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KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

Housefed Complex, Dispur, Guwahati - 781 006

Master of Computer Applications

MANAGEMENT ACCOUNTING

CONTENTS

UNIT - 1 Fundamentals of Accounting

UNIT - 2 Financial Statements

UNIT - 3 Accounting Ratio and Cash Flow Statement

UNIT - 4 Cost Concepts and Cost Sheet

UNIT - 5 Budgetary Control and Marginal Costing

UNIT - 6 Capital and Working Capital

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MASTER OF COMPUTER APPLICATIONS

MANAGEMENT ACCOUNTING

DETAILED SYLLABUS

Unit 1 : Fundamentals of Accounting (Marks: 15)

Meaning of Accounting, its scope; Objects and limitations; Meaning and application of double entry system , Books of Accounts , Ledgers - Debtors ledger, Creditors ledgers and General ledger; Cash Book and Bank Reconciliation Statement.

Unit 2 : Financial Statements (Marks: 15)

Meaning and Components of Financial statements, Preparation of Financial Statements, Trading Account, Profit and loss Account, Meaning and Purpose of Balance Sheet, Steps for preparation of Balance Sheet, Marshalling of Balance Sheet, Format of Balance Sheet

Unit 3 : Accounting Ratio and Cash Flow Statement (Marks: 20)

Ratio Analysis, Objectives of Ratio Analysis, Classification of Accounting Ratios, Advantages of Ratio Analysis, Analysis of Financial Statement through Ratios, Cash Flow Statement, Meaning of Cash Flow Statement, Importance of Cash Flow Statement, Cash Flow Statement as per as 3, Illustration Preparation of Cash Flow Statement

Unit 4 : Cost Concepts and Cost Sheet (Marks: 15)

Meaning of Cost, Classification of Cost, Various Cost Concepts, Cost Centre, Types of Cost Centres, Cost Unit, Elements of Costs, Cost Sheet

Unit 5 : Budgetary Control and Marginal Costing (Marks: 20)

Meaning of Budget, Purpose of Budget, Budgetary Control: Meaning and Essentials, Merits OF budgetary Control system, Steps in preparation of budgets, Classification of budgets, Standard cost and standard costing, Variance analysis, Marginal cost and marginal costing, Advantages of marginal costing, Managerial Application of marginal costing, Break Even Analysis

Unit 6 : Capital and Working Capital (Marks: 15)

Meaning of capital, cost of capital, shares, debentures, capitalisation and capital structure;

Meaning of working capital, its components and estimation

COURSE INTRODUCTION

This is a course on ***Management Accounting.***

With the fast changing global economic scenario and business environment and technology in a state of continuous flux, elementary business education along with accountancy as the language of business and as a source of financial information has carved out a place for itself not only for commerce but in other branches of education also, like engineering, computer etc. Its syllabus contents for the present course give students a firm foundation in basic accounting covering financial accounting, cost accounting and management accounting.

Against this background, the course puts emphasis on developing basic understanding about the nature and purpose of the accounting information and its use in the conduct of business operations. This would help to develop among students' logical reasoning, careful analysis and considered judgement.

The course is divided into six units :

Unit - 1 deals with the fundamental concepts of accounting including its scope; objects, limitations and ledgers.

Unit - 2 concentrates on preparation of financial statements of sole proprietorship business; corporate annual report.

Unit - 3 includes accounting ratios and cash flow statement.

Unit - 4 deals with cost concepts, cost centres and cost units, elements cost, preparation of cost sheet.

Unit - 5 includes budget and budgetary control , meaning of standard costs and variance analysis, break even analysis.

Unit - 6 concentrates on meaning of capital, cost of capital, shares, debentures, capitalisation and capital structure etc.

Each unit of these blocks includes some along-side boxes to help you know some of the difficult, unseen terms. Some "EXERCISE" have been included to help you apply your own thoughts. You may find some boxes marked with: "LET US KNOW". These boxes will provide you with some additional interesting and relevant information. Again, you will get "CHECK YOUR PROGRESS" questions. These have been designed to self-check your progress of study. It will be helpful for you if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with "ANSWERS TO CHECK YOUR PROGRESS" given at the end of each unit.

UNIT- 1 FUNDAMENTALS OF ACCOUNTING

UNIT STRUCTURE

1.1 Learning Objectives
1.2 Introduction
1.3 Meaning of Accounting
1.4 Scope of Accounting:
1.5 Objects of Accounting
1.6 Limitation of Accounting
1.7 Double Entry System
1.8 Books of Accounts
1.9 Ledger and its Classification
1.10 Cash Book and Pass Book
1.11 Bank Reconciliation Statement
1.12 Let Us Sum Up
1.13 Answers to Check Your Progress
1.14 Further Readings
1.15 Model Questions

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- define the meaning and nature of book-keeping;
- explain the important terms used in book-keeping;
- analyse and identify transactions for recording purpose;
- explain the importance of vouchers in book-keeping;

1.2 INTRODUCTION

Business activities usually increase with their growth in size and volume. As they grow it becomes impossible for a businessman to keep in memory all such activities for a long period of time. Hence, the recording of these

activities is necessary. If you are a businessman, keeping accurate and organised records is vital to the success of your business. From such records, the businessman can ascertain the amount receivable from various parties, or the amount payable to the suppliers of goods from the records. He can also ascertain the result of the business and the financial position of his business at the end of a given period. Besides, he can use such information as needed to get finance from the banks. From memory it is not possible to do all these unless proper records are maintained. Accounting takes care of all these functions.

In this unit we shall discuss the meaning of Accounting, its scope, objects and limitation, meaning and application of double entry system, Books of Accounts, Cash Book and Bank Reconciliation Statement.

1.3 MEANING OF ACCOUNTING

Accounting refers to the system involved in making a financial record of business transactions and in the preparation of statements concerning the assets, liabilities, capital and operating results of the business. It deals with ascertainment of business income and values of assets, liabilities and capital. Again, 'Accounting' in business is conceived as a system that provides information on the financial condition and the transactions which have led to that status. This system starts with recording of business transactions and ends with interpreting the results thereof. Accountants engage themselves in recording business transactions and in preparing financial statements. They also provide information on costs and gains from new technologies, mergers and acquisitions; track financial performance, tax strategy, and health care benefits etc to the management. Hence accounting is defined by the Committee on Terminology of the American Institute of Accountants (later on known as American Institute of Certified Public Accountants, AICPA) as,

"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."

1.4 SCOPE OF ACCOUNTING

Accounting covers the following areas:

1. Recording of business transactions and maintenance of the books of account,
2. Preparation of accounts,
3. Preparation of Trial Balance,
4. Preparation of financial statements, viz., trading account, profit and loss account, balance sheet, cash flow statement,
5. Interpretation of the operating and financial results,
6. Preparation of the reports for the management.

1.5 OBJECTS OF ACCOUNTING

Keeping in view the above scope, the objects of accounting may be listed out as below:

1. To record business transactions,
2. To maintain proper books of account,
3. To prepare the required accounts,
4. To prepare Trial Balance to ensure arithmetical accuracy,
5. To find out values of assets and liabilities.
6. To ascertain the amount of capital,
7. To prepare financial statements, viz., trading account, profit and loss account, balance sheet, cash flow statement,
8. To interpret the operating and financial results,
9. To prepare the reports for the use by management.

CHECK YOUR PROGRESS - 1

1. Explain the meaning of Accounting.

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1.6 LIMITATIONS OF ACCOUNTING

The following are the limitations of accounting:

(i) Recording of transactions is possible if it is a financial transaction. So the important limitation of accounting is that it fails to record non-monetary transactions.

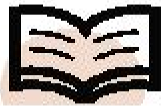
(ii) Accounting assumes no inflation. In other words, it does not take increase or decrease in money value.

(iii) Accounting is based on certain principles which may vary from time to time or place to place. This limits the comparability of accounting information among business units.

(iv) In accounting provision or reserves are maintained which are estimated on certain assumptions. This may lower the acceptability of accounting information.

1.7 DOUBLE-ENTRY SYSTEM

After knowing what accounting is, you should know the system of accounting. The mostly used and universally recognised system of accounting is **Double-entry system.**



The system of accounting under which the two aspects of a transaction, called Debit and Credit,are recorded in the books of account is known as 'Double-entry system'.

The **Double-entry system** of accounting is based on Dual Aspect concept. According to this concept, every financial transaction involves two – fold aspect – (a) receiving of a benefit (b) giving of a benefit. For example, if a business has acquired an asset, it must have given up some other asset such as cash. Thus a giver necessarily implies a receiver and a receiver necessarily implies a giver. These two aspects are known as '**Debit**' aspect and **'Credit'** aspect.

Thus, Double entry system states that each transaction has two fold aspects, debit and credit. The effects of these two fold aspects are opposite in nature. If one aspect, called account, receives a benefit, there must be another aspect or an account to impart that benefit. *The system of accounting under which both the aspects of every transaction is recorded in the books of account is known as 'Double-entry system'.* Under this system, every transaction is recorded in an accounting format having two sides namely left hand side and right hand side. For a transaction, the account which receives the benefit is called a debtor and it is recorded on the left hand

side of the format which, and known as debit side. At the same time, the other account of the transaction, which imparts the benefit is known as a creditor and is recorded on the right hand side of the accounting format and which is known as credit side. That is why this system is known as Double entry system. Under this system of book keeping for each transaction the debit must be equal to the credit amount. Now let us recapitulate the rules for debit and credit very briefly.

The rules for 'Debit' and 'Credit' as applicable under Modern approach

Sl.no.	Type of Account	To be debited when	To be credited when
(a)	Assets Account	Increase	Decrease
(b)	Liabilities Account	Decrease	Increase
(c)	Capital Account	Decrease	Increase
(d)	Revenue Account	Decrease	Increase
(e)	Expense Account	Increase	Decrease
(f)	Drawings Account	Increase	Decrease

Rules for debit and credit are as under *English Approach*:

i. **In case of Personal Accounts**:
Debit : the Receiver of the benefit
Credit : the Giver of the benefit

ii. **In case of Real Account**:
Debit : What comes in.
Credit : What goes out.

iii. **In the case of Nominal Accounts**:
Debit : Expenses and Losses.
Credit : Gains and Incomes.

Practical application of the principle of Double Entry:

All business transactions involve the transfer of value in the form of money, goods or services from one party to another. So, it involves two parties. One party gives some benefit while the other party receives the benefit of an equivalent value. For the purpose of recording, the transactions are analysed further to ascertain the two aspects affected by each

transaction. The most important point to be kept in mind at this stage is that for the purpose of recording, a transaction is required to be analysed from the point of view of the party in whose books of accounts the recording is to be made. This analysis is required in order to ascertain the accounts affected by the transaction.

For example, Mr. A paid Rs. 500 to Mr. B. Now the point to be consider is in which books of account the recording is to be made? If the recording is to be made in the books of 'A', from his point of view, we find that Cash has gone out and 'B' has received the same. Therefore, the two fold aspects are cash and 'B'. Since an account is maintained for each type of asset and the person to receive the benefit is 'B', the accounts affected are cash Account and the Account of B. Under double entry system recording will be in both the cash account and in the account of B.

Thus, every transaction has two aspects, viz.

(i) The receiving of value on the one hand and

(ii) The giving of the same value on the other hand.

Both the receiving and giving aspects take place between the 'two account heads' of each party involved in the transactions.

1.8 BOOKS OF ACCOUNTS

The book, which contains accounts, is known as the Books of Accounts. In other words, it means the khata or books in which the businessman keeps the records of business transactions.

Normally transactions are recorded in two sets of books step by step. Transactions are first recorded in **Journal,** which is also known as **'book of original entry'** or '**Primary Books'**.. The next step of recording of transactions is in Ledger, which is also known as **'book of final entry'** or '**Secondary Books'**. These Books of accounts are specially printed and ruled books where the accounts of a firm can be written up.

In Journal transactions are recorded as and when they occur in chronological order (in order of date) from source documents. Recording in journal is made showing the accounts to be debited and credited in a systematic manner. Thus, the journal provides a date-wise record of all the transactions with details of the accounts and amounts debited and credited for each transaction with a short explanation, which is known as **narration**.

Firms having limited number of transactions record those in journal and from there post these to the concerned ledger accounts. Firms having large number of transactions, maintain some special purpose journals such as, Purchase Book, Sales Books, Returns books, Bills Book, Cash Book, Journal proper etc.

The format of Journal is sub-divided into five columns. These five columns are (i) Date (ii) Particulars (iii) Ledger Folio (L/F) (iv) Debit amount and Credit amount.

CHECK YOUR PROGRESS - 2

1. Define 'Double-entry system' book keeping.

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1.9 LEDGER AND ITS CLASSIFICATION

Ledger is a book of account which contains a condensed and classified record of all transactions of the business posted from the journal. It is also called the **book of final entry.** In other words, the book, which contains accounts, is known as the **ledger**. It is also called the Principal Book. Ledger provides necessary information regarding various accounts. Personal accounts in ledger show how much money firm owes to the creditors and the amount it can recover from its debtors. The real accounts

show the value of properties and also the value of stock. Nominal accounts reflect the sources of income and also the amount spent on various items.

In accounting all transactions are ultimately recorded in the ledger. In this book, separate accounts are opened for each 'account head' and all transactions relating to a particular 'account head' will be posted in the concerned account. An account for each person, each type of revenue, expense, assets and liability is opened in the ledger. For example, all transactions relating to a particular supplier, say Vivek, will be posted to the account of Vivek. This helps in ascertaining the amount due to Vivek.

Ledger is generally maintained in the form of a bound register. First few pages of the ledger have ordinary horizontal ruling for indexing. The remaining pages are ruled like an account and is consecutively numbered. The index pages are used for writing the names of accounts and the Folio No. (Page No.) where a particular account has been opened for easy location. The ledger may also be maintained in loose-leaf form instead of one bound book

Sub-divisions of Ledger:

Ledgers may be sub-divided in the following manner:

A. Personal Ledger
   (i) Debtors' ledger or Sales Ledger and
   (ii) Creditors' ledger or Bought Ledger.
B. General or Nominal Ledger.

These are explained below:

(A) Personal Ledger: The ledger which contains the accounts of persons, firms or organisations to whom goods are sold on credit or from which goods are bought on credit, is known as personal ledger. Generally personal ledgers are sub-divided into

(i) Debtors' ledger or Sales Ledger and
(ii) Creditors' ledger or Bought Ledger.

(i) Debtor' ledger or Sales ledger: In this ledger, the accounts of all Debtors for goods sold are maintained. Posting is made from Sales Day Book, Purchase Returns Book, Cash Book, Bills Receivable Book and Journal Proper for the transactions affecting the accounts of Debtors.

(ii) Creditors' Ledger or Bought Ledger: In this ledger, the accounts of all Creditors for goods purchased are maintained. Posting is made from Purchases Day Book, Purchase Returns Book, Cash Book, Bill Payment Book and Journal proper for the transactions affecting the accounts of Creditors.

(B) General Ledger: This ledger contains all accounts other than the accounts of Debtors and Creditors for goods. All accounts falling in the category of Assets, Liabilities (except debtors and creditors for goods), Capital, Revenue and Expense are maintained in this proper ledger. For example, if a machine is sold to Ram on credit, his account will appear in General Ledger; again, if goods are sold to him on credit, his account will appear in the Debtors' Ledger. General Ledger is also known as Impersonal Ledger or Nominal Ledger.

Format of a Ledger Account:

There are two types of forms for writing up Ledger Accounts namely
(a) Horizontal form and
(b) Vertical or 'T' form. These are discussed below.

(a) Horizontal Ledger Account is ruled out as follows:

"AB & Co" Account

Date	Particulars	J. F	Debit Amount (Rs.)	Credit Amount (Rs.)	Debit or Credit	Balance(Rs.)

In this form of ledger, balance is ascertained after every transaction. This method is generally used in bank. Where the accounts are maintained in computers through the use of accounting software like Tally, accounts are also prepared in this from.

(b) A vertical or 'T' shaped form is ruled as under :

"AB & Co" Account

Dr. **Cr.**

Date	Particulars	J. F.	Amount (Rs.)	Date	Particulars	J. F.	Amount (Rs.)
1	2	3	4	1	2	3	4

Closing and Opening Balance

The balances of account ascertained at the end of a particular period are known as closing balances. These balances become the opening balances in the next period. While balancing an account; if Debit side is found to be heavier, the balance is called 'Debit balance' and if Credit side is found to be heavier, the balance is called 'Credit balance'

1.10 CASH BOOK AND PASS BOOK

Every organization requires cash for its various activities. So it has to keep proper account of cash received and cash expended. Most of the business transactions relate to receipt of cash, payments of cash, sale of goods and purchase of goods. So it is necessary to have proper books for each of such transactions. Cash book is a subsidiary book which records the receipts and payment of cash. With the help of cash book cash and bank balance can be checked at any point of time.

In order to deposit, receive, withdraw, and pay any amount through a bank, an account is opened in the bank. The account holder as well as the bank keeps records of all such deposits and withdrawals. Records of such deposits and withdrawals are made known to the accountholder by the bank through a book. This book is called Pass Book. The account holder cannot make entries in the pass book but he can verify the entries with his records in the cash book.

Types of cash book:

The type of cash book is dependent upon the type of transactions we want to record in it. Thus the types of cash book may be as below:

(A) Single column Cash Book
1. Cash book having one column for Cash
2. Cash book having one column for Bank

(B) Double Column Cash Book
1. Cash Book having two columns, one for cash and another for bank.
2. Cash book having two columns – one for cash, another for discount.
3. Cash book having two columns – one for bank, another for discount.

(C) Triple Column Cash Book
1. Cash book having three columns – first for cash, second for blank and third for discount.

(D) Multiple columns Cash Book:

Here we shall illustrate Single column Cash Book and Double Column Cash Book having two columns, one for cash and another for bank only.

Illustration: 1

Prepare a SINGLE COLUMN CASH BOOK from the following.

2007		Rs.
April 1	Cash in hand (Opening balance)	7,400
April 2	Bought goods for cash	750
April 4	Paid to Madan Kumar	105
April 7	Sold goods for cash	2,750
April 8	Deposited in the bank	5,200
April 9	Paid wage in cash	130
April 11	Paid for office furniture	395
April 14	Received cash from Dipak	525

SINGLE COLUMN CASH BOOK

Dr. **Cr.**

Date 2007	Receipts	L/F	R/N	Rs	Date 2007	Payments	L/F	V/N	Rs
1-Apr	To Balance b/d			5,400	2-Apr	By Purchase A/c			750
7-Apr	To sales A/c			2,750	4-Apr	By Madan Kumar			105
14-Apr	To Dipak			525	8-Apr	By Bank A/c			
					9-Apr	By Wages A/c			130
					14-Apr	By Furniture A/c			395
					14-Apr	By Balance c/d			2,095
				8,675					8,675
15-Apr	To Balance b/d			2.095					

CHECK YOUR PROGRESS - 3

1. Explain the meaning of Pass Book.

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Illustration: 2

From the following transactions prepare a double column Cash Book with cash and bank columns.

01-01-07	Cash in hand …. Rs. 100
	Cash at Bank…. Rs. 400
02-01-07	Cash purchase …Rs. 50
03-01-07	Cash sales…… .. Rs. 200
04-01-07	Received Rs.100 from X
05-01-07	Received a cheque of Rs.200 from Y
06-01-07	Cheque was deposited into Bank
07-01-07	Purchase furniture and payment was made by cheque Rs. 220
08-01-07	Withdraw Rs. 100 from bank for office use
09-10-07	Paid Rs.50 into bank.
10-10-07	Withdraw Rs. 100 from bank for personal use

Cash Book with Cash and Discount Column

Dr. **Cr.**

Date 2007	Receipts	LF	RN	Amount Cash Rs.	Amount Ban Rs.	Date 2007	Particulars	LF	VN	Amount Cas Rs.	Amount Bank Rs.
1-Jan	To Balance b/d			100	400	2-Jan	By purchase A/c			50	
3-Jan	To Sales…			200		6-Jan	By Bank a/c	C		200	
4-Jan	To X a/c			100		7-Jan	By Furniture				220
5-Jan	To Y's a/c			200		8-Jan	By Cash a/c	C			100
6-Jan	To Cash a/c	C			200	9-Jan	By Bank a/c	C		50	
8-Jan	To Bank a/c	C		100		10-Jan	By Cash a/c	C			100
9-Jan	To cash a/c	C			50						
10-Jan	To Bank a/c	C		100 **800**	 **650**	11-Jan	By Balance c/d			500 **800**	230 **650**
11-Jan	To Balance b/d			500	230						

CHECK YOUR PROGRESS - 4

1. What is double column cash book?

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1.11 BANK RECONCILIATION STATEMENT

It is known to you that deposits into and withdrawals from bank are recorded in the pass book as well in the cash book. It is also known to you that the account holder cannot make entries in the pass book but he can verify the entries with his records in the cash book. This means that at any given date the bank balance as per cash book should be equal to the bank balance as per the pass book. But in practical situations, for various reasons these two balances do not agree to each other. Bank Reconciliation Statement is a statement prepared on a particular date to analyse the differences between Pass Book balance and Cash Book balance in order to reconcile the difference. This statement is not a part of recording and accounting function of business transactions. But it is an important segment of Final Accounts. Causes of differences may be grouped into two:

Group A

Causes for which the balance in the Pass Book is shown higher than the balance in the Cash Book Or Causes for which the balance in the Cash Book is shown lower than the balance in the Pass Book:

1. Cheque issued for payment but not presented to bank.
2. Interest and dividend credited in the Pass Book but not recorded in the cash book.
3. Any cash and cheque directly deposited into bank by any person without any information.
4. When cash is deposited into bank but no entry is passed in the cash book.

Group B

Causes for which the balance in the Pass Book is shown lower than the balance in the Cash Book or Causes for which the balance in the Cash Book is shown higher than the balance in the Pass Book:

1. Cheque paid into bank for collection but not yet collected.
2. Bank charges and interest on overdraft debited in the Pass Book but no record is made in cash book.
3. Cheques and bills receivable discounted dishonoured and no record is made in cash book.
4. Cheque received is recorded in cash book as deposited into bank but actually no deposit is made.

Steps for preparation: On any given date the Cash Book balance has to be reconciled with Pass Book balance in order to know the causes of the difference between the two balances. A bank Reconciliation Statement is usually prepared at periodical intervals either a quarter, a half or year, and the reasons for the difference and actual position of cash are established. For the purpose of preparation of this statement following steps are taken :

1. Cash Book is written completely and the cash balance on any given date is ascertained.
2. Amount of bank balance is taken from the Pass Book after complete entry in that book on the same date.
3. Either Cash Book balance or Pass Book balance has to be taken as base and kept constant. Adjustment in the base Book in relation to other Book will reveal the cause of difference.
4. The effect of the balance shown in one book should be ascertained on the balance shown in the other book.
5. The eventual increase or decrease in balance of one book should be adjusted either added or deducted in relation to the increase in balance of other book.

Illustration 3:

A trader has Rs. 15,000 in the bank as per Cash Book. Prepare a bank reconciliation statement as on 31st December 2008 from the following.

1. A cheque of Rs.12,000 issued to a customer for a payment but the cheque was not presented to bank.
2. A cheque of Rs.11,000 paid into bank for collection was not yet collected by the bank.
3. Interest amounting to Rs. 1200 was credited in the Pass Book but the same was not recorded in cash book.
4. Bank charge deducted by the bank and debited in the Pass Book not recorded in the cash book Rs. 120.

Solution:

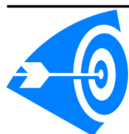
Bank Reconciliation Statement as on 31st Dec. 2007

Date	Particulars	Amount Rs.	Amount Rs.
	Bank balance as per Cash Book as on 31st Dec.2008		
	Add:		15,000
	Cheques issued to a customer but not presented to bank.	12,000	
	Interest credited in the Pass Book but not recorded in cash book	1,200	13,200
	Less		28,200
	Cheque paid into bank but not collected by the bank	11,000	11,120
	Bank charges debited in the Pass Book and not recorded in cash book	120	
	Bank balance as per Pass Book as on 31st Dec. 2008		17,080

1.12 LET US SUM UP

1. Accounting refers to the system involved in making a financial record of business transactions and in the preparation of statements concerning the assets, liabilities, capital and operating results of the business.
2. **Double-entry system** of accounting is based on Dual Aspect concept i.e. every financial transaction involves two – fold aspect – (a) receiving of a benefit (b) giving of a benefit.
3. Transactions are recorded in two sets of books, the first one is known as **'book of original entry'** or '**Primary Books'**. the second one is in Ledger, which is also known as **'book of final entry'** or '**Secondary Books'**.
4. Cash book is a subsidiary book which records the receipts and payment of cash.
5. Pass book is a record book used by the bank for keeping the deposit and withdrawls record of an account holder.

6. Bank Reconciliation Statement is a statement prepared on a particular date to analyse the differences between Pass Book balance and Cash Book balance in order to reconcile the difference.



1.13 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS - 1

1. "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."

CHECK YOUR PROGRESS - 2

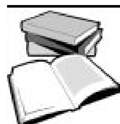
1. The system of accounting under which the two aspects of a transaction, called Debit and Credit, are recorded in the books of account is known as 'Double-entry system'.

CHECK YOUR PROGRESS - 3

1. Records of bank transactions are kept by the bank and made known to the account holder through a book called Pass Book.

CHECK YOUR PROGRESS - 4

1. Double Column Cash Book is a cash book having two columns, one for cash and the other for bank or one for cash, the other for discount or one for bank, the other for discount.



1. 14 FURTHER READINGS

1. Financial Accounting, Ashis Bhattacharya, Prentice hall of India Pvt. Ltd, New Delhi.
2. Financial Accounting, S. N. Maheshwari, Vikash Publishing House Pvt. LTd., New Delhi.
3. Theory and Practice of Accountancy By B B Dam, R A Maheswari, R Barman and B Kalita

1.15 MODEL QUESTIONS

1. Explain the purposes of Accounting
2. Name the different ledgers and list out their functions.
3. Give the features of Cash Book.
4. Is there any requirement for preparing Bank Reconciliation Statement? Explain.
5. What is a General Ledger? Explain its needs and importance.
6. Explain the meaning of Double Entry System and describe its advantages.
7. What are the rules regarding debit and credit?
8. Describe different types of Books of Account.
9. Prepare a double column cash book from the following:

   January 1 Opening Balance Rs. 11,000

   January 2 Goods sold to Ram Rs. 3,000 and received half the amount in cash after allowing 5% discount

   January 6 purchased for cash Rs. 2,700

   January 9 cash received by sale of machinery Rs. 3,000

   January 15 paid to Madhu Rs. 180 and received discount of Rs. 20

   January 17 received for cash sales Rs. 2,000
10. Prepare a bank reconciliation statement form the following
    (i) Bank balance as per Pass book on 31st Dec. 2008 Rs. 5,000
    (ii) Two cheques of Rs. 1,000 and Rs. 2,000 were issued for payment but not presented to bank for establishment before 31st Dec 2008.
    (iii) Three cheques of Rs. 500, Rs. 600 and Rs. 700 had been deposited into the bank for collection but not yet collected by bank.
    (iv) Dividend collected and credited into pass Book but was not recorded in the cash book before 31st Dec. 2008 Rs.2,200
    (v) Bank charges debited in the Pass Book but was not recorded in the cash book Rs. 20

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UNIT- 2 FINANCIAL STATEMENTS

UNIT STRUCTURE

2.1 Learning Objectives
2.2 Introduction
2.3 Meaning and Components of Financial statements:
2.4 Preparation of Financial Statements
2.5 Trading Account
2.6 Profit and loss Account
2.7 Meaning and Purpose of Balance Sheet
2.8 Steps for preparation of Balance Sheet
2.9 Marshalling of Balance Sheet
2.10 Format of Balance Sheet
2.11 Illustrations
2.12 Annual Report : its Meaning and Imortance
2.13 Contents of Annual Report
2.14 Let Us Sum Up
2.15 Answers to Check Your Progress
2.16 Further Readings
2.17 Model Questions

2.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- explain the meaning of financial statements
- explain the meaning of trading account
- prepare the Trading account
- explain the meaning of profit and loss account
- identify the items to be included in the trading and profit and loss account
- prepare a balance sheet

2.2 INTRODUCTION

In Unit 1 you have learnt about accounting, double entry system, and cash book. Now let us recapitulate the same briefly**.** Accounting is the process of

recording financial transactions as well as reporting on the financial status of a business. The bookkeeping methods involved in making a financial record of business transactions under double entry system and in the preparation of statements concerning the assets, liabilities, and operating results of a business. When the
data thus produced are abstracted in reports, usually annually, for the use of persons outside the organization, the process is called financial accounting. Three reports are typically generated in financial accounting: the Balance sheet, which summarizes the firm's assets and liabilities; the Income statement, which reports the firm's gross proceeds, expenses, and profit or loss; and the Statement of cash flow. which analyzes the flow of cash into and out of the firm.

In this Section we will discuss the first two statements, i.e., balance sheet and income statement. Income Statement is generally prepared in two parts: (i) Trading Account and (ii) Profit & loss Account. All these three statements are commonly called "Financial Statements".

2.3 MEANING AND COMPONENTS OF FINANCIAL STATEMENTS

Let us now explain the meaning and components of Financial Statements. It is known to you that Financial Statements are the end products of the accounting system. So these are called **Final Accounts.** Final accounts include (i) Trading and profit and loss A/c (ii) Balance sheet. *Trading and profit and loss accounts are prepared to find out the profit or loss of the concerned accounting period. These are also called Income Statement*. The Balance sheet portrays the financial position of the firm on a particular date. It is also called as Position Statement. These two statements i.e. Trading and P&L account and Balance sheet are prepared to give the final results of the business that is why both are collectively called as Final Accounts. Final Accounts are prepared from the figures appearing in Trial Balance and additional information.

Components of 'Financial Statements' depend on the nature of the business entity. It should be kept in mind that the final accounts are prepared after the preparation of trial balance. The nature of the business entity may be 'Sole proprietorship, Partnership, Joint Stock Company and so on.

Following are the components of final accounts of sole proprietorship business carrying on trading activities:

(i) **Income statement** : It is divided into two parts:

(a) **Trading Account** which shows the gross profit or gross loss;

(b) **Profit and Loss Account** which shows the net profit or net loss; and

(ii) **Balance Sheet.**

If the business entity carries on manufacturing activities, a Manufacturing account is also prepared by such business entity before the preparation of Trading Account.

CHECK YOUR PROGRESS - 1

1. What are the components of Financial Statements?

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2.4 PREPARATION OF FINANCIAL STATEMENTS

In this section we shall concentrate on the preparation of Financial Statements.

In case of sole proprietorship business, preparation of Financial Statements involves the preparation of:

(a) Trading Account;

(b) Profit and Loss Account; and

(c) Balance Sheet.

2.5 TRADING ACCOUNT

Trading account is prepared for ascertaining the overall result of trading i.e. buying and selling of goods. Ascertainment of overall result of trading is the ascertainment of gross profit earned or gross loss incurred as a result of the trading activities by a business during a particular accounting period. In other words, it is prepared to show the result of buying and selling of goods. Hence, Trading account is an account which is prepared to find out the Gross Profit or Gross Loss of a certain accounting period. The formula for G.P is:

Gross Profit = Sales – Cost of goods sold (COGS)
COGS = Opening Stock + Purchases + all direct expanses – Closing Stock.

If the amount of sales exceeds the total amount of purchases and expenses directly connected with such purchases, the difference is termed as **gross profit.** On the contrary, if the total of purchases and direct expenses exceed the sales, the difference is called **gross loss**. In this account, the amount of purchases of goods and also the expenses which are incurred in bringing those goods to a saleable state are recorded. In other words, all expenses which relate to either purchase of raw material or manufacturing of goods called 'Direct Expenses', are recorded in the Trading Account. Thus, Trading account is a part of Income Statement.

Contents of Trading Account:

Trading Account is an account like any other account. It has two sides – Debit and Credit. All expenses which relate to either purchase or manufacturing of goods are written on the Debit side of the Trading Account. Format of Trading Account is given below.

Format of Trading Account:

Trading Account of M/s ....

For the year ended on...............

Dr. Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Opening Stock		By Sales	
To Purchases		*Less:* Sales Returns	
Less: Purchase Returns		or	
or		Returns inward	
Returns outward		By Closing Stock	
To Wages		By Profit and Loss *A/c*	
To Wages & Salaries		*(Gross loss transferred)*	
To Direct Expenses		(Balancing figure)	
To Carriage, or			
Carriage inward, or			
Carriage on Purchase			
To Duty on Purchase			
To Gas, Fuel and Power			
To Freight/ cartage			
To Manufacturing			
Expenses or			
Productive Expenses			
To Factory Expenses,			
Factory Lighting			
Factory Rent etc.			
To Octroi			
To Dock charges			
To Clearing charges			
To Import Duty or			
Custom Duty			
To Excise Duty			
To Insurance Premium			
(factory)			
To Royalty on production			
To Profit and Loss A/c			
(Gross Profit transferred)			

CHECK YOUR PROGRESS - 2

1. How is Gross Profit ascertained?

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Illustration

From the following information of M/S Das Brothers prepare a Trading Account for the year ended 31st March, 2008.

	Rs.
Stock on 1st April, 2007	7,000
Purchases	30,230
Sales Return	86
Purchases Return	530
Sales	67,500
Wages	7,000
Carriage Inward	400
Manufacturing Expenses	5,000
Stock on 31st March, 2008	7,550
Wages outstanding	50
Carriage outward	400

Solution:

In the books of M/S Das Brothers

Trading Account

For the year ended 31st March, 1999

Particulars	Rs	Particulars	Rs
To Opening stock	7,000	By Sales 67,500 *Less:* Sales Return 86	67,414
To Purchases 30,230 *Less:* Purchases Return 530	29,700	By Closing stock	7,550
To Wages 7,000 *Add:* Outstanding 50	7,050		
To Carriage Inward	400		
To Manufacturing expenses	5,000		
To Profit and Loss A/c (Gross Profit transferred)	25,814		
	74,964		**74,964**

Note : Normally, Manufacturing Expenses are taken to Manufacturing A/c., but from the question it appears that the firm is engaged in Trading activities and hence the same has been taken to Trading A/c.

Illustration

Following is the extract of the Trial Balance of M/s Sailee & Co as on 31.3.2008.

Particulars	Debit Rs.	Credit Rs.
Stock on 1.4.07	2000	
Carriage on Sales	200	
Purchases	7000	
Discount	100	200
Sales		12000
Purchase returns		200
Octroi duty	50	
Returns inward	300	
Productive wages	1500	
Freight	200	
Excise Duty	100	
Coal, gas and water	150	
Salaries	500	
Trade Expenses	100	

Additional information :

(i)	Stock on 31.3.2008	Rs. 1500
(ii)	Outstanding wages	50
(iii)	Goods taken by Ram for Personal Use	100

Prepare the Trading Account of the firm for the year ended 31. 3. 2008.

Solution:

In the books of M/S Sailee & Co

Trading Account

For the year ended 31st March, 2008

Dr.			Cr.
To Opening stock	2000	By Sales 12000 *Less*: Sales Return 300	11700
To Purchases 7000 Less Purchases Return 200 6800 *Less :* Goods taken by Ram 100 transferred to his Drawings A/c	6700	By Closing stock	1500
To Octroi Duty	50		
To Freight	200		
To Excise Duty	100		
To Productive wages 1500 *Add:* outstanding 50	1550		
Coal, gas and water	150		
To Profit and Loss A/c (Gross Profit transferred)	2450		
	13200		**13200**

LET US KNOW

Trade expenses ordinarily indicate General Expenses and it is indirect in nature and, therefore, taken to Profit & Loss A/c. In case the Trial balance contains both Trade Expenses and General Expenses, Trade Expenses will be treated as direct and will betaken to the Trading A/c and General Expenses will be taken to the Profit & Loss A/c.

2.6 PROFIT AND LOSS ACCOUNT

Profit and Loss Account is a part of Income Statement. In this account, all indirect expenses such as administrative, selling, distribution and non-operating expenses are charged with the total of gross profit/gross loss and non-operating income in order to ascertain the Net Profit/Net Loss of the business.

According to R. N. Carter:

"A Profit & Loss Account is an account into which all gains and losses are collected, in order to ascertain the excess of gains over the losses or *vice-versa".*

A Profit and Loss Account starts with the amount of gross profit or gross loss brought down from the Trading Account. As such, all those expenses and losses which have not been debited to the Trading Account will now be debited to Profit & Loss Account. These expenses include administrative expenses, selling expenses, distribution expenses etc. These are called 'Indirect Expenses'. Profit and Loss Account is a Nominal Account and as such, all the expenses and losses are shown on its debit side and all the incomes and gains are shown on the credit side of this account. The format of Profit & Loss Account is given below.

Format of Profit and loss Account:

Profit and loss Account of M/s ....

For the year ended on...............

By Trading A/c (Gross Loss transferred)	By Trading A/c (Gross Profit transferred)
Office & Administrative Expenses	By Rent (Cr.)
To Salaries	By Rent of premises sub-let
To Salaries & Wages	By Discount received
To Rent, Rates & Taxes	Or Discount (Cr.)
To Printing & Stationery	By Commission Received
To Postage & Telegram	By Interest on Investments
To Lighting	By Dividend on Shares
To Insurance Premium (office)	By Sundry Receipts
To Telephone Charges	By Bad Debts Recovered
To Legal Charges	By Profit on sale of assets
To Audit Fees	By Income from other Sources
To Travelling Expenses	By Apprenticeship Premium
To Establishment Expenses	By Sale of Scraps
To Trade Expenses [see note (ii)]	By Royalty Received
To General Expenses	By Subsidy from Govt.
To Royalty on sales	By Interest on Drawings
To Establishment	By Capital A/c
To Commission to Office Manager	[Net Loss Transferred to]
Selling and Distribution Expenses:-	
To Carriage Outwards, or Carriage on Sales	
To Advertisement	
To Commission	
To Discount	
To Rebate	
To Brokerage	
To Bad debts	
To Export duty	
To Packing charges	
To Delivery Van Expenses.	
To Wages (Unproductive)	
To Commission to Sales Manager	
Financial Charges :-	
To Interest on Loan	
To Bank Charges	
To Interest on Overdraft	
Sundry expenses :-	
To Sales Tax	
To Repairs	
To Depreciation on fixed assets	
To Entertainment Expenses	
To Contingencies	
To Conveyance Expenses	
To Donation and Charity	
To Loss on Sale of Assets	
Provisions :-	
To Provision for Doubtful Debts	
To Provision for Discount on Debtors	
To Capital A/c (Net Profit- Transferred)	

CHECK YOUR PROGRESS - 3

1. Explain the meaning of Net Profit?

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Illustration

From the following particulars, prepare a Profit & Loss Account of M/s Jiban & Sons for the year ending 31st March, 2008 :

Particulars	Rs.	Particulars	Rs.
Gross Profit	3,62,000	Discount allowed	2,000
Trade Expenses	2,000	Lighting	780
Carriage on Sales	10,000	Commission Received	840
Office Salaries	65,800	Bad-debts	1,200
Postage and Telegram	820	Discount (Cr.)	700
Office Rent	8,500	Interest on Loan	2,200
Legal Charges	400	Wages (Unproductive)	1,400
Audit fee	1,600	Export Duty	2,300
Donation	1,100	Miscellaneous Receipts	500
Sundry Expenses	360	Advertisement	4,100
Selling Expenses	5,320	Travelling Expenses	2,500

Solution:

In the books of M/s Jiban & Sons

Profit and Loss Account

For the year ending on 31st March, 2008

Dr. Particulars	Amount Rs.	Cr. Particulars	Amount Rs.
To Trade expenses	2,000	By Trading Account	3,62,000
To Carriage on sales	10,000	*(Gross Profit transferred)*	
To Office Salaries	65,800	By Commission received	840
To Postage & Telegram	820	By Discount	700
To Office Rent	8,500	By Miscellaneous Receipts	500
To Legal charges	400		
To Audit Fee	1,600		
To Donation	1,100		
To Sundry expenses	360		
To Selling expenses	5,320		
To Discount allowed	2,000		
To Lighting	780		
To Bad Debts	1,200		
To Interest on Loan	2,200		
To Wages (Unproductive)	1,400		
To Export duty	2,300		
To Advertisement	4,100		
To Travelling expenses	2,500		
To Capital Account (Net Profit transferred)	2,51,660		
	3,64,040		**3,64,040**

Illustration

From the following information of Birbal and Akbar Enterprise prepare a Profit & Loss Account for the year ended 31st December, 2008. The partners Share profits equally.

	Rs.				Rs.
Gross Profit	22,000	Capital	Birbal	9,000	
			Akbar	9,000	18,000
Salaries	5,000	Discount received			100
Rent and taxes	500	Repairs			150
Trade expenses	100	Interest paid			50
Discount (Dr.)	200	Bank charges			20
Selling commission paid	2,000	Reserve			4,000
Rebate	100	Bad debts			100
Contingencies	100	Commission (Cr.)			210
Conveyance	200	Machinery			3,500
Petty Cash in hand	80	Sundry receipts			10
Bad debt recovered	120	Good will			9,000

Solution :

In the books of Rita Enterprises

Profit and Loss Account

For the year ended 31st December, 2008

Dr.	Amount Rs.	Cr.	Amount Rs.
To Salaries	5,000	By Trading A/c	22,000
To Rent and taxes	500	(Gross profit transferred)	
To Trade expenses	100		
To Discount	200	By Bad debt recovered	120
To Selling commission	2,000	By Commission	10
To Contingencies	100	By Discount received	100
To Rebate	100	By Sundry receipts	10
To Conveyance	200		
To Repairs	150		
To Interest paid	50		
To Bank charges	20		
To Bad debts	100		
To Capital A/c			
Birbal 6,960			
Akbar 6,960	13,920		
(Net profit transferred)			
	21,440		**22,440**

Combined Trading and Profit and Loss Account : In practice, for the sake of convenience, the Trading A/c and Profit and Loss A/c are usually combined into one account, called Trading and Profit and Loss A/c. This account in combined form is shown in two parts – first part is called the **Trading Account** and the other part is called **Profit and Loss Account**.

2.7 BALANCE SHEET: MEANING AND PURPOSE

After ascertaining the net profit or loss of the business enterprise at the end of a particular period, the businessman would also like to know the financial position of his business as on that date. For this purpose a statement, wherein all the Assets and Liabilities of the business enterprise are included, is prepared. The statement so prepared is called Balance Sheet.

According to A. Palmer “The Balance Sheet “is a statement at a particular date showing on one side the trader’s property and possessions and on the other hand the liabilities.”

According to Karlson “A business form showing what is owed and what the proprietor is worth, is called a Balance Sheet.”

According to J. R. Batliboi “A Balance Sheet is a statement prepared with a view to measure the exact financial position of a business on a certain fixed date.”

The balance sheet has two sides – Assets side and the Liabilities side. Assets are shown on the right hand side and the liabilities are shown on the left hand side of the Balance Sheet. The balance sheet is based on the equation that what an entity owns on a given date must be equal to what it owes on that date. The total of both sides of the balance sheet i.e. assets side and the liabilities side, will always be equal. As this statement shows the position of assets and liabilities of an entity on a particular date, it is also known as 'Position Statement'. The definition of Balance Sheet as given by some authors are as follows :

2.8 STEPS FOR PREPARATION OF BALANCE SHEET

The steps for preparation of a balance sheet are as follows:

(i) All accounts of Assets appearing on the debit side of the trial balance will be shown on the 'Assets side of the balance sheet' ***except drawings account which will be shown on the liabilities side as a deduction from Capital account.***

(ii) All the accounts of appearing on the credit side of the trial balance will be shown on the 'Liabilities side of the balance sheet'.

(iii) Net profit / Net Loss as shown by the Profit and Loss Account will be added / deducted from capital on the liabilities side of the balance sheet.

(iv) The assets and liabilities should be shown under proper groups.

(v) The assets and liabilities should be shown in certain order.

CHECK YOUR PROGRESS - 4

1. List out any two objects of Balance sheet?

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2.9 MARSHALLING OF ASSETS AND LIABILITIES

Generally assets and liabilities are shown in the balance sheet in certain order. The presentation of various assets and liabilities in a certain order is known as 'Marshalling of Assets and Liabilities'. Marshalling can be made in one of the following two methods :

(a) Liquidity; or

(b) Permanence.

(a) In the Order of Liquidity: Under this method, the most liquid asset is shown first and then less and lesser liquid assets are written. For example; the assets debtors, inventory, cash in hand, goodwill, furniture and cash at bank will be shown in the balance sheet in the following order: cash in hand, cash at bank, debtors, inventory, furniture and goodwill.

Similarly, in case of liabilities, those liabilities which are to be paid at the earliest will be written first. Thus, current liabilities are written first of all, then fixed or long-term liabilities and lastly, the proprietor's capital. Again, among the current liabilities, the most urgent payments are to be recorded first.

Following is the Proforma of a Balance Sheet in the order of liquidity :

BALANCE SHEET *as on or as at.........*	
LIABILITIES	**ASSETS**
Current Liabilities : Bills Payable Sundry Creditors Outstanding expenses Unearned Income ***Fixed Liabilities :*** Long term loans Reserves **Capital** *Add: Net Profit/* *Less Net Loss* *Less:* Drawings	***Current Assets :*** Cash at Bank Bills Receivable Short Term Investments Sundry Debtors Closing Stock Prepaid Expenses [see note (iii)] Accrued Income ***Fixed Assets :*** Loose Tools Motor Vehicle Long Term Investments Plant and Machinery Land and Building Patents Goodwill

(b) In the Order of Permanence: Under this method, the assets and liabilities are arranged exactly in the reverse order of the first method discussed above. Assets which are most difficult to be converted into cash are written first and the assets which are most liquid such as Cash in hand are written last. Similarly, those liabilities which are to be paid last, will be written first.

Following is the Proforma of a Balance Sheet in the order of permanence :

BALANCE SHEET *as on or as at.........*	
LIABILITIES	**ASSETS**
Capital	***Fixed Assets :***
Add: Net Profit/	Goodwill
Less: Net Loss	Patents
Less: Drawings	Land and Building
Reserves	Plant and Machinery
	Furniture
Fixed Liabilities :	Motor Vehicle
Long term loans	Loose Tools
	Long Term Investments
Current Liabilities :	
Unearned Income	***Current Assets :***
Outstanding expenses	Prepaid Expenses
Bills Payable	Accrued Income
Sundry Creditors	Closing Stock
Bank Overdraft	Sundry Debtors
	Short Term Investments
	Bills Receivable
	Cash at Bank
	Cash in hand

Generally, sole proprietors and partnership firms prepare their Balance Sheet in the order of liquidity.

2.10 FORMAT OF BALANCE SHEET

There are two different formats for preparation of balance sheet. They are (i) Horizontal form; and (ii) Vertical form.

(i) Horizontal form: Horizontal form is also called 'T form' under which the assets are shown on the right hand side and liabilities are shown on the left hand side. The total of both the sides of a balance sheet must be equal. Generally, non-corporate entities prepare their balance sheets in horizontal form.

(ii) Vertical form: Vertical form is a form under which liabilities and assets are shown one after another in vertical order. Under this form of presentation of balance sheet an additional column is provided to present figures of previous year along with current years figures. This helps in comparison of business over a period of time. Now-a-days, all the corporate entities present their balance sheet in vertical form.

2.11 ILLUSTRATIONS

Illustration

From the following balances of M/S Bania, prepare a Balance Sheet as on 31st December, 2008.

Debit balances	Amount (Rs)	Credit balances	Amount (Rs)
Land and Building	80,000	Bank Overdraft	20,000
Plant and Machinery	52,000	Creditors	21,000
Furniture	10,000	Bills Payable	7,000
Investments	27,000	Reserve	12,000
Cash in hand	3,000	Capital	1,60,000
Debtors	40,000	Net Profit	73,000
Bills Receivable	12,000		
Closing Stock	54,000		
Drawings	15,000		
	2,93,000		**2,93,000**

Solution:

M/S Bania
BALANCE SHEET
As on 31st December, 2008

Liabilities		Amount (Rs.)	Assets	Amount (Rs.)
Bank Overdraft		20,000	Cash in hand	3,000
Bills Payable		7,000	Bills Receivable	12,000
Creditors		21,000	Investments	27,000
Reserve		12,000	Debtors	40,000
Capital	1,60,000		Closing Stock	54,000
Add, Net Profit	73,000		Furniture	10,000
	2,33,000		Plant and Machinery	52,000
Less, drawings	15,000	2,18,000	Land and Building	80,000
		2,78,000		2,78,000

Illustration

From the following Trial Balance of M/s. Hari Sankar, prepare a Trading and Profit & Loss Account for the year ending on 31st December, 2008 and a Balance Sheet as on that date :

Debit Balances	**Rs.**	**Credit Balances**	**Rs.**
Opening Stock	20,000	Capital	1,50,000
Purchases	80,000	Sundry Creditors	23,200
Sales Return	5,000	Bills Payable	1,800
Carriage Inwards	5,800	Bank Over draft	5,000
Bad Debt	1,000	Miscellaneous Receipt	2,500
Wages	50,000	Wages outstanding	500
Salaries	28,500	Royalty	1,200
Trade Expenses	2,400	Commission	5,000
Plant & Machinery	90,000	Interest on Investment	1,800
Furniture	10,000	Sales	2,80,000
Sundry Debtors	58,000	Purchase Return	3,000
Bills Receivable	2,500	Discount	4,000
Cash in Hand	6,800		
Travelling Expenses	4,200		
Lighting (Factory)	1,400		
Rent and Taxes	7,500		
General Expenses	10,500		
Insurance Prepaid	200		
Insurance	2,200		
Land & Building	75,000		
Drawings	17,000		
	4,78,000		**4,78,000**

Adjustments :

(1) Cost price of the Stock on December, 2004 was Rs.27,000 (Market Value Rs. 32,000).

(2) Salaries outstanding for December, 2004 amounted to Rs. 2,900.

(3) Interest on Investment receivable Rs. 200.

(4) Commission unearned Rs. 500.

(5) Provide depreciation on Plant and Machinery at 10% and on Furniture

at 20%.

(1) Provide 5% for Doubtful Debt

Solution:

In the books of Mr. Hari Sankar

Trading & Profit and Loss Account

For the year ending 31st December, 2008

Dr. Particulars		Amount Rs.	Particulars		Cr. Amount Rs.
To Opening Stock	20,000		By Sales	2,80,000	
To Purchases	80,000		*Less:* Sales Return	5,000	2,75,000
Less: Purchase Returns	3,000	77,000	By Closing Stock		27,000
To Carriage inwards		5,800			
To Wages		50,000			
To Factory Lighting		1,400			
To Trade Expenses		2,400			
To Profit & Loss A/c (Gross profit transferred)		1,45,400	.	.	
		3,02,000			**3,02,000**
To Bad Debt		1,000	By Trading A/c (Gross profit transferred)		1,45,400
To Salaries	28,500		By Discount		4,000
Add: Outstanding Salaries	2,900	31,400	By Miscellaneous Receipt		2,500
To Traveling Expenses		4,200	By Royalty		1,200
To Rent & Taxes		7,500	By Commission	5,000	
To General Expenses		10,500	*Less:* Unearned	500	4,500
To Insurance		2,200	By Interest on Investment	1,800	
To Depreciation on :			*Add:* Receivable	200	2,000
Plant & Machinery	9,000				
Furniture	2,000	11,000			
To Provision for Doubtful Debt2,		900			
To Net Profit c/d		88,900			
		1,59,600			**1,59,600**

Balance Sheet
of M/S. Hari Sankar
As at 31st December, 2008

Liabilities		Amount Rs.	Assets		Amount Rs.
Capital			Land & Building		75,000
	1,50,000		Plant & Machinery	90,000	
Add, Net Profit	88,900		*Less :* Depreciation	9,000	81,000
	2,38,900		Furniture	10,000	
Less : Drawing	17,000		*Less :* Depreciation	2,000	8,000
		2,21,900	Sundry Debtors	58,000	
Bills Payable		1,800	less, Provision for Doubtful Debt	2,900	55,100
Bank Over draft		5,000	Bills Receivable		2,500
			Stock		27,000
Wages Outstanding		500	Insurance Prepaid		200
Salaries Outstanding		2,900	Interest on Investment Receivable		200
Unearned Commission		500			
Sundry Creditors		23,200	Cash in hand		6,800
		2,55,800			**2,55,800**

2.12 ANNUAL REPORT: ITS MEANING AND IMORTANCE

Annual Report is a document detailing the business activity of a company over the previous year, and containing the three main financial statements: Profit and loss Account, Balance Sheet and Cash Flow Statement as well as a host of other company-related data. Corporations that have shareholders must prepare an Annual Report and make it available to the corporation's shareholders. The basic purpose of the Annual Report is to let the shareholders know as to how the company is doing. The Annual Report contains information such as basic financial statements, management's opinion of the past year's operations, and the corporation's future prospects.

(i) In India Annual Report is prepared, signed and presented by the Board of Directors in the Annual General Meeting in accordance with sections 166, 210, 211, 212, 216 and 217 of the Companies Act 1956.

A good annual report provides a variety of important financial data, investors can find in-depth information on a company's products, market segments, competitors, customers, management and legal proceedings.

2.13 CONTENTS OF ANNUAL REPORT

An annual report generally includes the following items:

(i) Directors' Report,
(ii) Auditors' Report,
(iii) Balance Sheet,
(iv) Profit and Loss Account,
(v) Notes on Accounts and Significant Accounting Policies,
(vi) Cash Flow Statement,
(vii) Consolidated Balance Sheet,
(viii) Balance Sheet and Profit and Loss Account of subsidiaries,
(ix) Director's Responsibility Statement.

Information incorporated in the Annual Report may be classified into **mandatory disclosures** and **non-mandatory disclosures**.

Mandatory Information is incorporated in accordance with the mandate of the Companies Act 1956 as amended up-to-date. These are as follows:

(a) The State of the company's affairs,
(b) Reserves and dividend payment,
(c) Material changes occurring after the Balance Sheet date,
(d) Conservation of energy,
(e) Technology subscription Research and Development,
(f) Foreign Exchange Earnings and outgo,
(g) Soundness of the business in the company and the subsidiaries,
(h) Particulars of Employees as per Section 217(2A),
(i) Directors' responsibility statement,
(j) Failure to complete by-back, if any and
(k) Report on corporate governance.

In regard to the state of the company's affairs it is not specified what information should be incorporated in the report. An ideal Annual report generally includes the following information: general and international business environment, socio-economic condition of the country, industry structure and development, business environment in which the company is working, industry and company opportunities and thereto and financial highlights.

Additionally, the annual report of the company must also disclose the following:

(a) A Statement of management's responsibilities for establishing and maintaining adequate internal controls and procedures for financial reporting.

(b) Conclusions about the effectiveness of the company's internal controls and procedures for financial reporting based on management's evaluation of those controls and procedures as at the end of the company's most recent fiscal year, and

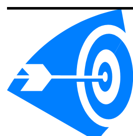
(c) A statement that the company's independent auditor has attested to, and reported on, management's evaluation of the company's internal controls and procedures for financial reporting.

Non-mandatory Information, incorporated and reported in a Corporate Annual Report, is not under the mandate of any statute. This information, as such, is regarded as voluntary or supplementary information:

i. Name of the members of Board of Directors.
ii. Name of the principal executives.
iii. Performance at a glance of the company over a period of seven to ten years.
iv. Import ratios of the company over a period of seven to ten years.
v. Trend in financial performance indicating Debt. Equity ratio, Earnings per share in rupee, Cash earnings per shares in rupee; Profit after tax to average net worth, Net worth per equity share in rupee.
vi. Operations of the company over a period of seven to ten years.
vii. Human Resource Development and Structure, Employee Welfare.
viii. Names and addresses of Bankers, Auditors, Stock exchanges; and Registrar and Transfer agents.
ix. Major units, registered office, corporate office, marketing division.
x. Information systems.
xi. Safety and quality.
xii. Human resources development. Hindi implementation in respect of control public sector enterprises.
xiii. Annual statement showing the representation of SC,ST and OBC in the company in various positions.
xiv. Human Resource Account.
xv. Inflation Account.
xvi. Discharge of Social Responsibility and welfare Activities.

2.14 LET US SUM UP

1. Financial Statements are the end products of the accounting system. So these are called **Final Accounts.**
2. Trading account is prepared for ascertaining the overall result of trading i.e. buying and selling of goods.
3. Trading Account is an account like any other account. It has two sides – Debit and Credit.
4. A Profit & Loss Account is an account into which all gains and losses are collected in order to ascertain the excess of gains over the losses or *vice-versa*
5. The Balance Sheet "is a statement at a particular date showing on one side the trader's property and possessions and on the other hand the liabilities.
6. The balance sheet has two sides – Assets side and the Liabilities side. Assets are shown on the right hand side and the liabilities are shown on the left hand side of the Balance Sheet.
7. There are two different formats for preparation of balance sheet. They are (i) Horizontal form; and (ii) Vertical form.
8. Annual Report is a Document detailing the business activity of a company over the previous year, and containing the three main financial statements: Profit and loss Account, Balance Sheet and Cash Flow Statement as well as a host of other company-related data.



2.15 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS - 1

The components of final accounts are; (a) Trading Account
(b) Profit and Loss Account and (ii) Balance Sheet.

CHECK YOUR PROGRESS - 2

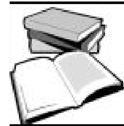
Gross Profit is ascertained after deducting Cost of goods sold from Sales.

CHECK YOUR PROGRESS - 3

Net Profit is a the surplus of Gross Profit over all indirect expenses such as administrative, selling, distribution and non-operating expenses..

CHECK YOUR PROGRESS - 4

Two objects of Balance Sheet are (i) to ascertain the true financial position of the business at a particular point of time and (ii) to find out whether the business entity is solvent or not.



2.16 FURTHER READINGS

1. *Theory and Practice of Accountancy* By B B Dam, R A Maheswari, R Barman and B Kalita
2. *Accountancy* By K R Das, K M Sinha, KS Pauchoudhury, GG Banik .
3. *Advanced Accounts* by M. C. Shukla, T.S. Grewal and S. C. Gupta, S. Chand & Company Ltd, New Delhi.
4. *Accountancy* by R. L. Gupta and M. Radhaswamy, Sultan Chand & Sons, New Delhi.

2.17 MODEL QUESTIONS

1. State whether the following statements are 'True' or 'False':
   (a) Final Accounts are prepared at the end of the accounting period.
   (b) A balance sheet is a statement of assets and liabilities as on a given date.
   (c) Goodwill is a current asset.
   (d) Final Accounts include Manufacturing, Trading and Profit and Loss Account and Balance Sheet.
   (e) Profit and Loss Account shows the financial position of a concern.

2. Fill in the blanks with suitable word/ words:

   (a) Balance sheet is also known as _____________ statement.

   (b) Expenses which remain unpaid at the end of the accounting period are termed as _________ expenses.

   (c) Expenses which have been paid in the accounting year for the next accounting period are termed as _________ expenses.

   (d) Interest on Drawings is added to _________ but deducted from______

   (e) The arrangement of assets and liabilities in the Balance Sheet is known as _________.

   (f) Closing stock is value at cost or market price whichever is _____.

3. Rewrite the sentences with suitable alternatives:

   (i) Stock in trade is a:
   (a) a current asset; (b) a fixed asset; (c) fictitious asset.

   (ii) The valuation of closing stock is done at:
   (a) cost price; (b) market price
   (c) cost price or market price whichever is lower

   (iii) Prepaid Expenses appear in the Balance Sheet as
   (a) Asset (b) Reserve
   (c) Liability

   (iv) If closing stock appears in the Trial Balance, it is transferred to
   (a) Trading A/c (b) Profit and Loss account
   (c) Balance Sheet.

   (v) Balance Sheet includes
   (a) All accounts
   (b) Real and personal Accounts only
   (c) Personal Accounts only

4. Give four characteristics of Balance Sheet?
5. What do you mean by marshalling of balance sheet?
6. What are the objects of preparing Balance Sheet?

7. What do you mean by Final accounts? What are its components? Name them and briefly explain the purpose of each of them.
8. List out the items of assets and liabilities in the order of liquidity.
9. Explain: *(a)* Current assets; *(b)* Current liabilities: and *(c)* Working capital.
10. From the following information, calculate gross profit:

Opening Stock Rs. 10,000, Purchase Rs. 34,000, Sales Rs.95,000, Sales Return Rs. 10,000, Carriage Inward Rs. 2,000, Wages Rs. 4,000, Fuel & Power Rs. 3,000, Closing Stock Rs. 4,000, Purchase Returns Rs. 2,000, Salary Rs. 12,000.

[Ans : Gross profit Rs. 38,000]

11. From the following information, calculate : (i) Cost of Goods sold; and (ii) Gross profit:

Opening Inventory Rs. 20,000, Cash Purchases Rs. 18,000, Credit Purchases Rs. 28,000, Purchase Return Rs. 3,000, Cash Sales Rs. 40,000, Credit Sales Rs. 82,000, Sales Return Rs. 4,000, Wages Rs. 8,000, Salaries Rs. 9,000, Rent Rs. 3,000, Other Direct Expenses Rs. 14,000, Closing Inventory Rs. 15,000, Carriage Rs. 5,000.

[Ans : (i) Cost of Goods sold Rs. 75,000; (ii) Gross profit Rs. 43,000].

12. From the following extract of the Trial Balance of Sri Ram and the additional information, prepare a Trading Account for the year that ended on 31st March, 2008.

Particulars	Debit (Rs.)	Credit (Rs.)
Opening Stock on 1.4.2007	20,000	
Cash purchases	25,000	
Credit purchases	75,000	
Cash Sales	60,000	
Credit Sales	90,000	
Returns Inward	1,000	
Carriage on purchase	1,500	
Carriage on sales	2,000	
Insurance on purchase	500	
Excise Duty	500	
Wages	5,000	
Cash discount on purchase	200	
Trade expenses	600	

Cash discount on sales	100
Octroi Duty	800
General Expenses	1,000

Additional information :

	Rs.
(i) Closing stock	30,000
(ii) Outstanding wages	500

(iii) Goods worth Rs. 300 have been taken by Sri Ram for personal use.

[Ans : Gross Profit: Rs. 49,900]

13. From the following particulars of M/s. Bora Stores prepare a profit and loss account for the year ending 31 March, 2004.

	Amount (Rs.)
Advertisement Expenses	3,840
Printing and Stationery	4,200
Discount Received	3,500
Discount Allowed	2,900
Establishments	35,000
Carriage Outwards	2,000
Insurance premium	2,400
Commission Paid	5,000
Interest Received	13,000
Bad Debts	3,500

Sales amounted to Rs. 3,00,000 and gross profit was 20% of sales.

[Ans : Net profit transferred to the capital account: Rs. 17,660

14. Calculate business income (Gross profit and Net profit) from the following:

Purchases (200 units) Rs. 60,000, Carriage Rs. 8,000, Staff salaries Rs. 5,000, Advertisement Rs. 2,000; Sales (170 units) Rs. 85,000.

[Ans : Gross Profit Rs. 22,200; Net Profit Rs. 15,200]

15. The following is the Trial Balance of Sri B. Deka as on 31.3.2004. You are required to prepare a Trading and Profit and Loss Account for the year ended 31.3.2000 and a Balance sheet as at that date.

Debit	Rs.	Credit	Rs.
Stock on 1.4.03	3,000	Sales	78,000
Purchases	50,000	Purchases Return	1,900
Carriage	400	Creditors	12,000
Sales Returns	600	Capital	14,300
Wages & Salaries	7,800	Bills Payable	8,000
Rent	1,800	Sundry Receipts	800
Discount	1,000		
Repairs	300		
Sundry Expenses	1,000		
Cash in hand	3,000		
Furniture	8,000		
Debtors	30,600		
Drawings	6,000		
Taxes & Insurance	1,500		
	1,15,000		**1,15,000**

The following adjustments are to be made

(i) Closing Stock on 3I.3.2004 Rs. 11,000

(ii) Furniture to the depreciated by 10% p.a.

(iii) Rent includes Rs.200 paid in advance

(iv) Wages outstanding Rs. 400

[Ans : Gross Profit Rs. 28,700; Net Profit Rs. 23,300; Balance Sheet total Rs. 52,000]

Illustration 7:

From the following Trial Balance of M/s. Bora and Das, a partnership firm, prepare a Trading and Profit and Loss Account for the year ended on 31st March, 2008 and a Balance Sheet as at that date :

Trial Balance as a 31st March, 2008

Debit	Amount Rs.	Credit	Amount Rs.
Manufacturing Plant	16,200	Sales	1,24,000
Effluent Treatment Plant	6,250	Loans	11,750
Land and Buildings	42,500	Returns Outward	300
Purchases	36,000	Sundry Creditor	4,600
Advance to Staff	200	Bills Payable	1,000
Drawings :		Rent Received	1,700
Bora	400	Capital Accounts :	
Das	200	Bora	20,000
Rates and Taxes	1,250	Das	13,000
Carriage	1,000	Interest on	
Effluent Treatment		I D B I Bond	500
Expenses	400	Reserve for Doubtful	

Cash at Bank	6,300	Debts	1,000
Cash in hand	1,600	Bad debt reserve	1,500
Bills Receivable	8,100		
Sundry Debtors	5,300	Insurance Fund	
Wages	18,500	Bad debt reserve	
Salaries	13,250		
Opening Stock	8,400		
Insurance	2,000		
10% I D B I Bond	10,000		
(Purchased on 1.4.07)			
	1,77,850		1,77,850

The following additional information has to be taken into consideration :

(i) The closing stock was valued at Rs. 2,750.

(ii) Outstanding expenses were :
wages - Rs. 250 and Salaries - Rs. 350.

(iii) Insurance was prepaid to the extent of Rs. 200.

(iv) Depreciate plant @ 10% p.a.

(v) The partners were to be provided interest on capital @ 4% p.a. and Das was to receive a salary of Rs. 250 per month.

(vi) Bora and Das shared profits and losses in the ratio of 3 : 2 respectively.

(vii) A machine whose book value is nil is sold for Rs. 500 and included in sales.

(viii) Market value of Bond is Rs. 9,900

(ix) Opening Stock was shown overvalued by Rs. 400.

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UNIT- 3 ACCOUNTING RATIOS AND CASH FLOW STATEMENT

UNIT STRUCTURE

Part I

Accounting Ratios

3.1 Learning Objectives

3.2 Introduction

3.3 Meaning of Ratio Analysis

3.4 Objectives of Ratio Analysis

3.5 Classification of Accounting Ratios

3.6 Advantages of Ratio Analysis

3.7 Analysis of Financial Statement through Ratios

3.8 Illustration 1

Part II

Cash Flow Statement

3.9 Meaning of Cash Flow Statement

3.10 Importance of Cash Flow Statement

3.11 Cash Flow Statement as per Accounting Standard 3

3.12 Illustration Preparation of Cash Flow Statement

3.13 Let Us Sum Up

3.14 Answers to Check Your Progress

3.15 Further Readings

3.16 Model Questions

3.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- define the meaning of ratio in financial analysis
- explain the objectives of ratio analysis
- analyse financial statements with the help of ratios
- define the meaning of cash flow
- describe the advantages and limitations of cash flow statement
- prepare cash flow statement

3.2 INTRODUCTION

Ratio analysis is the most commonly used tool of financial analysis. In the first part of this lesson we shall discuss the meaning of Ratio Analysis, Objectives of Ratio Analysis, Classification of Accounting Ratios, Advantages of Accounting Ratios and Analysis of Financial Statement through Ratios. In the second part of this lesson Cash Flow Statement will be discussed.

Ratio analysis is one of the techniques of financial statement analysis. Financial data by itself may not give the complete picture about a company's performance and financial well being. It is difficult to evaluate company's performance in terms of absolute figure without comparing them to certain norms and standards. Ratios provide a set of standardised parameters which can be compared across companies.

It is known to all that most of the business decisions are taken on the basis of cash availability. Therefore, management should know how much cash will come and how much will be spent. This is possible through Cash Flow Statement. Cash Flow Statement is prepared to facilitate the financial decision makers. The lesson which will follow is prepared to familiar the students with the concept and technique of preparing Cash Flow Statement.

3.3 MEANING OF RATIO ANALYSIS

Ratio analysis is one of the techniques of financial statement analysis. It is the most widely used tool to interpret quantitative relationship between two variables of one number to another. Ratio is a fixed relationship of two related numbers. In financial analysis ratios are used to express the financial relationship or operating relationship between any two variables of revenue statement and balance sheet. From the analytical point of view, it shows a static relationship, at a given point of time. Generally, ratios are calculated to express trend relationship or structural relationship.

According to J. Betty: ''the term accounting ratios is used to describe significant relationships which exist between figures shown in a Balance Sheet, in a profit and Loss Account, in a budgetary control system or in any other part of the accounting organization.'' According to Myers, ratio analysis is a 'study of relationship among the various financial factors in a business." Thus it may be said that ratio analysis is an accounting tool to present accounting variables in simple, concise, intelligible and understandable form.

Ratios are not an end but are a medium to reach the end. These are used to make decisions by various users group of financial statements for various purposes. Therefore, users of financial statements, keeping in view their own financial interest, interpret a single ratio differently. This is called interpretational flexibility of a ratio. Again, the interpretation may vary depending upon the time horizon, present condition in the industry and the economy etc.

3.4 OBJECTIVES OF RATIO ANALYSIS

The objectives of ratio analysis are to test of earning capacity, financial soundness and operating efficiency of a business organization. Such tests are done on the basis of varieties of factors, such as (a) purpose of the test, (b) age, nature and size of the enterprise, (c) time horizon, (d) methods of accounting and costing applied by the organisation, (e) the business cycle of the industry, (f) national economy, (g) the industry trend etc. The users of financial information, especially the financial analysts including credit rating agencies and financiers apply this tool to come a decision. It is also used to find out the trend and to forecast the future.

CHECK YOUR PROGRESS - 1

Explain the meaning of Ratio Analysis.

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3.5 CLASSIFICATION OF ACCOUNTING RATIOS

Ratios are classified on the basis of (a) The location of their constituent variables and (b) their function or objective of analysis, and

A. Locational Classification: There are three types of accounting ratios in this category. These are:

(i) Balance Sheet Ratios or Position Statement Ratios: This ratio represents the relationship between the two variables from the Balance Sheet i.e., two items of balance sheet. Examples of Balance Sheet Ratios are: Current Ratio, Debt-Equity Ratio, etc.

(ii) Revenue Statement Ratios: These ratios are computed taking variables from the Revenue Statement. Example of Revenue statement Ratios are: Gross Profit Ratio Expenses Ratios, Net Profit Ratio etc.

(iii) Composite Ratios or Mixed Ratios or Inter-statement Ratios: To compute these ratios, one variable is taken from the Balance Sheet and the other variable is taken from the Revenue Statement. Examples of Composite Ratios are: Return on Investment Current Assets Turnover etc.

B. Functional Classification: Ratios are classified according to their functions. This is the most important classification of accounting ratios. Analysis of the financial statements and interpretation thereof have been done generally on the basis of this classification There are mainly four types of accounting ratios in this classification. These are:

(i) Liquidity ratios,
(ii) Leverage ratios,
(iii) Activity ratios, and
(iv) Profitability ratios.

3.6 ADVANTAGES OF RATIO ANALYSIS

The primary objective of ratio analysis is to provide a logical base of information in the process of decision-making. All other objectives and advantages of ratio analysis are derived ones. For a proper understanding it is necessary to have a glimpse of the advantages that may be derived from ratio analysis :

(i) **Helpful in Simplifying Accounting Figures:** Accounting figures in many case fail to provide information in a desired way, Ratios simplify, summarise and systematize accounting figures which can be easily understood by those who do not know the language of accounting. Thus ratios help in communication and enhance the value of the financial statements.

(ii) **Helpful in Profitability Measurement:** Profit and Loss Account shows the profit earned or loss incurred during a period, but it fails to convey the capacity to earn in terms of per rupee invested or per rupee of sales. Accounting ratios help to measure the profitability. Return on Investment , capital employed and net profit ratio etc. are the best measures of profitability.

(iii) **Measurement of Financial Position**: Liquidity and solvency ratios are regarded as the tools to X-ray the financial health of an organization. Various ratios, viz, Debt-equity ratio, Proprietary ratio etc. give an idea of solvency position and Current ratio Liquid ratio show the liquidity position of the enterprise.

(iv) **Measure of Operating Efficiency:** Activity and turnover ratios tell us the operating efficiency of a business unit. Stock turnover, current assets turnover, assets turnover etc. are ratios calculated to measure the operating efficiency.

(v) **Help in control:** Ratio analysis helps in effective control of the business affairs. The trend ratios act as tracking signal of the estate of activities and financial position. Standard ratios may be used to judge if there is any variation. Trend ratios along with standard ratios are used to measure the degree of variance with the actual and the deviations along with the possible reasons thereof are reported to the management for the exercise of effective control.

(vi) **Help in Forecasting:** Ratios are of much help in business planning and forecasting. The trend ratios are analysed and used as guide to future planning What is to be done in the immediate future is decided, many a time, on the basis of trend ratios, i.e. ratios calculated for a number of years.

(vii) **Facilitates inter-firm and Intra-firm Comparison:** Ratio analysis is helpful, or, so to say, is the basis for comparing the efficiency of various firms in the industry and various divisions of a business firm,. Absolute figures are not suitable for the purpose of comparison. The accounting language simplified through ratios are the best tools to compare the firms and divisions of a firm.

The main advantage of ratio analysis is that it facilitates the process of decision-making. All other advantages of ratio analysis are derived ones. The advantage of Ratio analysis is found in the following areas:

(i) In Simplifying Accounting Figures,
(ii) In Measurement of Profitability,
(iii) In Measurement of Financial Position,.
(iv) In Measurement of Operating Efficiency,
(v) In exercising control,
(vi) In Forecasting,
(vii) In inter-firm and Intra-firm Comparison.

3.7 ANALYSIS OF FINANCIAL STATEMENT THROUGH RATIOS

A. Liquidity Analysis:

Liquidity analysis is done through liquid ratios. These ratios indicate the ease of turning assets into cash and thereby indicate the firm's ability to pay its current liabilities. Liquidity is generally analysed by taking into account the purpose and period. From this angle we have the following liquidity ratios:

1. Net Working Capital Ratio,
2. Current Ratio,
3. Liquid Ratio
4. Absolute Liquid Ratio
5. Overdue Liability Ratio
6. Defensive Interval Ratio
7. Inventory Turnover Ratio

The most important among these are Current Ratio and Liquid Ratio (Quick Ratio).

(i) Current Ratio:

The Current Ratio is one of the best-known measures of short term financial health. It is a ratio between current assets and current liabilities as reported in the financial statements. Current assets are those assets which, in the ordinary course of business, can be converted into cash within a short period of time. This short period of time normally consists of twelve months. Currents assets normally include cash and bank balances, marketable securities, debtors, bills receivables, inventory, prepaid expenses and accrued income. Current liabilities are obligations payable within a year. These are the liabilities which include trade creditors, bills payable, outstanding liabilities, advance income received, dividend payable contingent liabilities, and normally bank overdraft also. Moreover, provisions for taxation and other short-term provisions for unseen or unestimated liabilities are also classified as current liabilities.

But so far as financial management is concerned, frequent rolling of current assets is better for a healthy financial position which will push up the profitability. Therefore, more amount blocked in current assets results in loss in profits. On the one hand, low level of current assets will have a negative impact on the liquidity position. So, **there is the need for striking a balance between these two extremes- profitability and liquidity, while deciding upon an ideal current ratio.**

Current Ratio is calculated as shown below:

Current Ratio =

Total Current Assets / Total Current Liabilities

When the firm's current ratio is too low, its short-term liquidity is at risk. This may be corrected by:

- Paying some debts,
- Increasing current assets from loans or other borrowings with a maturity of more than one year,
- Converting non-current assets into current assets,
- Increasing current assets from new equity contributions,
- Putting profits back into the business,

(i) Quick Ratio:

The Quick Ratio is sometimes called the “acid-test” ratio and is one of the best measures of very short-term liquidity.

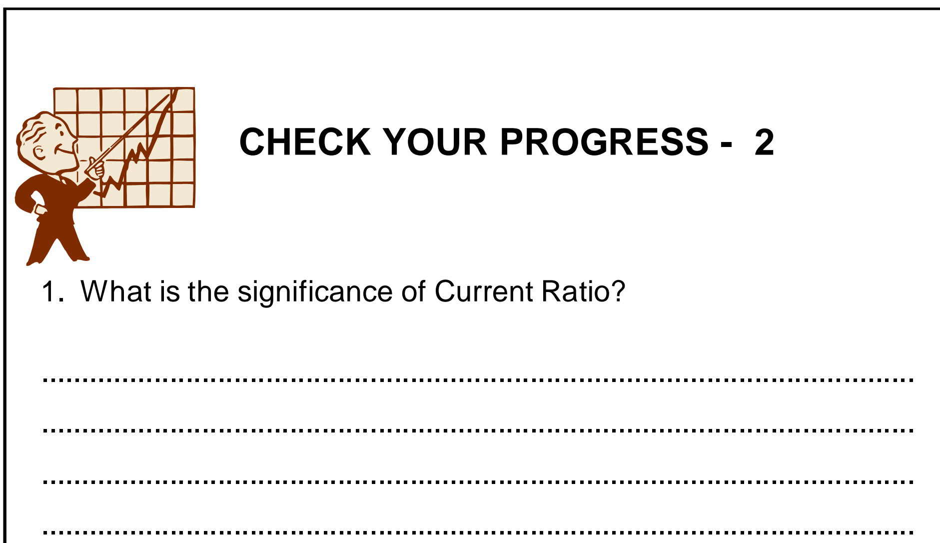
Many of the limitations of current ratio may be corrected through the use of liquid ratio. As against the liberal test of liquidity by the current ratio , liquid ratio gives a stringent measure of liquidity. Because, comparatively less liquid assets are excluded in calculating this ratio. The slowest moving current asset is inventory while pre-paid expenses are rarely realized if service is not utilised. Therefore these two current assets are excluded from current assets to get liquid assets. Current liability is also adjusted sometimes. If the nature of any current liability is such that it is not payable within the accounting year or its life is longer than one year, then such current liability may be excluded to calculate the liquid ratio. Bank overdraft is a current liability, it may be a permanent arrangement with the banker.

It is calculated as shown below:

Quick Ratio =
Cash + Government Securities + Receivables /
Total Current Liabilities

(iii) Net Working Capital Ratio

Net working capital ratio is generally computed between the two variables- (a) Net working capital, and (b) Average daily requirement of fund for operation excluding the current obligation



CHECK YOUR PROGRESS - 2

1. What is the significance of Current Ratio?

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B. Solvency and Leverage Analysis:

Solvency and Leverage Analysis are done through Leverage Ratios or Capital Structure Ratios. Leverage or capital structure ratios are used to analyse the **Long-term Financial Position** as **Test or Solvency.** Therefore, these are also known as **Long-term solvency Ratios.** The long-term financiers, either as equity holders or debt financiers, are least interested in short- term solvency. They are more concerned with the long-term financial position. To be more specific, they are more concerned with the repayment capacity of interest and principal. Therefore, there are mainly two categories of ratios commonly used to analyse **financial leverage—Structural ratios** and **Coverage ratios**.

Generally, the following leverage ratios/ structural ratios/long-term solvency ratios are computed:

1. Debt-Equity Ratio
2. Capital Gearing ratio
3. Total Debt –Equity Ratio
4. Debt to Total Capitalisation Ratio
5. Proprietary Ratio (Equity Ratio)
6. Total Debt to Total Assets Ratio
7. Fixed Assets to Net worth Ratio
8. Fixed Assets to Long-term Funds Ratio
9. Current Assets to Net worth Ratio
10. Long-term Fund to et Working Capital Ratio
11. Total Liabilities to Net worth Ratio
12. Debt- service Ratio
13. Cash to Debt Service Ratio
14. Dividend Coverage Ratio.

(i) Debt-Equity Ratio

Debt-Equity Ratio indicates the extent to which the business is reliant on debt financing (creditor money versus owner's equity):

Debt-Equity Ratio = Total Liabilities / Net Worth

Generally, the higher this ratio, the more risky a creditor will perceive its exposure in your business, making it correspondingly harder to obtain credit.

(ii) Capital Gearing Ratio:

This is an important ratio to judge the effect of earnings to the equity shareholders or earnings per equity share. It is ratio between Paid-up Equity Share Capital plus Reserve and surplus on the one hand and on the other Fixed Charge bearing Fund (Loan fund plus Preference Share Capital).

C. Activity or operating Analysis:

Activity or operating Analysis is done through Turnover Ratios. Turnover ratios are those, which are related to sales or main operation of the business and working capital. These ratios show the effectiveness of the firm in utilising its assets and working capital. These are, therefore, also known as 'activity ratios'. The following activity ratios are generally computed:

1. Inventory Turnover Ratio,
2. Debtors Turnover Ratio,
3. Creditors Turnover Ratio,
4. Total Assets Turnover Ratio,
5. Fixed Assets Turnover Ratio,
6. Current Assets Turnover Ratio,
7. Working Capital Turnover Ratio,
8. Cash Turnover Ratio,
9. Working Capital to total Assets Ratio,
10. Inventory to Working Capital Ratio,
11. Debtors to Working Capital Ratio,
12. Cash to Working Capital Ratio,
13. Capital Output Ratio.

(i) Inventory Turnover Ratio: This ratio indicates the speed at which the inventory is tuned into sales. A higher ratio indicates operating efficiency of the firm.

Inventory Turnover Ratio =
Cost of Goods Sold / Average Inventory

(ii) Creditors' Turnover: This ratio indicates the speed at which the creditors are paid. Turnover is generally expressed as number of times. Creditors' turnover is calculated as:

Another form of creditors turn over ratio is average payment period which is calculated as under:

Average payment period = Days in a year / Creditors' Turnover

(iii) Assets Turnover Ratio: The efficiency in utilising the firm's assets are reflected in assets turnover ratio.

Higher the turnover ratio, the more efficient is the management in utilising the assets.

Assets Turnover Ratio =
Sales or Cost of Goods Sold / Total Assets

There is no 'rule of thumb' or standard for Assets turnover ratio. A ratio higher than one is preferred. As a measure of efficiency, comparison of five to six years' ratio will serve the purpose in a better way.

D. Expense Ratios:

Generally expense ratio: The following are some generally expense ratios.

(i) Cost of Goods Sold Ratio:

Cost of Goods Sold Ratio = Cost of Goods Sold/Net Sales

(ii) Salary to Sales Ratio:

Salary to Sales Ratio = Salary/Net Sales

(iii) Selling and Distribution Expenses Ratio:

Selling and Distribution Expenses Ratio =
Selling & Distribution Expenses /Net Sales

(iv) Office and Administrative Expenses Ratio:

Office and Administrative Expenses Ratio =
Office and Administrative Expenses /Net Sales

(v) Non-operating Expenses Ratio:

Non-operating Expenses Ratio =
Non-operating Expenses /Net Sales

(vi) Operating Ratio:

Operating Ratio = **Operating Expenses /Net Sales**

E. Profitability Analysis:

Capacity to earn profit can be related with two variables- sales and investment. Relationship between profit and sales is shown by computing 'profit margin ratios', whereas relationship between profit and investment is shown through 'rate of return ratios'.

Profitability Ratios Relating to Sales:

1. Gross Profit Ratio
2. Operating Profit Ratio
3. Net Profit Ratio
4. Cash Profit Ratio
5. Cash Operating Profit Ratio
6. Cash Profit to Cash Sale Ratio Profitability Ratios Relating to Investment:
7. Return on investment (ROI)
8. Return on Total Assets
9. Return on Capital Employed (Return on Total Equity, Return on Common Equity)
10. Earning Power
11. Earning Per Share (EPS)
12. Dividend Per Share (DPS)
13. Cash Profit to Dividend Ratio
14. Price Earning Ratio
15. Dividend Pay out Ratio

16. Earnings Yield Ratio
17. Dividend Yield Ratio

(i) Gross Profit Ratio:

Gross Profit Ratio= Gross Profit /Net Sales

If G/P ratio is 25 p.c. it means 75 p.c. is the cost of goods sold and remaining 25 p.c. is the margin towards administrative and selling expenses and profit. **Generally a G/P ratio of 20 to 30 p.c. is desirable.**

(ii) Operating Profit Ratio:

Operating Profit Ratio = Operating Profit /Net Sales

(iii) Net Profit Margin Ratio:

This ratio is the percentage of sales value left after subtracting the cost of goods sold and all expenses, except income taxes. It provides a good opportunity to compare company's "return on sales" with the performance of other companies in the industry. It is calculated before income tax because tax rates and tax liabilities vary from company to company for a wide variety of reasons, making comparisons after taxes much more difficult. The Net Profit Margin Ratio is calculated as follows:

Net Profit Margin Ratio = Net Profit Before Tax / Net Sales

(iv) Return on Assets Ratio

This measures how efficiently profits are being generated from the assets employed in the business when compared with the ratios of firms in a similar business. A low ratio in comparison with industry averages indicates an inefficient use of business assets. The Return on Assets Ratio is calculated as follows:

Return on Assets = Net Profit Before Tax / Total Assets

(v) Return on Investment Ratio (ROI)

The ROI is the most important ratio of all profitability ratios. It is the percentage of return on funds invested in the business by its owners. In short, this ratio tells the owner whether or not all the effort put into the business has been worthwhile. The ROI is calculated as follows:

Return on Investment = Net Profit before Tax / Net Worth

Generally ROI and ROA are used in the same meaning.

(vi) Earning Per Share (EPS):

This is a measure of earnings to the Equity Shareholders.

EPS =

Profit after preference Dividend /No. of Outstanding Equity Shares

(vii) Dividend Per Share (DPS):

This is a measure of dividend earnings to the Equity Shareholders on their holding.

DPS =

Amount of Equity Dividend /No. of Outstanding Equity Shares

(viii) Price Earning Ratio:

This ratio shows the relationship between the market price of equity share and the earnings to the Equity shareholders.

Price Earning Ratio =

Market price per equity share / Earning Per Share

(ix) Dividend Pay Out Ratio:

This ratio shows the amount of dividend paid to the Equity shareholders out of the profit available to them.

Dividend Pay Out Ratio =

Total dividend paid to the Equity Shareholders/ Profit available to them

CHECK YOUR PROGRESS - 3

Write your answer in the space given below:
Give an account of the various ratios used to measure the profitability of a business firm?

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3.8 ILLUSTRATION 1

From the following information calculate (i) Gross profit Ratio, (ii) Return on Investment, (iii) Current Ratio, (iv) Stock Turnover, (v) Assets Turnover, (vi) EPS

Share Capital: 10,000 equity shares of Rs. 10 each

Sales:	Rs.12,00,000
Inventory:	Rs. 50,000
Current Assets;	Rs. 1,50,000
Current Liabilities:	Rs. 90,000
Profit after Tax	Rs. 1,20,000
Cost of goods sold:	Rs. 7,00,000
Fixed Assets	Rs. 2,50,000
Tax	Rs. 80,000

(i) Gross Profit Ratio:

Gross Profit Ratio= Gross Profit /Net Sales

[(12,00,000 – 7,00,000) ÷ 12,00,000] x 100 = 41.67

(ii) Return on Investment Ratio (ROI)

Return on Investment = Net Profit before Tax / Total Assets

[2,00,000 ÷ (1,50,000 + 2,50,000)] x 100 = 50.00

(iii) Current Ratio:

(1,50,000 ÷ 90,000) = 5:3

(iv) Inventory Turnover Ratio:

Current Ratio =
Total Current Assets / Total Current Liabilities

(v) Assets Turnover Ratio:

Inventory Turnover Ratio =
Cost of Goods Sold / Average Inventory

(12,00,000 ÷ 4,00,000) = 3

(vi) Earning Per Share (EPS):

This is a measure of earnings to the Equity Shareholders.

Assets Turnover Ratio = Sales /Total Assets

(1,20,000 ÷ 10,000) = Rs. 4

EPS =
Profit after preference Dividend /No. of Outstanding Equity Shares

PART II
CASH FLOW STATEMENT

3.9 MEANING OF CASH FLOW STATEMENT

Cash flow is the incoming and outgoing of cash into and from a firm. Most of the transactions performed during the accounting year results in the inflow and outflow of cash for numerous reasons. It is the cash book which records all the transactions on daily basis. It is not possible for the finance manager to go through all these for his decision making. Therefore the inflow and outflow of cash are classified into major three groups: Cash Flow from Operating Activities, Cash Flow from Financing Activities, and Cash Flow from Investing Activities. In Cash Flow Statement these three classifications of cash flow are applied.

Cash Flow Statement (CFS) is the summary statement of a company's cash receipts and cash disbursements over a period of time. It is a statement of movement of cash (cash to and cash from) operating, investing, and financing activities, along with the net increase or decrease in cash for the period. The cash flow statement is the financial tool that measures the cash flow of a company. It is a statement, which shows the sources from which cash has been generated and how it has been spent during a period of time. In other words, it is an analysis of all the changes that affect the cash account during an accounting period. These changes may be shown as either sources or uses of cash.

Cash Flow Statement measures the flow of money in and out of a business. It is one of the financial statements found in the annual report. It categorizes a company's cash receipts and disbursements for a given fiscal year by three major activities: operations, investments and financing.

This statement prepared annually by a company along with its profit and loss account and balance sheet. It gives explanation to the changes held by business in the cash and cash equivalents between one balance sheet date and the next.

A cash flow statement is a financial report that shows incoming and outgoing money during a particular period (often monthly or quarterly). It does not include non-cash items such as depreciation. This makes it useful for determining the short-term viability of a company, particularly its ability to pay its liabilities.

3.10 IMPORTANCE OF CASH FLOW STATEMENT

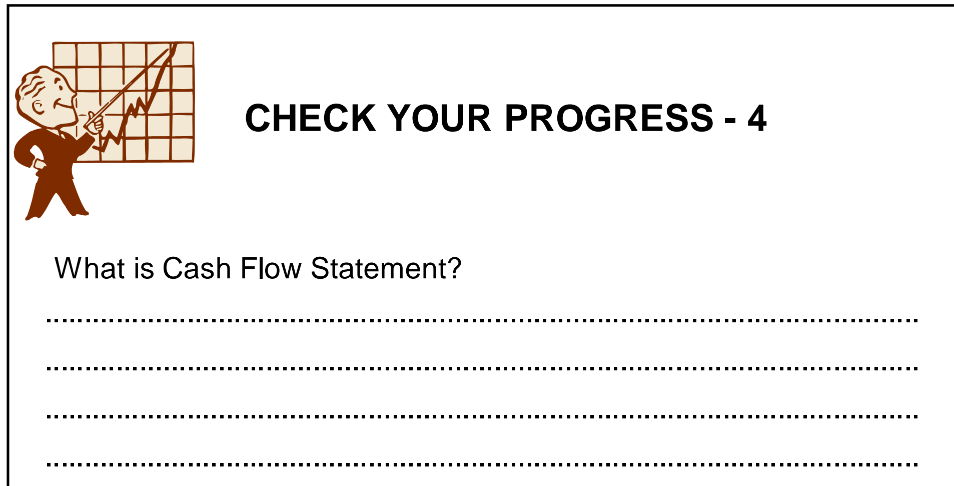
Balance sheet and profit and loss account prepared on the basis of accounting norms and principles contain certain non-cash items. It is sometimes difficult to evaluate the liquidity strength of a company. An analysis of cash flow statement tells us what is the company's cash earnings are, how the company is being financed and how the company is utilizing its funds. It reflects the cash sources and their application and shows how the deficit has been financed or where the excess cash has been parked. Investors should examine the flow statement as it tells where the funds have come from and how it has been utilized. The statement begins with cash in hand at the beginning of the year. To this are added sources and amounts of funds received and closing balance of cash sources is arrived at by deducting the application of funds.

The Institute of Chartered Accountants of India describes the benefits of cash flow statement (in Accounting Standard 3) in the following sentences:

A cash flow statement, when used in conjunction with the other financial statements, provides information that enables users to evaluate the changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timing of cash flows in order to adapt to changing
circumstances and opportunities. Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprises.

It also enhances the comparability of the reporting of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.

Historical cash flow information is often used as an indicator of the amount, timing and certainty of future cash flows. It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.



3.11 CASH FLOW STATEMENT AS PER ACCOUNTING STANDARD 3

Indian Accounting Standard 3, Cash Flow Statement, issued by the ICAI has classified cash flows as below:

1. **Cash flows from Operating Activities**
2. **Cash flows arising from Investing Activities**
3. **Cash flows arising from Investing Activities**

Cash flows from Operating Activities:

Operating Activities are the activities which are related with the day to day (normal) business of the firm. These are the transactions in the ordinary course of business. The amount of cash flows arising from operating activities is a key indicator of the extent to which the operations of the enterprise have generated sufficient cash flows to maintain the operating capability of the enterprise, pay dividends, repay loans and make new

investments without recourse to external sources of financing. Information about the specific components of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash flows.

Cash flows from operating activities are primarily derived from the principal revenue-producing activities of the enterprise. Therefore, they generally result from the transactions and other events that enter into the determination of net profit or loss. Examples of cash flows from operating activities as per AS 3 are given below:

a. Cash receipts from the sale of goods and the rendering of services;

b. Cash receipts from royalties, fees, commissions and other revenue;

c. Cash payments to suppliers for goods and services;

d. Cash payments to and on behalf of employees;

e. Cash receipts and cash payments of an insurance enterprise for premiums and claims, annuities and other policy benefits;

f. Cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities; and

g. Cash receipts and payments relating to futures contracts, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purposes.

Cash flows arising from Investing Activities:

Investing activities are the activities which are related with the purchase and sale of assets including financial assets. The separate disclosure of cash flows arising from investing activities in important because the cash flows represent the extent to which expenditures have been made for resources intended to generate future income and cash flows.

Examples of cash arising from investing activities as given in AS 3 are given below:

(a) Cash payments to acquire fixed assets (including intangibles,), capitalized cost of research & development and costs of self-constructed fixed assets;

(b) Cash receipts from disposal of fixed assets (including intangibles);

(c) Cash payments to acquire financial assets like shares, warrants, or debt instruments of other enterprises and interests in joint ventures (other than payments for those instruments considered to be as equivalents and those held for dealing or trading purposes);

(d) Cash receipts from disposal of shares, warrants, or debt instruments of other enterprises and interests in joint ventures (other than receipts from those instruments considered to be equivalents and those held for dealing or trading purposes);

(e) Cash advances and loans made to third parties (other than advances and loans made by a financial enterprises);

(f) Cash receipts from the repayment of advances and loans made in third parties (other than advances and loans of a financial enterprises);

(g) Cash payments for future contracts, forward contracts, option contracts, and swap contracts **except** when the contracts are held for dealing or trading purposes, or the payments are classified as financing activities; and

(h) Cash receipts from contracts, forward contracts, option contracts, and swap contracts **except** when the contracts are held for dealing or trading purposes, or the receipts are classified as financing activities.

Cash flows arising from Financing Activities:

Financing activities are the activities which relate to the acquiring of long term funds and their repayments. These include issue of shares, debentures, bonds, borrowing from banks etc. The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise. Examples of cash flows arising from financing activities as given in AS 3 are given below :

(a) Cash proceeds from issuing shares or other similar instruments;

(b) Cash proceeds from issuing debentures, loans, notes, bonds, and other short or long-term borrowings; and

(c) Cash repayments of amounts borrowed.

3.12 ILLUSTRATION PREPARATION OF CASH FLOW STATEMENT

As per AS 3 Cash Flow Statement cash flows from three different sources are determined separately first and then combining these three, Cash Flow Statement is prepared.

From the following Balances at the end of accounting year of M/S RUBY SISTERS prepare a Cash Flow Statement:

Opening balances:

Cash and Bank-	Rs. 35,000;
Debtors (trade)-	Rs. 55,000;
Creditors (Trade)-	Rs. 45,000;
Long-term creditors-	Rs. 1,50,000;
Sales: Cash-	Rs. 50,000:
Credit-	Rs. 5, 00,000;
Cost of Sales-	Rs. 2, 15, 000;
Administrative Expenses-	Rs.62, 000;
Selling Expenses-	Rs. 25,000;
Income Tax Payment-	Rs. 12,000;
Donations-	Rs. 6,800;
Withdrawals:	
Cash –	Rs.50,000;
Goods-	Rs 5,600;
Purchase of Computer-	Rs. 38,000;
Investment in a	
Joint Venture Business-	Rs. 68,000;
Advance Salary paid-	Rs. 4,000;
Closing Balances:	
Debtors (trade)-	Rs. 52,000;
Creditors (Trade) -	Rs. 40,000;
Long-term; Creditors-	Rs. 1,55,000;

There was no change in Capital Structure.

Solution:

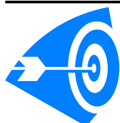
(a) Cash Flow from operating Activities			
		Rs	**Rs**
Receipts	From Cash Sales	50,000	
	From Debtors (55,000+5,00,000-52,000)	5,03,000	
			5,53,000
Less, Payments	Cost of Sales	2,15,000	
	Administrative Expenses	62,000	
	Selling Expenses	25,000	**(-)3,02,000**
			2,51,000
Less,	Extra-ordinary items; Donations		6,800
			2,44,200
Less,	Increase in Operating Assets: Advance Salary	4,000	
Less,	Income Tax Payment-	12,000	
			16,000
Cash Generation from Operating Activities (a)			**2,28,200**

(b) Cash from Investing Activities		
		Rs
Purchase of Computer	38,000	
Investment in a Joint Venture Business	68,000	
		1,06,000
Cash Generation from Investing Activities (b)		**(-)1,06,000**

(c)Cash from Financing Activities		
	Rs	Rs
Increase in Long-term Creditors- Rs. (1,55,000- 1,50,000)	5,000	
Withdrawals Cash - Rs.50, 000 Goods- Rs 5,600	55,600	
		60,600
Cash Generation from Financing Activities (c)		**(-) 60,600**

3.13 LET US SUM UP

1. Ratio is a fixed relationship of two related numbers. In financial analysis ratios are used to express the financial relationship or operating relationship between any two variables of revenue statement and balance sheet.
2. The objectives of ratio analysis are to test the earning capacity, financial soundness and operating efficiency of a business organization.
3. The Current Ratio is one of the best-known measures of short term financial health. It is a ratio between current assets and current liabilities as reported in the financial statements.
4. Cash Flow Statement measures the flow of money in and out of a business. It is one of the financial statements found in the annual report.



3.14 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS - 1

Ratio analysis is one of the techniques of financial statement analysis. It is a 'study of relationship among the various financial factors in a business."

CHECK YOUR PROGRESS - 2

It measures of short term financial health, i.e., the immediate paying capacity of the firm.

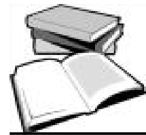
CHECK YOUR PROGRESS - 3

Ratios used to measure the profitability of a business firm are

Gross Profit Ratio, Operating Profit Ratio, Net Profit Ratio, Cash Profit Ratio, Cash Operating Profit Ratio, Cash Profit to Cash Sale Ratio, Return on investment, Return on Total Assets, Return on Capital Employed, etc

CHECK YOUR PROGRESS - 4

Statement of Cash Flow measures the flow of money in and out of a business categorizing a company's cash receipts and disbursements for a given fiscal year by three major activities: operations, investments and financing.



3.15 FURTHER READINGS

1. Financial Statement Analysis, By S Sikdar and H C Gautam
2. Management Accounting, by Khan and Jain
   Management Accounting, by Sharma and Gupta

3.16 MODEL QUESTIONS

1. Explain the meaning of Ratio analysis.
2. Describe the application of ratio analysis.
3. How would you calculate the following ratios: Net Profit Ratio, Debtors Turnover, EPS, Capital Gearing, Debt Equity ratio.
4. What is Cash flow?
5. Explain the utility of cash flow statement.
6. If a firm has 100 in inventories, a current ratio equal to 1.2, and a quick ratio equal to 1.1, what is the firm's Net Working Capital?

7. What are the limitations of ratio analysis?
8. What is Cash flow statement? Explain the steps involved in preparing a Cash flow statement.
9. From the following information make out a statement of Proprietors fund with as many details as possible:

- Current ratio 2.5
- Liquid ratio 1.5

§ Proprietary ratio(Fixed assets / Proprietary funds) 0.75
§ Working capital Rs. 60,000
§ Reserves & Surplus Rs. 40,000
§ Bank Over draft Rs. 10,000
§ There is no long term loan or fictitious assets

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UNIT- 4 COST CONCEPTS AND COST SHEET

UNIT STRUCTURE

4.1 Learning Objectives
4.2 Introduction
4.3 Meaning of Cost
4.4 Classification of Cost
4.5 Various Cost Concepts
4.6 Cost Centre
  4.6.1 Types of Cost Centres
4.7 Cost Unit
  4.7.1 Elements of Costs
4.8 Cost Sheet
4.9 Let Us Sum Up
4.10 Answers to Check Your Progress
4.11 Further Readings
4.12 Model Questions

4.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- explain the meaning of cost
- classify the costs
- identify the cost centre
- define the meaning of cost unit
- describe the various elements of costs and cost sheet
- conceptualise different concepts of working capital
- explain the need for working capital

4.2 INTRODUCTION

In this unit, we are going to discuss cost concept and cost sheet. This unit will help us to learn about the meaning of cost, classification and concepts of costs. Moreover, we will introduce you to the cost centre, cost unit and cost sheet.

4.3 MEANING OF COST

We all know what a cost does mean. It is nothing but expenditure incurred. It is not that it includes only cash expenditure, it may be non-cash in nature or the cost may be paid in future also. For example, a shop owner may not take his salary from his shop for the time and labour he has spent. Certainly there is a price for the time and labour the shop owner spent for his shop. This is also a cost. Thus 'Cost' may be defined as the amount of expenditure (actual or notional) incurred on or attributable to a given thing. Cost is the amount of resources that have been or must be sacrificed to attain a particular objective.

Cost is a measurement, in monetary terms, of the amount of resources used for some purposes (Anthony and Welsch.)

Cost is the amount of resources used up in exchange for some goods or services. The resources used up are expressed in terms of money.

When you buy a book you will pay the price. It is your cost and at the same time it is the seller's revenue. What is seller's cost? Seller's cost for the book is the price paid by him to the supplier/publisher when he procured the book. But actually seller's cost is more than what he has paid to the supplier/publisher on account of the transportation expenses and other incidental expenses incurred by him for such procurement. What may be the cost of manufacturing one molded plastic chair? Though we can say the exact cost, we may have an idea of the various items of cost. These are cost of raw materials, wage cost and other expenses. Thus, the term cost includes all expense incurred in producing/delivering/rendering a good or service to the buyer or user or consumer.

CHECK YOUR PROGRESS - 1

1. Define the meaning of Cost.

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4.4 CLASSIFICATION OF COST

Cost is useful to the management for the following reasons:-

- Planning profit by means of budgets ,
- Measuring annual or periodic profit,
- Controlling Cost,
- Fixing selling prices,
- Framing price policy

So, to attain the above objective it is necessary to analyse and classify costs. Classification is required to arrive at the detailed costs of various jobs, processes or departments.

The different bases of cost classification that are found in practice are on cost characteristics. They are as follows:-

1. Natural characteristics (material, labour and overheads),
2. Changes in activity or volume (fixed and variable),
3. Relation to the product,
4. Traceability to the product(direct and indirect cost);
5. Function,
6. Cost analysis and decision making purposes

4.5 VARIOUS COST CONCEPTS

A clear understanding of various cost concepts is essential for the study of cost accounting and cost systems.

Product and Period Costs :

The product cost is aggregate of costs that are associated with a unit of product. Such costs may or may not include an element of overheads depending upon the type of costing system in force absorption or direct. Product costs are related to goods produced or purchased for re-sale and are initially identifiable as part of inventory.

The period cost is a cost that tends to be unaffected by changes in level of activity during a given period of time. Period cost is associated with a time period rather than manufacturing activity and these costs are deducted as expenses during the current period without previously classified as product costs. Selling and distribution costs are period costs and are deducted from the revenue without their being regardedas part of the inventory cost.

Common and Joint Costs :

The common costs are indirect costs that are incurred for the general benefit of a number of departments or for the whole enterprise and which is necessary for present and level of operations. The joint costs are the costs of either a single process or a series of processes that simultaneously produce two or more products of significant relative sales value.

Short run and Long run Costs :

The Short run costs are costs that vary with output when fixed plant and capital equipment remain the same and become relevant when a firm has to decide whether or not to produce more in the immediate future. The long run costs are those which vary with output when all input factors including plant and equipment vary and become relevant when the firm has to decide whether to set up a new plant or to expand the existing one.

Controllable and Non controllable Costs :

The Controllable cost is a cost chargeable to a budget or cost centre, which can be influenced by the actions of the person in whom control of the centre is vested. The controllable cost is a cost that can be influenced and regulated during a given time span by the actions of a particular individual within an organization. The controllability of cost depends upon the level of responsibility under consideration. Direct costs are generally controllable by the shop level management. The uncontrollable cost is a cost that is beyond the control (i.e., uninfluenced by actions) of a given individual during a given period of time.

Replacement :

The Replacement cost is a cost at which material identical to that is to be replaced could be purchased at the date of valuation (as distinct from actual cost price at the date of purchase). The replacement cost is a cost of replacing an asset at any given point of time either at present or in the future (excluding any element attributable to improvement).

Historical Costs :

The Historical cost is the actual cost, determined after the event. Historical cost valuation states costs of plant and materials, for example, at the price originally paid for them whereas replacement cost valuation states the costs at prices that would have to be paid currently. Costs reported by conventional financial accounts are based on historical valuations.

Historical Costs :

The Historical cost is the actual cost, determined after the event. Historical cost valuation states costs of plant and materials, for example, at the price originally paid for them whereas replacement cost valuation states the costs at prices that would have to be paid currently. Costs reported by conventional financial accounts are based on historical valuations.

Out of pocket :

The Out of pocket cost is a cost that will necessitate a corresponding outflow of cash. These costs involve cash outlay or payment to other parties and are termed as out of pocket costs.

Book Costs :

Book costs are those which do not require current cash payments. Depreciation is a notional cost in which no cash transaction is involved.The distinction between out of pocket costs and book costs primarily shows how costs affect the cash position. Out of pocket costs are relevant in some decision making problems such as fluctuation of prices during recession, make or buy decisions etc. Book costs can be converted into out of pocket costs by selling the assets and having them on hire. Rent would then replace depreciation and interest.

Imputed Costs :

The Imputed cost is a cost which doesn't involve actual cash outlay, which are used only for the purpose of decision making and performance evaluation. Imputed cost is a hypothetical cost from the point of view of financial accounting. Interest on capital is common type of imputed cost. No actual payment of interest, is made but the basic concept is that, had the funds been invested elsewhere they would have earned interest. Thus, imputed costs are a type of opportunity costs.

Sunk Costs

The Sunk costs are those costs that have been invested in a project and which will not the project is terminated. The sunk cost is one for which the expenditure has taken place in the past. This cost is not affected by a particular decision under consideration.

Sunk costs are always the results of decisions taken in the past. This cost cannot be changed by any decision in future. Investment is plant and machinery as soon as it is installed, and its cost is sunk cost which is not

relevant for decisions. Amortization of past expenses e.g., depreciation is sunk cost. Sunk costs will remain the same irrespective of the alternative selected. Thus, it need not be considered by the management in evaluating the alternatives, as it is common to all of them. It is important to observe that an unavoidable cost may not be a sunk cost. The Managing Director's salary is generally unavoidable and also out of pocket but not sunk cost.

CHECK YOUR PROGRESS - 2

1. What is Imputed Cost?

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4.6 COST CENTRE

According to the Terminology of the Cost and Management Accountants of England a cost centre, is a location, a person or an item of equipment (or group of these) for which costs may be ascertained and used for the purposes of Cost Control. So a cost centre may be an individual, a machine or a shop in the factory.

Thus, Cost centre is a location/place, person or item of equipment for which cost incurred may be ascertained which may be used for the purpose of cost control.

CIMA defines cost centre as "a production or service, function, activity or item of equipment whose costs may be attributed to cost units. A cost centre is the smallest organizational sub unit for which separate cost allocation is attempted".

It is very much necessary to divide the business into logical parts to which costs can conveniently be charged. Each part is known as cost centre For example, the factory overheads may be allocated to several machines

on the basis of some rational principles to ascertain the machine hour rate. So the machine is a centre.

From the functional point of view, a cost centre may be any unit within the organization to which costs can be separately attributed. It may be a sub-division; a unit of sub-division, a machine or group of similar machines. Thus, a cost centre is an individual activity or it may be a group of similar activities for which costs are accumulated. For example, possible cost centers in a business organization may be production division, a machine, account department, canteen etc.

4.6.1 Types of Cost Centres

The cost centres may be classified into the following groups:

1. Personal Cost Centres
2. Production Cost Centres
3. Service Cost Centres
4. Process Cost Centre

A cost centre which consists of a person or group of persons is called personal cost centre. Cost centres which are engaged in production activity by conversion of raw material into finished production are Production Cost Centres. Machine shops, welding shops are examples of production cost centre. Cost of direct materials, direct labour, chargeable expenses and factory overheads are charged to this centre .

Service cost centres are those, which are ancillary to and render service to other production and service cost centres. These centres render services to production centres. Only indirect costs are charged to these centres. Important service centres are:-

1. Material Service Centre – which deals with handling and upkeep of stores, internal transport.
2. Personal service centre like personnel department.
3. Plant maintenance centre .
4. Administration centres like general office, accounts office, etc.

A process cost centre in which a specific process or a continuous sequence of operations is carried out.

The selection of a cost centre depends upon a number of factors namely organizational division of work, condition of incidence of cost, communication aids and availability of information and needs of costing and management policy regarding the choice of a course of action from various alternatives.

4.7 COST UNIT

A cost unit is a unit of product or unit of service to which costs are ascertained by means of allocation, apportionment and absorption. CIMA defines cost unit as “a quantitative unit of product or service in relation to which costs are ascertained”. It is a unit of quantity of product, service or time or a combination of these in relation to which costs are expressed or ascertained. For example, specific job, contract, unit of product like Fabrication Job, Road Construction Contract, an Automobile Truck, a Table, 1000 Bricks, etc. Thus, cost unit may be units of production e.g. tons of cement, gallons of gas, typewriters or units of service like consulting hours patent rights, kilowatt hours etc.

The relation between cost centre and cost unit is that the costs of a function or activity are classified to the cost centre. The cost units, which pass through the cost centre, the direct and indirect costs of the cost centre are charged to the units of production by means of an absorption rate. The unit of output in relation to which cost incurred by a cost centre is expressed is called **cost unit**. It is useful measurement of costs for comparative purposes.

Examples of Cost Units:

Examples of cost units are given in a tabular form easy understanding.

Industry/Product	**Cost Unit**
Motor Car	Per Car
Ship building	Per Ship
Aircraft	Per Air Craft
Television	Per Set
Oil Refinery	Per Ton
Coal, Iron ore	Per Ton
Steel	Per ton
Fertilizers	Per ton
Industry/Product	**Cost Unit**
Chemicals	Per Kg./Litre
Electricity	Per Unit
Building	Per Sq. ft./meter

Power	Kilo watt hour
Nuts and bolts	Gross
Transport	Ton-Kilometre Passenger per KM.
Cable	Per Meter
Cement	Ton
Motor Car	Per Car
Ship building	Per Ship
Aircraft	Per Air Craft
Television	Per Set

4.7.1 Elements of Costs

Elements of cost mean the components of cost of producing a good or generating service. There may be many inputs used in the production of goods or services. Therefore, generally **Elements of Costs** is explained in terms three broad classification. These are

- Material
- Labour
- Expenses

Material may Direct Materials and Indirect Materials.

Labour may Direct Labour and Indirect Labour.

Expenses may Direct Expenses and Indirect Expenses.

On this basis the following cost classification is followed to find out cost of production.

1. Direct Materials used

+ Materials used in primary packing
+ Freight on materials purchased
+ Direct Labour
+ Productive wages
+ Direct Expenses
+ Chargeable expenses
= **Direct Cost** = **PRIME COST (A)**

2. Indirect Materials used in factory

+ Factory supervision expenses
+ Factory indirect expenses
+ Depreciation on factory building
= **Factory/Works Overheads**

3. Indirect Materials used in office
   + Administration expenses
   + Depreciation on office building
   = **Office Overheads**

4. Indirect Materials used in selling the product
   + Advertisement
   + Bad Debt
   + Depreciation on Delivery van
   + Salary to driver of delivery van
   = **Distribution Overheads and Selling Overheads**

<u>COST OF PRODUCTION</u>

Direct Cost	=	PRIME COST
+ Factory/Works Overheads	=	WORKS COST
+ Office Overheads	=	COST OF PRODUCTION

<u>COST OF SALES/TOTAL COST</u>

COST OF PRODUCTION
+ Distribution Overheads and Selling Overheads
= COST OF SALES/TOTAL COST

CHECK YOUR PROGRESS - 3

1. What may be the factors which influence the section of a cost centre?

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4.8 COST SHEET

Definition

Cost sheet is a statement which depicts detailed information about total costs and cost of a product manufactured during a particular period of time. The cost sheet is prepared for a particular period e.g. monthly, quarterly etc.

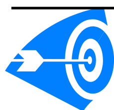
Objectives of Preparing Cost Sheet:

The cost sheet is prepared with the following objectives:-

1. It ascertains the total cost and cost per unit for a particular period.
2. It enables the management to fix up sale price of products.
3. It helps to present a comparative study of current costs with the costs of the corresponding period.
4. The management can identify the causes of inefficiencies and wastages and the management can take corrective measures.
5. It provides management with suitable information for management control.
6. It also helps the management considerably in formulating suitable and definite production policy.
7. Cost sheet enables the businessman to submit quotation against tenders.

4.9 LET US SUM UP

1. 'Cost' may be defined as the amount of expenditure (actual or noational) incurred on or attributable to a given thing.
2. Classification is required to arrive at the detailed costs of various jobs, processes or departments.
3. The product cost is aggregate of costs that are associated with a unit of product.
4. Book costs are those which do not require current cash payments.
5. The Sunk costs are those costs that have been invested in a project and which will not the project is terminated.
6. Cost centre is a location/place, person or item of equipment for which cost incurred may be ascertained which may be used for the purpose of cost control.
7. Cost centres may be classified as - Personal Cost Centres, Production Cost Centres, Service Cost Centres, Process Cost Centre



4.10 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS 1

Cost is a measurement, in monetary terms, of the amount of resources used for some purposes (Anthony and Welsch.)

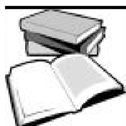
Cost is the amount of resources used up in exchange for some goods or services. The resources used up are expressed in terms of money.

CHECK YOUR PROGRESS 2

The Imputed cost is a cost which doesn't involve actual cash outlay, which are used only for the purpose of decision making and performance evaluation. Imputed cost is a hypothetical cost from the point of view of financial accounting. Interest on capital is common type of imputed cost.

CHECK YOUR PROGRESS 3

The selection of a cost centre depends upon a number of factors namely organizational division of work, condition of incidence of cost, communication aids and availability of information and needs of costing and management policy regarding the choice of a course of action from various alternatives.



4.11 FURTHER READINGS

1. Cost Accounting – Principle and Practice; M.N. Arora, Sultan Chand & Sons
2. Cost Accounts; S.P. Jain & P.K. Jain.
3. Cost Accounting; M.Y. Khan & P.K. Jain.
4. Practical Costing; P.C. Tulsian.

4.12 MODEL QUESTIONS

1. Define 'cost'. What are the elements of cost?
2. What is cost unit? Mention the cost units used in the following industries: Motor Car, Ship building, Television, Oil Refinery, Steel, Chemicals, Power, Nuts and bolts. Cement
3. Define cost centre. What are the different types of cost centres?
4. Explain the meaning of Cost sheet. Why is it prepared?

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UNIT- 5 BUDGETARY CONTROL AND MARGINAL COSTING

UNIT STRUCTURE

5.1 Learning Objectives
5.2 Introduction
5.3 Meaning of Budget
5.4 Purpose of Budget
5.5 Budgetary Control - Meaning and Essentials
5.6 Merits of Budgetary Control System
5.7 Steps in Preparation of Budgets
5.8 Classification of Budgets
5.9 Standard Cost and Standard Costing
5.10 Variance Analysis
5.11 Marginal Cost and Marginal Costing
5.12 Advantages of Marginal Costing
5.13 Managerial Application of Marginal Costing
5.14 Break Even Analysis
5.15 Let Us Sum Up
5.16 Answers to Check Your Progress
5.17 Further Readings
5.18 Model Questions

5.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- explain the meaning of budget
- describe the purpose of budget
- classify and prepare the budget
- define marginal cost
- explain the meaning of marginal costing
- identify the managerial application of marginal costing
- illustrate the application of break even analysis

5.2 INTRODUCTION

In this unit, we are going to discuss the purpose of budget and how to classify and prepare the budget. This unit will help us to learn about the marginal cost and explain the meaning of marginal costing. Moreover, we will introduce you to identifying the managerial application of marginal costing and illustrate the application of break even analysis.

5.3 MEANING OF BUDGET

Budget is a common term generally used in financial planning. You must have come across the term in the last part of the month of February each year. Our Finance Minister presents the Annual Budget in the Parliament. Now let us define what this budget is. It is a plan expressed in quantitative, usually in monetary terms, covering a specified period of time, usually one year. Many companies refer to their annual budget as a profit plan since it shows the planned activities that the company expects to undertake in its responsibility centres in order to obtain its profit goals.

The Chartered Institute of Management Accountant of London (CIMA) defines a Budget in the following words. ***"A Budget is a plan quantified in monetary terms, prepared and approved prior to a defined period of time, usually*** showing planned income to be generated and/or expenditure to be incurred during that period and the capital to be employed to attain a given objective.''

''A budget is a pre-determined statement of management policy during a given period which provides a standard for comparison with the result actually achieved."— J. R. Brown and L.R. Howard. Therefore, preplanning is a cardinal feature of budgetary control.

There are some essential elements of budget. These are

(i) plan
(ii) operations and resources
(iii) financial terms
(iv) specified future period
(v) comprehensiveness
(vi) coordination

5.4 PURPOSE OF BUDGET

The budget of an enterprise serves the following purposes :

(i) Budget is an aid in making and coordinating short-range plans.

(ii) It is a tool for communicating these plans to the departmental managers.

(iii) Budget is a way of motivating people including managers to achieve departmental and organizational goals.

(iv) It is a bench mark for controlling ongoing activities.

(v) Budget is a basis for evaluating the performance of departmental managers.

The budget coordinates the various operational activities of an enterprise so as to take care of the situations and problems of each component. The budgets for each of the components are prepared in harmony with each other to make it effective and meaningful.

5.5 BUDGETARY CONTROL MEANING AND ESSENTIALS

Simply having a budget does not work. It must be related to the work situation. Budgetary control, therefore, means laying down in monetary and quantitative terms what exactly has to be done and how exactly it has to be done over the coming period and then to ensure that actual results do not deviate from the planned course.

According to Brown and Howard —-

"Budgetary control is a system of controlling costs which includes the preparation of budget, coordinating the departments and establishing responsibilities, comparing actual performance with that budgeted and acting upon results to achieve maximum profitability."

CIMA defines budgeting control as *"The establishment of departmental budgets relating to responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results, either to secure by individual action the objectives of that policy or to provide a firm for its revision."*

Budgetary control is a tool of great potency for infusing forward looking dynamism and for harnessing the energies of people at all levels. A good Budgetary Control system has the following features

- It determines the objectives to be achieved over the budget period.
- It addresses variety of activities that should be undertaken for the achievement of the objectives.
- It should draw a plan or a scheme of operation in respect of each class of activity, in physical as well as monetary terms.
- It facilitates comparison of actual performance by each person, section or department with the relevant budget and determines the causes for the discrepancies, if any.
- It ensures that corrective action will be taken, where the objective is not achieved and, that be not possible, for the revision of the plan.

CHECK YOUR PROGRESS - 1

1. Mention two features of budget.

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5.6 MERITS OF BUDGETARY CONTROL SYSTEM

A good budgetary control system has the following advantages:

(i) It ensures maximum utilisation of available resources with a view to achieving maximum profitability.

(ii) Better coordination between different departments could be established and hence better understanding between different functions could be achieved.

(iii) A sense of awareness is created at all levels of management in the process of achieving the planned targets.

(iv) It is a process of self-evaluation and self-criticisms at departmental level which is essential for the success of any business enterprise.

(v) It helps in increasing productivity of men, materials and machine.

(vi) It acts as a yard-stick for measuring actual performance against targeted performance.

(vii) By comparing the actual with the targeted performance, budgetary control can identify the variances and helps to take remedial measures for correcting the variances.

5.7 STEPS IN PREPARATION OF BUDGETS

Preparation of budget leads to its establishment, i.e., to operate a budgetary control system. For this the following steps should be taken:

1. Ensure a well planned organization,
2. Establish separate Departments,
3. Adequate accounting records should be maintained,
4. Pass on general Instruction in operating the system,
5. Prepare an organisation chart,
6. Establish Budget Committee,
7. Budget manual is to be prepared
8. Budget periods should be ascertained
9. The Key Factor or ‘limiting’ or ‘governing’ or ‘principal budget’ be assessed
10. Establish the normal level of activity.

Formation of Budget Committee

It is the Budget Committee that receives the forecasts and targets of each department as well as periodic reports and finalises the final acceptable targets in the form of **Master Budget.** The Budget Committee also approves the departmental budgets. It is imperative that opportunities must be provided to the executives of all the departments for their participation in the process of budget making.

5.8 CLASSIFICATION OF BUDGETS

Budget may be classified as follows :

1. On the basis of time,
2. On the basis of function,
3. On the basis of flexibility,
4. On the basis of nature of business activity.

1. On the basis of time

    (i) Long-term Budgets

    (ii) Short-terms Budgets

    (iii) Current Budgets

2. On the basis of function

    (i) Master Budget or Summary Budget

    (ii) Functional Budgets or Subsidiary Budgets

(i) Master Budget or Summary Budget :

Master Budget consolidates an organisation's overall plans for a shorter span of time. It is usually prepared on an annual basis. The Master Budget is one that projects the activities of the business as a whole during the budget period. It is prepared by the Budget Officer, and incorporates the details shown in the subsidiary budgets.

(ii) Functional Budgets or Subsidiary Budgets

Functional budgets are those that are prepared on the basis of approved forecasts for individual department. These functional budgets may vary in number from business to business. Normally, the following types of functional budgets are in vogue.

(a) Sales Budget, (b) Production Budget, (c) Raw Material Budget, (d) Labour Budget, (e) Plant Budget, (f) Research and Development Budget, (g) Overheads Budget, (h) Financial Budgets— Cash Budget, Capital Budget and Expenditure Budget.

3. On the basis of flexibility

    (i) Fixed Budget and (ii) Flexible Budget.

(i) Fixed Budget : Fixed Budgets are prepared for a fixed or standard volume of activity. They do not change with the change in the volume of activity. These budgets are prepared well in advance. These budgets are not helpful for making comparison.

According to I.C.M.A. *"a fixed budget is a budget designed to remain unchanged irrespective of the level of activity actually attained."*

Fixed budget is normally prepared when activities can fairly be forecast with reasonable certainty.

(ii) Flexible Budget : The I.C.M.A. defines flexible budgets as *"a budget which is designed to change in accordance with the level of activity attained."* These budgets are helpful for making comparison.

4. On the basis of nature of business activity
   (i) Operating Budgets or Revenue Budgets
   (ii) Capital Expenditure Budgets

(i) Operating Budgets : Operating budgets are those that incorporate routine activities, i.e., operations. These budgets are prepared on the basis of forecasts made in respect of routine activities like sales, production, costs, revenues etc.

(ii) Capital Expenditure Budgets :

As the name suggests these budgets are related to the plans aiming at creating manufacturing facilities. These budgets are very significant for the large manufacturing concerns. It represents estimated expenditure on all fixed assets during the budget period.

5. Plant Utilisation Budget

Plant utilisation budget is prepared in terms of working hours, weight or other convenient units of plant facilities required to carry out the programme laid down in the production budget.

6. Sales Budget

Since sales forecasts are the starting point of any budgeting, sales budget assumes primary importance. Sales Budget is one of the functional budgets. The sales budget represents the total sales in physical quantities and values for a future budget period.

7. Cash Budget

The Cash Budget is one of the most important budgets to be prepared. It represents the cash requirements of the business during the budget period. It contains detailed estimate of cash receipts and disbursements either for the budget period or part of this period. It is a useful tool in cash management of the organization. It reveals potential cash shortages as well as potential excess cash.

CHECK YOUR PROGRESS - 2

1. What is the function of Master Budget?

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5.9 STANDARD COST AND STANDARD COSTING

When we want to measure some thing, we take some parameter or yardstick for measuring. We can call this parameter or yardstick as standard. The term '*standard*' means a benchmark or yardstick. Standard means a basis for comparison with the actual. Standard cost is also a predetermined benchmark or yardstick which determines in advance what each product or service should cost under given circumstances. The terminology of CIMA defines standards as "a predetermined measurable quantity set in defined conditions against which actual performances can be compared, usually for an element of work, operation or activity. It is a predetermined cost which is calculated from management's standards of efficient operations and the relevant necessary expenditure."

Standard cost is the cost calculated for each element of cost prior to the actual production. It is a technical estimation. It is defined by the ICMA, London, in its Costing Terminology as "a pre-determined calculation of how much costs should be under specified working conditions..." The term is

used in standard costing. Standards are technically estimated for each item of materials, wages and each item of expenses.

Standard costing is the technique of using standard costs for the purposes of cost control. It is a system of cost accounting which is designed to find out how much the cost of a product under defined conditions should be. Standard costing is a management control technique for every activity. The actual cost can be ascertained only when production is undertaken. The predetermined cost is compared to the actual cost and a variance between the two enables the management to take necessary corrective measures.

It is not only useful for cost control purposes but is also helpful in production planning and policy formulation. It allows management by exception.

It enables the management to evaluate performance of various cost centers by comparing actual costs with standard costs. The performance variances are determined by comparing actual costs with standard costs. Management is able to spot out the place of inefficiencies. It can fix responsibility for deviation in performance. It is possible to take corrective measures at the earliest. A regular check on various expenditures is also ensured by standard cost system.

CHECK YOUR PROGRESS - 3

1. Write the meaning of Standard Cost and Standard Costing.

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5.10 VARIANCE ANALYSIS

The concept of variance is intrinsically connected with planned and actual results and effects of the difference between those two on the performance of the entity or company. A variance is the difference between a standard and the actual. In management accounting it is the difference between

budgeted or planned or standard amount and the actual amount incurred/ sold. Variances can be computed for both costs and revenues.

Variance analysis is the process by which the total difference between the standard and the actual results is analysed. When ithe actual results are better than the expected results, we have a favourable variance (F). If, on the other hand, actual results are worse than expected results, we have an adverse (A).

In cost accounting the following variances are analysed:

Direct material variances
The direct material total variance is the difference between what the output actually costs and what it should have cost, in terms of material.

The direct material price variance
This is the difference between what the actual quantity of material used did cost and what it should have cost.

The direct material usage variance
This is the difference between how much material should have been used for the number of units actually produced and how much material was used, valued at standard cost.

The direct material price variance is calculated on material purchases in the period if closing stocks of raw materials are valued at standard cost or material used if closing stocks of raw materials are valued at actual cost

Direct labour total variance
The direct labour total variance is the difference between what the output should have cost and what it did cost, in terms of labour.

Direct labour rate variance
This is the difference between what the actual number of hours worked should have cost and what it did cost.

The direct labour efficiency variance
The is the difference between how many hours should have been worked for the number of units actually produced and how many hours were worked, valued at the standard rate per hour.

Variable production overhead total variances

The variable production overhead total variance is the difference between what the output should have cost and what it did cost, in terms of variable production overhead.

The variable production overhead expenditure variance

This is the difference between what the variable production overhead did cost and what it should have cost

The variable production overhead efficiency variance

This is the same as the direct labour efficiency variance in hours, valued at the variable production overhead rate per hour.

Fixed production overhead variances

The total fixed production variance is an attempt to explain the under- or over-absorbed fixed production overhead.

The fixed production overhead variances are calculated as follows:

Fixed production overhead variance This is the difference between fixed production overhead incurred and fixed production overhead absorbed (= the under- or over-absorbed fixed production overhead)

Selling price variance

The selling price variance is a measure of the effect on expected profit of a different selling price to standard selling price. It is calculated as the difference between what the sales revenue should have been for the actual quantity sold, and what it was.

Sales volume variance

The sales volume variance is the difference between the actual units sold and the budgeted quantity, valued at the standard profit per unit. In other words it measures the increase or decrease in standard profit as a result of the sales volume being higher or lower than budgeted.

5.11 MARGINAL COST AND MARGINAL COSTING

Definition of Marginal Cost

According to the Institute of Cost and Management Accountant marginal cost is ***"The amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit."***

In other words marginal cost is the cost of producing one additional unit. It is true that with the increase in one unit of output the total cost is increased and this increase in total cost is due to change in the volume of output. This increased amount of cost is known as **marginal cost.**

An example will clarify the matter. Suppose, a company produces 1,000 units of product 'X', Total Fixed Cost is Rs. 60,000 p.a., variable cost per unit is Rs. 100. So, total cost of 1,000 units comes to Rs. 50,000 + Rs. 1,00,000 (1,000 x Rs. 100) = Rs. 1,50,000.

If output is increased by one unit, the total cost of 1,001 units will be :

		Rs.
Variable Cost 1,001, x 100	=	1,00,100
Fixed Cost	=	50,000
		1,50,100

Therefore, Marginal Cost per unit = Rs. 1,50,100 – Rs. 1,50,000
= Rs. 100 per unit

The above example shows that **marginal cost is the variable cost.** Generally Marginal cost is also known as **'direct cost', 'volume cost' or 'activity cost'.**

Marginal Costing :

The Institute of **Cost and Management Accountants** defines Marginal Costing as ***"The ascertainment, by differentiating between the fixed costs and variable cost, of marginal costs and of the effect on profit of changes in volume or type of output."***

Marginal costing is not a system of costing. It is a technique used by the management to measure the profitability of the undertaking by considering the behaviour of costs. On the other hand, it is a technique that applies the existing methods in a particular way to bring out the relationship between profit and volume of output. It is the establishment of marginal cost to decide the relationship between profit and volume of output

5.12 ADVANTAGES OF MARGINAL COSTING

The technique of Marginal costing is of immense importance for Managerial decisions. It is also a significant tool for both cost control and profit planning.

The following benefits can be derived from the technique of Marginal Costing :

1. A simple Technique in decision making

It is a simple technique in decision making. Since fixed overheads are not included in the cost of production there is no need for complicated and expensive method of finding out overheads recovery rate, its modifications from time to time and allocating overheads. Thus, this technique is free from complications and confusion.

2. It helps in Cost Control

Marginal Costing is essentially a managerial tool for cost control, cost analysis and cost presentation. It presents the data in a manner which helps the various levels of management for controlling costs. It is also an important tool for cost reduction. Since this technique recognises only variable costs, which are always controllable, it becomes easier to fix the responsibility for these costs and to effect control over them. On the other hand, fixed costs can be controlled effectively because they are treated as a whole in the determination of profit.

3. Basis for Managerial Reporting

The technique of Marginal Costing serves as a good basis for managerial reporting. Reports prepared on the basis of this technique provide information based on sales rather than on production. Thus, it coveys the real state of efficiency. The technique of marginal costing precisely and clearly reflects the effect of fixed costs on profit.

4. Application in Profit Planning

Marginal Costing helps the management in the area of profit planning. Break-even Analysis and Margin of Safety are the tools for profit planning. It also facilitates the analysis of cost profit-volume relationship. The contribution ratio of marginal ratio—which is the ratio of marginal contribution to sales—indicates the relative profitability of the different sectors of business organisation whenever there is a change in variable cost, fixed costs, sale price or product mix.

5. Easy Understanding of Income Statement

Management can easily understand the income statement prepared by allocating fixed expenses and variable expenses separately. Moreover, stock valuation becomes easier since it is valued at marginal cost which remains constant.

6. Appraisal of profitability

The technique of Marginal Costing serves as a tool of profitability appraisals. The different departments have revenue earning potentialities. THe performance of each department or segment can be measured or evaluated by means of marginal cost analysis.

7. Decision Making

The main utility of marginal costing lies in the fact that this technique helps the management in taking various important managerial decisions—particularly in dealing with problems that require-short-term decisions.

8. Price Policy and Price Determination

This technique contributes significantly to the area of price policy and price determination. If the organisation faces the problem of fixing optimum price, minimum price, dumping price or price under recession, correct and sound decision may be taken on the basis of information revealed by technique of marginal costing.

5.13 MANAGERIAL APPLICATION OF MARGINAL COSTING

Marginal Costing is a useful technique used by the management of most of the manufacturing concerns for taking various and important managerial decisions. Some of the important decision making areas where marginal costing technique is used are :

(i) **Fixation of Selling Price**

- (a) Under normal circumstances
- (b) For special market (export) or for a special customer
- (c) During recession
- (d) At marginal cost or below marginal cost

(ii) **Determining the most Profitability Product Mix**

(a) Selection of Optimal Product Mix

(b) Substitution or product for another

(c) Discontinuation or dropping of a product line

(iii) **Make or buy Decision**

The management has to take decision as to whether it will be profitable to manufacture the product or parts or to but them from outside.

(iv) **Retaining or replacing a machine**

(v) **Selling the product in the home or in the export market**

(vi) **Expanding or contracting**

The management has to take decision whether to expand or contract the business under different economic conditions.

(vii) **Shut down or continue**

In certain economic conditions, the management has to take crucal decision whether to shut down the factory or to continue or to determine the level ot output especially in period. of recession.

(viii) **Decision making relating to Price-Mix.**

CHECK YOUR PROGRESS - 3

1. Identify three applications of Marginal Costing?

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5.14 BREAK EVEN ANALYSIS

Break-even point is the point at which total revenue is equal to total cost, it is the point of no profit no loss. Total cost is the sum total of variable cost and fixed cost. Break-even analysis is also known as cost-volume-profit analysis. The term **'break-even analysis'** is interpreted in narrow as well as broad sense. In its narrow sense, it is concerned with finding out the break-even point.

In its broad sense, break-even anaylsis refers to a system of analysis that can be used to **determine the probable** profit at any level of production. It may be shown both graphically as well as algebrically.

Contribution factor : To calculate Break-even point, first the contribution factor is calculated. It is

contribution factor = Selling price Per Unit – Variable Cost per Unit

P/V Ratio: It is the relationship between sales and contribution.

$$\text{P/V Ratio} = \frac{\text{Sales} - \text{Variable Cost}}{\text{Sales}} \times 100$$

Break-even can be calculated in the following ways :

1. $$\text{Break-even point in units} = \frac{\text{Fixed Cost1}}{\text{Contribution per unit}}$$

2. $$\text{BEP in sales value} = \frac{\text{Fixed Cost x Selling Price per unit}}{\text{Contribution per unit}}$$

3. $$\text{BEP in sales value} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

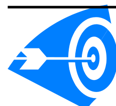
Sales volume to attain a desired amount profit can also be calculated by using BEP technique.

Sales volume to attain a desired amount profit

$$= \frac{\text{Fixed Cost x desired amount profit}}{\text{Contribution}}$$

5.15 LET US SUM UP

1. A Budget is a plan quantified in monetary terms, prepared and approved prior to a defined period of time.
2. Budget is a way of motivating people including managers to achieve departmental and organizational goals.
3. Budgetary control is a tool of great potency for infusing forward looking dynamism and for harnessing the energies of people at all levels.
4. Preparation of budget leads to its establishment, i.e., to operate a budgetary control system.
5. Budget may be classified as : on the basis of time, on the basis of function, on the basis of flexibility, on the basis of nature of business activity.
6. Standard cost is the cost calculated for each element of cost prior to the actual production.
7. Standard costing is the technique of using standard costs for the purposes of cost control.
8. Variance analysis is the process by which the total difference between standard and actual results is analysed.



5.16 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS - 1

- It determines the objectives to be achieved over the budget period.
- It addresses variety of activities that should be undertaken for the achievement of the objectives.
- It should draw a plan or a scheme of operation in respect of each class of activity, in physical as well as monetary terms.

CHECK YOUR PROGRESS - 2

Master Budget consolidates an organisation's overall plans for a shorter span of time. It is usually prepared on an annual basis. The Master Budget is one that projects the activities of the business as a whole during the budget period. It is prepared by the Budget Officer, and incorporates the details shown in the subsidiary budgets.

CHECK YOUR PROGRESS - 3

Standard cost is a pre-determined technically estimated calculation of how much costs should be under specified working conditions. Standards are for each item of materials, wages and each item of expenses.

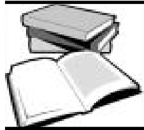
Standard costing is the management control technique of using standard costs for the purposes of cost control.

CHECK YOUR PROGRESS - 4

(i) Fixation of Selling Price

(ii) Determining the most Profitability Product Mix

(iii) Make or buy Decision



5.17 FURTHER READINGS

1. Management Accounting by Khan and Jain
2. Management Accounting by Sharma and Gupta
3. Accounting for Mangers: T P Ghosh

5.18 MODEL QUESTIONS

1. "Managerial control is exercised through a well drawn budget." Substantiate the statement.
2. What is standard Cost and standard costing? What are the several types of standards?
3. Explain the use of marginal Costing.
4. Define Budget and Budgeting? How is a cash budget prepared?
5. What is Break Even Analysis? Explain its utilities.

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UNIT- 6 CAPITAL AND WORKING CAPITAL

UNIT STRUCTURE

6.1 Learning Objectives
6.2 Introduction
6.3 Meaning of Capital
6.4 Meaning of Share and Share Capital
6.5 Meaning of Debenture
6.6 Meaning of Capital Structure and Financial Structure
6.7 Cost of Capital
6.8. Meaning of Working Capital
6.8.1 Components of Working Capital
6.8.2 Different Concepts of Working Capital
6.8.3 Need for Working Capital
6.8.4 Determinants of Working Capital Requirement
6.8.5 Sources of Working Capital
6.8.6 Estimation of Working Capital
6.9 Let Us Sum Up
6.10 Answers to Check Your Progress
6.11 Further Reading
6.12 Model Questions

6.1 LEARNING OBJECTIVES

After going through this unit, you will be able to

- define the meaning of capital, meaning of share, share capital and debenture
- explain the terms capital structure and financial structure
- describe the meaning of cost of capital
- conceptualise different concepts of working capital in use
- analyse the need for working capital
- explain various factors considered in working capital
- estimate the amount of working capital

6.2 INTRODUCTION

In this unit, we are going to discuss the meaning of capital, meaning of share, share capital and debanture. This unit will help us to learn the terms *'capital structure'* and *'financial structure'* and also helps to describe the meaning of cost of capital. Moreover, we will introduce you to the different concepts of working capital in use, analyse the need for working capital and explain various factors considered in working capital.

6.3 MEANING OF CAPITAL

Capital is the value of investment made by the owner of a business. In financial sense, Capital is the money which gives the business the power to buy goods to be used in the production of other goods or the offering of services. In accounting it is represented by total assets less total liabilities, which is generally called owners' or shareholders' fund.

The economist's concept of capital is different from that of the accountant. According to the economists the term 'capital' refers to such assets which are used for producing goods and services. It is the produced means of production. It comprises of both tangible assets like building, land, plant and machinery, furniture, equipment and intangible assets like human skills, technology, etc.

Sources of Capital: In case of a sole trading concern the investment made by the owner himself is the amount of capital. In case of a partnership business capital is the amount invested by them in the business. This means the partners are to supply the capital. In a company the shareholders supply the capital. If it is a private company the capital is supplied by limited number of shareholders, called, promoters. In case of a public limited company capital is raised by issuing shares to the public. Those who subscribe to the capital of the public limited company are called shareholders.

The sole trader, the partners and the shareholders are the owners of their respective business firms. This means that capital is supplied by the owners, or in other words, the fund invested by the owners in the business is the amount of capital. This is the meaning of capital in the narrower sense. In the broader sense capital includes the entire fund which remains in the business for a long period. In other words, the fund invested in the business from the owner's source and long term borrowings are included to mean capital. Often this capital (from the owner's source and long term

borrowings) is denoted by the term **'capital employed'**. This fund is used to purchase long term assets required for the business.

According to Accountants the term 'capital' or 'capital employed' refers to all tangible and intangible assets owned and employed in the business for earning revenue. They include fixed as well as current assets. Assets taken on lease are not included in the capital employed. Similarly, assets like human skills are also not included in the capital employed. As a matter of fact, the salaries paid for utilizing human resources is taken as expenditure in the ordinary course of business and hence written off from income.

6.4 MEANING OF SHARE AND SHARE CAPITAL

In simple Words, a **share** is a document issued by a company, which entitles its holder to be one of the owners of the company. A share is issued by a company or can be purchased from the stock market.

Share capital is the portion of a company's equity obtained from issuing shares in return for cash or other considerations.

Share capital refers to the portion of a company's capital that has been obtained (or will be obtained) by issuing share to a shareholder for cash or an equivalent item of capital value. For example, a company can set aside share capital to exchange for computer servers instead of directly purchasing the servers from existing equity.

When a company is formed, a memorandum of association (one of the documents by which the company is formed) is prepared which will state:

- the amount of share capital the company will have and
- the division of the share capital into shares of a fixed amount.

As per Companies Act there are two kinds of share capital:

(1) "Equity share capital" and

(2) "Preference share capital"

"Equity share capital" means share capital which is not Preference share capital. "Preference share capital" means, with reference to any company limited by shares, whether formed before or after the commencement of this Act, that part of the share capital of the company which fulfils both the following requirements, namely :-

(a) that as respects dividends, it carries or will carry a preferential right to be paid a fixed amount or an amount calculated at a fixed rate, which may be either free of or subject to income-tax; and

(b) that as respect capital, it carries or will carry, on a winding up or repayment of capital, a preferential right to be repaid the amount of the capital paid-up or deemed to have been paid up, whether or not there is a preferential right to the payment of either or both of the following amounts namely :

(i) any money remaining unpaid, in respect of the amounts specified in clause (a), up to the date of the winding up or repayment of capital; and

(ii) any fixed premium or premium on any fixed scale, specified in the memorandum or articles of the company.

CHECK YOUR PROGRESS - 1

1. Elaborate the meaning of Share and Share Capital.

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6.5 MEANING OF DEBENTURE

Debenture is a debt or liability of a company against which a certificate or voucher is issued acknowledging the debt. It is an instrument of debt executed by the company acknowledging its obligation to repay the sum at a specified rate and also carrying an interest. It is one of the methods of raising the loan capital of the company. A debenture is thus like a certificate of loan or a loan bond evidencing the fact that the company is liable to pay a specified amount with interest and although the money raised by the debentures becomes a part of the company's capital structure, it does not become share capital.

Provisions regulating issue of Debentures:

As per the Companies Act the power to issue debentures can be exercised on behalf of the company at a meeting of the Board of Directors. A public company may, however, require the approval of shareholders to borrow money in excess of the aggregate of its paid up capital and free reserves. Consent of the shareholders would also be required for selling, leasing or disposing of the whole or substantially the whole of the undertaking of the company. Debentures have been defined under Section 2 (12) of the Act to include debenture stocks, bonds and any other securities of the company whether constituting a charge on the company's assets or not. The debentures issued under the Act shall not carry any voting rights.

The attributes of a debenture are:

a. It is movable property.
b. It is issued by the company in the form of a certificate of indebtedness.
c. It generally specifies the date of redemption, repayment of principal and interest on specified dates
d. It may or may not create a charge on the assets of the company.

6.6 Meaning of Capital Structure and Financial Structure

As we have seen earlier capital, in the broader sense, includes the entire fund which remains in the business for a long period. In other word, the fund invested in the business from the owner's source and long term borrowings are included to mean '*capital*' in broader sense. Using the mix of borrowed fund or loan fund along with equity capital is a common practice in companies. This is done to raise return to the equity holders. This is called leveraging the equity capital. The mix or proportion of the long term sources of funds used by the firm is known as **capital structure.**

A firm has to invest in short term assets also. For this generally short term funds are used. Such short term funds may be short term loan, working capital loan, credit from the suppliers etc. Thus, there are long term funds as well as short term funds in the total fund of the company. The mix of all the funds used by the firm is known as its **financial structure.**

In simple words, financial structure would mean long term and short term sources whereas capital structure would mean only long term sources. The company will have to plan structure initially when it starts operating

and also subsequently whenever it has to raise additional funds for various new projects. Wherever a company needs to raise long term finance, it involves a capital structure decision because it has to decide the amount of such finance to be raised as well as the sources from which it is to be raised.

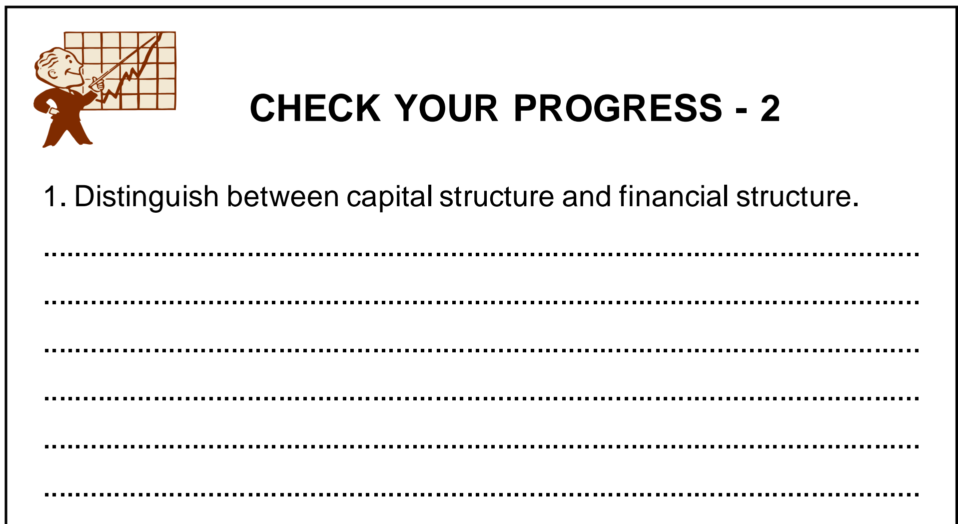
6.7 COST OF CAPITAL

In 'cost of capital' the term 'capital' is used in broader sense to include both owner's fund and borrowed fund. In simple language 'cost of capital' means the cost incurred or to be incurred for using the fund as capital. When we borrow money interest is paid for using the money. If a business firm uses borrowed fund it has to pay interest. In the same way it also uses the fund supplied by its owner. On the same logic the firm should pay a return to the owner which may not be in the name of interest. Such payment of interest or return to the fund supplier is nothing but the cost of the fund used. This is called 'cost of capital'.

In economics cost of production includes price (cost) paid for the use of land, labour, capital and organization. Whenever some amount of capital is invested in a business operation, it is generated into cost and the ultimate recovery of the capital through recouping the cost involves delay or time lag. Here the actual owner of the capital is deprived of its possession and the user of the capital derives the benefit. Therefore, the user/ borrower must pay a certain amount of money to the owner of the capital, which may be termed as "cost of capital". It may also be termed as "time cost of capital". The term "cost of capital" includes such item of cost as dividend paid to equity and preferences shareholders, interest paid on loan and such other charges. In operational terms, cost of capital refers to the discount rate that will be used in determining the present value of the estimated future cash proceeds and eventually deciding whether the project is worth undertaking or net. In essence, **cost of capital is defined as the minimum or required rate of return that the firm must earn on the investment for the market value of the firm to remain unchanged.** Now, cost of capital may be explained as rate a company must earn on the investment which is just sufficient to maintain the value of the business. An investment that earns a return above the cost of capital will increase the value of the business.

It is known that there exist various long term sources of funds of the Company. They are equity capital, preference capital, retained earnings,

debt (loan) capital. These sources have different costs of procurement. Total effect of cost of procurement of such capital from different sources is called the cost of capital. The Company must at least earn such return so that cost of capital is covered.



CHECK YOUR PROGRESS - 2

1. Distinguish between capital structure and financial structure.

6.8. MEANING OF WORKING CAPITAL

Working Capital means the capital available for meeting the day-to-day expenses of a business firm. In the words of Shubin, “Working Capital is the amount of funds necessary to cover the cost of operating the enterprise”. This capital is the amount used in the normal course of business and does not include the amount blocked in the assets of permanent nature. This fund required for current operation has been termed as ‘short-term financing’, ‘short-term funds’, ‘revolving capital’, or ‘Working Capital’ by different authors. Fixed capital portrays that part of business finance, which is invested in fixed assets. Working Capital, on the other hand indicates that part of business finance which helps in meeting working expenses and day-to-day operations. According to some authors, viz. Field, Baker Mead, Cohers and Robbins, Working Capital comprises the total current assets; while to other authors, Guthmann and Dougall, Weston and Brigham and VL Gole, Working Capital represents the difference between the current assets and current liabilities. The corporate practice in India is to show Working Capital in the Balance Sheet as Current Assets *minus* Current Liabilities.

6.8.1 Components of Working Capital

In the Annual Survey of Industries in 1961, working capital is defined to include "stocks of material, fuels, semi-finished goods including work-in-progress and finished goods and by products, cash in hand and at bank and the algebraic sum of Sundry Creditors as represented by –

i) outstanding factory premise, e.g., rent, wages, interest, dividend;
ii) Purchase of goods and services;
iii) Short-term Loans and Advances and Sundry Debtors comprising amounts due to the factory on account of sale of goods and services and advances towards tax payment."

From the above definition it is seen that the following are the components of working capital:

(a) Inventory of raw materials
(b) Inventory of work-in-process
(c) Inventory of spare parts
(d) Debtors
(e) Bills receivable
(f) Stores
(g) Cash in hand
(h) Cash at bank (current account)
(i) Prepaid expenses

The list is not exhaustive, there may be other items also depending upon the nature of business. As elaborated earlier Working Capital indicates that part of business finance which helps in meeting working expenses and day-to-day operations. Thus the fund required to finance the above listed items is the amount of working capital.

6.8.2 Different Concepts of Working Capital

The popular term 'working Capital' may be conceptualised in various terms in financial management. These are listed below:

(i) Gross Working Capital,
(ii) Net Working Capital,
(iii) Negative working Capital,
(iv) Permanent Working Capital,
(v) Circulating or Variable Working Capital,

(vi) Cash working Capital, and
(vii) Balance Sheet Working Capital.

Gross Working Capital (GWC): The sum total of all components of Current Assets is called Gross Working Capital. Total of cash and bank, receivables, inventory and all other current assets is together called Gross Working Capital.

Net Working Capital (NWC): When the portion of current liabilities is deducted from Gross Working Capital it is termed as Net Working Capital. In other words, the difference between the Gross Working Capital (total current assets) and total current liabilities is called Net Working Capital.

In common parlance and in accounting and financial literature, the term 'Net Working Capital' is rarely used. Instead, to mean this, the simple and easily understandable term 'Working Capital' is used to mean Net Working Capital.

Negative working Capital: When the total amount of current assets of a firm is less than its current liabilities it is known as Negative Working Capital. Under such situation the balance of working capital shows a negative balance. In other words negative working capital is a situation when current liabilities are more than current assets.

Permanent Working Capital: If the Balance Sheets of a company for several years are examined we find that some amount of current assets and current liabilities are always there all through these years. If we prepare a balance sheet at any point of time in a year, then also we get certain balance of current assets and current liabilities. This means that though there are changes in the amount i.e., money value, from time to time, there remains a balance of working capital (current assets minus current liabilities). The operating cycle may not require the full amount of working capital through out the year. Thus a certain amount of working capital remains unutilized all through the year. Again, a firm is required to maintain a minimum balance of working capital, especially cash and inventory all the time with a view to running the firm smoothly. This part of working capital is termed as Permanent Working Capital.

Circulating or Variable working Capital: The variation in the amount of working capital is always there depending upon the factors in operating cycle. The amount of variation in working capital below or above the permanent working capital is termed as circulating or Variable Working Capital.

Permanent working capital does not imply that the amount is not fixed or static all the time or years. It simply implies that it is the minimum amount of working capital which is required at any point of time. This concept helps in planning and in the management of working capital more efficiently. The amount of permanent working capital may increase or decrease annually depending upon the growth or decline of business.

Cash Working Capital: Cash working capital denotes the cash component of working capital. Cash includes cash at bank and in hand.

Balance Sheet Working Capital: B/S working capital is derived from the figures given in the Balance Sheet, i.e., current assets minus current liabilities. This concept is derived at the end of financial year after the preparation of Balance Sheet and is a historical concept.

CHECK YOUR PROGRESS - 3

1. Distinguish between Gross Working Capital and Net Working capital.

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6.8.3 Need for Working Capital

The very purpose of working capital is to finance the deficit in the operating cycle. The Time Gap between (a) the purchase of raw materials (goods), processing and production on the one hand and (b) realization of cash from sales, debtors and receivables on the other, gives rise to the need for

working capital. The expenditure required for (a) are met from revenue earned from (b) above. But the time scheduling for these two types of activities are such that there always remains a gap. Sales do not convert into cash instantly. There is invariably time-lag between sales of goods and the receipt of cash. In order to sustain sales activity, therefore, sufficient amount of working capital is required.

Various activities for which working capital is needed are:

1. Acquisition of raw-material;
2. Purchase of components and spare-parts;
3. Recurring expenses and overhead cost like office expenses, rent, fuel, power etc.;
4. Payment of wages and salaries;
5. Distribution and selling expenses, packaging, publicity after sales service etc;
6. Warehousing expenses;
7. Collection charges from debtors, bank charges for realizationof cheques;
8. Cash discount, bad debt etc;

6.8.4 Determinants of Working Capital Requirement

There are certain basics or principles of Working Capital Management. While considering various determinants of working capital and framing any policy these principles must be kept in mind. These are:

(a) Principle of Cost Minimization
(b) Principle of Risk Variation
(c) Principle of Profit Maximization
(d) Principle of Credit-worthiness
(e) Trade off between Liquidity and Profitability

Taking into account the above mentioned principles the requirement of working capital is generally determined on the basis of the following factors.

(i) General nature of business
(ii) Production cycle
(iii) General nature of business
(iv) Business cycle
(v) Size of the entity measured in terms of either assets or sales
(vi) Volume of activity of the entity
(vii) Availability of credit

(viii) Attitude towards profit
(ix) Attitude towards risk, liquidity risk
(x) Conditions of money market
(xi) Availability of raw materials and their seasonality
(xii) Availability of raw materials and their seasonality
(xiii) Nature of operation
(xiv) Size of inventory needed
(xv) Lag period for arrival of fresh inventory or lead time
(xvi) Nature and credit-worthiness of debtors
(xvii) Sales policy
(xviii) Credit Policy of Non-Banking Finance Companies (NBFCs)
(xix) Contingencies and their nature
(xx) Credit policy towards the debtors
(xxi) Credit polity and credit terms of the suppliers
(xxii) Lag period in wage and salary payment
(xxiii) Earning capacity and dividend policy
(xxiv) Price level fluctuations
(xxv) Rates of tax, custom duty and excise duty and Government policy in these cases
(xxvi) Import and Export Policy of the Government
(xxvii) Banking facilities
(xxviii) Credit policy of the providers of services, e.g. cleaning agent forwarding agent, and most importantly
(xxix) Operating cycle

6.8.5 Sources of Working Capital

Working capital – when taken at gross value or equal to total current assets – is financed through both long-term and short-term sources. But when Working capital is taken at its net value or 'current assets – current liabilities', it is financed only through long-term sources.
The following are the long-term sources:

Issue of shares
Issue of debentures

Retained earnings
Long-term loans from financial institutions
Funds raised through GDR
Funds raised from NRI
Public deposits.

The following are the Short-term Sources:

Suppliers of raw-materials, stores etc. i.e., trade creditors
Short-term loan from banks
Cash credit
Bank overdraft
Advances from customers

6.8.6 Estimation of Working Capital

Estimation of working capital requirement is an important task of a finance manager. Generally there are three approaches at his disposal to assess the working capital requirement.

(1) **Percentage of Sales Method**
(2) **Regression Analysis Method and**
(3) **Operating Cycle Approach**

He may apply any of the above three approaches. But since working capital is required for the smooth completion of the operating cycle, of these three methods, the Operating Cycle Approach is the mostly used method. A brief description of these three methods is given below.

(1) Percentage of Sales Method under which requirement of working capital is determined on some percentage of sales on the basis of past experience. For example Sales in 1995, 1996, and 1997 were Rs. 1,86,000, 1,95,000 and Rs. 2,34,000. Average working capital for three years were Rs. 40,250, Rs. 52,600 and Rs. 61,000. The p.c. of working Capital to sales were 23.96, 26.98 and 26.07. If the sales for 1998 is projected at Rs. 3,00,000, the requirement for Working Capital will be 26.27 p.c. of the projected sales or Rs. 80,000 (approx).

(2) Regression Analysis Method: This is a mathematical device. In this method a relationship between sales on the one hand and working capital and its various components on the other hand, is established. Then the relationship is plotted on scatter diagram and the average percentage of

past 5 or 7 years may be ascertained. This average p.c. of sales may be taken as Working Capital.

(3) **Operating Cycle Approach:** This is the most practical approach in working capital forecast. It is based upon the length of time period taken to complete operating cycle for a given output in the period under consideration. The various activities performed during the entire period of operating cycle create some short term assets and liabilities (creditors). These short term assets and liabilities are called components of working capital. *The net amount blocked in these short term assets or available from liabilities (creditors) is the amount of working capital***.** In other words, working capital is equal to the sum-total of all components of current assets minus sum-total of all components of current liabilities.

Illustration

A Firm intends to produce 24,000 units of an item during the next year. The cost structure per unit is as follows :

Raw Material Rs.25; Wages Rs. 25; Expenses Rs. 20; Selling Price Rs. 100.

The Operating cycle will be: *Raw material storage period on average 2 months; Work-in-progress will take a period of 1 month; Finished goods will be in store for 1 months; Credit period allowed by suppliers is 2 months and allowed to debtors is 3 months.*

Calculate the amount of working capital required.

Solution:

Annual Production: 24,000 units

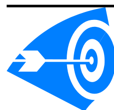
Total Cost Rs.25 + Rs. 25 + Rs. 20 = Rs. 65

Particulars	Holding/Credit	Rs.
Raw material	2 months	24,000 units ÷ 12 months X 2 months X Rs. 25 = Rs. 1,00,000(a)
Work-in-progress	1 month	24,000 units ÷ 12 months X 1 month X Rs. 65 = Rs. 1,30,000(b)
Finished goods	1 month	24,000 units ÷ 12 months ? 1 month ? Rs. 65 = Rs. 1,30,000(c)
Debtors(at cost)	3 month	24,000 units ÷ 12 months ? 3 months ? Rs. 65 = Rs. 3,90,000(d)
Creditors	2 month	24,000 units ÷ 12 months X 2 months X Rs. 25 = Rs. 1,00,000(e)
Working capital required		(a)+(b)+(c)+(d)-(e)=Rs. (1,00,000+1,30,000+1,30,000+3,90,000 - 1,00,000 =Rs. 6,50,000

Assumed that units produced 20,000 and the same is also sold out, leaving no closing stock. Since our purpose of computation of debtors is to ascertain the amount of working capital, debtors are valued on cost of production and not on sale price.

6.9 LET US SUM UP

1. Capital is the money which gives the business the power to buy goods to be used in the production of other goods or the offering of services.
2. A **share** is a document issued by a company, which entitles its holder to be one of the owners of the company.
3. **Share capital** refers to the portion of a company's capital that has been obtained (or will be obtained) by issuing share to a shareholder for cash or an equivalent item of capital value.
4. **Debenture** is a debt or liability of a company against which a certificate or voucher is issued acknowledging the debt.
5. Cost of capital means the cost incurred or to be incurred for using the fund as capital.
6. Working Capital means the capital available for meeting the day-to-day expenses of a business firm.
7. When the portion of current liabilities is deducted from Gross Working Capital it is termed as Net Working Capital.



6.10 ANSWERS TO CHECK YOUR PROGRESS

CHECK YOUR PROGRESS - 1

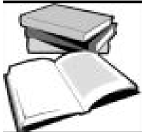
A **share** is a document issued by a company, which entitles its holder to be one of the owners of the company. Share capital refers to that portion of a company's fund, which has been obtained (or will be obtained) by issuing shares to shareholder for cash or an equivalent item of capital value.

CHECK YOUR PROGRESS - 2

The mix or proportion of the long term sources of funds used by the firm is known as capital structure. There are long term funds as well as short term funds in the total fund of the company. The mix of all the funds used by the firm is known as its financial structure.

CHECK YOUR PROGRESS - 3

The sum total of all components of Current Assets is called Gross Working Capital. Total of cash and bank, receivables, inventory and all other current assets is together called Gross Working Capital. When the portion of current liabilities is deducted from Gross Working Capital it is termed as Net Working Capital. In other words, the difference between the Gross Working Capital (total current assets) and total current liabilities is called Net Working Capital.



6.11 FURTHER READING

1. Accounting for Mangers: Maheswari and Maheswari
2. Accounting for Mangers: T P Ghosh
3. Financial Statement Analysis: S Sikidar and H C Gautam
4. Contemporary Financial Management—R Kothary and B Dutta

6.12 MODEL QUESTIONS

1. Explain the meaning of Capital, Capital Structure and Financial Structure.
2. Distinguish between Capital Structure and Financial Structure.
3. What is Cost of Capital? How are cost of various capital calculated?
4. Discuss the various needs of working capital.
5. What are the Determinants of Working Capital Requirement?
6. List out the Sources of Working Capital.

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