picture than cash flow statement.
4. The projected cash flow statement may not achieve its results due to changes in management policy, inflation, economic depression etc.

9.4 Difference between Cash flow statement and Fund flow statement.

Cash flow statement	Fund flow statement
1. Cash flow statement shows the causes for the changes in cash.	1. Fund flow statement shows the causes for the changes in working capital.
2. Cash flow statement is started with opening cash and bank balances and closed with closing cash and bank balances.	2. There is no opening or closing balance in Fund flow statement.
3. Cash flow is based on cash basis of accounting.	3. Fund flow is based on accrual basis of accounting.
4. Cash from operation can be ascertained from Cash flow statement.	4. Funds from operation can be ascertained from Fund flow statement.
5. Cash flow statement is suitable for short term financial planning.	5. Fund flow statement is suitable for long term financial planning.
6. Cash flow statement deals only with cash.	6. Fund flow statement deals with components of working capital. Even 'cash' is one of the components of working capital.

SELF EVALUATION QUESTIONS

A Objective Type

I. State whether the following statement are 'True' or 'False'.

1. Cash Flow Statement is based on Accrual basis of Accounting.
2. Increase in current assets will result in out flow of cash.
3. Decrease in current liabilities will result in inflow of cash.
4. Cash Flow Statement is useful for short-term financial analysis.
5. A Cash Flow Statement can be equated with the Income Statement.

II. Fill in the blanks.

1. Cash Flow Statement is based on _______________ basis of accounting.
2. Cash Flow Statement is started with opening ______ & ______ balances.
3. Decrease in current assets will be resulted in _____________ of cash.
4. Increase in current liabilities will be resulted in cash _________________.
5. Cash Trading Profit or Cash Trading Loss can be ascertained by preparing ________.

B Short Answer Questions

1. Give the meaning of Cash Flow Statement.

………………………………………………………………………………………

2. State any two objectives of Cash Flow Statement.

………………………………………………………………………………………

9.5 Procedure for preparing Cash Flow Statement

The Cash flow statement can be prepared in the same pattern on which a fund flow statement is prepared. It is prepared for one year with the help of Balance sheets, Income statements and additional information. The term cash refers both cash and bank balances. The following are the steps involved in the preparation of cash flow statement.

Step - I Open a Cash flow statement and enter the opening cash and bank balances on the inflow side as the first item. The closing cash and bank balances should be entered on the outflow side as the last item.

Step - II Comparison of current items to find out inflow or outflow of cash.

Individual items of current assets and current liabilities of current year w=are compared with the figures of previous year to find out inflow and outflow of cash.

Decrease in Current Assets	-	Inflow of cash
Increase in Current Assets	-	Outflow of cash
Decrease in Current Liabilities	-	Outflow of cash
Increase in Current Liabilities	-	Inflow of cash

The inflow or outflow of cash should be entered on the respective side of the cash flow statement.

Step - III Prepare Adjusted Profit and Loss Account to find out Cash from operation or Cash lost in operation. The profit arrived at the profit and loss account is derived after adjusting all the non-cash and non-operating items. To find out the cash from operation, all these non-cash and non-operating items should be adjusted by preparing the adjusted profit and loss account.

Step - IV Do the adjustments given in the problem if any. Double effect should be given while making the adjustments. Close the ledger accounts of non-current items. Close the adjusted profit and loss a/c. The available information ascertained in the above steps should be incorporated in the cash flow statement. Both the totals of inflow and outflow side will get agreed. This completes the preparation of cash flow statement.

9.6 Difference between Cash flow statement and Fund flow statement.

Cash flow statement	Fund flow statement
1. Cash flow statement shows the causes for the changes in cash.	1. Fund flow statement shows the causes for the changes in working capital.
2. Cash flow statement is started with opening cash and bank balances and closed with closing cash and bank balances.	2. There is no opening or closing balance in Fund flow statement.
3. Cash flow is based on cash basis of accounting.	3. Fund flow is based on accrual basis of accounting.
4. Cash from operation can be ascertained from Cash flow statement.	4. Funds from operation can be ascertained from Fund flow statement.
5. Cash flow statement is suitable for short term financial planning.	5. Fund flow statement is suitable for long term financial planning.
6. Cash flow statement deals only with cash.	6. Fund flow statement deals with components of working capital. Even 'cash' is one of the components of working capital.

9.7 SPECIMEN FOR CASH FLOW STATEMENT

Inflow of Cash	Rs.	Outflow of Cash	Rs.
Opening Balances		Redemption of Preference shares	xxxx
Cash in hand	xxxx	Redemption of Debentures	xxxx
Cash at Bank	xxxx	Purchases of Fixed Assets	xxxx
Issue of Shares	xxxx	Repayment of Loans	xxxx
Issue of Debentures	xxxx	Payment of Dividend	xxxx
Share premium received	xxxx	Payment of Tax	xxxx
Sale of Fixed Assets	xxxx	Cash lost in operations	xxxx
Raising of Loans	xxxx	Closing Balances	
Dividend received	xxxx	Cash in hand	xxxx
Refund of Tax	xxxx	Cash at Bank	xxxx
Cash from Operations	xxxx		
	xxxx		xxxx

9.8 CALCULATION OF CASH FROM OPERATION

ADJUSTED PROFIT AND LOSS ACCOUNT

	Rs.		Rs.
To Depreciation	xxxx	By (Opening) Balance b/d	xxxx
,, Goodwill written off	xxxx	,, Dividend received	xxxx
,, Preliminary Expenses written	xxxx	,, Interest on Investment	xxxx
off	xxxx	,, Profit on sale of Fixed Assets	xxxx
,, Transfer to General Reserve	xxxx		
,, Loss on sale of Fixed assets	xxxx	,, Cash Trading Profit (Balancing	xxxx
,, Provision for Bad Debts	xxxx	figure)	
,, Provision for Tax	xxxx		
,, Proposed Dividend	xxxx		
,, Interim Dividend paid			
,, Discount on issue of Shares	xxxx		
and	xxxx		
Debentures written off			
,, Cash Trading Loss (Balancing	xxxx		xxxx
figure)			

Alternatively, Cash from operation can be ascertained by the following method.

CALCULATION OF CASH FROM OPERATION

	Rs.	Rs.
Profit and Loss A/c closing balance		
xxxx		
Less Profit and Loss A/c opening balance		xxxx
xxxx		
(or) Net profit as per Profit and loss A/c	xxxx	
Add : Non-Cash Expenses	xxxx	
Depreciation	xxxx	
Goodwill written off	xxxx	
Preliminary Expenses written off	xxxx	
Transfer to General Reserve	xxxx	
Loss on sale of Fixed assets	xxxx	
Provision for Bad Debts	xxxx	
Provision for Tax	xxxx	
Proposed Dividend	xxxx	xxxx
Interim Dividend paid		xxxx
Discount on issue of Shares and Debentures written off		
	xxxx	
Less : Non-Operating Income	xxxx	
Dividend received	xxxx	xxxx
Interest on Investment		xxxx
Profit on sale of Fixed Assets		
Funds From Operation	xxxx	
	xxxx	xxxx
Add : Decrease in Current Assets		xxxx
Increase in Current Liabilities	xxxx	
	xxxx	
Less : Increase in Current Assets		
Decrease in Current Liabilities.		xxxx
Cash From Operation		

	Rs.	Rs.
Profit and Loss A/c closing balance		
xxxx		
Less Profit and Loss A/c opening balance		xxxx
xxxx		
(or) Net profit as per Profit and loss A/c	xxxx	
Add : Non-Cash Expenses	xxxx	
Depreciation	xxxx	
Goodwill written off	xxxx	
Preliminary Expenses written off	xxxx	
Transfer to General Reserve	xxxx	
Loss on sale of Fixed assets	xxxx	
Provision for Bad Debts	xxxx	
Provision for Tax	xxxx	
Proposed Dividend	xxxx	xxxx
Interim Dividend paid		xxxx
Discount on issue of Shares and Debentures written off		
	xxxx	
Less : Non-Operating Income	xxxx	
Dividend received	xxxx	xxxx
Interest on Investment		xxxx
Profit on sale of Fixed Assets		
Funds From Operation	xxxx	
	xxxx	xxxx
Add : Decrease in Current Assets		xxxx
Increase in Current Liabilities	xxxx	
	xxxx	
Less : Increase in Current Assets		
Decrease in Current Liabilities.		xxxx
Cash From Operation		

9.9 Summary

Cash Flow Statement helps the management to prepare short-term financial analysis. It is difficult to define the term cash. The term 'cash' refers both cash and bank balances. Cash Flow Statement shows the causes for the change in the cash position during a particular period.

It is helpful to the management to know the future cash position and to control cash expenditure. It differs from the funds flow statement. The concept of funds flow statement is wider than the cash flow statement. Funds flow statement helps the management for long period planning. Cash flow statement is prepared on cash basis whereas funds flow statement is prepared on accrual

basis. Cash flow analysis deals with only case whereas the funds flow analysis deals with the changes in working capital. Cash flow statement cannot be a substitute for income statement.

9.10.1 ILLUSTRATIVE PROBLEMS

Illustration : 1 From the following Profit and Loss A/c, you are required to compute cash from operations.

Profit and Loss A/c for the year ending 30th June 2000

	Rs.		Rs.
To Salaries	5,000	By Gross Profit	25,000
To Rent	1,000	By Profit on sale of land	5,000
To Depreciation	2,000	By Income Tax Refund	3,000
To Loss on sale of plant	1,000		
To Goodwill written off	4,000		
To Proposed Dividend	5,000		
To Provision for taxation	5,000		
To Net Profit	10,000		
	---------		---------
	33,000		33,000

(B.Com. Madurai Kamaraj University)

Solution :

Calculation of Cash From Operation

	Rs.	Rs.
Net profit earned during the year		10,000
Add : Non-cash and non-operating expenses		
Depreciation	2,000	
Loss on sale of plant	1,000	
Goodwill written off	4,000	
Proposed dividend	5,000	
Provision for taxation	5,000	17,000
		27,000
Less : Non-cash and non-operating income		
Profit on sale of land	5,000	
Income Tax refund	3,000	8,000
Cash from operation		19,000

Illustration : 2 Compute Cash from operations from the following figures.

a) Profit for the year 2003 is Rs.10,000 after providing depreciation of Rs.2,000.

b) The current assets and current liabilities of the business for the year ending 31-12-1992 and 31-12-1993 are as follows.

	31-12-1992 Rs.	31-12-1993 Rs.
Sundry debtors	10,000	12,000
Provision for bad and doubtful debts	1,000	1,200
Bill Receivable	4,000	3,000
Bills Payable	5,000	6,000
Sundry Creditors	8,000	9,000
Inventories	5,000	8,000
Short-term investments	10,000	12,000
Outstanding expenses	1,000	1,500
Prepaid expenses	2,000	1,000
Accrued income	3,000	4,000
Income received in advance	2,000	1,000

(B.Com. Madras University)

Solution :

Calculation of Cash From Operation

	Rs.	Rs.
Net profit earned during the year		10,000
Add : Depreciation		2,000
Funds from operation / Cash Trading Profit		12,000
Add : Decrease in Bills receivable	1,000	
Decrease in Prepaid expenses	1,000	
Increase in Provision for bad debts	200	
Increase in Bills payable	1,000	
Increase in Creditors	1,000	
Increase in Outstanding expenses	500	4,700
		16,700
Less :		
Increase in Debtors	2,000	
Increase in Inventories	3,000	
Increase in Short-term investments	2,000	
Increase in accrued income	1,000	
Decrease in Income received in advance	1,000	9,000
Cash from operation		**7,700**

Illustration : 3 From the following are Balance Sheets of XYZ Ltd. as on 31-12-2001 and 31-12-2002, you are required to prepare a Cash flow statement.

Liabilities	2001 Rs.	2002 Rs.	Assets	2001 Rs.	2002 Rs.
Share capital	70,000	74,000	Cash	9,000	7,800
Debentures	12,000	6,000	Trade Debtors	14,900	17,700
Creditors	10,360	11,840	Marketable securities	49,200	42,700
Provision for			Land	20,000	30,000
Doubtful debts	700	800	Goodwill	10,000	5,000
Profit and Loss A/c	10,040	10,560			
	1,03,100	1,03,200		1,03,100	1,03,200

The following additional information is also available.

i) Dividend of Rs.3,500 was paid during the year 2002.

ii) Land was purchased for Rs.10,000 and amount provided for the amortization of goodwill was Rs.5,000

iii) Debentures were repaid Rs.600.

(B.Com. Madurai Kamaraj University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance	9,000	Increase in debtors	2,800
Issue of shares	4,000	Dividend paid	3,500
Increase in creditors	1,480	Purchase of land	10,000
Decrease in marketable	6,500	Redemption of debentures	6,000
securities	9,120	Closing cash balance	7,800
Cash Trading profit	30,100		30,100

Workings :

Land Account

	Amount Rs.		Amount Rs.
To Balance b/d	20,000		
To Cash (purchase)	10,000	By Balance c/d	30,000
	30,000		30,000

Goodwill Account

	Amount Rs.		Amount Rs.
To Balance b/d	10,000	By Adjusted Profit and Loss	5,000
		A/c	5,000
	10,000	By Balance c/d	10,000

Debentures Account

	Amount Rs.		Amount Rs.
To Cash	6,000	By Balance b/d	12,000
To Balance b/d	6,000		
	12,000		12,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Provision for Doubtful debts	100	By Balance b/d	10,040
To Dividend paid	3,500		
To Goodwill written off	5,000	By Cash Trading profit	
To Balance c/d	10,560	(balancing figure)	9,120
	19,160		19,160

Illustration : 4 Prepare a cash flow statement for the year ending 31st March 2000 from the Balance sheets given below.

Liabilities	March 31 1999 Rs.	March 31 2000 Rs.	Assets	March 31 1999 Rs.	March 31 2000 Rs.
Share capital	5,00,000	6,50,000	Fixed Assets	4,00,000	5,00,000
General Reserve	1,00,000	1,50,000	Less :	---	50,000
Profit and Loss A/c	50,000	1,50,000	Depreciation	4,00,000	4,50,000
7% Debentures	2,00,000	2,00,000		100,000	1,00,000
Creditors	2,00,000	2,00,000	Investments	2,00,000	3,00,000
Proposed Dividend	50,000	65,000	Debtors	2,00,000	2,50,000
			Stock	1,50000	3,15,000
			Cash	50,000	---
	11,00,000	14,15,000	Miscellaneous Expenses	11,00,000	14,15,000

(B.Com. Bharathidasan University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance	1,50,000	Increase in Debtors	1,00,000
Issue of shares	1,50,000	Increase in Stock	50,000
		Proposed dividend paid	50,000
Cash Trading profit	3,15,000	Purchase of Fixed Assets	1,00,000
		Closing cash balance	3,15,000
	6,15,000		6,15,000

Fixed Assets Account

	Amount Rs.		Amount Rs.
To Balance b/d	4,00,000	By Adjusted P & L A/c	50,000
To Cash (purchase) (?)	1,00,000	(Depn.)	4,50,000
	5,00,000	By Balance c/d	5,00,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To (Trs) General Reserve	50,000	By Balance b/d	50,000
To Proposed Dividend	65,000		
To Fixed Assets (Depn)	50,000	By Cash Trading profit (?)	3,15,000
To Misc. Exp. Written off	50,000		
To Balance c/d	1,50,000		
	3,65,000		3,65,000

Illustration : 5 Following are the Balance sheets of M/s A and B as on 31-12-94 and 31-12-95.

Liabilities	31-12-94	31-12-95	Assets	31-12-94	31-12-95
Capital	1,50,000	1,90,000	Cash	20,000	26,000
Mrs.B's Loan	30,000	---	Debtors	54,000	76,000
Loan from Indian			Stock	48,000	42,000
Bank	60,000	80,000	Furniture	2,000	2,000
Sundry Creditors	50,000	56,000	Machinery	90,000	65,000
			Land	36,000	45,000
			Building	40,000	70,000
	2,90,000	3,26,000		2,90,000	3,26,000

During the year machine costing Rs.12,000 (accumulated depreciation Rs.4,000) was sold for Rs.5,500. The provision for depreciation against machinery as on 31st December 1994 was Rs.24,000 and on 31st December 1995 Rs.37,000. Net profit for the year 1995 amounted to Rs.60,000. You are required to prepare a Cash flow statement.

(B.Com. Madras University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance	20,000	Repayment of Mrs.B's Loan	30,000
Loan from Indian Bank	20,000	Increase in Debtors	22,000
Increase in Sundry Creditors	6,000	Purchase of Land	9,000
Decrease in Stock	6,000	Purchase of Building	30,000
Sale of Machine	5,500	Drawings	20,000
Cash Trading Profit	79,500	Closing cash balance	26,000
	1,37,000		1,37,000

Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d (90,000+24,000)	1,14,000	By cash	5,500
		By Provision for Depn. a/c	4,000
		By Adjusted P & L A/c	2,500
		By Balance c/d (65,000+37,000)	1,02,000
	1,14,000		1,14,000

Provision for Depreciation Account

	Amount Rs.		Amount Rs.
To Machinery a/c	4,000	By Balance b/d	24,000
To Balance c/d	37,000	By Adjusted P & L A/c (?)	17,000
	41,000		41,000

Capital Account

	Amount Rs.		Amount Rs.
To Drawings (?)	20,000	By Balance b/d	1,50,000
To Balance c/d	1,90,000	By Net Profit	60,000
	2,10,000		2,10,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Adjusted P & L A/c	17,000	By Cash Trading Profit (?)	79,500
To Loss on sale of Machinery	2,500		
To Net Profit	60,000		
	79,500		79,500

Illustration : 6 From the following Balance Sheets of Excellent Ltd, prepare a Cash Flow Statement

Liabilities	31-12-03	31-12-04	Assets	31-12-03	31-12-04
Equity Share	3,00,000	4,00,000	Goodwill	1,15,000	90,000
Capital			Land & Building	2,00,000	1,70,000
8% Redeemable	1,50,000	1,00,000	Plant	80,000	2,00,000
Pref-erence Share	40,000	70,000	Debtors	1,60,000	2,00,000
Capital	30,000	48,000	Stock	77,000	1,09,000
General Reserve	42,000	50,000	Bills Receivable	20,000	30,000
Profit and Loss	55,000	83,000	Cash in hand	15,000	10,000
Proposed Dividend	20,000	16,000	Cash at Bank	10,000	8,000
Creditors	40,000	50,000			
Bills Payable	6,77,000	8,17,000		6,77,000	8,17,000
Provision					
forTaxation					

Additional information:

a) Depreciation of Rs.10,000 and 20,000 have been charged on plant and Machinery and Building in 2004.

b) An interim dividend of Rs.20,000 has been paid in 2004.

c) Rs.35,000 income tax was paid during 2004. (M.Com. Madras University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash & Bank balances		Increase in Debtors	40,000
(15,000+10,000)	25,000	Purchase of Plant	1,30,000
Issue of shares	1,00,000	Increase in Stock	32,000
Increase in Creditors	28,000	Increase in Bills Receivable	10,000
Sale of Land	10,000	Redemption of Preference	50,000
Cash Trading Profit	2,18,000	Shares	20,000
		Interim Dividend Paid	42,000
		Dividend Paid	35,000
		Income Tax Paid	4,000
		Decrease in Bills Payable	18,000
		Closing cash & Bank balances	
	3,81,000	(10,000 + 8,000)	3,81,000

Plant Account

	Amount Rs.		Amount Rs.
To Balance b/d	80,000	By Adjuted Profit & Loss a/c (Depreciation)	10,000
To Cash (?)	1,30,000	By Balance c/d	2,00,000
	2,10,000		2,10,000

Land and Buildings Account

	Amount Rs.		Amount Rs.
To Balance b/d	2,00,000	By Cash (?)	10,000
		By Adjuted Profit & Loss a/c (Depreciation)	20,000
			1,70,000
	2,00,000	By Balance c/d	2,00,000

Provision for Tax Account

	Amount Rs.		Amount Rs.
To Cash	35,000	By Balance b/d	40,000
To Balance c/d	50,000	By Adjusted Profit & Loss A/c	45,000
	85,000	(?)	85,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Depreciation on Plant	10,000		
To Depreciation on Land &	20,000	By Balance b/d	30,000
Bldg.	25,000		
To Goodwill written off	30,000		
To Transfer to General Reserve	50,000		
To Proposed Dividend	20,000		
To Interim Dividend	45,000	By Cash Trading Profit (?)	2,18,000
To Provision for Taxation	48,000		
To Balance c/d	2,48,000		2,48,000

Illustration : 7 The financial position of M/s Tall and Short on 1st January 1999 and December 31, 1999 was as follows

Liabilities	1-1-99	31-12-99	Assets	1-1-99	31-12-99
Current Liabilities	36,000	41,000	Cash	4,000	3,600
Mrs.Tall's Loan	---	20,000	Debtors	35.000	38,400
Loan from Bank	30,000	25,000	Stock	25,000	22,000
Capital	1,48,000	1,49,000	Land	20,000	30,000
			Building	50,000	55,000
			Machinery	80,000	86,000
	2,14,000	2,35,000		2,14,000	2,35,000

During the year the partners withdrew Rs.26,000 for domestic expenses. The provision for depreciation against machinery as on 1-1-99 was Rs.27,000 and 31-12-99 was Rs.36,000.

Prepare Cash Flow Statement for the year ended 31st December, 1999.

(B.Com. Bharathidasan University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance	4,000	Purchase of Land	10,000
Loan from Mrs.Tall	20,000	Purchase of Building	5,000
Increase in current liabilities	5,000	Purchase of Machinery	15,000
Decrease in stock	3,000	Drawings	26,000
Cash Trading Profit	36,000	Repayment of Loan	5,000
		Increase in debtors	3,400
		Closing cash balance	3,600
	68,000		68,000

Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d	1,07,000		
(80,000+27,000)	15,000	By Balance c/d	1,22,000
To Cash (Purchase) (?)	1,22,000	(86,000+36,000)	1,22,000

Provision for Depreciation Account

	Amount Rs.		Amount Rs.
		By Balance b/d	27,000
To Balance c/d	36,000	By Adjusted P & L A/c (?) (Current year's provision)	9,000
	36,000		36,000

Capital Account

	Amount Rs.		Amount Rs.
To Drawings	26,000	By Balance b/d	1,48,000
To Balance c/d	1,49,000	By Net Profit (current year)	27,000
	1,75,000	(?)	1,75,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Provision for depreciation	9,000		
To Net Profit	27,000	By Cash Trading Profit (?)	36,000
	36,000		36,000

Illustration : 8 From the following information, prepare a Cash Flow Statement for the year ended 31st December 2004.

Liabilities	31-12-2003 Rs.	31-12-2004 Rs.
Share Capital	70,000	70,000
Secured Loan (Repayable in 2007)	-----	40,000
Creditors	14,000	39,000
Tax Payable	1,000	3,000
Profit and Loss A/c	7,000	10,000
	92,000	1,62,000
Assets		
Plant and Machinery	50,000	91,000
Inventory	15,000	40,000
Debtors	5,000	20,000
Cash	20,000	7,000
Prepaid Expenses	2,000	4,000
	92,000	1,62,000

Profit and Loss A/c for the year ended 31 December 2004

	Rs.		Rs.
To Opening Stock	15,000	By Sales	1,00,000
To Purchases	98,000	By Closing Stock	40,000
To Gross Profit c/d	27,000		
	1,40,000		1,40,000
To General Expenses	11,000	By Gross Profit b/d	27,000
To Depreciation	8,000		
To Provision for Taxes	4,000		
To Net Profit c/d	4,000		
	27,000		27,000
To Dividend	1,000	By Balance b/d	7,000
To Balance c/d	10,000	By Net Profit b/d	4,000
	11,000		11,000

(B.Com. Bharathidasan University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening cash balance	20,000	Increase in Debtors	15,000
Secured Loan	40,000	Increase in Stock	25,000
Increase in Creditors	25,000	Increase in Prepaid Expenses	2,000
Cash Trading Profit	16,000	Purchase of Plant &	49,000
		Machinery	1,000
		Dividend Paid	2,000
		Income Tax Paid	7,000
	1,01,000	Closing Cash balance	1,01,000

Plant & Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d	50,000	By Adjusted P & L a/c (Depn)	8,000
To Cash (Purchase)	49,000	By Balance c/d	91,000
(?)	99,000		99,000

Provision for Tax Account

	Amount Rs.		Amount Rs.
To Cash (?)	2,000	By Balance b/d	1,000
To Balance c/d	3,000	By Adjusted Profit & Loss A/c	4,000
	5,000	(?)	5,000

Adjusted Profit and Loss A/c

	Amount Rs.		Amount Rs.
To Depreciation on Plant &	8,000	By Balance b/d	7,000
Mach.	4,000	By Cash Trading Profit (?)	16,000
To Dividend	1,000		
To Provision for Taxation	10,000		
To Balance c/d	23,000		23,000

Illustration : 9 The Balance sheets of Vibrant Ltd for the years 1999 and 2000 are as follows.

Liabilities	1999	2000	Assets	1999	2000
Share Capital	1,00,000	1,60,000	Fixed Assets (at	1,52,000	2,00,000
Retained Earnings	70,250	85,300	cost)	93,400	89,200
Accumulated	60,000	40,000	Inventory	30,800	21,100
Depn.	50,000	---	Debtors	3,950	3,000
12 % Debentures	28,000	48,000	Prepaid Expenses	28,100	20,000
Creditors	3,08,250	3,33,300	Bank	3,08,250	3,33,300

Additional Information:

i) Net profit during the year was Rs.27,250.

ii) Depreciation charged was Rs.10,000.

iii) Cash dividend declared during the year Rs.12,000.

iv) An addition to building was made during the year at a cost of Rs.78,000; a fully depreciated equipment costing Rs.30,000 was discarded and no salvage value was realized.

You are required to prepare a Cash Flow Statement.

(B.Com. Bharathidasan University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening Cash balance	28,100	Purchase of Building	78,000
Issue of shares	60,000	Redemption of Debentures	50,000
Decrease in Inventory	37,050	Payment of Dividend	12,000
Decrease in Debtors	4,200	Closing Cash balance	20,000
Decrease in Prepaid Expenses	9,700		
Increase in Creditors	950		
Cash Trading Profit	20,000		
	1,60,000		1,60,000

Fixed Assets Account

	Amount Rs.		Amount Rs.
To Balance b/d	1,52,000	By Accumulated Depreciation a/c (Depn. on discarded equipment)	30,000
To Cash (Purchase) (?)	78,000	By Balance c/d	2,00,000
	2,30,000		2,30,000

Accumulated Depreciation Account

	Amount Rs.		Amount Rs.
To Fixed assets (Depn. on discarded equipment)	30,000	By Balance b/d	60,000
To Balance c/d	40,000	By Adjusted Profit & Loss A/c (?)	10,000
	70,000		70,000

Adjusted Profit and Loss A/c (Retained Earnings)

	Amount Rs.		Amount Rs.
To Accumulated Depreciation	10,000	By Balance b/d	70,250
To Dividend	12,000	By Cash Trading Profit (?)	37,050
To Balance c/d	83,500		
	1,07,300		1,07,300

Illustration : 10 Following are the comparative Balance sheets of Indian Paints Ltd for the year ended 31st December 2004 and 31st December 2005.

Liabilities	31st Dec. 2004	31st Dec. 2005	Assets	31st Dec. 2004	31st Dec. 2005
Equity Share	2,00,000	2,00,000	Cash	43,000	58,000
Capital	40,000	35,000	Prepaid Expenses	2,000	2,000
Debentures	23,500	52,000	Debtors	80,000	90,000
Profit and Loss	33,000	40,000	Stock	32,000	40,000
A/c	2,000	3,000	Investments		
Creditors	3,500	4,500	(Long-	50,000	30,000
Provision for			term)	25,000	40,000
Doubtful debts	3,000	7,500	Machinery at cost	75,000	90,000
Outstanding	12,000	18,000	Buildings at cost	10,000	10,000
expenses	3,17,000	3,60,000	Land	3,17,000	3,60,000
Accumulated					
Depn. :					
Machinery					
Building					

Additional Information:

i) Dividend paid during 2005 Rs.26,500.

ii) Investment costing Rs.20,000 were sold in 2005 for Rs.25,000

iii) Machinery costing Rs.5,000 on which Rs.1,000 depreciation has been accumulated, was sold for Rs.6,000 in the year 2005.

iv) The provision for doubtful debts charged to profit was Rs.1,500.

Prepare a Cash Flow Statement for the year 2005.

(M.C.A. Bharathidasan University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening Cash balance	43,000	Purchase of Building	15,000
Sale of investments	25,000	Purchase of Machinery	20,000
Sale of machinery	6,000	Redemption of Debentures	5,000
Increase in creditors	7,000	Increase in Debtors	10,500
Increase in outstanding	1,000	Increase in stock	8,000
expenses	61,000	Payment of Dividend	26,500
Cash Trading Profit		Closing Cash balance	58,000
	1,43,000		1,43,000

Investment Account

	Amount Rs.		Amount Rs.
To Balance b/d	50,000	By Cash (Sale)	25,000
To Adjusted Profit & Loss a/c (profit on sale)	5,000	By Balance c/d	30,000
	55,000		50,000

Machinery Account

	Amount Rs.		Amount Rs.
To Balance b/d	25,000	By Cash (Sale)	6,000
To Adjusted Profit & Loss a/c (profit on sale)	2,000	By Accumulated Depreciation	1,000
		By Balance c/d	40,000
To Cash (purchase) (?)	20,000		
	47,000		47,000

Accumulated Depreciation Account

	Amount Rs.		Amount Rs.
To Machinery a/c (Depn. on	1,000	By Balance b/d	3,000
machinery sold)		By Adjusted Profit & Loss A/c	5,500
To Balance c/d	7,500	(?)	
	8,500		8,500

Adjusted Profit and Loss A/c (Retained Earnings)

	Amount Rs.		Amount Rs.
To Accumulated Depreciation		By Balance b/d	23,500
on	5,500	By Investments (profit on sale)	5,000
Machinery	6,000	By Machinery (profit on sale)	2,000
Building	1,500	By Cash Trading Profit (?)	61,000
To Provision for Doubtful	26,500		
debts	52,000		
To Dividend	91,500		91,500
To Balance c/d			

Illustration : 11 Bata Ltd supplies you the following balance sheets for the year ended 31st December 1998 and 31st December 1999.

Liabilities	31st Dec. 1998	31st Dec. 1999	Assets	31st Dec. 1998	31st Dec. 1999
Share Capital	70,000	74,000	Bank balance	9,000	7,800
Bonds	12,000	6,000	Accounts	14,900	17,700
Accounts Payable	10,360	11,840	Receivable	49,200	42,700
Provision for			Inventories	20,000	30,000
Doubtful	700	800	Land	10,000	5,000
debts	10,040	10,560	Goodwill		
Reserves &	1,03,100	1,03,200		1,03,100	1,03,200
Surplus					

Following additional information has also been supplied to you.

i) Dividend amounting to Rs.3,500 was paid during the year 1999.

ii) Land was purchased for Rs.10,000.

iii) Rs.5,000 were written off on goodwill during the year.

iv) Bonds of Rs.6,000 were paid during the course of the year.

You are required to prepare a Cash Flow Statement.

(B.Com. Periyar University)

Solution

Cash Flow Statement

Inflow of cash	Amount Rs.	Outflow of cash	Amount Rs.
Opening Cash balance	9,000	Bonds repaid	6,000
Issue of Shares	4,000	Increase in Bills receivable	2,800
Increase in Accounts payable	1,480	Purchase of land	10,000
Decrease in Stock	6,500	Dividend paid	3,500
Cash Trading Profit	9,120	Closing Cash balance	7,800
	30,100		30,100

Land Account

	Amount Rs.		Amount Rs.
To Balance b/d	20,000	By Balance c/d	30,000
To Cash (Purchase) (?)	10,000		
	10,000		30,000

Bonds Account

	Amount Rs.		Amount Rs.
To Cash (?)	6,000	By Balance b/d	12,000
To Balance bc/d	6,000		
	12,000		12,000

Adjusted Profit and Loss A/c (Retained Earnings)

	Amount Rs.		Amount Rs.
To Provision for Doubtful debts	100	By Balance b/d	10,040
To Goodwill written off	5,000		
To Dividend	3,500	By Cash Trading Profit (?)	9,120
To Balance c/d	10,560		
	19,160		19,160

9.10.2 THEORETICAL QUESTIONS.

A - Short Answer Type

1. What is a Cash Flow Statement?

2. What are the uses of Cash Flow Statement?

3. How does a Cash Flow Statement differs from a Funds Flow Statement?

4. How will you calculate Cash from Operations?

B - Essay Type

1. What are the advantages and Limitations of Cash Flow Statement?

2. What are the steps involved in the preparation of Cash Flow Statement?

3. Make a comparison between Cash Flow Statement and Fund Flow Statement and bring out the

similarities and differences between the two.

9.10.3 PRACTICAL PROBLEMS

Problem 1

After taking into account the following items, Jain Ltd made a Net Profit of Rs.1,00,000 for the year 31st December 1999.

Loss on sale of Machinery	10,000
Depreciation on Building	4,000
Depreciation on Machinery	5,000
Preliminary expenses written off	5,000
Provision for Taxation	10,000
Goodwill written off	5,000

Gain on sale of buildings 8,000

You are required to find out Cash from Operations.

(B.Com. Madurai Kamaraj University)

(Answer: Cash From Operation - Rs.1,31,000)

Problem 2

X Ltd earned a profit of Rs.1,00,000 after charging the following items.

	Rs.
i) Depreciation on fixed assets	2,900
ii) Amortization of Goodwill	3,000
iii) Loss on sale of Machine	900
iv) Profit on sale of Investment	2,000

The following additional information is also available.

	1988 Rs.	1989 Rs.
Debtors	42,000	46,000
Bills Receivable	14,000	12,000
Prepaid Expenses	2,000	2,700
Accrued Income	1,500	1,200
Income received in advance	800	1,000
Outstanding expenses	8,000	6,000
Bills Payable	13,000	11,000
Creditors	26,000	28,000

You are required to calculate Cash from Operations.

(B.Com. University of Madras)

(Answer: Cash from Operation - Rs.1,00,600)

Problem 3

From the following Profit and Loss Account find out the Cash from Operation.

Profit and Loss Account

	Rs.		Rs.
To Salaries	2,000	By Gross Profit	10,000
To Rent	1,000	By Profit on sale of plant	3,000
To Depreciation	500	By Income Tax refund	2,000
To Loss on sale of Plant	1,000		
To Goodwill written off	1,000		
To Proposed Dividend	3,500		
To Provision for Taxation	2,500		
To Net Profit	3,500		
	15,000		15,000

Problem 4

Following are the balance sheets of a partnership firm.

Balance Sheets

Liabilities	31st Dec. 1996	31st Dec. 1997	Assets	31st Dec. 1996	31st Dec. 1997
Creditors	36,000	41,000	Cash	4,000	3,600
Loan from partner	----	20,000	Debtors	35,000	38,400
Loan from bank	30,000	25,000	Stock	25,000	22,000
Capital	1,48,000	1,49,000	Land	20,000	30,000
			Building	50,000	55,000
			Machinery	80,000	86,000
	2,14,000	2,35,000		2,14,000	2,35,000

During the year, the partners withdrew Rs.26,000 for domestic expenses. The provision for depreciation against machinery as on 31-12-1996 as Rs.27,000 and on 31-12-1997 Rs.36,000.

(B.Com. University of Madras)

(Answer: Cash Trading Profit - Rs.36,000;Cash flow statement total Rs.68,000)

Problem 5

From the following summarized balance sheets of Kiruba Ltd, you are required to prepare a cash flow statement for the year ended 31-12-1986.

Balance Sheets

Liabilities	31st Dec. 1996	31st Dec. 1997	Assets	31st Dec. 1996	31st Dec. 1997
Equity Share	20,000	20,000	Goodwill	2,400	2,400
Capital	2,800	3,600	Land	8,000	7,200
General Reserve	3,200	2,600	Building	7,400	7,200
Profit and Loss a/c	1,600	1,080	Investments	2,000	2.200
Sundry Creditors	240	160	Inventories	6,000	4,680
Outstanding	3,200	3,600	Accounts	4,000	4.440
expenses	80	120	Receivable	1,320	3,040
Provision for Tax	31,120	31,160	Bank	31,120	31,160
Provision for Debts					

Following additional information has also been supplied to you.

A piece of land has been sold for Rs.800.

ii) Depreciation amounting to Rs.1,400 has been charged on building.

iii) Provision for taxation has been made for Rs.3,800 during the year.

(B.Com. University of Madras)

(Answer: Cash from Operations - Rs.5,720;
Cash flow statement total Rs.7,840)

Problem 6

The summarized balance sheets of XYZ Ltd, as on 31st December 19999 and 2000 are given below.

Balance Sheets

Liabilities	31st Dec. 1996	31st Dec. 1997	Assets	31st Dec. 1996	31st Dec. 1997
Share Capital	4,50,000	4,50,000	Fixed Assets	4,00,000	3,20,000
General Reserve	3,00,000	3,10,000	Investments	50,000	60,000
Profit and Loss	56,000	68,000	Stock	2,40,000	2,10,000
a/c	1,68,000	1,34,000	Debtors	2,10,000	4,55,000
Sundry Creditors	75,000	10,000	Bank	1,49,000	1,97,000
Provision for Tax	-----	2,70,000			
Mortgage loan	10,49,000	12,42,000		10,49,000	12,42,000

Additional Information:

a) Investments costing Rs.8,000 were sold during the year 2000 for Rs.8,500.

b) Provision for Tax made during the year was Rs.9,000.

c) During the year part of the fixed assets costing Rs.10,000 was sold for Rs.12,000 and the profit was included in Profit and Loss Account.

d) Dividend paid during the year amounted to Rs.40,000.

You are required to prepare a statement of sources and uses of cash.

(Answer: Cash from Operations - Rs.1,38,500;
Cash flow statement total Rs.4.39,500)

9.10.4 Books for Reference:

1 R.K.Sharma and Shashi K.Gupta, Management Accounting, Kalyani Publilshers, Madras - 17.

2 S.Ganeson and S.R.Kalavathi, Management Accounting, Thirumalai Publications, Nagarcoil - 1

3 R.Ramachandran and R.Srinivasan, Management Accounting, Sriram Publications, Tennur, Trichy - 17.

4 R.S.N.Pillai and Bagavathi, Management Accounting, S.Chand & Company Ltd., NewDelhi - 53.

5 V.R. Palanivelu, Accounting for management, Laxmi Publications (P) Ltd., NewDelhi-02

Answer for Self-Evaluation Questions.

A - Objective Type

I. 'True' or 'False'.

1. False 2. True 3. False 4. True 5. False

II. Fill in the blanks.

1.Cash 2. Cash & Bank 3. inflow 4. inflow 5. Adjusted Profit & Loss a/c

B - Short answer questions.

1. Meaning of cash flow statement: A statement of changes in the financial position of firm on cash basis is called a cash flow statement. It deals with the inflow and outflow of cash between two balance sheet dates. It shows the causes for the change in the cash position during a particular period.

2. Objectives of Cash flow statement: i) Cash flow statement helps to evaluate the current cash position and future cash position.

ii) Cash flow statement facilitates to find out the variations and controlling cash expenditure.

NOTES

Chapter – X
BUDGET AND BUDGETARY CONTROL

10.0 Introduction
10.1.1 Meaning of Budget.
10.1.2 Definition of Budget.
10.1.3 Meaning of Budgetary Control
10.1.4 Definition of budgetary control
10.1.5 Budget, Budgeting and Budgetary control
10.2 Objectives of Budgetary Control.
10.3 Advantages of Budgetary Control
10.4 Limitations of Budgetary Control
10.5 Essentials of A Sound Budgetary Control System

SELF - EVALUATION QUESTIONS - I
10.6 Classification of Budgets
10.6.1 Classification on The Basis of Time
10.6.2 Classification on The Basis of Functions
10.6.3 On The Basis of Flexibility
10.7.0 Zero Base Budgeting
10.7.1 Advantages of zero base budgeting
10.7.2 Steps involved in zero base budgeting

SELF - EVALUATION QUESTIONS - II
8.8 Summary
8.9.1 Illustration Problems
8.9.2 Theoretical Questions
8.9.3 Exercise Problems

Answers for Self-Evaluation Questions.

10.0 Introduction

In the competitive commercial world, proper planning helps in determining the course of action to be followed for achieving the organisational goals. Budget helps to formulate the plan of action such as what to do, when to do and how to do. In order to have control the budgeted performance will have to be compared with that of the actual performance.

10.1.1 Meaning of Budget.

A budget is a plan of action for a particular future period expressed in financial or non-financial terms. It is a blue print of the desired plan of action.

10.1.2 Definition of Budget.

According to ICMA, London, "A budget is a financial and / or quantitative statement, prepared prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective".

10.1.3 Meaning of Budgetary Control

Budgetary control refers to the process of determining various budgeted figures for the enterprises for the future period, and then comparing the budgeted figures with the actual performance, and then taking corrective measures for the future if there is nay deviation.

10.1.4 Definition of budgetary control

According to ICMA, London, Budgetary control is, "the establishment of budgets relating to the responsibilities of executives to the requirements of a policy, and continuous comparison of actual with budgeted results either to secure by individual action the objective of that policy or to provide a basis for its revision".

10.1.5 Budget, Budgeting and Budgetary control

A budget is a blue print of a plan of action expressed in terms of money or quantity or both.

Budgeting is a technique for formulating budget or an act of building budgets.

Budgetary control refers to the principles procedures and practices of achieving given objectives through budgets.

10.2 OBJECTIVES OF BUDGETARY CONTROL.

Budgetary control is essential for planning and control. The main objectives of budgetary control are as follows.

1. to ensure planning for future by setting up various budgets.
2. to co-ordinate the activities of different departments.

3. to operate various cost centres and departments with efficiently and economically.
4. to eliminate waste and increase the profitability.
5. to estimate the capital expenditure for future.
6. to centralize the control system.
7. to correct the deviations from the established standards.
8. to fix the responsibilities of various individuals in the organisation.
9. to ensure the availability of working capital.
10. to indicate the management to take corrective actions when there is a deviation from the budgeted performance.

10.3 ADVANTAGES OF BUDGETARY CONTROL

Budgetary control is an essential tool of the management for controlling cost and maximising profitability. The following are the advantages of budgetary control.

1. Maximisation of profit.

Budgetary control aims at controlling costs and maximising profits. The resources are put to the best possible use.

2. Effective method of controlling

Every department is given a target to be achieved. The actual performance is compared with the budgeted one and corrective measures are taken when there are any deviations.

3. Co-ordination

It secures proper co-ordination among the activities of various departments.

4. Reduction in cost of production.

It helps the management to reduce wasteful expenditure. This leads to reduction in the cost of production.

5. Economy

The planning of expenditure will be systematic and there will be economy in spending.

6. Identifying deviation

The deviation between budgeted and actual performance helps to identify the weak spots. Efforts will be taken to improve the performance on the weak spots.

7. Making future plans.

It is a good guide to the management for making future plans. It also helps the management in the field of research and development in future.

8. Incentive schemes.

It provides a basis for introducing incentive remuneration plans based on the performance of the workers.

10.4 LIMITATIONS OF BUDGETARY CONTROL

Budgetary control is an effective tool of control. Despite many advantages, the budgetary control system is suffered by the following limitations.

1. Uncertain future

Budgets are prepared for the future period. The future is always uncertain and the predictions and estimates may not always cent percent accurate. The uncertain future conditions reduce the utility of budgetary control.

2. Time-consuming process.

Budgeting is time consuming process. During the preparation period, the business conditions may change and estimates may go wrong by that time.

3. Problems of co-ordination

The performance of one department affects the results of other departments. The lack of co-ordination among different departments results in poor performance.

4. Not an alternative to management

Budgetary control is an essential tool for management for taking decisions and controlling cost. But it cannot replace the management.

5. Lack of co-operation

The success of budgetary control depends upon willing, co-operation and team work. If there is no co-operation or team spirit, the whole system will be collapsed.

10.5 ESSENTIALS OF A SOUND BUDGETARY CONTROL SYSTEM

The following are the essential for a sound system of budgetary control.

1. Organisational chart.

There should be a well defined organisational chart showing the authority and responsibility of each executive of the firm. This enables for the successful preparation, maintenance and administration of budgets.

2. Budget Centre

A budget centre is that part of the organisation for which the budget is prepared. A budget centre may be a department, section of a department or any other part of the department. the establishment of budget centres are necessary for covering all parts of the organisation and for cost control. Budget centres make easy to evaluate the performance of different parts of the organisation.

3. Budget Committee

In small concerns, the chief accountant prepares the budget. But in big concerns, a committee consists of chief executive or managing director, budget officer and the managers of various departments is appointed for the preparation of budgets and co-ordination of various activities.

4. Budget Manual.

Budget manual is a document containing the procedure to be followed by the executives concerned with the budget. It is prepared and maintained by the budget officer. Budget manual lays down the objectives of the organisation, responsibilities of executives. The duties and powers of each official of the different department, different kinds of forms and records to be used are clearly stated in the budget manual.

5. Budget period

A budget period is the length of time for which a budget is prepared. It may be different for different industries. The budget period depends upon the following factors.

1. The type of budget

For example a capital budget may be prepared for longer period i.e. 3 to 5 years. Purchase and Sales budget may be prepared for one year.

2. The nature of demand for the product.
3. The timing for the availability of finance.
4. The length of the trade cycle.

All the above factors are considered while fixing the budget period.

6. Key Factor.

Key Factor is also known as Limiting Factor or Governing Factor or Principal Factor. Key factor is a factor which affects all other budgets. It also restricts the volume of production. Examples for key factors may be shortage of raw materials, non-availability of labour, limited sales, government restrictions etc. After identifying the key factor, the budget should be prepared accordingly.

SELF - EVALUATION QUESTIONS - I

A - State whether the following statements are True or False :

1. Budgetary control is an essential tool for controlling cost. (True / False)

2. The Budget figures are always cent percent accurate in future.
(True / False)

3. Flexible budget changes with the level of activity. (True / False)

B - Short Answer Type:

1. What is a budget?

………………………………………………………………………………………

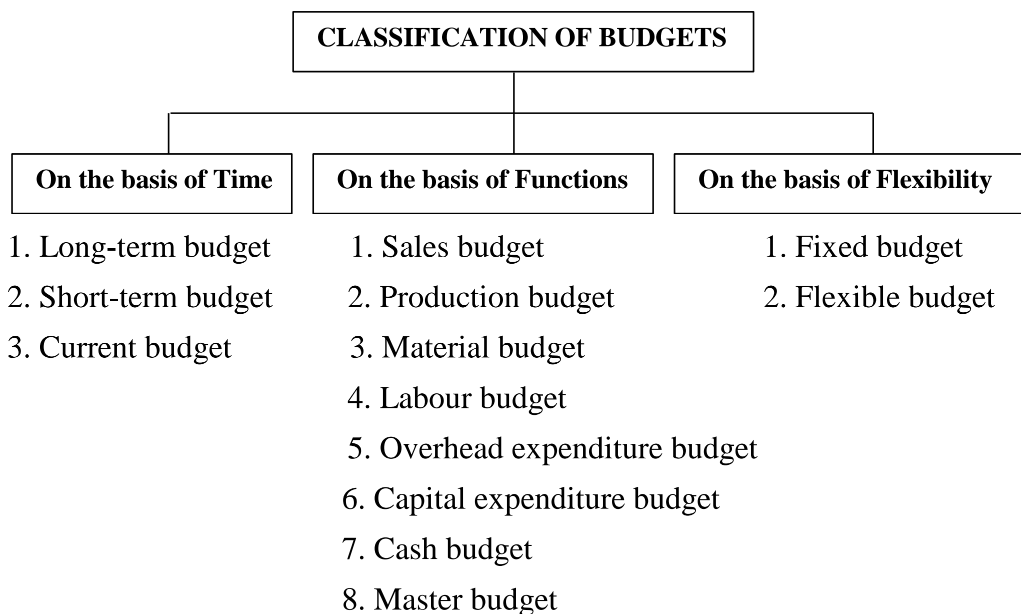
2. List out any two limitations of budgetary control:

………………………………………………………………………………………

3. What is a budget manual?

………………………………………………………………………………………

10.6 CLASSIFICATION OF BUDGETS



10.6.1 CLASSIFICATION ON THE BASIS OF TIME

1. Long-term budgets.

The budgets are prepared to depict long term planning of the business. The period of long term budgets varies between 5 to 10 years. E.g., Capital expenditure budget, Research and development budget etc.

2. Short-term budgets.

These budgets are usually prepared for a period of one or two years. E.g., Cash budget, Material budget, Purchase budget, etc.

3. Current budgets.

These budgets are prepared for a very short period generally of months and weeks and are related to current conditions.

10.6.2 CLASSIFICATION ON THE BASIS OF FUNCTIONS

1. Sales Budget : A sales budget is an estimate of expected sales during a budget period. A sales budget lays down sales figures in term of money or quantity or both. It is prepared by the sales manager and it includes product wise, are wise and month wise sales information. The following points should be considered while preparing the sales budget.

1. Past sales figures
2. Estimates and reports by salesmen.
3. Availability of raw materials.
4. Plant capacity
5. Availability of finance
6. Trade conditions and seasonal frustrations
7. Government restrictions
8. Competition and consumer preference
9. Order on hand
10. Efficiency of advertising

2. Production budget

It is prepared by the production manager to estimate the quantity of production during the budget period. It is based on sales budget. The following must be taken into account while preparing the production budget.

1. Figures of sales budget
2. Plant capacity
3. Availability of material and labour
4. Stock of goods to be maintained.

Budgeted Production = Budgeted Sales + Desired closing stock - Opening stock

3. Materials Budget.

The material budget is planned to estimate the quantity of raw material required for production. Material budget is prepared to estimate the material requirements and the material to be purchased.

Material requirement budget is an estimate of total quantities of material required for production during the budget period. Material purchase budget is an estimate of quantities of raw materials to be purchased for production during the purchase period.

4. .Direct Labour Budget.

It is prepared by the personal department showing an estimate of the requirements of labour to meet the production target, based on previous records budgeted production. This budget gives detailed information relating to the number of workers, rates of wages and cost of labour hours to be employed.

5.Overhead Expenses budget.

a) Factory / works overhead budget.

It is the estimated cost of indirect materials, indirect labour and indirect factory expenses during the budget period. The expenses shown in this budget are classified into fixed, variable and semi-variable expenses.

b) Administrative Overhead budget.

This budget is prepared to estimate the expenditure of administrative office and management salaries.

c) Selling and distribution overhead budget.

This budget is based on sales budget and it gives an estimate of selling and distribution expenses for the budget period. It includes salesman salary, commission, advertisement, transportation, cost, etc.

6.Capital expenditure budget

It is a long term budget which shows the estimated expenditure on fixed assets like land, building, plant, machinery, etc. this helps the management for the replacement of old assets, expansion of business, adoption of new technological progress etc.

7.Cash Budget.

A cash budget is an estimate of cash receipts and payments during the budget period. It is prepared by the chief accountant. Cash budget helps the management.

a) to ensure sufficient cash for business requirements

b) to make arrangements for overdraft to meet any shortage of cash.

c) to find out any surplus funds are available for outside investment or expansion of business.

8.Master Budget

The master budget is the summary of various functional budgets. IMA, London defines it as "the summary budget, incorporating its component functional budgets and which is finally approved, adopted and employed".

The master budget is prepared by the budget officer and it has to be approved by the budget committee. The master budget incorporated sales budget, production and production cost budget, cash budget, overhead expenditure budget and the projected income statement and the balance sheet.

10.6.3 ON THE BASIS OF FLEXIBILITY

1. Fixed Budget

This budget is prepared for a given level of activity and it is suitable for fixed expenses. According to ICWA London, "Fixed budget is a budget which is designed to remain unchanged irrespective of the level of activity actually attained". Fixed budget can not be used for the purpose of cost control.

2. Flexible Budget

Flexible budget is designed to change in accordance with the level of activity actually attained. It presents the budgeted cost for different levels of activity. ICWA, UK defines flexible budget as, "a budget which by recognizing the difference between fixed, semi-fixed and variable costs, is designed to change in relation to the level of activity". It is more flexible, useful and practical.

10.7.0 ZERO BASE BUDGETTING

Zero base budgeting is a managerial tool aimed at reduction of cost and maximum utilization of available reasons. The technique was first used by the for President of America, Jimmy Carter, when he was the Governor of Georgia for controlling State expenditures.

10.7.1 Meaning:

In the traditional method of budgeting, we use the figures of previous year as the base to prepare the budget for the current year. This method carries the inefficiencies to the present year. But in zero base budgeting, there is no given base/figure for a budget. It starts from scratch or zero. Every year is taken as a new year and previous year is not taken as the base, in the preparation of budgets. Zero Base Budgeting proceeds on the assumption that nothing is to be allowed simply because it was allowed in the past. The manager has to prove that an activity is essential and the amounts asked for are really reasonable for the level of activity.

10.7.2 Definition

According to Peter.A. Phyrr, "A planning and budgeting process which requires each manager to justify his entire budget request in detail from scratch(hense zero base) and shifts the burden of proof to each manager to justify why he should spend money at all. The approach requires that all activities be analysed in 'decision packages' which are evaluated by systematic analysis and ranked in order of importance.

Zero Base Budgeting implies that :

1. Every budget starts with scratch or a zero base
2. The figures of the proviso year should not be taken as base figure.
3. Each year is considered as a new year and each activity is to be examined afresh..
4. Every budget allocation is to be justified in the light of anticipated circumstances.
5. Alternatives are to be given due consideration.

10.7.3 Advantages of zero base budgeting

1. Helps management to allocate funds according to priority
2. Ensures only essential activities are undertaken.
3. Helps in identifying and controlling wasteful expenditure.
4. Each activity is thoroughly examined and justified.
5. Helps the management to make optimum use of resources.

10.7.4 Steps involved in zero base budgeting

1. Determination of objectives
2. Determination of the Extent of application
3. Identification of Decision Units.
4. Cost-benefit analysis.
5. Preparation of budgets.

SELF - EVALUATION QUESTIONS - II

A - Fill in the blanks with appropriate words.

1. A factor which affects all other budgets is known as __________________ .

2. Zero Based Budget was first used by ______________________ in U.S.A.

3. ________________________ is the summary of various functional budgets.

B - Short Answer Type:

1. What is a Fixed budget?

……………………………………………………………………………………

2. What are the factors to be considered while preparing a production budget?

……………………………………………………………………………………

3. Give the meaning of Zero Base Budgeting:

……………………………………………………………………………………

10.8 SUMMARY :

A budget is a plan of action expressed in terms of money or quantity or both for a given period.

Budgeting is a technique for formulating budget or an act of building budgets.

Budgetary control refers to the principles, procedures, and practices of achieving given objectives through budgets.

Budgetary control helps to reduce the cost and maximize the profit. It also helps to make future plans.

Uncertain future, Too much time-consumption for preparing the budgets and lack of cooperation of the employees are the factors affecting the validity of the budgets.

On the basis of time, budgets are classified into long term, short term and current budgets. On the basis of flexibility, we can classify into fixed and flexible budgets. On functional basis, the budgets can be classified as sales budgets, Production, Purchase, Expenses, Cash and Master budgets.

Zero Base Budgeting was introduced in U.S.A. by Jimmy Carter. It is aimed at rduction of cost and maximum utilisation of available resources. Zero base budgeting starts from scratch or zero and there is no basic or previous year figure is taken as the base figure.

10.9.1 ILLUSTRATION PROBLEMS

Illustration : 1

Prepare a Production Budget for six months ending 31st March, 2007 for a company producing three different products, on the basis of the following information.

Type of Product	Estimated Stock on 1st October 2006	Estimated Sales during the Budget period	Desired Closing Stock on 31st March 2007
	Units	Units	Units
X	20,000	1,00,000	50,000
Y	30,000	1,50,000	40,000
Z	40,000	1,30,000	30,000

Solution :

Production Budget for 6 months ending 31st March, 2007

Particulars		Product X Units	Product Y Units	Product Z Units
	Estimated Sales	1,00,000	1,50,000	1,30,000
Add:	Desired Closing Stock	50,000	40,000	30,000
		1,50,000	1,90,000	1,60,000
Less:	Opening Stock	20,000	30,000	40,000
	Estimated Production	1,30,000	1,60,000	1,20,000

Illustration : 2

Larsen Ltd., plans to sell 1,10,000 units of a certain product line in the first fiscal quarter, 1,20,000 units in the second quarter, 1,30,000 units in the third quarter 1,50,000 units in the fourth quarter and 1,40,000 units in the first quarter of the following year. At the beginning of the first quarter of the current year, there are 14,000 units of product in stock. At the end of each quarter, the company plans to have an inventory equal to one-fifth of the sales for the next fiscal quarter.

How many units must be manufactured in each quarter of the current year.

(B.Com., University of Madras)

Solution :

PRODUCTION BUDGET

Particulars		First Quarter Units	Second Quarter Units	Third Quarter Units	Fourth Quarter Units
	Estimated Sales	1,10,000	1,20,000	1,30,000	1,50,000
Add:	Desired Closing Stock	24,000	26,000	30,000	28,000
		1,34,000	1,46,000	1,60,000	1,78,000
Less:	Opening Stock	14,000	24,000	26,000	30,000
	Estimated Production	1,20,000	1,22,000	1,34,000	1,48,000

Illustration : 3

Nicolas Company Ltd. manufactures two products A and B. A forecast of the number of units to be sold in the first seven months of the year is given below.

Month	Product A	Product B
January	1,000	2,800
February	1,200	2,800
March	1,600	2,400
April	2,000	2,000
May	2,400	1,600
June	2,400	1,600
July	2,000	1,800

It is anticipated that i) there will be no work-in-progress at the end of any month.

ii) finished units equal to half the sales for the next month will be in stock at the end of each month (including previous December)

Budgeted production and production costs for the whole year are as follows.

	Product A	Product B
Production (units)	22,000	24,000
Direct material per unit	Rs.10	Rs.15
Direct labour per unit	Rs.5	Rs.10
Total factory overhead apportioned	Rs.88,000	Rs.72,000

Prepare for the six months ending 30th June, a production budget for each month and a summarized production cost budget.

(B.Com. University of Madras)

Solution :

Production budget for six months ending 30th June….

Particulars	Jan. (units)	Feb. (units)	March (units)	April (units)	May (units)	June (units)
Product A						
Estimated Sales	1,000	1200	1,600	2,000	2,400	2,400
Add: Closing Stock (half the sales for next month)	600	800	1,000	1,200	1,200	1,000
	1,600	2,000	2,600	3,200	3,600	3,400
Less: Opening Stock (half the sales for current month)	500	600	800	1,000	1,200	1,200
Budgeted Production	1,100	1,400	1,800	2,200	2,400	2,200

Total Budgeted Production for six months:

1,100 + 1,400 + 1,800 + 2,200 + 2,400 + 2,200 = 11,100 units

Note:Closing stock of last month becomes the opening stock of current month.

Particulars	Jan. (units)	Feb. (units)	March (units)	April (units)	May (units)	June (units)
Product B						
Estimated Sales	2,800	2,800	2,400	2,000	1,600	1,600
Add: Closing Stock (half the sales for next month)	1,400	1,200	1,000	800	800	900
	4,200	4,000	3,400	2,800	2,400	2,500
Less: Opening Stock (half the sales for current month)	1,400	1,400	1,200	1,000	800	800
Budgeted Production	2,800	2,600	2,200	1,800	1,600	1,700

Total Budgeted Production for six months:

2,800 + 2,600 + 2,200 + 1,800 + 1,600 + 1,700 = 12,700 units

SUMMARISED PRODUCTION COST BUDGET

Particulars	Product A Output 11,100 units		Product B Output 12,700 units		Total
	Per unit Rs.	Amount Rs.	Per unit Rs.	Amount Rs.	Rs.
Direct Material	10	1,11,000	15	1,90,500	3,01,500
Direct Labour	5	55,500	10	1,27,000	1,82,500
Prime Cost	15	1,66,500	25	3,17,500	4,84,000
Factory overheads	4 *	44,400	3 **	38,100	82,500
	19	2,10,900	28	3,55,600	5,66,500

$$\text{Factory Overhead per unit} = \frac{\text{Annual Overhead}}{\text{Annual Output}}$$

$$\text{*Product A} = \frac{88,000}{22,000} = \text{Rs.}4 \qquad \text{**Product B} = \frac{72,000}{24,000} = \text{Rs.}3$$

Illustration : 4

Draw a Material Procurement Budget (Quantitative) from the following information.

Estimated Sales of a particular product 40,000 units. Each unit of the product requires 3 units of Material A and 5 units of Material B.

Estimated opening balances at the commencement of the next year.

Finished product	5,000 units
Material A	12,000 units
Material B	20,000 units

Materials on Order:

Material A	7,000 units
Material B	11,000 units

The desirable closing balances at the end of the next year:

Finished product	7,000 units
Material A	15,000 units
Material B	25,000 units

Materials on Order:

Material A	8,000 units
Material B	10,000 units

(B.Com. Madurai Kamaraj University)

Solution :

Production Budget (in units)

	Estimated Sales	40,000
Add:	Desired Closing Stock	7,000

		47,000
Less:	Opening Stock	5,000

	Estimated Production	42,000

Material Procurement Budget (in units)

			Material A		**Material B**
Estimated Consumption 42,000 x 3 1,26,000					
			42,000 x 5		2,10,000
Add: Desired Closing Stock			15,000		25,000
Materials on order (closing)			8,000		10,000
			---------		---------
			1,49,000		2,45,000
Less: Opening Stock	12,000			20,000	
Material on order(opening)	7,000			11,000	
	-------		19,000	-------	31,000
			---------		---------
Estimated Purchase			1,30,000		2,14,000
			---------		---------

Illustration : 5

Parker Ltd., manufactures two brands of pen Hero & Zero. The sales department of the company has three departments in different areas of the country.

The sales budget for the year ending 31st December 2004 were as follows.

Hero : Department I - 3,00,000 Department II - 5,62,500 Department III - 1,80,000

Zero : Department I - 4,00,000 Department II - 6,00,000 Department III - 20,000

Sales Prices are Rs.3 for Hero and Rs.1.20 for Zero in all departments.

It is estimated that by forced sales promotion the sale of 'Zero' in department I will increase by 1,75,000. It is also expected that by increasing production and arranging extensive advertisement, department III will be enabled to increase the sale of 'Zero' by 50,000.

It is recognized that the estimated sales by department II represent an unsatisfactory target. It is agreed to increase both estimates by 20 %.

Prepare a Sales Budget for the year 2005.

(B.B.A., Periyar University)

Solution :

SALES BUDGET FOR THE YEAR 2005

Particulars	Hero Selling Price Rs.3 per unit		Zero Selling Price Rs.1.20 per unit		Total
	Quantity	Rs.	Quantity	Rs.	Rs.
Department I	3,00,000	9,00,000	5,75,000	6,90,000	15,90,000
Department II	6,75,000	20,25,000	7,20,000	8,64,000	28,89,000
Department III	1,80,000	5,40,000	70,000	84,000	6,24,000
Total	11,55,000	34,65,000	13,65,000	16,38,000	51,03,000

Illustration : 6

The directors of Prosperous Ltd. observed the sales of their company and found that the sale of the company's product is slacking. The budgeted sales of 15,000 units per year can only be met if the trade discount is raised from 25% to 30%. If the discount is raised to 35 %, the sales will increase by 20% over the budget, for which production capacity exists. You are requested to indicate the directors of the company, which of the two alternatives is more profitable. The retail price of the product is Rs.100 each. The cost of production is Rs.60 of which Rs.40 is variable.

(B.Com. Bharathidasan, modified)

Solution :

Comparative Marginal Cost Statement

Particulars	30 % Discount Rs.	35 % Discount Rs.
Gross Sales 15,000 x 100	15,00,000	
18,000 x 100		18,00,000
Less: Discount	4,50,000	6,30,000
Net Sales (A)	10,50,000	11,70,000
Variable costs	6,00,000	7,20,000
Fixed costs 15,000 x (60 – 40)	3,00,000	3,00,000
Total cost (B)	9,00,000	10,20,000
Profit (A – B)	1,50,000	1,50,000

It is clear from the above statement that both the alternatives gives same profit to the company. If the directors of the company wants to increase the sales volume and profit, other sales promotion techniques must be referred to.

Illustration : 7

Prepare a Sales Overhead Budget for the months of April, May and June from the estimates given below:

	Rs.
Advertisement	2,500
Salaries of the Sales Department	5,000
Expenses of the Sales Department	1,500
Counter Salesmen's Salaries and Dearness Allowance	6,000

Commission to counter salesmen at 1 % on their sales.

Travelling Salesmen's commission at 10 % on their sales and expenses at 5 % on their sales.

The sales during the period were estimated as follows.

Month	**Counter Sales**	**Travelling Salesmen's Sales**
	Rs.	**Rs.**
April	80,000	10,000
May	1,20,000	15,000
June	1,40,000	20,000

(B.Com. Bharathidasan University)

Solution :

SALES OVERHEAD BUDGET

Particulars	**April** Rs.	**May** Rs.	**June** Rs.
Counter Sales	80,000	1,20,000	1,40,000
Travelling Salesmen's Sales	10,000	15,000	20,000
Total Sales	90,000	1,35,000	1,60,000
Sales Overheads:			
Commission on Counter Sales at 1%	800	1.200	1,400
Travelling Salesmen's Commission at 10 % on their Sales	1,000	1,500	2,000
Expenses on Travelling Salesmen Sales 5%	500	750	1,000
Advertisement	2,500	2,500	2,500
Salaries of the Sales Department	5,000	5,000	5,000
Expenses of the Sales Department	1,500	1,500	1,500
Counter Salesmen's Salary and Dearness Allowance	6,000	6,000	6,000
Total Sales Overheads	17,300	18,450	19,400

Illustration : 8

A joint stock company manufactures two products X and Y and sells through two divisions, East and West. For the purpose of submission of sales budget to the budget committee, the following information has been made available.

Budgeted Sales for the current year

Product	**East**	**West**
X	400 @ Rs.9	600 @ Rs.9
Y	300 @ Rs.21	500 @ Rs.21

Actual Sales for the current year

Product	**East**	**West**
X	500 @ Rs.9	700 @ Rs.9
Y	200 @ Rs.21	400 @ Rs.21

It is observed that if price of X is increased by Re.1, it will find a ready market. On the other hand, Y is over priced to customers and market could absorb more if sales price of Y, be reduced by Re.1. The management had agreed to give effect to the above price changes.

From the information based on these price changes and reports from salesmen, the following estimates have been prepared by Divisional Managers.

Percentage increase over current budget is :

Product	**East**	**West**
X	+ 10 %	+ 5 %
Y	+ 20 %	+ 10 %

With the help of an intensive advertisement in the company, the following additional sales above the estimated sales of divisional managers are possible.

Product	**East**	**West**
X	60	70
Y	40	50

You are required to prepare a Budget for sales incorporating the above estimates and also show the budgeted and actual sales for the current year.

Solution :

SALES BUDGET FOR THE YEAR 1999

Division	Product	Budget for future period			Budget for current period			Actual sales for current period		
		Qty.	Price	Value	Qty.	Price	Value	Qty.	Price	Value
			Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
East	X	500	10	5,000	400	9	3,600	500	9	4,500
	Y	400	20	8,000	300	21	6,300	200	21	4,200
		900		13,000	700		9,900	700		8,700
West	X	700	10	7,000	600	9	5,400	700	9	6,300
	Y	600	20	12,000	500	21	10,500	400	21	8,400
		1,300		19,000	1,100		15,900	1,100		14,700
Total X		1,200	10	12,000	1,000	9	9,000	1,200	9	10,800
Total Y		1,000	20	20,000	800	21	16,800	600	21	12,600
		2,200		32,000	1,800		25,800	1,800		23,400

Illustration : 9

A company expects to have Rs.37,500 cash in hand on 1st April, and requires you to prepare an estimate of cash position during the three months, April, May, June. The following information is supplied to you.

Month	Sales	Purchases	Wages	Factory Expenses	Office Expenses	Selling Expenses
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
February	75,000	45,000	9,000	7,500	6,000	4,500
March	84,000	48,000	9,750	8,250	6,000	4,500
April	90,000	52,500	10,500	9,000	6,000	5,250
May	1,20,000	60,000	13,500	11,250	6,000	6,570
June	1,35,000	60,000	14,250	14,000	7,000	7,000

Additional Information:

1. Period of credit allowed by suppliers 2 months.
2. 20 % of sales is for cash and period of credit allowed to customers for credit is one month.
3. Delay in payment of all expenses - 1 month.
4. Income Tax of Rs,57,500 is due to be paid on 15th June.
5. The company is to pay dividends to shareholders and bonus to workers of Rs.15,000 and Rs.22,000 respectively in the month of April.
6. Plant has been ordered to be received and paid in May. It will cost Rs.1,20,000.

(B.Com. Madurai Kamaraj University)

Solution : **CASH BUDGET**

Particulars	April Rs.	May Rs.	June Rs.
Opening Cash Balance	37,500	11,700	(–)91,050
Receipts from:			
Cash Sales (20% of current month sales)	18,000	24,000	27,000
Cash collected from Debtors (80% of previous month's sales)	67,200	72,000	96,000
Total – A	1,22,700	1,07,700	31,950
Payments:			
Creditors	45,000	48,000	52,500
Wages	9,750	10,500	13,500
Factory Expenses	8,250	9,000	11,250
Office Expenses	6,000	6,000	6,000
Selling Expenses	4,500	5,250	6,570
Dividend to shareholders	15,000	----	----
Bonus to workers	22,500	----	----
Purchase of Plant	----	1,20,000	----
Income Tax	----	----	57,500
Total – A	1,11,000	1,98,750	1,47,320
Closing Balance (A – B)	11,700	(–)91,050	(–)1,15,370

Note: The Company needs overdraft facilities in May and June to the extent of Rs.91,050 and Rs.1,15,370 respectively.

Illustration : 10

Prepare a cash budget for the three months ending May, June and July 2004 on the basis of the following information.

Months	Credit Sales	Credit Purchases	Wages	Manufacturing Expenses	Office Expenses	Selling Expenses
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
March	60,000	36,000	9,000	4,000	2,000	4,000
April	62,000	38,000	8,000	3,000	1,500	5,000
May	64,000	33,000	10,000	4,500	2,500	4,500
June	58,000	35,000	8,500	3,500	2,000	3,500
July	56,000	39,000	9,500	4,000	1,000	4,500
August	60,000	34,000	8,000	3,000	1,500	4,500

Additional information:

i) Plant costing Rs.16,000 is due for delivery in July payable 10% on delivery and the balance after three months.

ii) Advance Tax is payable in March and June Rs.8,000 each.

iii) Period of credit allowed a) by suppliers 2 months and b) to customers 1 month.

iv) Lag in payment of manufacturing expenses ½ month.

v) Lag in payment of all other expenses 1 month.

vi) Cash balance on 1st May, 2000 was Rs.8,000.

(M.Com. University of Madras)

Solution :

Cash Budget for the three months ending 31st July, 2000

Particulars	May Rs.	June Rs.	July Rs.
Opening Balance	8,000	15,750	12,750
Receipts:			
Debtors	62,000	64,000	58,000
Total (A)	70,000	79,750	70,750
Payments:			
Creditors	36,000	38,000	33,000
Wages	8,000	10,000	8,500
Manufacturing Expenses	3,750	4,000	3,750
Office Expenses	1,500	2,500	2,000
Selling Expenses	5,000	4,500	3,500
Advance Tax	---	8,000	---
Delivery of Plant (10% on delivery)	---	---	1,600
Total (B)	54,250	67,000	52,350
Closing Balance (A – B)	15,750	12,750	18,400

Illustration : 11

A company working at 50 % capacity manufactures 10,000 units of a certain product. At 50 % capacity the product cost is Rs.180 and sale price is Rs.200. The break up of the cost is as follows.

	Cost per unit
Material	Rs.100
Wages	Rs.30
Factory expenses	Rs.30 (40% fixed)
Administration Overheads	Rs.20 (50% fixed)

At 60 % working, raw material cost goes up by 2 % and sales price falls by 2 %. At 80 % working, the raw material cost increases by 5 % and sale price decreases by 5 %.

Prepare a statement showing profitability 60 % and 80 % capacity.

(B.Com. Madurai Kamaraj University)

Solution :

FLEXIBLE BUDGET

Particulars	At 50 % Capacity Production 10,000 units		At 60 % Capacity Production 12,000 units		At 80 % Capacity Production 16,000 units	
	Per Unit Rs.	Total Rs.	Per Unit Rs.	Total Rs.	Per Unit Rs.	Total Rs.
Sales	200	20,00,000	196	23,52,000	190	30,40,000
Materials	100	10,00,000	102	12,24,000	105	16,80,000
Wages	30	3,00,000	30	3,60,000	30	4,80,000
Factory Overhead:						
Variable (60%)	18	1,80,000	18	2,16,000	18	2,88,000
Fixed (40%)	12	1,20,000	10	1,20,000	7.50	1,20,000
Admn. Overhead:						
Variable (50%)	10	1,00,000	10	1,20,000	10	1,60,000
Fixed (50%)	10	1,00,000	8.33	1,00,000	6.25	1,00,000
Total Cost	180	18,00,000	178.00	21,40,000	176.75	28,28,000
Profit	**20**	**2,00,000**	**17.67**	**2,12,000**	**13.25**	**2,12,000**

Illustration : 12

The following information relates to the productive activities of Z Ltd. for the six months ending 31st March, 2005.

	Rs.
Fixed Expenses:	
Management Salaries	2,10,000
Rent and Taxes	1,40,000
Depreciation of Machinery	1,75,000
Sundry office expenses	2,22,500

	7,47,500

Semi-variable expenses at 50 % capacity:	
Plant Maintenance	62,500

Indirect labour	2,47,500
Salesmen's Salaries	72,500
Sundry expenses	65,000

	4,47,500

Variable expenses at 50 % capacity:	
Materials	6,00,000
Labour	6,40,000
Salesmen's Commission	95,000

	13,35,000

It is further noted that semi-variable expenses remains constant between 40% and 70% capacity, increase by 10% of the above figures between 70% and 85% capacity and increase by 15% of the above figures between 85% and 100% capacity. Fixed expenses remain constant whatever the level of activity may be. Sales at 60% capacity are Rs.25,50,000; at 80% capacity Rs.34,00,000 and 100% capacity Rs.42,50,000. Assuming that all items produced are sold, prepare a flexible budget at 60%, 80% and 100% production capacity.

(B.Com., University of Madras)

Flexible Budget for the six months ending 31st March 2005

Particulars	50 % Capacity Rs.	60 % Capacity Rs.	80 % Capacity Rs.	100 % Capacity Rs.
Sales (A)	21,25,000	25,50,000	34,00,000	42,50,000
Fixed Expenses:				
Management Salaries	2,10,000	2,10,000	2,10,000	2,10,000
Rent and Taxes	1,40,000	1,40,000	1,40,000	1,40,000
Depreciation of Machinery	1,74,000	1,74,000	1,74,000	1,74,000
Sundry office Expenses	2,22,500	2,22,500	2,22,500	2,22,500
Total Fixed Expenses (B)	7,47,500	7,47,500	7,47,500	7,47,500
Semi-variable Expenses:				
Plant Maintenance	62,500	62,500	68,750	71,875
Indirect Labour	2,47,500	2,47,500	2,72,250	2,84,625
Salesmen Salaries	72,500	72,500	79,750	83,375
Sundry Expenses	65,000	65,000	71,500	74,750
Total Semi-variable expenses(C)	4,47,500	4,47,500	4,92,250	5,14,625
Variable Expenses:				
Materials	6,00,000	7,20,000	9,60,000	12,00,000
Labour	6,40,000	7,68,000	10,24,000	12,80,000
Salesmen Commission	95,000	1,14,000	1,52,000	1,90,000
Total Variable Expenses (D)	13,35,000	16,02,000	21,36,000	26,70,000
Total Cost E (B+C+D)	25,30,000	27,97,000	33,75,750	39,32,125
PROFIT / LOSS (A – E)	(–)4,05,000	(–)2,47,000	24,250	3,17,875

Illustration : 13

The cost of an article at a capacity level of 5,000 units is given under A below. A variation of 25% in capacity above or below this level, the individual expenses vary as indicated under B below.

	A	B
	Rs.	
Material cost	25,000	(100 % varying)
Labour cost	15,000	(100 % varying)

Power	1,250	(80 % varying)
Repairs and Maintenance	2,000	(75 % varying)
Stores	1,000	(100 % varying)
Inspection	500	(20 % varying)
Depreciation	10,000	(100 % varying)
Administration Overheads	5,000	(25 % varying)
Selling Overheads	3,000	(25 % varying)

	62,750	

Cost per unit Rs.12.55

Find the unit cost of the product at production levels of 4,000 units and 6,000 units.

(M.C.A., University of Madras)

Solution :

FLEXIBLE BUDGET

Particulars	4,000 units		5,000 units		6,000 units	
	Per Unit Rs.	Total Rs.	Per Unit Rs.	Total Rs.	Per Unit Rs.	Total Rs.
Material cost	5.00	20,000	5.00	25,000	5.00	30,000
Labour cost	3.00	12,000	3.00	15,000	3.00	18,000
Prime Cost	**8.00**	**32,000**	**8.00**	**40,000**	**8.00**	**48,000**
Factory Overheads:						
Power – Fixed	0.06	250	0.05	250	0.04	250
Variable	0.20	800	0.20	1,000	0.20	1,200
Repairs & Maintenance						
Fixed	0.13	500	0.10	500	0.08	500
Variable	0.30	1,200	0.30	1,500	0.30	1,800
Stores	0.20	800	0.20	1,000	0.20	1,200
Inspection- Fixed	0.10	400	0.08	400	0.07	400
Variable	0.02	80	0.02	100	0.02	120
Depreciation	2.00	8,000	2.00	10,000	2.00	12,000
Works Cost	11.01	44,030	10.95	54,750	10.91	65,470
Administrative OH:						
Fixed	0.94	3,750	0.75	3,750	0.63	3,750
Variable	0.25	1,000	0.25	1,250	0.25	1,500
Selling Overhead:						
Fixed	0.56	2,250	0.45	2,250	0.38	2,250
Variable	0.15	600	0.15	750	0.15	900
Total Cost	**12.91**	**51,630**	**12.55**	**62,750**	**12.32**	**73,870**

Illustration : 14

A glass manufacturing company requires you to calculate and present the budget for the next year from the following information.

Sales :

Toughened glass	Rs.3,00,000
Bent toughened glass	Rs.5,00,000
Direct Material cost	60% of sales
Direct Wages	240 workers at Rs.150 per month

Factory Overheads:

Indirect labour

Works Manager	Rs.500 per month
Foreman	Rs.400 per month
Stores and spares	2 ½ % on sales
Depreciation on Machinery	12,600
Light and power	5,000
Repairs & Maintenance	8,000
Other sundries	10 % on direct wages.

Administrative, selling and distribution expenses Rs.14,000 per year.

Sales (as per sales budget)	Rs.	Rs.
Toughened glass		3,00,000
Bent Toughened glass		5,00,000
		8,00,000
Less : Cost of Production (as per cost of Production budget)	4,80,000	
Direct Materials	36,000	
Direct Labour	5,16,000	
Prime Cost		
Factory Overhead		
Variable:		
Stores and spare parts (2 ½ % on sales)		
20,000	33,000	
Light and Power		
5,000		
Repairs and Maintenance		
8,000		
Fixed: ----	27,000	5,76,000

Works Managers Salary		**2,24,000**
6,000		14,000
Foreman's Salary		
4,800		**2,10,000**
Depreciation		
12,600		
Sundries		
3,000		

Gross Profit		
Less: Administrative, selling & Distribution Expenses		
Expected **Net Profit**		

10.9.2 THEORETICAL QUESTIONS

A - Short Answer Type:

1. Compare budget, budgeting and budgetary control:
2. What are the objectives of budgetary control?
3. What is a budget period?
4. What is a key factor?
5. What is a budget centre?
6. What is budget committee?

B - Essay Type:

1. What are the advantages and limitations of budgetary control?
2. What are the advantages of a Sound budgetary control system?
3. Explain the classification of Various budgets:
4. What is Zero Base Budgeting? What are the advantages of ZBB?

10.9.3 EXERCISE PROBLEMS

Exercise : 1

Prepare a Production Budget for six months ending 31st March, 2007 for a company producing three different products, on the basis of the following information.

Type of Product	Estimated Stock on 1st October 2006	Estimated Sales during the Budget period	Desired Closing Stock on 31st March 2007
	Units	Units	Units
A	10,000	2,00,000	25,000
B	20,000	2,50,000	40,000
C	30,000	1,50,000	20,000

(Answer: A- 2,15,000 units; B- 2,70,000 units C- 1,40,000 units)

Exercise : 2

The sales director of a manufacturing company reports that next year he expects to sell 50,000 units of a particular product.

The production manager consults the store-keeper and casts his figures as follows:

Two kinds of raw materials A and B are required for manufacturing the products. Each unit of the product requires 2 units of A and 3 units of B. The estimated opening balances at the commencement of the next year are:

Finished Products 10,000 units

Material A	12,000 units
Material B	15,000 units

The desirable closing balances at the end of the next year are:

Finished Products	14,000 units
Material A	13,000 units
Material B	16,000 units

Draw up a quantitative chart showing materials purchase budget for the next year.

(Answer: Budgeted Production - 54,000 units finished goods

Purchase Budget: Material A - 1,09,000 units; Material B - 1,63,000 units)

Exercise : 3

Quality Electronics Ltd. produces two kinds of products, Alpha and Beta. There are two sales divisions, North and South. Budgeted sales for the year ended 31st December 2004 were as follows.

Division	**Products**	**Units**	**Price per unit**
North	Alpha	25,000	Rs.10
	Beta	15,000	Rs.5
South	Alpha	24,000	Rs.10
	Beta	30,000	Rs.5

The sales for the above said period were as follows:

Product	**South**	**North**
Alpha	28,000 units at Rs.10 each	25,000 units at Rs.10 each
Beta	18,000 units at Rs.5 each	33,000 units at Rs.5 each

On the basis of assessment of salesmen the following are the observations of sales division for the year ending 31st December,2005.

North Zone : Alpha Budgeted increase of 40% on 2004 budget.
Beta Budgeted increase of 10% on 2004 budget.

South Zone: Alpha Budgeted increase of 12% on 2004 budget.
Beta Budgeted increase of 15% on 2004 budget.

It was further decided that because of the increased sales campaign in North an additional sales of 5,000 units of product will result. You are required to prepare a sales budget for the year 2004 and 2005 and Actual sales for 2004.

(B.Com. Bharathidasan University)

(Answer: 2004 Total Budgeted Sales - Qty : 94,000 Amount Rs.7,15,000;

2004 Total Actual Sales - Qty : 1,04,000 Amount Rs.7,85,000;

2005 Total Budged Sales - Qty : 1,17,880 Amount Rs.9,14,425.

Exercise : 4

From the following forecasts of income and expenditure, prepare a cash budget for the months January to April 2004.

Months	Credit Sales Rs.	Credit Purchases Rs.	Wages Rs.	Manufacturing Expenses Rs.	Administrative Expenses Rs.	Selling Expens R
2003						
November	30,000	15,000	3,000	1,150	1,060	50
December	35,000	20,000	3,200	1,225	1,040	55
2004 January	25,000	15,000	2,500	2,500	990	60
February	30,000	20,000	3,000	3,000	1,050	62
March	35,000	22,500	2,400	2,400	1,100	57
April	40,000	25,000	2,600	2,600	1,200	71

Additional Information :

1. The customers are allowed a credit period of 2 months.
2. A dividend of Rs.10,000 is payable in April.
3. Capital expenditure to be incurred: Plant purchased on 15th of January for Rs.5,000; a building has been purchased on 1st March and the payments are to be made in monthly instalments of Rs.2,000 each.
4. The creditors are allowing a credit of 2 months.
5. Wages are paid on the 1st of the next month.
6. Lag in payment of other expenses is one month.
7. Balance of cash in hand on 1st January 2004 is Rs.15,000.

(Answer: Closing Balance - January Rs.18,985; February Rs.28,795;

March Rs.30,975 and April Rs.23,685)

Exercise : 5

The following quarterly results are expected by Subhash Ltd. for next year.

(Rs. in Thousands)

Particulars	I Quarter	II Quarter	III Quarter	IV Quarter
Sales	7,500	10,500	18,000	10,500
Cash Payments:				
Production cost	7,000	10,000	8,000	8,500
Selling & Admn.cost	1.000	2,000	2,900	1,600
Purchase of plant & fixed cost	1,000	1,100	2,100	2,100

Debtors at the end of a quarter are 1/3 of sales for the quarter. The opening balance of debtors is Rs.30,00,000. Cash in hand at the beginning of the year is Rs.6,50,000 and the desired minimum balance is Rs.5,00,000. Borrowings are made in multiples of Rs.10,000 at the end of the quarter in which need will occur and are repaid at the end of the next quarter if possible. Interest charges may be ignored.

(M.Com. University of Madras)

Answer : Loan borrowed - I Quarter Rs.8,50,000; II Quarter Rs.36,00,000

Loan repaid - III Quarter Rs.25,00,000 IV Quarter Rs.8,00,000.

Exercise : 6

The expenses for budged production of 10,000 units in a factory are furnished below.

	Per Unit
	Rs.
Material	70
Labour	25
Variable Overheads	20
Fixed Overheads (Rs.1,00,000)	10
Variable Expenses (Direct)	5
Selling Expenses (10% fixed)	13
Distribution expenses(20% fixed)	7
Administration expenses (100 fixed)	5
	155

Prepare a budget for production of a) 8,000 units b) 6,000 units.

(B.Com. University of Madras)

Answer: 6,000 units : Total Cost Rs.10,00,800 ; unit cost Rs.166.80

8,000 units : Total Cost Rs.12,75,400; unit cost Rs.159.425

10,000 units : Total Cost Rs.15,50,000; unit cost Rs.155

Exercise : 7

The following data are available in a manufacturing company for the year 1986.

	Rs. in Lakhs
Fixed Expenses:	
Wages and Salaries	9.5
Rent, Rate and Taxes	6.6
Depreciation	7.4
Sundry Administration expenses	6.5
Semi-Variable expenses at 50% capacity	
Maintenance and Repairs	3.5
Indirect Labour	7.9
Sales department Salaries	3.8
Sundry administration salaries	2.8
Variable expenses at 50% capacity	
Material	21.7
Labour	20.4
Other expenses	7.9
	98.0

Assume that the fixed expenses remain constant for all levels of production. Semi-variable expenses remain constant between 45 percent and 65 percent of capacity; increasing by 10% between 65 percent and 80 percent capacity and by 20 % between 80 percent and 100 percent capacity.

Sales at various levels are	Rs. in Lakhs.
50% capacity	100
60% capacity	120
75% capacity	150
90% capacity	180
100% capacity	200

Prepare a flexible budget for the year, 1987 and forecast the profit at 60 percent, 75 percent, 90 percent and 100 percent capacity.

(I.C.W.A. Inter)

Answer: Total Variable cost at 50% Rs.98.0; 60% Rs.108.0;
75% Rs.124.8; 90% Rs.141.6; 100% Rs.151.6 (Rs. in Lakhs)

Answers for Self-Evaluation Questions - I

A - 1. True

2. False

3. True

B - 1. A budget is a plan of action for a particular future period expressed in financial or non-financial terms.

2 a) The future is always uncertain and the budget figures may not always cent percent true.

b) Budgeting is a time consuming process.

3. Budget manual is a document containing the procedure to be followed by the executives concerned with the budget.

Answers for Self-Evaluation Questions - II

A - 1. Key Factor

2. Jimmy Carter

3. Master Budget

B - 1. Fixed budget is a budget which is designed to remain unchanged irrespective of the level of activity actually attained.

2. Factors to be considered for preparing production budget:

a) Figures of Sales budget b) Plant capacity c) Availability of material and labour d) Stock of goods.

3. Zero base budgeting starts from scratch or zero. There is no base figure and every year is treated as a new year. It aims at maximum reduction of cost and maximum utilisation of available resources.

NOTES

Chapter - XI
MARGINAL COSTING

11.0 Introduction
11.1 Definition
11.2 Main features of Marginal Costing:
11.3 Advantages
11.4 Disadvantages
11.5.0 Break Even Analysis
11.5.1 Assumptions of Break Even Analysis
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Answers for Self-Evaluation Questions

11.0 INTRODUCTION

Marginal costing is one of the most useful techniques for management. It reveals the relationship between cost, volume of sales and profit. It helps the management to make policy decisions, profit planning and cost control. Under marginal costing technique the costs are classified into fixed and variable cost. Only the variable costs are charged to production and fixed costs are not included. Marginal costing is otherwise known as variable costing, direct costing, incremental costing or differential costing.

11.1 DEFINITION

According to ICMA, London Marginal cost is defined as, "the amount of any given volume of output by which aggregate costs are changed if the volume of output is increased by one unit".

ICWA, India defines marginal costing as, "the ascertainment by differentiating between fixed costs, and variable costs, of marginal costs and of the effect on profit of changes in volume of type of product".

11.2 MAIN FEATURES OF MARGINAL COSTING:

1. All costs are classified into fixed and variable.
2. Only variable costs are considered as the cost of the product.
3. Fixed costs are treated as period cost and they are charged to profit and loss a/c during the period.
4. The stock of finished goods and work-in-progress are valued at marginal costing.
5. Prices are determined on the basis of marginal cost plus contribution. Contribution is the difference between selling price and variable cost.

11.3 ADVANTAGES:

1. Helps in decision making. Marginal costing helps the management for taking important decisions like fixing prices, profit planning etc.

2. Effective cost control: As the costs are divided into fixed and variable, marginal cost can be controlled effectively.

3. Treatment of overheads: It avoids the complication of over-recovery or under-recovery of overheads.

4. Inventory valuation: The valuation of inventory becomes more realistic when it is based on marginal costing.

5. Apportionment of fixed costs: Marginal costing enables proper apportionment of fixed costs.

6. Helpful in budgetary control: The classification of expenses into fixed and variable, helps to prepare flexible budgets for various levels of activities.

7. 'Make or Buy' decision: Sometimes, the management has to decide whether to manufacture or to buy a product or a component. The management may decide to purchase the product from outside if the price paid recovers some of the fixed assets.

11.4 DISADVANTAGES

1. Difficult to analyse overhead: It is difficult to separate fixed and variable costs clearly. In marginal costing, semi-variable costs are not considered.

2. Time Element: In the long run, all costs are variable including fixed costs. When new plants and equipments are introduced, fixed costs and variable costs will vary.

3. Apportionment of overhead: Since variable overheads are apportioned on estimated basis, problem of over or under-recovery of overheads cannot be totally eliminated.

4. Difficulty in fixing price: Price fixation and comparison between two jobs cannot be done without considering fixed cost.

5. Valuation of stock: As the stock is valued under marginal cost, full loss cannot be recovered when fire is occurred. Tax authorities object the method of valuing stock under marginal costing.

6. Not suitable for certain industries: Marginal costing is found unsuitable in industries like ship building, contract etc., where the valuation of work-in-progress is high level as compared to its turnover. If fixed expenses are ignored in the valuation of work-in-progress, it will involve in manipulation of profits.

11.5.0 BREAK EVEN ANALYSIS

The study of Cost - Volume - Profit analysis is often referred to as Break-Even-Analysis. In the narrow senses the term Break Even Analysis (BEA) is concerned with finding out the Break Even Point (BEP). Break Even Point is the point at which total revenue is equal to total cost. It is the point of no profit, no loss. In the broader sense, Break Even Analysis refers to the study of relationship between cost-volume-profit at different levels of production or sales.

11.5.1 Assumptions of Break Even Analysis.

1. All elements of cost are divided into fixed and variable cost.

2. Fixed costs remain constant at all levels of output.

3. Variable costs vary in direct proportion with the volume of output. Variable cost remains constant per unit of output.

4. Selling price per unit remains unchanged at all levels of output.

5. Volume of production is the only factor influencing the cost.

6. There will be no change in the general price-level.

7. All the units produced are sold. There is no unsold stock.

8. There is only one product. In case of multiple products, the sales mix remains unchanged.

11.6 ADVANTAGES OF BREAK EVEN ANALYSIS

1. It provides detailed information which can be easily understandable that those of profit and loss a/c and Balance sheet.

2. This helps the management in decision making.

3. It is used to forecast cost and profit which enables to prepare long-term planning.

4. Break Even Chart discloses profit at various levels of production.

5. This analysis provides guidance for cost control.

6. It helps to choose best product mix.

7. It is useful to take the 'make or buy' decisions.

8. This enables to prepare flexible budgets.

9. It helps to improve the profit performance.

11.7 DISADVANTAGES

1. Break Even Analysis fails to handle production and sales of multiple products.

2. Fixed costs do not remain constant in the long run.

3. Variable costs do not always vary proportionately.

4. It ignores economies of large scale in production.

5. It assumes all the units produced are sold. It is not always true. Generally there may be opening and closing stock.

6. Semi-variable costs are completely ignored.

7. When production increases, variable cost per unit may decrease, because of bulk buying.

8. When volume of sales increases, the selling price per unit may be increased because of additional discount to customers.

9. Break Even Analysis ignores the other factors such as marketing aspects, effect of government policies which are necessary in decision making.

11.8.0 IMPORTANT TERMS

Knowing the following terms will help to understand the Break-even analysis or cost-volume-profit analysis in a detailed manner.

11.8.1 Fixed Expenses:

Expenses that do not vary with the volume of production are known as fixed expenses. Fixed cost per unit is not fixed. Fixed cost may vary in long-run. Fixed charges are fixed only within a range of plant capacity.

Example for fixed cost : Salary to office staff, rent and rates, insurance etc.

11.8.2 Variable Expenses :

Expenses that vary in direct proportion with the volume of production or sales are called variable expenses. Example : fuel and power, direct material etc. Variable cost per unit is fixed.

11.8.3 Contribution : Contribution is the difference between sales and variable cost. It can be derived by deducting the variable expenses from the sales. Contribution enables to meet fixed cost and profit. Contribution helps to decide whether a product is worthwhile to be continued among different products.

Contribution = Sales - Variable cost

Contribution = Fixed cost + Profit

(or) Fixed cost - Loss

Profit = Contribution - Fixed cost

11.8.4 Break Even Point

Break means divide,

Even means equal and

Point refers to a position or a place.

Break-Even Point is a point where the total sales are equal to total cost. It is a point of no profit, no loss. If sales increase about the break-even point, the business can make a profit. If sales decrease below the point, a loss will be incurred.

$$\text{Break Even Point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

$$\text{Break Even Point (in Rupees)} = \frac{\text{Fixed Expenses}}{\text{Contribution}} \times \text{Sales}$$

11.8.5 Margin of safety

Margin of safety is the excess of actual sales over the break-even sale. It indicates the extent to which the sales can be reduced without resulting in loss. A large margin of safety indicates that the business in a sound position.

Margin of Safety = Present Sales - Break Even Sales.

(or) $\frac{\text{Profit}}{\text{P/V Ratio}}$

11.8.6 Angle of incidence

The angle of incidence is the angle between the sales line and the total cost line at the break even point. It indicates the profit earning capacity of a business. A large angle of incidence indicates a high rate of profit and a small angle of incidence indicates a low rate of profit.

11.8.7 Profit - Volume Ratio.

Profit-Volume Ratio expresses the relationship between contribution to sales. It is popularly known as P/V Ratio. This can be expressed in percentage. P/V Ratio helps to find out Break even point, profit at any volume of sales, Sales volume required to earn a desired amount of profit etc.

$$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

11.9 Break-Even Chart

A break-even chart is a graphical representation of marginal costing. It indicates the relationship between Cost-Volume and Profit. It shows the point of production at which there is no profit, no loss and also given the estimated profit or loss at different levels of activities.

Let us construct a Break-Even Chart with the help of the following data.

Units produced and sold	Fixed cost Rs.	Variable cost (Rs.0.40 p.u.) Rs.	Total cost Rs.	Sales (at Rs.0.80 p.u.) Rs.
5,000	4,000	2,000	6,000	4,000
10,000	4,000	4,000	8,000	8,000
15,000	4,000	6,000	10,000	12,000
20,000	4,000	8,000	12,000	16,000
25,000	4,000	10,000	14,000	20,000

SELF-EVALUATION QUESTIONS:

A - Choose the best option:

1. Marginal costing is otherwise known as

    a) Standard costing

    b) Variable costing

c) Job costing

Answer : ____

2. Contribution is the difference between,

a) Fixed cost and Variable cost

b) Total cost and Variable cost

c) Sales and Variable cost

Answer : ____

B - Fill in the blanks with appropriate words.

1. Break even point is the point of no profit __________________ .

2. Margin of safety is the difference between ______________ and _________

3. When there is changes in the volume of production, Fixed expenses per unit is _______________ and variable expenses per unit is _______________ .

C - Short Answer Type:

1. What is P/V ratio? How is it calculated?

…….........………..........………………………………………………

2. What is Break Even Point? Give the formula for calculating break even point.

……………………………………………………………..…………........

11.10 SUMMARY

Marginal cost is the amount at any given volume of output by which aggregate costs are charged if the volume of output is increased by one unit.

Marginal costing is the technique of ascertaining marginal cost by differentiating the total cost into fixed and variable.

Marginal costing helps the management to take some important decisions like 'make or buy' 'purchase or produce' etc. It also helps to control the cost.

The study of cost-volume of sales-profit analysis is known as Break-Even-Analysis. Break even point is the point where total revenue is equal to total cost. It is the point of no profit no loss. Under Break even analysis expenses are classified into fixed and variable. Expenses that do not vary with the volume of production are known as fixed expenses. Expenses that vary in direct proportion with the volume of production or sales are called variable expenses.

Contribution is the difference between sales and variable cost.

Margin of safety is the excess of Present sales over the Break even sales.

Angle of incidence is the angle between the sales line and the total cost line at the Break Even Point.

P/V Ratio is the relationship between contribution to sales. It helps to find out the volume of sales for a desired level of profit.

Break Even Chart is the graphical representation of marginal costing.

11.11.1 ILLUSTRATION PROBLEMS

Illustration : 1

Prepare a Marginal Cost Statement from the following information:

	Rs.
Variable Cost:	
Direct Material	10,000
Direct Wages	5,000
Factory Expenses	2,500

	17,500
Fixed Cost:	
Administrative Expenses	2,000

Total Cost	19,500
Profit	5,500

Sales	25,000

Solution :

Marginal Cost Statement

Particulars	Rs.	Rs.
Sales		25,000
Less: Variable Costs :		
Direct Materials	10,000	
Direct Wages	5,000	
Factory Overheads	2,500	17,500
	-----------	-----------
Contribution		7,500
Less : Fixed Cost :		
Administrative Expenses		2,000

Profit		5,500

Illustration : 2

Determine the amount of Fixed expenses from the following.

Sales	Rs.2,00,000
Variable Cost	Rs.1,50,000
Profit	Rs.30,000

Solution :

Marginal Cost Statement

	Rs.
Sales	2,00,000
Less: Variable Cost	1,50,000

Contribution	50,000

Less: Fixed Cost (?)	20,000

Profit	30,000

Illustration : 3

From the following particulars, calculate the break-even point:

Variable cost per unit	Rs.12	
Fixed expenses	Rs.60,000	
Selling Price per unit	Rs.18	(B.Com. Calicut)

Solution :

$$\text{Break Even Point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

Contribution = Selling Price - Variable Cost. = 18 - 12 = 6

$$\text{B.E.P.(in units)} = \frac{60,000}{6} = 10,000 \text{ units.}$$

B.E.P. (in Rupees) = B.E.P. in units x Selling price per unit

= 10,000 units x Rs.18

= Rs.1,80,000

Illustration : 4

From the following particulars find out the Break Even Point. What will be the selling price per unit if B.E.P. is to be brought down to 9,000 units.

	Rs.
Variable cost per unit	75
Fixed Expenses	2,70,000
Selling price per unit	100

Solution :

$$\text{Break Even Point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

Contribution p.u. = Selling Price p. u. - Variable Cost p. u.

= 100 - 75 = 25

$$\text{B.E.P.(in units)} = \frac{2,70,000}{25} = 10,800 \text{ units.}$$

B.E.P. (in Rupees) = B.E.P.in units x Selling price per unti

= 10,800 units x Rs.100

= Rs.10,80,000

If the Break even point is to be brought down to 9,000 units, the fixed expenses should be recovered from 9,000 units in order to have no profit and no loss.

$$\text{Fixed Expenses per unit} = \frac{\text{Fixed Expenses}}{\text{No. of units}}$$

$$= \frac{2,70,000}{9,000} = \text{Rs.}30$$

When Break Even Sales is brought down to 9,000 units, the contribution will be Rs.30 per unit. The selling price per unit will be as follows.

Selling price = Fixed Expenses per unit + Variable Expenses per unit

= 30 + 75 = Rs.105

Illustration: 5

The following data are obtained from the records of a company:

	First Year	Second Year
	Rs.	Rs.
Sales	80,000	90,000
Profit	10,000	14,000

Calculate the Break Even Point.

Solution:

$$\text{B.E.P. (Sales)} = \frac{\text{Fixed Cost}}{\text{P/ V Ratio - pp}}$$

$$\text{P / V Ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100 = \frac{4{,}000}{10{,}000} \times 100 = 40\ \%$$

Fixed Cost = Contribution - Profit

$$\text{Fixed Cost} = 80{,}000 \times \frac{40}{100} - 10{,}000$$

$$= 32{,}000 - 10{,}000 = \text{Rs.}22{,}000$$

$$\text{B.E.P. (Sales)} = \frac{22{,}000 \times 100}{40} = \text{Rs.}55{,}000$$

Illustration : 6

Calculate P/V Ratio from the following:

Sales	Rs.10,00,000
Variable cost	Rs. 6,00,000
Fixed Cost	Rs. 1,00,000

Solution :

	Rs.
Sales	10,00,000
Less: Variable Cost	6,00,000
Contribution	4,00,000
Profit	2,00,000

$$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{4,00,000}{10,00,000} = 40\ \%$$

Illustration : 7

A ball pen manufacturer has developed a new ball per with unique features. His design development executive has suggested three possible retail prices viz.Rs.15 for Super Star; Rs.10 for Deluxe and Rs.7.50 for economy model. His marketing manger opines that the wholesalers and retailers have to be given at least 30 % discount.

The estimated fixed cost would be around Rs.70,000 and variable cost peer unit would be Rs.3.50. You are required to calculate:

i) Break Even Point for each model of ball pen.

ii) How much should the manufacturer sell in order to make a profit of Rs.21,000?

(B.B.A. Periyar University)

Solution :

Calculation of Contribution per unit.

Particulars	Super Star Rs.	Deluxe Rs.	Economy Rs.
Selling price per unit	15.00	10.00	7.50
Less: Discount at 30 %	4.50	3.00	2.25
Net Selling price per unit	10.50	7.00	5.25
Less: Variable cost per unit	3.50	3.50	3.50
Contribution per unit	7.00	3.50	1.75

$$\text{i) Break Even Point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

$$\text{Super Star} = \frac{70,000}{7} = \textbf{10,000 units}$$

$$\text{Deluxe} = \frac{70,000}{3.5} = \textbf{20,000 units}$$

$$\text{Economy} = \frac{70,000}{1.75} = \textbf{40,000 units}$$

iii) Sales of each model to earn a profit of Rs.21,000

$$\text{Sales required to earn a desired profit} = \frac{\text{Fixed Expenses + Desired Profit}}{\text{Contribution per unit}}$$

$$\text{Super Star} = \frac{91,000}{7} = \textbf{13,000 units}$$

$$\text{Deluxe} = \frac{91,000}{3.5} = \textbf{26,000 units}$$

$$\text{Economy} = \frac{91,000}{7} = \textbf{52,000 units}$$

Illustration : 8

From the following data, Calculate Break Even point expressed in terms of units and also the new B.E.P., if selling price is reduced by 10 %.

Fixed Expenses:

Depreciation	Rs.1,00,000
Salaries	Rs.1,00,000

Variable Expenses:

Materials	Rs.3 per unit
Labour	Rs.2 per unit
Selling Expenses	Rs.10 per unit

Solution :

$$\text{i) Break even point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

Contribution per unit = Sales - Variable cost

= 10 - (3 + 2) = 5

$$\text{B.E.P. (in units)} = \frac{2,00,000}{5} = 40,000 \text{ units.}$$

ii) Break Even Point when selling price is reduced by 10 %

New selling price 10 - 1 = Rs.9 ; Contribution = 9 - 5 = 4

$$\text{New Break Even Point} = \frac{2,00,000}{4} = 50,000 \text{ units}$$

Illustration : 9

P/V Ratio is 60 % and the marginal cost of the product is Rs.50. What will be the selling price?

Solution :

$$\text{Selling Price} = \frac{\text{Variable Cost}}{(100 - \text{P/V Ratio})} = \frac{\text{Rs.50}}{(100 - 60\ \%)} = \frac{50 \times 100}{40} = \text{Rs.125}$$

$$\text{Verification : P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{S - V}{S} \times 100$$

$$= \frac{125 - 50}{125} \times 100 = \frac{75}{125} \times 100 = 60\ \%$$

Illustration : 10

The following are the particulars related Madras Chemical Ltd.

Cost element	Variable Cost (% of sales)	Fixed Cost
Direct Material	32.8	
Direct labour	28.4	
Factory overheads	12.6	1,89,000
Distribution overheads	4.1	58,400
General and Administration overheads	1.1	66,700

Budgeted sales are Rs.18,50,000. You are required to determine:

i) the break even sales volume

ii) the profit at the budgeted sales volume

iii) the profit if actual sales

a) drop by 10 %

b) increase by 5 % from budgeted sales.

(B.Com. University of Madras)

Solution :

Total variable cost as % of sale = 79 %

Contribution = 100 - 79 = 21 %

$$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{100 - 79}{100} \times 100 = 21\ \%$$

Total Fixed Expenses = Rs.3,15,000

$$\text{i) Break even point(in sales)} = \frac{\text{Fixed Expenses}}{\text{P/V Ratio}}$$

$$= \frac{3,15,000}{21} \times 100 = \text{Rs.}15,00,000$$

ii) Profit = Sales x P/V Ratio - Fixed Cost

= (18,50,000 x 21%) - 3,15,000

= Rs.73,000

iii) a) Profit when actual sales are drop by 10 %

Actual Sales = 18,50,000

Less : 10% Drop in sales = 1,85,000

Revised Sales = 16,65,000

Profit = (16,65,000 x 21 %) - 3,15,000

= Rs.34,650

b) Profit when actual sales are increased by 5 %

Actual Sales = 18,50,000

Add : 5% Increase in sales = 92,500

Revised Sales = 19,42,500

Profit = (19,42,500 x 21 %) - 3,15,000

= Rs.34,650

Illustration : 11

You are required to calculate a) P/V Ratio b) Margin of Safety c) Sales d) Variable cost from the following figures.

Fixed Cost Rs.12,000; Profit Rs.1,000; Break Even Sales Rs.60,000

Solution :

a) P/V Ratio:

$$\text{Break Even Sales} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

$$60{,}000 = \frac{12{,}000}{\text{P/V Ratio}}$$

Adopting cross multiplication,

60,000 x P/V Ratio = Rs.12,000

$$\text{P/V Ratio} = \frac{12{,}000}{60{,}000} \times 100 = 20\ \%$$

$$\text{b) Margin of Safety} = \frac{\text{Profit}}{\text{P/V Ratio}}$$

$$= \frac{1{,}000}{20} \times 100 = \text{Rs.}5{,}000$$

c) Sales = Break Even Sales + Margin of Safety

= Rs.60,000 + Rs.5,000 = Rs.65,000

d) Variable cost

Sales = Rs.65,000

Contribution = Fixed cost + Profit

= 12,000 + 1000 = 13,000

Variable cost = Sales - Contribution

= Rs.65,000 - Rs.13,000 = Rs.52,000.

Illustration : 12

Calculate P/V Ratio from the following:

	Rs.
Sales	10,00,000
Variable cost	6,00,000
Fixed cost	2,00,000

Solution :

	Sales	10,00,000
Less	Variable cost	6,00,000

	Contribution	4,00,000
Less	Fixed Cost	2,00,000

	Profit	2,00,000

$$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$= \frac{4,00,000}{10,00,000} \times 100 = 40\ \%$$

Illustration : 13

From the following information related to Emerald Ltd., you are required to calculate i) P/V Ratio ii) Sales to earn a profit of Rs.2,50,000 and iii) Profit at a sale of Rs.10,00,000.

	Rs.
Sales	4,00,000
Variable cost	
Direct Material	1,00,000
Direct Labour	60,000
Variable overheads	40,000
Fixed cost	50,000

Solution :

Marginal Cost Statement

		Rs.
	Sales	4,00,000
Less	Variable cost	2,00,000

	Contribution	2,00,000

Less Fixed cost 50,000

Profit 1,50,000

$$\text{i) P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$= \frac{2,00,000}{4,00,000} \times 100 = 50\ \%$$

ii) Sales to earn a profit of Rs.2,50,000

$$\text{Sales} = \frac{\text{contribution}}{\text{P/V Ratio}}$$

$$\text{Sales to earn a profit of Rs.2,50,000} = \frac{\text{Fixed Cost + Desired Profit}}{\text{P/V Ratio}}$$

$$= \frac{50,000 + 2,50,000}{50\ \%}$$

$$= \frac{3,00,000 \times 100}{50} = \text{Rs.}6,00,000$$

iii) Profit = Contribution - Fixed cost

Contribution = Sales x P/V Ratio

$$= 10,00,000 \times \frac{50}{100} = \text{Rs.}5,00,000$$

Profit = 5,00,000 - 50,000 = Rs.4,50,000

Illustration : 14

The Sales and Profits during two years were as follows.

Year	**Sales**	**Profit**
	Rs.	Rs.

1987	1,50,000	20,000
1988	1,70,000	25,000

You are required to calculate

i) P/V Ratio

ii) Break Even Point

iii) The sales required to earn a profit of Rs.40,000

iv) The profit made when sales are Rs.2,50,000

v) Margin of Safety at a profit of Rs.50,000

vi) Variable costs of the two periods. (B.Com. University of Madras)

Solution :

i) P/V Ratio = $\frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100 = \frac{5,000}{20,000} \times 100 = 25\ \%$

Fixed Cost = Contribution of any level - Profit at that level

Contribution at Rs.1,50,000 Sales = $1,50,000 \times \frac{25}{100}$ = Rs.37,500

Fixed cost = 37,500 - 20,000 = 17,500

ii) Break Even Point = $\frac{\text{Fixed Cost}}{\text{P/V Ratio}}$

$= \frac{17,500}{25\ \%} = \frac{17,500 \times 100}{25}$ = Rs.70,000

iii) Sales to earn a profit of Rs.40,000

Sales = $\frac{\text{Fixed Cost + Desired Profit}}{\text{P/V Ratio}}$

$= \frac{17,500 + 40,000}{25\ \%} = \frac{57,500}{25} \times 100 =$ Rs.2,30,000

iv) Profit made when sales are Rs.2,50,000

Profit = Contribution - Fixed Cost

Contribution = Sales x P/V Ratio

$$= 2,50,000 \times \frac{25}{100} = Rs.62,500$$

Profit = Rs.62,500 - 17,500 = Rs.45,000.

v) Margin of Safety at a profit of Rs.50,000 = $\frac{\text{Profit}}{\text{P/V Ratio}}$

$$= \frac{50,000}{25\ \%} = \frac{50,000 \times 100}{25} = Rs.2,00,000$$

vi) Variable costs of the two periods

Variable costs = Sales - Contribution

Contribution = Sales x P/V Ratio

Year 1987 = 1,50,000 x 25 % = 37,500

Year 1988 = 1,70,000 x 25 % = 42,500

Variable cost Year 1987 = 1,50,000 - 37,500 = Rs.1,12,500

Year 1988 = 1,70,000 - 42,500 = Rs.1.27,500

Illustration : 15

The cost sheet of a product is given below:

	Rs.	Rs.
Direct Material		5.00
Direct Wages		3.00
Factory Overhead:		
Fixed	0.50	
Variable	0.50	
	------	1.00
Administrative expenses		0.75
Selling & Distribution Overhead:		
Fixed	0.25	
Variable	0.50	
	------	0.75

		10.50

Selling price per unit is Rs.12.00

The above figures are for an output of 50,000 units. The capacity of the firm is 65,000 units. A foreign customer is desirous of buying 15,000 units at a price of Rs.10 per unit.

Advise the manufacturer whether the order should be accepted. What will be your advise if the order were from a local merchant?

Solution :

Marginal cost statement for additional 15,000 units

	Per Unit	15,000 units
	Rs.	Rs.
Selling Price	10.00	1,50,000
Less : Marginal Cost :	Rs.	
Direct Material	5.00	
Direct Wages	3.00	
Variable Overhead:		
Factory	0.50	
Selling & Distbn.	0.50	
-----	9.00	1,35,000
	--------	-----------
Contribution	1.00	15,000
	--------	-----------

Decision :

The additional order from the foreign customer can be accepted. The fixed expenses have already been recovered from the local market. By accepting the additional order from the foreign customer, the contribution will be increased by Rs.15,000 and the market for the product will be expanded.

If the additional order is received from the local market at a price of Rs.10 per unit, it should not be accepted. Because the prevailing price in the local market is Rs.12 per unit. If the local order is accepted, it will affect the relationship with other customers and it will lead to reduction in price.

Illustration : 16

Present the following information to show clearly to management.

a) the marginal product cost and the contribution per unit.

b) the total contribution and profits resulting from each of the following mixtures.

Product	Price per unit		
			(Rs.)
	Direct Material	A	10
	Direct Material	B	9
	Direct Wages	A	3
	Direct Wages	B	2

Fixed Expenses Rs.800

Variable expenses are allotted to the products as 100% of direct wages

	Product	Price per unit (Rs.)
Sale Price	A	20
Sale Price	B	15

Sales Mixtures :

a) 100 units of Product A and 200 units of Product B

b) 150 units of Product A and 150 units of Product B

c) 200 units of Product A and 100 units of Product B

Solution :

Marginal Cost Statement

Particulars	Product A Rs.	Product B Rs.
Selling Price per unit	20	15
	--------------	-------------
Less: Variable Costs :		
Direct Materials	10	9
Direct Wages	3	2
Variable Expenses (100 % of wages)	3	2
	16	13
Contribution per unit	4	2

Sales Mixtures:

a) 100 units of product A and 200 units of Product B

Contribution :

Product A =	100 x 4	=	400
Product B =	200 x 2	=	400
Total Contribution			800

Less : Fixed Expenses			800

Profit			Nil
			-----

b) 150 units of product A and 250 units of Product B

Contribution :			
Product A =	150 x 4	=	600
Product B =	150 x 2	=	300

Total Contribution			900
Less : Fixed Expenses			800

Profit			Rs.100
			-----

c) 200 units of product A and 100 units of Product B

Contribution :			
Product A =	200 x 4	=	800
Product B =	100 x 2	=	200

Total Contribution			1,000
Less : Fixed Expenses			800

Profit			Rs.200

Decision :

In all the above three cases, the sales mixture (c), i.e., 200 units of Product A and 100 units of Product B gives the maximum profit, and it can be selected.

11.11.2 THEORETICAL QUESTIONS

A - Short Answer Type

1. Define Marginal cost and Marginal costing:
2. What is the importance of P/V Ratio?
3. What is Break even analysis?
4. What is Break even chart?

5. Write short not on a) Margin of safety
b) Angle of incidence.

B - Essay Type

1. Explain the features, advantages and demerits of marginal costing.
2. Write an essay on Break Even Analysis.

11.11.3 EXERCISE PROBLEMS

Exercise : 1

Prepare a Marginal Cost Statement from the following information:

	Rs.
Variable Cost:	
Direct Material	25,000
Direct Wages	10,000
Factory Expenses	5,000

	40,000
Fixed Cost:	
Administrative Expenses	6,000

Total Cost	46,000
Profit	4,000

Sales	50,000

Exercise : 2 Determine the amount of Variable Cost from the following.

Sales	Rs.5,00,000
Fixed Cost	Rs.2,00,000
Profit	Rs.1,00,000

(Answer: Variable Cost = Rs.2,00,000)

Exercise : 3

The following are related to a concern.

Variable cost per unit	Rs.15
Fixed Cost	Rs.54,000
Selling price per unit	Rs.20

What should be the selling price per unit if break even point is be brought down to 6,000 units? Calculate the break even sales.

(B.Com. Madurai Kamaraj University)
(Answer: BEP (in units) 10,800 units
BEP (in sales) Rs.2,16,000
Selling price if BEP is 6000 units = Rs.24)

Exercise : 4

Find the profit from the following data.

Sales	Rs.80,000
Marginal cost	Rs.60,000
Break Even Sales	Rs.60,000

(Answer: Profit = Rs.5,000)

Exercise : 5

From the following particulars, you are required to calculate:

i) P/V Ratio
ii) Break Even Points
iii) Profit when sales volume is Rs.2,00,000
iv) Sales required to get a profit of Rs.30,000

Year	Sales	Total Cost
1986	Rs.1, 62,000	Rs.1,50,000
1987	Rs.1,92,000	Rs.1,70,000

(B.Com. University of Madras)

Answer : i) 33.33 % ii) Rs.14,00,000 iii) Rs.24,660 iv) Rs.2,16,022)

Exercise : 6

The sales and profit during the two years were as follows.

	Sales	Profit
First year	Rs.2,00,000	Rs.20,000
Second year	Rs.3,00,000	Rs,40,000

Calculate a) P/V Ratio and b) Fixed cost

(B.Com. Calicut)

(Answer: P/V Ratio 20 %; Fixed cost Rs.20,000)

Exercise : 7

The following data relate to a concern for the successive periods.

Year	Sales	Profit
1996	Rs.2,00,000	Rs.60,000
1997	Rs.3,00,000	Rs.1,10,000

Calculate i) P/V Ratio ii) Fixed cost iii) Profit at a sale of Rs.4,00,000 iv) Sales to earn a profit of Rs.1,20,000.

(Answer: i) 50 % ii) Rs.40,000 iii) Rs.1,60,000 iv) Rs.1,60,000)

Exercise : 8

Following information has been made available for the cost records of Sudarsan Ltd.

Direct Materials	Per Unit
X	Rs.8
Y	Rs.6
Direct Wages	
X	24 hours at 25 paise per hour
Y	16 hours at 25 paise per hour
Variable Overhead	150 % of Wages
Fixed Overhead	Rs.750
Selling Price	
X	Rs.25
Y	Rs.20

The directors want to be acquainted with the desirability of adopting any one of the following alternative sales mixes in the budget for the next period.

a) 250 units of X and 250 units of Y

b) 400 units of Y only

c) 400 units of X and 100 units of Y

d) 150 units of X and 350 units of Y

State which of the alternative sales mixes you would recommend to the management?

(Answer : The alternative (d) is most profitable as it gives the maximum profit of Rs.950)

Profit of other alternatives: a) Rs.750 b) Rs.850 c) Rs.450

ANSWERS FOR SELF-EVALUATION QUESTIONS.

A - 1. (b) Variable costing

2. (c) Sales and Variable cost.

B - 1. no loss

2. Present Sales and Break even sales

3. Variable , Fixed .

C - 1. Profit Volume ratio is the relationship between Contribution to Sales. This ratio helps

to find out Break even point, and the volume of sales required at a desired level of profit.

$$\text{P/V Ratio} = \frac{\text{Fixed Expenses}}{\text{Sales}} \times 100$$

2. Break even point is a point where the total revenue is equal to total cost. It is a point of no profit no loss. Break even point can be calculated as follows.

$$\text{Break Even Point (in units)} = \frac{\text{Fixed Expenses}}{\text{Contribution per unit}}$$

$$\text{Break Even Point (in Rupees)} = \frac{\text{Fixed Expenses}}{\text{Contribution}} \times \text{Sales}$$

NOTES

Chapter - XII
STANDARD COSTING

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Self - Evaluation Questions
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Answers for Self-Evaluation Questions

13.0 INTRODUCTION

One of the important functions of management accounting is controlling cost and improving efficiency. To control the cost the management has to compare the actual cost with some pre-determined cost. Standard costing technique helps the management to control the cost by eliminating wastages and increasing efficiency.

12.1.1 MEANING OF STANDARD COST

The word 'Standard' refers a bench-mark or yardstick. Standard cost is a pre-determined cost which determines in advance what each product or service should cost under given circumstances.

12.1.2 MEANING OF STANDARD COSTING

The technique of using standard costs for the purposes of cost control is known as standard costing.

12.1.3 DEFINITION

According to ICMA, London, Standard Cost is, "a pre-determined cost, which is calculated from management standards of efficient operations and the relevant necessary expenditure".

ICMA, London defines Standard Costing as, "the preparation and use of standard costs, their comparison with actual costs and the analysis of variances to their causes and points of incidence".

12.2 STEPS INVOLVED IN STANDARD COSTING

1. Pre-determination of standard cost.
2. Recording of actual cost.
3. Comparison of actual cost with the standard cost.
4. Ascertaining and analysing reasons for variances.
5. Reporting to the management for taking necessary corrective measures.

12.3 OBJECTIVES OF STANDARD COSTING

1. Determining standards for various cost elements on the basis of management standards of efficient operations.
2. Recording of actual cost with the standard cost and finding out the variances if any.
3. Determining the efficiency and inefficiency by comparing the actual cost with the standard cost and finding out the variances if any.
4. Ascertaining reasons for variances.
5. Reporting to the management to remove the inefficiency by taking corrective measures.
6. It facilitates controlling cost by eliminating wastages and inefficiency.

12.4 ADVANTAGES OF STANDARD COSTING

1. Standard Costing enables the management in formulating price and production policy.
2. Standard Costing technique serves as a yardstick for measuring efficiency. It provides targets which can be used to compare the actual performance.
3. By comparing actual cost with the standard cost, variances are determined. This helps the management to identify the inefficiencies and to take corrective measures.
4. Standard costing reduces clerical work and presents only required information. This helps the management to interpret the information easily and usefully.
5. Standard costing facilitates management by exception. It helps management in concentrating its attention on cases where actual performance is less than the budgeted performance.
6. It helps in effective application of delegation of authority and responsibility. As a result, management can control the affairs of various departments effectively.
7. The setting of standards for different elements of costs make it possible to eliminate inefficiencies. This will help in cost reduction and enables better service to customers.
8. It helps in budgetary control and decision making.
9. As the inventory is valued at pre-determined cost, the valuation of inventory become easier.
10. It facilitates timely cost reports to management and this encourages all levels of management.

12.5 LIMITATIONS OF STANDARD COSTING

1. Standard Costing is an expensive technique which cannot be affordable by small concerns.
2. It is difficult to set correct standards. Improperly set standards can not give correct variations.
3. The pre-determined standards are affected by changes in circumstances and it becomes necessary to revise the standards. The revision of standard is a costly process.
4. It is difficult to differentiate variances between controllable and uncontrollable. The responsibility can be fixed only for controllable variances.
5. Standard costing can be used only in those concerns where standardized products are produced. It can not be applied where non-standardised products are manufactured.

6. If the standards are too high or rigid, employees will find it difficult to perform. It will adversely affect the morale of the employee.
7. Standard costing is not suitable for industries where production takes more than one accounting period.

12.6 STANDARD COSTING AND BUDGETORY CONTROL

Standard costing and budgetary control are used to control the cost by minimising the wastages and eliminating the inefficiencies. Budgetary control is essential to determine standard costs. Standard costing system is necessary for planning budgets. Both systems are complementary in nature and inter-related.

12.6.2 SIMILARITIES BETWEEN STANDARD COSTING AND BUDGETARY CONTROL.

1. The primary objective of both systems is pre-determination of cost.
2. In both the systems certain targets or standards are fixed.
3. In both the techniques the actual performance is compared with the targets.
4. Standard costing and Budgetary control systems are helpful to the management to ascertain the deviations or variances and to tale corrective measures.
5. Both the standard costing and the budgetary control techniques help the management in controlling the cost.

12.6.2 Distinction between standard costing and budgetary control

Standard Costing	Budgetary Control
1. Standard costing is more intensive as it is applied to manufacturing of a product or providing a service.	1. Budgetary control is more extensive, as it is dealing with the operation of the business as a whole.
2. Standard costs are based on the standards set by the management.	2. Budgets are set on the basis of present level efficiency.
3. Standard costing is related to the cost accounts.	3. Budgetary control is related to the financial accounts.
4. Standard costs are fixed on the basis of technical information.	4. Budgets are fixed on the basis of past records.
5. The standards are set up for expenditure only.	5. The scope of budgetary control is much wider than standard costing. Budgets are prepared for different functional departments.
6. It requires standardization of products.	6. It does not require standardization of products.
7. It cannot be operated without budgets.	7. It can be operated without standards.
8. In standard costing, the standards are set and an attempt is made to achieve these standards.	8. In budgetary control, the targets of expenditure are set and these targets cannot be exceeded.
9. Standards are for a unit of production.	9. Budgets are expressed in total amounts.
10. Standard costing cannot be used partially.	10. Budgetary control system can be applied wholly or partly.

12.7 STEPS INVOLVED IN ESTABLISING A SYSTEM OF STANDARD COSTING

The following are the preliminary steps to be taken for the establishment of a system of standard costing.

1. Determination of cost centre.
2. Classification and Codification of accounts.
3. Types of standards.
4. Organisation for Standard Costing.
5. Setting of Standards.

1. Determination of cost centre. A cost centre is a department or part of a department or a person or an item of equipment for which costs may be ascertained and used for the purpose of cost control. Establishment of cost

centre is necessary for fixing responsibilities and for defining the lines of authority.

2. Classification and Codification of Accounts.

Classification of Accounts is necessary and giving codes for each account enables speedy collection and analysis of accounts.

3. Types of Standard.

Depending upon the length of the operating period standards are established as follows.

i) Basic Standard: This standard is fixed for use unaltered over a long period. Basic standards remain constant for a long time. This is suitable for fixed expenses.

ii) Current Standard: ICMA, London defines it as, " a standard which is established for use over a short period of time and is related to current conditions." The period of current standard is normally one year and it is modified at regular intervals.

iii) Ideal Standard: Ideal standard can be attained under ideal conditions or most favourable conditions. This standard is not practicable because it assumes no wastage, no idle time, no inefficiency in the process of production.

iv) Expected Standard: This standard is based on expected conditions. ICMA, London defines it as, " the standard which is anticipated, can be attained during a future specified budget period". This standard is more realistic and practical.

v) Normal Standard: It is the standard based on normal condition during the past period. ICMA defines it as, " the average standard which, it is anticipated, can be attained over a future period of time, preferably long enough to cover one trade-cycle.

4. Organisation for standard costing.

The success of standard costing system will depend upon the setting of proper standards. In big companies a standard costing committee is formed for this purpose. The committee includes production manager, chief engineer and cost accountant. The cost accountant supplies all information for setting the standard and co-ordinates the costs of different departments. The committee may revise the standards according to the changing circumstances.

5. Setting for standards.

The standards should be fixed for each element of cost such as direct material, direct labour and overhead expenses.

In respect of direct material, standard must be established for material price, material usage and material wastage.

In respect of direct labour, standard must be established for standard labour efficiency and standard labour rate.

In case of overheads, separate standards must be established for fixed and variable expenses.

12.8 VARIANCE ANALYSIS

Variance means difference. The term variance in standard costing is referred to the difference between standard cost and actual cost.

ICMA defines variance as, "difference between a standard cost and the comparable actual cost incurred during a period".

Favourable and Adverse Variance

If the actual cost is less than the standard cost, it is known as Favourable Variance or positive variance. If the actual cost is more than the standard cost it is known as Unfavourable Variance or Adverse Variance.

Variance may be controllable and uncontrollable. Controllable variances are those which arise due to inefficiency of a cost centre (i.e., individual person or department). For example, excess usage of materials, excess time taken by a worker to complete his work etc. When variance is due to external reasons or factors beyond the control of the concerned person or department, it is known as uncontrollable variance.

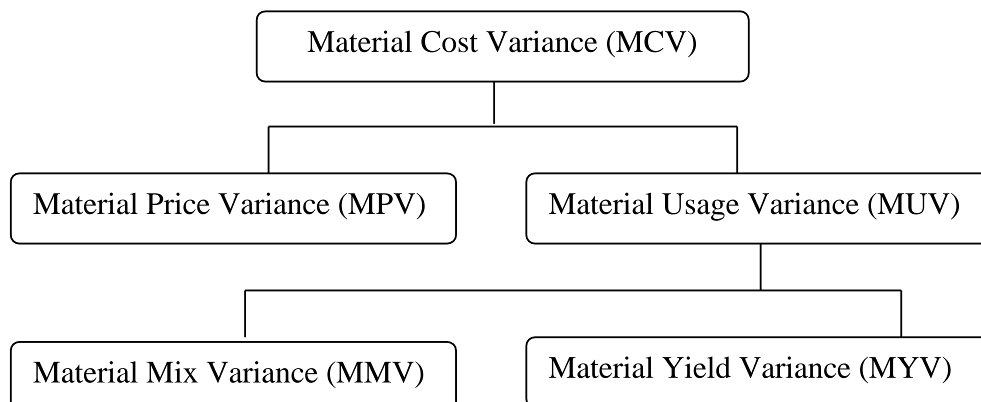
12.8.1 COMPUTATION OF VARIANCES

The computation of different types of variances are as follows.

1. Material cost variances.
2. Labour cost variances
3. Overhead cost variances and
4. Sales variances.

12.8.2 MATERIAL COST VARIANCES

The following are the different types of Direct material cost variances.



i) Material Cost Variance : It is the difference between Actual material cost and Standard material cost. This is due to changes in the price of material or change in the usage of materials.

MCV = (SQ x SP) - (AQ x AP)

= (Standard Quantity x Standard Price) - (Actual Quantity x Actual Price)

ii) Material Price Variance : This is the difference between Standard price specified and Actual price paid. This is due to changes in price of material, not availing trade and cash discounts etc. Material price variance can be calculated as follows.

MPV = (SP - AP) AQ

= (Standard Price - Actual Price) Actual Quantity

iii) Material Usage Variance : Material usage variance arises due to the difference between standard quantity specified and actual quantity used. This is due to careless handling of materials, defective equipments, theft of materials etc.

MPV = (SQ - AQ) SP

= (Standard Quantity - Actual Quantity) Standard Price.

iv) Material Mix Variance : Material mix variance is the difference between standard price of standard mix and the standard price of actual mix.

MMV = (RSQ - AQ) SP

= (Revised Standard Quantity-Actual Quantity) Standard Price.

$$RSQ = \frac{\text{Standard Quantity}}{\text{Total Standard Quantity}} \times \text{Total Actual Quantity}$$

v) Material Yield Variance : Material Yield Variance is the difference between the Standard yield specified and the Actual yield obtained. This is due to spoilage, chemical reaction etc.

MYV = (AY - SY) SR

= (Actual Yield - Standard Yield) Standard Rate.

$$\text{Standard Rate} = \frac{\text{Standard cost of Standard mix}}{\text{Net Standard Output}}$$

12.8.3 Labour Cost Variances

i) Labour Cost Variance = (SH x SR) - (AH x AR)

ii) Labour Rate Variance = (SR - AR) AH

iii) Labour efficiency Variance = (SH - AH) SR

iv) Labour Mix Variance = (RSH - AH) SR

$$RSH = \frac{\text{Standard Hours}}{\text{Total Standard Hours}} \times \text{Total Actual Hours}$$

v) Labour Yield Variance = (SY - AY) ASR per unit.

Abbreviations Used :

SH - Standard Hours AH - Actual Hours

SR - Standard Rate RSH - Revised Standard Rate

SY - Standard Yield AY - Actual Yield

ASR - Average Standard Rate.

12.8.4 Overhead Cost Variances

i)Overhead Cost Variance =(Standard overhead Rate - Actual overhead Rate) Actual Production.

ii) Overhead Budget Variance or Overhead Expenditure Variance = Budgeted Overhead - Actual Overhead

iii) Overhead Volume Variance = (Actual production - Budgeted production) Standard Rate p.u.

iv) Overhead Efficiency Variance = (Actual production-Standard production) Standard Rate p.u.

v)Overhead Capacity Variance = (Standard production-Budgeted production) Standard Rate p.u.

vi) Overhead Calendar Variance = (Revised Budgeted production - Budgeted production) Standard Rate p.u.

12.8.5 Sales Variances

i) Sales Value Variance = (Actual Quantity x Actual Price) - (Standard Quantity x Standard Price)

ii) Sales Price Variance = (Actual Price - Standard Price) Actual Quantity sold.

iii) Sales Volume Variance = (Actual Quantity - Standard Quantity) Standard Price

iv) Sales Mix Variance = (Actual Quantity - Revised Standard Quantity) Standard Price

SELF - EVALUATION QUESTIONS:

A - Choose the best option:

1. The difference between the standard cost and the actual cost is known as :

a) Profit b) Variance c) Marginal cost

Answer: ____

2. Standard costing cannot be applied where:

a) non-standardised products are manufactured

b) workers are slow

c) management is inefficient.

Answer : ____

B - Short Answer Type:

1.What is standard cost?

……………………………………………………………………………………

2. Write a short note on material cost variance:

……………………………………………………………………………………

3. What is current standard?

……………………………………………………………………………………

12. 9.0 SUMMARY

Standard cost is the pre-determined cost for a product under a given circumstance.

Standard costing is the technique of using standard costs for the purpose of cost control.

Standard costing involves pre-determination of Standard cost, Recording of actual cost, comparison of actual cost with standard cost, ascertaining and analysing reasons for variance and reporting management for corrective measures.

Standard costing helps the management to measure the efficiency, find out the deviations, control the cost and eliminate the inefficiencies.

Variance is the difference between standard cost and actual cost. Variances may be controllable and uncontrollable.

Different kinds of Material variances are: Material Cost Variance, Material Price Variance, Material Usage Variance, Material Mix Variance and Material Yield Variance.

12. 9.1 ILLUSTRATIVE PROBLEMS

Illustration : 1

Product X requires 50 kgs. of material at Rs.4 per kg. The actual consumption of material for the manufacturing of product X came to 60 kgs. of material at Rs.5 per kg. You are required to calculate:

i) Material Cost Variance

ii) Material Price Variance and

iii) Material Usage Variance

Solution :

i) Material Cost Variance (MMV)	=	Standard Cost - Actual Cost
	=	(SQ x SP) - (AQ x AP)
	=	(50 x 4) - (60 x 5)
	=	200 - 300 = Rs.100 Adverse(A)
ii) Material Price Variance (MPV)	=	(SP - AP) x AQ
	=	(4 - 5) x 60 = Rs.60 Adverse(A)
iii) Material Usage Variance (MUV)	=	(SQ - AQ) x SP
	=	(50 - 60) x 4 = Rs.40 Adverse(A)
Verification : MMV	=	MPV + MUV
Rs.100 (A)	=	Rs.60 (A) + Rs.40 (A)

Illustration : 2

The standard quantity of material and standard cost per kg. of material required for the production of one unit of product Y is as follows.

Material - 10 kgs.

Standard Price - Rs.20 / Kg.

The actual production and related material data area as follows.

500 units of product Y

Materials Used 5,500 kgs.

Price of materials Rs.18.50

You are required to calculate:

i) Material Cost Variance

ii) Material Price Variance and

iii) Material Usage Variance

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Solution :

Standard Quantity = 10 x 500 = 5,000 kgs. Standard Price = Rs.20

Actual Quantity = 5,500 kgs. Actual Price = Rs.18.50

i) Material Cost Variance (MMV) = Standard Cost - Actual Cost

= (SQ x SP) - (AQ x AP)

= (5000 x 20) - (5,500 x 18.50)

= 1,00,000 - 1,01,750 = Rs.1,750 Adverse(A)

ii) Material Price Variance (MPV) = (SP - AP) x AQ

= (20 - 18.5) x 5,500

= 1.50 x 5,500 = Rs.8,250Favour(F)

iii) Material Usage Variance (MUV) = (SQ - AQ) x SP

= (5,000 - 5.500) x 20

= -500 x 20 = Rs.10,000 Adverse(A)

Verification : MMV = MPV + MUV

Rs.1,750 (A) = Rs.8,250 (F) + Rs.10,000 (A)

Illustration : 3

From the following information compute material variances.

Material	SQ	SP	Total	AQ	AP	Total
	Kg.	Rs.	Rs.	Kg.	Rs.	Rs.
A	10	2	20	5	3	15
B	20	3	60	10	6	60
C	20	6	120	15	5	75
Total	50	4	200	30	5	15

Solution :

i) Material Cost Variance (MMV) = Standard Cost - Actual Cost

= (Std.Qty. x Std.Price) - (Actual Qty x Actual Price)

Material - A = (10 x 2) - (5 x 3) = 20 - 15 = Rs.5 (F)

Material - B = (20 x 3) - (10 x 6) = 60 - 60 = Nil

Material - C = (20 x 6) - (15 x 5) = 120 - 75 = Rs.45 (F)

Total Material Cost Variance = Rs.50 (F)

ii) Material Price Variance (MPV) = (Std. Price - Actual Price) x Actual Qty.

Material - A = (2 - 3) x 5 = (-1) x 5 = Rs.5 (A)

Material - B = (3 - 6) x 10 = (-3) x 10 = Rs.30 (A)

Material - C = (6 - 5) x 15 = 1 x 15 = Rs.15 (F)

Total Material Price Variance = Rs.20 (A)

iii) Material Usage Variance (MUV) = (Std. Qty. - Actual Qty.) x Std. Price

Material - A	=	(10 - 5) x 2	=	5 x 2	=	Rs.10 (F)
Material - B	=	(20 - 10) x 3	=	10 x 3	=	Rs.30 (F)
Material - C	=	(20 - 15) x 6	=	5 x 6	=	Rs.30 (F)

Total Material Usage Variance = Rs.70 (F)

iv) Material Mix Variance (MMV) = (Revised Std. Qty. - Actual Qty.) x Std. Price

$$\text{Where Revised Standard Quantity} = \frac{\text{Standard Quantity}}{\text{Total Standard Quantity}} \times \text{Total Actual Quantity}$$

Material - A Material - B Material - C

$$\text{Rev. Std. Qty.} = \frac{10}{50} \times 30 = 6 \text{ kg.} \quad \frac{20}{50} \times 30 = 12 \text{ kg.} \quad \frac{20}{50} \times 30 = 12 \text{ kg.}$$

Material Mix Variance:

Material - A	=	2 x (6 - 5)	=	2 x 1 =	Rs.2 (F)
Material - B	=	3 x (12 - 10)	=	3 x 2 =	Rs.6 (F)
Material - C	=	6 x (12 - 15)	=	6 x (-3) =	Rs.18 (A)

Total Material Mix Variance = Rs.10(A)

v) Material Sub-Usage Variance = Std. Price x (Std. Qty. - Revised Std. Qty.)

Material - A	=	2 x (10 - 6)	=	2 x 4 =	Rs.8 (F)
Material - B	=	3 x (20 - 12)	=	3 x 8 =	Rs.24 (F)
Material - C	=	6 x (20 - 12)	=	6 x 8 =	Rs.48 (F)

Total Material Sub-Usage Variance = Rs.80 (F)

Verification : a) MCV = MPV + MUV

Rs.50 (F) = Rs.20 (A) + Rs.70 (F)

b) MUV = MMV + MSUV

Rs.70 (F) = Rs.10 (A) + Rs.80 (F)

Illustration : 4

The standard material cost for 100 kg. of Chemical D is made up of:

Chemical A - 30 kg. at Rs.4 per kg.

Chemical B - 40 kg. at Rs.5 per kg.

Chemical C - 80 kg. at Rs.6 per kg.

In a batch, 500 kg. of chemical D were produced from a mix of

Chemical A - 140 kg. at a cost of Rs.588

Chemical B - 220 kg. at a cost of Rs.1,056

Chemical C - 440 kg. at a cost of Rs.2,860

How do the yield, mix and the price factors contribute to the variance in the actual cost per 100 kg. of chemical X over the standard cost?

Solution :

The variance are to be calculated per 100 kg. of Chemical X. The actual data are given for production of 500 kg. For the production of 100 kg., the actual quantity will be:

Chemical A	Chemical B	Chemical C
$\frac{140 \text{ kg.}}{500} \times 100 = 28$ kg.	$\frac{220 \text{ kg.}}{500} \times 100 = 44$ kg.	$\frac{440 \text{ kg.}}{500} \times 100 = 88$ kg.

Actual Price per Kg. $\frac{588}{140}$ = Rs.4.20 $\frac{1,056}{220}$ = Rs.4.80 $\frac{2,860}{440}$ = Rs.6.50

i) Material Cost Variance (MMV) = Standard Cost - Actual Cost

= (Std.Qty. x Std.Price) - (Actual Qty x Actual Price) Chemical - A

= (30 x 4) - (28 x 4.20)

= 120 - 117.60 = Rs.2.40 (F)

Chemical - B = (40 x 5) - (44 x 4.80)

= 200 - 211.20 = 11.20 (A)

Chemical - C = (80 x 6) - (88 x 6.50)

= 480 - 572 = Rs.92 (A)

Total Material Cost Variance = Rs.100.80 (A)

----

ii) Material Price Variance (MPV) = (Std. Price - Actual Price) x Actual Qty.

Chemical - A	=	(4 - 4.20) x 28	=	Rs.5.60 (A)
Chemical - B	=	(5 - 4.80) x 44	=	Rs.8.80 (F)
Chemical - C	=	(6 - 6.50) x 88	=	Rs.44 (A)

Total Material Price Variance = Rs.40.80 (A)

----

iii) Material Usage Variance (MUV) = (Std. Qty. - Actual Qty.) x Std. Price

Chemical - A = (30 - 28) x 4 = Rs.8 (F)

Chemical - B = (40 - 44) x 5 = Rs.20 (A)

Chemical - C = (80 - 88) x 6 = Rs.48 (A)

Total Material Usage Variance = Rs.60 (A)

----

iv) Material Mix Variance (MMV) = (Revised Std. Qty. - Actual Qty.) x Std. Price

$$\text{Where Revised Standard Quantity} = \frac{\text{Standard Quantity}}{\text{Total Standard Quantity}} \times \text{Total Actual Quantity}$$

Total Standard Quantity = 30 + 40 + 80 = 150 kg.

Total Actual Quantity = 28 + 44 + 88 = 160 kg.

	Material - A	Material – B	Material - C
Rev. Std. Qty. =	$\frac{30}{150} \times 160$ = 32 kg.	$\frac{40}{150} \times 160$ = 42.67 kg.-	$\frac{80}{150} \times 160$ = 85.33 kg.

Material Mix Variance:

Chemical - A = (32 - 28) x 4 = 4 x 4 = Rs.16 (F)

Chemical - B = (42.67 - 44) x 5 = -1.33 x 5 = Rs.6.65 (A)

Chemical - C = (85.33 - 88) x 6 = -2.67 x 6 = Rs.16.02 (A)

Total Material Mix Variance = Rs.6.67 (A)

----

v) Material Sub-Usage Variance = (Std. Qty. - Revised Std. Qty.) x Std. Price

Chemical - A = (30 - 32) x 4 = -2 x 4 = Rs.8 (A)

Chemical - B = (40 - 42.67) x 5 = -2.67 x 5 = Rs.13.35 (A)

Chemical - C = (80 - 85.33) x 6 = - 5.33 x 6 = Rs.31.98 (A)

Total Material Sub-Usage Variance = Rs.53.33 (A)

Verification : a) MCV = MPV + MUV

Rs.100.80(A) = Rs.40.80 (A) + Rs.60 (A)

b) MUV = MMV + MSUV

Rs.60(A) = Rs.6.67 (A) + Rs.53.33 (A)

Illustration : 5

From the following information, calculate the materials mix variance.

Materials	Standard	Actual
A	200 units @ Rs.12	160 units @ Rs.13
B	100 units @ Rs.10	140 units @ Rs.10

Due to shortage of material A, it was decided to reduce consumption of A by 15 % and increase that of material B by 30 %.

Solution :

Material Mix Variance (MMV)= (Revised Std. Qty. - Actual Qty.) x Std. Price

$$\text{Where Revised Standard Quantity} = \frac{\text{Standard Quantity}}{\text{Total Standard Quantity}} \times \text{Total Actual Quantity}$$

Material A : $\frac{200}{300} \times 300$ = 200

LESS : Reduction in consumption by 15 % = 30

-----

170 units

Material B: $\frac{100}{300} \times 300$ = 100

ADD : Increase in consumption by 30 % = 30

-----

130 units

Material Mix Variance :

Material A= (170 - 160) 12 = 120 (F)

Material B= (130 - 140) 10 = 100 (A)

Total Material Mix Variance = 20 (F)

Illustration : 6

X Ltd. produces a certain product. The standard material cost being,

30 % of material X at Rs.50 per kg.

70 % of material Y at Rs.90 per kg.

A standard loss of 15 % is expected in production. During the month of January 500 Kgs. of material X and Y were mixed. 200 Kg. of material X at Rs.55 and 300 kg. of material Y at Rs.80 per kg. and produced 50 kg of kg of material.

Calculate the following variances for the month of January:

a) Material Cost Variance

b) Material Price Variance

c) Material Usage Variance

d) Material Mix Variance

e) Material Usage Variance

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Solution :

Material Standard Quantity Standard Price Actual Quantity Actual Price

XY(-) Normal Loss 15% 150350 5090Actual Loss 200300 5580

50075 50050

425 450

a) Material Cost Variance = (Std.Qty x Std.Price) - (Actual Qty. x Actual Price)

Material X = (150 x 50) - (200 x 55) = 7,500 - 11,000 = Rs.3.500(A)

Material Y = (350 x 90) - (300 x 80) = 31,500 - 24,000 = Rs.7,500 (F)

Total Material Cost Variance = Rs.4,000 (F)

----

b) Material Price Variance = (Standard Price - Actual Price) x Actual Quantity

Material X = (50 - 55) x 200 = (-50) x 200 = Rs.1,000 (A)

Material Y = (90 - 80) x 300 = 10 x 300 = Rs.3,000 (F)

Total Material Price Variance = Rs.2,000 (F)

----

c) Material Usage Variance = (Standard Quantity - Actual Qty.) x Standard Price

Material X = (150 - 200) x 50 = (-50) x 50 = Rs.2,500 (A)

Material Y = (350 - 300) x 90 = 50 x 90 = Rs.4,500 (F)

Total Material Usage Variance = Rs.2,000 (F)

----

d) Material Mix Variance = (Revised Std. Qty - Actual Qty.) x Standard Price

$$\text{Revised Standard Quantity} = \frac{\text{Standard Quantity}}{\text{Total Standard Quantity}} \times \text{Total Actual Quantity}$$

$$X = \frac{150}{500} \times 500 = 150 \qquad Y = \frac{350}{500} \times 500 = 350$$

Material Mix Variance:

Material X = (150 - 200) x 50 = (-50) x 50 = Rs.2,500 (A)

Material Y = (350 - 300) x 90 = 50 x 90 = Rs.4,500 (F)

Total Material Mix Variance = Rs.2,000 (F)

----

e) Material Yield Variance = (Actual Yield - Standard Yield) x Standard Price

$$\text{Where Standard Price} = \frac{\text{Total Standard Material Cost}}{\text{Total Standard Material Quantity}}$$

$$= \frac{(150 \times 50) + (350 \times 90)}{425} = \frac{7,500 + 31,500}{425} = \frac{39,0000}{425} = 92$$

Material Yield Variance = (450 - 425) x 92 = 25 x 92 = Rs.2,300 (F)

12.9.3 THEORETICAL QUESTIONS

A - 1.Short Answer Type :

1. Define Standard Costing.
2. What are the steps involved in standard costing?
3. What are the objectives of Standard costing?
4. What is Ideal Standard?
5. What is Variance Analysis?

B - Essay Type Questions:

1. What are the advantages and limitations of Standard Costing?
2. Compare Standard costing and Budgetary control and bring out the differences between the two.
3. Explain the steps involved in establishing a system of standard costing.
4. What are the various types of standards under standard costing system?
5. Explain different types material variances.

12.9.3 EXERCISE PROBLEMS

Exercise :1

Product X requires 100 kgs. of material at Rs.10 per kg. The actual consumption of material for the manufacturing of product X came to 120 kgs. of material at Rs.12 per kg. You are required to calculate:

i) Material Cost Variance

ii) Material Price Variance and

iv) Material Usage Variance

Exercise : 2

Standard mix for the production of 'X'

Material A : 60 tonnes @ Rs.4 per tonne

Material B : 40 tonnes @ Rs.10 per tonne

Actual Mixture being:

Material A 80 tonnes @ Rs.4 per tonne

Material B 70 tonnes @ Rs.8 per tonne

You are required to calculate

a) Material Price Variance (MPV)

b) Material Sub-Usage Variance (MSUV) and

c) Material Mix Variance (MMV)

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Ans.: a) MPV : A - 80 (F) B - (140) (F)

b)MSUV : A - 150 (A) B - 200 (A)

c)MMV : A - 50 (F) B - 100 (A)

Exercise : 3

From the following information, calculate a) Material Price Variance b) Material Cost Variance and C) Material Mix Variance.

Material	SQ	SP	AQ	AP
	Kg.	Rs.	Kg.	Rs.
A	15	5	13	5.5
B	10	4	10	5.0
C	5	3	7	3.5
	----		----	
	30		30	
	----		----	

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Answer : a) MCV : A - 3.5 F B - 10 A C - 9.5 A

b) MPV : A - 6.5 A B - 10 A C - 3.5 A

c) MMV : A - 10 F B - Nil C - 6 A

Exercise : 4

The standard quantity and standard price of raw material required for one unit of product A are given below.

	Quantity	Standard Price
Material X	2 Kgs.	Rs.3 per Kg.
Material Y	4 Kgs.	Rs.2 per Kg.

The Actual production and relevant data are as follows.

Output 500 units of product A

	Total Qty. for 500 units	Total Cost
Material X	1,200 Kgs.	Rs.3,900
Material Y	1,800 Kgs.	Rs.4,500

Calculate Material Cost, Price and Usage Variances.

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Answer : a) MCV : X - 900 A Y - 500 A

b) MPV : X - 300 A Y - 900 A

c) MUV : X - 600 A Y - 400 F

ANSWERS FOR SELF-EVALUATION QUESTIONS:

A - 1. (b) Variance

2. (a) non-standardised products are manufactured.

B - 1. Standard cost is a pre-determined cost which determines in advance what each product or service should cost under given circumstances.

2. Material Cost Variance is the difference between Standard material cost and Actual material cost.

3. Current standard: A standard which is established for use over a short period of time and is related to current conditions.

NOTES