MANONMANIAM SUNDARANAR UNIVERSITY

DIRECTORATE OF DISTANCE AND CONTINUING EDUCATION TIRUNELVELI- 627012, TAMILNADU

M.Com First Year

Accounting for Management

(From the Academic Year 2022-23)

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Syllabus

Accounting for Management

Unit – I Introduction

Introduction to Financial, Cost and Management Accounting – Generally accepted accounting principles, Conventions and Concepts – Preparation of Trading, Profit and Loss account and Balance sheet with adjustment entries – Management Accounting Vs Financial Accounting – Management Accounting Vs Cost Accounting – Utility of accounting for management.

Unit – II Analysis of Financial Statement

Concepts of financial Statement – Nature – Analysis &Interpretations of Financial Statement – Tools – Comparative Financial Statement – Common size statement – Trends analysis – Ration Analysis – Short term financial ratios – Long term Financial ratios – Profitability ratios – Proprietary & Yield ratios – Turnover ratios – DUP pont analysis – Financial Reporting & analysis.

Unit – III Funds Flow Statement and Cash Flow Statement

Funds Flow Analysis – Funds from Operation, Sources and Uses of Funds, Preparation of Schedule of Changes in Working Capital – Construction of Funds Flow Statement – Marginal Uses of fund flow analysis and its Limitations – Cash Flow Analysis – Cash From operation – Preparation of Cash Flow Statement – Uses and Limitations – Distinction between Funds Flow and Cash Flow.

Unit – IV Standard Costing and Variance Analysis

Standard Costing – Advantage and Limitations of Standard Costing – Standard Hour - Standard Cost card –Variance analysis – Relevance of Standard cost for variance analysis – Significance of Variance analysis – Computation of Material Variances – Labour Variances – Overhead Variances – Sales Variances – Accumulation & Disposal of Variances.

Unit – V Budget and Budgetary Control

Concept of Budget and Budgetary Control – Nature and Objectives of budgetary control – Establishing a system of Budgetary control – Advantage and Limitations – Types of Budgets – Preparation of sales budget, selling & distribution cost budget, production budget, purchases budget, cash budget, fixed and flexible budget – Master budget – Zero Base Budget.

Note: Question paper shall consist of 40% Theory and 60% Problems

Reference Book:

1) Dr. S. N. Maheshwari, C. A. Sharad, K. Maheshwari, Principles of Management Accounting, Sultan Chand & Sons, 2018
2) Agrawal M.R, Management Accounting, Tamil Nadu Book House, 2018.

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UNIT – I

INTRODUCTION

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1.1 MEANING & DEFINITION - ACCOUNTING AND ACCOUNTANCY

Accounting is a method of identifying the occasions of monetary nature and recording them in a magazine, classifying in their respective ledgers, summarizing them in earning and loss account and balance sheet and providing the consequences to the users of such information, viz. owner's government, creditors, traders, etc.

According to the American Institute of Certified Accounts, "Accounting is an art of recording, classifying and summarizing in a significant manner and in terms of money transactions and events that are, in part at least, of a financial character and interpreting the results thereof".

Accountancy:

"An act of recording, classifying and summarizing the business transaction, balancing of accounts, drawing conclusions and interpreting the result thereof".

1.2 ATTRIBUTES AND STEPS OF ACCOUNTING

1. Recording: Systematic recording of business transactions is the first step in the accounting process. Each and every transaction is recorded as and when it occurs, in chronological order. Every entry recorded has t be supported by reliable documentary evidence. Recording of business transactions is usually done in journal or in subsidiary books which are ' books of original entry'.

2. Classification: It is the process of grouping transactions or entries on a predetermined basis. The classification takes the form of 'accounts' in a separate book known as Ledger. Separate accounts are opened for each expense, income, property , liability and persons with whom the business has dealings. Classification facilitates segregation of numerous business transactions into identifiable groups.

3. Summarising: The classified data in the ledger is presented periodically in a manner which is understandable and useful to the owners and other interested parties. Summarising takes place in the form of trial balance, trading account, profit and loss account and balance sheet. The trial balance ensures the arithmetical accuracy of the recording and classification process. The trading account reveals the gross profit of the business. Profit and loss account shows net profit or loss for the accounting period. The balance sheet portrays the financial position of the business.

4. Significant manner: The accounting process of recording, classifying and summarizing must be carried on in a significant manner. Each business has its own peculiarities, special problems and particular requirements. The management of the business needs specific types of information for controlling and decision-making purposes. Sales and purchases may have to be shown for each product , division , department , and branch separately. Profit or loss may be required independently for each product or service.

5. In terms of money: All business transactions have to be recorded in terms of money. It is the medium through which all the business transactions are expressed. Land and buildings in square feet, furniture and fixtures in number, stock in units are all recorded as per their monetary values. 'Money measurement ' is the basis for accounting.

6. Transactions and events of financial character: All those business transactions and events which are financial in character are recorded in accounts. All the events, dealings and happenings which have to no financial effect are completely ignored in the accounting process. For example, working conditions, skilled work force, sales policies , employees, morale etc., are all important for a business. But they have no 'financial character' and are omitted from accounting process.

7. Interpreting the results: Interpretation of the results is needed for various purposes. The trends observed in sales, purchases, expenses etc., are useful for future planning of operations. Data about customers and suppliers have to be interpreted to decide about credit policies. The owners are interested in the amount and growth of profit. The creditors are interested in the liquidity and stability of the business.

Interpretation is usually done through Ratios and Flow statements. They are useful in evaluating past performance and providing guidance for future plans and operations.

1.3 FUNCTIONS OF ACCOUNTING

The functions of accounting include the systemic tracking, storing, recording, analysing, summarising and reporting of a company's financial transactions. Through the functions of the accounting department, the company can maintain a fiscal history that they can make accessible for audits. They can also use it to prepare reports, create budgets, reduce costs, increase profits, avail growth opportunities, assess future expenditure requirements and make financial predictions.

- ✓ **Keeping financial records:** Accounting helps businesses maintain an accurate and up-to-date record of the day-to-day financial transactions of the company, such as supply purchases, product sales, receipts and payments.
- ✓ **Monitoring financial transactions:** Accountants may track multiple financial transactions related to payments due to the company to ensure it receives the revenue and remains profitable.
- ✓ **Making Bill payments:** Accounting involves checking invoices to ensure the legitimacy of the charges, setting payment dates and paying the bills that the company owes to various vendors and suppliers.
- ✓ **Paying employee salaries:** Companies can use accounting to make payroll payments from company funds, manage employee benefits and issue employee work-related bonuses.
- ✓ **Keeping digital records:** Accounting may involve creating, maintaining and updating digital accounting systems to store and calculate the company's financial data.
- ✓ **Writing financial reports:** Accounting involves repairing detailed quarterly and annual financial reports about the company's assets, profits and losses for internal and external stakeholders.
- ✓ **Maintaining fiscal history:** Accountants assist with creating, documenting and storing the fiscal history of the company's transactions and making it available for audits and assessments.
- ✓ **Achieving business goals:** An accountant can analyse financial data to formulate and implement comprehensive financial policies and strategies to advance the company's business goals.
- ✓ **Preparing Budgets:** The accounts department may reference the company's financial data to prepare the overall company budget, the department budgets and the project budgets.
- ✓ **Making financial projections:** Accounting involves analysing the company's available financial resources, expected revenues and business goals and using this information to predict future business expansion and growth.
- ✓ **Auditing finances:** Accountants may conduct financial audits of the company, identify accounting discrepancies and implement corrective solutions

- ✓ **Assessing Financial resources**: Companies can use accounting to identify the financial weaknesses and strengths of the organisation, determine how to counter weaknesses and boost strengths and implement appropriate strategies.
- ✓ **Reviewing Performances:** Accounting involves performing regular financial reviews of the company's departments to assess their performance and make changes to reduce waste, increase productivity and streamline expenses.
- ✓ **Complying Legal requirements:** Accountants make sure the company complies with industry and government rules, regulations and policies related to taxation, financial reporting and employee wages.
- ✓ **Preventing mismanagement:** The accounting department can keep accurate track of the company's financial transactions to ensure no mismanagement or wastage of money occurs in the company.
- ✓ **Ensuring Vigilance Fraud:** Accounting includes implementing strong security measures to protect the company assets against data breaches and internal and external fraud

1.4 ADVANTAGES OF ACCOUNTING

- ❖ **Reliable Records**

Transactions cannot be stored up in memory even in the case of small shops. The reliable record of transaction is necessary for reference at any time. Since all the transactions are recorded in the books, there is no need to rely on memory.

- ❖ **Calculation of Profit or Loss**

The objective of any business is to earn profit. Therefore, the owner wishes to find out the profit or loss in his business at any time. With the help of accounting information, the profit and loss account is prepared to find out profit and loss of the business.

- ❖ **Calculation of Dues**

The businessman has to know, how much others have to pay him and how much he has to pay others. This information can be gathered with the help of proper accounting records.

- ❖ **Prevention of Errors and Frauds**

Proper accounting not only prevents and discovers errors but also prevents and discovers frauds.

- **Control over assets**

The owner has to keep a check over the assets and find out the values year after year. Accounting provides such information which helps the owners and the management to make use of the assets in the best possible manner.

- **Ascertainment of the growth of business**

When a owner prepares financial statements for several years, he is in a position to make year to year comparison. This will enable him to ascertain the growth of his business.

- **Fixing the selling price**

Accounting information is essential for determining the selling price of the goods produced.

- **Taxation**

For the income tax and sales tax purposes, the accounting information is essential.

1.5 LIMITATIONS OF ACCOUNTING

- Accounting is historical in nature. It does not reflect the current financial position or worth of a business.
- Transactions of non-monetary nature do not find place in accounting. Accounting is limited to monetary transactions only. It excludes qualitative elements like management, reputation, employee morale, labour strike etc.
- Facts recorded in financial statements are greatly influenced by accounting conventions and personal judgement of the Accountant or management. Valuation of inventory, provision for doubtful debts, valuation of goodwill and assumption about useful life of an asset may therefore, differ from one business house to another.
- Accounting principles are not static. Therefore, accounting statements do not always present comparable data.
- Cost concept is found in accounting. Price changes are not considered. Money value is bound to change often from time to time. This is a strong limitation of accounting.
- Accounting statements do not show the impact of inflation.
- The accounting statements do not reflect those increase in net asset values that are not considered realized.

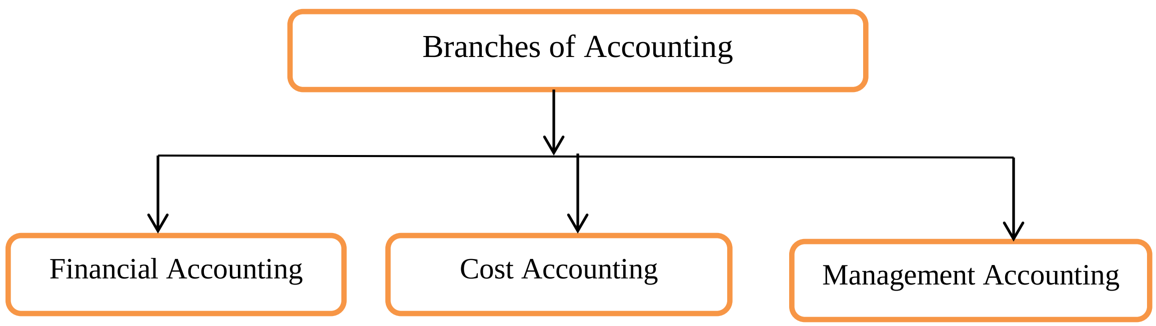
1.6. BOOK-KEEPING

Book-keeping is an art of systematic recording, classifying and summarizing the financial transaction of the business for a particular period of generally I year.

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

1.7 BRANCHES OF ACCOUNTING

Depending on the informational needs of various users of accounting information, several branches accounting have been developed.



Financial Accounting

Financial Accounting : The accounting for revenues, expenses , assets and liabilities that is commonly carried on the general offices of business is known as Financial Accounting. The financial accounting information is expressed in two main types of financial statements, viz:

(i) Profit & Loss Account(showing the incomes and expenses of the accounting period to ascertain the profit or loss)

(ii) The Balance sheet (showing assets and liabilities, revealing financial position as on that date)

The owners, creditors, management, employees, financiers etc., make use of information provided by financial accounting.

Cost Accounting : It is that branch of accounting which deals with classification, recording , allocation, summarization of current and prospective cost. It determines cost of production and distribution by departments, functions, products etc. Cost accounting is essential for pricing of product s and services and for cost reduction and cost control. Cost accounting data is useful to the management of the business ; outsiders are not usually provided with costing data.

Management Accounting

The main thrust of Management Accounting is towards determining policy and formulating plans to achieve desired objectives of management. It helps the management in planning, controlling and analysing the performance of the organization in order to follow the path of continuous improvement. Management Accounting utilizes the principles and practices of financial accounting and cost accounting in addition to order modern management techniques for effective operation of a company.

1.8 METHODS OF ACCOUNTING

Basically all methods of accounting are classified under two headings:-

1.Single entry system

2. Double entry system

Single entry system

The term single entry is vaguely used to define the method of maintaining accounts which do not conform to strict principles of double entry. It is wrong to define it as system. The term 'single entry' does not mean that there is only one entry for each transaction. It simply signifies that principles of double entry book-keeping have not been observes in all cases. Under this system , only the personal accounts of the debtors and creditors and cash book of the trader are maintained.

Double entry system

This system was invented by an Italian named Juco Pacioli in 1494 A.D. and it has spread all over the world, becoming as popular as Arabic numerals. According to this system, every transaction has two aspects. One is benefit receiving aspect or incoming aspect and the other one is benefit giving aspect or outgoing aspect. The benefit receiving aspect is said to be a 'debit' and the benefit giving aspect is said to be a 'credit '. For every transaction, one account is to be debited and another account is to be credited in order to have a complete record of the transaction. Therefore, every transaction affects two accounts in opposite direction.

1.9 TYPES OF ACCOUNTS

There are three types of accounts are as called as

- Personal Accounts
- Real Accounts
- Nominal Accounts

1. **PERSONAL ACCOUNTS:** An account of each person, or company with which the business deals or Accounts of persons with whom the business has dealings are known as personal Accounts .

(a) **Natural Persons:** The name of an individual - customers or suppliers.

(e.g) Magesh 's account , Raja's account

(b) **Artificial persons or legal bodies**: Firms' accounts, limited companies' accounts, educational institutions' accounts, bank account, co-operative society account etc., are known as artificial persons' accounts.

(c) Representative personal accounts: All accounts representing outstanding expenses and accrued or prepaid incomes are personal accounts.

(e.g.) Prepaid insurance, outstanding wages, salary , rent etc.

2. **REAL ACCOUNTS:** Accounts in which the business records the records the real things owned by it. i.e., assets of the business are known as real accounts. Real accounts are of two types.

a) **Tangible Assets:** Building, Furniture, Machinery, Cash etc.,

b) **InTangible Assets**: Trademark , goodwill , patents and copyright etc.,

3. NOMINAL ACCOUNTS: It relates to the items which exist in name only. Expenses, incomes etc., are there in business activities. Accounts which record expenses, losses, incomes and gains of the business are known as nominal accounts.

e.g., rent A/c, salaries A/c, telephone charges A/c, postage A/c, advertising A/c, commission received A/c, interest received A/c.

1.10 ACCOUNTING RULES

A transaction should be divided into two aspects.

1. Debit aspect 2. Credit aspect

The rules for making entries under double entry system can be summarized as follows;-

1.	Personal Accounts	Debit the receiver
		Credit the giver
2.	Real Accounts	Debit what comes in
		Credit what goes out
3.	Nominal Accounts	Debit all expenses and losses
		Credit all incomes and gains

1.11.ACCOUNTING CONCEPTS

The term accounting concepts refer to the basic assumption and conditions upon which the science of Accounting is based. There is no authoritative list of these concepts. In other words, concept means such ideas which are compiled with different accounting procedures. E.g. Appropriation and charge, reserve and provisions, depletion and amortization etc. The following are some of the important accounting concepts.

- Separate Entity Concept
- Dual Aspect Concept
- Going Concern Concept
- Money Measurement Concept
- Cost Concept
- Accounting Period Concept
- Realization Concept
- Matching Concept
- Accrual Concept
- Objective Concept

1. Separate Entity Concept

For accounting purposes, a business is considered to be different from the persons who own it. The accounting system deals only with the accounts of the firm and not that of the owners. Otherwise, the affairs of the business would get mixed up with the affairs of the owners. The balance sheet of a sole trader does not disclose the private assets of its owner, even though such assets might be claimed by the creditors in case of loss in the business. Thus, this concept prescribes the boundaries for recording and reporting the economic information of an enterprise. This concept also helps to record in the books of the firm, the transactions that take place between the business and its owners. Moreover, when a large business is divided into different departments or divisions, this principle of separate entity helps to measure the efficiency of such departments.

2. Dual Aspect Concept

Modern accounting is based on the dual aspect concept. For every debit, there should be a corresponding credit. Hence, the total of the debits will always be equal to the total of the credits. Further, assets of a firm are purchased by the funds provided by the owners and the creditors. Therefore, the total of the assets should always be equal to the total of the liabilities or equities. Equities are the claims of the owners and outsiders on the assets of the firms. Hence, the equation,

Assets = Liabilities + Capital (or) Assets –Liabilities = Capital

3. Going Concern Concept

The general assumption is that a business will exist for a long time to come and will not be liquidated in the near future. People will not like to deal with a business that is to be closed down. Suppliers may not provide goods, workers may not provide their services and financial institutions may not provide credit facilities. If a business is to be closed down, its assets should be valued at current realizable values. But this is not so in case of going concern. Since the assets are meant for use, they are valued at their original cost only.

4. Money Measurement Concept

All the transactions of a business are recorded only in terms of money. Because, money is the medium of exchange and a common measure of value. This serves as a measuring rod with which different kinds of resources are measured. For instance, a business may own 2000 square meter of building space, cash Rs.1,00,000, raw materials of 5,000 tons, motor trucks 5 numbers, motor cars 3 numbers and 100 sets of table and chair. All these items cannot be added together to give a meaningful information. However, when the value of all these assets are expressed in terms of rupees or dollars, then they can be added together to give a meaningful information and a clear picture about the total value of the business.

5. Cost Concept

The meaning of this concept is that an asset will be recorded at its cost, that is price paid or to be paid for acquiring it. Any change in the market value of the asset is not recorded. The market value may fluctuate from time to time and create confusion if the change in value is recorded. The change is unrealized, hence they need to be recorded.

When the value of an asset is reduced due to its constant use, due to wear and becoming obsolescence, then they are shown as depreciation and reduced from the original cost of the asset.

6. Accounting Period Concept

The business activity is a continuous process and we cannot wait till the end of the business to evaluate its financial position. Hence for reporting purpose, the entire life of a business is divided into different accounting period. A period normally may cover 12 months. A profit and loss account is prepared once in a year and the balance sheet is prepared as on the closing date of the accounting period.

7. Realisation Concept

This concept is related to realization of revenue which arises from sale of goods or services. But the question arises as to when the revenue should be recognized and how much of it should be taken into account. One must ascertain the revenue of the current year, past year and of the next year. Revenue arises when title to goods is transferred or when services is rendered to the customer. In the case of a credit sale, revenue arises when the sale is made, and not when the cash is received. Likewise, when an advance is received for supply of goods, it does not amount to revenue. Revenue, in fact, arises only when goods are supplied.

8. Matching Concept

The meaning of expenses against revenues for ascertaining the net profit or loss of a business is known as the matching concept. The matching concept required that costs should be recognized as expenses in the period in which the associated revenue is recognized. For example, when a radio is sold in the current year, all the costs associated with the production and sale of that radio should be recognized as expenses of the year, even though some of these expenses have not been paid. In other words, profits made by a business during a period can be measured only when the revenue earned during the period is compared with the expenses incurred for earning that revenue. The question as to when the payment for the expense is made does not arise at all.

Because of matching concept, adjustments are made for all outstanding and prepaid expenses and incomes receivable and received in advance at the time of preparing final accounts.

9. Accrual Concept

Under this concept, revenue recognition depends on its realization and not on actual receipt. Likewise, costs are recognized when they are incurred and not when paid. This necessitates certain adjustments in the preparation of Income statement. In relation to revenue, the accounts should exclude amounts relating to subsequent period and provide for revenue recognized but not received in cash.

Likewise in relation to costs, the accounts should exclude amount relating to subsequent period, provide for costs incurred but not paid and exclude costs paid for subsequent period.

The matching principle is not followed in the case of cash system of accounting and the operating results prepared on this basis are not in conformity with generally accepted accounting principles.

10. Objectivity Concept

As per this concept, all accounting must be based on objective evidence. In other words, the transaction recorded should be supported by various documents. Only in such an event, it would be possible for the auditors to verify accounts and certify them as true or otherwise. The evidence substantiating the business transactions should be objective and free from the bias of the accountants. It is not for this reason that assets are recorded at historical cost and shown thereafter at historical cost less depreciation. If the assets are shown on replacement cost basis, the objectivity is lost and it becomes difficult for auditors to verify such values.

1.12 **ACCOUNTING CONVENTIONS**

Accounting conventions refer to the traditions, customs and practices followed by accountants as a guide in the preparation of financial statements. That is, it is an accounting procedure followed by the accounting community on the basis of long- standing customers.

Convention of Disclosure

It implies that accounts must be honestly prepared and all material information must be disclosed therein. The contents of balance sheet and profit and loss account are prescribed by the Indian Companies Act. These are designed to make disclosure which means that there is to be a sufficient disclosure of information which is of material interest to proprietors, potential creditors and investors.

Now-a-days business is increasingly managed by professionally qualified managers. They owe a duty to make a full disclosure to the persons who have contributed the capital. Financial accounting requires the disclosure of all signified accounting policies adopted in the preparation of financial statements. Events like bad debts, destructions of plant and equipment due to natural calamities, and acquisition of another major asset are likely to have a substantial influence on the earnings of the enterprise. Hence, their non-disclosure would affect the ability of the users of such statements to make proper evaluations and decisions.

Convention of Materiality

This convention deals with the relative importance of the accounting information. Information which is unimportant need not be disclosed in the financial statements. It is left to the discretion of the accountant to decide what is material and what is immaterial. Generally information is said to be material if it would influence the judgement of an investor or creditor. Sometimes, an accountant may not go into minute details because the work involved may not justify the usefulness of the result.

For instance, in a large concern the entire value of stationery items issued for use in the office may be written off as expenses of the period. Strictly speaking stationery consumed should be treated as expenses and that which remains unused, should be treated as an asset. But it is difficult to find out the value of that part of the stationery which has been used up and that part which remains as stock. Many of the expenses for a period are mere estimates and an attempt to find out the exact amount of expenses involved may not be worthwhile. Moreover, while preparing financial statements, unimportant items can be merged with other items and decimal figures may be rounded off to the nearest rupees.

Convention of Consistency

In any organization, accounting practice should be followed consistently year after year. For example, if depreciation for a particular asset is provided on the basis of diminishing balance method, then the same method should continue in the subsequent years also. If there is no consistency in the accounting method, then comparison of accounting figures and the trading results of different years would become meaningless.

Convention of Conservation

This is the Policy of "Playing Safe". A business man is always conservative in estimating his profits. He never takes into account expected profits but takes into account all expected losses. This is rather a pessimistic attitude and is reflected in the preparation of accounting statements also. Stock is always valued at cost or market price whichever is lower. Provision for doubtful debts and discount on debtors is created. This convention is against the convention of full disclosure and is attracting a lot of criticism.

1.13 JOURNAL

Books used for recording transactions are called Books of Account. Every business must invariably maintain two books of accounts. They are: i) Journal and ii) Ledger.

The journal is the "day-by-day" book of the business where in both aspects of all transactions are recorded in chronological order (i.e.) date-wise. The very first record of a business transaction is made in order of date in the journal. The journal is thus, a "Book of Prime Entry". It is otherwise known as "Book of Original Entry". It is then posted from the journal into the ledger. As such, the ledger is known as the principal book or main book. The ledger is otherwise known as Book of Final Entry.

The journal merely helps the posting of entries from Journal into the Ledger. Hence, Journal is known as Subsidiary Record or Subsidiary Book. The journal is sub-divided into a number of Subsidiary Books which, for convenience and have certain specialized functions, i.e. one book is meant for Credit Purchases and another for Credit Sales and so on.

Specimen

Journal Entry

Date	Particulars	L.F.	Debit		Credit	
			Rs.	P.	Rs.	P.

1.14 LEDGER

So far we have learnt the method of recording the business transactions in the journal. Now we shall learn the second book namely ledger. Ledger is a main book of accounts. It contains accounts representing persons, properties and nominal items like expenses and gains.

All the transactions are recorded in the journal separately and date-wise. As such, the transactions of a similar nature or those relating to a person or property or expenses/gain are recorded in different places as they occur on different dates. Moreover, the journal simply dissects the given transactions as to which account is to be debited and which one to be credited without much bothering as to what is the,, final result‟.

To get the picture as a whole, journals are further processed. All similar transactions relating to particular account (eg.) cash a/c or Raman‟s a/c or salary a/c for a given period are brought together. In other words, they are recorded at one place in ledger.

Specimen

Ledger

Dr. Cr.

Date	**Particulars**	**J. F.**	**Amount Rs.**	**Date**	**Particulars**	**J. F.**	**Amount Rs.**

Illustration: 1

Journalise the following transactions in the books of Mr. Raman

2021		Rs.
June 1	Sush commenced a business from cash	40000
2	Cash deposit in to the Indian bank	8000
4	Goods purchased for Cheque	2000

5	Sales to Mr. Arun Kumar	1600
12	Purchased from Mr. Ruban	4000
20	Cash sales	3000
22	Goods return to Mr. Ruban	1000
24	Goods returns from Mr. Anurn	100
30	Rent paid	400
	Salary paid	600
	Commission received	150

Solution:

Journal Entries of Mr. Raman

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
2021 June 1	Cash a/c Dr. To Capital a/c (Sush start business)		40,000	40,000
2	Bank a/c Dr. To Cash a/c (cash deposited in Indian Bank		8,000	8,000
4	Purchase a/c Dr. To Bank a/c (Goods purchase for Cheque)		2,000	2,000
5	Mr. Arun Kumar a/c Dr. To Sales (Sales to Mr. Aurn Kumar)		1,600	1,600
12	Purchases a/c Dr. To Mr. Ruban (Goods from Mr. Ruban)		4,000	4,000
20	Cash a/c Dr. To Sales a/c (Cash sales)		3,000	3,000
22	Mr. Ruban a/c Dr. To Purchases returns a/c (Goods returns to Mr. Ruban)		1,000	1,000

24	Sales returns a/c Dr. To Mr. Arun a/c (Goods returns from Mr. Arun)		100	100
30	Rent a/c Dr. To Cash (Rent paid)		400	400
	Salary a/c Dr. To Cash (Salary paid)		600	600
	Cash a/c Dr. To Commission a/c (Commission received)		150	150

Illustration: 2

Journalise the following transactions in the books of Amar and post them in the ledger

2014 March		Rs.
1	Bought goods for cash Rs. 25,000	25,000
2	Sold goods for cash Rs. 50,000	50,000
3	Bought goods for credit from Gopi Rs. 19,000	19,000
5	Sold goods on credit to Robert Rs. 8,000	8,000
7	Received from Robert Rs. 6,000	6,000
9	Paid to Gopi Rs. 5,000	5,000
20	Bought furniture for cash Rs. 7,000	7,000

Solution:

Journal Entry of Amar

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
2014 March 1	Purchases a/c Dr. To Cash a/c (Cash purchases)		25,000	25,000

2	Cash a/c Dr. To Sales a/c (Cash sales)		50,000	50,000
3	Purchases a/c Dr. To Gopi a/c (Credit purchases)		19,000	19,000
5	Robert a/c Dr. To Sales a/c (Credit sales)		8,000	8,000
7	Cash a/c Dr. To Robert a/c (Cash received)		6,000	6,000
9	Gopi a/c Dr. To Cash a/c (Cash paid)		5,000	5,000
20	Furniture a/c Dr. To Cash a/c (Furniture purchased)		7,000	7,000

Ledger of Mr. Amar Cash Account

Dr. Cr.

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
2014 Mar. 5	To Sales a/c To Robert a/c		50,000 6,000	2014 Mar. 1 9 20	By Purchases a/c By Gopi a/c By Furniture a/c		25,000 5,000 7,000

Purchases Account

Dr. Cr.

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
2014 Mar. 1 3	To Cash a/c To Gopi a/c		25,000 19,000				

Sales Account

Dr. Cr.

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
				2014 Mar. 2 5	 By Cash a/c By Robert a/c		 50,000 8,000

Furniture Account

Dr. Cr.

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
2014 Mar 20	To Cash a/c		7,000				

Gopi Account

Dr. Cr.

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
2014 Mar 9	To Cash a/c		5,000	2014 Mar 3	By Purchase a/c		19,000

Robert Account

Dr. **Cr.**

Date	Particulars	J. F.	Amount Rs.	Date	Particulars	J. F.	Amount Rs.
2014 Mar 5	To Sales a/c		8,000	2014 Mar 7	By Cash a/c		6,000

1.15 **FINAL ACCOUNTS**

The final account of business concern generally includes two parts. The first part is Trading and Profit and Loss account. This is prepared to find out the net result of the business. The second part is Balance sheet which is prepared to know the financial position of the business.

Trading Account

Trading means buying and selling. The trading account shows the result of buying and selling of goods.

Specimen

Trading Account for the year ending 31st March, 2021

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening stock	***	By Sales ***	
To Purchases ***		Less: Sales returns ***	***
Less: Purchase Returns ***			
		By Closing stock	***
To Wages	***	To Gross Loss c/d (Transferred to Profit and Loss a/c)	***
To Fright	***		
To Carriage inwards	***		
To Clearing charges	***		
To Packing charges	***		
To Power	***		
To Octroi Duty	***		
To Gross profit c/d (Transferred to Profit and Loss a/c)	***		
	***		***

Profit and Loss Account

After calculating the gross profit or gross loss the next step is to prepare the profit and loss account. To earn net profit a trader has to incur many expenses apart from those spent for purchases and manufacturing of goods. If such expenses are less than gross profit, the result will be net profit. When total of all these expenses are more than gross profit the result will be net loss. Specimen

Profit and Loss Account for the year ending 31st March, 2015

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Gross Loss b/d (Transferred from trading a/c) To Salaries To Rent & Rates	*** *** ***	By Gross profit b/d (Transferred from trading a/c) By Commission earned By Rent received	*** *** ***
To Stationeries	***	By Interest received	***
To Postage expenses	***	By Discount received	***
To Insurance	***	To Net Loss	***
To Repairs expenses	***	(Transferred to capital a/c)	
To Office expenses	***		
To Interest paid	***		
To Bank charges	***		
To Sundry expenses	***		
To Commission paid	***		
To Discount allowed	***		
To Advertisement	***		
To Carriage outwards	***		
To Travelling expenses	***		
To Distribution expenses	***		
To Repacking charges	***		
To Bad debts	***		
To Depreciation	***		
To Net profit	***		
(Transferred to capital a/c)			
	***		***

If Net Profit

Journal Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
	Profit & Loss a/c Dr. To Capital a/c (Net profit transferred to capital a/c)		***	***

If Net Loss

Journal Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
	Capital Dr. To Profit & Loss a/c (Net loss transferred to Profit and loss a/c)		***	***

BALANCE SHEET

This forms the second part of the final accounts. It is a statement showing the financial position of a business. Balance sheet is prepared by taking up all personal accounts and real accounts (assets and properties) together with the net result obtained from profit and loss account. On the left hand side of the statement, the liabilities and capital are shown. On the right hand side, all the assets are shown. Balance sheet is not an account but it is statement prepared from the ledger balances. So we should not prefix the accounts with the words "To" and "By"

Balance sheet is defined as „a statement which sets out the assets and liabilities of a business firm and which serves to ascertain the financial position of the same on any particular date‟.

Specimen

Balance sheet as on 31st March 2021

Liabilities		Amount Rs.	Assets	Amount Rs.
Capital	***		Cash in hand	***
Add:			Cash at bank	***
Net Profit	***		Bills receivable	***
	***		Sundry debtors	***
(Or)			Investments	***
Less:			Closing stock	***
Net Loss	***		Prepaid expenses	***
	***		Furniture & fittings	***
Less: Drawings	***		Plant & machinery	....
	***		Land & buildings	***
Less:			Business premises	***
Income Tax	***	***	Patents & Trade marks	***
Sundry creditors		***	Goodwill	***
Bills payable		***		
Bank overdraft		***		
Loan		***		
Reserve fund		***		
Outstanding expenses		***		
		***		***

Difference between Trial Balance and Balance Sheet

No.	Basis Distinction	Trial balance	Balance sheet
1.	Objective	To know the arithmetical accuracy of the accounting Work	To know the true and fair financial position of the Business
2.	Format	The columns are debit balances and credit balances	The two sides are assets and Liabilities
3.	Content	It is summary of all the ledger balances – personal, real and nominal account	It is statement showing closing balances of personal & real accounts
4.	Stage	It is the middle stage in the preparation of accounts	It is the last stage in the preparation of accounts
5.	Period	It can be prepared periodically say at the end of the month, quarterly or half yearly etc.,	It is generally prepared at the end of the accounting period
6.	Preparation	It is prepared before the preparation of trading, profit and loss account.	It is prepared after the preparation of trading, profit and loss account.

Illustration: 3

Prepare trading account for the year ending 31st March 2012 from the following information.

	Rs.
Opening stock	1,70,000
Purchase returns	10,000
Sales	2,50,000
Wages	50,000
Sales returns	20,000
Purchases	1,00,000
Carriage inwards	20,000
Closing stock	1,60,000

Solution:

Trading Account for the year ending 31st March 2012

Dr. Cr.

Particulars	Amount Rs.	Particulars		Amount Rs.
To Opening stock	1,70,000	By Sales	2,50,000	
To Purchases 1,00,000		Less		
Less: Purchases return 10,000	90,000	Sales return	20,000	2,30,000
To wages	50,000	By Closing stock		1,60,000
To Carriage inwards	20,000			
To Gross profit c/d (transferred to P & L a/c)	60,000			
	3,90,000			3,90,000

Illustration: 4

Prepare profit and loss account, from the following balances of Mr.Mani for the year ending 31.12.2013.

	Rs.		Rs.
Office rent	30,000	Salaries	80,000
Printing expenses	2,000	Stationeries	3,000
Tax, Insurance	4,000	Discount allowed	6,000
Advertisement	36,000	Travelling expenses	26,000
Gross profit	2,50,000	Discount received	4,000

Solution:

Profit and Loss Account of Mr. Mani for the year ending 31st December 2013

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Office rent	30,000	By Gross profit b/d (transferred from the trading a/c)	2,50,000
To Printing expenses	2,000		
To Tax, Insurance	4,000	By Discount received	
To Advertisement	36,000		4,000
To Salaries	80,000		
To Stationeries	3,000		
To Discount allowed	6,000		
To Travelling expenses	26,000		
To Net profit (transferred to capital a/c)	67,000		
	2,54,000		2,54,000

Illustration: 5

Prepare trading and profit loss account for the year ending 31st March 2012 from the books of Mr. Siva Subramanian.

	Rs		Rs
Stock (31.3.2011)	15,000	Carriage outwards	4,000
Purchases	1,65,000	Wages	30,000
Purchases return	10,000	Sales return	5,000
Postage	3,000	Salaries	20,000
Discount received	5,000	Stationeries	2,000
Bad debts	1,000	Interest	8,000
Sales	3,00,000	Insurance	4,000
Stock (31.3.2012)	80,000		

Solution:

Trading and Profit & Loss Account of Mr. Siva Subramanian for the year ending 31st March 2012

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening stock To Purchases Less: 1,65,000 Purchases return 10,000 To wages Gross profit c/d (transferred to P & L a/c)	15,000 1,55,000 30,000 60,000	By Sales 3,00,000 Less Sales return 5,000 By Closing stock	2,95,000 80,000
	3,75,000		3,75,000
To Postage To Bad debts To Carriage outwards To Salaries To Stationeries To Interest To Insurance	3,000 1,000 4,000 20,000 2,000 8,000 4,000	By Gross profit b/d (transferred from the trading a/c) By Discount received	1,75,000 5,000
To Net profit (transferred to capital a/c)	1,38,000		
	1,80,000		1,80,000

Illustration: 6

From the following trial balance of M/s Ram & Sons, prepare trading and profit and loss account for the year ending on 31st March 2012 and the balance sheet as on the date

Trial balance as on 31st March 2012

Particulars	Debit Rs.	Credit Rs.
Opening stock (1.4.2011)	5,000	
Purchases	16,750	
Discount allowed	1,300	
Wages	6,500	
Sales		30,000
Salaries	2,000	
Travelling expenses	400	
Commission	425	
Carriage inwards	275	
Administration expenses	105	
Trade expenses	600	
Interest	250	
Building	5,000	
Furniture	200	
Debtors	4,250	
Creditors		2,100
Capital		13,000
Cash	2,045	
	45,100	45,100

Stock on 31st March 2012 was Rs. 6,000

Solution:

M/S Ram & Sons Trading and Profit and Loss Account for the year ending 31st March 2012

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening stock	5,000	By Sales	30,000
To Purchases	16,750	By Closing stock	6,000
To Wages	6,500		
To Carriage inwards	275		
To Gross profit c/d (transferred to P & L a/c)	7,475		
	36,000		36,000
To Discount allowed	1,300	By Gross profit b/d (transferred from the trading a/c)	7,475
To Salaries	2,000		
To Travelling expenses	400		
To Commission	425		
To Administration expenses	105		
To Trade expenses	600		
To Interest	250		
To Net profit (transferred to capital a/c)	2,395		
	7,475		**7,475**

Balance sheet as on 31st March 2012

Liabilities		Amount Rs.	Assets	Amount Rs.
Capital	13000		Cash	2,045
Add:			Debtors	4,250
Net Profit	2395	15,395	Stock	6,000
Creditors		2,100	Furniture	200
			Building	5,000
		17,495		**17,495**

ADJUSTMENTS

Some important and common items, which need to be adjusted at the time of preparing the final accounts are discussed below.

1) Closing stock
2) Outstanding expenses
3) Prepaid expenses
4) Accrued incomes
5) Incomes received in advance
6) Interest on capital
7) Interest on drawings
8) Interest on loan
9) Interest on investments
10) Depreciation
11) Bad debts
12) Provision for bad and doubtful debts
13) Provision for discount on debtors
14) Provision for discount on creditors

Note: All adjustments are given outside the trial balance

1. Closing stock

The value of closing shown outside the trial balance on 31.03.2014 is Rs.55,000

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Closing stock a/c Dr. To Trading a/c (Closing stock recorded)		55,000	 55,000

Value of Closing Stock

i. On the credit side of trading account.

ii.On the assets side of balance sheet.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Closing stock	55,000

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets	Amount Rs.
		Closing stock	55,000

2. Outstanding expenses

Expenses which have been incurred but not yet paid during the accounting period for which the final accounts are being prepared are called ass outstanding expenses.

Trial balance shows remuneration paid Rs. 25,000

Adjustments

Remuneration for March 2014, Rs. 3,000 not yet paid.

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Remuneration a/c Dr. To Remuneration outstanding a/c (Salary outstanding)		3,000	 3,000

Outstanding Remuneration

i. On the debit side of profit and loss account by way additions to the particular expenses.

ii. On the liabilities side of the balance sheet.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars		Amount Rs.	Particulars	Amount Rs.
Remuneration	25,000			
Add: Outstanding Remuneration	3,000	28,000		

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets	Amount Rs.
Outstanding remuneration	3,000		

3. Prepaid expenses

Expenses which have been paid in advance are called as prepaid expenses.

31st March, 2014 Trial balance shows Loan Rs. 32,000

Adjustments

Prepaid interest on loan Rs. 4,300

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Prepaid interest on loan a/c Dr. To Interest a/c (Prepaid interest on loan)		4,300	 4,300

Prepaid interest on loan

i. On the debit side of the profit and loss account by way of deduction from the particular expenses

ii. On the assets side of the balance sheet.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars		Amount Rs.	Particulars	Amount Rs.
Interest	32,000			
Less: Prepaid interest on loan	4,300	27,700		

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets	Amount Rs.
		Prepaid interest on loan	27,700

4. Accrued incomes

Income which has been earned but not received during the accounting period is called as accrued income.

Credit side of Trial balance shows commission received Rs. 3,000

Adjustment

Commission accrued but not yet received Rs. 1,500

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Accrued commission a/c Dr. To Commission a/c (Accrued commission)		1,500	 1,500

Accrued commission

i. On the credit side of profit and loss account by way addition to particular income.

ii. On the assets side of the balance sheet.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars		Amount Rs.
		By Commission	3,000	
		Add: Accrued commission	1,500	4,500

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets	Amount Rs.
		Accrued commission	1,500

5. Incomes received in advance

Income received during a particular accounting period for the work to be done in future period is called as income received in advance.

Trial balance for the period ending 31st March 2014 shows received dividend 22,000

Adjustment

Dividend received in advance Rs. 3,000

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Dividend received Dr. To Dividend received in advance (Dividend received in advance)		3,000	3,000

Dividend received in advance

i. On the credit side of the profit and loss account by way of deducting from the particular income.

ii. On the liabilities side of the balance sheet.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars		Amount Rs.
		By Dividend received	22,000	
		Less: Dividend received in advance	3000	19,000

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets	Amount Rs.
Dividend received in advance	3,000		

6. Interest on capital

In order to see whether the business is really earning profit or not, it is desirable to charge interest on capital at a certain rate.

As per trial balance, capital as on 31.3.2014 Rs. 2,00,000

Adjustment

Provide 6% interest on capital

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Interest on capital a/c Dr. To Capital a/c (Interest on capital)		12,000	12,000

Interest on capital

i. On the debit side of profit and loss account.

ii. On the liabilities side of the balance sheet by way of addition to the capital

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Interest on capital a/c	12000		

Balance sheet as on 31st March, 2014

Liabilities		Amount Rs.	Assets	Amount Rs.
Capital	2,00,000			
Less: Interest on				
Capital	12,000	2,12,000		

7. Interest on drawings

Amount withdrawn by the owner for his personal use is called as drawings. When interest on capital is allowed, then interest on drawings charged from the owner. Interest on drawings is an income for the business and will reduce the capital of the owner.

Trial Balance showing : Capital Rs. 4,00,000 Drawing: Rs. 30,000

Adjustments: Charge interest on drawings @ 5%

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Capital a/c Dr. To Interest on drawings a/c (Interest on drawings)		1,500	 1,500

To bring interest on drawings to profit and loss account the following transfer entry is required.

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Interest on drawings a/c Dr. To Profit and Loss a/c (Interest on drawings)		1,500	 1,500

Interest on drawings

i. On the credit side of profit and loss account

ii. On the liabilities side of the balance sheet by way of addition to the drawings which are ultimately deduced form the capital.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Interest on drawings a/c	1,500

Balance sheet as on 31st March, 2014

Liabilities		Amount Rs.	Assets	Amount Rs.
Capital		4,00,000		
Less				
Drawings	30,000			
Interest on drawings	1,500	31,500		
		3,68,500		

8. Interest on investments

Interest receivable on investments is an income for the business.

The trial balance 31.03.2014 shows investments @ 10% Rs. 1,00,000. Interest received on investments Rs. 90,000

Adjustment

Provide for accrued interest on investments Rs. 10,000

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Accrued interest on investments Dr. To Interest received a/c (Accrued interest on investments)		10,000	 10,000

Accrued interest on investments (outstanding interest receivable will be shown)

i. On the credit side of the profit and loss account by way of addition to the appropriate interest account.

ii. On the asset side of the balance sheet by way of addition to the investment account.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars		Amount Rs.
		By Interest received Add: Accrued interest	90,000 10,000	1,00,000

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets		Amount Rs.
		Investments	10,00,000	
		Add: Accrued Interest	10,000	10,10,000

9 . Interest on loan

Borrowing from banks, financial institutions and outsiders for business are called loans. Amount payable towards interest on loan is an expense for the business.

The trial balance (31.3.2014) shows the following: Bank loan @ 10% on 1.4.2013 Rs. 4,00,000 Interest paid Rs. 14,000

Adjustment

Provide for interest on bank loan outstanding

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Interest on bank loan a/c Dr.		26,000	
	To Interest on outstanding a/c			26,000
	(Interest on bank loan)			

Interest outstanding on Loan

i. On the debit side of the profit and loss account by way of addition to the appropriate interest account.

ii. On the liability side of the balance sheet by way of addition to the particular loan account.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars		Amount Rs.	Particulars	Amount Rs.
To Interest on loan	14,000			
Add:				
Interest outstanding	26,000	40,000		

Balance sheet as on 31st March, 2014

Liabilities		Amount Rs.	Assets	Amount Rs.
To Bank loan	4,00,000			
Add:				
Interest outstanding	26,000	4,26,000		

10. Depreciation

Depreciation is the reduction in the value of fixed assets due to its use or obsolescence. Generally depreciation is charged at some percentage on the value of fixed assets.

The trial balance shows the value of machinery 31.3.2014 as Rs. 50,000.

Adjustment

Furniture is to be depreciated at 10%.

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.

31.03.14	Depreciation a/c Dr. To Machinery a/c (Depreciation on machinery)		5,000	 5,000

To bring depreciation into profit and loss account the following transfer entry is required.

Transfer Entry

Date	**Particulars**	**L.F.**	**Debit Rs.**	**Credit Rs.**
31.03.14	Profit & Loss a/c Dr. To Depreciation a/c (Depreciation transferred to Profit and Loss a/c)		5,000	 5,000

Depreciation

i. On the debit side of profit and loss account

ii. On the assets side of the balance sheet by way of deducted from the value of concerned asset.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	**Amount Rs.**	**Particulars**	**Amount Rs.**
To Depreciation on Machinery	5,000		

Balance sheet as on 31st March, 2014

Liabilities	**Amount Rs.**	**Assets**		**Amount Rs.**
		Machinery Less: Depreciation	50>000 5>000	 45>000

11. Bad debts

Debts which cannot be recovered are called bad debts. It is a loss for the business. The trial balance on 31st March 2014 shows, Sundry debtors Rs. 60,000.

Adjustment

Write off Rs. 4,000 as bad debts.

Solution:

Adjusting Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Bad debts a/c Dr. To Sundry debtors a/c (Bad debts written off)		4,000	 4,000

To transfer bad debts to profit and loss account the following transfer entry is required.

Transfer Entry

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
31.03.14	Profit & Loss a/c Dr. To Bad debts a/c (Bad debts transferred toProfit and Loss a/c)		4,000	 4,000

Bad debts

i. On the debit side of profit and loss account

ii. On the assets side of the balance sheet by way of deduction from sundry debtors.

Trading account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Bad debts a/c	4,000		

Balance sheet as on 31st March, 2014

Liabilities	Amount Rs.	Assets		Amount Rs.
		Sundry Debtors	60,000	
		Less: Bad debts		
		Written off	4,000	56,000

Illustration: 7

From the following trial balance of a trader, make out a Trading and Profit and Loss account and Balance sheet as on 31st March 2014

Particulars	Debit Rs.	Credit Rs.
Sales		4,20,000
Purchases	1,05,000	
Printing charges	2,500	
Wages	77,500	
Salaries	12,500	
Opening stock	2,25,000	
Carriage inwards	8,800	
General expenses	26,250	
Trade marks	5,000	
Rates and taxes	2,500	
Capital		1,74,800
Discount received		1,250
Loan		1,75,000
Buildings	2,00,000	
Furniture	25,000	
Machinery	50,000	

Cash	1,000	
Bank	30,000	
	7,71,050	7,71,050

Adjustments

1) The closing stock was value at Rs. 3,20,000
2) Outstanding salaries Rs. 10,000
3) Prepaid rates & taxes Rs. 500

Solution:

Trading and Profit and Loss Account for the year ending 31st March, 2014

Dr. Cr.

Particulars	Rs.	Particulars	Rs.
To Opening stock	2,25,000	By Sales	4,20,000
To Purchases	1,05,000	By Closing stock	3,20,000
To Wages	77,500		
To Carriage inwards To Gross	8,800		
profit c/d (Transferred to Profit	3,23,700		
and Loss a/c)			
	7,40,000		7,40,000
To Printing charges	2,500	By Gross profit b/d	3,23,700
To Salaries 12,500		(Transferred from trading a/c)	
Add: Outstanding 10,000		By Discount received	
To General expenses	22,500		1,250
To Rates and taxes 2,500	26,250		
Less: Prepaid 500	2,000		
To Net profit	2,71,700		
(Transferred to capital a/c)			
	3,24,950		3,24,950

Balance sheet as on 31st March 2014

Liabilities		Rs.	Assets	Rs.
Capital	1,74,800		Trade marks	5,000
Add:			Building	2,00,000
Net Profit	2,71,700	446500	Furniture	25,000
Outstanding salary		10000	Machinery	50,000
Loans		175000	Cash	1,000
			Bank	30,000
			Prepaid rates & taxes	500
		631500		6,31,500

Management Accounting

The main thrust of Management Accounting is towards determining policy and formulating plans to achieve desired objectives of management. It helps the management in planning, controlling and analysing the performance of the organization in order to follow the path of continuous improvement. Management Accounting utilizes the principles and practices of financial accounting and cost accounting in addition to order modern management techniques for effective operation of a company.

1.16 Definition

Management Accounting is that branch of accounting which deals with presenting and providing accounting information to the management in a systematic way so that it can perform its management functions of planning, controlling and decision-making in an effective and efficient manner.

1.17 Types of Managerial Accounting

1. Product Costing and Valuation

Costs can be bifurcated into the variable, fixed, direct, or indirect costs. Cost accounting helps in measuring and identifying these costs as well as assigning overheads to each type of product or service. Product costing, thus, determines the total costs incurred in the production of a good or service.

Managerial accounting helps in calculating and allocating overhead charges to assess the expenses or costs related to the production of a good or service. The overhead expenses can be allocated on the basis of the number of goods produced, the number of hours run, the number of machine-hours, the square footage of the facility or any other activity drivers related to production. Managerial accounting also uses direct costs for the purpose of valuing the cost of goods sold and inventory.

2. Cash Flow Analysis

Cash flow analysis helps in determining the cash impact of business decisions. Most companies follow the accrual basis of accounting to record their financial information as it provides a more accurate picture of a company's true financial position. However, it also makes it difficult to measure the true cash impact of a single financial transaction. By implementing working capital management strategies, one may optimize cash flow and ensure that the company has enough liquid assets to cover short-term obligations. While performing the cash flow analysis, one needs to consider the cash inflow or outflow generated as a result of a specific business decision.

3. Inventory Turnover Analysis

Inventory turnover involves a calculation of how many times the inventory has been sold and replaced in a given period of time. It helps businesses in making better decisions on pricing, manufacturing, marketing, and purchasing inventory. Inventory Turnover analysis also helps in identifying the carrying cost of inventory. The carrying cost of inventory is the amount of expense a company incurs to store unsold items.

4. Constraint Analysis

Reviewing the constraints within a production line or sales process is also a part of Managerial accounting. It involves determining where bottlenecks occur and calculating the impact of these constraints on revenue, profit, and cash flow. This information is useful to implement changes and improve efficiencies in the production or sales process.

5. Financial Leverage Metrics

Financial leverage refers to the use of borrowed funds in order to acquire assets and increase its return on investments. Through balance sheet analysis, the company's debt and equity mix in order to put leverage to its most optimal use can be studied. Performance measures such as return on equity, debt to equity, and return on invested capital help the managers to identify key information about borrowed capital.

6. Accounts Receivable (AR) Management

Accounts Receivables invoices are categorized by the length of time they have been outstanding in an accounts receivable ageing report. It may list all outstanding receivables less than 30 days, 30 to 60 days, 60 to 90 days, and 90+ days. It helps the managers to ascertain whether certain customers are becoming credit risks. If a customer routinely pays late, management may reconsider doing any future business on credit with that customer.

7. Budgeting, Trend Analysis, and Forecasting

Budgets are a quantitative expression of the company's plan of operation. Performance reports are used to study the deviations of actual results from budgets. The positive or negative deviations from a budget are analysed in order to make appropriate changes going forward with the future planning.

Managerial accounting also helps in analysing information related to capital expenditure decisions with the use of standard capital budgeting metrics, such as NPV and IRR. It assists decision-makers on whether to invest in capital-intensive projects or purchases or not.

Managerial accounting also includes reviewing the trend line for certain expenses as well as investigating unusual deviations.

1.18 Advantages of Management Accounting

The purpose of management accounting is to help the managerial team with financial information so that they can execute business operations and activities more efficiently. Following is the list of all benefits of management accounting –

- Decision Making
- Planning
- Controlling business operations
- Organizing
- Understanding financial data

- ❖ Identifying business problem areas
- ❖ Strategic Management

Decision Making

This is the most important benefit of the process of management accounting. In fact, it is the main purpose of it. In this form of accounting, we use techniques from all fields like costing, economics, statistics, etc.

It provides us with charts, tables, forecasts and various such analyses that make the process of decision making easier and more justified.

Planning

Managerial accounting does not have any strict timelines like financial accounting. It is, in fact, a continuous and on-going process.

So financial and other information is presented to the management at regular intervals like weekly, monthly or sometimes even daily.

Hence managers can use this analysis and data to plan the activities of the organization. For example, if the recent data shows a dip in the sales for a certain region, then the sales manager can advise his team and plan some action to rectify the situation.

Identifying Business Problem Areas

If some product is not performing well, or some department is running into unexpected losses, etc. managerial accounting can help us identify the underlying cause.

Actually, if the management is diligent and their data and reports are frequent, they can identify the problem very early on. This will allow the management to get ahead of the problem.

Strategic Management

Concept of management accounting is not mandatory by any law. So it can have its own structure according to the company's requirements. So if the company feels certain areas need more in-depth analysis or investigation it can do so freely.

This allows them to focus on some core areas. The information presented to them allows them to make strategic management decisions.

Like if the company wishes to launch a new product line, or discontinue an existing one, management accounting will play a huge part in this strategy.

1.19 Limitations of Management Accounting

- **Data based on Financial accounting** – Decisions taken by the management team are based on the data provided by Financial Accounting
- **Less knowledge** – Management has insufficient knowledge of economics, finance, statistics, etc.
- **Out-dated data** – Management team receives historical data, which may change eventually when management is taking the decisions.
- **Expensive** – Setting up a management accounting system requires a lot of investment.

UNIT- II

ANALYSIS OF FINANCIAL STATEMENT

Lesson Structure:

2.1 INTRODUCTION

Financial statements are an important source of information for evaluating the performance and prospects of a firm. If properly analyzed and interpreted, financial statements can provide valuable insights into a firm's performance. Analysis of financial statements is of interest to lenders (short term as well as long term), investors, security analysts, managers, and others. Financial statement analysis may be done for a variety of purposes, which may range from a simple analysis of the short-term liquidity position of the firm to a comprehensive assessment of the strengths and weaknesses of the firm in various areas. It is helpful in assessing corporate excellence, judging creditworthiness, forecasting bond ratings, evaluating intrinsic value of equity shares, predicting bankruptcy, and assessing market risk.

2.2 FINANCIAL STATEMENT

Managers, shareholders, creditors and other interested groups seek answers to the following questions about a firm: What is the financial position of firm at a given point of time? How has the firm performed financially over a given period of time? What have been the sources and uses of cash over a given period? To answer these questions, the accountant prepares two principal statements, the balance sheet and the profit and loss account, and an ancillary statement, the cash flow statement.

2.3 BALANCE SHEET

The balance sheet shows the financial condition of a business at a given point of time. As per the Companies Act, the balance sheet of a company shall be in either the account (horizontal) form or the report (vertical) form., shows the balance sheet of Horizon Limited as on March 31, 2005 cast in the account as well as the report form. While the report form is most commonly used by companies, it is more convenient to explain the contents of the balance sheet of Horizon Limited, cast in the account form, as given

Liabilities	Rs	Assets	Rs
Share capital		Fixed assets	
Reserve and Surplus		Investment	
Unsecured Loans		Current assets, loans	
Current Liabilities		Loans and advance	
Provisions		Miscellaneous expenditure and losses	

Report Form

- *Sources of Funds*

(i) Shareholders' funds

Share capital

Reserves & surplus

(ii). Loan funds

Secured loans

Unsecured loans

- *Application of Funds*
  - ✓ Fixed assets
  - ✓ Investments
  - ✓ Current assets, loans and advances Less: Current liabilities and provisions
  - ✓ Net current assets
  - ✓ Miscellaneous expenditure and losses.

Liabilities. Liabilities defined very broadly represent what the business entity owes others. The Companies Act classifies them as share capital, reserves and surplus, secured loans, unsecured loans, current liabilities and provisions

Share Capital: This is divided into two types: equity capital and preference capital. The first represents the contribution of equity shareholders who are the owners to the firm. Equity capital, being risk capital, carries no fixed rateof dividend.Preference capital represents the contribution of preferenceshareholders and the dividend rate payable on it is fixed.

Reserves and Surplus: Reserves and surplus are profits, which have been retained in the firm. There are two types of reserves: revenue reserves and capital reserves. Revenue reserves represent accumulated retained earning from the profits of normal business operations. These are held in various forms: general reserve, investment allowance reserve, capital redemption reserves, dividend equalization reserve, and so on. Capital reserves arise out gains, which are not related to normal business operations. Examples of such gains are the premium on issue of shares or gain on revaluation of assets. Surplus is the balance in the profit and loss account, which has not been appropriated to any particular reserve account. Note that reserves and surplus along with equity capital represent owners' equity or net worth.

Secured Loans: These are the borrowings of the firm against which specific collateral have been provided. The important components of secured loans are: debentures, loans from financial institutions, and loans from commercial banks.

Unsecured Loans. These are the borrowing of the firm against which no specific security has been provided. The major components of unsecured loans are: fixed deposits, loans and advances from promoters, inter-corporate borrowings, and unsecured loans from banks.

Current liabilities and Provisions: Current liabilities and provisions, as per the classification under the companies Act, consist of the amounts due to the suppliers of goods and services bought on credit, advance payments received, accrued expenses, unclaimed dividend, provisions for taxes, dividends, and so on. Current liabilities for managerial purposes (as distinct from their definition in the Companies Act) are obligations, which are expected to mature in the next twelve months. So defined, they include current liabilities and provisions as per the classification under the Companies Act plus loans (secured and unsecured) which are repayable within one year fromthe date of the balance sheet.

Assets: Broadly speaking, assets represent resources, which are of some value to the firm. They have been acquired at a specific monetary cost by the firm for the conduct of its operations. Assets are classified under the Companies Act as fixed assets, investments, current assets, loans and advances, miscellaneous expenditure and losses.

Fixed Assets: These assets have two characteristics: they are acquired for use over relatively long periods for carrying on the operations of the firm and they are ordinarily not meant for resale. Examples of fixed assets are land, buildings, plant, machinery, patents, and copyrights.

Investments: These are financial securities owned by the firm. Some investments represent long-term commitment of funds (usually these are the equity shares of other firms held for income and control purposes). Other investments are likely to be short term in nature such as holdings of units in mutual fund schemes and may rightly be classified under current assets for managerial purposes. (Under the requirements of the Companies Act, however, short term holding of financial securities also has to be shown underinvestments and not under current assets.)

Current Assets, Loans and Advances: This category consists of cash and other assets, which get converted into cash during the operating cycle of the fir. Current assets are held for a short period of time as against fixed assets, which are held for relatively longer periods. The major components of current assets are: cash, sundry debtors, inventories, loans and advances, and pre-paid expenses. Cash denotes funds readily disbursable by the firm. The bulk of it is usually in the form of bank balances and the rest is currency held by the fir. Sundry debtors (also called accounts receivable) represent the amounts owned to the firm by its customers who have bought goods and services on credit. Sundry debtors are shown in the balance sheet at the amount owed, less an allowance for bad debts. Inventories (also called stocks) consist of raw materials, work-in-process, finished goods, and stores and spares. They are usually reported at the lower of the cost or market value. Loans and advances are the amounts loaned to employees, advances given to suppliers and contractors, advance tax paid, and deposits made with governmental and other agencies. They are shown at the actual amount. Pre-paid expenses are expenditures incurred for services to be rendered inthe future. These are shown at the cost unexpired service.

Miscellaneous Expenditures and Losses: This category consists of two items: (i) miscellaneous expenditures and (ii) losses. Miscellaneous expenditures represent certain outlays such as preliminary expenses and developmental expenses, which have not been written off. From the accounting point of view, a loss represents a decrease in owners' equity. Hence, when a loss occurs, the owners' equity should be reduced by that amount. However, as per company law requirements, the share capital (representing owners' equity) cannot be reduced when a loss occurs. So the share capital is kept intact on the left hand side (the liabilities side) of the balance sheet and the loss is shown on the right hand side (the assets side)of the balance sheet.

2.4 PROFIT AND LOSS ACCOUNT

The Companies Act has prescribed a standard form for the balance sheet, but none for the profit and loss account. However, the Companies Act does require that the information provided should be adequate to reflect a true and fair picture of the operations of the company for the accounting period. The Companies Act has also specified that the profit and loss account must show specific information as required by Schedule IV. The profit and loss account, like the balance sheet, may be presented in the account form or the report form. Typically, companies employ the report form. The report form statement may be a single-step statement or a multi-step statement. In a single step statement, all revenue items are recorded first, then the expense items are show and finally the net profit is given. While a single step profit and loss account aggregates all revenues and expenses, a multi-step profit and loss account provides disaggregated information. Further, instead of showing only the final profit measure, viz., the profit after tax figure, it presents profit measures at intermediate stages as well.

- ★ Net sales
- ★ Cost of goods sold
- ★ Gross profit
- ★ Operating expenses
- ★ Operating profit
- ★ Non-operating surplus/deficit
- ★ Profit before interest and tax
- ★ Interest
- ★ Profit before tax
- ★ Tax
- ★ Profit after tax.

2.5 OBJECTIVE OF FINANCIAL STATEMENT ANALYSIS

Broadly, the objective of the FSA is to understand the information contained in financial statements with a view to know the weaknesses and strength of the firm and to make a forecast about the future prospects of the firm and thereby enabling the financial analyst to take different decisions regarding the operations of the firm. The objectives ofthe FSA can be identified as:

- To assess the present profitability and operating efficiency of the firm as a whole as well as for its different departments and segments.
- To find out the relative importance of different components of the financial position of the firm.
- To identify the reasons for change in the profitability/financial positionof the firm, and
- To assess the short term as well as the long term liquidity position ofthe firm.

2.6 TYPES OF FINANCIAL ANALYSIS

Financial analysis can be classified into different categories depending upon (1) the material used, and (2) the modus operandi of analysis.

On the Basis of Material Used: Under this category the financial analysis can be of two types: a) External Analysis; b) Internal Analysis

(a). External Analysis: The outsiders to the business carry out this kind of analysis, which includes investors, credit agencies, government agencies and other creditors who have no access to the internal records of the company. In the recent times this analysis has gathered momentum towards better corporate governance and government regulations for more detailed disclosure of information by the companies in their financialstatements.

(b). Internal Analysis: In contrary to the above this analysis is done by those who have access to the books of accounts and other information related to the business. The analysis is done depending upon the objective to be achieved through this analysis.

On the basis of Modus Operandi: In this case too, the financial analysis can be of two types: a) Horizontal Analysis; b) Vertical Analysis

(a). Horizontal Analysis: Under this financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with standard or base year.

(b).Vertical Analysis: Under this type of analysis a study is made of the quantitative relationship of the various items in financial statements on a particular date. For example, the ratios of different items of costs for a particular period may be calculated with the sales for that period. These types of financial analysis are useful in comparing the performance of several companies in the same group, or divisions or departments in the same company.

2.7 TECHNIQUES/ TOOLS OF THE FINANCIAL STATEMENT ANALYSIS

As already discussed, that the FSA can be undertaken by different persons and for different purposes, therefore, the methodology adopted for the FSA may be varying from the one situation to another. However, the following are some of the common techniques of the FSA: a) Comparative financial statements. (b) Common-size financial statements, (c)Trend percentages analysis, and (d) Ration Analysis. The last techniques i.e. the ration analysis is the most common, comprehensive and powerful tool of the FSA. For the sake of proper understanding, all these techniques have been discussed in detail as follows:

❖ **Comparative Financial Statement (CFS):**In CFS, two or more BS and/or the IS of a firm are presented simultaneously in columnar form. The financial data for two or more years are placed and presented in adjacent columns and thereby the financial data is provided a times perspective in order to facilitate periodic comparison. In CFS, the BS and the IS for number of years are presented in condensed form for year-to- year comparison and to exhibit the magnitude and direction of changes.

❖ **Comparative Income Statement (CIS):** A CIS shows the figures of different items of the ISs of the firm in absolute terms, the absolute changes from one period to another and if desired, the changes in percentage form. The CIS is helpful in deriving meaningful conclusions regarding changes in sales volume, cost of goods sold, different expense items etc. From the CIS a financial analyst can quickly ascertain whether sales are increasing or decreasing and by how much amount or by how much percentage. Similarly, analysis can be made for other items also.

❖ **Comparative Balance Sheet (CBS):** The CBS shows the different assets and liabilities of the firm on different dates to make comparisons of absolute balances and also of changes if any, from one date to another. The CBS may be helpful in analyzing and evaluating the financial position of the firm over a period of number of years.

Illustration 1: Following are the IS and BS of ABC & Co. for the year 2003 and 2004, Prepare the CBS and CIS for these two years.

Income Statement for the year 2003 and 2004

Particulars	2003	2004	Particulars	2003	2004
To Cost of good sold	300000	375000	By Net Sales	400000	500000
To General Expenses	10000	10000			
To Selling Expenses	15000	20000			
To Net Profit	75000	95000			
	400000	500000		400000	500000

Balance Sheets as on December 31

(Figures in Rs.)

Liabilities	2003	2004	Assets	2003	2004
Capital	350000	350000	Land	50000	50000
Reserves	100000	122500	Building	150000	135000
Secured Loans	50000	75000	Plant	150000	135000
Creditors	100000	137000	Furniture	50000	70000
Outstanding Expenses	50000	75000	Cash	50000	70000
			Debtors	100000	150000
			Stores	100000	150000
	650000	760000		650000	760000

Solution:

COMPARATIVE INCOME STATEMENT FOR THE YEARS ENDING 2003 AND 2004

(Figures in Rs.)

Liabilities	2003	2004	Change in2004	% change in2004
Net Sales	400000	500000	100000	+ 25
Less cost of goodsSoled	300000	375000	75000	+ 25
Gross Profit (1)	100000	125000	25000	+ 25
Less General	10000	10000	----	-----
Selling Expenses	15000	20000	5000	+ 33.3
Total Expenses (2)	15000	30000	5000	+ 20
Net Profit (1-2)	75000	95000	20000	+ 26.7

COMPARATIVE BALANCE SHEET AS ON DEC. 31

Liabilities	2003	2004	Change in 2004	% change in 2004
Land	50000	50000	----	----
Building	150000	135000	- 15000	- 10
Plant	150000	135000	-15000	- 10
Furniture	50000	70000	20000	+ 40
Total F. assets (1)	400000	390000	-10000	- 2.5
Cash	50000	70000	20000	40
Debtors	100000	150000	50000	50
Stock	100000	150000	50000	50
Total C. Assets (2)	250000	370000	120000	48
Creditors	100000	137500	37500	37.5
O/s Expenses	50000	75000	25000	50
Total Liabilities (3)	150000	212500	62500	41.7
Net Working Capital (2 - 3)	100000	157500	57500	57.5
Total Assets (1+2)	650000	760000	110000	16.9
Capital	350000	350000	-------	------
Reserves	100000	122500	22500	22.5
Proprietor's Fund (4)	450000	472500	22500	5
Secured Loans (5)	50000	75000	25000	50
Capital Employed	500000	547500	47500	9.5

(4+5)				
Total Assets (1+2)	650000	760000	110000	16.9
Cap.+ Total				
Liabilities (3+4+5)	650000	760000	110000	16.9

Ratio Analysis

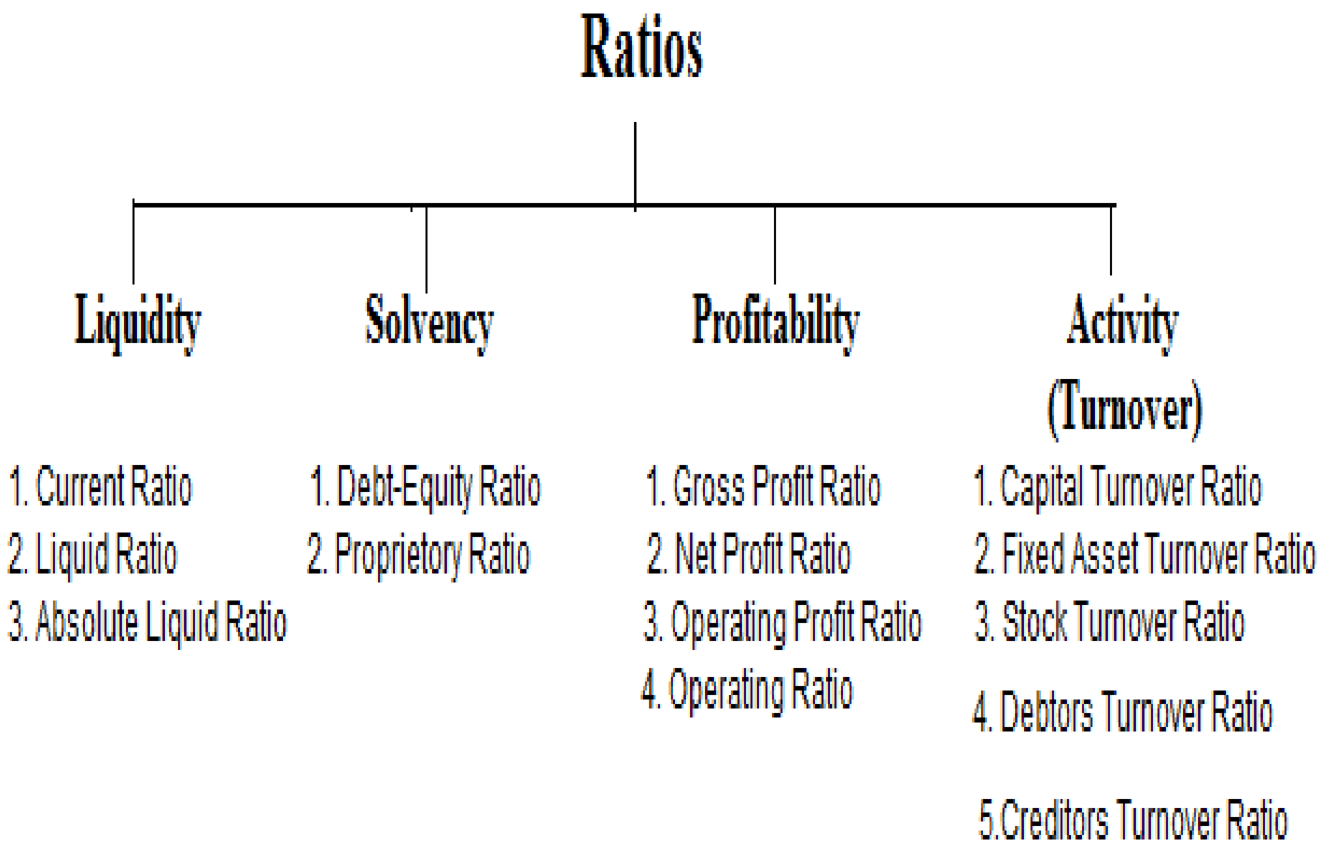
2.8 Meaning and Definition

A ratio is a simple arithmetical expression of the relationship of one number to another. It may be defined as the indicated quotient of two mathematical expressions. According to

Accountant's Handbook by Wixon, Kell and Bedford, a ratio "is an expression of the quantitativerelationship between two numbers".

According to Kohler, a ratio is the relation, of the amount, a, to another, b, expressed as the ratio of a to b; a : b (a is to b) ; or as a simple fraction, integer, decimal, fraction or percentage." In simple language ratio is one number expressed in terms of another and can be worked out by dividing one number into the other".

2.9 Classification of Ratios:



Balance Sheet or Position Statement Ratios:

Balance Sheet ratios deal with the relationship between two balance sheet items, e.g. the ratio of current assets to current liabilities, or the ratio of proprietors' funds to fixed-assets. Profit and Loss Account or Revenue/Income Statements Ratios: These ratios deal with the relationship between two profit and loss account items, e.g., the ratio of gross profit to sales, or the ratio of net profit to sales.

Composite/Mixed Ratios or Inter Statement Ratios:

These ratios exhibit the relation between a profit and loss account on income statement item and a balance sheet item, e.g., stock turnover ratio, or the ratio of total assets to sales.

Functional Classification or Classification According to TestsLiquidity Ratios:

These are the ratios which measure the short-term solvency or financial position of a firm: These ratios are calculated to comment upon the short-term paying capacity of a concern or the firm's ability to meet its current obligations. The various liquidity ratios are: current ratio,liquid ratio and absolute liquid ratio.

Long-term solvency ratios convey a firm's ability to meet the interest costs and repayments schedules of its long-term obligations e.g. Debt Equity Ratio and Interest Coverage Ratio.

The leverage ratios can further be classified as:

- ★ Financial Leverage,
- ★ Operating Leverage,
- ★ Composite Leverage.

Activity Ratios:

Activity ratios are calculated to measure the efficiency with which the resources of a firm have been employed. These ratios are also called turnover ratios.

Profitability Ratios:

These ratios measure the results of business operations or overall performance and effectiveness of the firm, e.g., gross profit ratio, operating ratio or return on capital employed.

Analysis and interpretations of different ratios:

The short-term creditors of a company like suppliers of goods of credit and commercial banks providing short-term loan, are primarily interested in knowing the company's ability to meet its current or short-term obligations as and when these become due. The short-term obligations of a firm can be met only when there are sufficient liquid assets. Therefore, a firm must ensure that it does not suffer from lack of liquidity or the capacity to pay its current obligations.

Two types of ratios can be calculated for measuring short-term financial position or short-term solvency of a firm:

a).Liquidity Ratios

b). Current Assets Movement or Efficiency Ratios.

(a)LIQUIDITY RATIOS

Liquidity refers to the ability of a concern to meet its current obligations as and when these become due. The short-term obligations are met by realising amounts from current, floating or circulating assets. These should be convertible into cash for paying obligations of short-term nature. If current assets can pay off current liabilities, then liquidity position will be satisfactory. On the other hand, if current liabilities may not be easily met out of current assets en liquidity position will be bad.

The following ratios can be calculated:

- Current Ratio
- Quick or Acid Test or Liquid Ratio
- Absolute Liquid Ratio or Cash Position Ratio
-

CURRENT RATIO

Current ratio may be defined as the relationship between current assets and current liabilities. This ratio, also known as working capital ratio, is a measure of general liquidity and is most widely used to make the analysis of a short-term financial position or liquidity of a firm. It is calculated by dividing the total of current assets by total of the current liabilities.

Current Ratio= Current Assets / Current Liabilities

Current Assets	***Current Liabilities***
Cash in Hand	Outstanding Expenses/Accrued Expenses
Cash at Bank	Bills Payable
Marketable Securities (Short-term)	Sundry Creditors
Short-term Investments	Short-term Advances
Bills Receivable	Income-tax Payable
Sundry Debtors	Dividends Payable
Inventories (stocks)	*Bank Overdraft* (if not a permanent arrangement)
Work-in-process	
Prepaid Expenses	

Illustration 2: Calculate current ratio from the following information:

	Rs.		Rs.
Stock	60,000	Sundry Creditors	20,000
Sundry Debtors	70,000	Bills Payable	15,000
Cash Balances	20,000	Tax Payable	18,000
Bills Receivables	30,000	Outstanding Expenses	7,000
Prepaid Expenses	10,000	Bank Overdraft	25,000
Land and Building	1,00,000	Debentures	75,000
Goodwill	50,000		

Solution:

Current Ratio = Current Assets / Current Liabilities

Current Ratio = 1,90,000 / 85,000 = **2.24:1**

Working Note:

Current Assets = Rs. 60,000 + 70,000 + 20,000 + 30,000 + 10,000 **= Rs. 1,90,000**

Current Liabilities = Rs. 20,000 + 15,000 + 18,000 + 7,000 + 25,000 **= Rs. 85,000**

QUICK OR ACID TEST OR LIQUID RATIO

Quick Ratio, also known as Acid Test or Liquid Ratio, is a more rigorous test of liquidity than the current ratio. The term 'liquidity' refers to the ability of a firm to pay its short-term obligations as and when they become due. Quick ratio may be defined as the relationship between quick/liquid assets and current or liquid liabilities.

Quick / Liquid or Acid Test Ratio = Quick or Liquid Assets / Current Liabilities

Quick assets can also be calculated as:

Current Assets-(Inventories +Prepaid Expenses)

Quick/Acid Test / Liquid Ratio = Liquid Assets / Current Liabilities Quick / Liquid or Acid Test Ratio = Quick or Liquid Assets / Current Liabilities

ABSOLUTE LIQUID RATIO OR CASH RATIO

Absolute Liquid Ratio = Absolute Liquid Assets / Current Liabilities

OR

Cash Ratio = Cash & Bank + Short-term Securities / CurrentLiabilities

Absolute Liquid Assets include cash in hand and at bank and marketable securities or temporary investments. The acceptable norm for this ratio is 50% or 05:1 or 1:2

DEBTORS OR RECEIVABLE TURNOVER RATIO AND AVERAGE COLLECTION PERIOD:

A concern may sell goods on cash as well as on credit. Credit is one of the important elements of sales promotion. The volume of sales can be increased by following a liberal credit policy.

a)Debtors/Receivables Turnover or Debtors Velocity

Debtors turnover ratio indicates the velocity of debt collection of firm. In simple words, it indicates the number of times average debtors (Receivables) are turned over during a year, thus:

Debtors(Receivables)Turnover/Velocity

= Net Credit Annual Sales /Average Trade debtors

b).Creditors/Payable Turnover or Creditors Velocity

The analysis for creditor's turnover is basically the same as of debtor's turnover ratio except that in place of trade debtors, the trades creditors are taken as one of the components of the ratio and in place of average daily sales, average daily purchases are taken as the other component of the ratio. Same as debtor's turnover ratio, creditors turnover ratio can be calculated in two forms:

Creditors/Payables Turnover Ratio

=Net Credit Annual Purchases / Average Trade Creditors

Average Payment Period Ratio

=Average Trade Creditors (Creditors + Bills Payable) / AverageDaily

Illustration : 3

From the following information calculate creditor's turnover ratio average payment period:

Total purchases	400000
Cash purchases (included in above)	50000
Purchase returns	20000
Creditors at the end	60000
Bills payable at the end	20000
Reserve for discount on creditors	5000
Take 365 days in a year	5000

Solution:

Creditors Turnover Ratio = Annual Net Purchases / Average Trade Creditors

	Rs.
Net Credit purchases	
Total purchases	400000
Less: Cash purchases	50000
	350000
Less: Returns	20000
	330000

Creditors Turnover Ratio = 330000 / 60000 + 20000

(Trade creditor include creditors and bills payable)= 330000 / 80000 = 4.13 times

Average Payment Period = No. of Working Days / Creditors Turnover Ratio= 365 / 4.13 = 88Days

Illustration: 4

The following information is given about M/s. S.P. Ltd. for the year ending Dec. 31, 2017

- Stock turnover ratio = 6 times
- Gross profit ratio = 20% on sales
- 3. Sales for 2007 =Rs. 3,00,000
- Closing stock is Rs. 10,000 more than the opening stock
- Opening creditors = Rs. 20,000

- Closing creditors =Rs. 30,000
- Trade debtors at the end = Rs. 60,000
- Net Working Capital =Rs. 50,000

Find out:

1) Average Stock
2) Creditor Turnover Ratio
3) Purchases
4) Average Collection period
5) Average Payment Period
6) Working Capital Turnover Ratio

Solution:

Cost of goods sold = Sales – Gross Profit

= 300000 - (20% of sales)

= 300000 – 60000

= Rs. 240000

Average Stock:

Stock Turnover Ratio = Cost of goods sold / Average Stock6 = 240000 / Average Stock

Average Stock = 240000 / 6 = Rs. 40000Calculation of Purchases:

Cost of goods sold = Opening Stock + purchases – Closing stock

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

Average Stock= Opening Stock + Closing stock / 2

Since, Closing stock is Rs. 10000 more than the opening stock so, Rs. 40000

= Opening Stock + (Rs. 10000 + opening stock) / 2

Rs. 80000 = 2 Opening stock + Rs. 10000

Opening stock = 70000 / 2 = Rs. 35000

Closing stock = 35000+10000 = Rs.45000

Purchases = 240000 + 45000 + 35000 = Rs.250000

Credit Turnover Ratio = Net annual Credit Purchases / Average Trade Creditors

All purchases are taken as credit purchases = 250000 / (20000+30000 / 2)

Credit turnover ratio = 250000 / 25000 = 10 Times

Average Payment Period = Average Trade Creditors x No. of Working days/ Net AnnualPurchases = 25000 / 250000 x 365 = 36.5 days or 37 days

Average collection period = Average Trade Debtors x No. of Working Days / Net Annual Sales

= 60000 x 365 / 300000 = 73 Days

Working Capital Turnover Ratio = Cost of Goods Sold / Net Working Capital

= 240000 / 50000 = 4.8 times.

Illustration: 5

Following is the Profit and Loss Account to Royal Matrix Ltd. for the ended 31st December2016.

Dr.	***Rs.***	***Cr.***	***Rs.***
To Opening stock	100000	By Sales	560000
To Purchases	350000	By Closing stock	100000
To Wages	9000		
To Gross profit c/d	201000		
	660000		**660000**
To Administrative expenses	20000	By Gross profit b/d	201000
To Selling and distribution expenses	89000	By Interest on investments (outside business)	1000
To Non-operating expenses	30000	By ProfitonsalesofInvestments	8000
To Net profit	80000		
	219000		**219000**

Calculate:

1) Gross profit Ratio
2) Net profit Ratio

3) Operating Ratio
4) Operating profit Ratio
5) Administrative Expenses Ratio.

Solution:

Gross profit = Gross profit / Net sales x 100

= 201000 / 560000 x 100 = 35.9%

Net profit ratio= Net profit (after tax) / Net sales x 100

= 80000 / 560000 x 100 = 14.3%

Alternatively,

Net Profit Ratio = Net operating profit /Net sales x 100

= (80000 + 30000) – (10000 + 8000)/ 560000 x 100

= 92000 / 560000 x 100 = 16.4%

Operating Ratio = Cost of goods sold + operating Exp. / Net sales

Cost of goods sold = Op. stock + Purchases + Wages - Closing Stock

= 100000+350000 + 9000 – 100000 = Rs. 359000

Operating Expenses = Administrative + Selling & Distribution Exp.

= 20000 + 89000 = 109000

Operating Ratio = 359000 + 109000 / 560000 x 100 = 83.6%

Operating profit Ratio = 100 – Operating Ratio

= 100 – 83.6% = 16.4%

Administrative Expenses Ratio = Administrative Expense / Net sales x 100

= 20000 / 560000 x 100 = 3.6%

2.10 USE OF RATIO ANALYSIS

The ratio analysis is one of the most powerful tools of financial analysis. It is used as a device to analyses and interprets the financial health of enterprise. Ratios have wide applications and are of immense use today.

Managerial Uses of Ratio Analysis

- ★ Helps in decision-making: Financial statements are prepared primarily for decision-making.
- ★ Helps in financial forecasting and planning: Ratio Analysis is of much help in financial forecasting and planning.
- ★ Helps in communicating: The financial strength and weakness of a firm are communicated in a more easy and understandable manner by the use of ratios.
- ★ Helps in co-ordination: Ratios even help in co-ordination which is of utmost importance in effective business management.
- ★ Helps in Control: Ratio analysis even helps in making effective control of thebusiness.

Ratio	Formula	Measure of
Liquidity and Efficiency		
Current ratio	$= \dfrac{\text{Current assets}}{\text{Current liabilities}}$	Short-term debt-paying ability
Acid-test ratio	$= \dfrac{\text{Cash + Short-term investments + Current receivables}}{\text{Current liabilities}}$	Immediate short-term debt-paying ability
Accounts receivable turnover	$= \dfrac{\text{Net sales}}{\text{Average accounts receivable, net}}$	Efficiency of collection
Inventory turnover	$= \dfrac{\text{Cost of goods sold}}{\text{Average inventory}}$	Efficiency of inventory management
Days' sales uncollected	$= \dfrac{\text{Accounts receivable, net}}{\text{Net sales}} \times 365$	Liquidity of receivables
Days' sales in inventory	$= \dfrac{\text{Ending inventory}}{\text{Cost of goods sold}} \times 365$	Liquidity of inventory
Total asset turnover	$= \dfrac{\text{Net sales}}{\text{Average total assets}}$	Efficiency of assets in producing sales
Solvency		
Debt ratio	$= \dfrac{\text{Total liabilities}}{\text{Total assets}}$	Creditor financing and leverage
Equity ratio	$= \dfrac{\text{Total equity}}{\text{Total assets}}$	Owner financing
Debt-to-equity ratio	$= \dfrac{\text{Total liabilities}}{\text{Total equity}}$	Debt versus equity financing
Times interest earned	$= \dfrac{\text{Income before interest expense and income taxes}}{\text{Interest expense}}$	Protection in meeting interest payments
Profitability		
Profit margin ratio	$= \dfrac{\text{Net income}}{\text{Net sales}}$	Net income in each sales dollar
Gross margin ratio	$= \dfrac{\text{Net sales} - \text{Cost of goods sold}}{\text{Net sales}}$	Gross margin in each sales dollar
Return on total assets	$= \dfrac{\text{Net income}}{\text{Average total assets}}$	Overall profitability of assets
Return on common stockholders' equity	$= \dfrac{\text{Net income} - \text{Preferred dividends}}{\text{Average common stockholders' equity}}$	Profitability of owner investment
Book value per common share	$= \dfrac{\text{Shareholders' equity applicable to common shares}}{\text{Number of common shares outstanding}}$	Liquidation at reported amounts
Basic earnings per share	$= \dfrac{\text{Net income} - \text{Preferred dividends}}{\text{Weighted-average common shares outstanding}}$	Net income per common share
Market Prospects		
Price-earnings ratio	$= \dfrac{\text{Market price per common share}}{\text{Earnings per share}}$	Market value relative to earnings
Dividend yield	$= \dfrac{\text{Annual cash dividends per share}}{\text{Market price per share}}$	Cash return per common share

* Additional ratios also examined in previous chapters included days' cash expense coverage; cash coverage of growth; cash coverage of debt; free cash flow; cash flow on total assets; and payout ratio.

UNIT - III

FUND FLOW STATEMENT AND CASH FLOW STATEMENT

Lesson Structure:

3.1 Meaning – Fund Flow Statement

3.2 Definition

3.3 Objectives and Uses of Funds Flow Statement

3.4 Limitations of Fund Flow Statement

3.5 Distinction between Balance Sheet and Fund Flow Statement

3.6 Distinction between Schedule of Changes in working Capital and Fund Flow Statement

3.7 Procedure for preparing Funds Flow Statement

3.8 Meaning Cash Flow Statement

3.9 Purpose and Uses of Cash Flow Statement

3.10 Structure of Cash Flow Statement

3.11 Treatment of some typical items

3.12 Cash Flow Statement Vs Fund Flow Statement

3.1 MEANING – FUND FLOW STATEMENT

The **Funds Flow Statement** is combination of three words Funds, Flow and Statement.

Funds mean working capital. There are mainly two concepts regarding the meaning of the working capital. First, the broad concept according to which working capital refers to the **gross working capital** and represents the amount of funds invested in **current assets**. Thus, the gross working capital is the capital investment in total current assets of the enterprise. Current assets are those assets, which in the ordinary course of business can be converted onto cash within a short period of time normally one accounting year. Second, the narrow sense, which termed working capital as the excess of current asset over current liabilities or that part of the current asset, which is financed by the long-term source of finance. In case of the Funds Flow Statement we will use the narrow concept of the working capital.

Flow means movement. It we take the flow of funds it means changes in the position of the funds due to any transaction. As a result of the transaction the funds may **increase or decrease.** The **increase** in funds is called funds inflow and if funds **decrease**, it is called funds outflow. The one important point to be noted here is that the flow of funds only occurs when a transaction effects on the one hand a non-current account and on the other a current account and vice-versa. If a transaction only two current account or only two non-current accounts then flow of funds does not take place because here funds means the difference of the current assets and currentliabilities.

Statement means the written description about some thing or a detail note, which provide the information's. The Funds Flow Statement means a summary of the sources and uses of the working capital.

A **Fund Flow Statement** explains the changes in a company's working capital. It considers the inflows and outflow of funds (Sources of funds and Application of funds) for a particular period. The statement helps in analyzing the changes in a company's financial position between two balance sheet periods.

3.2 DEFINITION

According to Robert N. Anthony**, "**A fund flow statement describes the sources from which additional funds were derived and the uses to which these sources were applied."

ICWA defined fund flow statements as either prospective or retrospective, and it was noted that they set out the sources and application of funds. The purpose of the statement is to indicate how funds are raised and how the same have been used.

According to Foulke, a fund flow statement is "a statement of sources and application of funds…designed to analyze the changes in the financial conditions of a business enterprise between two dates."

3.3 OBJECTIVES AND USES OF FUNDS FLOW STATEMENT

The main objectives and uses of the fund flow statement are as below.

- **Knowledge of financial position.** The fund flow statement indicates the addition in profits, which is a boon to shareholders. The division of profit can be planned.
- **Knowledge of addition in share capital.** The fund flow statement can highlight changes in share capital.
- **Knowledge of addition or reduction in share premium.** The fund flow statement shows the fluctuation in share premium. This increases when shares are issued at premium or when preferential shares or debentures are reduced and the statement shows key information at a glance.
- **Knowledge of profit or loss of operation.** The fund flow statement clearly shows whether an organization is earning profit or sustaining a loss.
- **Knowledge of addition in long-term borrowings.** The statement can show the additional amount borrowed by issuing debentures.
- **Knowledge of decrease in working capital.** The statement shows the reduction in working capital (i.e., when current assets are less than current liabilities).
- **Fund flow statement acts as a guide.** The statement allows management to learn about future problems, needs, and fundraising requirements, helping the company to avoid financial problems.
- **Helpful in sound dividend policy.** Sometimes, a company may have sufficient profit, yet it is advisable not to distribute dividends for lack of cash or liquidity. The fund flow statement is useful in informing sound dividend policy

- **Helpful in long-term borrowings.** Before advancing long-term loans, financial institutions may ask for several years of fund flow statements to learn the firm's creditworthiness.
- **Useful information for investors.** Before investing, some investors study a company's fund flow statements to know how funds are raised and used (e.g., whether funds are adequate for the payment of interest and principal sum).
- **Other uses of fund flow statements:**
  - ✓ Shows whether sufficient funds are available for shareholder dividends
  - ✓ Evidences the organization's ability to acquire additional working capital
  - ✓ Offers knowledge of sources of funds for the purchase of fixed assets

3.4 LIMITATIONS OF FUND FLOW STATEMENT

The main limitations of fund flow statements are the following:

- ❖ **Does not substitute for an income statement or balance sheet.** Fund flow statements provide additional information regarding changes in working capital. They are not replacements for income statements or balance sheets.
- ❖ **Cannot indicate why capital is raised or redeemed.** Although cash inflows and outflows are shown in a fund flow statement, no information is given about the reasons for these.
- ❖ **By-product of a financial statement.** As a matter of fact, a fund flow statement is simply a rearranged statement of financial data.
- ❖ **Based on historical data.** Fund flow statements are historical in nature as they are the outcome of old financial data, which are simply a window dressing.
- ❖ **Potentially misleading.** Fund flow statements can sometimes be misleading, especially when an analyst does not know the reality and soundness of the figures from which they are computed.

3.5 DISTINCTION BETWEEN BALANCE SHEET AND FUND FLOW STATEMENT

Balance Sheet	Fund Flow Statement
Shows the assets and liabilities of an enterprise at the end of the accounting period	Shows the changes in assets and liabilities of an enterprise during an accounting period.
Prepared on a particular date at the end of the accounting period	Prepared for a specific accounting period.
Prepared with the help of trial balance and additional information provided	Prepared with the help of balance sheets of two years and additional information
Purpose is to reveal the financial position of a business on a particular date	Purpose is to facilitate decisions about investing activities
Static in nature as it shows assets and liabilities on a particular date	Dynamic in nature as it reveals changes in the amount of assets and liabilities (and the reasons for the same)
Businesses are statutorily obligated to prepare balance sheets	Preparation of fund flow statements is optional
Profit and loss account is prepared before preparing a balance sheet	Schedule of changes of working capital is prepared before preparing the fund flow statement
Limited utility for decision-making	Regularly used by management for financial analysis and decision-making

3.6 DISTINCTION BETWEEN SCHEDULE OF CHANGES IN WORKING CAPITAL AND FUND FLOW STATEMENT

Schedule of Changes in working Capital	Fund Flow Statement
Prepared with current assets and current liabilities only	Prepared with both current and non-current assets and liabilities
Prepared as part of a fund flow statement	Not prepared as part of a statement of changes in working capital
Shows changes in current assets and current liabilities individually	Shows the sources and application of funds of an enterprise as a whole
Prepared using balance sheets from two consecutive accounting periods	Prepared using profit and loss accounts and balance sheets from two consecutive accounting periods
Prepared to understand the movement of working capital	Prepared to show an enterprise's overall operational efficiency

3.7 PROCEDURE FOR PREPARING FUNDS FLOW STATEMENT

Fund Flow Statement can be prepared by comparing two balance sheets and other information derived from various accounts as may be needed. While preparing the funds flow statement mainly two statements are prepared.

- Schedule of Changes in Working Capital
- Funds Flow Statement

Schedule of Changes in Working Capital

A statement of changes in working capital is prepared by recording changes in current assets and current liabilities during the accounting period. Working capital during this period is bound to change due to an increase or decrease in the current assets and current liabilities.

The schedule of changes in working capital can be prepared by comparing the balance sheets of two dates. Firstly we have to recognize the current assets and current liabilities of the concern and then compare them between two dates if the current assets of current year are more than the previous year that is recognized as an increase in working capital or vice-versa. On the other hand if current liabilities of current year is more than the previous year it will recognize as decrease in working capital or vice-versa because

Working Capital = Current Assets – Current Liabilities.

Schedule of Changes in Working Capital				
Particulars	**Previous Year**	**Current Year**	**Changes in working Capital**	
			Increase	**Decrease**
Current Assets				
Cash in Hand				
Cash at Bank				
Sundry Debtors				
Stock				
Prepaid expenses				
Accrued income				
Total Current Assets				
Current Liabilities				
Bills payable				
Sundry Creditors				
Outstanding expenses				
Bank overdraft				
Short-term advances				
Proposed dividend*				
Provision for Taxation*				
Total Current Liabilities				
Working Capital CA- CL (Increase / Decrease)				

Preparation of Fund Flow Statement

The two ways of presenting fund flow statements are shown below.

- ✓ T-Format of Fund Flow Statement
- ✓ Vertical Format of Fund Flow Statement

T-Format of Fund Flow Statement

Fund Flow Statement for the year ended on …………

Sources	Rs	Application	Rs
Issue of share Capital (both equity and preference)	XXX	Redemption of Pref. Shares	XXX
Issue of debentures	XXX	Redemption of debentures	XXX
Amount raised through long-term loans	XXX	Repayment of loans	XXX
Sale of fixed assets	XXX	Purchase of fixed assets	XXX
Sale of Investment	XXX	Purchase of loan-term investments	XXX
Non-trading income	XXX	Payment of interim and final dividends in cash	XXX
Fund from operation	XXX	Non-trading expenses	XXX
Decrease in working capital (as per statement of changes in working capital)	XXX	Increase in working capital (as per statement of changes in working capital)	XXX
		Payment of taxes	XXX
		Funds lost in operations	XXX
	XXXC		**XXXX**

Vertical Format of Fund Flow Statement

Sources	Rs
Issue of share Capital (both equity and preference)	XXX
Issue of debentures	XXX
Amount raised through long-term loans	XXX
Sale of fixed assets	XXX
Sale of Investment	XXX
Non-trading income	XXX
Fund from operation	XXX
Decrease in working capital (as per statement of changes in working capital)	XXX
Total	**XXXX**
Application	
Redemption of Pref. Shares	XXX
Redemption of debentures	XXX
Repayment of loans	XXX
Purchase of fixed assets	XXX
Purchase of loan-term investments	XXX
Payment of interim and final dividends in cash	XXX
Non-trading expenses	XXX
Increase in working capital (as per statement of changes in working capital)	XXX
Payment of taxes	XXX
Funds lost in operations	XXX
Total	**XXXX**

Illustration: 1 Prepare a Statement of change in working capital from the following Balance Sheet of Sushruth Steel Co

Balance Sheet of Sushruth Steel Co

Liabilities	2003	2004	Assets	2003	2004
Creditors	15,000	18,000	Cash	11,200	8,500
Bills Payable	10,000	7,500	Debtors	21,300	23,500
Loan on Mortgage	40,000	40,000	Stock	35,000	30,600
Capital	50,000	45,000	Sinking fund investment	16,000	12,000
Sinking fund	16,000	12,000	Land	10,000	10,000
P & L a/c	13,950	16,275	Building	60,000	60,000
Provision for Doubtful debts	1,350	1,425	Furniture & fixture	8,000	7,000
Depreciation fund	15,200	11,400			
	1,61,500	**1,51,600**		**1,61,500**	**1,51,600**

Solution:

Schedule in Changes in Working Capital

	2003	2004	Changes in Working	
			Increase	**Decrease**
Current Assets:				
Cash	11,200	8,500	2,700	
Debtors less provision	19,950	22,075		2,125
Stock	35,000	30,600	4,400	
Total	66,150	61,175		

Current Liabilities				
Creditors	15,000	18,000	3,000	
Bills Payable	10,000	7,500		2,500
Total	25,000	25,500	10,100	4,625
Working Capital (CA-CL)	41,150	35,675		
Increase in Working Capital		5,475		5,475
	41,150	41,150	10,100	10,100

Illustration: 2 The preparation of statement of changes in working capital and fund flow statement.

Liabilities	**2004**	**2005**	**Assets**	**2004**	**2005**
Share Capital	1,50,000	1,80,000	Land & building	85,000	85,000
P& L a/c	35,000	42,000	P & M	54,000	70,000
Loans	2,000	15,000	Stock	30,500	50,000
Creditors	17,000	23,000	Debtors	25,500	45,000
Bills Payable	3,000	1,000	Bulls receivable	5,000	2,000
			Cash	7,000	9,000
	2,07,000	**2,61,000**		**2,07,000**	**2,61,000**

Solution

Schedule in changes in working capital

Particulars	2004 (Rs)	2005 (Rs)	Increase (Rs)	Decrease (Rs)
Current Assets				
Stock	30,500	50,000	19,500	
Debtors	25,500	45,000	19,500	
B/R	5,000	1,000		2,000
Cash	7,000	9,000	2,000	
Total CA	**68,000**	**1,06,000**		
Current Liabilities				
Creditors	17,000	23,000		6,000
B/P	3,000	1,000	2,000	
Total CL	**20,000**	**24,000**	**43,000**	**8,000**
CA – CL	48,000	82,000		
Increase in Working Capital				**35,000**
Total			**43,000**	**43,000**

Fund Flow Statement

Sources	Rs	Application	Rs
Issue of share capital	30,000	Purchase of P & M	16,000
Loan	13,000	Increase in working capital	34,000
Fund from operations	7,000		
	50,000		50,000

Adjusted Profit & Loss A/c

Particulars	Rs	Particulars	Rs
		By Balance b/d	35,000
		By Fund from operations	**7,000**
To Balance c/d	42,000		
	42,000		**42,000**

Illustration: 3 From the following balance sheets and additional information given, you are required tocalculate funds operations for the year ended 2017.

Liabilities	2016 Rs.	2017 Rs.	Assets	2016 Rs.	2017 Rs.
Share capital	100000	150000	Land &buildings	100000	95000
General reserve	30000	30000	Plant &Machinery	80000	90000
Profit & loss a/c	20000	22000	Stocks	70000	110000
6% Debentures	80000	80000	Debtors	20000	25000
Creditors	65000	58000	Investments	---	10000
Provision for tax	5000	10000	Cash	10000	10000
			Goodwill	20000	10000
	300000	**350000**		**300000**	**350000**

Additional information:

a. During 2017, dividends of Rs. 15000 were paid.

b. Depreciation written off plant and machinery amounted to Rs. 6000 and no depreciationhas been charged on land and buildings.

c. Provision for tax made during the year Rs. 5000.

d. Profit on sale of machinery Rs. 2000.

Solution:

Calculation of funds from operations

	Rs.	Rs.
Closing balance of P/L A/c given in the B/S		22000
Add: Non-fund or Non-Operating items already debited to P/L A/c:		
Depreciation	6000	
Dividends	15000	
Provision for tax	5000	
Goodwill	10000	36000
Less: Non-fund or Non-Operating items already credited to P/L A/c:		
Profit on sale of machinery	2000	
Opening balance of P/L A/c (given in B/S)	20000	22000
Funds from operations		**36000**

ADJUSTED PROFIT AND LOSS ACCOUNT

	Rs.		Rs.
To depreciation	6000	By opening balance	20000
To dividends	15000	By profit on sale of machinery	2000
To provision for tax	5000	By funds from operations (bal.fig.)	36000
To goodwill	10000		
To closing balance	22000		
	58000		**58000**

Illustration: 4 From the following balance sheets of A & Co Ltd., you are required to show any increase ordecrease in working capital and sources and applications there of:

Liabilities	As at 31.12.16 Rs.	As at 31.12.17 Rs.	Assets	As at 31.12.16 Rs.	As at 31.12.17 Rs.
Equity share capital	240000	360000	Land	166200	339600
Share premium	24000	36000	Machinery	106800	153900
General reserve	18000	27000	Furniture	7200	4500
Profit and Loss Account	58500	62400	Stock	66300	78000
8% Debentures	---	78000	Debtors	109500	117300
Provision for taxation	29400	32700	Bank	14400	12000
Creditors	100500	109200			
	470400	**705300**		**470400**	**705300**

Depreciation written off during the year: on machinery Rs.38,400 ; on furniture Rs.1,200.

Solution:

Schedule in changes in working capital

	2016 Rs.	2017 Rs.	*Increase*	*Decrease*
Current Assets:				
Stock	66300	78000	11700	
Bank	109500	117300	7800	
Debtors	14400	12000	---	
	190200	207300		2400
Current Liabilities:				
Creditors	100500	109200		8700
Provision for taxation	29400	32700		3300
	129900	**141900**		
Working Capital	60300	65400		
Net Increase in W.C.	5100			5100
	65400	**65400**	**19500**	**19500**

STATEMENT OF SOURCES AND APPLICATIONS OF FUNDS

Sources	Rs.	Applications	Rs.
Issue of share capital	120000	Purchase of land & building	173400
Share premium	12000	Purchase of machinery	85500
Issue of debentures	78000	Net increase in W.C.	5100
Sale of furniture	1500		
Funds from operations	52500		
	264000		**264000**

Working Notes:

Machinery A/c			
	Rs.		**Rs.**
To balance B/d	106800	By depreciation	38400
To purchase during the year (Bal. Fig.)	85500	By balance c/d	153900
	192300		**192300**
Land & Buildings A/c			
To balance B/d	166200	By balance c/d	339600
To purchase during the year(Bal. Fig.)	173400		
	339600		**339600**
Furniture A/c			
To balance B/d	7200	By depreciation	1200
		By cash-sale (bal. fig.)	1500
		By balance c/d	4500
	7200		**7200**
Adjusted Profit & Loss A/c			
To transfer to Reserves	9000	By balance b/d	58500
To Depreciation on machinery	38400	By funds from operation	52500
To Depreciation on furniture	1200		
To Balance C/d	62400		
	111000		**111000**

Illustration: 5 SMS Company presents the following information and you are required to calculatefunds from operations.

Profit and Loss A/c

	Rs.		**Rs.**
To Expenses:		By Gross profit	2,00,000
Operation	1,00,000	By Gain on sale of plant	20,000
Depreciation	40,000		
To Loss on Sale of building	10,000		
To Advertisement Suspense A/c	5,000		
To Discount (allowed to customers)	500		
To Discount on Issue of Shares writtenoff	500		
To Goodwill	12,000		
To Net Profit	52,000		
	2,20,000		**2,20,000**

Solution: Calculation of Funds from Operations

	Rs.	**Rs.**
Net profit (as given)		52000
Add: Non-fund or non-operating items which have beendebited to P/L A/c:		
Depreciation	40000	
Loss on sale of building	10000	
Advertisement written off	5000	
Discount on issue of shares written off	500	
Good will written off	12000	**67500**
		119500
Less: Non-fund or Non-operating items which have been credited to P/L A/c: Gain on sale of plant	20000	**20000**
Funds from operations		**99500**

CASH FLOW STATEMENT

3.8MEANING

A **cash flow statement (CFS)** is a financial statement primarily intended to provide information about the cash receipts and cash payments of a business during the period of time covered by the income statement.

The statement of cash flows analyzes cash receipts and payments to show how cash was acquired and spent during the accounting period.

A company's **cash flow statement** shows the movement in cash items that takes place over a given financial period. The aim of preparing a cash flow statement is to reconcile the company's opening cash position with its closing cash position.

3.9 PURPOSE AND USES OF CASH FLOW STATEMENT

The main purpose of the statement of cash flows is to provide relevant information about the cash receipts and cash payments of an enterprise during a period. The information will help users of financial statements to assess the amounts, timing and uncertainty of prospective cash flows to the enterprise. The statement of the cash flows is useful to them in assessing an enterprise's liquidity, financial flexibility, profitability and risk. It also provides a feedback about the previous assessments of these factors. Investors, analyst, creditors, managers and others will find the information in the statement of cash flows helpful in assessing the following:

- It is very useful in the evaluation of cash position of a firm.

- A projected cash flow statement can be prepared in order to know the future cash position of a concern so as to enable a firm to plan and coordinates its financial operations properly.
- comparison of historical and projected cash flow statement can be made so as to find the variation and deficiency or otherwise in the performance so as to enable the firm to take immediate and effective actions.

- A series of intra firm and inter firm cash flow statement reveals whether the firm's liquidity is improving or deteriorating over a period of time.
- Cash flow statement helps in planning the repayment of loans, replacement of fixed assets and other similar long term planning of cash.
- Cash flow analysis is more useful and appropriate than funds flow analysis for short-term financial analysis as in a very short period it is cash, which is more relevant, then the working capital for forecasting the ability of the firm to meet its immediate obligations.
- Cash flow statement prepared according to AS-3 is more suitable for making comparison than the funds flow statement, as there is no standards format used for the same.
- Cash flow statement provides information of all activities classified under operating, investing and financing activities.

3.10 STRUCTURE OF CASH FLOW STATEMENT

According to AS-3, the cash flow statement should report cash flows during the period classified by operating, investment and financing activities as follows:

- ✓ Cash flow from operating activities
- ✓ Cash flow from investing activities
- ✓ Cash flow from financing activities

Cash flow from operating activities involves cash generated by producing and delivering goods and providing services. Cash inflow includes receipts from customers for sales of goods and services (including collection of debtors). Cash outflow from operating activities include payments to suppliers for purchase of material and for services, payment to employees for services and payment to governments for taxes and duties. Then by comparing the inflow and outflow of cash we can determine the net value of cash flows. If the inflows are more than outflows then it is called cash generated from operating activities or if cash outflows are more than cash inflows then it is called cash lost in operating activities. This cash flow 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 dividend, repay loans and make new investments without recourse to external sources of financing. Information about the specific component of historical operating cash flows is useful, in conjunction with other information, in forecasting future operating cash inflows.

Examples of cash flows from operating activities are:

- Cash receipts from the sale of goods and rendering theservices.
- Cash receipts from royalties, fees, commission and otherrevenue.
- Cash payment to suppliers of goods and services.
- Cash payment to and on behalf of employees.
- Cash receipts and cash payment of an insurance enterprise for premium and claims, annuities and other policy benefits.
- Cash payment and refund of income tax unless can be specifically identified with financing and investing activities.
- Cash receipts and payments relating to futures contract, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purpose.

Some transactions, such as the sale of an item of plant, may rise to a gain or loss that is included in the determination of the net profit or loss. However, the cash flow relating to such transactions are cash flows from investing activities.

Cash flow from investing activities involves the cash generated by making and collecting loans and acquiring and disposing of debts and equity instruments and fixed assets. Cash inflows from investing activities are receipts from collection of loans, receipts from sales of shares, debts or similar instruments of other enterprises, receipts from sale of fixed assets and interest and dividend received firm loans and investments. Cash outflows from investing activities are disbursement of loans, payments to acquire share debts or similar instruments of other enterprise and payment to acquire fixed assets. Cash receipts and payments relating to futures contract, forward contracts, option contracts and swap contracts except when the contracts are held for dealing or trading purpose or the payments or receipts are classified as financing activities.

Cash flows from financing activities involves cash generated by obtaining resources from owners and providing them with a return on their investment, borrowing money and repaying amounts borrowed and obtaining and paying for other resources obtained from creditors on long-term credit. Cash flows from financing activities involve the proceeding from issuing share or other similar instrument, debentures, mortgages, bonds and other short term or long-term borrowings. Cash outflow from financing activities are payments of dividend, payments to acquire or redeem shares to other similar instruments of the enterprise, payment of amount borrowed, principal payment to creditors who have extended long-term credit and interest paid.

It is important to note down that the classification of the cash flows into operating, investing and financing categories will depend upon the nature of the business. For example, for financial institutions like banks' lending and borrowing are parts of their business operations. So the income and expenditure regarding the borrowing and lending will be included in the cash flow from operating activities.

3.11 TREATMENT OF SOME TYPICAL ITEMS

AS-3 (Revised) has also provided for the treatment of cash flow from some peculiar items as discussed below:

- **Extraordinary items:** The cash flow from extraordinary items just like winning the lottery, loss by fire etc. either classified as arising from operating, investing or financing activities as appropriate and separately disclosed in the cash flow statement to enable users to understand their nature effect on the present and future cash flows ofthe enterprise.
- **Interest and Dividend:** A great care have to be taken regarding the interest and dividend as receivable of the interest and dividend is a result of investment so it is considered as cash inflow from investing activities while payment of dividend and interest arise due to collection of finance so it is termed as cash outflow from financing activities. But in case of a financial institution payment and receipts

of interest and dividend are related to their main business so these items are treated under the head of cash flow from operating activities.

- **Taxes on Income:** Taxes paid by the business should be treated as cash outflow generated by operating activities if nothing is stated in the problem but if it is specified in question that the tax arise due to financing and investing activities then that tax should be treated under respective activities.
- **Acquisitions and Disposal of Subsidiaries and other Business Units:** The aggregate cash flows arising from acquisitions and from disposal subsidiaries or other business units should be presented separately and classified as investing activities. The separate presentation of the cash flow effects of acquisitions and disposal of subsidiaries and other business units as single line items helps to distinguish these cash flows from other cash flows. The cash flow effects of disposal are not deducted from those of acquisitions.
- **Foreign Currency Cash Flow:** Cash flows arising from transactions in a foreign currency should be recorded in an enterprise's reporting currency by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of the cash flow. The effect of the changes in exchange rates on cash and cash equivalents held in a foreign currency should be reported as a separate part of the reconciliation of the changes in cashand cash equivalents during the period.
- **Non-Cash Transactions:** There are some transactions, which do not affect the cash positions of the business directly but affect the capital and asset structure of an enterprise. Such as the conversion of debts into equity, the acquisitions of an enterprise by means of issue of shares etc. These transactions should not be included in the cash flow statement but due to their importance these can be shown as additional information under the statement.

3.12 CASH FLOW STATEMENT VS FUND FLOW STATEMENT

Cash Flow Statement	Fund Flow Statement
Cash inflow and outflow are only considered	Increase or decrease in the working capital is registered
Cause & changes of cash position	Causes & Changes of working capital position
Considers only most liquid assets pertaining to cash resource: which forters only for very short span of planning	Considers in general i.e current assets, the duration of the liquidity of the current assets are longer in gestation than the liquid assets; which pavas way for long span of planning.
Opening and closing balances of cash resources are considered for the preparation	Increase or decrease of working capital is considered but not the opening and closing balance for preparation.
The flow in the statement means real cash flow	The flow in the statement need not be real cash flow.

Format for Cash Flow Statement

Cash Flow Statement for the year ended ....

	Rs	RS
Cash flow from operating activities		
Cash receipts from customers		
Cash paid to suppliers and employees		
Cash generated from operations		
Income tax paid		
Cash flow before extraordinary items		
Net cash from operating activities OR Net profit before tax and extraordinary items		
Income tax paid		
Net cash from operating activities		
Cash flow from Investing activities		
Individual items of cash inflows and outflows financial activities		
Net cash from financing activities		
Cash and cash equivalents at the beginning of the period		
Cash and cash equivalents at the end of the period		

Illustration: 6 From the following information, calculate cash flows from operating activities.

	Rs
Total sales for the year	250000
Total purchases for the year	200000
Trade debtors as on 1.7.2007	12000
Trade creditors as on 1.7.2007	14500
Trade debtors as on 30.6.2008	20800

Trade creditors as on 30.6.2008	21600
Total operating expenses for the year	10200
Outstanding expenses as on 1.7.2007	1800
Prepaid expenses as on 1.7.2007	1500
Outstanding expenses as on 30.6.2008	2400
Prepaid expenses as on 30.6.2008	2200
Income tax paid during the year	2000

Solution:

Cash flow from operating activities

Cash receipts from customers (working Note: 1)	241200
Cash paid to supplies and employees (working note: 2)	203200
Cash generated from operations	38000
Income tax paid	2000
Net cash flows from operating activities	36000

Calculate of cash receipts from customers:

1.**Calculation of cash receipts from customers :**	***Rs.***
Sales for the year	2,50,000
Add : Trade debtors as on 1.7.2007	12.000
	2,62,000
Less : Trade debtors as on 30.6.2008	20.800
Cash receipts from customers	**2.41.200**
2.**Calculation of cash paid to suppliers and employees :**	

Total purchases for the year	**2,00,000**
Add : Trade creditors as on 1.7.2007	14.500
	2,14,500
Less : Trade creditors as on 30.6.2008	21.600
Cash paid to creditors for purchase of goods **(a)**	**1.92.900**
Total operating expenses for the year	10,200
Add : Outstanding expenses as on 1.7.2007	1.800
	12,000
Less : Outstanding expenses as on 30.6.2008	2.400
	9,600
Add : Prepaid expenses as on 30.6.2008	2.200
	11,800
Less : Prepaid expenses as on 1.7.2007	**1.500**
Cash paid for services and expenses (b)	**10.300**
Cash paid to suppliers and employees(a + b) or(1,92,900+10,300)	**203200**

Illustration: 7 Cash Flows From Financing Activities

From the information given below, calculate cash flows from financing activities.

	2016 Rs.	2017 Rs.
Equity share capital	200000	300000
8% debentures	100000	50000
Securities premium	20000	30000
Bank loan (long-term)	---	100000

Additional information: Interest paid on debentures Rs. 8000.

Solution:

Calculation of cash flows from financing activities

	Rs.	Rs.
Issue of share capital	100000	
Redemption of debentures	(50000)	
Proceeds from securities premium	10000	
Raising of Bank Loan	100000	
Interest on Debentures paid	(8000)	
Net Cash Flows From Financing Activities		152000

Illustration: 8 The following details are available from a company.

Liabilities	**31-12-06**	**31-12-07**	**Assets**	**31-12-06**	**31-12-07**
	Rs	**Rs.**		**Rs.**	**Rs.**
Share Capital	70,000	74,000	Cash	9,000	7,800
Debentures	12,000	6,000	Debtors	14,900	17,700
Reserve for doubtful debts	700	800	Stock	49,200	42,700
Trade Creditors	10,360	11,840	Land	20,000	30,000
P/L A/c	10,040	10560	Goodwill	10,000	5,000
	103100	**103200**		**103100**	**103200**

In addition, you are given:

Dividend paid total Rs. 3,500. Land was purchased for Rs. 10,000.

Amount provided for a mortisation of goodwill Rs. 5,000. Debentures paid off Rs. 6,000.

Prepare Cash Flow Statement.

Solution:

Cash Flow Statement for ended 31st December, 2007)

CASH FLOWS FROM OPERATING ACTIVITIES	**Rs.**	**Rs.**
Increase in the balance of P/L A/C	520	
Adjustments for non-cash and non-operating items:		
Reserve for Doubtful Debts	100	
Dividend	3500	
Goodwill written off	5000	
Operating Profit before working capital changes	9120	
Adjustments for changes in current operating assets and liabilities:		
Increase in Trade Creditors	1480	
Increase in Debtors	(2800)	
Decrease in Stock	6500	
Cash generated from operations	14300	
Income tax paid	---	
Net cash from operating activities		14300
Cash Flows from Investing Activities		
Purchase of Land	(10000)	
Net cash used in investing activities		(10000)
Cash Flows from Financing Activities		

Proceeds from the issue of Share	4000	
Capital Redemption of Debentures	(6000)	
Dividend paid	(3500)	
Net cash used in financing activities		(5500)
Net Decrease in cash and cash equivalents		(1200)
Cash and cash equivalents at the beginning of the period		9000
Cash and cash equivalents at the end of the period		7800

UNIT –IV

STANDARD COSTING AND VARIANCE ANALYSIS

Lesson Structure:

4.1 MEANING AND DEFINITION

The word **'standard'** means a **benchmark or gauge.** The **'standard cost'** is a predetermined cost which determines in advance what each product or service should cost under given circumstances.

Definition

Backer and Jacobsen define "Standard cost is the amount the firm thinks a product or the operation of a process for a period of time should cost, based upon certain assumed conditions of efficiency, economic conditions and other factors".

Chartered Institute of Management Accountants, London defines standard cost as "a predetermined cost which is calculated from management's standards of efficient operation and the relevant necessary expenditure". They are the predetermined costs based on technical estimate of material, labour and overhead for a selected period of time and for a prescribed set of working conditions.

The technique of using standard costs for the purposes of cost control is known as standard costing.

Brown and Howard define "standard costing is a technique of cost accounting which compares the standard cost of each product or service with actual cost to determine the efficiency of the operation so that any remedial action may be taken immediately".

The terminology of Cost Accountancy defines standard costing as "the preparation and use of standard costs, their comparison with actual costs, and the analysis of variance to their causes, and points of incidence".

The London Institute of Cost and Works Accountants define it as "An estimate cost, prepared in advance of production or supply correlating a technical specification of material and labour to the price and wage rates estimated for a selected period of time, with an addition of the apportionment of overheads expenses estimated for the same period within a prescribed set of working conditions".

4.2 STEPS TO INVOLVED IN STANDARD COSTING

- The technique of standard costing involves the determination of cost before occurring.
- The standard cost is based on technical information after considering the impact of current conditions. With the change in condition, the cost also can be modified so as to make it more realistic.
- The standard cost is divided into standards for materials, labour and overheads. The actual cost is recorded when incurred.
- The standard cost is compared to the actual cost. The difference between the two costs is known as variance. The variances are calculated element wise. The management can take corrective measures to set the things right on the basis of different variances.

The basic purpose of standard costing is to determine efficiency or inefficiency in manufacturing a particular product. This will be possible only if both standard costs and actual costs are given side by side. Though standard costing system will be useful for all types of commercial and industrial undertakings but it will be more useful in those undertakings where production is standardized. It will be of less use in job costing system because every job has different specifications and it will' be difficult todetermine standard costs for every job.

4.3 STANDARD COSTING VS BUDGETARY CONTROL

In **budgetary control**, budgets are used as a means of planning and control. The targets of various segments are set in advance and actual performance is compared with predetermined objects. In this way management can assess the performance of different departments. On the other hand, **standard costing** also set standards and enables to determine efficiency on the basis of standards and actual performance.

Budgetary control is essential to determine standard costs, whereas, the **standard costing** system is necessary for planning budgets.

In **budgetary control** the budgets are prepared for the concern as a whole whereas in **standard costing** the standards are set for producing a product or for providing a service. In standard costing, unit concept is used while in budgetary control total concept is used.

The **budgets** are fixed on the basis of past records and future expectations. **Standard costs** are fixed on the basis of technical information. Standard costs are planned costs and these are expected in future.

As far as scope is concerned, in case of **budgetary control** it is much wider than **standard costing. Budgets** are prepared for incomes, expenditures and other functions of the departments such as purchase, sale, production, finance and personnel department. In contrary, **standards** are set up for expenditures only and, therefore, for manufacturing departments standards are set for different elements of cost i.e., material, labour and overheads.

Further, in **budgetary control**, the targets of expenditure are set and these targets cannot be exceeded. In this system the emphasis is on keeping the expenditures within the budgeted figures. In **standard costing** the standards are set and an attempt is made to achieve these standards. The emphasis is on achieving the standards. Actual costs may be more than the standard costs and there can be no such thing in budgetary control.

The **budgetary control** system can be applied partly or wholly. Budgets may be prepared for some departments and may not be prepared for all the departments. If a concern is interested in preparing production budget only, it is free to do so. **Standard costing** cannot be used partially; it will have to be used wholly. The standards will have to be set for all elements of cost. In fact, the systems operate intwo different fields and both are complimentary in nature.

4.4 ADVANTAGE OF STANDARD COSTING

Standard costing is not only helpful for cost control purposes but it is also useful in production planning and policy formulation. It derives following advantages:

1. Measurement of Efficiency: It is a tool for assessing the efficiency after comparing the actual costs with standard costs to enable the management to evaluate performance of various cost centres. By comparing actual costs with standard costs variances are determined and management is able to identify the place of inefficiencies. It can fix responsibility for deviation in performance. A regular check on various expenditures is also ensured by standard costing system. The standards are being constantly analysed and an effort is made to improve efficiency. Whenever a variance occurs the reasons are studied and immediate corrective measures are undertaken.

2. Production and Price Policy Formulation: It becomes easy to formulate production plans by taking into account standard costs. It is also supportive for finding prices of various products. In case, tenders are to be submitted or prices are to be quoted in advance then standard costing produces necessary data for price fixation.

3. Reduction of Work: In this system, management is supplied with useful information and necessary information is recorded and redundant data are avoided. The report presentation is simplified and only required information is presented in such a form that management is able to interpret the information easily and usefully. Therefore, standard costing reduces clerical work to a considerable extent

4. Management by Exception: Management by exception means that everybody is given a target to be achieved and management need not supervise each and everything. The responsibilities are fixed and everybody tries to achieve his targets. If the things are going as per targets then the management needs not to bother. Management devotes its time to other important things. So, management by exception is possible only when targets of work can be fixed. Standard costing enables the determination of targets.

4.5 LIMITATION OF STANDARD COSTING

Besides all the above benefits derived from this system, it has a number of limitations, which are discussed as follows:

- Standard costing cannot be used in those concerns where non-standard products are produced.
- The time and motion study is required to be undertaken for the process of setting up standards. These studies require a lot of time and money. Further, the process of setting up standards is a difficult task, as it requires technical skill.
- There are no inset circumstances to be considered for fixing standards. With the change in circumstances the standards are also to be revised. The revision of standard is a costly process.
- This system is expensive and small concerns may not afford to bear the cost.
- For small concerns the utility from this system may be less than the cost involved in it.
- The fixing of responsibility is not an easy task. The variances are to be classified into controllable and uncontrollable variances. The responsibility can be fixed only for controllable variances not in the case of uncontrollable.

- The industries liable for frequent technological changes will not be suitable for standard costing system. The change in production process will require a revision of standard. A frequent revision of standard will be costly. So this system will not be useful for industries where methods and techniques of production are fast changing.

4.6 ANALYSIS OF VARIANCES

The divergence between standard costs, profits or sales and actual costs, profits or sales respectively will be known as **variances**. The variances may be favourable and unfavourable. If actual cost is less than the standard cost and actual profit and sales are more than the standard profits and sales, the variances will be favourable. On the contrary if actual cost is more than the standard cost and actual profit and sales are less than the standard profits and sales, the variances will be unfavourable. The variances are related to efficiency. If variances are favourable, it will show efficiency and if variances are unfavourable it will show inefficiency. The variances may be classified into four categories such as *Direct Materials Variances, Direct Labour Variances, Overheads Cost Variances and Sales or Profit Variances*.

Direct Material Variance

Direct material variances are also known as material cost variances. The material cost variance is the difference between the standard cost of materials that should have been incurred for manufacturing the actual output and the cost of materials that has been actually incurred. Material Cost Variance comprises of: (i) Material Price Variance and (ii) Material Usage Variance: Material usage variance may further be subdivided into material Mix Variance and Material Yield Variance.

Material Cost Variance (MCV)

Material Price Variance (MPV) | Material Usage Variance (MUV)

Material Mix Variance (MMV) | Material Yield Variance (MYV)

The following equations may be used for verification of material cost vriances.

(i) MCV=MPV+MUV or MPV+MMV+MYV

(ii) MUV=MMV+MYV

a).Materials Cost Variance: Material cost variance is the difference between standard materials cost and actual materials cost. Material cost variance arises due to change in price of materials and variations in use of quantity of materials. Material cost variance is ascertained as such:

Materials Cost Variance = Standard Material Cost – Actual Material Cost Standard

Material Cost = Standard Price per unit x Standard Quantity of materials

Materials Price Variance: Materials price variance arises due to the standard price specified and actual price paid. It may also arise due to: (i) Changes in basic prices of materials, (ii) failure to purchase the quantities anticipated at the time when standards were set, (iii) failure to secure discount on purchases, (iv) failure to make bulk purchases and incurring more on freight, etc., (v) failure to purchase materials at proper time, and (vi) Not taking cash discount when setting standards.

Materials Price Variance= Actual Quantity (Standard price–Actual price)

Material Usage Variance. Material usage (or quantity) variance arises due to the difference in standard quantity specified and actual quantity of materials used. This variance may also arise due to: (i) Negligence in use of materials, (ii) More wastage of materials by untrained workers or defective methods of production, (iii) Loss due to pilferage, (iv) Use of material mix other than the standard mix, (v) More or less yield from materials than the standard set, and (vi) Defective production necessitating the use of additional materials.

Materials usage variance= Standard Price (Standard Quantity – Actual Quantity)

Illustration: 1

Following is the data of a manufacturing concern. From the figures given below, calculate (i) Materials Cost Variance, (ii) Material Price Variance, and Material Usage Variance. The standard quantity of materials required for producing one ton of output is 40 units. The standard price per unit of materials is Rs. 3. During a particular period 90 tons of output was undertaken. The materials required for actual production were 4,000 units. An amount of Rs. 14,000 was spent on purchasing the materials.

Solution:

Standard quantity of material (SQ) (90 x 40) = 3600 units

Standard price per unit = Rs. 3

Actual price per unit = 14000/4000 = Rs. 3.50

(i).Material Cost Variance = Standard material cost – Actual material cost Standard

material cost = Standard quantity x Standard price (3,600 x 3 = Rs. 10,800)

= 10,800 – 14,000

= (–) Rs. 3,200 Adverse

(ii).Material Price Variance = Actual Quantity (Standard price per unit – Actualprice per unit)

= 4,000 (3.00 – 3.50)

= 4,000 (–0.50)

= (–) Rs. 2,000 Adverse

(iii). Material Usage Variance= Standard Price per unit (SQ – AQ)

.

= 3 (3,600 – 4,000)

= 3 (–400) = (–) Rs. 1,200 Adverse

Verification: MCV = MPV + MUV

– 3,200 = – 2,000 – 1,200

– 3,200 = – 3,200

Illustration: 2 From the data given below, calculate: (i) Material Cost Variance, (ii)Material Price Variance, and (iii) Material Usage Variance.

Product	Standard Quantity (Units)	Standard Price Rs.	Actual Quantity (Units)	Actual Price Rs.
A	1,050	2.00	1,100	2.25
B	1,500	3.25	1,400	3.50
C	2,100	3.50	2,000	3.75

Solution:

(i) **Material Cost Variance =** Standard Cost – Actual Cost

Or (SQ x Std. Rate) – (AQ. x Actual Rate)

Material A = (1,050 x 2) – (1,100 x 2.25) 2,100–2,475 = – Rs. 375

Material B = (1,500 x 3.25) – (1,400 x 3.50)4,875–4,900 = – Rs. 25

Material C = (2,100 x 3.50) – (2000 x 3.75) 7,350–7,500 = – Rs. 150

Material Cost Variance = Rs. 550 Unfavourable

(ii). Material Price Variance = Actual Quantity (Standard Price – Actual Price)

Material A = 1,100 (2.00 – 2.25)

= 1,100 (–0.25) = Rs. 275

Material B = 1,400 (3.25 – 3.50)

= 1,400 (–0.25) = – Rs. 350

Material C = 2,000 (3.50 – 3.75)

=2,000 (–0.25) = – Rs. 500

Material Price Variance = Rs. 1,125 Unfavourable

(iii).Material Usage Variance = Standard Price (SQ – AQ)

Material A = 2 (1.050 – 1,100)

= 2 (–50) = Rs. 100

Material B = 3.25 (1,500–1,400)

= 3.25 (100) = Rs. 325

Material C = 3.50 (2,100 – 2,000)

= 3.50 (100) = Rs. 350

Material Usage Variance = Rs. 575 Favourable

Verification: MCV = MPV + MUV

– Rs.550= – Rs. l125 + Rs. 575

– Rs. 550 = – Rs. 550

Material Mix Variance: Materials mix variance is that part of material usage variance which arises due to changes in standard and actual composition of mix. Materials mix variance is the difference between standard price of standard mix and standard price of actual mix. The standard price is used in calculating this variance. The variance is calculated under two situations: (i) When actual weight of mix is equal to standard weight of mix, and (ii) When actual weight of mix is different from the standard mix.

When Actual Weight and Standard Weight of Mix is Equal

In this case the formula for calculating mix variance is :

Standard cost of standard mix – Standard cost of actual mix.

(Standard Price x Standard Quantity) – (Standard Price x Actual Quantity)

Or Standard unit cost (Standard Quantity – Actual Quantity)

In case standard quantity is revised due to shortage of one material, the formula will be equal to Standard unit cost (Revised Standard Quantity – Actual Quantity).

Illustrate: 3 Calculate material mix variance from the data given as such:

	Standard		Actual	
Materials	Quantity (Units)	Price per unit Rs.	Quantity (Units)	Price per unit Rs.
A	50	2.00	60	2.25
B	100	1.20	90	1.75

Due to the shortage of material A, the use of material A was reduced by 10% and that of material B increased by 5%.

Solution:

In this question the standards will be revised. Revised standards will be :

Material A = 50 – 5 (50 x 10/100) = 45

Material B = 100 + 5 (100 x 5/100) = 105

Material Mix Variance = Standard Unit Price (Revised Standard Quantity – AQ)

Material A	= 2 (45 – 60)	
	= 2 (– 15)	= – Rs. 30
Material B	= 1.20 (105 – 90)	
	= 1.20(15)	= Rs. 18

Material Mix Variance = – Rs. 12 Unfavourable

Illustration: The standard mix of a product is as under:

A	60 units at 15 P. per unit	Rs. 9
B	80 units at 20 P. per unit	Rs. 16
C	100 units at 25 P. per unit	Rs. 25
	240	Rs. 50

Ten units of finished product should be obtained from the above .mentioned mix. During the month of January, 1996 ten mixes were completed and the consumption was as follows:

A	640 units at 20 P. per unit	Rs. 128
B	960 units at 15 P. per unit	Rs. 144
C	840 units at 30 P. per unit	Rs. 252
	2,440	Rs. 524

The actual output was 90 units. Calculate various material variances.

Direct Labour Variance

(a).Labour Cost Variance

Labour Cost Variance or Direct Wage Variance is the difference between the standard direct wages specified for the activity and the actual wages paid. It is the function of labour rate of pay and labour time variance. It arises due to a change in either a wage rate or in time or in both. It is calculated as follows:

Labour Cost Variance = Standard Labour Cost – Actual Labour Cost (Standard time x Standard Wage Rate) – (Actual Time x Actual Wage Rate)

= Standard Cost – Actual Cost

(OR)

= (SH X SR) – (AH X AR)

(b). Labour Rate of Pay or Wage Rate Variance

It is that part of labour cost variance which arises due to a change in specified wage rate. Labour rate variance arises due to (i) change in basic wage rate or piece-work rate, (ii) employing persons of different grades then specified, (iii) payment of more overtime than fixed earlier, (iv) new workers being paid different rates than the standard rates, and (v) different rates being paid to workers employed for seasonal work or excessive work load.

The wage rates are determined by demand and supply conditions of labour conditions in labour market, wage board awards, etc. So, wage rate variance is generally uncontrollable except if it arises due to the development of wrong grade of labour for which production foreman will be responsible. This variance is calculated by the formula:

Labour Rate of Pay Variance = Actual time (Standard Rate – Actual Rate)

(OR)

SR × AH*) – (AR × AH*)

The variance will be favourable if actual rate is less than the standard rate and it will be unfavourable or adverse if actual rate is more than the standard rate.

(c). Labour Efficiency or Labour Time Variance

It is that part of labour cost variance which arises due to the difference between standard labour hours specified and the actual labour hours spent. It helps in controlling efficiency of workers. The reasons for this variance are: (i) lack of proper supervision, (ii) defective machinery and equipment, (iii) insufficient training and incorrect instructions, (iv) increase in labour turnover, (v) bad working Conditions, (vi).discontentment along workers due to unsatisfactory personnel relations, and (vii)use of non-standard material requiring more time to complete work.

Labour efficiency variance is calculated as:

Labour efficiency variance = StandardWage Rate (Standard Time–Actual Time).

Std. Rate (SR) × {Std. Hours (SH) – Actual Hours (AH*)}

Or

[(SH × SR) – (AH$^{\#}$ × SR)]

(d) Idle Time Variance

This variance is the standard cost of actual time paid to workers for which they have not worked due to abnormal reasons. The Reasons for idle time may be power failure, defect in machinery, and non-supply of materials, etc. Idle time variance should be segregated from the labour efficiency variance otherwise it will show inefficiency on the part of workers though they are not responsible for this. Idle time variance is always adverse and needs investigation for its causes. This variance is calculated as:

Labour Idle Time Variance = [Standard Rate per Hour × Actual Idle Hours]

Or

Std. Rate (SR) {Actual Hours$_{\text{Paid}}$ – Actual Hours$_{\text{Worked}}$}

Or

$[(AH^{*} \times SR) - (AH^{\#} \times SR)]$

(e). Labour Mix or Gang Composition Variance

This variance arises due to change in the actual gang composition than the standard gang composition. This variance shows to the management how much labour cost variance is due to the change in labour composition.

Std. Rate (SR) × {Revised Std. Hours (RSH) – Actual Hours$_{\text{Worked}}$(AH)}

Or

$[(RSH \times SR) - (AH^{\#} \times SR)]$

Illustrate: 4

Standard and actual figures of a firm are as under

Standard time for the job	1,000 hours
Standard rate per hour	50
Actual time taken	900 hours
Actual wages paid	36,000

Calculate the variances.

Solution:

(a). Std. labour cost :(1,000 hours × `50)	50,000
(b). Actual wages paid	36,000
(c). Actual rate per hour: `36,000/900 hours	= 40

Variances

(i). Labour Rate variance	= Actual time (Std. rate – Actual rate)
	= 900 hours (50 – 40) = 9,000 (F)
(ii).Efficiency variance	= Std. rate per hr. (Std. time – Actual time)

=`50 (1,000 hrs. – 900 hrs.) = 5,000 (F)

(iii).Total labour cost variance = Std. labour cost – Actual labour cost

= {(`50 × 1,000 hours) – `36,000}

= (`50,000 – `36,000) = `14,000 (F)

Illustrate: 5 The information regarding the composition and the weekly wage rates of labour force engaged on a job scheduled to be completed in 30 weeks:

Category of Workers	Standard		Actual	
	No. of workers	Weekly Wage rate per worker Rs,	No. of workers	Weekly Wage rate per worker Rs,
Skilled	75	60	70	70
Semi–skilled	45	40	30	50
Unskilled	60	30	80	20

The work was completed in 32 weeks. Calculate various labour variances.

Solution:

Labour Cost Variance= Standard Labour Cost– Actual labour Cost

			Rs.
Standard Labour Cost :			
Skilled	:	75 x 60 x 30 =	1, 35,000
Semi–skilled	:	45 x 40 x 30 =	54,000
Unskilled	:	60 x 30 x 30 =	54,000
		Total	2, 43,000

Actual Labour Cost:			
Skilled	:	70 x70 x 32 =	1, 56,800
Semi Skilled	:	30 x 50 x 32 =	48,200
Unskilled	:	80 x 20 X 32 =	51.000
		Total	2,56,000

Total Labour Cost Variance: 2,43,000 – 2,56,000 = Rs. 13,000 Adverse

(ii).Labour Rate Variance = Actual Time (Standard Rate – Actual Rate)

Skilled : 2,240 (60 – 70) = 2,240 (– 10) = Rs. 22,400 Adverse

Semi Skilled : 960 (40 – 50) = 960 (–10) = Rs. 9,600 Adverse

Unskilled : 2,560 (30 – 20) = 2,560 (10) = Rs. 25,600 Favourable

Labour Rate Variance = Rs. 6,400 Adverse

(iii).Labour Efficiency Variance = Standard Rate (Standard Time – Actual Time)

Skilled : 60 (2,250 – 2,240) = 60(10) = Rs. 600 Favourable

Semi Skilled : 40(1,350-960) = 40(390) = Rs. 15,600 Favourable

Unskilled : 30(1,800 – 2,560) = 30 ((-760) =Rs. 22,800 Adverse.

Labour Efficiency Variance =Rs. 6,600 Adverse

Verification:

Labour Cost Variance = Labour Rate Variance + Labour Efficiency Variance

– 13,000 = – 6,400 – 6,600

–13,000 = –13,000.

Practicing Problem

The following data is taken out from the books of a manufacturingcompany:

Budgeted labour composition for producing 100 articles

20 Men @ Rs. 125 per hour for 25 hours

30 women @ 1.10 per hour for 30 hours

Actual labour composition for producing 100 articles

25 Men @ Rs. 1.50 per hour for 24 hours

25 Women @ Re.l.20 per hour for 25 hours

Calculate: (i) Labour Cost Variance, (ii) Labour Rate Variance, (iii) Labour Efficiency Variance, (iv) Labour Mix Variance.

Overheads Variance

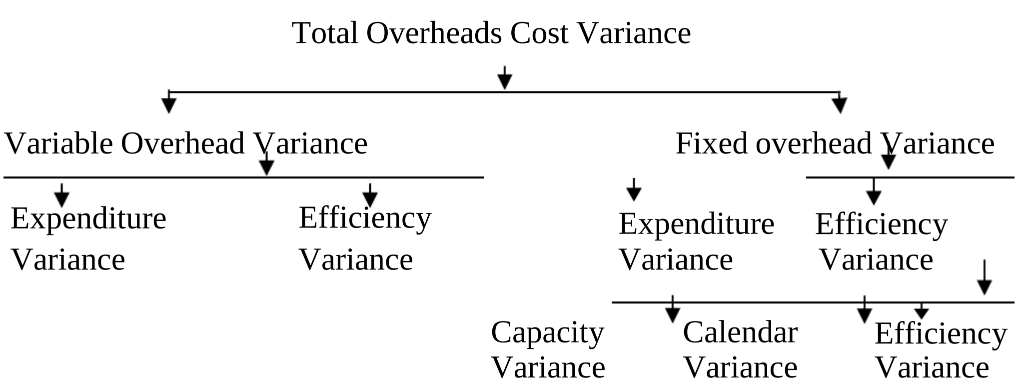
Overhead is the aggregate of indirect material cost, indirect wages (indirect labour cost) and indirect expenses. Thus, overhead costs are indirect costs and are important for the management for the purposes of cost control. Under cost accounting, overhead costs ace absorbed by cost units on some suitable basis. Under standard costing, overhead rates are predetermined in terms of either labour hours (per hour) or production units (per unit of output). The formula for the calculation of overhead cost variance is given below:

Overhead Cost Variance

= Actual Output x Standard Overhead Rate per unit Actual Overhead Cost

OR, = Standard Hours for Actual Output x Standard Overhead Rate per hour Actual Overhead Cost

An analytical study of the behaviour of overheads in relation to changes in volume of output reveals that there are some items of cost which tend to vary directly with the volume of Output whereas, there are others which remain unaffected by variations in the volume of output achieved or labour hours spent. The former costs represent the variable overhead and the latter fixed overheads. Therefore, overhead cost variances can be classified as:



Variable overhead variance: Variable overheads vary directly with the volume of output and hence, the standard variable overheads very directly with the volume of output and hence, the standard variable overhead rate remains uniform. Therefore, computation of variable overhead variance, also known as variable overhead cost variance parallels the material and labour cost variances. Thus, variable overhead cost variance (VOCV) is the difference between the standard variable overhead cost for actual output and the actual variable overhead cost. It can be calculated as follows:

VOCV = (Actual Output x Standard Variable Overhead Rate per unit) – Actual Variable Overheads **or,**

= (Standard Hours for Actual Output X Standard Variable Overhead Rate per hour) –Actual Variable Overheads.

In case information relating to standard hours allowed, for actual output and the actual time (hours) taken is available, variable overhead cost variance can be further analysed into:

- ✓ Variable Overhead Expenditure or Spending Variance, and
- ✓ Variable Overhead Efficiency Variance.

(a).Variable Overhead Expenditure or Spending Variance: It is the difference between the standard variable overheads for the actual hours and the actual variable overheads incurred and can be calculated as:

Variable Overhead Expenditure Variance = (Actual Hours x Standard Variable Overhead Rate per hour)–Actual Variable Overhead ***(OR)***

= Actual Hours (Standard Variable Overhead Rate– Actual Variable Overhead Rate)

Variable Overhead Efficiency Variance. It represents the difference between the standard hours allowed for actual production and the actual hours taken multiplied with the standard variable overhead rate. Symbolically:

Variable Overhead Efficiency Variance = Standard Variable Overhead Rate (StandardHours) – Actual Hours for Actual Output.

(b)Variable Overhead Efficiency Variance. It represents the difference between the standard hours allowed for actual production and the actual hours taken multiplied with the standard variable overhead rate. Symbolically:

Variable Overhead Efficiency Variance = Standard Variable Overhead Rate (StandardHours) – Actual Hours for Actual Output.

Illustration: 6

From the following information of G Ltd., Calculate

(i).Variable Overhead Cost Variance; (ii) Variable Overhead Expenditure Variance and (iii) Variable Overhead Efficiency Variance:

Budgeted production	6,000 units
Budgeted variable overhead	1,20,000
Standard time for one unit of output	2 hours
Actual production	5,900 units
Actual overhead incurred	1,22,000
Actual hours worked	11,600 hours

Solution:

$$\text{Standard cost per unit} = \frac{1,20,000}{6,000\text{units}} = 20$$

$$\text{Standard cost per hour} = \frac{1,20,000}{6,000\text{units X 2hours}} = 10$$

Variable Overhead Cost Variance:

= Std. Overhead for actual production – Actual overhead incurred

= 20 X 5,900 units – 1,22,000 = 4,000 (A)

Variable Overhead Expenditure Variance:

= Std. overhead for Actual hours – Actual Overhead

= 10 X 11,600 hours - 1,22,000 = 6,000 (A)

Variable Overhead Efficiency Variance:

= Std. rate per hour X (Std. hours for actual production – Actual hours)

= 10 (2 hours X 5,900 units – 11,600 hours) = 2,000 (F)

Illustration: 7

Calculate variable overhead variances from the following data:

Budgeted Production for January, 1996	3000 units
Budgeted Variable Overhead	Rs. 15,000

Standard Time for One Unit	2 hours
Actual Production for January, 1996	2,500 units
Actual Hours Worked	4500 hours
Actual Variable Overhead	Rs. 13,500

Solution:

(i). Variable Overhead Cost Variance (VOCV)= Actual Output x Standard Variable Overhead Rate– Actual Variable Overhead

= Rs. (2500 x 5)– 13500

= Rs. 1000 (Adverse)

(Standard Variable Overhead Rate = 15000/3000= Rs. 5 per unit).

(ii).Variable Overhead Expenditure or Spending Variance (VOSV)

= (Actual Hours x Standard Variable Overhead Rate)– Actual Variable Overhead

= Rs. (4500 x 2.50) – 13500

= Rs. 11250 – 13500 = Rs. 2250 (Adverse)

(iii). Variable Overhead Efficiency Variance (VOEV)

= Standard VariableOverhead Rate (Standard Hours for Actual Output–Actual Hours)

= Rs. 2.50 (5000 – 4500)

= Rs. 1250 (Favourable)

Verification:

VOCV = VOSV + VOEV

–1000 = – 2250 + 1250

or – 1000 = –1000

Sales Variances

A sales value variance exposes the difference between actual sales and budgeted sales. It may arise due to change in sales price, sales volume or sales mix. It is important to study profit variances. It may be classified as follows:

- **Sales Value Variance:** A Sales Value Variance is the difference between budgeted sales and actual sales. It is calculated as:

Sales Value Variance = Actual Value of Sales – Budgeted Value of Sales.

If actual sales are more than the budgeted sales, the variance will be favourable and on the other hand, the variance will be unfavourable if actual sales are less than the budgeted sales.

- **Sales Price Variance:** A sales price variance arises due to the difference between the standard price specified and the actual price charged. It is calculated as: **Sales Price Variance = Actual Quantity (Actual Price– Standard Price).**
- **Sales Volume Variance:** It is the difference between actual quantity of sales and budgeted quantity of sales. It is calculated as:

Sales Volume Variance = Standard Price (Actual Quantity of Sales – Standard Quantity of Sales).

- **Sales Mix Variance.** It is the difference of standard value of revised mix and standard value of actual mix.

Illustration:8 The budget and actual sales for a period in respect of two products areas follows:

Product	Budgeted			Actual		
	Quantity (Units)	Price (Rs.)	Value (Rs.)	Quantity (Units)	Price (Rs.)	Value (Rs.)
X	600	3	1,800	800	4	3,200
Y	800	4	3,200	600	3	1,800

Calculate Sales Variances.

Solution:

(i). Sales Value Variance = Actual Value of Sales – Standard Value of Sales

Total Actual Value: 3,200 + 1,800 = Rs. 5,000

Total Standard Value: 1,800 + 3,200 = Rs. 5,000

Sales Value Variance = 5,000 – 5,000 = Nil

(ii). Sales Price Variance = Actual Quantity Sold (Actual Price – Standard Price)

Product A	800 (4– 3)	= Rs. 800	Favourable
Product B	600(3–4)	= Rs. 600	Unfavourable
Sales Price Variance		= Rs. 200	Favourable

(iii). Sales Volume Variance = Standard Price (Actual Units – Standard Units)

Product A	3 (800 – 600)	= Rs. 600 Favourable
Product B	4(600–800)	= Rs. 800 Unfavourable
Sales Volume Variance		= Rs. 200 Unfavourable.

Verification:

Sales Value Variance = Sales Price Variance + Sales Volume Variance0

= 200 + (–200)

Illustration: 9 The information regarding budgeted and actual sales of two products has been given as follows:

	Budgeted		Actual	
	Quantity (units)	Sales Price (Rs.)	Quantity (units)	Sales Price (Rs.)
Product A	800	10	1,000	12
Product B	1,200	6	1,400	5

Find out variances.

Solution:

**(i).Sales Value Variance = ** Actual Value of Sales – Standard Value of SalesActual

Value of Sales:

Product A	1,000 x 12 =	12,000
Product B	1,400 x 5 =	7,000
Total		Rs. 19,000

Standard Value of Sales:

Product A	800 x 10 = 8,000
Product B	1,200 x 6 = 7,200
	Total Rs. 15,200

Sales Value Variance = 19,000–15,200 = Rs. 3,800 Favourable.

(ii).Sales Price Variance= Actual Quantity Sold (Actual Price– Standard Price)

Product A = 1,000 (12 – 10)

=1,000 (2)

= Rs. 2,000 Favourable

Product B = 1,400 (5 – 6)

=1,400 (–1)

= Rs. 1400 Unfavourable

Sales Price Variance = Rs. 600 Favourable

(iii). Sales Volume Variance= Standard Price (Actual Units Sold – StandardUnits)

Product A = 10 (1,000 – 800)

=10(200)

= Rs. 2,000 Favourable

Product B = 6 (1,400 – 1,200)

=6 (200)

= Rs. 1200 Favourable

Sales Volume Variance = Rs. 3,200 Favourable.

(iv).Sales Mix Variance: There is a difference between standard quantity and actual quantity, so the standard will be revised in proportion to actual quantity of sales.

Revised Standard:

Product A = 800/2000 X 2,400 = 960 Units.

Product B = 1200/2000 X 2,400 = 1,440Units

Sales Mix Variance = Standard Value of Actual Mix – Standard Value of Revised Standard Mix

Standard Value of Actual Mix:	Rs.
Product A = 10 X 1,000	= 10,000
Product B = 6 X 1,400	= 8,400
Total	= 18,400

Standard Value of Revised Standard Mix:

Product A = 10 x 960	= Rs. 9,600
Product B = 6 x 1,440	= Rs. 8,640
Total	= Rs. 18,240

Sales Mix Variance = 18,400 – 18,240 = Rs. 160 Favourable.

Verification:

Sales Value Variance = Sales Price Variance + Sales Volume Variance

Rs. 3,800 (Fav.) = Rs. 600 (Fav.) + Rs. 3,200 (Fav.)

Rs. 3,800 (Fav.) = Rs. 3,00 (Fav.)

4.7 ACCOUNTING TREATMENT OF VARIANCES

When the financial statements are prepared they contain actual cost figures there is no variances. But, at the time of implementation of standard costing system, the accounting records contain both standard costs and actual costs, by which we calculate variances. Then the next question arises that how to deal with the variances at the end of the accounting period? Which method should be followed for treating them? The accountants suggest a number of methods for this purpose. Some of them are discussed, which may be adopted for the accounting treatment of variances:

- ♠ **Transfer to Profit and Loss Account.** Under this method all variances are transferred to profit and loss account. In this method, the stock of finished goods, work-in-progress and cost of sales are shown at standard cost. It is considered that variances arise due to insufficiency or waste, so these should not become a part of normal cost of production.
- ♠ **Allocation of Variances to Finished Stock.** In this method, variances are apportioned to finished goods, work–in–progress and cost of sales either on the basis of value of closing balances or on the basis of units. This method has the effect or recording actual costs in the financial statements. The adjustment of variances is made only in the general ledger and not in subsidiary books. The distribution of variances is not made to products. The variances not being actual losses should not be taken to profit and loss account.
- ♠ **Transfer of Variances to the Reserve Account.** In this method cost variances are taken to next accounting period as deferred items. The variances whether favourable or adverse are transferred to a reserve account and are offset against future fluctuations. If the variances are favourable then they are taken to the liability side of the balance sheet and they are set off against adverse variances in future. On the other hand, if variances are adverse then these are taken to the balance sheet as a deferred charge and are written off against future favourable variances. This method is not in common use but it may be useful in cases where seasonal fluctuations occur so that favourable and adverse variances may be written off in the course of a business cycle concerning more than one accounting period.

UNIT – V

BUDGET AND BUDGETARY CONTROL

Lesson Structure:

5.1 Definition

5.2 Forecast vs Budget

5.3 Budgetary Control

5.4 Objectives of budgetary control

5.5 Scope and Techniques of Budgetary Control

5.6. Requisites for Effective Budgetary Control

5.6 Types of Budgets

5.1 DEFINITION

The Chartered Institute of Management Accountants, England, defines a 'budget' as under:

"A financial and/or quantitative statement, prepared and approved prior to define period of time, of the policy to be perused during that period for the purpose of attaining a given objective."

According to Brown and Howard of Management Accountant "a budget is a predetermined statement of managerial policy during the given period which provides a standard for comparison with the results actually achieved."

5.2 FORECAST VS BUDGET

Forecast is mainly concerned with an assessment of probable future events. Budget is a planned result that an enterprise aims to attain. Forecasting precedes preparation of a budget as it is an important part of the budgeting process. It is said that the budgetary process is more a test of forecasting skill than anything else. A budget is both a mechanism for profit planning and technique of operating cost control. In order to establish a budget it is essential to forecast various important variables like sales, selling prices, availability of materials, prices of materials, wage rates etc. both budgets and forecasts refer to the anticipated actions and events. But still there are wide differences between budgets and forecasts as given below:

Forecasts	Budgets
1. Forecasts is mainly concerned with anticipated or probable events	1. Budget is related to planned events
2. Forecasts may cover for longer periodor years	2. Budget is planned or prepared for ashorter period
3. Forecast is only a tentative estimate	3. Budget is a target fixed for a period
4. Forecast results in planning	4. Result of planning is budgeting
5. The function of forecast ends with the forecast of likely events	5. The process of budget starts where forecast ends and converts it into a budget
6. Forecast usually covers a specific business function	6. Budget is prepared for the business as a whole
7. Forecasting does not act as a tool of controlling measurement.	7. Purpose of budget is not merely a planning device but also a controlling tool.

5.3 BUDGETARY CONTROL

Budgetary control is the process of establishment of budgets relating to various activities and comparing the budgeted figures with the actual performance for arriving at deviations, if any. Accordingly, there cannot be budgetary control without budgets. Budgetary control is a system which uses budgets as a means of planning and controlling.

According to I.C.M.A. England Budgetary control is defined by Terminology as "the establishment of budgets relating to the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with the budgeted results, either to secure by individual actions the objectives of that policy or to provide a basis for its revision".

Brown and Howard defines budgetary control is "a system of controlling costs which includes the preparation of budgets, co-ordinating the department and establishing responsibilities, comparing actual performance with the budgeted and acting upon results to achieve maximum profitability."

5.4 OBJECTIVES OF BUDGETARY CONTROL

Budgetary control is planning to assist the management for policy formulation, planning, controlling and co-ordinating the general objectives of budgetary control and can be stated in the following ways:

- **Planning:** A budget is a plan of action. Budgeting ensures a detailed plan of action for a business over a period of time.
- **Co-ordination:** Budgetary control co-ordinates the various activities of the entity or organization and secure co-operation of all concerned towards the common goal.
- **Control:** Control is necessary to ensure that plans and objectives are being achieved. Control follows planning and co-ordination. No control performance is possible without predetermined standards. Thus, budgetary control makes control possible by continuous measures against predetermined targets. If there is any variation between the budgeted performance and the actual performance the same is subject to analysisand corrective action.

5.5 SCOPE AND TECHNIQUES OF BUDGETARY CONTROL

Scope:

- ✓ Budgets are prepared for different functions of business such as production, sales etc. Actual results are compared with the budgets and control is exercised.
- ✓ Budgets have a wide range of coverage of the entire organization. Each operation or process is divided into number of elements and standards are set for each such element.
- ✓ Budgetary control is concerned with origin of expenditure at functional levels.
- ✓ Budget is a projection of financial accounts whereas standard costing projects the cost accounts.

Technique:

- ✓ Budgetary control is exercised by putting budgets and actual side by side. Variances are not normally revealed in the accounts.
- ✓ Budgetary control system can be operated in parts. For example, advertisement budgets, research and development budgets, etc.
- ✓ Budgetary control of expenses is broad in nature.

5.6.REQUISITES FOR EFFECTIVE BUDGETARY CONTROL

The following are the requisites for effective budgetary control:

- ♠ Clear cut objectives and goals should be well defined.
- ♠ The ultimate objective of realising maximum benefits should always be keptuppermost.
- ♠ There should be a budget manual which contains all details regarding plan and procedures for its execution. It should also specify the time table for budget preparation for approval, details about responsibility, cost centers etc.
- ♠ Budget committee should be set up for budget preparation and efficient of the plan.
- ♠ A budget should always be related to a specified time period.
- ♠ Support of top management is necessary in order to get the full support and co- operation of the system of budgetary control.
- ♠ To make budgetary control successful, there should be a proper delegation of authority and responsibility.

- ♠ Adequate accounting system is essential to make the budgeting successful.
- ♠ The employees should be properly educated about the benefits of budgeting system.
- ♠ The budgeting system should not cost more to operate than it is worth.
- ♠ Key factor or limiting factor, if any, should consider before preparation of budget.
- ♠ For budgetary control to be effective, proper periodic reporting system should beintroduced.

5.6 TYPES OF BUDGETS

As budgets serve different purposes, different types of budgets have been developed. The following are the different classification of budgets developed on the basis of time, functions, and flexibility or capacity.

(A) Classification on the basis of Time:

- Long-term budgets
- Short-term budgets
- Current budgets

(B).Classification according to functions:

- Functional or subsidiary budgets
- Master budgets

(C).Classification on the basis of capacity:

- Fixed budgets.
- Flexible budgets

(A)Classification on the basis of Time

- ❖ ***Long-term budgets:*** Long-term budgets are prepared for a longer period varies between five to ten years. It is usually developed by the top level management. These budgets summarise the general plan of operations and its expected consequences. Long-term budgets are prepared for important activities like composition of its capital expenditure, new product development and research, long-term finance etc.
- ❖ ***Short-term budgets:*** These budgets are usually prepared for a period of one year. Sometimes they may be prepared for shorter period as for quarterly or half yearly. The scope of budgeting activity may vary considerably among different organization.
- ❖ ***Current budgets:*** Current budgets are prepared for the current operations of the business. The

planning period of a budget generally in months or weeks. As per ICMA London, "Current budget is a budget which is established for use over a short period of time and related to current conditions."

(B).Classification according to functions

- ***Functional budget:*** The functional budget is one which relates to any of the functions of an organization. The number of functional budgets depends upon the size and nature of business. The following are the commonly used:
    - Sales budget
    - Purchase budget
    - Production budget
    - Selling and distribution cost budget
    - Labour cost budget
    - Cash budget
    - Capital expenditure budget
- ***Master budget:*** The master budget is a summary budget. This budget encompasses all the functional activities into one harmonious unit. The ICMA England defines a Master Budget as the summary budget incorporating its functional budgets, which is finally approved, adopted and employed.

(C).Classification on the basis of capacity:

- ***Fixed budget:*** A fixed budget is designed to remain unchanged irrespective of the level of activity actually attained.
- ***Flexible budget:*** A flexible budget is a budget which is designed to change in accordance with the various level of activity actually attained. The flexible budget also called as Variable Budget or Sliding Scale Budget, takes both fixed, variable and semi fixed manufacturing costs into account.

Sales Budget

Sales budget is one of the important functional budgets. Sales estimate is the commencement of budgeting may be made in quantitative terms. Sales budget is primarily concerned with forecasting of what products will be sold in what quantities and at what prices during the budget period. Sales budget is prepared by the sales executives taking into account number of relevant and influencing factors such as: Analysis of past sales, key factors, market conditions, production capacity, government restrictions, competitor's strength and weakness, advertisement, publicity and sales promotion, pricing policy, consumer behaviour, nature of business, types of product, company objectives, salesmen's report, marketing research's reports, and product life cycle.

Illustration:1 Sushruth Ltd. has four sales territories A, B, C, D. Each salesman is expected to sell the following number of units during the First Quarter of 2003. Assume the average selling price to be Rs. 10:

Month	**A Units**	**B Units**	**C Units**	**D Units**
April	500	750	1,250	1,750
May	1,000	900	1,400	2,000
June	1,250	1,000	1,500	2,250

Solution:

Sales budget, First Quarter 2003

Territory	**April**			**May**			**June**			**Quter**	
	Qty. Unit	**Price Rs.**	**Value Rs.**	**Qty. Unit**	**Price Rs.**	**Value Rs.**	**Qty. Unit**	**Price Rs.**	**Value Rs.**	**Qty. Unit**	**Value Rs.**
A	500	10	5,000	1,000	10	10,000	1,250	10	12,500	2,750	27,500

B	750	10	7,500	900	10	9,000	1,000	10	10,000	2,650	26,500
C	1,250	10	12,500	1,400	10	14,000	1,500	10	15,000	4,150	41,500
D	1,750	10	17,500	2,000	10	20,000	2,250	10	22,500	6,000	60,000
Total	**4,250**		**42,500**	**5,300**		**53,000**	**6,000**		**60,000**	**15,550**	**1,55,500**

Cost of Production Budget

After preparation of production budget, this budget is prepared. Production cost budgets show the cost of the production determined in the production budget. Cost of production budget is grouped in to material cost budget, labour cost budget and overhead cost budget. Because it break up the cost of each product into three main elements material, labour and overheads.

Overheads may be further subdivided in to fixed, variable and semi-fixed overheads. Therefore separate budgets required for each item.

Illustration: 2. From the following particular, you are required to prepare production budget of Mittal Ltd. a manufacturing organization that has three products X, Y and Z.

Product	Estimated stock at the beginning of the budget period	Estimated stock at the end of the budget period	Estimated sales as per sales budget
X	5,000 units	6,400 units	21,600 units
Y	4,000 units	3,850 units	19,200 units
Z	6,000 units	7,800 units	23,100 units

Solution.

Particulars	X (Units)	Y (Units)	Z (Units)
Expected sales during the period	21,600	19,200	23,100
Add: Closing stock at the end of budget period	6,400	3,850	7,800
	28,000	23,050	30,900
Less: Opening stock at the beginning of the budget period	5,000	4,000	6,000
Budgeted production	**23,000**	**19,050**	**24,900**

Material Purchase Budget

The different levels of material stock are based on planned out. Once the production budget is prepared, it is necessary to consider the requirement of materials to carryout the production activities. Material purchase budget is concerned with purchase and requirement of direct materials to be made during the budget period. While preparing the materials purchase budget, the following factors to be considered carefully:

- ❖ Estimated sales and production.
- ❖ Requirement of materials during budget period.
- ❖ Expected changes in the prices of raw materials.
- ❖ Different stock levels, EOQ etc.
- ❖ Availability of raw materials, i.e., seasonal or otherwise.
- ❖ Availability of financial resources.
- ❖ Price trend in the market.
- ❖ Company's stock policy etc.

Illustration: 3 . Draw up a material purchase budget from the following information: Estimated sales of a product are 30,000 units. Two kinds of raw materials A and B are required for manufacturing the product. Each unit of the product requires 3 units of A and 4 units of B. The estimated opening balance in the beginning of the next year: finished goods 5,000 units; A, 6,000 units: B, 10,000 units. The desirable closing balance at the end of the next year: finished product, 8,000 units; A, 10,000 units, B 12,000 units.

Solution:

Material Purchase budget for the year

Particulars	Material A (Units)	Material B (Units)
Material required to meet production Target		
Material A – 33,000 × 3	99,000	1,32,000
Material B – 33,000 × 4		
Add: Desired closing stock at the end of next year	10,000	12,000
	1,09,000	1,44,000
Less: Expected stock at the commencement of next year		
(opening balance)	6,000	10,000
Quantity of materials to be purchased	**1,03,000**	**1,34,000**

Master Budget

When the functional budgets have been completed, the budget committee will prepare a master budget for the target of the concern. Accordingly a budget which is prepared incorporating the summaries of all functional budgets. It comprises of budgeted profit and loss account, budgeted balance sheet, budgeted production, sales and costs. The ICMA England defines a Master Budget as 'the summary budget incorporating its functional budgets, which is finally approved, adopted and employed'. The master budget represents the activities of a business during a profit plan. This budget is also helpful in coordinating activities of various functional departments.

Illustration:4 SMS and Co., a glass manufacturing company requires you to calculate and present the budget for the next year from the following information:

Toughened glass	Rs. 2,00,000
Bent toughened glass	Rs. 3,00,000
Direct material cost	60% of sales
Direct wages	10 workers @ Rs. 100 per month
Factory overheads	
Indirect labour:	
Work manager	Rs. 300 per month
Foreman	Rs. 200 per month
Stores and spares	2% on sales
Depreciation on machinery	Rs. 6,000
Light and power	Rs. 2,000
Repairs and maintenance	Rs. 4,000

Other sundries 10% on direct wages Administration, selling and distribution expenses Rs. 7,000 per year.

Solution. **Master budget for the year ending ....**

Particulars		Amount	Amount
Sales (as per sales budget):			
Toughened glass			2,00,000
Bent toughened			3,00,000
glass			
			5,00,000
Less: Cost of production:			
(as per cost of production			
budget) Direct			
materials		3,00,000	
Direct wages		12,000	
Prime cost		3,12,000	
Add: Factory			
overhead: Variable:			
Stores and			
spares Light and			
power	Rs.		
Repairs and maintenance	10,000		
	Rs. 2,000	16,000	
	Rs. 4,000		
Fixed:			
Work Manager's	Rs. 3,600		
salary Foreman	Rs. 2,400		
salary			
Depreciation	Rs. 6,000		
Sundries	Rs. 1,200	13,200	3,41,200
Work's cost		3,41,200	

	Gross profit		1,58,800
Less:	Administration, selling & distribution		7,000
	Overheads		
	Net profit		1,51,800

Fixed Budget

A budget is drawn fro a particular level of activity is called fixed budget. According to ICWA London 'Fixed budget is a budget which is designed to remain unchanged irrespective of the level of activity actually attained." Fixed budget is usually prepared before the beginning of the financial year. This type of budget is not going to highlight the cost variance due to the difference in the levels of activity. Fixed budgets are suitable under static conditions.

Cash Budget

This budget represents the anticipated receipts and payment of cash during the budget period. The cash budget also called as Functional Budget. Cash budget is the most important of the entire functional budget because, cash is required for the purpose to meeting its current cash obligations. If at any time, a concern fails to meet its obligations, it will be technically insolvent. Therefore, this budget is prepared on the basis of detailed cash receipts and cash payments. The estimated cash receipts include: cash sales, credit sales, collection from sundry debtors, bills receivable, interest received, income from sale of investment, commission received, dividend received and income from non-trading operations etc.

The estimated cash payments include the following:

- ✓ Cash purchase
- ✓ Payment to creditors
- ✓ Payment of wages
- ✓ Payments relate to production expenses
- ✓ Payments relate to office and administrative expenses
- ✓ Payments relate to selling and distribution expenses
- ✓ Any other payments relate to revenue and capital expenditure
- ✓ Income tax payable, dividend payable etc.

Illustrate: 5 Sushruth Co. Ltd. wishes to arrange overdraft facilities with its bankers from the period August to October 2010 when it will be manufacturing mostly for stock. Prepare a cash budget for the above period from the following data given below:

Month	**Sales(Rs.)**	**Purchases (Rs.)**	**Wages(Rs.)**	**Mfg. Exp. (Rs.)**	**Office Exp. (Rs.)**	**Selling Exp. (Rs.)**
June	1,80,000	1,24,800	12,000	3,000	2,000	2,000
July	1,92,000	1,44,000	14,000	4,000	1,000	4,000
August	1,08,000	2,43,000	11,000	3,000	1,500	2,000
September	1,74,000	2,46,000	12,000	4,500	2,000	5,000
October	1,26,000	2,68,000	15,000	5,000	2,500	4,000
November	1,40,000	2,80,000	17,000	5,500	3,000	4,500
December	1,60,000	3,00,000	18,000	6,000	3,000	5,000

Additional Information:

(a) Cash on hand 1-08-2010 Rs.25,000.

(b) 50% of credit sales are realized in the month following the sale and the remaining 50% in the second month following. Creditors are paid in the month following the month of purchase.

(c) Lag in payment of manufacturing expenses half month.

(d) Lag in payment of other expenses one month.

Solution:

CASH BUDGET

For 3 months from August to October 2010

Particulars	August (Rs.)	September (Rs.)	October (Rs.)
Receipts:			
Opening balance	25,000	44,500	(66,750)
Sales	1,86,000	1,50,000	1,41,000
Total Receipts(A)	**2,11,000**	**1,94,500**	**74,250**
Payments:			
Purchases	1,44,000	2,43,000	2,46,000
Wages	14,000	11,000	12,000
Mfg. Exp.	3,500	3,750	4,750
Office Exp.	1,000	1,500	2,000
Selling Exp.	4,000	2,000	5,000
Total payments(B)	**1,66,500**	**2,61,250**	**2,69,750**
Closing Balance(A-B)	**44,500**	**(66,750)**	**(1,95,500)**

Working Notes:

1. **Manufacturing Expense:**

Particular	August	September	October
July (4000/2)	2000	-	-
August (3000/2)	1500	1500	-
September (4500/2)	-	2250	2250
October (5000/2)	-	-	2500
Total	**3500**	**3750**	**4750**

2. **Sales**

Particular	August	September	October
June (180000/2)	90000	-	-
July (192000/2)	96000	96000	-
August (108000/2)	-	54000	54000
September (174000/2)	-	-	87000
Total	**186000**	**150000**	**141000**

Illustration: 6

Magi .Son wish to approach the bankers for temporary overdraft facility for the period from October 2010 to December 2010. During the period of this period of these three months, the firm will be manufacturing mostly for stock. You are required to prepare a cash budget for the above period.

Month	Sales (Rs.)	Purchases (Rs.)	Wages (Rs.)
August	3,60,000	2,49,600	24,000
September	3,84,000	2,88,000	28,000
October	2,16,000	4,86,000	22,000
November	3,48,000	4,92,000	20,000
December	2,52,000	5,36,000	30,000

1) 50% of credit sales are realized in the month following the sales and remaining 50% in thesecond following.
2) Creditors are paid in the month following the month of purchase
3) Estimated cash as on 1-10-2010 is Rs.50,000.

Solution:

CASH BUDGET

For 3 months from October to December 2010

Particulars	October (Rs.)	November(Rs.)	December(Rs.)
Receipts:			
Opening balance	50,000	1,12,000	(94,000)
Collection from Debtors	3,72,000	3,00,000	2,82,000
Total Receipts(A)	**4,22,000**	**4,12,000**	**1,88,000**
Payments:			
Payments to Creditors	2,88,000	4,86,000	4,92,000
Wages	22,000	20,000	30,000
Total payments(B)	**3,10,000**	**5,06000**	**5,22,000**
Closing Balance(A-B)	**1,12,000**	**(94,000)**	**-3,34,000**

Working Note : Collection from debtors

Particulars	October (Rs.)	November(Rs.)	December(Rs.)
Sales			
August	1,80,000		-
September	1,92,000	1,92,000	-
October	-	1,08,000	1,08,000
November	-		1,74,000
	3,72,000	**3,00,000**	**2,82,000**

Illustrate: 7 Prepare a Cash Budget from the data given below for a period of six months (July to December)

Month	Sales	Raw Materials
May	75,000	37,500
June	75,000	37,500
July	1,50,000	52,500
August	2,25,000	3,67,500
September	3,00,000	1,27,500
October	1,50,000	97,500
November	1,50,000	67,500
December	1,37,500	

1.Collection estimates:

Within the month of sale: 5%

During the month following the sale: 80%

During the second month following the sale: 15%

2. Payment for raw materials is made in the next month.

3. Salary Rs. 11,250, Lease payment Rs. 3750, Misc. Exp. Rs. 1150, are paid each month

4. Monthly Depreciation Rs. 15,000

5. Income tax Rs. 26,250 each in September and December.

6. Payment for research in October Rs.75,000

7. Opening Balance on 1st July Rs.55,000.

Solution:

CASH BUDGET
For the six months from July to December

Particulars	July	Aug.	Sep.	October	Nov.	December
Receipts						
Opening Balance	55,000	80,100	1,53,950	-38450	24150	83000
Collection from Debtors	78,750	1,42,500	2,17,500	2,81,250	1,725,00	1,49,375
Total receipts(A)	**1,33,750**	**2,22,600**	**3,71,450**	**2,42,800**	**1,96,650**	**2,32,375**
Payments						
Payment to suppliers	37,500	52,500	3,67,500	1,27,500	97,500	67,500
Salary	11,250	11,250	11,250	11,250	11,250	11,250
Lease payment	3750	3750	3750	3750	3750	3750
Misc. expense	1,150	1,150	1,150	1,150	1,150	1,150
Income tax			26,250			26,250
Payment for Research				75,000		
Total Payment(B)	**53,650**	**68,650**	**4,09,900**	**2,18,650**	**1,13,650**	**1,09,900**
Closing Balance	**80,100**	**1,53,950**	**-38,450**	**24,150**	**83,000**	**1,22,475**

Flexible Budget

Flexible budget is also called variable or sliding scale budget, 'takes both the fixed and manufacturing costs into account. Flexible budget is the opposite of static budget showing the expected cost at a single level of activity.

According to ICMA, England defined Flexible Budget is a budget which is designed to change in accordance with the level of activity actually attained."

According to the principles that guide the preparation of the flexible budget a series of fixed budgets are drawn for different levels of activity. A flexible budget often shows the budgeted expenses against each item of cost corresponding to the different levels of activity. This budget has come into use for solving the problems caused by the application of the fixed budget.

Advantage of flexible Budget

- ✓ In flexible budget, all possible volume of output or level of activity can be covered.
- ✓ Overhead costs are analysed into fixed variable and semi-variable costs.
- ✓ Expenditure can be forecasted at different levels of activity.
- ✓ It facilitates at all times related factor can be compared, which essential for intelligent decision are making.
- ✓ A flexible budget can be prepared with standard costing or without standard costing depending upon what the company opts for.
- ✓ A flexible budget facilitates ascertainment of costs at different levels of activity, price fixation, placing tenders and quotations.
- ✓ It helps in assessing the performance of all departmental heads as the same can be judged by terms of the level of activity attained by the business.

Distinction between fixed budget and flexible budget

Fixed budget	Flexible budget
1. It does not change with the volume of activity	1. It can be recast on the basis of volume of cost.
2. All costs are related to one level of activity only.	2. Costs are analysed by behaviour and variable costs are allowed as per activity attained.
3. If budget and actual activity levels vary, cost ascertainment does not provide a correct picture.	3. Flexible budgeting helps in fixation of selling price at different levels of activity.
4. Ascertainment of costs is not possible in fixed cost.	4. Costs can be easily ascertained at different levels of activity.
5. It has a limited application for cost control.	5. It has more application and can be used as a tool for effective cost control.
6. It is rigid budget and drawn on the assumption that conditions would remain constant.	6. It is designed to change according to changed conditions.
7. Comparison of actual and budgeted performance cannot be done correctly because the volume of production differs.	7. Comparisons are realistic according to the change in the level of activity.
8. Costs are not classified according to their variability, i.e., fixed, variable and semi-variable.	8. Costs are classified according to the nature of their variability.

Zero Base Budgeting

Zero base budgeting is a new technique of budgeting. It is designed to meet the needs of the management in order to ensure the operational efficiency and effective utilization of the allocated resources of a concern. This technique was originally developed by Peter A. Phyhrr, Manager of Taxas Instrument during 1969. This concept is widely used in USA for controlling their state expenditure when Mr.

Jimmy Carter was the president of the USA. At present the technique has for its global recognition for many countries have implemented in real terms.

According to Peter A. Phyhrr ZBB is defined as an "Operative planning and budgeting process which requires each manager to justify his entire budget in detail from Scratch (hence zero base) and shifts the burden of proof to each manager to justify why we should spend any money at all".

In zero-base budgeting, a manager at all levels, have to justify the importance of activity and to allocate the resources on priority basis.

Illustrate: 8 Prepare a Flexible budget for overheads on the basis of the following data. Ascertain theoverhead rates at 50% and 60% capacity.

Variable overheads:	At 60% capacity (Rs)
Indirect Material	6,000
Labour	18,000
Semi-variable overheads:	
Electricity: (40% Fixed & 60% variable)	30,000
Repairs: (80% fixed & 20% Variable)	3,000
Fixed overheads:	
Depreciation	16,500
Insurance	4,500

Salaries	15,000
Total overheads	93,000
Estimated direct labour hours	1,86,000

Solution:

Flexible Budget

Particulars	Capacity	
	50%	**60%**
Variable overheads:	**Rs.**	**Rs.**
Material	5,000	6,000
Labour	15,000	18,000
Semi-variable		
Electricity	27,000	30,000
Repairs	2,900	3,000
Fixed overheads:		
Deprecation	16,500	16,500
Insurance	4500	4500
Salaries	15,000	15,000
Total Overheads	85,900	93,000
Estimated direct labour hours	1,55,000	1,86,000
Overhead Rate	0.55	0.50

Illustrate: 9 The expenses budgeted for production of 1,000 units in a factory are furnished below:

Particulars	**Per Unit Rs.**
Material Cost	700
Labour Cost	250
Variable overheads	200
Selling expenses (20% fixed)	130
Administrative expenses (Rs. 2,00,000)	200
Total Cost	1,480

Prepare a budget for production of 600 units and 800 units assuming administrative expenses are rigid for all level of production.

Solution:

Flexible Budget

Particulars	**For 600 units**		**For 800 units**	
	Per unit Rs.	**Total Rs.**	**Per unit Rs.**	**Total Rs.**
Variable Cost:				
Materials	700	4,20,000	700	5,60,000
Labour	250	1,50,000	250	2,00,000
Variable overheads	200	1,20,000	200	1,60,000
(A)	**1,150**	**6,90,000**	**1,150**	**9,20,000**
Semi variable cost:				
Variable selling expenses	104	62,400	104	83,200

Fixed selling expenses	43.33	26,000	32.50	26,000
(B)	**147.33**	**88,400**	**136.50**	**1,09,200**
Fixed cost: Administrative expenses	333.33	2,00,000	250.00	2,00,000
Total Cost(A+B+C)	**1,630.66**	**9,78,400**	**1,536.50**	**12,29,200**

Performance Budgeting

Performance budget has been defined as a 'budget based on functions, activities andprojects.' Performance budgeting may be described as 'the budgeting system in which input costs are related to the performance, i.e., end results.'

According to National Institute of Bank Management, Performance budgeting is, "the process of analyzing, identifying, simplifying and crystallizing specific performance objectives of a job to be achieved over a period, in the framework of the organizational objectives, the purpose and objectives of the job."

From the above definitions, it is clear that budgetary performance involves thefollowing:

- Establishment of well defined centres of responsibilities:
- Establishment for each responsibility centre- a programme of target performance is in physical units.
- Forecasting the amount of expenditure required to meet the physical plan laiddown.
- Comparison of the actual performance with the budgets, i.e., evaluation ofperformance.
- Undertaking periodic review of the programme with a view to make modifications as required.