ADVANCED FINANCIAL ACCOUNTING

M. Com., II Year, Paper- III (A)

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LESSON-1

FINANC.IAL ACCOUNTING

Objectives :

The very objective of this unit is to help the students to understand

- the concept of accountinq and financial accounting,
- functions of accounting
- concepts of accounting
- limitations of accounting
- how to convert financial accounting for managerial usage
- the role of financial advisor.

Structure:

1.1 Introduction

1.2 Definition of F;inancial Accounting

1.3 Functions of Financial Accounting

1:4 Accounting concepts

1.5 Accounting Conventions

1.6 Llmltatlons of Fir:t~nci:;}1 Accounting

1.7 Converting Financial Accounting for Managerial Usage

1.8 Role of Financial Advisor

1.9 Self Assessment Questions

1.10 KeyWords

1.11 Further Readings

1.1. Introduction :

Accounting is the language or medium or means of. communication of business through which normally a business concern communicate with the outsiders such as investors, creditors, financial institutions etc.. To make this process understandable to aU it is necessary th~t it should be based on certain uniform standards. These standards are termed as accountlnq principles.

To promote world wide uniformity in published accounts the lntemational Accounting Standards Committee (lASe) has been set up in 1973 to formulate and publi~.b £1uidehnfrs and to promote their universal acceptance and observance. The major obje"itive of If-SC is to harmonise accounting standards, to develop accounting standards which are to ~ observed in the pre~entatipn of audited financial statements and to promote world wide acceptance.

Accounting involves the collection, recording, classification and presentation of financial data for the benefit of management and outside agencies such as shareholder, creditors, bankers and Government

According to the Committee on Terminology of American Institute of Certified Public Accountants, accounting is the "art of recording, classifying and summarising in a significant manner and in terms of money, transactions and events, which are in part at least, of a financial character, and interpreting the results thereof'.

The word 'Accounting' can be classified into three categories

a. Financial Accounting

b. Cost Accounting, and

c. Management Accounting

2.2. Definition of Financial Accounting:

Financial Accounting may be defined as the science and art of recording and classifying business transaction and preparing summaries of the same for determining year end profit or loss and the financial position of the concern. Financial accounting is the part of accounting which is employed to communicate the financial information of a business unit. The main object of financial accounting is to find out the profitability and to provide information about the financial position of the organisation. Income and expenditure statement and Balance sheet are the two principal statements of financial accounting.

1.3. Functions of Financial Accounting

Financial accounting is not only useful to management but also to potential owners, creditors, government agencies and other interested parties of the business. It gives the information about the status of the business and it's results. The foHowing are the functions of financial accounting:

1) Recording of financial facts:

Accounting is the art of recording financial information of the business concern. Journal and subsidiary books are used to record various transactions in su,,', a way that the information is properly classified and analysed so that management may make US~ of these financial facts.

2) Data classification

The financial facts of one nature are placed at one place. For this classification the book called 'ledger' is used. The entries relating to different items are brought at one place so that full information of these financial items may be conectec under different heads.

3) Summarising the infonnation :

The next important function of financial accounting is to make summaries of the recorded and classified financial information in ttie firm.)'he classified data is summansed to prepare final accounts i.e .. Profit and Loss Account and Balance Sheet. Profit and Loss Account is the summary of various incomes and expenses and Balance Sheet is the sumrnarv of various assets and liabilities.

4) Dealing with financial transaction:

Money is taken as a common medium ana all economic transactions are expressed in monetary terms. Any transaction which cannot be expressed in monetary terms does not form a part of financial accounting even though it has a significant bearing on the working of the business. .

5) Interpretation of financial information

Financial accountir.g is to help the management to take decisions or drawing conclusions. So the accounting information is modified to provide interpretatton and decision support to the management. This interpretation creates an opinion about the profitability and overall financial performance and position of the business.

6) Communication of financial results

The profitability of a business concern is to be communicated through the Profit and Loss Account and the financial position is to be informed through the Balance sheet of the firm. This information is supplied at regular intervals. This communication of results is also another important function of financial accounting to serve the needs of persons interested in knowing the results of the business.

7) Provide the information more reliable

Another important function of financial accounting is to make the information more reliable and useful. .. This is possible by the use of internationally accepted standards for preparing account and disclosure of the same. To continue the reliability of accounts same accounting principles should be consistently used by the concern through out the financial year for recording, classifying, summarising and interpreting.

1.4. Accounting Concepts :

1. Business Entity concept:

The concept implies that a business unit is separate and distinct from the persons who supply capital to it. In accounting, business is treated as a separate entity from its owners. Accounting is prepared to give information about the business and not those who own it. This concept is necessary to ascertain the results of business operations.

2. G~ing Concern Concept:

According to this concept, it is assumed that the business will continue to exist indefinitely or at least in the near future. The financial resources of the firm at present are utilized to attain the long term objectives of the business. Going concern concept is evident form redording the fixed assets at. diminishing balances.

3. Money Measurement Concept:

According to this concept only those transactions are recorded in accounting which can be expressed in terms of money. Money is accepted as a medium of exchange for goods and services. Money provided mechanism by which real resources can be transferred among different indlviouals.

4. Cost concept:

The accounting records are based on cost concept. The cost concept of accounting closely relate to the going concern concept. It is that an asset is recorded in the books at the pricepalo to acquire it and that this cost is the basis for all subsequent accounting for the asset. The assets and liabilities of a business are shown at a cost which has been paid or agreed upon between the parties. The figures are recorded on objectivity basis. There is no room for personal assessment or bias in showing the figures.

5. DualAspectConcept:

This concept lies at the heart of whole accounting system. According to this concept every business transaction has a dual effect. It is based on the principle that for every debit transaction, there is a corresponding credit transaction. There must be giver of benefit and also a taker of it. The debits will be equal to credits. The dual concept has created the system of double entry book-Keeping.

6. Accounting Period / Accrual Concept:

On the base of this concept the life of the business is divided into appropriate segments of studying the result shown by the business after each segment. Financial position and profltability of a concern are assessed at a regular interval called accounting period. In the preparation of Profit and loss Account of a firm all revenue items relating to that period be taken into consideration irrespective of the fact that whether these items are paid or payable.

7. Realisation Concept:

This concept is related to the realisation of revenue. The revenue is realized either from sale of products or from render'nq of services. The realisation concept is also known as the 'revenue recognition concept', so revenue is considered as being earned on the date on which it is realized. i.e. the date on which goods and service are transferred to customers either for cash or for legal obligation.

8. Matching of Cost and Revenue concept:

As a general principle, the costs are matched to revenues tomeasure the profits. A distinction between present, past and future expenditure as well as capital and revenue expenses is necessary. The revenue and cost of the same period, product or service are matched. Similarly the expenses whose utility is to be derived over a number of years are taken to the balance sheet as deferred revenue expenditure. Capital expenditures become a part of cost over a number of years through depreciation.

9. The Accrual concept:

While the realisation concept is mainly concerned with revenue recognition, the accrual concept, which applies both to revenues and expenses, reinforces the realisation concept. The concept distinguishes between the right to receive cash and the actual receipt of cash, and the obligation to pay cash and the actual payment of cash. Or the basis of this distinction, the accountant has to treat as expenses only those items for which there is the legal Obligation to pay, although cash might not have been paid for them. Similarly, if a payment is made in advance, it should not be treated as an expense .. A.gain, cash paid by mistake is also not an expense. Thus; where an expense is incurred, and no payment is made should be shown as a liabili!y l.e. creditor.

1.5. Accounting Conventions:

a) Convention of Gonservatism :

This convention ensures that uncertainties and risk inherent in business transactions should be given a proper consideration. If there is a possibility of loss, it should be taken into account at the earliest. On the other hand, a prospect of profit should be ignored upto the time it does not materialise.

b) Convention of Consistency:

According to this convention, accounting practices should remain unchanged from one period to another. This means that the same accounting principles should be used for preparing financial statements for different periods. It allows a comparison in the performance of different periods.

c) Convention of Disclosure:

This convention implies that accounts should be prepared in such a way that all material information is clearly disclosed to the reader. This information should include figures in the final accounts as well as information which occurs after the preparation of the balance sheet but before the presentation of financial statements. The inherent point in this convention is that the financial statement should be prejudice-free devoid of concealing any facts to provide free judgment.

d) Convention of Materiality ~

According to this convention only those events should be recorded which have a significant bearing and insiqniflcant aspects should be ignored. The avoidance of the insignificant will not materially affect the record of the concern. There is no formula in making a distinction between significant and insignificant events. It is a matter of judgment and it is left to the accountant for taking a decision.

1.6. Limitations of Financial Accounting:

The financial accounting is concerned with the preparation of final accounts. At present the business has become more complex that mere information of final accounts is insufficient in meeting the informational needs. Some of the limitations of financial accounting are discussed below.

a. Historical in nature:

Financial accounting record the transactions which have taken place in the business in a period. Future uncertainties has no place in financial accounting. Through management needs information for future activities, financial accounting can only give information about what has happened and not what will happen.

b. Activity wise information is not possible

In financial accounting information is recorded for the whole concern and ot total expenses and total receipts only. It cannot provide information product-wise, process-wise, department-wise or in ~ terms of any other line of activity. Financial accounting cannot help for cost determination and cost J control purposes.

c. Helpless in Price Fixation:

As financial accounting is historical it cannot facilitate to determine the price in advance. Financial accounting cannot supply the information to quote the price for the supply of goods in the near future i.e. for submitting tenders. The cost of a product can be obtained only when all expenses incurred product wise have been recorded. Due to this deficiency financial Accounting is not helpfuldn fixation of the prices of the products.

d. Appraisal of policies is not possible

It is not possible to evaluate various policies and programmes in financial accounting. There is no scientific technique for comparing actual performance with budg-eted targets. The only criterion for determining efficiency is to see the profits at the end financial period. /

e. Price changes are not considered:

Financial accounting records only actual cost figures. The prices of goods and assets go on varying from time to time. The present prices of any asset may be different from the recorded costs. Financial accounting does not record price level changes.

f. Not helpful in taking decisions:

Decisions like, replacement of labour by machinery, introduction of a new product, discontinuation of product, product diversification, changes in line of production, expansion of the capacity, changes in the marketing mix ete need the cost involvement in anticipatidn. Financial accounts cannot provide necessary figures and facts for taking those important decisions.

1.7. Converting Financial Accounts Useful to Management:

The limitations of the financial accounting make an impression that financial accounting and financial statements are not very much useful to the management. Despite various limitations financial accounting is very much essential for every business concern. The following steps make the financial statements useful to the management.

a. Latest information of accounts :

The delayed supply of information will reduce the utility of financial statements to the decision makers. So financial accounts will be useful if they are available with latest information and facts. Then the management is able to form an opinion about the performance of the business and will also take corrective meas~res.~

b. Interim reports to be prepared :

The financial sta~ements are prepared at the end of the financial year. Management will be able to know the perform~nce of the business at the end of the financial year only. If something goes wrong in middle of the year-the management will remain ignorant about it. Interim reports prepared during the period help the management to appraise the working of the business. Whenever performance is below the standards set to rectify and to improve the performance ..

c. AppUcation of comparative analysis :

The comparison of different financial statement will enable the management to see the trend of performance. Historical data will provide a proper base for comparing the present performance and analyser will be able to judge whether the performance has improved or deteriorated.

1.8. Role of Financial Advisor:

The finance function has been dealt by the separate person may be designated as financial manager or financial controller or financial advisor. The person in charge of finance activity has to discharge both routine functions and managerial functions.

Functions of Financial Advisor:

Routine functions:	Managerial functions:
Setting up of rules and procedures	Financial planning
Establishing standards	Budgeting
Custodian of cash and bank account	Profit analysis
Collection of debts loans etc	Investment decisions
Payment of Cash	Financial accounting and internal audit

The functions and responsibilities of the financial advisor generally include the following.

1. To formulate programmes to provide effective cost-volume profit relationship
2. To critically analyse financial results and reporting the facts to the top management and make recommendation concerning future operations.

3.To determine the need of the financial resources and source for that need

4.. T!) take necessary studies for cost reduction and efficiency improvement

4. To be the principal coordinating officer for preparing and operating long term, annual and capital budgets.
5. To advise the chief executive on pricing policies,
6. To act as principal office in charge of accounts, including cost and store accounts and internal audit
7. To be the custodian of the cash and the principal disbursing office of the concern

9. To be responsible for attending all the tax matters
10. To furnish prospective costs of products, to enable the management to determine the optimum product mix
11. To prepare various periodic reports to be submitted to various authorities including financial institutions, govemm~nt etc.
12. To examine feasibility studies and detailed project reports mainly from the point of view of overall viability of the project.

1.9. Self Assessment Questions:

1. What are the basic accounting concepts and explain their implication?
2. Explain the functions of financial accounting
3. Critically explain the role of financial advisor?

1.10. Key Words:

1. Business entity	A business unit is esparto and distinct from the persons who supply capital to it.
2, Dual aspect concept	Every financial transaction involves a two-fold aspect
3, Accounting Conventions	Accounting conventions are the traditions, usage and customs which are in use since long,

1.11. Further Readings

1, S,N, Maheswari *"Principles of Management Accounting':* Sultan Chand & Sons. New Delhi. 1996

2. S,P. Jain and K.l. Narang *"Financial Accounting"* Kalyan publishers, Ludhlana *2002*

3. R.L. Gupta *"Advarced Acccuntency"* Sultan Chand & Sons, New Delhi

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Lesson - 2

STATEMENT OF CHANGES IN FINANCIAL POSITION

2.0 OBJECTIVES :

After going through this chapter you will

★ understand the concept of funds and flow

★ Know how to prepare the statement of changes in working capital

★ Prepare the sources and application of funds statement.

STRUCTURE :

2.1 Introduction :

Verily, the Role of "Ratio Analysis" lies in evaluating efficiency, liquidity and structural aspects of working capital management in a business firm. The term "business Liquidity" has been interpreted in may ways. It refers to position of net working capital (NWC) of the firm. It also means cash and cash equivalent balances of the firm. In fact, net working capital approach has been quite dominant for a long time. It suggests that liquidity of the firm should depend upon the position of its net working capital. Working capital flows from one element of balance sheet to another during an accounting period. It is the amount of net working capital which is valuable to the firm as a liquid resource. A statement that uses net working capital as a measure of liquidity position is refered to as Funds flow statement.

To go to the roots, this Funds flow statement was termed "where got and where gone statement. This statement records the increases and decreases in different items of the balance sheet. Later it was called "Funds statement". In 1963 APB (Accounting Principles Board) changed the name of the statement as "Statement of sources and Application of Funds". Again in 1971 the American Institute changed its name as per the recommendations of the APB as "Statement of changes in Financial Position". "Funds Flow statement" is also called as summary of financial operations. "Movement of working capital statement", "Movement of funds statement", "Funds received and disbursed statement", "Funds generated and expended statement", etc.

2.2 Definitions :

Foulke's definition is significant "A Statement of sources and application of funds is a technical device designed to analyse the changes in the financial condition of a business enterprise between two dates".

Anthony Opined "The funds flow statement describes the sources from which additional funds were derived and the use to which these sources were put.

According to Bierman "It is a statement which highlights the underlying financial movements and explains the changes of working capital from one point of time to another".

2.3. Uses and Importance of Funds flow statement

★ An essential tool for the financial analysis and management

★ Reveals the changes in the working capital and gives the details of the sources from which working capital has been financed.

★ Helps in the analysis of the financial operations and explains causes for the changes on the liquidity position of the company.

★ Helps in dividend distribution and the formulation of an ideal dividend policy.

★ Helps in making correct decisions in planning and development of the company

★ Gives the information to forecast the problem to be faced in near future for want of funds

★ Explains how the management used the working capital in the past, so as to form an idea to improve the activities in the future.

★ Helps the management to know the overall credit worthiness of the firm by throwing light on a number of related matters, so that perplexing situation do not arise.

2.4. Limitations

1. It is not a Balance sheet because it only gives the information regarding changes in working capital.
2. It is only data given in the Financial statements and not an original statement.
3. It may not be prepared with perfection and accuracy.
4. Continuous changes cannot be incorporated.
5. Changes in cash are very much relevant which is not found in the working capital

2.5. *Concept of Sources and uses of funds*

In order to undertake Fund flow analysis, it requires an understanding of the following :

The first step to analyse the fund flow is to classify the business transactions into the sources and uses of funds

1. An increase in non-current liabilities or a decrease in non-current assets of the firm is considered as source of funds. (The list of non-current items is given in the next page
2. An increase in the non-current assets and a decrease in the non-current liabilities is a use of funds.
3. A decrease in net working capital during the accounting period, is considered to be a source of funds.
4. An increase on net working capital during the accounting period is considered to be a use of funds.

2.6. Flows that affects the net working capital

Flows that affects Net Working Capital (NWC)

Opening balance Of Net Working Capital	Changing Working Capital	Closing balance of Net Working Capital
Op. NWC	NWC	cl. NWC

Sources of working Capital

- ★ Operations of the Business
- ★ Issue of long term debt
- ★ Issue of Equity shares
- ★ Sale of Fixed investments
- ★ Sale of long term investment

Uses of Working Capital

- ★ Redemption of long term debt
- ★ Investments
- ★ Acquisition of fixed assets
- ★ Payment of Dividend

2.7 List of non-current accounts :

List of Non-Current Accounts

Non-Current accounts on the Liability side of Balance sheet

- ★ Equity Share Capital
- ★ Preference share Capital
- ★ Redeemable pref. Share Capital
- ★ Redeemable Equity Share Capital
- ★ Long term loans
- ★ Debentures

Non-Current accounts on the Asset side of balance sheet

- ★ Good will
- ★ Land
- ★ Building
- ★ Machinery
- ★ Furniture

★ Share premium a/c	★ Long term investments
★ Forfeited a/c	★ Patent Rights
★ P&L a/c	★ Trade marks
★ G/R/DER/CRF/I/F/WEF	★ Discount on issue of shares
★ Capital Reserve	★ Preliminary Expenses
★ Provision for Tax	★ Other deferred expenses
★ Provision for Depreciation	
★ Proposed dividend	

2.8. Calculation of the amount of changes in Net Working Capital

The amount of change in NWC can be calculated by using either only current items or only non current items from the balance sheet.

a. Use of only current Assets : Net working capital is defined using only current items as an excess of current assets (CA) over current liabilities (CL)

Net Working Capital	=	Current Assets – Current Liabilities
NWC	=	CA – CL
Changing NWC	=	Change in CA - Change in CL
Δ NWC	=	Δ CA – Δ CL
Δ NWC	=	Δ (CA – CL)
Δ NWC	=	Δ (CA – CL)

b. Schedule of Changes in working capital :

The increase or decrease in working capital can be calculated by preparing the schedule of changes in working capital.

Statement of changes in working capital

	Previous Year	Current Year	Effect on Working Capital	
			Increase	Decrease
			Rs.	Rs.
Current Assets : (A)				
Debtors				
Cash				
Stock				
Bills Receivable				
Bank				
Prepaid Expenses				
Total (a)				

Current Liabilities : (B)				
Bills Payable				
Creditors				
Out standing Expenses				
Total (b)				
Working capital : (A-B)				
Increase/Decrease in Working Capital				
Total				

Illustration 1 :

1. From the following Balance sheet of Mr. Kumar you are required to prepare a schedule of changes in working capital.

	31st December	
	1991	1992
Assets :	Rs.	Rs.
Land & buildings	50.000	50.000
Plant	24,000	34.000
Stock	9.000	7.000
Debtors	16.500	19.500
Cash at Bank	4.000	9.000
	1,03.500	1.19,500

	31st December	
	1991	1992
Liabilities :	Rs.	Rs.
Capital	80.000	85.000
Profit & Loss Appropriation a/c	14.500	24,500
Creditors	9.000	5,000
Mortgage	—	5,000
	1 03.500	1.19.500

Solution :

Statement of Changes in Working Capital

	Previous Year	Current Year	Effect on Working Capital	
			Increase	Decrease
	1991	1992	Rs.	Rs.
Current Assets :				
★ Stock	9,000	7,000	—	2,000
★ Debtors	16,500	19,500	3,000	
★ Cash at Bank	4,000	9,000	5,000	
Total	29,5000	35,000		
Current Liabilities :				
★ Sunday Creditors	9,000	5,000	4,000	—
★ Increase in working capital				10,000
Total	9,000	5,000	12,000	12,000

2.9. Calculation of Funds from operations :

The Following method is to be followed in the computation of funds from operation.

Particulars	Amount	Amount
Net Profit as per P&L A/c		xxx
Add (The following items do not result in out flow of funds)		
★ Depreciation on fixed assets	xxx	
★ Good will written off	xxx	
★ Preliminary expenses written off	xxx	
★ Provision for taxation (It may be taken	xxx	
★ as appropriation of profits)		
★ Proposed dividend (It may be taken as	xxx	
★ appropriations of profits)		
★ Transfer to reserves	xxx	
★ Loss on sale of non-current assets	xxx	xxx
		xxx
Less - Profit on sale of non-current assets	xxx	
★ Profit on revaluation on fixed assets	xxx	
★ Non operating incomes	xxx	xxx
Fund from operation		xxx

Alternative Method :

Calculation of fund from operation :

Profit & Loss Adjustment A/c

To Depreciation on fixed assets	xxx	By profit on sale of non current assets	xxx
To preliminary Expenses written off	xxx	By profit on revaluation Of assets	xxx
To Goodwill written off	xxx	By non-operating income	xxx
To provision for taxation	xxx	By Fund from operation (Balancing figure)	xxx
To Proposed dividend	xxx		
To Transfer to General Reserve	xxx		
To Loss on sale of non current assets	xxx		
To Net profit	xxx		
	xxx		xxx

Illustration 2

From the following information calculate Funds from operation of SAI Co.

Particulars	Rs.	Particulars	Rs.
To Salaries	9,000	By Gross Profit	2,10,000
To Advertisement	2,000	By Profit on sale of Machinery	3,000
To Rent	1,000	By Refund of Income Tax	2,000
To Commission	1,500	By Dividends Received	1,500
To Discount Allowed	750		
To Provision for Depreciation	12,000		
To Transfer to General Reserve	21,000		
To Provision for taxation	7,500		
To Loss on sale of Investments	4,500		
To Discount on issue of Debentures	1,500		
To preliminary Expenses	3,500		
To Selling Expenses	18,000		
Net Profit	1,34,250		
	2,16,500		2,16,500

Solution :

Calculation of Funds from operation

Particulars	**Rs.**	**Rs.**
Net Profit	1,34,250	
ADD : Non-operating Expenses & Losses		
★ Provision for Depreciation	12,000	
★ Transfer to General Reserve	21,000	
★ Provision for Taxation	7,500	
★ Loss on Sale of Investment	4,500	
★ Discount on Issue of Debentures	1,500	
Less : Non-operating Incomes & Gains		
★ Profit on Sale of Machinery		3,000
★ Refund of Income Tax		2,000
★ Dividends Received		1,500
★ Funds from operation		1,74,250
	1,80,750	1,80,750

Alternative Method :

Calculation of fund from operation :

Profit & Loss Adjustment A/c

Particulars	Rs.	Particulars	Rs.
To Provision for Depreciation	12,000	By Profit on sale of Machinery	3,000
To Transfer to General Reserve	21,000	By Refund of Income Tax	2,000
To Provision for Taxation	7,500	By Dividends Received	1,500
To Loss on Sale of Investments	4,500		
To Discount on issue of Debentures	1,500		
To Net profit	1,34,250	By Fund from operation (B/F)	1,74,250
	1,80,750		1,80,750

2.10 Statement of Funds Flow Statement :

Particulars	**Rs.**	**Rs.**
Sources of Funds :		
★ Funds from operation	xxx	
★ Issue of Share Capital	xxx	
★ Issue of Debentures	xxx	
★ Long Term Loans	xxx	
★ Sale of Fixed Assets	xxx	
★ Non-Trading Items	xxx	
★ Dividends Received	xxx	
★ Decreasing Working Capital (as per	xxx	
★ Schedule of Changes in working capital)		
	——	xxx
Total	xxx	xxx
Applications :		
★ Payment of Equity Share Capital	xxx	
★ Redemption of Pref. Share Capital	xxx	
★ Repayment of Long Term Loans	xxx	
★ Redemption of Debentures	xxx	
★ Purchase of Investment Debentures	xxx	
★ Payment of Dividends	xxx	
★ Payment of Taxes		
★ Increase in working capital (as per schedule of changes in working capital)	xxx	
		xxx
Total	xxx	

Only one will be appear

The above Funds Flow statement can also be prepared in a/c model.

Funds flow statement

Sources of Funds	Application of Funds
Funds from operation	Payment of Equity Share Capital
Issue of Share Capital	Redemption of pref. Share capital

Issue of Debentures	Repayment of Long Term Loans
Long Term Loans	Redemption of Debentures
Sale of Fixed Assets	Purchase of Investment Debentures
Non-trading Items	Payment of Dividends
Dividends Received	Payment of Taxes
Decreasing working capital (as per schedule of changes in working capital)	Increase in working capital (as per schedule of changes in working capital)

Illustration 3

From the following Balance Sheet of Mr. Kumar you are required to prepare a schedule of changes in working capital and statement of flow of funds.

	31st December 1991	31st December 1992
Assets :	Rs.	Rs.
Land & Buildings	50,000	50,000
Plant	24,000	34,000
Stock	9,000	7,000
Debtors	16,500	19,500
Cash at Bank	4,000	9,000
	1,03,500	1,19,500

	31st December 1991	31st December 1992
Liabilities :	Rs.	Rs.
Capital	80,000	85,000
Profit & Loss Appropriation a/c	14,500	24,500
Creditors	9,000	5,000
Mortgage	—	5,000
	1,03,500	1,19,500

(M.Com Final October, 1993 /AFM/ANU)

Solution :

Statement of Changes in Working Capital

	Previous Year	Current Year	Effect on Working Capital	
			Increase	Decrease
	1991	1992	Rs.	Rs.
Current Assets :				
Stock	9,000	7,000	—	2,000
Debtors	16,500	19,500	3,000	
Cash at Bank	4,000	9,000	5,000	
Total	29,500	35,500		
Current Liabilities :				
Sundry Creditors	9,000	5,000	4,000	—
Increase in working capital				10,000
Total	9,000	5,000	12,000	12,000

Working Capital : (Non-Current Liabilities Capital a/c)

Particulars	Amount Rs.	Particulars	Amount RS.
		By Opening Balance	80,000
		By Bank (B/F)	5,000
To Closing Balance	85,000		
	85,000		85,000
It indicates the new issue of shares.			

Profit & Loss Appropriation a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening Balance	14,500
		By Fund From Operation	10,000
To Closing Balance	24,500		
	24,500		24,500

Mortgage a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening Balance	——
		By Bank (B/F)	5,000
To Closing Balance	5,000		
	5,000		5,000

It tells us the new borrowings.

Non-current assets a/c

Land & buildings a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	50,000		
		By Closing Balance	50,000
	50,000		50,000

Plant a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	24,000		
To Bank (B/F)	10,000		
		By Closing Balance	34,000
	34,000		34,000

It tells us the purchase of New Plant.

Funds Flow Statement

Sources	Amount	Applications	Amount
Issue of New Shares	5,000	Purchase of New Plant	10,000
Mortage Loan	5,000		
Fund for Operation	10,000	Increase in N.W.C	10,000
	20,000		20,000

2.11 Exercises & Solutions

Provision for Taxation :

There are two methods available for treatment of provision for taxation. If it is treated as current liability, it will appear in the schedule of changes in working capital. Suppose if it is treated as an appropriation of profit, it will not appears in the schedule of changes in working capital. (It is a non current liability)

Provision for Taxation a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Bank	xxx	By Opening Balance	xxx
(if tax paid)		By P&L a/c (Transfer)	
To Cl. Balance	xxx		
	xxx		xxx

Illustration 4 :

The following are the summaries of the Balance sheets of X co. Ltd., as at 31st December, 1995 and 1996 :

Liabilities	1995 Rs.	1996 Rs.	Assets	1995 Rs.	1996 Rs.
Share Capital	2,00,000	2,50,000	Land & buildings	2,00,000	1,90,000
General Reserve	50,000	60,000	Plant	1,50,000	1,74,000
Profit & Loss A/c	30,500	30,600	Stock	1,00,000	74,000
Bank Loan	70,000	—	Debtors	80,000	64,200
Creditors	1,50,000	1,35,200	Cash	500	600
Provision for Taxation	30,000	35,000	Bank	—	8,000
	5,30,500	5,10,800		5,30,500	5,10,800

Prepare a statement of sources and application of funds for the year 1996 and a schedule of changes in working capital.

Solution :

Statement of changes in working capital

	Previous Year	Current Year	Effect on Working capital Increase	Decrease
	1995	1996	Rs.	Rs.
Current Assets :				
★ Stock	1,00,000	74,000	—	26,000
★ Debtors	80,000	64,200	—	15,800
★ Cash	500	600	100	
★ Bank	—	8,000	8,000	
Current Liabilities				
★ Sundry Creditors	1,50,000	1,35,200	14,800	—
★ Provision for taxation	30,000	35,000	—	5,000
★ Decrease in NWC			23,900	
Total			46,800	46,800

Working Note : (non-current assets / CL)

Land & Buildings a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	2,00,000	By Depreciation (B/F)	10,000
		By Closing Balance	1,90,000
	2,00,000		2,00,000

Plant a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	1,50,000		
To Bank (B/F)	24,000		
		By Closing Balance	1,74,000
	1,74,000		1,74,000

Share Capital a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening Balance	2,00,000
		By Bank (B/F)	50,000
To Closing Balance	2,50,000		
	2,50,000		2.50,000

G/R a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
		By Opening Balance	50,000
		By P&L a/c (B/F)	10,000
To closing Balance	60,000		
	60,000		60,000

P&L a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To dep. On Land & Bui.	10,000	By Opening Balance	30,500
To G/R	10,000		

To Cl. Profit	30,600	By F/op (B/F)	20,100
	50,600		50,600

Funds Flow Statement

Particulars	Amount Rs.	Particulars	Amount Rs.
Issue of Shares	50,000	Repayment of Bank Loan	70,000
F/O	20,100	Plant Purchased	24,000
Decrease in NWC	23,900		
	94,000		94,000

b. Provision for Doubtful debts :

In the case Provision for doubtful debts there are two alternative treatments are available. One as current liability (when Debtors are not good). Suppose if Debtors are good, then the provision for doubtful debts is individual as an appropriation of profit.

Illustration : 5

From the following Balance Sheets of Z co. Ltd. On 31 December, 1995 and 1996, you are required to prepare :

a) A schedule of changes in working capital and

b) A Funds Flow Statement.

Liabilities	1995 Rs.	1996 Rs.	Assets	1995 Rs.	1996 Rs.
Share Capital	3,00,000	3,00,000	Goodwill	2,12,000	2,12,000
General Reserve	14,000	18,000	Building	40,000	36,000
Profit & Loss A/c	16,000	13,000	Plant	37,000	36,000
Sundry Creditors	8,000	5,000	Investments	10,000	11,000
Bills Payable	1,200	1,200	Stock	30,000	23,400
Provision for Taxation	16,000	18,000	Bills receivable	2,000	3,200
Provision for Doubtful debts	400	600	Debtors	18,000	19,000
			Cash at Bank	6,600	15,200
	3,55,600	3,55,800		3,55,600	3,55,800

Solution :

Statement of Changes in Working Capital

	Previous Year	Current Year	Effect on working capital	
			Increase	Decrease
	1995	1996	Rs.	Rs.
Current Assets :				
★ Stock	30,000	23,400	—	6,600
★ B/R	2,000	3,200	1,200	
★ Debtors	18,000	19,000	1,000	
★ Cash at Bank	6,600	15,200	8,600	
Current Liabilities				
★ Sundry Creditors	8,000	5,000	3,000	—
★ B/P	1,200	1,200	—	—
★ Provision for taxation	16,000	18,000	—	2,000
★ Provision for doubtful debts	400	600	—	200
★ Increase in NWC				5,000
Total			13,800	13,800

Working Note : (Non-Current Liabilities)

Share Capital a/c

Particulars	Amounts Rs.	Particulars	Amount Rs.
		By Opening Balance	3,00,000
To Closing balance	3,00,000		
	3,00,000		3,00,000

G/R a/c

Particulars	Amounts Rs.	Particulars	Amount Rs.
		By Opening Balance	14,000
		By P&L a/c (B/F)	4,000
To Closing Balance	18,000		
	18,000		18,000

During the year the firm has made transfer to General Reserve a/c Rs. 4,000.

P&L a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To General Reserve	4,000	By Op. Profit	16,000
To Dep. on Buildings	4,000		
To Dep. on plant	1,000		
		By Fund for Operation (B/F)	6,000
To Closing Profit	13,000		
	22,000		22,000

Non-Current Assets a/c

Goodwill a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Op. Balance	2,12,000		
		By Closing Balance	2,12,000
	2,12,000		2,12,000

Building a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Op. Balance	40,000	By Dep. (B/F)	4,000
		By Closing Balance	36,000
	40,000		40,000

Plant a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Op. Balance	37,000	By Dep. (B/F)	1,000
		By Closing Balance	36,000
	37,000		37,000

Investment a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Op. Balance	10,000		
To Bank (B/F)	1,000		
		By Closing Balance	11,000
	11,000		11,000

Funds Flow Statement

Particulars	Amount Rs.	Particulars	Amount Rs.
Funds for Operation	6,000	Increase in NWC	5,000
		Investment Purchased	1,000
	6,000		6,000

Illustration : 6

Comparative Balance Sheets of Shravan Ltd. as 30th June 1997 and 30th June 1998 are as follows :

Liabilities	June 30 1997	June 30 1998	Assets	June 30 1997	June 30 1998
Share Capital	70,000	74,000	Cash	9,000	7,800
Debentures	12,000	6,000	Trade Debtors	14,900	17,700
Trade Creditors	10,360	11,840	Stock	49,200	42,700
Reserve for Doubtful debts	700	800	Land	20,000	30,000
Profit & Loss a/c	10,040	10,560	Goodwill	10,000	5,000
	1,03,100	1,03,200		1,03,100	1,03,200

Additional Information :

a) Dividends were paid totalling Rs. 3,500

b) Land was purchased for Rs. 10,000

c) Goodwill written off amounted to Rs. 5,000 and

d) Debenture loan was repaid Rs. 6,000

You are required to prepare cash flow statement.

Solution :

Statement of Changes in Working Capital

	Previous Year	Current year	Effect on working capital	
			Increase	Decrease
	1997	1998	Rs.	Rs.
Current Assets :				
Cash	9,000	7,800	—	1,200
Trade Debtors	14,900	17,700	2,800	—
Stock	49,200	42,700	—	6,500

Current Liabilities :				
Trade Creditors	10,360	11,840	—	1,480
Reserve for Doubtful debts	700	800	—	100
Decrease in NWC			6,480	
Total			9,280	9,280

P & L a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Goodwill written off	5,000	By Op. Profit	10,040
To Dividend paid	3,500		
		By fund for operation (B/F)	9,020
To Net Profit	10,560		
	19,060		19,060

Funds Flow Statement a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
Issue of New Shares	4,000	Repayment of Debentures	6,000
Funds from Operation	9,020	Land Purchased	10,000
		Dividend paid	3,500
	19,500		19,500

Illustration : 7

Following is the condensed Balance Sheet of a Company .

Liabilities	1996 Rs.	1997 Rs.	Assets	1996 Rs.	1997 Rs.
Equity Share Capital	1,50,000	1,53,000	Cash	38,000	42,000
10% Debentures	36,000	36,000	Debtors	21,000	18,000
Creditors	75,000	48,000	Stock	70,000	62,000
P&L A/c	15,000	27,000	Fixed Assets	1,00,000	1,00,000
			Preliminary Exp.	47,000	42,000
	2,76,000	2,64,000		2,76,000	2,64,000

Additional Information :

a) Fixed Assets costing Rs. 12,000 were bought during for 1997 cash.

b) Fixed Assets with original cost of Rs. 4,000 with accumulated depreciation Rs. 1,500, were sold at book value in jan. 1997

c) During 1997, dividends paid were Rs. 3,000. Prepare sources and application of funds statement

Solution :

Statement of Changes in Working capital

	Previous Year	Current year	Effect on working capital	
			Increase	Decrease
	1996	1997	Rs.	Rs.
Current Assets :				
★ Cash	38,000	42,000	4,000	——
★ Debtors	21,000	18,000	——	3,000
★ Stock	70,000	62,000	——	8,000
Current Liabilities :				
★ Sundry Creditors	75,000	48,000	27,000	——
Increase in NWC				20,000
Total			31,000	31,000

Fixed Assets a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	1,00,000	By Bank (4000-1500)	2,500
To Bank	12,000	By Depreciation	9,500
		By Closing Balance	1,00,000
	1,12,000		1,12,000

Preliminary Expenditure a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Balance	47,000		
		By Closing Balance	42,000
		By P&L a/c	5,000
	47,000		47,000

P & L a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
To preli. Exp. Written off	5,000	By op. Profit	15,000
To Dep. on Fixed Assets	9,500		
To Dividends Paid	3,000		
		By Fund for operation (B/F)	29,500
To Closing Profit	27,000		
	44,500		44,500

Funds Flow Statement a/c

Particulars	Amount Rs.	Particulars	Amount Rs.
Issue of Eq. Share Capital	3,000	Purchase of Fixed Assets	12,000
Funds from Operation	29,500	Dividends Paid	3,000
Sale of Fixed Assets	2,500	Increase in W. Capital	20,000
	35,000		35,000

2.12 Summary

Funds Flow Analysis can be termed as the detailed analysis of the net working capital position of the firm and this analysis helps management to administer and control the amount of total working capital. Moreover, such analysis can greatly facilitate a critical review of the liquidity position. If liquidity position has deteriorated over time, it can motivate the management to identify the problem areas and initiate corrective steps.

2.13 Keywords :

Funds	:	The term funds means working capital i.e. the excess of current assets over current liabilities.
Flow of Funds	:	The term flow means movement and includes both "Inflow" and "outflow"
Working Capital	:	Current Assets – Current Liabilities

2.14 Self - Assessment Questions and Excercises

1. What is Funds Flow Statement? Discuss the importance of Funds Flow Statement as a tool of Financial Analysis ?
2. Explain the meaning, importance and objectives of funds flow statement.
3. Explain briefly the steps to be followed in preparing a funds flow statement.
4. What are the limitations of funds flow statement. ?
5. What do you understand by the term working capital and the concept of "Funds" ? How is funds flow statement drawn under this concept.

6. The following is the comparative Balance sheets of A Ltd. for the years ending 31st December 1991 and 1992. Prepare a schedule of changes in working capital and a fund flow statement.

Liabilities	1991 Rs.	1992 Rs.	Assets	1991 Rs.	1992 Rs.
Capital	8,000	8,500	Land	5,000	5,000
Profit and Loss a/c	1,450	2,450	Plant	2,400	3,400
Creditors	900	500	Debtors	1,650	1,950
Loan	—	500	Stock	900	700
			Cash	400	900
	10,350	11,950		10,350	11,950

7. The following are the summaries of the Balance Sheets of Essar Ltd. as at 31st December 1991 and 31st December 1992.

Liabilities :	Rs.	Rs.
Share Capital	20,00,000	26,00,000
Reserves	5,00,000	5,00,000
P&L a/c	3,96,900	4,12,200
Creditors	3,95,000	4,11,350
Bills payable	3,37,800	1,15,250
Bank Overdraft	5,95,100	—
Provision for Tax	4,00,000	5,00,000
	46,24,800	45,38,800
Assets :		
Goodwill	—	2,00,000
Plant and Machinery	11,29,500	11,62,000
Buildings	14,85,000	14,42,500
Stocks	11,10,400	9,73,700
Sundry Advances	23,150	7,350
Debtors	8,51,750	7,26,250
Cash at bank	25,000	27,000
	46,24,800	45,38,800

The following additional information is obtained from the general ledger.

a) During the year ended 31st December 1992 an interim dividend of Rs. 2,60,000 was paid.

b) The assets of another company were purchased for Rs. 6,00,000 payable in fully paid shares of the company. These assets consisted of stock Rs. 2,16,400 machinery Rs. 1,83,600 and Goodwill Rs. 2,00,000. In addition, sundry purchases of plant were made totalling Rs. 56,500.

c) Income Tax paid during the year amounted to Rs. 2,50,000

d) The net profit of the year before tax was Rs. 6,25,300.'

You are required to prepare a statement showing the sources and application of funds for the year 1992 and a schedule setting out changes in working capital.

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8. Prepare :

a) Statement of changes in working capital and

b) Funds Flow statement from the following Balance sheets :

Balance Sheet

Liabilities	1996 Rs.	1997 Rs.	Assets	1996 Rs.	1997 Rs.
Share Capital Equity	40,000	50,000	Goodwill	10,000	8,000
7% Preference	20,000	10,000	Buildings	20,000	15,000
General Reserve	4,000	6,000	Plant	18,000	28,200
Capital Reserve	——	5,000	Investments	2,000	7,000
Profit & Loss A/c	3,600	5,400	Stock	17,000	15,600
Proposed Dividend	5,600	7,800	Debtors	15,000	21,600
Sundry Creditors	5,000	10,600	Cash	3,400	5,600
Outstanding Exp.	3,600	1,200	Preliminary Exp.	2,000	1,400
Taxation provision	5,600	6,400			
	87,400	1,02,400		87,400	1,02,400

1) Depreciation on Plant for the year 1997 is Rs. 3,600.

2) A part of building is sold. The profit is transferred to capital Reserve

3) A part of the plant was sold in Jan. 1997 for Rs. 2,400. Its book value was Rs. 3,000

4) An interim dividend is paid in 1997 Rs. 2,000.

(M.Com Final March, 1999 /AFM/ANU)

9. Prepare a Funds Flow Statement of INDRAJA BUSINESS CORPORATION from the following :

Balance Sheet as at 1st January and 31st December 1997

	January 1, 1997 Rs.	December 31, 1997 Rs.
Cash and Bank	40,000	44,400
Accounts Receivable	10,000	20,700
Inventories	15,000	15,000
Land	4,000	4,000
Business Premises	20,000	16,000
Plant & Equipment	15,000	17,000
Accumulated depreciation	(5,000)	(2,800)
Patents and trade marks	1,000	900
Total Assets	1,00,000	1,15,200
Current liabilities	30,000	32,000
Bonds payable	22,000	22,000
Bonds payable discount	(2,000)	(1,800)
Capital Stock	35,000	43,500
Retained Earnings	15,000	19,500
Total Liabilities	1,00,000	1,15,200

Additional Information :

a) Income for the period Rs. 10,000

b) A building that costs Rs. 4,000 and which had a book value of Rs. 1,000 was sold for Rs. 1,400

c) The depreciation charge for the period was Rs. 800

d) There was a issue of capital stock for Rs. 5,000

e) Cash dividends of Rs. 2,000 and bonus shares of Rs. 3,500 were declared.

(M.Com Final March, 1998 /AFM/ANU)

10. The following are the summarised balance sheet of Videocon India Ltd., as at 31st December 1990 and 1991

Liabilities	31-12-90 Rs.	31-12-91 Rs.	Assets	31-12-90 Rs.	31-12-91 Rs.
Share capital Equity Shares	1,00,000	1,30,000	Goodwill	---	10,000
General Reserve	25,000	25,000	Land & Buildings	56,475	58,100
Profit & Loss A/c	19,845	20,610	Plant & Machinery	74,250	72,125
Sundry Creditors	19,750	20,568	Closing stock	55,520	48,685
Bills Payable	16,890	5,762	Trade Debtors	43,745	36,680

Bank Overdraft	29,755	—	Cash at bank & hand	1,250	1,350
Provision for Taxation	20,000	25,000			
	2,31,240	2,26,940		2,31,240	2,26,940

Additional Information :

a) During the year Income Tax was paid Rs. 12,500 and interim dividend 13,000

b) Videocon India Ltd., purchased the assets of Sinclair Limited by issuing Rs. 30,000 fully paid shares. The assets of Sinclair Ltd., are plant and Machinery Rs. 9,000, inventory 11,000.

c) Other Plant purchased during the year Rs. 2,800.

You are required to prepare funds flow statement for the year 1991.

(M.Com Final March, 1992 /AFM/ANU)

11. The Financial position of M/s. X and Y on January 1st and December 31st 1986 was as under

Liabilities	1 January Rs.	31 Dec Rs.	Assets	1 January Rs.	31 Dec Rs.
Current Liabilities	36,000	40,600	Cash	4,000	3,600
Loan from M/s X	—	20,000	Debtors	35,000	38,000
Loan from Bank	30,000	25,000	Stock	25,000	22,000
Due to Hire Purchase	—	20,000	Land	20,000	30,000
Capital	1,48,000	1,54,000	Buildings	50,000	55,000
			Machinery	80,000	86,000
			Delivery Van	—	25,000
	2,14,000	2,59,600		2,14,000	2,59,600

The van was purchased in December, 1986 on Hire purchase basis – a payment of Rs. 5,000 was made immediately and the balance is to be paid in 20 monthly installments of Rs. 1000 each together with interest at 12% p.a. During the year the partners withdraw Rs. 26,000 for personal expenses. The provision for depreciation against machinery as on 1-1-86 was Rs. 27,000 and on 31-12-86 Rs. 36,000

You are required to prepare the cash flow statement. Show also the fund flow statement.

(M.Com Final March, 1997 /AFM/ANU)

12. The following are the summaries of the Balance Sheets of Aravind Ltd., as at 31st December, 1995 and 1996.

Liabilities	1995 Rs.	1996 Rs.	Assets	1995 Rs.	1996 Rs.
Share Capital	2,00,000	2,50,000	Land & Buildings	2,00,000	1,90,000
General Reserve	50,000	60,000	Plant	1,50,000	1,74,000
Profit & Loss A/c	30,500	30,600	Stock	1,00,000	74,000
Bank Loan	70,000	——	Debtors	80,000	64,200

Creditors	1,50,000	1,35,200	Cash	500	600
Provision for Taxation	30,000	35,000	Bank	—	8,000
	5,30,500	5,10,800		5,30,500	5,10,800

Additional Information :

a) Depreciation was written off on plant Rs. 14,000 in 1996.

b) Dividend of Rs. 20,000 was paid during 1996

c) Income Tax provision made during the year was Rs. 25,000

d) A piece of land has been sold during the year at cost.

Prepare a statement of sources and application of funds for the year 1996 and a schedule of changes in working capital.

13. The following are the summarized Balance Sheets of Progress and Fast Ltd. as on 31st December 1987 and 31st December 1988.

	31st December	
Assets :	Rs.	Rs.
Goodwill	—	2,00,000
Plant and Machinery	11,29,500	11,62,000
Buildings	14,85,000	14,42,500
Stock	11,10,400	9,73,700
Sundry Advances	23,150	7,350
Sundry Debtors	8,51,750	7,26,250
Cash at Bank	25,000	27,000
	46,24,800	45,38,800
	1987	1988
Liabilities :	Rs	Rs
Share Capital	20,00,000	26,00,000
Reserves	5,00,000	5,00,000
Profit & Loss a/c	3,96,900	4,12,200
Sundry Creditors	3,95,000	4,11,350
Bills Payable	3,37,800	1,15,250
Bank Overdraft	5,95,100	—
Provision for Tax	4,00,000	5,00,000
	46,24,800	45,38,800

The following additional information is obtained from the General ledger

a) An interim dividend of Rs. 2,60,00 was paid during the year ended 31st December 1988

b) The assets of another company were purchased for Rs. 6,00,000 payable in fully paid shares of the company. These assets consisted of stock Rs. 2,16,400, Machinery Rs. 1,83,600 and Goodwill Rs. 2,00,000. In addition, Sundry purchase of plants were made totalling Rs. 56,500

c) Income tax paid during the year amounted to Rs. 2,50,000

d) Net profit for the year before tax was Rs. 6,25,300

You are required to prepare a statement showing sources and uses of Funds for the year 1988.

(M.Com Final March, 1990 /AFM/ANU)

14. The financial position of M/s. A and B on January 1987 and 31st December 1987 was as follows :

	1st January Rs.	31st December Rs.
Cash	4,000	3,600
Debtors	35,000	38,400
Stock	25,000	22,000
Land	20,000	30,000
Buildings	50,000	55,000
Machinery	80,000	86,000
	2,14,000	2,35,000

	1st January Rs.	31st December Rs.
Current Liabilities	36,000	41,000
Mrs. A's Loan	30,000	20,000
Loan from Bank	30,000	25,000
Capital	1,48,000	1,49,000
	2,14,000	2,35,000

During the year, the partners withdrew Rs. 26,000 for domestic expenditure. The provision for depreciation against machinery as on 1-1-1987 was Rs. 27,000 and on 31-12-1987 was Rs. 36,000

You are required to prepare the funds flow statement.

(M.Com Final March, 1998 /AFM/ANU)

2.15 Suggested Readings :

1. Advanced Accountancy — R.L. Gupta & M. Radhaswamy

2. Advanced Accountancy — S.P. Jain & K.L. Narang

3. Management Accounting & Financial Control — S.N. Maheswari
4. Management Accounting — Khan & Jain
5. Management Accounting — S.N. Maheswari
6. Accounting & Financial Management — Sashi K. Gupta & R.K. Sarma
7. Accounting for managers — G. Prasad & V. Chandrasekhara Rao
8. Management Accounting Tools & Techniques — N. Vinayakam & I.B. Sinha
9. Management Accounting — J. Made Gowda

Dr. P. L. Narasimha Rao

Lesson – 3

RATIO ANALYSIS

Objectives :

- To know the importance of Ratio Analysis
- To understand the Meaning and Definition of Ratio Analysis
- To know the Classification of Ratios.
- To know how to calculate various ratios from the available data

Structure :

3.1. Introduction

A successful physician, before prescribing medicines to his patients, makes a thorough diagnosis through several required and essential tests. A conclusion can be derived based on these medical tests including the use of certain tools viz. stethoscope, the Dharmameter, blood report, E.C.G. etc. Likewise an adroit Financial Manager tries to understand the very standard and position of his business based on various statements, reports and financial analysis.

Indeed, one of the significant and effective steps of accounting is the analysis of financial statements. The very object of this analysis is to understand the importance and also the meaning of the financial data. It helps the manager to know the strength and weakness of business. The following tools are used for a meaningful financial analysis.

- Comparative Statement Analysis.
- Common size statements

- Trend Analysis
- Ratio Analysis
- Fund Flow Analysis
- Cash flow Analysis

3.2. Definition :

The formal definition of ratio is "The indicated quotient of two mathematical expressions". But the operational definition is different. It is the "relationship between two financial values". To make it clear the word relationship stands for a financial ratio which is the result of two mathematical values.

Ratio is simply an expression of one number in terms of another. It may also be defined as the relationship or proportion that one amount bears to another, the first number being the numerator and the latter denominator. Another explanation of the ratio may be the relation of the latter to the earlier amount and computed by dividing the amount for the latter date or period by the amount of the earlier date of period.

3.3. Classification of Ratios :

Classification of Ratios

Ratio analysis is a powerful tool for studying the financial position of the organisation. There are different persons who are interested in assessing the ratio analysis in different ways.

1. Owners (shareholders) are interested in knowing the profitability of the firm and long term solvency of the firm.
2. Suppliers of goods are interested in knowing the liquidity position of organisation.
3. Government is interested in knowing the Equity of organisation and effective utilisation of firm's capacity.
4. Management is interested in knowing the profitability and efficiency in financial settlements.

Ratios can be classified in different ways :

1. Classification on the basis of source of data :

Traditional Classification

a) Profit and Loss Account Ratios

b) Balance sheet Ratios

c) Combined Ratios

2. Classification According to Need :

★ To know the profits (profitability Ratio)

★ To know the long term financial position (solvency ratio)

★ To know the efficiency and effectivity utilization(Turnover Ratio)

★ To know the short term financial position (Liquidity Ratio)

a. Profitability Ratios

Profitability Ratios

Category/Name of the Ratio	Formula	Significance
Earnings Ratio :		
1) Gross Profit ratio	$\frac{\text{Gross Profit}}{\text{Sales}} \times 100$	This Ratio tells us the result from trading Activity (from Buying And Selling) To Know the Operating Efficiency of the Organisation
2) Net Profit Ratio	$\frac{\text{Net Profit}}{\text{Sales}} \times 100$	It indicates the final result to organisation and overall efficiency of the organisation
3) Operating Profit Ratio	$\frac{\text{Operating profit}}{\text{Sales}} \times 100$	This ratio speaks of the operational performance of the organisation and refer the managerial efficiency of the firm.
Investment Ratios :		
a) Earning per share	$\frac{\text{Amounts available to Equity Shareholders}}{\text{No. of Equ. Shares}}$	It reveals the profit available to ordinary shareholders
b) Dividend Yield Ratio	$\frac{\text{Dividend per share}}{\text{Market Value per share}}$	It is very significant to the new investors
c) Dividend per Ratio	$\frac{\text{Dividend payable}}{\text{No. of ordinary shares}}$	It indicates the amount of dividend to be paid to ordinary share holders
d) Return on investment	$\frac{\text{Return}}{\text{Investment}} \times 100$	
Expenses Ratios :		
4) Cost of goods sold ratio	$\frac{\text{Cost of goods sold}}{\text{Sales}} \times 100$ Cost of goods sold - Op. Stock + purchases Manufacturing Exp. - cl. stock)	These ratios make us know the relationship between various expenses and sales. The lower the ratio, the greater is the profitability and higher the ratio, the lower is the profitability

5) Operating Expenses Ratio	$\frac{\text{Operating Expenses}}{\text{Sales}} \times 100$ Operating Expenses = (Office Add. Exp + Selling Distribution Exp. + Financial Exp)	
i) Office & Administration Expenses Ratio	$\frac{\text{Office \& Admn. Exp.}}{\text{Sales}} \times 100$	
ii) Selling & Distribution Expenses Ratio	$\frac{\text{Selling \& Distr. Exp}}{\text{Sales}} \times 100$	
iii) Financial Exp. Ratio	$\frac{\text{Financial Expenses}}{\text{Sales}} \times 100$	
6) Operating Ratio	$\frac{\text{Cost of goods sold + Operating Exp.}}{\text{Sales}} \times 100$	Operating ratio tells us the efficiency of the conduct of business operation. A high ratio means the operating expenses are high and margin is less.
7) Non-Operating Expenses Ratio	$\frac{\text{Non - Operating Exp.}}{\text{Sales}} \times 100$	Therefore the lower the ratio the higher is the position.

b. Liquidity Ratios

Liquidity (or) Solvency Ratio

Category/Name of the Ratio	Formula	Significance
For solvency a) Current Ratio	$\frac{\text{Current Assets}}{\text{Current liabilities}}$ Note : 1) Current Assets : cash in hand + cash at bank + sundry debtors + B/R + stock + prepaid exp. + short term Investment etc., 2) Current Liabilities Sundry Creditors + B/P + OD + outstanding Exp.	This ratio explains whether the firm is able to meet short term obligations or not. The higher ratio is an indication of the soundness of the organization. The Current Ratio tells us the ability of the firm to meet its short term obligation

b) Liquidity Ratio	$\frac{\text{Liquid Assets}}{\text{Current Liabilities}}$	The liquid ratio is very helpful in measuring liquidity position and firms capacity to pay off short term obligation. The liquid ratio is a measure of liquidity.
c) Absolute Liquidity Ratio	$\frac{\text{Liquid Assets} - \text{Debtors}}{\text{Liquid Liabilities}}$ Liquidity Liabilities (C.L – Bank Overdraft)	It gives a more meaningful measure of liquidity. The satisfactory ratio will be 1 : 1 i.e. Rs. 1 worth of absolute liquid assets are sufficient for Rs. 1 worth of current liabilities.
d) proprietors Ratio i) Fixed Assets to Proprietors funds	$\frac{\text{Fixed Assets}}{\text{Proprietors funds}}$	This ratio establishes the relationship between the fixed assets and proprietors funds. Proprietors funds ratio indicates the general financial strength of a firm.
ii) Total Assets to Proprietary funds	$\frac{\text{Total Assets}}{\text{Proprietory Funds}}$	
iii) Current Assets to Proprietor funds	$\frac{\text{Total Current Assets}}{\text{Proprietory Funds}}$	
e) Capital Gearing ratio	$\frac{\text{Equity Share Capital}}{\text{Fixed interest - bearing Securities}}$	
f) Debt Equity Ratio	$\frac{\text{Debt or External Equities}}{\text{Equity or Internal Equities}}$	It is one of the important structural ratios and establishes relationship between debt capital and equity capital. Debt Capital is a cheaper source of finance. This ratio helps us in assessing the risk factor that arises in the use of debt capital in capital structure.

C. Turnover Ratios :

Turnover Ratios

Category/Name of Ratio	Formula	Significance
1. Turnover Ratios		
a) Stock Turnover Ratio	$\frac{\text{Cost of goods sold}}{\text{Average stock}}$	It reveals the movement of stock in the organisation. If the no. of times is more it indicates the fast movement of stock. If the no. is less it indicates slow movement of stock in the organisation.
b) Debtors Turnover Ratio	$\frac{\text{Credit Sales}}{\text{Avg. Debtors \& Bills receivable}}$	This ratio gives a picture of how many times debtors made payments to the firm.
c) Creditors Turnover Ratio	$\frac{\text{Credit purchases}}{\text{Avg. Creditors \& Bills Payable}}$	This ratio focusses light on how many times credit facility is allow to the firm. The lower the ratio the higher the facility of credit
d) Working capital Turnover Ratio	$\frac{\text{Sales (or) cost of Sales}}{\text{Working Capital}}$	To know the relationship between working capital and sales.
e) Fixed Assets Turnover Ratio	$\frac{\text{Sales (or) cost of Sales}}{\text{Fixed Assets}}$	To know the effective utilisation of fixed assets in production
f) Total assets Turnover Ratio	$\frac{\text{Sales}}{\text{Capital Employed}}$	To test the managerial efficiency and business performance. This ratio measures how efficiently assets are employed overall.

3.4. Uses of Ratio Analysis :

The ratio analysis is not only useful for the Financial Managers but also to different persons at different levels. viz. the supplier, the banker, the investors, the shareholders and the fellow business men. Because based on this analysis one can have a bird's eye view of the financial condition of a firm.

It is an important technique of financial analysis by which the process of determining and presenting the relationship of single item or group of items can be made effectively.

It is a powerful tool to forecast the company position in the years to come because the ratios are calculated for a number previous years and the trend of the company or firm can be perceived.

It is highly useful in locating the weak spots, trends, aspects with overall performance of the firms so that this weakness in the financial structure can be connected by taking up suitable remedies.

These statements are to be thoroughly studied before decision making. As a matter of fact the information in the financial statement cannot give such insight as provided by the ratio analysis.

This analysis helps in co-ordinating which is very much required in business management.

Effective control of the business is possible also when ratio analysis is understood. The actuals and standards can be compared for the purpose of control.

3.5. Limitations :

Limitations of Ratio Analysis

- ★ Though a powerful tool of financial management, ratio analysis cannot convey the real picture because of limited use of single ratio.
- ★ Based on the past ratios future of a company can be estimated.
- ★ Lack of adequate standards speaks of difficulty that arises in the interpretation of ratios.
- ★ Ratio analysis is not an end. It is only a mean. Different persons interpret the same ratios in different ways.
- ★ As the price level changes, the interpretation of ratios becomes invalid.
- ★ Changing in accounts procedure by the firm makes ratio analysis confusing and misleading, because different firms have their own accounting procedures.
- ★ Ratio Analysis is only a quantitative analysis but not a qualitative analysis.

3.6. Problems and Solutions :

The following is the proforma of Revenue statement.

Revenue Statement

Particulars		Rs	Rs.
Gross Sales		xxx	
Less : Sales returns		xxx	
		xxx	xxx
Net Sales	xxx		
Less : Cost of goods sold :			
Opening stock	xxx		
Add: Purchases	xxx		
Manufacturing expenses	xxx		
	xxx		
Less : Closing Stock	xxx		xxx
Gross Profit			xxx

Less : Operating expenses :			
Office and administration expenses		xxx	
Selling and distribution expenses		xxx	
Financial expenses		xxx	xxx
Operating Profit			xxx
Add : non - operating incomes :			
Dividend on shares	xxx		
other incomes	xxx		xxx
less : non - operating expenses / losses :			xxx
Fire accident losses		xxx	
Discount on issue of shares		xxx	xxx
Earnings before interest and tax			xxx
Less : Interest on long term loans			xxx
Profit before tax			xxx
Less : Provision for income tax			xxx
Profit after tax			xxx
Less : Dividend paid			xxx
Retained earnings			xxx

Illustration 1 :

The following is the revenue statement of Sai Traders Ltd., for the year ended 31st Dec 2003.

Sales			50,000
Less : Cost of goods sold			
Opening stock	7,625		
Purchases	32,225		
		39,850	
Less : Closing Stock		9,850	
			30,000
Gross Profit			20,000
Less : Operating Expenses			
Selling & Distribution Expenses		2,200	
Administration Expenses		9,800	
Financial Expenses		1,000	

		13,000
	Opening Profit	7,000
Add : Non – operating income		1,200
		8,200
Less : Non – operating expenses		400
	Net Profit	7.800

Calculate 1) Gross Profit Ratio 2) Operating Ratio

3) Operating Profit Ratio 4) Net Profit Ratio

Solution :

a) Gross Profit Ratio :

$$= \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$= \frac{20,000}{50,000} \times 100 = 48\%$$

b) Operating Ratio

$$= \frac{\text{Cost of goods sold} + \text{Operating Expenses}}{\text{Sales}} \times 100$$

$$= \frac{30,000 + 13,000}{50,000} \times 100 = 86\%$$

c) Operating Profit Ratio

$$= \frac{\text{Operating Profit}}{\text{sales}} \times 100$$

$$= \frac{7000}{50,000} \times 100 = 14\%$$

d) Net Profit Ratio

$$= \frac{\text{Net Profit}}{\text{Sales}} \times 100$$

$$\frac{7800}{50000} \times 100 = 15.6\%$$

Illustration 2 :

Following is the profit and loss account of Electric Matrix Ltd., for the year ended 31st December 1995.

Particulars	Rs.	Particulars	Rs.
To Opening Stock	1,00,000	By Sales	5,60,000
Purchases	3,50,000	Closing stock	1,00,000
Wages	9,000		
Gross Profit c/d	2,01,000		
	6,60,000		6,60,000
To Administrative Expenses	20,000	By Gross Profit b/d	2,01,000
Selling & distribution exp.	89,000	Interest on investments (outside business)	10,000
Non-operating expenses	30,000	Profit on sale of investments	8,000
Net profit	80,000		
	2,19,000		2,19,000

You are required to calculate :

- a) Gross profit ratio
- b) Net Profit Ratio
- c) Operating Ratio
- d) Operating Profit Ratio
- e) Administrative Expenses Ratio

Solution :

a) Gross Profit Ratio

$$= \frac{\text{Gross profit}}{\text{Sales}} \times 100 = \frac{2{,}01{,}000}{5{,}60{,}000} \times 100 = 35.89\%$$

b) Net Profit Ratio

$$= \frac{\text{Net Profit}}{\text{Sales}} \times 100 = \frac{80{,}000}{5{,}60{,}000} \times 100 = 14.28\%$$

c) Operating Ratio

$$= \frac{\text{Cost of goods sold + Operating Expenses}}{\text{Sales}} \times 100$$

Cost of goods sold = sales – gross profit = 5,60,000 – 2,01,000 (or)

Cost of goods sold

Opening stock	=	1,00,000
(+) purchases	=	3,50,000
(+) Wages	=	9,000
		4,59,000
(-) Closing Stock	=	1,00,000
Cost of goods sold	=	3,59,000

$$= \frac{3{,}59{,}000 + (20{,}000 + 89{,}000)}{5{,}60{,}000} \times 100 = 83.57\%$$

d) Operating Profit Ratio

$$= \frac{\text{Operating Profit}}{\text{Sales}} \times 100$$

Operating expenses :

Administrative Expenses	=	20,000
Selling & Distribution Expenses	=	89,000
		1,09,000

Note :

Operating Profit = Sales – (cost of goods sold + Operating Expenses)

= 5,60,000 – (3,59,000 + 1,09,000)

= 5,60,000 – 4,68,000 = 92,000

$$= \frac{92{,}000}{5{,}60{,}000} \times 100 = 16.42\%$$

e) Administrative Expenses Ratio

$$= \frac{\text{Administrative Expenses}}{\text{Sales}} \times 100$$

$$= \frac{20{,}000}{5{,}60{,}000} \times 100 = 3.57\%$$

Illustration 3 :

Compute profitability ratios from the following data :

Particulars	1999 Rs.	2000 Rs.
Sales	1,50,000	2,00,000
Gross Profit	40,000	80,000
Office Administrative Expenses	12,000	14,000
Net Profit (EBT)	18,000	56,000
Total investment	5,00,000	8,00,000
Equity 20,000 shares of Rs. 10/- each	2,00,000	2,00,000
Reserve	10,000	40,000
Tax rate	40%	40%

Solution :

a) Gross Profit Ratio

$$= \frac{\text{Gross profit}}{\text{Sales}} \times 100$$

$$1999 = \frac{40{,}000}{1{,}50{,}000} \times 100 = 26.66\%$$

$$2000 = \frac{80{,}000}{2{,}00{,}000} \times 100 = 40\%$$

b) Net Profit Ratio

$$= \frac{\text{Net Profit}}{\text{Sales}} \times 100$$

$$1999 = \frac{18{,}000}{1{,}50{,}000} \times 100 = 12\%$$

$$2000 = \frac{56{,}000}{2{,}00{,}000} \times 100 = 28\%$$

c) Return on Investment

$$= \frac{\text{Return}}{\text{Investment}} \times 100$$

$$= \frac{10{,}800}{5{,}00{,}000} \times 100 = 21.6\%$$

$$= \frac{33{,}600}{8{,}00{,}000} \times 100 = 4.2\%$$

Working Note

	1999	2000
EBT	18,000	56,000
Less : Tax 40%	7,200	22,400
	10,800	33,600

Illustration 4 :

The capital of VSP ltd., is as follows :

	Rs.
9% preference shares of Rs. 10 each	3,00,000
Equity shares of Rs. 10 each	8,00,000
Total	11,00,000

The accountant has provided the following information :

Profit (after tax at 60%) is Rs. 2,70,000 ; Depreciation Rs. 60,000. Equity dividend paid 20%, market price of equity share Rs. 40.

With the help of the above information calculate the following :

a) Dividend yield on equity shares.

b) Cover for the preference and equity shares

c) earnings per equity shares

d) price – earning ratio.

Solution :

Profits after Taxation (at 60%)	=	2,70,000
Less : Preference dividend (3,00,000x9%)	=	27,000
Earnings available to equity shareholders	=	2,43,000

a) Dividend yield equity shares = $\frac{\text{Dividend per share}}{\text{Market price per share}} \times 100$

Dividend per share = equity share per value x rate of dividend

$\therefore 10 \times \frac{20}{100} = \text{Rs. } 2/-$

Market price of equity share = Rs. 40/-

$\therefore$ Dividend yields on equity shares $= \frac{2}{40} \times 100 = 5\%$

b) Computation of Dividend coverage to preference share holders :

$$\frac{\text{Profits after taxation}}{\text{Preference dividend}} = \frac{2,70,000}{27,000} = 10 \text{ times}$$

2) Dividend coverage to Equity share holders :

$$\frac{\text{Profits after taxation} - \text{Preference dividend}}{\text{Equity Dividend}}$$

Note :

Equity Dividend = Equity share capital value x rate of dividend

= 80,000 x 20% = 1,60,000

$$\frac{2,43,000}{1,60,000} = 1.5 \text{ times}$$

c) Earnings per equity share :

$$\frac{\text{Amount avalibility equity shareholders}}{\text{No. of equity shares}}$$

$$= \frac{2,40,000}{80,000} = 3.04$$

d) Price Earning Ratio :

$$\frac{\text{Market price per share}}{\text{Earnings per share}} = \frac{40}{30.4} = 13.1\%$$

Illustration 5 :

The following information is supplied sales Rs. 4,50,000/-, cost of goods sold Rs. 1,50,000, office administration overheads Rs. 50,000, Interest Rs. 20,000, Corporate tax 40%, equity shares 40,000 of Rs. 10/- each 8%, preference shares of Rs 50/- each 2000 shares. Calculate EPS, DPs (50% payout ratio) P/E ratio (MPS = Rs. 15/-).

Income Statement

Particulars	Rs.	Rs.
Sales		4,50,000
Less : Cost of goods sold		1,50,000
	Gross Profit =	3,00,000
Less : Office Administration Expenses		50,000
	Earnings before interest & tax =	2,50,000
Less : Interest		20,000
		2,30,000
Less : income tax (2,30,000 x 40/100)		92,000
	Earnings after taxation	1,38,000
Less : Preference Dividend (1,00,000 x 8/100)		8,000
Earnings availability Equity shareholders		1,30,000

Solution :

a) Calculation of EPS : (Earning per share) :

$$\text{Earning per share} = \frac{\text{Earnings availability to equity shareholders}}{\text{No. of equity shares}}$$

$$= \frac{1,30,000}{40,000} = 3.25$$

b) Calculation of Price Earnings Ratio :

$$\text{Price Earning Ratio} = \frac{\text{Market Price per share}}{\text{Earnings per shares}} = \frac{15}{3.25} = 4.6\%$$

c) Calculation of DPS = (dividend per share)

$$\text{Dividend per share} = \frac{\text{Dividend paid to share holders}}{\text{No. of equity shares}}$$

Earnings availability equity share holders	=	1,30,000
Pay out (50%)	=	65,000
Retained Earnings		65,000

$$\text{DPS} = \frac{65,000}{40,000} \; 1.62$$

Illustration 6 :

From the following information calculate CR.

Current assets (CA) = 2.50.000

Current liabilities (CL) = 1.00.000

$$\text{* Current Ratio} = CR = \frac{CA}{CL} = \frac{2.50.000}{1,00,000} = 2.5:1$$

* Working capital means the excess of current assets over current liabilities

* Working capital = CA – CL =2,50,000 – 1.00,000 = 1,50,000

2) Quick Ratio (or Liquid Ratio)

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Stock}}{\text{Current liabilities}}$$

(or)

$$\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

Note : Liquid Assets means Current Assets – stock

Illustration 7 :

Ex :

From the following information calculate

a) CA b)CL c) Inventory

CR = 2.5, QR = 1.5, W.R. = 90.000

$$CR = \frac{CA}{CL} = CR = \frac{2.5x}{1x} =$$

W.C = 2.5x – 1 x

90,000 = 1.5x

$$x = \frac{90,000}{1.5} = 60,000 \text{ (CL))}$$

CA = 60,000 x 2.5 = 1,50,000 (CA)

$$Q.R. = \frac{CA - Stock}{CL} = 1.5 = \frac{1,50,000 - x}{60,000} =$$

= 90,000 = (1,50,000 – x) = (90,000 – 1,50,000) = - x

+ x = + 60,000 (stock)

3) Absolute Liquid Ratio (or) Cash Ratio :

$$\text{Absolute Liquid Assets} = \frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$$

Note 1 : Absolute Liquid Assets = Cash in hand + Cash at Bank + Marketable Securities (or) Temporary investments

4. Proprietary Ratio (Fixed Assets to Proprietary Funds)

$$= \frac{\text{Fixed Assets}}{\text{Proprietory Funds}}$$

Illustration – 8

From the following information you are required to prepare balance sheet of company and statements of proprietary funds.

1) Current ratio 2.5
2) Liquid Ratio 1.5
3) Working Capital 90,000
4) Proprietory Ratio (fixed assets / proprietory funds) 0.75 : 1
5) Reserves and Surplus 1,00,000
6) Bank overdraft 10,000

Assuming that there is no long term liabilities & Fictious Assets

Solution :

a) Calculation of Current assets and current liabilities :

$$CR = \frac{CA}{CL} = \frac{2.5x}{1x}$$

W.C. = CA – CL = 90,000 = (2.5x – 1x)

= 1.5x = 90,000

x = 90,000 / 1.5 = 60,000 (CL)

CA = 2.5 (60,000)

CA = 60,000 / 2.5 = 1,50,000

b) Calculation of Stock

$$\text{Liquid Ratio} = \frac{CA}{CL} = \frac{(CA - \text{Stock})}{CL} = 1.5$$

$$\frac{1.5}{1} = \frac{(1{,}50{,}000 - x)}{60{,}000}$$

90,000 = 1,50,000 – x

x = 1,50,000 – 90,000 = 60,000 (stock)

c) Calculation of fixed assets and proprietory funds

$$\text{Proprietory ratio} = \frac{\text{Fixed Assets}}{\text{Proprietory funds}}$$

$$PR = \frac{FA}{PF} = \frac{0.75x}{1x}$$

Working Note :

B/S (Model)

Liabilities		Assets	
Proprietory Funds	xxx	Fixed Assets	xxx
Current Liabilities	xxx	Current Assets	xxx

(or)

B/S

(1x)	PF	xxx	(1x)	FA	XX	(75x)
	(3,60,000)			WC	xx	(90,000)
		TL			TA	

TL = TA

1x = 0.75x + 90,000

(1x – 0.75x) = 90,000

0.25x = 90,000

x = 3,60,000 (1x = Proprietory funds)

F.A. (Fixed Assets) – 3,60,000 x 0.75 = 2,70,000

a) Balance Sheet of Company

Liabilities		Assets	
Share Capital	2,60,000	Fixed Assets	2,70,000
Reserves & Surplus	1,00,000	Current Assets	90,000
Current Liabilities	60,000	stock	60,000
	4,20,000		4,20,000

b) Statement of proprietory funds

Particulars	Rs.	Rs.	Rs.	Rs.
Proprietory Funds :				
Equity share capital			2,60,000	
Reserves & Surplus			1,00,000	3,60,000
Investment of funds :				
Fixed Assets			2,70,000	
Current assets : stock	60,000			
Liquid assets	90,000	1,50,000		
Less : Current Liabilities :				
Bank overdraft	10,000			
Creditors	50,000	60,000	90,000	3,60,000

Illustration 9 :

Extracts from the financial accounts of XYZ Ltd. are given below :

	Year I		Year II	
	Assets	Liabilities	Assets	Liabilities
	Rs.	Rs.	Rs.	Rs.
Stock	10,000	—	20,000	—
Debtors	30,000	—	30,000	—
Cash in hand	20,000	—	15,000	—
Payment in advance	2,000	—	—	—
Sundry Creditors	—	25,000	—	30,000
Bills payable	—	15,000	—	12,000
Bank overdraft	—	—	—	5,000
	62,000	40,000	65,000	47,000

Sales amounts to Rs. 3,50,000 in the first year and Rs. 3,00,000 in the second year.

You are required to comment on the liquidity position of the company.

Calculation of Current Ratio :

Particulars	Year 1 Rs.	Year 2 Rs.
Current Assets :		
★ Stock	10,000	20,000
★ Debtors	30,000	30,000
★ Cash in hand	20,000	15,000
Payment in advance	2,000	——
Total Current Assets	62,000	65,000
Current Liabilities :		
★ Sundry Creditors	25,000	30,000
★ Bills Payable	15,000	12,000
★ Bank Overdraft	——	5,000
	40,000	40,000

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$\text{Year 1} = \frac{62{,}000}{40{,}000} = 1.5 : 1$$

$$\text{Year 2} = \frac{65{,}000}{47{,}000} = 1.4 : 1$$

Comment : The desirable current ratio is 2 : 1. In the first year the current ratio is 1.5 : 1, in second year the ratio is 1.4 : 1. This clearly indicates the solvency position of the firm that was in deterioration.

b) Calculation of Quick Ratio :

$$\frac{\text{Current Assets} - \text{Stock}}{\text{Current liabilities}}$$

$$\text{Year 1} = \frac{62{,}000 - 10{,}000}{40{,}000} = 1.3 : 1$$

$$\text{Year 2} = \frac{65{,}000 - 20{,}000}{47{,}000} = 0.95 : 1$$

Comment : As be accounting norms the liquid ratio shall be 1:1 in the first year the quick ratio is more than 1:1 & in the second year the ratio is 0.95 : 1. This is not a good sign for solvency of the organisation.

c) Calculation of Debtors turn over ratio :

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

$$\text{Year 1} = \frac{3,50,000}{30,000} = 11.66 \text{ times}$$

In Terms of Days

$$\frac{\text{No. of days in a year}}{\text{DTR (times)}} = \frac{365}{11.66} = 31.30 \text{ (31 days)}$$

$$\text{Year 2} = \text{DTR} = \frac{3,00,000}{30,000} = 10 \text{ times}$$

Comment : the debtors turn over ratio is in the first year 11.66 (31 days) in second year 10 times (36.5 days). This is not a good sign for solvency of the organisation.

In Terms of Days

$$\frac{\text{No. of Days in a year}}{\text{DTR (times)}} = \frac{365}{10} = 36.5 \text{ days}$$

Illustration 10 :

The following is the Balance Sheet of Sai Ltd., for the year ending 31st December 2003.

Liabilities	Rs	Assets	Rs.
9% Preference share capital	4,00,000	Goodwill	50,000
Equity share Capital	9,00,000	Hand & Building	7,00,000
8% Debentures	4,00,000	Plant	7,50,000
Long term loan	90,000	Furniture & Fixture	2,00,000
Bills payable	70,000	Bills receivable	75,000
Sundry Creditors	60,000	Sundry Debtors	85,000
Bank overdraft	40,000	Bank balance	50,000
Outstanding Expenses	10,000	Short term investments	30,000
		Prepaid Expenses	6,000
		Stock	24,000
	19,70,000		19,70,000

Calculate : a) Current Ratio b) Liquid Ratio

c) Absolute Liquid Ratio d) Working Capital

Solution :

Calculation of Current Ratio

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

Note : **Current Assets :**

Bills Receivable	75,000
Bank Balance	85,000
Sundry Debtors	50,000
Short – term Investment	30,000
Prepaid Expenses	6,000
Stock	24,000
	2,70,000

Current Liabilities :

Bills Payable	70,000
Sundray Creditors	60,000
Bank overdraft	40,000
Outstanding expenses	10,000
	1,80,000

$$\text{Current Ratio} = \frac{2,70,000}{1,80,000} = 1.5 : 1$$

Calculation of Liquid Ratio :

$$\text{Liquid Ratio} = \frac{\text{Current Assets} - \text{stock}}{\text{Current liabilities}}$$

$$= \frac{2,70,000 - 24,000}{1,80,000} = \frac{2,46,000}{1,80,000} = 1.36 : 1$$

Calculation of Absolute Liquidity Ratio :

$$\text{Absolute Liquid Ratio} = \frac{\text{Absolute Liquid Ratio}}{\text{Current Liabilities}}$$

Note :

Absolute Liquid Assets = Cash in hand + Cash at bank + marketable securities

Absolute Liquid Ratio :

Bank Balance	50,000
Short term investments	30,000
	80,000

$$\text{Absolute Liquid Ratio} = \frac{80,000}{1,80,000} = 0.44 : 1$$

Calculation of working capital :

Working Capital = Current Assets – Current Liabilities

= 2,70,000 – 1,80,000

= 90,000

Turn Over Ratios

a. Turn Over Ratios :

Stock Turnover Ratio = (or) Stock velocity Ratio (or) Inventory Turnover Ratio :

$$\text{(STR) Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

Note 1 :

Cost of goods sold = Opening stock + purchases – closing stock

Note 2 :

Cost of goods sold = Sales – Gross profit

Note 3 :

$$\text{Average Stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

1) If cost of goods sold = 1,00,000, Average stock = 20,000 then what will be the stock turnover ratio ?

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average stock}}$$

$$= \frac{1,00,000}{20,000} = 5\,\text{times}$$

Stock Turnover Ratio can be expressed in different forms.

They are

a) In terms of days

b) In terms of months

c) In terms of weeks

a) In terms of Days

$$\text{Stock Turnover Ratio} = \frac{\text{Number of days in a year}}{\text{STR (times)}}$$

b) In terms of Months :

$$\text{Stock Turnover Ratio} = \frac{\text{No. of Months in year}}{\text{STR (times)}}$$

c) In terms of weeks :

$$\text{Stock Turnover Ratio (weeks)} = \frac{\text{No.of weeks in a year}}{\text{STR (times)}}$$

b) Debtors Turnover Ratio (or) Debtors Velocity Ratio =

$$\text{Debtors Turnover Ratio (DTR)} = \frac{\text{Credit Sales}}{\text{Average Debtors and Bills receivable}}$$

Note 1 :

Credit Sales = Total Sales – Cash Sales

Note 2 :

Average Debtors and Bills Receivable :

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

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

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit sales}}{\text{Avg. Debtors and bills receivable}}$$

Debtors turnover Ratio can be expressed in other forms

They are

1) In terms of days

2) In terms of months

3) In terms of weeks

a) In terms of Days

$$\text{Debtors Turnover Ratio} = \frac{\text{Number of days in a year}}{\text{DTR (times)}}$$

b) In terms of weeks :

$$\text{DTR (weeks)} = \frac{\text{No. of weeks in a year}}{\text{DTR (Times)}}$$

c) In Terms of Months :

$$\text{Debtors Turnover Ratio (months)} = \frac{\text{Number of months in a year}}{\text{DTR (times)}} = \frac{12}{\text{DTR (times)}}$$

c. Creditors Turnover Ratio :

$$\text{Creditors turnover ratio (CTR)} = \frac{\text{Credit purchases}}{\text{Average Creditors and bills payable}}$$

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

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

Creditors Turnover Ratio can be expressed in other forms :

They are :

a) In terms of days

b) In terms of months

c) In terms of years

a) In terms of days

$$\text{Creditors Turnover Ratio (days)} = \frac{\text{Number of days in a year}}{\text{CTR (times)}}$$

6) In Terms of Months

$$\text{Creditors Turnover Ratio (months)} = \frac{\text{Number of months in a year}}{\text{CTR (times)}}$$

c) In Terms of Weeks :

$$\text{Creditors Turnover Ratio (weeks)} = \frac{\text{Number of weeks in a year}}{\text{CTR (times)}}$$

Illustration 10 :

The following are the ratios to the trading activities of the National Traders Ltd.,

Debtors Velocity	=	3 months
Stock Velocity	=	8 months
Creditors velocity	=	2 months
Gross profit Ratio	=	25%

Gross profit for the year Rs. 4,00,000

Closing stock of the year is Rs. 10,000 above the opening stock

Bills Receivable	=	25,000
Bills Payable	=	10,000

Find out : a) sales b) Sundry Debtors c) Closing Stock and d) Sundry Creditors

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Sol :

$$\text{Gross Profit ratio} = \frac{\text{Gross Profit Ratio}}{\text{Sales}} \times 100$$

$$\frac{25}{1} = \frac{4,00,000}{x} \times 100$$

$$25x = 4,00,000 \times 100$$

$$x = \frac{4,00,000 \times 100}{25} = 16,00,000 \text{ (sales)}$$

Sales = 16,00,000

Cost of goods sold	=	Sales – gross profit
	=	16,00,000 – 4,00,000
	=	12,00,000

Stock Velocity = 8 months

$$8\text{months} = \frac{12}{\text{STR (times)}} = \frac{8}{1} = \frac{12}{x}$$

$8x = 12$

$x = 12/8 = 1.5$ times

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Average Stock}}$$

$$\frac{1.5}{1} = \frac{12,00,000}{x} =$$

$$1.5\ x = \frac{12,00,000}{1.5} = 80,000$$

Average Stock = 80,000

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

$$\frac{80,000}{1} = \frac{X}{2}$$

X = 80,000 x 2 = 1,60,000 (Op. + Cl. Stock)

opening stock + closing stock	=	1,60,000
Less : Difference		10,000
		1,50,000

Opening stock	=	75,000	Closing stock	=	75,000
			Add : differ	=	10,000
		75,000			85,000

(closing stock Rs. 10,000/- above the opening stock)

Closing stock = 85,000

Sundry debtors

Debtors velocity = 3 months

$$3\text{ months} = \frac{12}{\text{DTR (times)}}$$

$$\frac{3}{1} = \frac{12}{x}$$

3x = 12

x = 12/3 = 4 times

$$4\text{ times} = \frac{\text{Credit Sales}}{\text{Avg. Debtors and Bills Receivable}}$$

$$\frac{4}{1} = \frac{16,00,000}{x}$$

4x	=	16,00,000		
x	=	16,00,000 / 4	=	4,00,000
Debtors and Bills Receivable			=	4,00,000
Less : Bills Receivable			=	25,000
Sundry Debtors				3,75,000

Sundry Creditors

Creditors velocity 2 months

$$2 \text{ months} = \frac{12}{\text{CTR (times)}}$$

$$\frac{2}{1} = \frac{12}{x}$$

$2x = 12$

$x = 12/2 = 6$ times

$$\text{Creditors Turnover Ratio} = \frac{\text{Credit purchases}}{\text{Avg. Creditors and Bills Receivable}}$$

Purchases = Closing of goods sold + Clo. Stock – Opening stock

= (12,00,000 + 85,000) – 75,000 = 12,10,000

$$\text{CTR} = \frac{12{,}10{,}000}{x} = 6 \text{ times}$$

$$= \frac{12{,}10{,}000}{x} = \frac{6}{1}$$

$6x = 12,10,000$

$x = 12,10,000 / 6 = 2,01,667$

Creditors and Bills payable	=	2,01,667
Less : Bills payable	=	10,000
Sundry creditors	=	1,91,667

3.7. SUMMARY

In order to take proper and immediate decisions regarding the financial efficiency of a concern, one feels the necessity of financial statements. But these statements must suitably be analysed for which ratio analysis is the best tool. The main purpose of this efficient tool is to measure the previous performance of the concern so that the future trends can be projected. It helps in taking relevant steps to overcome limitations if any.

3.8. KEY WORDS :

1.	Ratio	: The relationship between two financial values.
2.	Gross Profit	: Sales – Cost of goods sold.
3.	Equity	: proprietory funds.
4.	Debt	: long term and short term liabilities
5.	Operating expenses	: The aggregate of office and administrative expenses, selling & distribution and financial expenses.
6.	Financial Leverage	: The use of fixed rate of sources along with owners equity is described as financial leverage.

3.9. Self - Assessment Questions and Exercises

1. What is meant by Ratio Analysis ? Explain the importance in the analysis and interpretation of financial data.
2. Explain "the classification of ratio analysis".
3. What are the limitations of Ratio Analysis.
4. Below given are the summarized Balance sheet as on 31st March 1982 and profit and loss a/c. for the year ended 31st March 1992

Balance Sheet as on 31st March 1982

	Rs.		Rs.
Share Capital (Shares of		Fixed Assets	11,00,000
Rs. 10 each)	4,00,000	Liquid Assets	3,00,000
Reserves & Surplus	3,00,000	Current Assets	5,00,000
Overdraft	4,00,000		
Current Liabilities	8,00,000		
	19,00,000		19,00,000

Profit & Loss Account for the year ended 31-03-1982

	Rs.		Rs.
To opening stock	2,00,000	By sales less returns	28,00,000
To Purchases less returns	22,00,000	By Closing stock	3,00,000
To Expenses	3,00,000		
To Net profit	4,00,000		
	31,00,000		31,00,000

You are required to comment on the general financial condition of the company, taking into account relevant ratios.

a) Current Ratio 625 :1 b) Liquid Ratio 0.25 : 1

c) debt Equity Ratio 0.57 : 1 d) Proprietary Ratio 1.57 : 1

e) Gross profit ratio 25% f) Net profit ratio 14.3%

5. The following are the summarised Profit & Loss Account for the year ending 30th June 1983 and the Balance Sheet as on that date.

Profit and Loss Account

		Rs.			Rs.
To Opening stock		99,500	By Sales		8,50,000
To purchases		5,45,250	By Closing Stock		1,49,000
To Incidental Expenses		14,250			
To Gross Profit		3,40,000			
		9,99,000			9,99,000
To Operating Expenses			By Gross profit		3,40,000
Printing & dist.	30,000		By Non Operating Income		
To Administration,	50,000		Interest	3,000	
To Finance	15,500	1.,95,000	Profit on sale of shares	6,000	9,000
Non – operating expenses :					
Loss on Sale of assets		4,000			
Profit		1,50,000			
		3,49,000			3,49,000

Balance Sheet

Liabilities	Rs.	Assets	Rs.
Share Capital (2000 Equity Shares of 100)	2,00,000	Land and Buildings	1,50,000
		Plant & Machinery	80,000
Reserves	90,000	Stock	1,49,000
Profit & Loss A/c	60,000	Sundry Debtors	71,000
Current Liabilities	1,30,000	Cash and Bank Balance	30,000
	4,80,000		4,80,000

From the above calculate the following ratios :

a. Current Ratio (1.92 : 1)

b. Operating Ratio (82.94%)

c. Stock Turnover (4.1 times)

d. Return on Total Resources ( )

e. Turn over of fixed assets and ( )

f. Turn over of Total Assets ( )

6. The summarised Balance sheets of ABC Ltd., as on 31st March, 1980, 1981 and 1982 are given below.

As on 31st March

	1980	1981 (Rs. In lakhs)	1982
Paid up capital	194	194	194
Long Term Borrowings	349	440	503
Current Liabilities	52	54	99
	595	688	796

	1980	1981 (Rs. In lakhs)	1982
Gross Block	355	356	361
Less Depreciation	69	95	122
Net Block	286	261	239
Current Assets	143	199	234
P&L A/c	166	228	323
	595	688	769

From the above particulars compute the following as 31st March 1980,1981 and 1982

a.	Debt Equity Ratio	(12.46)	(negative)	(negative)
b.	Current Ratio	(2.75)	(3.69)	(2.36)
c.	Working Capital	91 lakhs	145 lakhs	135 lakhs
d.	Fixed Assets Ratio	(0.76)	(0.64)	(0.64)

7. Some of the ratios in case of Z. ltd. together with the desirable standards are given below. Assess the efficiency of the company.

	For Z Ltd.	Standard
Current Ratio	1.90	2.50
Gross Profit Ratio	.35	.30

Fixed Expenses Ratio to Sales	.20	.15
Variable Expenses Ratio to Sales	.08	.10
Sales / Capital	4.00	3.00
Fixed Assets / Long Term Funds	.90	1.00
Rate of Return on Capital	20%	15%

8. The following data relates to M/s. Hindu Traders Ltd.

Debtor's Velocity	-	3 months
Creditor's velocity	-	2 months
Stock Velocity	-	8 times
Capital Turnover Ratio	-	2.5 times
Fixed Assets Turnover Ratio	-	8 times
Gross Profit Turnover Ratio	-	25%

Gross profit in the year amounted to Rs. 80,000. There is no long-term loan or overdraft. Reserves and surplus amount Rs. 28,000. Liquid Assets are Rs. 97,333. Closing stock of the year is Rs. 2,000 more than the opening stock. Bills receivables amount to Rs. 5,000 and Bills payable to Rs. 2,000

Find out :

a) Sales (3,20,000)

b) Sundry Debtors (75,000)

c) Sundry Creditors (38,333)

d) Closing Stock (31,000)

e) Fixed Assets, and (40,000)

f) Proprietor's Funds (1,20,000)

9. From the following details, find out :

a) Current assets

b) Current liabilities

c) Liquid Assets

d) Stock

Current Ratio : 2.5

Working capital Rs. 60,000/-

(March / 1993 / Ad. Financial Accounting / AFM / ANU)

a) Current Assets (1,00,000)

b) Current Liabilities (60,000)

c) Liquid Assets (60,000)

d) Stock (40,000)

3.10 SUGGESTED READINGS :

1. Advanced Accountancy — R.L. Gupta & M. Radhaswamy
2. Advanced Accountancy — S.P. Jain & K.L. Narang
3. Management Accounting & Financial Control — S.N. Maheswari
4. Management Accounting — Khan & Jain
5. Management Accounting — S.N. Maheswari
6. Accounting & Financial Management — Sashi K. Gupta & R.K. Sarma
7. Accounting for Managers — G. Prasad & V. Chandrasekhara Rao
8. Management Accounting Tools & Techniques — N. Vinayakam & I.B. Sinha
9. Management Accounting — J. Made Gowda

Dr. P. L. Narasimha Rao

Lesson – 4

VALUATION OF SHARES

OBJECTIVES

The objective of this Unit is to introduce you with the dimensions of valuation of shares and the need for share valuation. Further it is aimed at explaining you various Methods of share valuation along with illustrations for a greater insight and comprehension.

STRUCTURE

4.1. INTRODUCTION

Equity Share Capital is one of the prime sources of Company's capital. Shares of definite value are sold to pool up this capital, which is ownership capital with voting rights and ownership control.

Shares are of two types – Equity shares and preference shares. Preference shares are with preferential rights over the equity shares in getting dividend and capital back. The equity shares claim the residue after payment of dividend to perference shares. If no profit is made available, the equity shares may go without dividend. Equity shares are paid with a return called dividend but such a dividend payment is not obligatory. But dividend, among others, is one of the important determinants of the share price or market value. The market value of a share is determined by various factors both internal and external. But always the market value may not truly represent the intrinsic value of the shares. This necessitates valuation of shares. Moreover, with respect to shares not listed on the stock exchanges specific valuation of shares is needed. But if the shares are listed on the stock exchanges the value of the share is quoted by the market forces and actions of buyers and sellers.

The process of share valuation is influenced by a number of factors like the purpose of valuation, the nature of business of the company concerned, demand and supply of shares, the Government policy, past performance and growth prospects of the company, the economic climate, dividend declared, reserve position of the company, the investor expectations of the dividend yield compared to the yield prevailing in the market in the same industry. The total profits, earning capacity of the company, goodwill etc., also exert a significant influence on the valuation of shares.

4.2. VALUATION OF SHARES – THE NEED

The market value of shares is readily available many a times especially when the shares are listed on the stock exchanges. But it may not always represent the intrinsic worth of the share. This calls for specific valuation of shares. In addition, the need for valuation of a company's share arises in the following circumstances.

(a). In the process of amalgamation and reconstruction of companies, it may be necessary to value the shares of the company absorbed or taken over in order to protect the rights of the share holders;

(b). While advancing a loan against the shares as security;

(c). When a private company is taken over by the Government in the process of nationalization, the compensation to equity holders is based on the valuation of shares;

(d). In the case of disinvestments of Government companies also share valuation is a basis.

(e). The convertible debentures and preference shares when converted to equity, the ratio of equity shares to be issued can be decided only after share valuation.

(f). when a company is dissolved in which the shares are hold jointly by the partners, valuation of shares becomes necessary for proper distribution of the partnership properly i.e., shares proceeds.

(g). For the purpose of gift tax when shares are gifted by one to the other and also for the purpose of estate duty in case of death of a shareholder and for wealth tax of calculation also valuation of shares is necessary.

4.3. METHODS OF VALUATION

Shares can be valued on different basis. These methods of share valuation can be broadly classified into three. These are

1. Net Assets Method
2. Field Method
3. Fair Value Method

Under each method of valuation there are sub methods with minor variations. The tree of methods of share valuation can be presented as below.

1. Net Asset or Intrinsic Value or Break up value method
   - Company as going concern
     - (a). Net Tangible Assets basis (excluding good will)
     - (b). Net Tangible Assests plus an amount of goodwill
   - Company as liquidated
2. Yield basis or earning basis or Earning basis or Market value method
   - (i) Based on rate of return
   - (ii) Based on productivity factor
3. Fair Value or Earning capacity valuation method

As explanation of each method and sub-methods therein is presented below.

4.4. NET ASSETS METHOD

This method of valuation of shares is based on asset valuation. There are two sub approaches in this method.

(i) taking the company as a going concern and

(ii) taking the company as liquidated

(1) Taking the company as a going concern:

under this method there are two approaches

a) Valuation of shares as the basis of net tangible Assets with exclusion of goodwill.

b) Valuation of shares as the basis of net tangible assets plus an amount of goodwill.

(a) Net Tangible Assets basis:

The value of the net tangible assets has to be calculated under this method. The net tangible assets can be arrived at by deducting liabilities from assets and also deducting intangible assets like goodwill, preliminary expenses, etc. Thus, only sound assets are considered.

Net Tangible Assets = (Assets – Liabilities) – intangible Assets

Care should be taken to include non-trading Assets also and all the assets are to be valued at the replacement value i.e. Market value. Moreover, all liabilities whether in books or net be deducted from assets.

If only equity shares fully paid exist in a company the value of a share

$$\frac{\text{Value of Net Tangible Assets}}{\text{No. of Shares}}$$

If both equity and preference shares exist and preference shares have priority as to capital and dividend, first, the preference shares are to be valued at par and paid. Them the net tangible assets are to be divided by the number of equity shares for calculating the value per share.
If there is uncalled capital at the time of valuation, the uncalled share amount be added to the net tangible assets to value the shares fully paid. The valuation of shares for the shareholders who have calls on arrears will be valued as a percentage on their paid up value with the nominal value of shares.

If the participating preference shares are there which stand equally with the equity shares, the value of each share would be in proportion to the paid up value of preference shares and equity shares.

ILLUSTRATION 1:

The summarized Balance Sheet of Sheela & Co as on 31st December 2002 is as below:

LIABILITIES		ASSETS	
4000 shares of Rs.100 each fully paid	4,00,000	Good will	60,000
6% Debentures	2,00,000	Investments	1,30,000
Sundry Creditors	1,50,000	Land & Buildings	1,00,000
1000 5% preference shares of Rs.100 each fully paid	1,00,000	Plant & Machinery	4,00,000
		Stock	90,000
		Sundry Debtors	60,000
		Preliminary Expenses	10,000
	8,50,000		8,50,000

ADDITIONAL INFORMATION:

The investments are revalued at Rs.1,50,000 and the Sundry Debtors will realize Rs.48,000, Plant and Machinery to be depreciated at 8 per cent. The interest on Debentures accrued for 10 months on preference shares divided, is due for the year. Calculate the value of equity shares.

SOLUTION

$$\text{Share Value} = \frac{\text{Net Tangible Assets}}{\text{No. of shares}}$$

Net Tangible Assets = Tangible Assets – Liabilities – Preference share capital and dividend

		Rs.	Rs.
Thus. Net Assets are:			
	Investments		1,80,000
	Land & Buildings		1,00,000
	Plant & Machinery (net of Depreciation)		3,68,000
	Stock		90,000
	Sundry Debtors		48,000
			7,86,000
Less.	Liabilities		
	6% Debentures	2,00,000	
	Interest as Debentures (10 months)	10,000	
	Sundry Creditors	1,50,000	
3,60,000			
			4,26,000
Less.	Preference Share		
	Capital	1,00 000	
	Preference Dividend	5,000	1,05,000
	Net Tangible Assets (value of 4000 equity shares)	3,21,000	3,21,000

Value of an equity share = =Rs.80.25 4,000

(b) NET ASSETS METHOD WITH INCLUSION OF GOODWILL:

Before explaining this method, a word about goodwill and its significance gives a logical insight. Goodwill occupies a place of prominence among all the intangible assets. The value of a company and its fixed assets depends on their ability to earn profits and the goodwill associated with them. This is the rationale behind including the value of goodwill along with Tangible Assets in valuation of shares. In this case the value of goodwill varies with the method of goodwill valuation.

Therefore in this case

$$\text{Net Assets} = \frac{\text{Fixed Assets + Current Assets + Goodwill – Liabilities}}{\text{No of Equity shares}}$$

$$\text{Share value} = \frac{\text{Net Assets Value}}{\text{No. of Equity Shares}}$$

ILLUSTRATION 2

From the following information find out the value of the share:

BALANCE SHEET OF BALU & COMPANY

LIABILITIES	Rs.	ASSETS	Rs.
Share Capital:		Fixed Assets:	
40,000 equity shares of Rs.10		Goodwill	3,80,000
each	4,00,000	Investment	6,00,000
Reserve and Surplus:		**Current Assets:**	
Reserves	5,00,000	Loans and Advances:	
Profit and Loss A/c	60,000	(a) Current Assets	1,00,000
Unsecured Loans	1,60,000	(b) Loans and Advances	60,000
Current Liabilities	40,000	Misc. Expenditure	20,000
	11,60,000		**11,60,000**

For the purpose of valuation of shares, goodwill shall be taken at three years' purchase of the average profit of the last five years. The profits for the last five years are: Rs.1,20,000; Rs.1,40,000; Rs.80,000; Rs.1,00,000; and Rs.1,00,000.

SOLUTION

Calculation of value of Goodwill

Total Profits for 5 Years = Rs.1,20,000 + Rs.1,40,000 + Rs.80,000 +

Rs.1,00,000 + Rs.1,00,000 = Rs.5,40,000

Average profits per year = Rs.5,40,000 / 5 = Rs.1,08,000

Goodwill = 3 Years' purchase of average profits

= 3 x Rs.1,08,000 = Rs.3,24,000

Calculation on value of Equity share

	Rs.	Rs.
Goodwill		3,24,000
Investments		6,00,000
Current Assets		1,00,000
Loans and Advances		60,000
		10,84,000
Less: Unsecured Loans	1,60,000	
Current Liabilities	40,000	
		2,00,000
		8,84,000

Number of Equity Shares = Rs.40,000

Value of Equity Share = Rs.8,84,000/40,000 = Rs.22.10

(ii) Taking the company as liquidated:

In the case of a company under liquidation the net asset basis of share valuation is much suitable. In such a situation the realizable values of the independent Assets are to be assessed. The Net Asset value calculation is similar as explained earlier. But provision must be made for the cost of liquidation and duly deduced from the Net Asset Value before calculating the share value.

Net Asset Basis – an evaluation:

The Net Asset Method of share valuation is not related to earning capacity but the market values of the assets. Thus this method is appropriate in the case of companies sustaining losses and are on the edge of liquidation. Though this method is particularly suitable for calculation of value of share wealth for wealth tax purposes, the realistic assessment of market value of assets is a challenging task.

4.5. YIELD METHOD

This is also known as earning capacity or Market value method. Investors in general and small investors in particular pay for the shares on the basis of the income or yield expected. Therefore, the expected dividends are taken as the basis in this method. Accordingly yield basis share value

$$= \frac{\text{Dividend per share}}{\text{Normal rate of return}} \times 100$$

It can also be calculated as

$$\text{Share value} = \frac{\text{Rate of Dividend}}{\text{Paid up value per share}} \times 100$$

$$\text{Where Rate of Dividend} = \frac{\text{Dividend per share}}{\text{Paid up value per share}} \times 100$$

The Dividend per share is calculated as
Net profit – Taxes – Transfer to Reserve and Redemption Fund etc – Preference dividend, if any, divided by No. of equity shares.

ILLUSTRATION 3.

A company issues shares of Rs.50 each on which Rs.40 has been paid up. The amount of dividend per share is Rs.10 per share. The normal rate of return is 15 per cent. Calculate share value on yield basis or Market value method.

$$\text{Share value} = \frac{\text{Dividend per share}}{\text{Normal Rate of Return}} \times 100$$

$$= \frac{10}{15} \times 100$$

$$= \text{Rs.}66.67$$

Or

$$\text{Share value} = \frac{\text{Rate of Dividend}}{\text{Normal rate of return}} \times \text{paid up value per share}$$

$$\text{Where Rate of dividend} = \frac{\text{Dividend per share}}{\text{aid up value per share}} \times 100$$

$$= \frac{10}{40} \times 100$$

$$= 25\%$$

Then

$$\text{Share value} = \frac{\text{Rate of Dividend}}{\text{Normal Rate of return}} \times \text{paid up value per share}$$

$$= \frac{25}{15} \times 100$$

$$= \text{Rs.}66.67$$

YIELD METHOD – AN EVALUATION:

This method of share valuation is simple to calculate and easy to understand. The market value of the share can be said to have related to earning capacity of the company.

On the negative side, the method suffers from two significant limitations. These are:

(a) Dividend paid may not necessarily out of the present year profits or earnings. In this method dividend per share is taken as the basis which may not be related to present earnings. Thus the share value's relation to the earning capacity is misleading and

(b) In the case of a company which retains profits in reserve fund and conservatively a less dividend the market value of share according to this method is undervalued. But actually due to strong reserve base, the net worth of the company is sound.

4.6. FAIR VALUE METHOD

This is also called earning capacity valuation method or dual method. This is geared to rectify one of the limitations of the earlier method that the value of the share is based on the dividend but not on the earnings. This method relates the value of the share to the earning efficiency in terms of profitability of the company as the market price of the share is based on the earnings of the company rather than the dividend declared. According to this method.

$$\text{Value of Share} = \frac{\text{Earning rate}}{\text{Normal rate of return}} \times \text{paid up value per share}$$

Where in

$$\text{Earning rate} = \frac{\text{Profit earned}}{\text{Capital employed}} \times 100$$

Where

Profit earned is Earning before interest and preference dividend but after Tax (EBIPDAT) whereas

Capital employed is shareholders Equity plus debentures and long term borrowing

or

Capital employed is Fixed Assets + (current Assets–Current Liabilities)

ILLUSTRATION 4:

A company issued shares of Rs.100 each on which Rs.70 is paid up. The normal rate of return is 12 per cent. The earning before interest and preference dividend and also before Tax is Rs.6,80,000, the capital employed is Rs.32,00,000. Calculate the value of share on fair value basis assuming tax rate at 40%.

SOLUTION:

$$\text{Value of Share} = \frac{\text{Earning rate}}{\text{Normal rate of return}} \times \text{Paid up value per share}$$

$$\text{Value of Share} = \frac{\text{Profit earned}}{\text{Capital employed}} \times 100$$

Profit earned = Earning before interest and preference Dividend but after taxes

Profit earned = 6,80,000 – 2,72,000 (40% tax)
= Rs.4,08,000

$$\text{Then Earning rate} = \frac{4{,}08{,}000}{32{,}00{,}000} \times 100$$

$$= 12.75\%$$

$$\text{Value of share} = \frac{12.75}{12} \times 100$$

$$= \text{Rs.}106.25$$

An Evaluation:

This method is called a fair value or dual method because it consists the blend of characteristics of the earlier two methods. The net assets method takes the assets or capital as basis and the yield or market value method considers dividends or earnings whereas the present method i.e. fair value method considers both capital and earnings or profit earned and stands as fair value.

$$\text{Fair Value} = \frac{\text{Intrinsic value + yield value}}{2}$$

ILLUSTRATION 5:

On December 31, 1983, the Balance sheet of Lilly Limited reveals the following position:

Liabilities	Rs.	Assets	Rs.
Issued capital in Rs.10 shares	8,00,000	Fixed Assets	10,00,000
Reserves	1,80,000	Current Assets	4,00,000
Profit & Loss A/c	40,000	Goodwill	80,000
9% Debentures	2,00,000		
Current Liabilities	2,60,000		
	14,80,000		**14,80,000**

On December 31, 1983, the fixed assets were independently valued at Rs.7,00,000 and the goodwill at Rs.1,00,000. The Net profits for the three years were: 1981 – Rs.1,03,200; 1982 – Rs.1,04,000, 1983 – Rs.1,03,300 of which 20% was placed under reserve, this proportion being considered reasonable in the industry in which the company is engaged and where a fair investment return may be taken at 10%. Compute the value of the company's shares by (a) the Net Assets method, (b) The yield value method and (c) the Earning Capacity method (fair value method)

SOLUTION:

	Rs.	**Rs.**
(a) Net Assets Method		
Intrinsic value of shares:		
Current assets as per Balance Sheet		4,00,000
Market value of fixed assets		7,00,000
Goodwill (as per valuation)		1,00,000
Total Market value of assets		12,00,000

Less: Liabilities		
Debentures	2,00,000	
Current liabilities	2,60,000	
		4,60,000
Net Assets		7,40,000

$$\text{Intrinsic value per share} = \frac{\text{Net Assets}}{\text{No. of equity shares}}$$

$$= \frac{\text{Rs.}7{,}40{,}000}{80{,}000}$$

$$= \text{Rs.}9.25$$

(b) Yield Value Method

	Rs.
Calculation of average expected future profits	
Profits for three years before reserves	2,10,500
Average Profits before reserves (Simple average)	70,167
Less: Transfer to reserve at 20% of 1,03,300	20,660
Average profits after reserve	49,507

Calculation of expected return on equity share capital (Rate of dividend):

$$= \frac{\text{Expected Profit}}{\text{Equity paid-up share capital}} \times 100$$

$$= \frac{49.507}{8{,}00{,}000} \times 100$$

$$= 6.19\%$$

Valuation of Goodwill and shares

Calculation of yield value of share:

$$= \frac{\text{Expected rate of Dividend}}{\text{Normal rate}} \times \text{paid-up value per share}$$

$$= \frac{6.19}{10} \times 10 = \text{Rs. } 6.19$$

(C) Earning Capacity Method

	Rs.
Calculation of Profit earned:	
Total profits for 3 years before reserves	2,10,500
Average profits before reserves (2,10,500/3)	70,167
Add: Debenture interest paid	18,000
Profit earned	88,167
Gross Capital employed:	
Market value of fixed assets	7,00,000
Current assets	4,00,000

Goodwill	1,00,000
	12,00,000
Less: Current liabilities	2,60,000
Gross capital	14,60,000
(or)	
Issued share capital	8,00,000
Reserves	1,80,000
Profit and Loss A/c	40,000
Debentures	2,00,000
Increase in goodwill (1,00,000 – 80,000)	20,000
	12,40,000
Less: Decrease in the value of fixed assets	3,00,000
Gross Capital	9,40,000

$$\frac{\text{Profit earned}}{\text{Gross capital employed}}$$

$$\frac{88,167}{14,60,000} = 6.04\%$$

$$\frac{\text{Rate of earning}}{\text{Normal rate of return}}$$

$$\frac{6.04}{10} = \text{Rs.}6.04$$

4.7. ROLE OF FUNDAMENTAL ANALYSIS AND TECHNICAL ANALYSIS IN SHARE VALUATION

The fundamental Analysis and Technical Analysis play a very important role in share valuation.

Fundamental Analysis relate to company economic, industry and company analysis. The fundamentalists forecast share values on the basis of economic, industry and company statistics. Therefore the decision variables in share valuation, according to Fundamental Analysis, are earnings and dividends. The value of shares is judged on the basis of earning power of the company, profit trends of the industry and the economic environment.

The Technical Analysis is an alternative approach to share value assessment and prediction. According to Technical Analysis the valuation of shares is based upon the forces of supply and demand. The Technical Analyst views changes in share values mainly through price and volume statistics. He uses various indicators to measure price-volume, supply-demand relationships for the overall market as well as for individual shares. The major technical indicators are market indicators, price indicators, volume indicators, confidence indicators, etc.

As stated earlier the Fundamental Analysis is concerned with economic, industry and company factors that influence the share valuation. The real world of investing is full of political, economic, social and other forces. These forces do not remain static and intermix in influencing dividends and share prices. A logical systematic approach, based on all these forces and various factors relating to economy, industry and the company concerned, is indispensable. This is top down method of analysis from macro to micro level.

The economic analysis relates the economic phenomena to share price movements. The important aspects of economy that influence share price are economic forecasts, general money supply and share prices, international economic scenario, disposable income, demographic factors and demand etc.

Industry analysis demands an insight into the key sectors or subdivisions of overall economic activity that influence particular industries and the relative strength or weakness of particular industry. Cyclical swings of an industry in tune with the business cycle changes, past sales and earning performance, degree of permanence and survival of the industry, the attitude and policy of Government towards the industry. Labour conditions, competitive conditions etc., also play a role in share valuation. Above all the industry life cycle stages exert significant influence on share valuation.

The company analysis relating to measurement of earnings, analysis of financial statements, operating results, the financial position, cost trends, auditors' opinions etc, play a significant role in investor expectations and consequently share valuation.

4.8. CONCLUSION

The unit should have helped you understand the need for share valuation and the methods for valuation of shares with their relative merits and demerits. The modalities of calculating the value of shares under different methods are understood by you through simple illustrations.

After going through the unit successfully you should have realized that the valuation framework aids the investor in reaching a buys, sell or hold decision for which Fundamental analysis and Technical analysis in share valuation is significant.

4.9. SELF-ASSESSMENT QUESTION

Answer the following questions from your memory in not more than two pages each to assess whether you have understood the subject matter of the unit.

1. Explain the need for share valuation. Give a brief account of the different methods of valuing shares.
2. Discuss the role of Fundamental Analysis and Technical Analysis in share valuation.
3. Evaluate the three methods of share valuation in their strengths and weaknesses.

4.10 KEY WORDS

Intrinsic value	:	Means the potential price of a company's common stock.
Liquidation	:	Winding up of the company
Net worth	:	Means the sum of paid up share capital plus reserves plus the preference share capital.
Demographic characteristics	:	Population characteristics
Industry life cycle stages	:	Pioneering, expansion and stabilization stages.

4.11 FURTHER READINGS

1. R.L. Gupta, Advanced Accountancy, Sultan Chand & Sons, New Delhi.
2. Mukherjee and Manif, Modern Accountancy, Tata Mc Graw Mill, New Delhi.
3. Donald E. Fisher and Ronald J. Jordan, Security Analysis and portfolio Management, Prentice Hall of India, New Delhi.

- Dr. J. Chandra Prasad

Lesson – 5

VALUATION OF GOODWILL

OBJECTVIES

The very objective of the unit is to help you understand the concept of Goodwill and types of Goodwill besides the factors influencing goodwill of a business. Once you have completed this unit you can further learn the Methods of Goodwill valuation with a practical orientation.

STRUCTURE

5.1. GOODWILL – A CONCEPTUAL FOCUS

Goodwill is an intangible Asset, which consists of the image of the business entity in the view of outsiders, customers, employees etc.

Braden and Allyn rightly defined Goodwill as "an intangible asset compounded from a variety of successful business ingredients competent and energetic Management, customer acceptance, a favourable locations, a quality and profitable product, efficient production methods, an outstanding reputation, plus the expectation that those ingredients will continue to produce an above normal rate of return for an indefinite period of time."

Goodwill is the reputation and image built up which places the business in a position to have long run survival, success and growth besides positively influencing the earnings. Goodwill is a booster and adds value. It is thus the present value of a firm's anticipated excess earnings and adds extra value to the business beyond the intrinsic value of the assets. If the expected future earnings are greater than a satisfactory return, the capitalization of this efficiency or surplus is thought of as goodwill. Though goodwill is considered to be an intangible asset, like other tangible assets goodwill also contributes to future earnings. It's contribution is inevitable, invisible but can be visualized and felt.

Goodwill has a consolidating force and helps integrate the asset structure and its value. In the words of Adamson, A.V., "Just as cement binds together the bricks and other building material into walls, similarly goodwill binds together or unites the other assets and aspects of business into a cohesive whole".

According to Wildman, Goodwill is the influence that the Proprietor or his organization has upon the purchasing public through which he is enabled to attract and retain patronage.

Thus the term goodwill is generally used to denote the benefit arising from connection and reputation and its value is what can be get for the change of being able to keep that connection and improve it. Upon the sale of an established business its goodwill has a marketable value. Goodwill may be described as the aggregate of those intangible attributes of a business, which contribute to its superior earning capacity over a normal return on investment.

5.2. FACTORS AFFECTING GOODWILL

Companies or business entities differ in their setting, environment and circumstances. Goodwill and its valuation depends upon the circumstances of each case. Broadly the factors which influence goodwill valuation can be generalized as below.

1. PROFITABILITY OF BUSINESS :

The ability of the business to make profits and sustainability of such profits is a factor influencing the goodwill and its valuation. The goodwill is the value one is ready to pay for a business over and above the value of its assets. If a business is expected to generate surplus profits over and above the normal rate of return expected as other such investments its worths paying more in the form of goodwill.

2. BRAND EQUITY :

The brand image of the product and the strength of the brand loyalty contribute to goodwill. If the brand image is high like in the case of Nikon, Maruti etc., the valuation of goodwill rests at a higher level.

3. PRODUCT OF SERVICE QUALITY :

The quality of a product and its maintenance standard is an influencing factor. The product quality maintenance and it as perceived by the customer affect goodwill.

4. CUSTOMER ACCEPTANCE :

All the products and firms are not equally accepted by the customers. A number of factors decide the level of customer acceptance. If the product is widely accepted the goodwill carried by the business remainings high and vice versa.

5. BUSINESS LOCATION AND ACCESS :

The favourable location and its customer access positively adds to goodwill. Therefore, centrally located business entities with a wider customer reach command a greater value of goodwill.

6. TRANSFERABILITY OF COMMERCIAL VALUE :

The accounting for valuation of goodwill arises only when there exists commercial value and that too transferable. For instance the skill and knowledge of a doctor or actor cannot be transferred and therefore the goodwill of a such a person is of no commercial value.

7. RETURN ON CAPITAL EMPLOYED :

The profit to capital ratio is one of the determining factors for goodwill valuation. With a given amount of capital if a business is able to generate a higher amount of profit it enjoys a more value of goodwill. In other words for earning a given amount of profit if a less amount of capital is employed that business commands a more goodwill.

In this manner, the goodwill of business is influenced by other factors like future tax liability, worth of parents and copyrights possessed, credit prestige, distinctiveness and competitive status of the business etc.

5.3. TYPES OF GOODWILL

Goodwill can be classified on different bases as enumerated hereunder.

Goodwill is of different types and the main classes of goodwill can be identified as below.

a. Locational Goodwill

The goodwill arising out of the locational advantage of the business like central location, prestige and access of the business premises etc.

b. Charismatic Goodwill

The personal attraction and reputation of an individual associated with a business carries goodwill and such persons at key positions in a business contribute for the goodwill of the business due to their personal charisma.

c. Goodwill of Product Image

The market image of a product or service sold by a business adds goodwill to the business. The quality, standard and customer satisfaction, competitive edge etc., create such an image goodwill.

d. Goodwill of Market Dominance

The competitive structure of the market position and share of the market is a channel of goodwill. A business with complete or partial monopoly over the market commands goodwill of dominance.

e. Goodwill of Human Resource Quality

Human Resource with Commitment, performance, expertise, high level of motivation, loyalty etc., is a goodwill ambassador.

Goodwill of a business is an integrated whole of all these streams. Rowland identifies different classes of goodwill as local, the personal reputation, the reputation of the goods sold and the absence of competition.

II Goodwill has been very ably divided into three types by Wilson as Cat, Dog and Rat goodwill, in view of the peculiar habits of these animals. Cat tends to stick to its abode, cat goodwill is therefore that which wil! adhere to the business which is being transferred and is the most valuable. The dog follows his master, dog goodwill is that which is difficult to transfer and is correspondingly less valuable. The rat is a migrant, rat goodwill is practically valueless as it represents those customers who have no affiliations either to the business or its proprietors and who may be here today and gone tomorrow. To sum up, Cat goodwill is adherent, Dog goodwill is personal and Rat is fugitive. Adherent goodwill is only valuable as attaching to the business, personal goodwill is unsaleable.

III Goodwill can also be classified into (a). Purchased goodwill and (b). Non-purchased goodwill, which is inherent.

Purchased goodwill arises when one business buys another and the purchase consideration paid is more than the value of the net tangible assets received. It never exists in a new business unless purchased.

Non-purchased or inherent goodwill is referred to as internally generated goodwill and it arises when a business may over the years generate its own goodwill. This type of goodwill is lasting and valued high.

Accounting principles require that non-purchased goodwill should not be shown in financial statements. Purchased goodwill should normally be eliminated from the accounts immediately on acquisition or may be amortized over its useful economic life.

ACTIVITY

Pick up a business of your choice you know and list out the factors, which you think contributed for its goodwill. List your identified factors in the order of importance. Give reasons for your ranking of factors.

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....

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5.4. GOODWILL VALUATION – THE NEED

Goodwill is an intangible Asset and highly unrealizable asset. Even though the management feels that goodwill has contributed to the earnings of the company the value of goodwill cannot be accounted. It only comes into an apparent and realized form when the business is sold as a going concerns and the buyer is prepared to pay for the business in excess of the book value of the assets. Thus it is the concept of surplus of the market value of the assets over the book values. Such a process of goodwill valuation is necessary for the purpose of assessment and recording is the books in the following circumstances.

1. When amalgamation of two business entities takes place the goodwill of the amalgamated business should be valued for the purpose of calculation of consideration.
2. In the case of outright purchase of a business, the seller of business as well as the buyer needs valuation of goodwill. The former needs it to receive the premium consideration where as the later i.e., the buyer to **assess** the value that is attained to goodwill and its reasonability.
3. In the process of consolidation of holding company and its subsidiaries through their assets and liabilities goodwill valuation is also involved.
4. In the case of a partnership business changes in the profit sharing ratio on the admission of a new partner or death or retirement of the existing partner goodwill valuation is warranted.

5.5. METHODS OF GOODWILL VALUATION

For recording in the books of accounts and for a host of reasons mentioned earlier, goodwill is to be valued on systematic basis. Leaving aside the arbitrary methods, the important methods of goodwill valuation are:

1. Average Method
2. Super Profits Method
3. Annuity Method

These popular methods are explained and illustrated in the forthcoming discussion. Methods to be adopted in valuing goodwill depend upon the circumstances of each particular case. Therefore, the figure computed as goodwill cannot be an exact one.

5.6. AVERAGE METHOD

This is the Average Profits Method which takes into account the average profits for the past few years and the value of goodwill is calculating as some years purchase of this amount. The following steps are involved in this method.

1. Take the profits of the last few years.
2. Calculate average of the profits as sum of profits divided by number of years.
3. Multiply the calculated average profits with agreed years purchase of this amount. The product is the value of goodwill.

In step 2 above, the average profits may be based on (i) simple average or (ii). Weighted average. If it is simple average each years profits are given the same weightage. But if it is weighted average profits, the profit of each year is assigned and multiplied with a weight. Usually the weight of each year is the number of that year. For instance if four years profits are taken the number of the relevant year (1 or 2 or 3 or 4 consecutively) will be the weight. Each year's profit should be multiplied with the weight and the total of weighted profits should be divided by the aggregate number of the weighted profits.

In both the simple and weighted average profits calculation, precaution must be taken in respect of any abnormal items of profit or loss, which may affect future profit.

The average profits method is generally adopted when a partner dies or retires and a clause to this effect is found in partnership agreements. It is also used for goodwill valuation when it is proposed to purchase a business.

The main advantage of this method is its simplicity. On the other hand the significant disadvantage is that trends in the level of profitability are not reflected in the valuation of goodwill. Moreover, if the simple average method is used the profits all the years are given the same weightage without discrimination between a business with falling profits and that with increasing profits.

ILLUSTRATION 1

'A' Ltd. Agreed to purchase business of a sole trader. For that purpose, goodwill is to be valued at 3 year's purchase of the average profits of last 4 years.

Profits for these years are:
1999 –Rs.80,000; 2000 – Rs.90,000; 2001 – Rs.72,000; 2002 – Rs.92,000.
Solution:

$$\text{Average Profit} = \frac{\text{Rs.}80{,}000 + 90{,}000 + 72{,}000 + 92{,}000}{4}$$

= Rs.83, 500

Goodwill = 3 years purchase of average profits
= Rs.83, 500 X 3
= Rs.2, 50,500

ILLUSTRATION 2

Sai & Co. proposed to purchase the business carried on by Mr. X. Goodwill for this purpose is agreed to be valued at three years' purchase of the weighted average profits of the past four years. The appropriate weights to be used are:

1991 – 1, 2000 – 2, 2001 – 3, 2002 – 4

The profits for these years are: 1999 Rs.1, 32,000; 2000 Rs.1, 48,000; 2001 Rs.1, 10,000 and 2002 Rs.1, 62, 000.

A scrutiny of the accounts reveal the following:

(a). On Oct Ist, 2001 a major repair was made in respect of the plant incurring Rs. 32,000 which amount was charged to revenue. The said sum is agreed to be capitalized for goodwill calculation subject to adjustment of depreciation of 10% p.a. on reducing balance method.

(b). The closing stock for the year 2000 was over-valued by Rs.18, 000

(c). To cover management expenses an annual charge of Rs.28, 000 should be made for the purpose of goodwill valuation.

Compute the value of goodwill of the firm.

SOLUTION

		Rs.
Calculation of Adjusted Profits:		
Profits:	1999	1,32,000
Less: Management Expenses		28,000
Adjusted Profits - 1999		1,04,000
Profits: 2000		
Less: 1. Over-valuation of Closing stock	18,000	
2. Management Expenses	28,000	
46,000		
Adjusted Profit – 2000		1,02,000
Profits: 2001		1,10,000
Add: 1. Over-valuation of Opening Stock	18,000	
2. Major repairs of plant to be treated as capital expenditure	32,000	50,000
		1,62,000
Less: Depreciation on capital expenditure at the rate of 10% p.a. for 3 months from Oct.1, 2001 to December 31, 2001 3200 x 10 x 3 x 100		800
		1,61,200
Less: Management Expenses		28,000
Adjusted Profits – 2001		1,33,200
Profits : 2002		1,62,000
Less: 10% Depreciation on Rs.31,200 (Book value Rs.32,000 – Rs.500) capital expenditure		3,120
		1,58,880
Less: Management Expenses		28,000
Adjusted Profits – 2002		1,30,880

Calculation of weighted Average Profits

Year	Profit	Weight	Product
1999	1,04,000	1	1,04,000
2000	1,02,000	2	2,04,000
2001	1,33,200	3	3,99,600
2002	1,30,880	4	5,23,520
		10	12,31,120

Weighted Average Profit = 12,31,120/10 = Rs.1,23,112

Goodwill at three years' purchase = Rs.1,23,112 x 3 = Rs.3,69,336

CAPITALISATION OF AVERAGE PROFIT METHOD:

This is a variation of the Average Profit Method where the average profits calculated are capitalized at the normal rate of return and the net tangible assets are deducted from the capitalized value of the average profits to arrive at goodwill.

The following steps are to be observed is calculating the value of goodwill under this method.

(a). Ascertain the average future maintainable profit, as explained already.

(b). Capitalize this average profit at the normal rate of return on investment on the type of business under consideration. This will give the net worth of the business.

(c). Find out the value of net tangible assets (i.e., net assets other than goodwill) of the business.

(d). Deduct the net tangible assets from the capitalized net worth of the business and the difference is goodwill.

ILLUSTRATION – 3

A company proposes to sell its business and it earned an average profit of Rs.1,80,000 per annum which is expected to be earned is future also. The additional information is:

(i). The auditor's fee of Rs.18, 000 per annum changed against such profits will not be payable by the purchasing company.

(ii). Rent and Miscellaneous expenses of Rs.32,000 per annum paid by the vendor company will not be incurred by the purchasing company is future as it owns its own business premises.

The net assets excluding goodwill, are valued at Rs.20,00,000. The return is expected at 10 per cent.

SOLUTION:

	Rs.	Rs.
Average Net Profit		1,80,000
Add: Expenses not likely to be incurred in the future:		
Doctors' fees	18,000	
Rent	32,000	
		50,000
Average future maintainable profit		2,30,000

Capitalized net wealth $= \frac{2,30,300 \times 100}{10}$ = Rs.23,00,000

Less: Net tangible assets other than goodwill = Rs.20,00,000

Good Will Rs. 3,00,000

5.7. SUPER PROFIT METHOD

Super Profit Method is a common method of valuation of goodwill. Conceptually, the excess of actual profits over the normal profits is known as super profit. A business unit may posses some advantages which enable it to earn extra profits over and above the amount that would be normally earned, if the same capital is employed elsewhere in a business of same risk class. The extra profit over the normal profit, expressed as super profits, are valued and the goodwill is the value of the few years' purchase of super profits.

The normal profits are calculated based as normal rate of return. The normal rate of return refers to the rate of earnings which the investor in general expects on his investments in a particular type of industry.

PROCESS OF CALCULATION:

The calculation of super profits needs information about the estimated average future profits of the firm, the expected normal rate of return on investment and the fair value of the average capital employed. This systematically involves the following steps.

1. Calculate capital employed (it is the total of shareholders' equity plus long term debt or fixed assets plus net current assets.
2. Calculate normal return by multiplying capital employed with normal rate of return.
3. Calculate average maintainable profit of the business.
4. Calculate the difference between the average maintainable profit and normal return calculated above. This difference is called super profit (of it is positive).
5. Multiply that super profit by the number of years' purchase. The product is the value of the goodwill.

ILLUSTRATION – 4

Mr. Pachas provides the following particulars or his business and asks you to compute the value of goodwill on the basis of 5 years purchase of super profits.

The capital employed in the business is Rs.1,00,000 and the profits after tax for five years ending with 2002 are:

Rs.18,000 (1998); Rs.22,000 (1999); Rs.20,000 (2000); Rs.8000 (loss in 2001) and Rs.19,000 (2002). The normal rate of return is 15 per cent consisting of market rate of interest on investment 10% per cent and the rate of risk return on capital invested in business is 2 per cent. Remuneration of the proprietor in alternative employment if not engaged in business is Rs.6,000 per annum.

SOLUTION:

		Rs.
Average Profits		
Profit 1998		18,000
1999		22,000
2000		20,000
2001		–8,000
2002		19,000
		71,000
Average Profits	=	71,000/4
	=	Rs. 17,750
Super profits:		
Average Profits		Rs. 17,750
Less: Remuneration of Proprietor		-6,000
		11,750
Less: Normal Profit 10% of 1,00,000		10,000
Super profits		1,750

Goodwill = 5 years purcnase of super profits
= 5 x 1750
= Rs.8750.

ILLUSTRATION 5

(Weighted Average Profits)

Following is the Balance sheet of champa traders.

Liabilities	Rs.	Assets	Rs.
Creditors	2,00,000	Goodwill	15,000
Capital	7,00,000	Fixed Assets	4,00,000
Reserve	1,65,000	Current Assets	5,00,000
		Investment in shares	1,50,000
	10,65,000		10,65,000

Net profits for five years are as below:

1999 – Rs. 1,30,000; 2000 – Rs. 1,50,000; 2001- Rs. 1,80, 000; 2002 – Rs.2,00,000; 2003 – Rs. 2,10,000 (each year's profit include fixed income on investment of Rs. 9000 per annum). Rate of return on capital employed is 10%. Calculate the goodwill of the business at four years purchase of the super profits assigning weights to the average profits as 2, 2.2, 2.5, 01 and 1.8 respectively for the years 1999 through 2003.

SOLUTION:

A. CALCULATION OF WEIGHTED AVERAGE PROFITS

	1999	2000	2001	2002	2003
Profit (Rs.)	1,30,000	1,50,000	1,80,000	2,00,000	2,10,000
Less: income on investment	9,000	9,000	9,000	9,000	9,000
	1,21,000	2,49,000	1,71,000	1,91,000	2,01,000
Weights (multiply)	1.1	1.2	1.3	1	1.01
Product (Rs.)	1,33,100	1,69,200	2,22,300	1,91,000	2,03,010

$$\text{Weighted Average Profits} = \frac{\text{Sum of products}}{\text{Sum of Weights}}$$

$$= \frac{918610}{5.61}$$

= **Rs.1,63,745**

B. CAPITAL EMPLOYED

Net Fixed Assets + Current Assets – Current liabilities
= 4,00,000 + 5,00,000 – 2,00,000 = Rs.7,00,000

C. SUPER PROFITS

Weighted Average Profits	Rs.1,65,456 (approx)
Less: Normal profit (10% on capital employed)	70,000
Super profits	95,456

Goodwill = 4 years purchase of super profits

= 4 x 95,456 = Rs.3,81,824

ILLUSTRATION 6

Negotiation is going on for transfer of X LTd., on the basis of the Balance Sheet and the additional information as given below:

BALANCE SHEET OF X LTD. AS ON 31ST MARCH, 1988.

Liabilities	Rs.	Assets	Rs.
Share capital (Rs.10 fully paid-up shares	10,00,000	Goodwill	1,00,000
Reserve and Surplus	4,00,000	Land and Building	3,00,000
Sundry Creditors	3,00,000	Plant and Machinery	8,00,000
		Investments	1,00,000
		Stocks	2,00,000
		Debtors	1,50,000
		Cash and Bank	50,000
	17,00,000		17,00,000

Profit before tax for 1987-88 amounted to Rs.6,00,000 including Rs.10,000 as interest on investment. However, an additional amount of Rs.50,000 p.a. shall be required to be spent for smooth running of the business.

Market values of Land and Buildings and Plant and Machinery are estimated at Rs.9,00,000 and Rs.10, 00,000 respectively. In order to match the above figures further depreciation to the extent of Rs.40,000 should be taken into consideration. Income tax rate may be taken at 50%. Return on capital at the rate of 20% before tax be considered normal for thi business at the present stage.

For the purpose of determining the rate of return, profit for this year after the aforesaid adjustments may be taken as expected average profit. Similarly, average trading capital employed is also to be considered on the basis of the position in this year. It has been agreed that four years' purchase of super profit shall be taken as the value of goodwill for the purpose of the deal. You are required to calculate the value of goodwill of the company.

SOLUTION:

(1) CALCULATION OF CAPITAL EMPLOYED

Particulars	Rs.
Land and Buildings (Market Value)	9,00,000
Plant and Machinery (Market Value)	10,00,000
Stock	2,00,000
Debtors	1,50,000
Cash and Bank	50,000
	23,00,000
Less: Sundry Creditors	3,00,000
	20,00,000

(2) COMPUTATION OF AVG. MAINTAINABLE TRADING PROFIT

Particulars	Rs.	Rs.
Net Profit before tax		6,00,000
Less: Additional Depreciation (given)	40,000	
Less: Additional recurring expenses (given)	50,000	
Less: Interest on investment (Non-operating profit) 1,00,000	1,00000	
		5,00,000
Less: Provision for Tax @ 50%		2,50,000
Profit after Tax		2,50,000

(3) CALCULATION OF AVERAGE CAPITAL EMPLOYED

Particulars	**Rs.**
Closing capital employed [(as per above (1)]	20,00,000
Less: ½ of average maintainable trading profit after tax (Note 2)	1,25,000
	18,75,000

(4) CALCULATION OF SUPER PROFITS

Particulars	**Rs.**
Profit after tax (Trading)	2,50,000
Less: 10% of Average Capital employed	1,87,500
Super Profits	62,500

METHOD OF CAPITALISATION OF SUPER PROFITS:

This method is a variation of the super profit method where the goodwill value is calculated by capitaling super profits at agreed rate. The simple formula for calculation of goodwill under this method is

$$= \frac{P_1 - rc}{x}$$

Where VG = Value of Goodwill, P1 = Average maintainable profits
r= normal rate of return, c = capital employed and x = rate agreed to capitalizes super profits.

ILLUSTRATION 7

The after Tax profits of a business for the past four years are given as Rs.2,50,000; Rs.2,08, 500; Rs.2, 70,000 and Rs.1,92,000 . The expected normal rate of return is 12 per cent whereas the capital employed is Rs.22,00,000. Calculate the value of goodwill based on capitalization of super profit. The rate of capitalisation is agreed at 10%.

SOLUTION:

$$\frac{2,50,000 + 2,08,500 + 2,70,000 + 1,92,000}{4}$$

= 9,20,500/4

= Rs. 2,30,125

Now A x Rs.2,30,125 r = 12%

C=Rs.22,00,000 x = 10%

$$\frac{\mathbf{A - rc}}{\mathbf{X}}$$

$$\frac{\text{Rs.2;30,125 - 12\% of Rs.18,00,000}}{10\%}$$

= Rs.1,41,250

5.8. ANNUITY METHOD

Under this method goodwill is calculated by taking the average super profit as the value of an annuity over a certain number of years. An annuity is a series of equal periodic payments occurring at equal intervals of time. In other words goodwill is calculated by finding the present value of an annuity discounted at a given rate of interest which is usually the normal rate of return.

The present value of an annuity of Re. 1 is calculated as

r/100

P_r = Present value an annuity

r = .rate of interest (normal rate of return)

n = number of years

Usually Annuity factor (f) for given number of years at a particular interest rate can be noted by referring to Annuity Table and then goodwill can be calculated as

Goodwill = Super profits X f (Annuity)

For example if the super profits calculated are Rs.18,000 and the annuity of Re. 1 discounted at 10 per cent for 5 years in 3.791 then

Goodwill = Rs.18,000 X 3791

= Rs. 68, 238.

The value of annuity is generally given, if the value annuity is not given goodwill can be straight away calculated with the formula.

$$\frac{a}{r}$$

Where

V_G = Value of Goodwill, a = Average Super Profit

R =rate of interest per annum; n = number of years.

This is a complicated process there reference to annuity table makes it easy to find out annuity and calculate goodwill as average Super profits X Annuity.

ILLUSTRATION – 8

A Company has net tangible assets valued at Rs.12,00,000 on which a normal rate of return of 10% is expected. It is expected that the company can maintain its super profits for the next six years.

You are required to calculate goodwill of the business on the basis of an annuity of super profits.

SOLUTION:

A. Average Profits = $\frac{\text{Rs.1,20,000 + 1,50,000 + 90,000 + 2,10,000 + 2,40,000}}{5}$

= 8,10,000/5 = Rs.1,62,000

B. Super Profits = Average profits – Normal profits

Normal Profits = 10% of 12,00,000

= Rs.1,20,000

Therefore Super Profits = Rs.1,62,000 - 1,20,000

= Rs.42,000

C. Goodwill = Super profit x Annuity referred

= Rs.42,000 x 3.791

= Rs.1,59,222.

ACTIVITY

Ascertain the relative merits and demerits of the methods of goodwill valuation in your opinion and list out below

....

....

....

....

5.9. SUMMARY

In this unit we have looked at the concept of goodwill and calculation of its value. Goodwill is the surplus of the Market value of assets over the book value. The value of goodwill is influenced by a number of factors like the locational advantage of business, product and brand image, competitive position, quality of the product etc.

For the valuation of goodwill there are different methods the significant among them are (a) Average Profits Method (b) Super Profits Methods and (c) Annuity Method. These methods have their respective decencies and deficiencies. Generally goodwill calculated as annuity method is more reliable especially for the purchase of business since the capitalization of super profit method, gives the maximum value of goodwill and is not safe to follow.

5.10. SELF STUDY EXERCISES / QUESTIONS

1. What is goodwill? Explain in brief different methods of goodwill valuation.
2. What is super profit? What are the steps to be followed for calculating super profit for valuation of good will.
3. Explain the important factors to be considered in goodwill valuation.
4. Compare and contrast the Annuity Method and capitalization of super profit method by constructing a hypothetical problem.
5. Joshi purchased a business from Kailash on April 1, 2003. Profits earned by Kailash for the preceeding years ending December 31, each year were 2000 – Rs.50,000; 2001 – Rs. 60,000; 2002 – Rs. 64,000

It was found out that profit for the year 2000 included a non-recurring item of Rs.2,000 and the profit for the year 2002 was reduced by Rs. 3,000 due to an abnormal loss on account of a small fire in the shop. The properties of the business were not insured in the past, but it was thought prudent to insure the properties in the future and the premium was expected to be Rs. 1500 per annum. Joshi at the time of purchase of the business was employed as a manager with Rani Ltd. at a monthly salary of Rs. 2000. He intends to replace the manager of the business, who is at present paid a salary of Rs. 1750 per month. The goodwill is estimated at 3 years' purchase of the average profits. Calculate the value of goodwill of the business.

TIPS FOR SOLUTION

1. Non-recurring profit be deducted from profit 2000.
2. Abnormal loss due to fire be added to profit 2002.
3. Expenses to be incurred in future (a). insurance premium per annum and (b). salary of the proprietor (2000 X 12 = 24,000) should be deducted from average profits.
4. Expenses need not be incurred in future i.e., salary of the manager (Rs. 1750 X12 = Rs. 21,000) should be added to average profits.

Answer = Rs. 1,61,499

5. Ascertain the value of goodwill of LaxmiRam Limited on capitalization of Average profit method from the following information.

Balance Sheet as at 30th June, 1994

Liabilities	Rs.	Assets	Rs.
Paid-up Capital-2,500 shares of Rs.100 each fully paid	25,00,000	Goodwill at cost	2,50,000
Bank Overdraft	4,80,000	Land and Building at cost	11,00,000
Sundry Creditors	8,05,000	Plant and Machinery at cost less depreciation	10,00,000

Provision for Taxation	4,25,000	Stock-in-trade	
Book debts less provision for bad debts		15,00,000	9,60,000
Profit & Loss Appropriation Account			6,00,000
		48,10,000	48,10,000

The company started operations in 1989 with a paid up capital as aforestated of Rs. 25,00,000. Profits earned before providing for taxation have been as follows:

Year ended 30 June; 1990: Rs.6,00,000; 1991: Rs.7,50,000; 1992: Rs.8,50,000; 1993: Rs.9,50,000; 1994: Rs.8,50,000.

Income tax @ 50% has been payable on these profits. Dividends have been distributed from the profits of the first three years @ 10% and from those of the next two years @ 15% of the paid-up capital.

TIPS:

Normal rate of return = average rate of dividend paid
= [(10% X 3) +(15% X 2)] / 5
= 12%
Ans = 4,83,333.

7. Roja runs a cosmetic store. Her net assets on 31st December , 1993 amounted to Rs.2,00,000. After paying a rent of Rs.2,000 a year and a salary of Rs.10,000 to her manager, she earns a profit of Rs.50,000. Her landlord is interested in. acquiring the business. 12% is considered to be a reasonable return on capital employed. Calculate the value of goodwill at 3 years' purchase of super profit. Ans. Rs.69,600).

8. X Limited, and Y Limited propose to amalgamate.

BALANCE SHEET OF X LTD & Y LTD. (As on 31st December, 1995)

Liabilities X Ltd.
Rs.Y Ltd.
Rs.Assets X Ltd.
Rs.Y Ltd.
Rs.

Share Capital: Fixed Assets less Depreciation
4,00,000
1,00,000
Equity Shares of Rs.10/-
5,00,000
2,00,000 Investments (face value Rs.1,00,000 6% G.P. Notes

1,00,000

General Reserve	2,00,000	20,000			
Profit & Loss A/c	1,00,000	30,000			
Current Liabilities	1,00,000	50,000	Current Assets	4,00,000	2,00,00
	9;00,000	3,00,000		9,00,000	3,00,000

Net Profit (after taxation)

	X Limited (Rs.)	Y Limited (Rs.)
1993	1,30,000	45,000
1994	1,25,000	40,000
1995	1;50,000	56,000

Goodwill for the purpose of amalgamation may be taken as 4 years' purchase of average super-profits trading on the basis of 15% normal profit on closing capital invested. The current assets of X Ltd. are to be taken as Rs.4,20,000 and that of Y Ltd. as Rs.2,10,000.

Ascertain the value of goodwill.

Ans. (X Ltd. Rs.84,000; Y Ltd. Rs.32,000).

9. From the following information available to you, ascertain the value of goodwill under the Super-Profit method of A Ltd. which is in the business of retail trading:

BALANCE SHEET AS ON MARCH 31, 1982

	Rs.		Rs.
Paid-up Capital:		Goodwill at cost	50,000
5,000 shares of Rs.100 each, fully paid	5,00,000	Land and Building at cost	2,20,000
Bank overdraft	1,16,700	Plant and Machinery at cost	2,00,000
Sundry creditors	1,81,000	Stock in trade	3,00,000
Provision for taxation	39,000	Book debts less provision for bad debts	1,80,000
Profit and loss Appropriation A/c	1,13,300		
	9,50,000		9,50,000

The company commenced operations in 1965 with a paid-up capital of Rs. 5,00,000. Profits after taxation for the recent years (year ending on March 31) have been as follows: 1978 – Rs.40,000 (Loss); 1979 – Rs.88,000; 1980 – Rs.1,03,000; 1981 – Rs.1,16,000; Rs.1982 – Rs.1,30,000. The loss in 1978 occurred due to a prolonged strike.

The income tax paid so far has been at the average rate of 40%, but it is likely to be 50% henceforth. Dividends were distributed at the rate of 10% on the paid-up capital in 1979 and 1980 and at the rate of 15% in 1981 and 1982. The market price of shares is ruling at Rs.125 at the end of the year ended March 31, 1982. Profits till 1982 have been ascertained after debiting Rs.40,000 as remuneration to the managing director. The Government has approved a remuneration of

Rs.60,000 with effect from April 1, 1982. The company has been able to secure a contract for supply of material at advantageous prices. The advantage has been valued at Rs.40,000 per annum for the next five years.

(Ans: Average capital employed Rs.5,73,300; future maintainable profit Rs.1,06,834; Goodwill (at normal rate 12 ½% Rs.1,05,513)

10. The net profit of a company after providing for taxation for the past five years are:

Rs.40,000; Rs.50,000; Rs.30,000; Rs.70,000; and Rs.80,000. The net tangible assets in the business is Rs.4,00,000 on which the normal rate of return is expected to be 10%. It is also expected that the company will be able to maintain its super profits for the next five years. Calculate the value of goodwill of the business on the basis of an annuity of super profits, taking the present value of an annuity of one rupee for five years at 15% interest is Rs. 3,352.

5.11. KEYWORDS

Annuity : A series of receipts or payments of a fixed amount for a specialized number of years.

Present Value: The value of sums received in future being discounted by an appropriate capitalization rate.

Amalgamation: Coalescing of two independent or business entities.

5.12. FURTHER READINGS

1. R.L.Gupta, Advanced Accountancy, Sultan chand & Sons, New Delhi.
2. S.P. Jain and K.L. Narang, Company Accounts, Kalyani Publishers, Ludhiana.

Lesson - 6

RECONSTRUCTION OF COMPANY ACCOUNTS

OBJECTIVES :

★ To understand the very purpose of reconstruction of Company Accounts.

★ To differentiate between External and Internal reconstruction.

STRUCTURE :

6.1. Introduction

6.2. External Reconstruction

- a) Calculation of purchase consideration.
- b) Journal Entries in the Books of Vendor Company
- c) Journal Entries in the Books of Purchase Company
- d) Problems & Solutions

6.3. Internal Reconstruction

- a) Alteration of Share Capital
- b) Reduction of Share Capital
- c) Model Entries
- d) Problems & Solutions

6.4. Summary

6.5. Key words

6.6. Self - Assessment Questions

6.7. Suggested Readings

6.1. Introduction :

To start with, it is to be understood that when two companies are taken over by a newly formed company for the progress in business, it is aptly termed as Amalgamation. Needless to say, the company whose business activities are taken over shall totally wound up. This taking over is done with a view to improving the business of two or more companies which reach the stage of liquidation.

Unlike amalgamation, if one or more companies are taken over by a company already in existence, it is termed as absorption. In Amalgamation a new company takes over the business of two or more companies, where as in absorption, a company already in existence taken over the business of the one or more companies.

When a company suffers from heavy losses, the point of reorganisation arises. In fact, the suitable term is Reconstruction. It means reorganisation of company's financial structure. It may be both internal as well as external. In External reconstruction, a new company is floated to take over the business of the existing company, which is liquidated and wound up. In case of internal reconstruction, the capital structure is reorganised without forming a new company. The company does not go into liquidation.

6.2. External Reconstruction :

This refers to taking over the business form a company which is liquidated, which is otherwise known as vendor company by a new company which is otherwise known as purchasing company and the amount payable by the purchasing company to the vendor company is known as purchase consideration.

a) Calculation of Purchase Consideration :

In fact purchase consideration means the purchase price agreed upon by the purchasing company in order to pay to the vendor company. This is calculated in four different ways.

1. Lumsum Method : A Lumsum amount is paid to vendor.

2. Net Payment Method :

Under this method purchase consideration is calculated and the payment is made in the form equity shares, preference shares, debentures, and some amount of cash.

3. Net assets Method :

According to this method the purchase consideration is calculated to derive value of net assets. To make it clear, agreed value of assets taken over by the purchasing company and agreed value of the liabilities are determined. Agreed value of all assets taken over minus agreed value of all liabilities is the total purchase consideration.

4. Intrinsic value Method :

In this method, the purchase consideration is calculated on the basis of the ratio in which the shares of the purchasing company's are to be exchanged for the shares of vendor company. To make it clear, this ratio is determined as the basis of the value of ratio company's share.

b) Journal Entries in the Books of Vendor company :

For liquidation, the vendor company must prepare a nominal a/c known as realisation a/c to realise the assets & liabilities of the company. The specimen entries are as follows.

1. When assets are transferred to Realisation a/c

Realisation A/c Dr

To various assets A/c

Note : If the purchasing company takes over all the assets transfer to realisation A/c all assets including cash (unless otherwise stated) but not accumulated loses like preliminary expenses, share discount, profit & loss a/c (debit balance) etc. If other assets are not taken over by the purchasing company, those assets are also to be transferred to the realisation A/c for realising the amount.

2. When liabilities are transferred to realisation a/c

Liabilities a/c Dr

Provisions against assets a/c Dr

To Realisation a/c

Note : If the business of the vendor company is taken over by the purchasing company, transfer all liabilities payable to outsiders excluding debentures. Even if some outsiders liabilities are not taken over by the purchasing company, those liabilities too are transferred to realisation a/c for discharging them. The provision against assets is not dischargeable.

3. When purchase consideration is taken into account

Purchasing company a/c Dr

To Realisation a/c

(with the amount of purchase consideration)

4. When purchase consideration is received

Equity shares value in purchasing company a/c	Dr
Preference shares value in purchasing company a/c	Dr
Debentures value in purchasing company a/c	Dr
Cash a/c	Dr

To purchasing company a/c

5. When assets not taken over by the purchasing company are sold

Cash a/c Dr

To Realisation a/c

6. When liabilities not taken over by the purchasing company are paid off

Realisation a/c Dr

To Cash a/c

7. When debenture holders are received excess over book value

Realisation a/c Dr

To Debebtures holders a/c

8. When preference share holders a/c received in excess over the book value

Realisation a/c Dr

To preference share holders a/c

9. When realisation expenses are paid

Realisation a/c Dr

To Cash a/c

10. a) When there is profit on realisation a/c

Realisation a/c Dr

To equity share holders a/c

b) When there is loss on realisation a/c

Equity share holder a/c Dr

To Realisation a/c

11. When final settlement is made

a. For Debenture Holders

1) Debentures a/c Dr

To Debenture holders a/c

2) Debenture holders a/c Dr

To Debentures in purchasing company

(or) Cash a/c

b. For Preference Share Holders

1) Preference share capital a/c Dr

To preference share holders a/c

2) Preference share holders a/c Dr

To preference shares in purchasing company

(or) Cash a/c

c. For Equity share holders

1) Equity share capital a/c Dr

Profit & loss a/c Dr

General Reserve A/c Dr

To Equity share holders a/c

2) Equity share holders a/c Dr

To profit & loss a/c

To preliminary expenses a/c

3) Equity share holders a/c Dr

To equity shares in purchasing company

(or) cash

The following important accounts are likely to be prepared.

- Realisation account
- Purchasing company account
- Shares account
- Debentures account in purchasing company
- Cash (or) Bank a/c

★ Share holders account

★ Debenture holders account.

C) Journal Entries in the Books of Purchasing Company :

Purchasing company may be a newly formed company (or) an existing company. It has to acquire the business of vendor company by paying purchase consideration. If price paid is more than the worth received the difference is goodwill. If the price paid is less than that received, the difference is capital reserve. The specimen accounting entries are as follows.

1) When business is purchased

Business purchase a/c Dr

To liquidator of vendor company

(with purchase consideration)

2) When business is acquired as per agreement

Cash at bank a/c	Dr
Debtors a/c	Dr
Stock a/c	Dr
Plant & Machinary a/c	Dr
Land & Buildings a/c	Dr
Goodwill a/c	Dr
To Sundry Creditors	
To Bills Payable	
To Reserve for doubtful debts a/c	
To Capital Reserve a/c	
To Business purchase a/c	

3. When purchases consideration is paid

Liquidation of vendor company a/c	Dr
Share discount (if any) a/c	Dr
To equity share capital a/c	
To share premium (if any) a/c	
To preference share capital a/c	
To debentures a/c	
To bank a/c	

4. When Liquidation expenses of under company is born by Purchasing Company

Goodwill of Dr

To cash (or) Book of

Illustration : 1

Given below is the balance sheet of Bad-Luck Ltd. as at March 31st 2003.

Balance Sheet

40,000 shares of Rs. 10 each fully paid	4,00,000	Land and Building	3,20,000
Creditors	3,00,000	Plant and Machinery	1,30,000
		Stock	70,000
		Debtors	1,20,000
		Cash	500
		Preliminary expenses	5,000
		Profit and Loss A/c	54,500
	7,00,000		7,00,000

The following scheme of reconstruction was arranged by the necessary meetings and sanctioned by the court :

a) The company to go into liquidation and a new company, Sound Venture Ltd., with an authorised capital of Rs. 8,00,000 be formed to take over the assets and liabilities.

b) Preferential creditors of Rs. 10,000 included in the above Balance Sheet are to be paid in full.

c) Unsecured creditors to receive either (i) 50 percent of their claim in cash or (ii) 6 percent debentures in the new company, equivalent to their claim, at par.

d) Shareholders in Bad-Luck Ltd. to be allotted one share in the new company of Rs. 10 each, Rs. 5 per share paid, for every existing share held by them.

e) Reconstruction costs amounting to Rs. 6,000 to be paid by Bad-Luck Ltd. from cash made available by the new company.

Half of the unsecured creditors in value opted out for immediate cash payment for which purpose necessary cash was made available by the new company which made a call of Rs. 5 each on the partly paid shares allotted as aforesaid. Six shareholders holding 240 shares dissented to the scheme and their interest was purchased by an assenting shareholder. The new company valued all assets (except Land and Buildings) taken over from Bad-Luck Ltd. at par.

Prepare the Balance Sheet of the new company after the above transactions are concluded.

Solution :

Working Note :

* Cash to Preferential creditors	:	10,000
* Cash to Unsecured creditors		
(3,00,000 – 10,000)		
(2,90,000* 1/2* 50/100	:	72,500
* 6% Debentures to unsecured creditors	:	1,45,000

* Shares to shareholders	:	2,00,000
* Reconstruction Expenses	:	6,00,000
		4,33,500

JOURNAL ENTRIES IN THE BOOKS OF BAD-LUCK LTD.

1.	Realization a/c -	Dr. 6,40,500	
	To Land & Buildings		3,20,000
	To plant & Machinery		1,30,000
	To Stock		70,000
	To Debtors		1,20,000
	To Stock in trade		500
	(Being various assets transferred to realisation a/c)		
2.	Creditors a/c	Dr 3,00,000	
	To Realisation a/c		3,00,000
	(Being Creditors transferred to realisation a/c)		
3.	Sound venture Ltd a/c	Dr 4,33,500	
	To Realisation a/c		4,33,500
	(Being purchase consideration is taken into account)		
4.	Bank a/c	Dr 88,500	
	6% Debentures in sound venture Ltd	Dr 1,45,000	
	Equity shares in sound venture Ltd	Dr 2,00,000	
	To sound ventures Ltd		4,33,500
	(Being purchase consideration is received in the form of cash / share / debentures		
5.	Realisation a/c	Dr. 2,27,500	
	To Bank		82,500
	To 6% Debentures in sound Venture Ltd.		1,45,000
	(Being cash paid to creditors and allotted debentures in sound venture a/c)		
6.	Realization a/c	Dr. 6,000	
	To Bank		6,000
	(being Realisation expenses are paid)		
7.	Share Capital a/c	Dr. 4,00,000	
	To Shareholders a/c		4,00,000
	(Being share capital transferred to shareholders a/c)		

8. Share holders a/c Dr 59,500

To Preliminary expenses 5,000

To Profit & Loss a/c 54,500

(Being preliminary expenses and Profit & Loss of debit balance transferred to shareholders a/c)

9. Shareholders a/c Dr. 1,40,500

To Realisation a/c 1,40,500

(Being loss on realisation transferred to shareholders a/c)

10. Shareholders a/c Dr 2,00,000

To shares in sound ventures ltd. 2,00,000

(Being shares allotted to shareholders in bad luce Ltd for final settlement)

REALISATION A/C

Particulars	Rs.	Particulars	Rs.
To Land & Buildings	3,20,000	By Creditors	3,00,000
To plant & Machinery	1,30,000	By Sound Ventures Ltd.	4,33,500
To Stock	70,000		
To Debtors	1,20,000		
To Cash	500		
To Bank	82,500		
To 6% debentures in sv ltd	1,45,000		
To Bank	6,000	By Shareholders a/c	1,40,500
	8,74,000		8,74,000

SHAREHOLDERS A/C

Particulars	Rs.	Particulars	Rs.
To Preliminary Expenses	5,000	By Share Capital	4,00,000
To Profit & Loss a/c	54,500		
To realisation a/c	1,40,500		
To shares in Sound Ventures Ltd	2,00,000		
	4,00,000		4,00,000

Journal Entries in the Books of Sound Venture Ltd.

1. Business Purchase a/c Dr 4,33,500

To Liquidator of Badluck ltd. 4,33,500

(Being Business taken)

2.	Land & Buildings a/c	Dr 3,20,000	
	Plant & Machinery a/c	Dr 1,30,000	
	Stock a/c	Dr 70,000	
	Debtors a/c	Dr 1,20,000	
	Cash a/c	Dr 500	
	To Business purchase a/c		4,33,500
	To Capital Reserve a/c		2,08,000

(Being assets and liabilities taken over and the consequent profit there on transferred to Capital Reserve)

3.	Liquidator of Badluck Co. Ltd	Dr. 4,33,500	
	To Cash	88,500	
	To 6% Debentures in sound Venture Ltd.	1,45,000	
	To Equity share capital	2,00,000	
	(Being purchase consideration paid)		
4.	Bank a/c	Dr 2,00,000	
	To Equity share capital a/c		2,00,000
	(Being cash received on shares)		

BALANCE SHEET OF SOUND VENTURES LTD.

Liabilities	Rs.	Assets		Rs.
Authorised Capital	8,00,000	Land & Buildings		3,20,000
Issued, Subscribed, calledup and paid up capital (40,000* 10)	4,00,000	Plant & Machinery		1,30,000
		Sundry Debtors		1,20,000
6% Debentures	1,45,000			
Capital Reserve	2,08,000	Stock		70,000
		Cash	5,000	
		(+) Receipts	2,00,000	
			2,05,000	
		(-) Payments	88,500	
				1,12,000
		Reconstruction expenses		5,000
	7,53,000			7,53,000

Illustration : 2

On 31st March 1974, the position of M.Co. Ltd. was as follows :

Liabilities	Rs.	Assets	Rs.
Capital	10,00,000	Land & Buildings	4,50,000
1,00,000 Equity shares of Rs. 10 each fully paid			
Sundry Creditors	30,000	Plant & Machinery	2,40,000
Bills Payable	20,000	Sundry Debtors	1,00,000
		Stock-in-Trade	50,000
		Cash at Bank	10,000
		Profit and Loss a/c	2,00,000
Total	10,50,000		10,50,000

The following scheme of reconstruction was approved at that date :

a) The company to go into voluntary liquidation and a new company called the N.Co. Ltd., to be formed to take over the business of the old company.

b) The capital of the new company was to be Rs. 15,00,000 in 1,50,000 Equity shares of Rs. 10 each.

c) The new company to take over all the assets of the old company, but not the liabilities.

d) The purchase consideration was to be 8,00,000 payable as to Rs. 7,00,000 by the issue of 1,40,000 Equity shares of Rs. 10 each with Rs. 5 per share credited as paid up and as to Rs. 1,00,000 in cash.

e) The members of the new company were to pay the balance of Rs. 5 per share as to Rs. 2.50 on first call and Rs. 2.50 on final call. The expenses of reconstruction amounted to Rs. 5,000.

No further shares were issued beyond those forming part of the purchase consideration. All the calls were duly paid.

Pass the necessary journal entries in the books of N.Co.Ltd., and prepare its opening balance sheet.

Solution :

JOURNAL ENTRIES IN THE BOOKS OF M. CO. LTD

a.	Business Purchase a/c	Dr	8,00,000	
	To Liquidation of M.Co. ltd			8,00,000
	(Being purchase consideration agreed upon)			
b.	Land & Buildings a/c	Dr	4,50,000	
	Plant & Machinery a/c	Dr	2,40,000	

	Sundry Debtors a/c	Dr	1,00,000	
	Stock in Trade a/c	Dr	50,000	
	Cash at Bank a/c		10,000	
	To Business Purchase a/c			8,00,000
	To Capital Reserve a/c			50,000
	(Being assets and Liabilities takenover and balance transferred to Capital Reserve a/c)			
c.	Liquidation of M. Co. Ltd.	Dr	8,00,000	
	To Equity Share Capital			7,00,000
	To Bank			1,00,000
	(Being purchase consideration was paid)			
d.	Equity share Ist call a/c	Dr	3,50,000	
	To Equity share capital			3,50,000
	(Being Ist call was made)			
	Bank a/c	Dr	3,50,000	
	To Equity Share Ist call a/c			3,50,000
	(Being Ist call Received)			
	Equity Share II Final call a/c	Dr	3,50,000	
	To Equity Share Capital			3,50,000
	(Being Final Call was made)			
	Bank a/c	Dr	3,50,000	
	To Equity share II Final call a/c			3,50,000
	(Being Final call was received)			
	Realisation a/c	Dr	5,000	
	To Bank			5,000
	(Being Expenses paid on Reconstruction)			

BALANCE SHEET OF M. Co. LTD

LIABILITIES	Rs.	ASSETS	Rs
Authorized Capital	15,00,000	Land & Buildings	4,50,000
Issued, Subscribed, calledup and paid up capital	14,00,000	Plant & Machinery	2,40,000

(1,40,000*10)		Sundry Debtors		1,00,000
Capital Reserve	50,000	Stock		50,000
		Cash at Bank	10,000	
		(+) Receipts	7,00,000	
			7,10,000	
		(-) Payments	1,05,000	
				6,05,000
		Reconstruction expenses		5,000
	14,50,000			14,50,000

6.3. INTERNAL RECONSTRUCTION

Internal reconstruction aims at reorganisation of the capital structure of a particular company in order to new life to the company. It includes both alternation and reduction of share capital.

a) Alteration of Share Capital :

Under provisions of sections 94 to 97 of the company's Act alteration can be done which includes increase of share capital by issuing new shares, dividing all the shares into larger to smaller denomination, conversion of fully paid shares into stock or stock into shares and cancellation of the uninssued shares.

b) Reduction of Share Capital :

As per the provisions of section 100 to 105 of the Company's Act a company can reduce its share capital. It can be done by writing off lost capital, by refunding surplus paid up capital and to reducing liabilities of the members for uncalled capital.

It is to be carefully observed that reduction of capital cannot be effective until a copy of the resolution and sanction of the court is filed. It must be registered with the registrar of the Joint Stock Companies.

c) Model Entries :

a) When reducing the liability on account of uncalled capital

Share capital a/c Dr (old)

To Share capital a/c (new)

b) When Capital Reduction in created

Share capital a/c Dr

Debtors a/c Dr

Creditors a/c Dr

To Capital Reduction a/c

c) When losses are written off

Capital Reduction a/c Dr

To fictious assets a/c

To accumulated losses a/c

To assets a/c

Note : 1 Fictious assets

Goodwill a/c
Preliminary expenses
Discount on shares
Discount on debentures
Patents and Trademark

Note : 2 Accumulated Losses

* Profit and Loss A/c (Debit balance)

D) Problems & Solutions :

Illustration : 1

Following is the summarised Balance Sheet of Sai Co. Ltd., as 31st March 2004.

Liabilities		Assets	
2,500 Equity shares of		Net sundry Assets :	1,01,400
Rs. 100 each fully paid	2,50,000	Profit & Loss a/c	1,48,600
	2,50,000		2,50,000

The company feels that the worst is over and hence it adopts a scheme of reconstruction reducing all its equity shares in to an equal number of fully paid equity shares of Rs. 40 each.

Pass Journal entries and prepare the Balance Sheet immediately after the reconstruction.

Solution :

Journal Entries in Sai Co. Ltd.

		Dr	Cr
a)	Equity share capital a/c (100/-) Dr	2,50,000	
	To equity share capital a/c (40/-) each)		1,00,000
	To capital Reduction a/c		1,50,000
	(being capital reduction is created to write off losses)		
	Capital Reduction a/c Dr	1,50,000	
	To Profit & Loss a/c		1,48,600
	To Capital Reserve a/c		1,400
	(Being losses of written off, the balance of capital reduction a/c transferred to Capital Reserve a/c)		

Balance sheet of Sai Company Ltd
after reconstruction as at 31st March 2004

Liabilities		Assets	
2500 equity shares of Rs. 40		Net sundry assets	1,01,400
each fully paid	1,00,000		
Capital Reserve	1,400		
	1,01,400		1,01,400

Illustration : 2

The summarised Balance Sheet of X company Ltd. as on 31-3-2001 was as below

Liabilities	Rs	Assets	Rs.
5000 Equity shares of		Goodwill	90,000
Rs. 100 each	5,00,000		
6% Debentures	2,00,000	Land & Buildings	1,00,000
Profit prior to			
Incorporation	10,000	Plant & Machinery	2,40,000
Creditors	1,40,000	Patents	30,000
Bank Overdraft	50,000	Bank	5,000
		Debtors	90,000
		Motor Car	10,000
		Stock-in-Trade	95,000
		Profit & Loss A/c	2,00,000
		Preliminary Expenses	40,000
	9,00,000		9,00,000

The business has passed through a depression and the worse seems to have been over. The following scheme of reconstruction is adopted with the consent of all :

a) Each share was to be reduced to one-fifth of its value.

b) Each shareholder was to subscribe for half the number of shares already held by him, at its new value and pay immediately in cash for the new shares taken by them to help the company with working capital.

c) All fictitious items including Goodwill and Patents were to be eliminated.

d) A provision of 5% on Debtors in respect of Doubtful debts was to be created.

e) Half of the motor car was to be written down and the balance of the amount available to be used to written off plant and machinery.

You are asked to give the journal entries necessary to record the above and show the resulting balance sheet.

Solution :

Working Note :

Note 1 : Equity Share Capital = 5,00,000/-

$$\text{Capital Reduction} = \left(5{,}00{,}000 \times \frac{4}{5}\right) = 4{,}00{,}000/-$$

$$\text{Equity Share Capital} = 5{,}00{,}000 \times \frac{1}{5} = 1{,}00{,}000/-$$

$$\text{Note 2 : } \frac{\text{New Equity Share Capital}}{(5000 \times 1/2 \times 20) = 50{,}000/-}$$

Note 3 : Capital Reduction = 4,00,000/-

★ Good will	=	90,000/-
★ Patents	=	30,000/-
★ Profit & Loss A/c	=	2,00,000/-
★ Preliminary Expenses	=	40,000/
★ R.B.D.	=	4,500/-
★ (90,000 x 5/100)	=	
★ Motor Car	=	5,000/-
★ Plant & Machinery (B/F)	=	30,500/-

Journal of X Company Ltd.

Date	Particulars	L F	Debit (Rs)	Credit (Rs)
1.	Equity Share Capital a/c Dr		5,00,000	
	To Equity Share Capital a/c			1,00,000
	To Capital Reduction a/c			4,00,000
	(Being capital Reduction is created as per scheme)			
2.	Bank a/c Dr		50,000	
	To Equity Share Capital a/c			50,000
	(Being Amount Received on 2500 shares @ 20 each)			

3.	Capital Reduction a/c Dr	4,00,000	
	To Goodwill a/c		90,000
	To Patents a/c		30,000
	To Profit and Loss a/c		2,00,000
	To Preliminary Expenses a/c		40,000
	To R.B.D. a/c		4,500
	To Motor car a/c		5,000
	To Plant and Machinery a/c		30,500

(Being Capital Reduction account is transferred to fictitious assets and other assets as per scheme)

Balance Sheet of X Company Ltd as on 31-03-2001

Liabilities	Rs.	Assets		Rs
Share Capital		Goodwill	90,000	
7500 Equity Shares of @ Rs. 20/- each	1,50,000	(-) written of	90,000	Nil
		Land & Buildings		1,00,000
6% debentures	2,00,000			
		Plant & Machinery	2,40,000	
Profit prior to Incorporation	10,000	(-) written off	30,000	2,09,000
		Bank	5,000	
Creditors	1,40,000	(+) Receipts	50,000	55,000
Bank Overdraft	50,000	Debtors	90,000	
		(-) RBD	4,500	85,500
		Motor Car	10,000	
		(-) written off	5,000	5,000
		Stock in Hand		95,000
	5,50,000			5,50,000

Illustration : 3

3. The share capital of Govind Ltd. consisted of the following :

a) 10,000 11% preference shares of Rs. 10 each and

b) 50,000 equity shares of Rs. 10 each

The shares were fully paid. By the end of 2002-03, it had accumulated losses to the extent of Rs. 3,50,000 besides preliminary expenses totaling Rs. 20,000. It was also ascertained that the fixed assets which stood in the books at Rs. 14,20,000 were overvalued to the extent of Rs. 4,20,000.

A scheme of Capital Reduction was adopted and approved by the Court in order to remove the overvaluation and to write off the losses and preliminary expenses. Under the Scheme the 11% preference shares were to be converted into 14% preference shares of Rs. 60 each and the equity shares were to be converted into shares of Rs. 2 each. Also the dividends on the preference shares which were in arrear for 3 years were to be cancelled. State the journal entries to be passed on the implementation of the scheme.

Solution :

Working Note :

1) 14% Preference share capital = 10,000 x 60 = 6,00,000

New Equity Share Capital = 50,000 x 2 = 1,00,000

2) Arrears of Dividends = (10,00,000 x 11/100 x 3 = 3,30,000)

a)	11% Preference Share Capital a/c	Dr	10,00,000	
	Equity Share Capital a/c	Dr	5,00,000	
	To 14% Preference Share Capital a/c			6,00,000
	To Equity Share Capital a/c			1,00,000
	To Capital Reduction a/c			8,00,000

(Being Capital Reduction is created to write off losses and over valuation of assets as per scheme)

b)	Dividend arrears to preference share holders a/c	Dr	3,30,000	
	To Capital Reduction a/c			3,30,000

(Being dividend cancelled for 3 years in a scheme of Reconstruction)

c)	Capital Reduction a/c	Dr	11,30,000	
	To Profit and loss a/c			3,50,000
	To Preliminary Expenses a/c			20,000
	To Fixed Assets a/c			4,20,000
	To Capital Reserve a/c			3,40,000

(Being the amount of capital reduction account used to write off Profit & Loss a/c, preliminary expenses and over valuation of Fixed assets and the balance transferred to Capital Reserve a/c)

6.4. SUMMARY :

Sometimes it becomes necessary for a company to face the disastrous situation and to meet the challenges or competition in the sphere of Business to take the assistance of a well established and flourishing company by way of amalgamation or absorption. As regards experiencing heavy losses, with the consent of the share or debenture holders, a company prefers to go for Reconstruction, either by alteration of share capital or by reduction of share capital.

6.5. Key Words :

1. Amalgamation
2. Absorption
3. Reconstruction
4. Purchase Consideration
5. Lumsum Method

1. Amalgamation :

When two or more companies carrying one similar business taken over by a newly formed company for the progress in business, it is called amalgamation.

2. Absorption :

It one or more companies are taken over by a company already in existence, it is called absorption.

3. Reconstruction :

It means reorganisation of company's financial structure.

4. Purchase Consideration :

Purchase consideration means the purchase price agreed upon, which is paid by the purchasing company inorder to pay to the Vendor Company.

5. Lumsum Method :

A Lumsum amount is paid to Vendor.

6.6. SELF ASSESSMENT QUESTIONS :

1. What are the various provisions for Capital Reduction under Companies Act 1956 ?
2. Explain the various provisions of alteration of share capital as given in the Companies act 1976.?
3. Define the word reconstruction. What entries are passed by a company at External and Internal Reconstruction. ?

   The Balance Sheet of X ltd. is as follows :

Balance Sheet as on 31-12-2003

Liabilities		Rs.	Assets	Rs
2,500, 6.5% preference shares of Rs. 20 each fully paid		50,000	Patents	24,500
3,000 equity shares of Rs. 20 each fully paid		60,000	Buildings	60,000
5% debentures	10,000			
Add : Interest	2,000	12,000	Cash	500
Creditors		8,000	Debtors	12,000
			Stock	18,000
			Profit and loss account	15,000
		1,30,000		1,30,000

The following scheme was passed and sanctioned

a) A ltd. to be formed to take over the business.

b) One share of Rs. 10 fully paid in the new company to be issued for every three equity shares in the old company

c) Three shares of Rs. 10 fully paid in the new company to be issued for every five preference shares in the old company

d) Debenture holders to be paid in fully by A ltd

e) The creditors to receive 80% of the sums due to them in fully paid shares of Rs. 10 in the new company in full settlement

f) Patents and profit and loss account to be written off

g) Arrears of preference dividend to be cleared by issuing one Rs. 10 fully paid equity shares in A ltd. for every twenty held.

h) Any balance available by the scheme to be used in writing down buildings.

Give opening journal entries and prepare the initial balance sheet of A ltd.

6. External Reconstruction :

On 31st March 2002 the balance sheet of H ltd. was as follows :

Liabilities	Rs	Assets	Rs
Share capital (50,000 12% cumulative Preference shares of Rs. 10 each, fully paid)	5,00,000	Goodwill	4,00,000
		Plant and Machinery	7,00,000
		Furniture and Fixtures	2,00,000
		Patents	1,50,000

		Stock	4,90,000
1,50,000 equity shares of Rs. 10 each fully paid	15,00,000	Debtors	2,55,000
		Bank	5,000
		preliminary expenses	8,000
10% Debentures	3,00,000	Discount on issue of debentures	12,000
Creditors	2,00,000	Profit and Loss Account	2.80,000
Preference dividend In arrear for 3 years			
	25,00,000		25,00,000

The following scheme of external reconstruction was agreed upon :

a) A new company to be formed called J Ltd. with an authorised capital of Rs. 32,50,000 in equity shares of Rs. 10 each

b) One equity share Rs. 5 paid up in the new company to be allotted for each preference share in the old company.

c) Two equity shares Rs. 5 paid up in the new company to be allotted for each preference share in the old company

d) Arrears of preference dividends to be cancelled.

e) Debenture holders to receive 30,000 equity shares in the new company credited as fully paid.

f) Creditors to be taken over by the new company.

g) The remaining unissued shares to be taken up and paid for in full by the directors.

h) The new company to take over the old company's assets except patents, subject to writing down plant and machinery by Rs. 2,90,000 and stock by Rs. 60,000

i) Patents were realised by H Ltd., for Rs. 10,000

Show important ledger accounts in the books of H Ltd. and open the books of J Ltd. by means of journal entries and give the initial Balance Sheet of J ltd. Expenses of J Ltd. came to Rs. 10,000

7. Venkata Ramana Company Ltd. Passed necessary resolution and received sanction of the court for the reduction of its share capital by Rs. 2,50,000 for the purpose enunciated here under.

a) To write off the debit balance of profit and loss a/c Rs. 1,05,000.

b) To reduce the value of plant and machinery by Rs. 45,000 and of goodwill by Rs. 20,000

c) To reduce the value of investment to market value by writing off Rs. 40,000.

The reduction was made by converting 25,000 preference shares of Rs. 20 each fully paid to the same number of preference shares of Rs. 15 each fully paid and by converting 25,000 equity shares of Rs. 20 each, Rs. 15 paid up into 25,000 equity shares of Rs. 10 each fully paid.

Show journal entries necessary in relation to the reduction of share capital and show how would you deal with the balance of reduction of share capital a/c.

8. The following is the balance sheet of Andhra company Ltd., as at 31st December 1982

Liabilities	Rs	Assets	Rs.
Authorised Capital 6,000 shares of Rs. 100 each	6,00,000	Goodwill	70,000
Issued and subscribed Capital : 2,000 Shares of Rs. 100 each fully paid	2,00,000	Land & buildings	80,000
200 5% Debentures of Rs. 1,000 each fully Paid	2,00,000	Plant & Machinery	1,50,000
Sundry Creditors	50,000	Stock	50,000
Bills Payable	5,000	Sundry Debtors	43,000
Bank Overdraft	45,000	Cash at Bank	2,500
		Preliminary Exp.	4,500
		P&L A/c Debit Balance	1,00,000
	5,00,000		5,00,000

The following scheme of reconstruction was duly approved and adopted :

a) Without altering the number of shares in Authorised capital or Issued and subscribed capital, the face value and the paid-up value of each share be reduced to Rs. 50,.

b) The existing debentures be converted into 1,000 71/2% debentures of Rs. 1,000 each fully paid.

c) Assets be revalued as under :

Land and building – Rs. 72,000 ; plant and Machinery – Rs. 1,40,000 ;

Stock – Rs. 45,000 ;

Sundry Debtors subject to a Bad Debts reserve of Rs. 2,500

d) Goodwill, preliminary expenses and debit balance of profit and loss account be completely written off.

Show journal entries in the books of the Company and also the balance sheet giving effect to the scheme of reconstruction.

9. The Balance Sheet of the Vijaya lakshmi Shipping company Ltd. as at 31st December 1979 was as follows :

Liabilities	Rs.	Assets	Rs
Share capital : 1,00,000 preference shares of Rs. 10 each	10,00,000	Freehold works, plant and Machinery	36,02,474
2,00,000 ordinary shares of Rs. 10 each	20,00,000	Freehold Estate	1,06,760
Debentures	12,00,000	Shares in other companies	1,34,807
Creditors	1,45,523	Steamers	1,64,453
Insurance Reserve	5,577	Rolling Stock	1,28,721
General Reserve	1,08,823	Furniture	1,216
Profit & Loss a/c	47,770	Stock	1,37,051
		Debtors	93,657
		Bank	1,37,216
		Cash	1,338
	45,07,693		45,07,693

A scheme for the reduction of the capital, approved by the court was adopted by which Rs. 4.00 per share was to be written off the preference shares and Rs. 6 per share off the ordinary shares. The scheme provided for the under mentioned reductions in the assets :

Freehold works by Rs. 15,72,013, Freehold Estate by Rs. 6,761 shares in other companies by Rs. 62,610; steamers by Rs. 40,453; Rolling stock by Rs. 33,721 and that the General Reserve should be extinguished and the difference be transferred from profit and loss account. You are required to draft the balance sheet of the company, after carrying out the terms of the scheme, as set out above.

10. On 30th June 2004, the Balance sheet of Novelties Ltd. stood as under :

Liabilities	Rs.	Assets	Rs.
Authorized capital 10,000 ordinary shares of Rs. 100 each	10,00,000	Land & Buildings	2,00,000
Issued and paid up capital : 8,000 ordinary shares of Rs. 100 each	8,00,000	Plant & machinery	3,00,000
Loan from Mohan & Co.	2,00,000	Furniture & Fixtures	10,000
Creditors	2,00,000	Stock	70,000
		Debtors	80,000
		Goodwill	50,000

		Cash	10,000
		Profit & Loss a/c	4,80,000
	12,00,000		12,00,000

The company having now become a profit - earning concern, the following scheme of reconstruction was agreed upon, after carrying out the necessary formalities.

a) The Rs. 100 shares are to be reduced to Rs. 50 each

b) The 2,000 unissued shares are now to be issued as fully paid to Messrs Mohan & Co. in full settlement of their loan.

c) The agreement with the Andhra Bank Ltd for a loan of Rs. 70,000 on the mortgage of the concern be confrmed and the loan be taken.

d) The creditors give up 25 paise on a rupee and accept debentures for Rs. 1,00,000 and Rs. 50,000 in cash in full settlement of the amounts due to them.

e) The amount thus rendered available is to be utilised towards written off goodwill and profit and loss account (loss) entirely and the balance to be written off the plant and Machinery account.

f) Give necessary Journal Entries to carry out the above scheme of "Reduction of share capital and Reconstruction" and prepare the balance sheet of the company after completion of the scheme, as from I July 2004.

6.7. SUGGESTED READINGS

1. "Advance Accountancy" -- S.P. Jain, K.L. Narang
2. "Advanced Accounts" Volume – II -- M.C. Shukla, T.S. Grewal, S.C. Gupta
3. Problems and Solutions in Advance Accounting -- R.L. Gupta
4. Advance Accountancy" Volume – II -- S.N. Maheswari

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Lesson - 8

PREPARATION OF CONSOLIDATED BALANCE SHEET

OBJECTIVES

☆ to know the meaning of Holding companies and Subsidiary companies.

☆ to know the steps involved in preparing Consolidated Balance Sheet.

STRUCTURE :

8.1 Introduction :

It is obvious that Holding Companies can nominate the majority of directors in other companies which are known as subsidiary companies and therefore a holding company usually holds the majority of paid up equity share capital. When a company reaches the stage of floating another company holding majority of shares, it becomes a parent company. The existing companies in order to avoid competition float a company which holds a majority of their shares.

8.2. Definition :

Section 4 of the Companies Act, 1956 defines a Holding Company and a subsidiary company by their relation to each other. A company shall be deemed to be a subsidiary of another if, but only if,

a) the other company controls the composition of its Board of Directors : or

b) the other company (i) holds more than half of the nominal value of its equity capital, or (ii) if it is an existing company (i.e., a company formed before 1 April 1956) with both equity and preference shareholders, having equal voting rights, the other company controls more than half of the total voting power : or

c) it is a subsidiary of any company which is the other company's subsidiary.

To make it clear a company is termed to be the holding company of another only when the other is its subsidiary. Therefore a holding company is one which has control over one or more other companies. It is to be noted that there is no liquidation of subsidiary company. Moreover, its separate legal entity cannot be disturbed. The point is only acquisition of shares in the subsidiary company but not its assets or liabilities. Preparing consolidated Balance Sheet is common.

8.3. Advantages of Holding Companies :

In the USA the concept of Holding companies becomes useful and fruitful in bringing a number of companies under one control and gradually the holding companies become popular.

- The very first advantage of the holding companies is that the public do not know the existence of combination among the various companies and hence the matter of monopoly cannot enter the minds of the people.
- Losses can be carried and forwarded for Income Tax purposes.
- The persons who have the majority of shares need invest comparatively small amount in the order to control the subsidiary company.
- Subsidiary companies can have their separate identity and also goodwill.
- The subsidiary companies prepare their own accounts and so the financial position become known to every body.

8.4. Disadvantages of Holding Companies :

- Inter – Company transactions are entered at low prices to facilitate the Holding companies.
- Minority shareholders may be oppressed because of too high of too low prices in inter-company transactions, difficulties in accounting may arise.
- Accounts may be manipulated Fraudulently.
- The true financial position of the subsidiary company may not be known to the share holders.

8.5. Accounting system in Holding Companies

As per the companies Act, the financial year of a holding company and the subsidiary company should end on the same date. But as per section 213 (1) of the companies act, the Central

Government may issue directions to holding companies or subsidiary companies to extend the financial year of it is essential. In any case the time gap between the close of the financial year of the two, the holding or the subsidiary should not be more than six months.

Unlike the practice in England, in India it is not compulsory for the holding company to make a Consolidated Balance Sheet and Consolidated profit and loss a/c. But one point must be carefully followed. According to section 212 of the companies act a Holding company has to attach the necessary documents (listed hereunder) with its balance sheet in respect of each of its subsidiary.

- A copy of the balance sheet subsidiary
- A copy of its profit and loss account.
- A copy of the report of its board of Directors.
- A copy of the report of its auditors. etc.,

8.6. Preparation of Consolidated Balance Sheet

While preparing the consolidated Balance sheet the student has to note the following points

a) Ratio between the Holding Company and Subsidiary Company :

Suppose A Limited is the Holding Company and B Limited is Subsidiary Company. There are 10,000 shares, out of them A Ltd, purchased 7,000 shares. So the ratio between A Ltd. and B Ltd. is

A Ltd. – B Ltd.

7000 Shares – 3000 Shares

7 : 3

b) Calculation of Goodwill (or) Capital Reserve :

Good will : When the Holding Company purchases the shares of subsidiary co. by paying more than face value, the excess paid is treated as Goodwill.

a) For example X Ltd. is Holding company and Y Ltd. is subsidiary company in Y Ltd. There are 12,000 shares of Rs. 10 each. Out of them X Ltd. purchased 8,000 shares for Rs. 1,20,0000/

a) Calculate the ratio between X Ltd. and Y Ltd.

b) Calculate the Goodwill.

Sol : Ratio between X Ltd. and Y Ltd.

X Ltd. —— Y Ltd.

8000 —— 4000

2 : 1 (Ratio)

In the above example purchase price of 80000 shares is 1,20,000/- the face value is (8000 x 10) 80,000/-. The excess paid is (1,20,00 – 80,000) Rs. 40,000 is treated as Goodwill.

b) Capital reserve : When the holding company purchases shares from the subsidiary company, less than the face value, the difference between face value and the amount paid is treated as capital reserve.

For example P Ltd. is Holding Company and Q Ltd is subsidiary company in R Ltd. 10,000 shares are there out of them P Ltd. purchased 6000 shares for Rs. 40,000/- Capital Reserve is (60000 – 40000) 20,000/-.

c) Calculation of Capital Profits :

The profits and reserve in the subsidiary company on the date of shares acquired by the holding company is treated as capital profits.

Illustration – 1

For X Ltd. purchased shares from Y Ltd. on 01-07-2003.

The Balance Sheet of X and Y Ltd on 31-03-2004 are as follows :

C	X Ltd.	Y Ltd.	A	X Ltd.	Y Ltd
Share Capital	10,00,000	8,00,000	Sundry assests	7,60,000	10,60,000
General (1-4-03) Reserve	1,00,000	50,000	Investment in. Y Ltd. (60,000 Shares)	7,00,000	
P&L a/c (1-4-03)	60,000	30,000			
Profit during the year	1,00,000	80,000			
Creditors	2,00,000	1,00,000			
	14,60,000	10,60,000		14,60,000	10,60,000

Calculate the following

a) Ratio between X Ltd. and Y Ltd.

b) Cost of control.

Sol :

Ratio between X Ltd. and Y Ltd.

No. of shares in Y Ltd. = $\frac{8,00,000}{10}$ = 80,000 shares

No. of shares purchased

by X Ltd — 60,000 (Shares)

The shares held by Minority Share Holders = (80,000 – 60,000) = 20,000 shares (Remaining in Y Ltd.)

The Ratio between X Ltd and Y Ltd is

X Ltd — Y Ltd.

60,000 20,000

3 : 1 (Ratio)

Goodwill

The Purchase price of 60,000 shares 7,00,000
=
Less Face value of 60,000 shares = 6,00,000

(60,000 * 10)

Goodwill 1,00,000

Capital Profits

Reserve in Y Ltd on 01-04-2003	=		50,000
Profit in Y Ltd on 01-04-2003	=		30,000
Profit from 01-04-2003 to 01-07-2003	=		20,000
80,000*3 / 12			
Capital Profit			1,00,000
Share of X Ltd.	=	1,00,000 * 3/4	75,000
Share of Y Ltd.	=	1,00,000 * 2/4	25,000

Net Goodwill (cost of control) = 25000 = (1,00,000 – 75,000)

d) Calculation of Revenue Profits

Profits earned by subsidiary company after acquiring the shares by holding company are called Revenue Profits. In the above illustration 1 the profits are as follows:

Sol :

Shares purchased by X ltd., from y ltd., is 1-07-2003

Date of Balance Sheet is 31-03-2004

Profits earned by y ltd during the year is 80,000

Profits from 01-07-2003 to 31-03-2004 = (80,000 x 9 / 12) = 60,000/-

Share of x ltd., is 60,000 x 3 / 4	45,000
Share of y ltd., is 60,000 x 2 / 4	15,000

The x ltd share of profit Rs. 45,000/- is considered as Revenue Profit of holding companies and it will be added to the x ltd's profits in the consolidated Balance Sheet.
The y ltd., share of profit Rs.15,000/- is to be added to minority share holder's interest.

e. Minority Share Holders Interest

The amount related to y ltd., is treated as minority share holders interest as per the illustration

1. The amount of Minority Share Holders interest is as following:

Face value of the remaining shares in Y ltd., (20,000 x 10) =	2,00,000
Y ltd., share of capital profits ----------	25,000
Y ltd., share of revenue profits -----------	15,000
Minority Share Holders Interest =	2,40,000

- The above will be shown in the liability side of consolidated Balance sheet.

F. Treatment of unrealised profit

Sometimes holding companies may buy the goods from the subsidiary companies or subsidiary companies may buy the goods from the holding companies. While selling these goods, the selling company may include some percentage of profit to the cost plus profit or sale price out of these purchases, at the end of the year the profit included in the unsold stock is treated as unrealised profit. If the holding company sells the goods to the subsidiary companies the profit included in the unsold stock is treated as unrealised profit.

* If subsidiary company sells the goods to holding company out of the profits included in the unsold stock, the share of holding companies becomes the unrealised profit. The unrealised profit will be deducted from the profit and loss a/c on the liabilities side of Balance sheet, later the same amount will be shown as deduction from stock on the assets side of consolidated Balance Sheet.

a) X Ltd. is the Holding company, Y Ltd., is the Subsidiary Company. X ltd., sold the goods to y ltd., for Rs. 24,000/- at cost plus 20% out of these purchases Rs. 6,000/- worth of stock is in unsold stock at the end of the year.

Profit as regards unsold stock = 60,000 x 20/120 = 1000

b) If X ltd., is the holding company Y ltd., is subsidiary company. Y ltd., sold the goods to X ltd., for Rs. 24,000/- during the year at cost plus 20% out of this purchases the stock Rs. 6,000/- worth remained in unsold stock at the end of year at X ltd.,

Profit incurred in unsold stock = 60,000 x 20/120 = 1000

* Out of Rs. 1,000/- the share of holding company becomes unrealised profits.

c) Inter = Company Transactions :

The holding company and the subsidiary company can maintain inter-company transactions and these transactions may relate to any one or more of the following matters :

a) Either the holding company or the subsidiary company can grant loans.

b) The holding company or to the subsidiary company has freedom in the sale of goods on credit.

c) Bills of exchange can be drawn by the holding company or subsidiary company.

As a result of these inter – company transactions, certain accounts appear in the balance sheet of the holding company as well as the subsidiary company. Therefore in the consolidated balance sheet these common accounts should not be repeated.

h) Revaluation of Assets and Liabilities

While preparing the consolidated balance sheet the subsidiary company may undervalue some of the assets or over value the assests. In such situation we have to bring the actual value in the preparation of consolidated balance sheet.

* If the assest is under valued we have to increase its value. It will be called capital profits)

* If the assest value is over value, Then the value is to be decreased. (It will be called capital losses)

i) Treatment of Dividend

Some times, it so happens that a Subsidiary Company declares dividends to share holders related to the profits of the previous year after acquring the shares by holding company. Such dividend is included in the profits and loss of the holding company and this amount is considered as capital profit, therefore this amount will be deducted from profit and loss as the holding company and the same amount will be added to Capital Resurge as the consolidated Balance sheet.

Illustration : 2

On 1st July 2003 the H company Ltd., bought 75% of the shares of the S company Ltd., of Rs. 10 each fully paid at Rs. 20 each. The following are the balance sheets of the companies as on 31-12-2003.

Liabilities	H Ltd. Rs.	S Ltd. Rs.	Assets	H Ltd. Rs.	S. Ltd., Rs.
Share Capital	8,00,000	50,000	Fixed Assets	7,50,000	37,500
General Reserve on 1-1-03	1,60,000	16,000	Stock	4,30,000	57,500
Sundry Creditors	2,40,000	31,750	Debtors	2,75,000	30,000
Profit & Loss a/c On 1-1-03	1,30,000	6,250	Shares in S ltd., 3,750 shares	75,000	
Profit for the year	2,00,000	21,000			
	15,30,000	1,25,000		15,30,000	1,25,000

The Debtors of H Ltd., included Rs. 10,000 due from S Ltd., prepare a consolidated Balance Sheet as on 31-12-2003.

Solution :

Note : 1 Ratio between H Ltd. and S Ltd.

H Ltd.	—	S Ltd.	(or)	H Ltd., 3750 (Shares)	—	S Ltd. 1250 (Shares)
75%	—	25%			3 : 1	

Note : 2 Calculation of Goodwill

Purchase price of 3750 shares	=	75,000/-
(-) Face value of 3,750 shares 10/-each	=	37,500/-
Goodwill		37,500

Note : 3 Calculation of Capital Profits

General Reserve in S Ltd (1-1-03)	—	16,000
Profit & Loss a/c (1-1-03)	—	6,250
Profit from (1-1-03 to 1-07-03) (21000* 6/12)	—	10,500
		32,750

Capital Profits — 32,750

Share of H Ltd. — 32,750* 3/4 = 24562. 50

Share of S Ltd. — 32,750*1/4 = 8187.50

Calculation of Net Goodwill (or) = (37,500 – 24562.50)

= 12937.50

Cost of Control = 12937.50

Note : 4 Calculation of Revenue Profits

Shares purchased by H Ltd. in S Ltd. = 1-07-03

Date of Balance Sheet = 31-12-03

Profits earned by S Ltd. during the year is = Rs. 21,000

(Profits from 1-1-03 to 1-07-03) = 21,000* 6/12 = 10,500/-

Share of H Ltd = 10,500* 3/4 = 7,875

Share of S Ltd = 10,500* 1/4 = 2,625

Note : 5 Calculation of Minority Shareholder's Interest

Face value of the remaining shares in S Ltd	=	12,500.00
S Ltd. Share of Capital Profits	=	8,187.50
S Ltd. Share of Revenue Profits	=	2,625.00
Minority shareholders interest		23,312.50

CONSOLIDATED BALANCE SHEET AS ON 31-12-2003

Liabilities		Rs.	Assets		Rs.
Share Capital 100 each		8,00,000	Goodwill		12,937.50
General Reserve		1,60,000	Fixed Assets		
Creditors			H Ltd.	7,50,000	
H Ltd.	2,40,000		S Ltd.	37,500	
S Ltd.	31,750				7,87,500
			Stock		

	2,71,750		H Ltd.	4,30,000	
(-) Inter Co. Transactions	10,000	2,61,750	S Ltd.	57,500	4,87,500
Profits & Loss a/c			Sundry Debtors		
H Ltd.	3,30,000		H Ltd.	2,75,000	
S Ltd.	7,875	3,37,875	S Ltd.	30,000	
				3,05,000	
Minority shareholders Interest		23,312.50	(-) Inter Co. Transactions	10,000	2,95,000
		15,82,937.50			15,82,937.50

Illustration : 3 (May, 1988)

The Balance Sheets of H Ltd., and S Ltd., on 31-12-2003 were as under :

Share Capital	H Ltd. Rs.	S Ltd Rs.		H Ltd. Rs.	S Ltd Rs.
Shares of Rs. 100 each	3,00,000	75,000	Buildings	90,000	—
Reserve	45,000	15,000	Machinery	3,00,000	—
Creditors	75,000	45,000	Stock	50,000	1,00,000
Bills Payable	22,500	—	Debtors	40,000	72,500
P&L a/c on 1-1-03	60,000	30,000	Cash	—	15,000
Profit for the year	75,000	37,500	Share in S Ltd.	97,500	—
			Bills Receivable	—	15,000
	5,77,500	2,02,500		5,77,500	2,02,500

Shares were acquired by H Ltd., on 1-1-2003. Bills receivable held by S Ltd., are all accepted by H Ltd. included in the debtors of S Ltd., is Rs. 10,000 owing by H. Ltd. Prepare the consolidated Balance Sheet.

Solution :

Note : 1 **Ratio between H Ltd. and S Ltd**

All the shares of S Ltd. acquired by H Ltd.therefore ratio between H Ltd.and S Ltd. will not arise.

Note : 2 **Calculation of Goodwill**

Purchase price all the share of S Ltd.	=	97,500
Less Face Value	=	75,000
Goodwill		22,500

Note : 3 **Calculation of Capital Profits**

Reserve on 1-1-2003	=	15,000
Profit on 1-1-2003	=	30,000
Capital Reserve		45,000

Note : 4 **Cost of Control (Net Capital Reserve)**

(45,000 – 22,500) = 22,500/-

Note : 5 **Calculation of Revenue Profit**

Profit during the year – 37,500

CONSOLIDATED BALANCE SHEET ON 31-12-2003

LIABILITIES		Rs.	ASSETS		Rs.
Share Capital (100 each)		3,00,000	Building		90,000
General Reserve		45,000	Machinery		3,00,000
Creditors H Ltd.	75,000		Stock H Ltd.	50,000	
S Ltd.	45,000		S Ltd.	1,00,000	
		1,20,000			1,50,000
Bills payable	22,500		Debtors H Ltd.	40,000	
(-) Inter co.	10,000		S Ltd.	72,500	
Transactions		12,500			
				1,12,500	
			(-) Inter Co.	10,000	
			Transactions		1,02,500
Profit & Loss a/c	60,000		Cash		15,000
(+) Profits	37,500		B/R		15,000
(+) Profits	75,000				
		1,72,500			
Capital Reserve		22,500			
		6,72,500			6,72,500

Illustration : 4

(April, 1987)

The Balance Sheets of H Ltd. and S Ltd. on 31st December, 2003 were as follows :

Balance Sheet of H Ltd.

Liabilities	Rs.	Assets	Rs.
Share Capital			
8,000 Equity Shares			
of Rs. 100 each	8,00,000	Land & Buildings	3,00,000
General Reserve	60,000	Plant & Machinery	2,25,000
Profit & Loss a/c	1,00,000	Investments :	
		Government securities	50,000
Sundry Creditors	1,80,000	2,700 shares in S Ltd.	
		at cost	2,97,000
Bills Payable	50,000	Stock	60,000
		Sundry Debtors	1,50,000
		Cash at Bank	48,000
		Bills Receivable	60,000
	11,90,000		11,90,000

Balance Sheet of S Ltd.

Liabilities	Rs.	Assets	Rs.
Share Capital			
3,000 Equity Shares			
of Rs. 100 each	3,00,000	Land & Buildings	1,20,000
General Reserve	20,000	Plant & Machinery	2,00,000
Profit & Loss a/c	10,000	Stock	45,000
Sundry Creditors	90,000	Sundry Debtors	75,000
Bills Payable	45,000	Cash at bank	15,000
		Bills Receivable	10,000
	4,65,000		4,65,000

a) At the date of acquisition, General Reserve stood as nil and Profit and Loss A/c showed a debit balance of Rs. 20,000 in the books of S Ltd.

b) Bills payable of S Ltd. include Rs. 15,000 issued in favour of H Ltd. which has discounted Rs. 5,000 of them.

Prepare a consolidated Balance Sheet as on 31 December, 2003

Solution :

Note : 1 **Ratio Between H Ltd. and S Ltd.**

Number of Shares in S Ltd.	=	3000
Shares purchased by H Ltd.	=	2700
Shares Remained in S Ltd. (3000 – 2700)	=	300

X Ltd — S Ltd

2700 — 300

9 : 1

Note : 2 **Calculation of Goodwill**

Purchase of price of 2700 Shares	=	2,97,000		
(-) Face value of 2700 shares (2700 x 100)	=	2,70,000		
Goodwill	=	27,000		
Loss on S Ltd on the date of acquiring shares by H Ltd.			=	20,000
Share of H Ltd. (20,000* 9/10)			=	18,000
Share of S Ltd. (20,000* 1/10)			=	2,000
Net Goodwill (27,000 – 18,000)			=	9,000

Note : 3 **Calculation of Revenue Profits**

General Reserve	=	20,000		
Profits Loss a/c (20,000 + 10,000)	=	30,000		
		50,000		
Share of H Ltd.	=	(50,000* 9/10)	=	45,000
Share of S Ltd.	=	(50,000* 1/10)	=	5,000

Note : 4 **Minority shareholder's interest**

Value of Shares in S Ltd	= 300*100	=	30,000
S Ltd. share in Revenue Profit	=		5,000
			35,000
(-) Capital loss (share of S Ltd.)			2,000
Minority shareholders interest			33,000

Note : 5 **Inter Company Transactions**

Bills of Exchange = 10,000/-

Consolidated Balance Sheet As on 31-12-2003

Liabilities		Rs.	Assets		Rs.
Share Capital 100 each		8,00,000	Net Goodwill	—	45,000
General Reserve		60,000	Land & Buildings		
			H Ltd.	3,00,000	
			S Ltd.	1,20,000	
					4,20,000
Profit & Loss a/c	1,00,000		Plant & Machinery		
(+) Profit	45,000		H Ltd.	2,25,000	
		1,45,000	S Ltd.	2,00,000	
					4,25,000
Sundry creditors			Investments in Govt		
H Ltd.	1,80,000		Securities		50,000
S ltd.	90,000				
		2,70,000			
Bills Payable			Stock		
H Ltd.	50,000		H Ltd.	60,000	
S Ltd.	45,000		S Ltd.	45,000	
					1,05,000
	95,000				
(-) Inter Co. Tr.	10,000				
		85,000			
			Sundry Debtors		
			H Ltd.	1,50,000	
			S Ltd.	75,000	
					2,25,000
Minority Shareholders			Cash at Bank		
Interest		33,000	H Ltd.	48,000	
			S Ltd.	15,000	
					63,000
			Bills Receivable		
			H Ltd.	60,000	
			S Ltd.	10,000	
					60,000
				70,000	
		13,93,000	(-) Inter Co. Tr	10,000	13,93,000

ILLUSTRATION : 5

(October, 1988)

From the Balance Sheets and information given below, prepare a Consolidated Balance Sheet.

Balance Sheet as on 31-12-2003

	H Ltd. Rs.	S Ltd. Rs.		H Ltd. Rs.	S Ltd Rs.
Share Capital					
Rs. 10 Fully paid	1,00,000	20,000	Sundry Assets	80,000	12,000
Profit & Loss a/c	40,000	12,000	Stock	61,000	24,000
Reserve	10,000	6,000	Debtors	13,000	17,000
Bills Payable	—	3,000	Bills Receivable	1,000	—
Creditors	20,000	12,000	Shares in S Ltd.		
			1,500 share at cost	15,000	—
	1,70,000	53,000		1,70,000	53,000

a) All the profits of S Ltd., have been earned since the shares were aquired by H Ltd., but there was already the reserve of Rs. 6,000 on that date.

b) The bills accepted by S Ltd., are in all in favour of H Ltd., which has discounted Rs. 2,000 of them.

c) Sundry Assets of S Ltd., are undervalued by Rs. 2,000

d) The stock of H Ltd., included Rs. 5,000 bought from S ltd., at a profit to the latter of 25% on cost.

SOLUTION :

Note : 1 **Ratio between H Ltd. and S Ltd.**

No. of Shares in S Ltd. = 20,000/10 = 2000 shares

No. of Shares purchased by H Ltd. = 1500 shares

No. of Shares remained by S Ltd. = (2000 – 1500) = 500 shares

Ratio = H Ltd. — S Ltd.

1500 — 500

3 : 1

Note : 2 **Calculation of Goodwill**

Purchase Price of 1500 Shares = 15,000

(-) Face Value — = 15,000

Goodwill (nil) 0

Note : 3 **Calculation of Capital Profits**

General Reserve		=	6,000
(=) under valuation of assets			
brought to original value		=	2,000
			8,000
shares of H. Ltd. =	8000* 3/4	=	6,000
Share of S Ltd. =	8000* 1/4	=	2,000

Note : 4 **Calculation of Revenue Profit**

Profit of S Ltd. During the Year	=	12,000		
Share of H Ltd.	=	12,000* 3/4	=	9000
Share of S Ltd.	=	12,000* 1/4	=	3000

Note : 4 **Minority Shareholders Interest**

Face value of shares remained with S Ltd (500* 10)	=	5000
Share of S Ltd. in Capital Profits	=	2000
Share of S Ltd. in Revenue Profit	=	3000
Minority shareholders Interest		10,000

Note : 5 **Calculation of Unrealised Profit**

Unsold stock	=	50,000
Profit included	=	25% on cost (25/125)
Therefore, Profit included	=	5000* 25/125 = 1000
Share of H Ltd.	=	1000* 3/4 = 750*

It is to be deducted from profit and loss on the liability side and same amount will be deducted from stock on the assets side of B/S

Note 6 : **Inter Company Transactions**

Bills of Exchange = 1000

CONSOLIDATED BALANCE SHEET ~~AS ON 31-12-2003~~

Liabilities		Rs.	Assets		Rs.
Share Capital		1,00,000	Sundry Assets		
Reserve		10,000	H Ltd.	80,000	
Capital Reserve		6,000	S Ltd.	12,000	
Bills payable	3,000				
(-) Inter Co.	1,000			92,000	
		2,000	(+) Undervaluation		

			action	2,000	
Profit & Loss a/c	40,000				94,000
(+) Profit	9,000		Stock H Ltd.	61,000	
			S Ltd.	24,000	
	49,000				
(-) Unrealised Profit	750	48,250		85,000	
			(-) Unrealised Profit	750	84,250
Minority shareholders Interest		10,000	Sundry Debotrs		
			H Ltd.	13,000	
			S Ltd.	17,000	30,000
			Bills Receivable	1,000	
			(-) Inter Co.		
Sundry Creditors			Transactions	1,000	
H Ltd.	20,000				
S Ltd.	12,000	32,000			
		2,08,250			2,08,250

Illustration : 6

(April, 1986)

Senior Company Ltd. acquired 80% of both classes of shares in Junior Co. Ltd. as on 1-1-2003 at a total cost of Rs. 5,60,000. The Balance Sheets on 31-12-2003 when accounts of both Companies were prepared as under Balance Sheets as on 31-12-2003.

Liabilities	Senior Co. Rs.	Junior Co. Rs.	Assets	Senior Co. Rs.	Junior Co. Rs.
Share Capital					
15,000 Shares of Rs. 50 each fully paid	7,50,000	—	Land & Build.	5,15,000	1,50,000
30,000 Equity Shares of Rs. 5 each	—	1,50,000	Plant & Machi.	1,50,000	1,35,500
1,000 6% Preference Shares of Rs. 100 Each	—	1,00,000	Debtors	1,40,000	79,000
General Reserve	4,75,000	10,000	Stock	1,70,000	1,01,000

Profit & Loss a/c	4,00,000	1,80,000	Investments	5,60,000	—
Creditors	75,000	80,500	Cash at Bank	1,65,000	55,000
	17,00,000	5,20,500		17,00,000	5,20,500

i) Creditors of Senior Co. Ltd. include Rs. 30,000 purchases from the Junior Co. Ltd.. on which the latter Company made a profit of Rs. 7,500.

ii) Stock of Senior Co. Ltd included Rs. 15,000 Stock at Cost, purchased from the Junior Co. Ltd. part of the Rs. 30,000 purchases.

iii) Profit and Loss Account of Senior Co. Ltd. includes dividend at the rate of 16% per annum from the Junior Co. Ltd. The dividend was for the year 2002. General Reserve of Junior Co. Ltd. was the balance on 1-1-2003. The balance in profit and loss account at 1-1-2003 of Junior Co. Ltd. was Rs. 80,000, out of which dividend at the rate of 16% was paid on equity shares. The dividend in respect of Preference Shares for the year 2003 is still payable. Prepare the Consolidated Balance Sheet at on 31-12-2003.

Solution :

Note : 1 **Ratio between Senior Co. and Junior Co.**

Senior Co.	-	Junior Co.
80%	-	20%
	4 : 1	

Note : 2 **Calculation Goodwill (or) Cost of Control**

Purchase price of all the shares		5,60,000
(-) Dividend @16% on one Equity Capital of H Ltd. (1,20,000*16/100) is treated as capital profits		19,200
		5,40,800
(-) Face value of preference shares	80,000	
Face value of Equity shares	1,20,000	2,00,000
		3,40,800
Less Capital Reserve		52,800**
Net Goodwill		2,88,000

Note : 3 **Calculation of Capital Profit**

General Reserve as on 1-1-03		10,000
Profit & Loss a/c on 1-1-03	80,000	
(-) Dividend @ 16% on 1,50,000	24,000	56,000
		66,000

Share of H Ltd. — 66000* 4/5		52,800
Share of S Ltd. — 66000* 1/5		13,200

Note : 4 **Calculation of Revenue Profits**

Profit and Loss a/c on 31-12-2003		1,80,000
(-) Profit as on 1-1-2003	80,000	
(-) Dividend paid	24,000	
		56,000
		1,24,000
(-) Preference dividend payable for the year 2003 (1,00,000* 6/100)		6,000
Profit available + equity shareholders		1,18,000
Share of H Ltd =		
* 1,18,000* (80/100) 4/5 =	94,400	
* 6,000* (80/100) 1/5 =	4,800	
		99,200
Share of S Ltd =		
* 1,18,000* (20/100) 1/5 =	23,600	
* 6,000* 1/5 =	1,200*	24,800*

Out of which, the amount of Rs. 1200 is for preference Dividend

Note 5 : **Calculation of minority shareholders interest**

a) Preference Shares			
* Face value of Preference shares (1,00,000* 20/100)	=	20,000	
* Dividend	=	1,200	
			21,200
b) Equity Shares			
* Face Value (1,50,000* 20/100)	=	30,000	
* Share of capital profit	=	13,200	
* Share of Revenue Profit (Preference dividend)	=	23,600	
			66,800
Minority shareholders interest			88,000

Note : 6 **Unrealised Profit**

= 7500* 15000/30000 = 3750/-

CONSOLIDATED BALANCE SHEET AS ON 31-12-2003

Liabilities		Rs.	Assets		Rs.
Share Capital 100 each		7,50,000	Goodwill		2,88,000
(15000 shares Rs. 50 each fully paid)					
General Reserve		4,75,000	Land & Buildings		
			H Ltd.	5,15,000	
			S Ltd.	1,50,000	
					6,65,000
Profit & Loss a/c	4,00,000		Plant & Machinery		
(-) Dividend of a	19,200		H Ltd.	1,50,000	
			S Ltd.	1,35,500	
capital item wrongly					2,85,500
Credited earlier	3,80,800				
(-) Unrealised profit on stock	3,750				
	3,77,050				
(+) H Ltd share of profit in S Ltd.	99,200				
		4,76,250			
Sundry Creditors			Stock H Ltd.	1,70,000	
H Ltd.	75,000		S Ltd.	1,01,000	
S Ltd.	80,500				
				2,71,000	
	1,55,500		(-) Unrealised		
(-) Mutual owing	30,000		profit	3,750	
		1,25,500			2,67,250
Minority Shareholders Interest		88,000	Debtors H Ltd.	1,40,000	
			S Ltd.	79,000	
				2,19,000	
			(-) Mutual owing	30,000	
					1,89,000
			Cash at Bank		
			H Ltd.	1,65,000	
			S Ltd.	55,000	
					2,20,000
		19,14,750			19,14,750

8.7. Summary

To conclude a Holding Company can have control over one or more companies with out any short of disturbance as regards the legal entity. It is abvious that a holding company soon becomes a parent company. It facilitates acquisition of shares to greater percentages through the tree financial position of the subsidiary company not be know to the share holders. In our country it is not compulsory for a holding company to make a Consolidated Balance sheet but it has to submit the relevant documents (VIZ) profit and loss a/c Report of the Board of Directors and the auditors.

8.8. Key Words :

Holding Company	:	A Company which controls one or more other companies by means of holding shares in that company.
Subsidiary Company	:	A company controlled by a holding company is termed as a subsidiary company.
Contingent Liabilities	:	Contingent Liability is a liability which may or may not arise
Inter – Company Transactions	:	Transactions between the holding company and the subsidiary company are known as inter company transactions.
Types of subsidiaries	:	Subsidiary company may be "wholly owned subsidiary company "or" partly owned subsidiary company.

8.10. Self - Assessment Questions :-

1. What is Holding Company ? How it is defined under the Companies Act 1956 ?
2. What are the steps to be followed in the preparation of Consolidated Balance Sheet of Holding companies
3. Write short notes on the following

   a) Inter Company Transaction

   b) Unrealised profits

   c) Cost of control

4. Following are the balance sheets of A Ltd and its subsidiary Z Ltd as at 31st March 2001.

Liabilities	A Ltd. Rs.	Z Ltd. Rs.	Assets	A Ltd Rs.	Z Ltd Rs.
Share Capital			Machinery	3,00,000	1,00,000
			Furniture	70,000	45,000
Shares of Rs. 10 each			70% shares in		
fully paid	6,00,000	2,00,000	Z Ltd. at cost	2,60,000	—
General Reserve	1,50,000	70,000	Stock	1,75,000	1,89,000

Profit * Loss A/c	70,000	50,000	Debtors	55,000	30,000
Creditors	90,000	60,000	Cash at bank	50,000	10,000
			Preliminary ex.	——	6,000
	9,10,000	3,80,000		9,10,000	3,80,000

A Ltd. acquired the shares of Z Ltd. on 30th June 2000. On 1st April, 2000 Z Ltd. General Reserve and Profit and Loss account stood at Rs. 60,000 and 20,000 respectively. No part of preliminary expenses was written off during the year ended 31st March, 2001.

Prepare the consolidated balance sheet of A ltd. and its subsidiary Z Ltd. as at 31st March 2001.

(5) R Ltd. acquired 6,400 equity shares of S Ltd. on 1st Jan. 2002. Following are the Balance sheets of the two companies as at 31st Dec. 2002.

Liabilities	R Ltd.	S Ltd.	Assets	R Ltd.	S Ltd.
Share Capital :			Land & Buildings	4,00,000	2,40,000
Equity Shares of Rs. 100 each	16,00,000	8,00,000	Plant & Mach.	4,00,000	4,80,000
General Reserve 1.1.02	3,20,000	1,60,000	Stock	1,20,000	80,000
Profit & Loss A/c 1.1.02	80,000	48,000	Sundry Debtors	80,000	96,000
Profit for the year 2002	60,000	64,000	Investment in shares of S Ltd	8,00,000	—
Sundry Creditors	80,000	80,000	Bills Receivable	64,000	8,000
Bills Payable	24,000	8,000	Cash & Bank	4,00,000	2,56,000
	22,64,000	11,60,000		22,64,000	11,64,000

a) Bills Receivable of R Ltd. include Rs. 8,000 accepted by S Ltd.

b) Sundry Debtors of R Ltd. include Rs. 40,000 due from S Ltd.

c) Stock of S Ltd. includes goods purchased from R Ltd. for Rs. 48,000

Which were invoiced by R Ltd. at a profit of 20% on sales prepare a Consolidated Balance Sheet of R Ltd. and its subsidiary S Ltd.

a) Bills Receivable of R Ltd. include Rs. 8,000 accepted by S Ltd.

b) Sundry Debtors of R Ltd. include Rs. 40,000 due from S Ltd.

c) Stock of S Ltd. includes goods purchased from R Ltd. for Rs. 48,000

Which were invoiced by R Ltd. at a profit of 20% on sales prepare a Consolidated Balance sheet of R Ltd. and its subsidiary S Ltd.

6. From the Balance Sheets given below, prepare a consolidated balance sheet of Moti Ltd., and its subsidiary company, Choti Ltd., the interests of Choti Ltd., are to be shown as separate item.

Balance Sheet of Moti Ltd. as on 30th June 1983

Liabilities	Rs.	Assets	Rs.
Share Capital Authorised and Issued : 12,000 shares of Rs. 10/- each	1,20,000	Freehold Buildings at cost	72,000
Trade Creditors	15,000	Plant and Machinery at cost (Rs. 40,000) Less : Depreciation	30,000
General Reserve	25,000	Shares in Choti Ltd., at cost 2,500 shares of Rs. 10/- each	25,000
Profit & Loss a/c	12,000	Stock at Cost	18,000
		Trade Debtors	22,000
		Bank Balance	5,000
	1,72,000		1,72,000

Balance Sheet of Choti Ltd. as on 30th June 1983

Liabilities	Rs.	Assets	Rs.
Share Capital 3,000 shares of Rs. 10/- each	30,000	Leasehold Property at cost (Rs. 30,000) Less : Depreciation	25,000
Trade creditors	5,000	Plant and Machinery At cost (Rs. 15,000) Less : Depreciation	10,000
General Reserve	6,000		
Profit & Loss A/c.	9,000	Stock at cost	3,000
		Trade Debtors	7,000
		Bank Balance	5,000
	50,000		50,000

At the date of acquisition by Moti Ltd. of its holding of 2,000 shares in Choti Ltd. the latter company had undistributed profits and Reserve amounting to Rs. 5,000 none of which has been distributed since the date of acquisition.

7. H Ltd. Acquired 80% of the shares of S Ltd. on 1st January 1982 at a top cost of Rs. 4,25,000. The Balance Sheet of the two companies as on 31st December 1982 are as under :

Liabilities	H Ltd Rs.	S Ltd Rs.	Assets	H Ltd Rs.	S Ltd Rs.
Share Capital Preference Shares of Rs. 100 each	2,00,000	—	Land & Buildings	4,65,000	1,85,000
Equity Shares of Rs. 10 each	5,00,000	2,50,000	Plant & Machinery	1,50,000	1,09,000
General Reserve	3,50,000	15,000	Stock	1,55,000	70,800
Profit & Loss A/c	3,00,000	1,50,000	Investments	4,25,000	—
Sundry Creditors	70,000	65,000	Debtors	1,20,000	62,700
			Cash at Bank	1,05,000	52,500
	114,20,000	4,80,000		14,20,000	4,80,000

The following further information is relevant :

a) Sundry Creditors in H Ltd. include Rs. 20,000/- for goods purchased from S Ltd. on which the S Ltd. made a profit or Rs. 5,000/-

b) Half of the goods sold as above were still included in the stock of H Ltd.

c) The General Reserve of S Ltd. represents the balance on 1st January 1982. Profit and Loss A/c balance as on 1st January 1982, was Rs. 50,000 out of which dividend at 10% was paid for the year 1981.

Prepare the Consolidated Balance Sheet of H Ltd. and S Ltd.

8. On 1.07.1970, Janata Co. Ltd., purchased 11,000 shares of Rs. 10 each of Vijaya Company at Rs. 20/- per each share.

The B/s of two companies are as follows on 31-12-1970

Liabilities	Janata Rs.	Vijaya Rs.	Assets	Janata Rs.	Vijaya Rs.
Share Capital	4,00,000	1,20,000	Buildings	3,00,000	1,30,000
General Reserve	1,00,000	12,000	Sundry Assets	1,00,000	22,800
Creditors	30,000	20,000	Debits	40,000	30,000
PEL A/c On 1-07-70	50,000	6,000	Shares in Vijay & Co.	2,20,000	—
	114,20,000	4,80,000		14,20,000	4,80,000

The Debtors of Janata Co., include Rs. 10,000 due from Vijaya Co., prepare Consolidated Balance Sheet.

8.10. Suggested Readings :

1.	"Advanced Accounts"	:	M.C. Shukla & T.S. Grewal S.C. Gupta
2.	"Advanced Accountancy"	:	S.P. Jain & K.L. Narang
3.	"Advanced Accountancy"	:	S.N. Maheshwari

Dr. P. L. Narasimha Rao

Lesson - 9

FINANCIAL REPORTING

Objectives :

The objectives of this unit are to help you to understand :

- The objectives of Financial Statements
- The concept of financial reporting
- The essentials of an ideal report
- The main objectives of financial reporting
- The types of financial reports
- The functions of financial reports
- The benefits of adequate disclosure

Structure :

9.1 Introduction :

Accounting is an important service activity in business and is concerned with collecting, recording evaluating and reporting the results of past events. With the emergence of management accounting the focus of accounting has been shifting from mere recording of transaction to that of aiding the management in decision making. Accounting can be perceived as an information system to provide information to various parties such as shareholders. Government, and Public etc. The important financial statements are profit and loss account, balance sheet and funds flow statements.

9.2 Objectives of Financial Statements :

1. to provide reliable information about economic resources and their use in business enterprise.
2. to provide reliable information about the change in net resources resulting from a business enterprise's profit directed activities in order to (a) show to investor expected dividend return; (b) show the operation's ability to pay creditors and suppliers, provide jobs for employees,

pay taxes, and generate funds for expansion. (c) provide management with information for planning and control and (d) show its long term profitability.

3. to provide financial information useful for estimating the earnings potential of the firm.
4. to provide other needed information about changes in economic resources and obligations.

The particular objective of financial statements is to present fairly, and in conformity with Generally Accepted Accounting Principles, the financial position, results of operations and other changes in financial position. The statements admit that the particular objective is stated in terms of accounting principles, that are generally accepted at the time of the preperation of the financial statements. The general objectives fail to identify the information needs of owners and creditors. The main objective was to provide general purpose financial reporting, which provides information for unknown users having multiple decision objectives, providing information for specific user groups having known decision-objectives was not found operational.

9.3 Concept of Financial Reporting :

Of all the functions of an accountant, the most difficult and complicated function is the communication of business facts and data to various parties. The function of communication is being performed through various reports and statements, which is some times called as reporting i.e. communicating through reports.

Reporting may be defined as communicating the facts and data through reports and statements to the persons for whom such facts and data are compiled and collected. The function of reporting starts when accounting function ends. Some times periodical reporting may be undertaken during the course of accounting function. Financial reports are those reports through which financial data are collected and communicated to the concerned. The report or statement may partake character of a draft, schedule, statement, charts, graphs, diagrams and any other method of statistical presentation. When facts and data are concerned. The report or statement may partake character of a draft, schedule, statements, charts, graphs, diagrams and any other method of statistical presentation. When facts and data are collected and complied from accounting records, and put in a written form, the resultant statements or reports are called accounting reports. Accounting reports consist of financial data and are in the form of schedules and statements.

Financial reporting includes not only financial statements but also other means of communicating information that relates, directly or indirectly, to the information provided by the accounting system-that is, information about an enterprise's resources obligations, earnings etc., Financial reporting provides information that is useful to present and potential investors and creditors and other users in making rational investment, credit and similar decisions. The information should be investment, credit and similar decisions. The information should be comprehensible to those who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable deligence.

Financial reporting should provide information to help investors, creditors, and others to assess the amount, timing, and uncertainty of prospective net cash inflows to the related enterprise.

Financial reporting provides information about an enterprise's financial performance during a period. Investors and creditors often use information about the past to help in assessing the prospects of an enterprise. Thus, although investment and credit decisions reflect investor's and creditor's expectations about future enterprise performance, those expectations are commonly based at least partly on evaluations of past performance of an enterprise.

The primary focus of financial reporting is information about an enterprise's performance provided by measures of earnings and its components. Financial reporting should provide information about how an enterprise obtains and spends cash, about its borrowing and repayment of borrowing, about its capital transactions, including cash dividends and other distributions of enterprise resources of owners, and about other factors that may affect an enterprise's liquidity, and solvency.

Financial reporting should provide information about how management of an enterprise has discharged its stewardship responsibility to owners for the use of enterprise resources entrusted to it. Financial reporting should provide information that is useful to managers and directors in making decisions in the interest of owners.

9.4 Principles of a Good Report :

A report must add to the knowledge of the recipient and hence must be drafted by observing certain principles and guidelines. There are few guidelines that one should keep in mind while preparing a report. The following are the principles of a good report.

i) Suitable Title : Every report should bear a suitable title indicating the nature of its contents. It should also high light upon its origin and the person for whom it is meant.

ii) Simplicity : Since report is a media of communication, it is imperative that it should be expressed in a language which can easily be understood by the recipient. In case the reports are of regular in nature, it is preferable to get language more or less standardized.

iii) Routine details : Every report must contain routine details regarding the period of time, the data of its preparation, the units of information, the name of the person preparing and presenting it, names of persons to whom it is being submitted etc.,

iv) Brevity : A report should not be unduly lengthy. It should be precise, concise, specific and accurate. It should contain only what is relevant and should exclude what is insignificant. The report should be prepared in such a way that it leaves nothing unsaid what must be said and it contains nothing beyond what is required to present a clear cut picture of the facts being reported. It implies that the report should not be very much detailed and should not be voluminous. Such reports are not liked by the executives who have a little time available for the detailed study of such reports. But it does not mean that the report is so precise which does not furnish all facts and leaves executives to guess the things.

v) Adaptability : The form of the report and its contents should as far as possible, be suited to the persons using it, to the purposes for which it is required and possible suggestions for taking remedial actions. It should be presented in various forms suiting the temperament and out look of different persons occupying managerial positions. A full appraisal of the personality of the persons placed at the different levels of management (top, middle and lower) should be made and a clear picture of the information required by each of them should be decided before drafting the report. The contents of the report should be well planned. It must present a full and critical view of the situation and at the same time convey alternative suggestions and recommendations on actions to be taken.

vi) Timeliness : Report should be prepared in time and presented timely, so that managerial action / decision may be taken before mistakes are allowed to accumulate. It is to be remembered that the purpose of historic information is often to supplement the personal qualities and facilities of the management. It would be just a waste of time and effort to prepare and convey information which is too late to be of use and interest. In addition to timely presentation of report, the frequency of presentation should also be determined. The frequent needs of the user, natural time cycle of basic data, cost of preparing the report, etc., are the factors, which would determine the frequency of submitting the reports.

vii) The Principle of Exception : The support should be prepared by adhering the principle of exception whereby a report is to greater degree, limited to events highlighting illuminating priority areas calling for management attention and action. This principle of exception with reference to reporting implies that (i) information presented should be restricted to matters which are under the control of the user of the report, (ii) concentration should be allowed only on essential events / data, and (iii) the volume of report and data is considerably reduced to the bare minimum. It is however, held that this principle has limited use.

viii) Accuracy : Accuracy of information / data in each report is a must. Of course, accuracy here signifies the reasonable accuracy. Taking into account purpose of and the cost involved in the preperation of a report, the degree of accuracy should be determined. It is generally contended that by suppressing unnecessary details, both the clarity and accuracy may be improved.

ix) Medium of presentation : A report may be presented in several media. It may be in Written form or Oral form or Graphic form. An ideal report is one which is presented in the form which carries successful blending of different media. The media decides the size and shape of the report.

x) Coordination of data : It is important that all accounting data passing in an organisation through reports should have sound basis and properly coordinated. It means that data used by different departments should not be unrelated, otherwise a lot of misunderstanding and confusion may arise which would defeat the very purpose of reporting.

xi) Up-to-date : An occasional survey should be made to find out as to which information is of current use. Similarly, a constant watch should be maintained to locate the reports which have become redundant. Out dated information use should be deleted and redundant reports should be scrapped. It means that report should be kept up-to-date by making revisions necessitated by the changing conditions.

xii) Cost : A report is said to be ideal only when that cost of preparing it is reasonable and it is consistent with the benefits accuring from its use. The cost of preparing and submitting the report should never exceed the benefit to be derived from the use of such report.

xiii) Attractiveness : The report must be attractive and should provide an 'eye-appeal' in the sense that it should not go unheeded by its user. There are several ways in which the accountant may give the attractiveness or eye-appeal to the reports. Undoubtedly, he has to assume the role of an artist in making the report attractive and appealing.

xiv) Number of reports : It is, difficult to lay down any ideal number of reports to be used in an organisation. As a rule the report should not create additional report and, it should not given birth to the duplication of report and reports should be prepared and used only for selective areas. The number of reports should be kept as minimum as possible.

9.5 Objectives of Financial Reporting :

1. To provide information which is useful to investors, creditors, and others in making rational decision.
2. To assist investors and creditors in assessing future net cash flows to the enterprise in respect of amount, timing and uncertainty.
3. To identify resources (assets) and claims against resources, both creditor claims (liabilities) and owner claims (owner's equity).
4. To show how an enterprise obtains resources and how that it uses them for.
5. To provide information about enterprise performance and earning potential.

The objectives are achieved directly by means of preparing a balance sheet, cash flow statement and income statement.

9.6 Types of Financial Reports :

Information is the life blood of business. The efficiency of the organisation to a large extent is governed by the pertinence and regularity of information, provided to those who performed that functions of management. Financial reports are those reports which provide information about the financial position of the concern, as on a specific date, or during the specific period. These reports are necessary for accounting purpose.

Various types of reports are used in the organisation. They may be classified in various ways. Some of the important points basing on which the reports are classified as follows :

1. On the Basis of purpose of Information :

a) Operating Reports
b) Financial Reports

2. On the Basis of Groups :

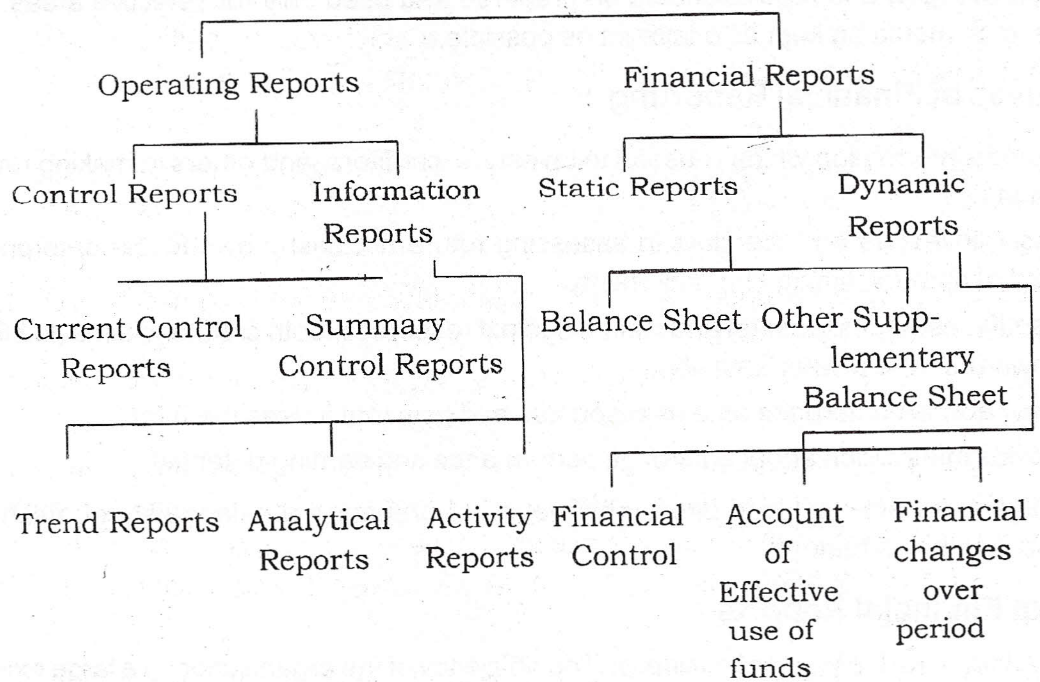
a) Internal Reports
b) External Reports

On the Basis of purpose of Information :

The reports on this basis may be classified into two categories : a) Operating reports and b) Financial reports. These two can further be reclassified as shown in the following chart.

Reports

REPORTS



1. Operating Reports : Operating reports convey information in respect of operations of the concern. Such reports are further classified in to a) Control reports and b) Information reports.

a) Control Reports : Reports, which are prepared to help the management in exercising the control over operations of the concern, are known as control reports. These reports are designed to measure the actual performance with standard and / or budgeted targets. They indicate the variances and the causes for such variances. These reports usually convey a detailed view of the operative activity and focus attention upon the 'off-standard' or 'above-standard' performances during a particular period. Such reports can be prepared weekly, monthly, quarterly or yearly. The control reports are further divided into (i) current control reports, and (ii) Summary control reports.

i) Current control reports : These reports are intended to locate without loss of time and immediately the deviations of actual performances from standard or budgeted performance, so that prompt control / action can be taken. However, such reports are related to a small fragment of a whole period. Such control reports are usually prepared for the areas where much deviations are expected such as sales, income, factory overhead, etc.,

ii) Summary control reports : These reports are intended to summaries, and the deviations from targets / objectives over certain period, so that necessary control can be initiated at higher levels. It may be remembered that current control reports convey deviation in a short period and call for control action at lower levels. But summary control reports call for action at the highest level.

b) Information reports : The coverage of these reports is wider than that of control reports.

Information reports are those reports which provide useful information for planning and policy formulation for the future. While control reports are intended to serve a driving force for control action and are confined to the efficient operation of the business, information reports aim of segregating those facts and presenting them in a simple and clear form which would greatly affect the planning and policies. These may be classified into i) Trend Reports ii) Analytical reports and iii) Activity reports.

i) Trend Reports : Trend reports are those which provide information in a comparative fashion over a period of time. This, in the case of trend reports, the results between two or more periods are compared and changes are incorporated therein.

ii) Analytical Reports : These reports provide information in an analytical manner about composition of certain results. A comparison of the same activity of different functional areas or comparison of actual results with standard or predetermined objective etc., is incorporated in such reports. Thus, the analytical reports are based on the horizontal comparison or results.

iii) Activity Reports : Sometimes, information reports can be prepared on the basis of each activity / department. Such reports may be prepared in two ways i) Individual Activity reports and ii) Joint Activity reports. Individual reports are accomplishments under the direction of a particular executive. One of.the other hand, Joint activity reports relate the activities accomplished under the direction of all executives.

2. Financial Reports : Financial reports are those which provide information about the financial position of the concern as on a specific date. These reports are necessary for accounting the success or failure of management's responsibility towards shareholders. Financial reports may further be classified i) Static and ii) Dynamic.

i) Static Financial Reports :

Formally, a balance sheet is a static financial report. But some subsidiary statements, schedules are also prepared and attached to the balance sheet. These statements or schedules provide detailed information about the individual items shown in the balance sheet. The balance sheet and its supplementary statements are called static because they depict assets, debts and liabilities on a particular date.

ii) Dynamic Financial Reports : Static reports are said to be inadequate in the sense that they reveal only the appraisal of soundness of financial policies and liquidity of assets. Dynamic reports are considered more useful because they reveal a number of aspects like.

i) the comparison of financial position with budgeted or forecasted position.

ii) the measurement of effectiveness of funds invested in various assets.

iii) the change in financial position over a period of time.

From this point of view, the Dynamic reports may include the following :

a) Financial Control Report : When a projected balance sheet is prepared as a part of regular operating budget, the actual balance sheet and projected balance sheet may be compared and such comparison would reveal information not only in respect of financial position but would also help in check and control. If supplementary statements are also prepared, then control over individual items can be made more effective.

b) Report of Measure of effective use of funds : For a deep study of financial position, it is necessary to obtain information about the volume of investments in each asset and profit earned on it. Various measures are used to examine the profitability and effectiveness of the funds invested in various assets. A report containing information obtained through these measures is known as report of measure of effective use of funds.

c) Report of Financial Changes : Reports indicating the changes in financial position between two periods are known as reports of financial changes. They include fund flow statement, cash flow statement and statement of changes in working capital.

3. On the Basis of Groups :

The reports from the view point of Groups, may be classified into two types :

1. External Reports
2. Internal Reports

1. External Reports :

External reports are those which are prepared for the use of external parties, i.e., shareholders, Government officials, stock exchange authorities and other institutions. These reports may be of following types.

a) Annual Accounts : Such reports include usually income statement, balance sheet and directors reports. Reporting to shareholders have assumed wider dimensions in the present age. It is obligatory to send to the shareholders a copy of annual accounts. Adequate efforts have been made in various countries to improve the quality and quantity of information to be included in such reports.

b) Reports to Government : In our country, it has been made obligatory to send a copy of annual accounts to the Registrar of Companies. In addition, sales-tax return, income tax returns, excise duty returns etc., are to be prepared and submitted to several authorities.

c) Report to Stock Exchange : If the shares of a company are listed in a stock exchange, a report on the prescribed form has to be submitted to the stock exchange authorities. In addition, a copy of annual accounts has also to be sent to them.

d) Report to Financial Institutions : A number of reports of varying nature and size have to be submitted to the various institutions from whom finance facilities are obtained.

2. Internal Reports :

Internal reports are those which are prepared for the use of internal parties like different levels of management, employees etc., These are not public documents and they do not have to be conform to any statutory standards. In fact, these very reports function as a vehicle for communicating to the various levels of management. It is also significant to note that these reports are prepared keeping into account the preferences and tastes of the recipients and purposes for which those are

Internal reports may further be classified into i) routine reports and ii) special reports.

i) Routine Reports : As mentioned earlier, control reports are the best examples of routine reports. As such these reports are prepared and submitted when a control system exists. These are just to activate the control function. Reporting through these reports is described as feed back because the basic data for these reports do come from the recipient of the reports and are sent back to him in a different shape. The nature of information, details, periodicity, etc., would greatly depend upon the levels of management.

ii) Special Reports : A budget plan, budgetary control and program, related operations and information reports - all these provide significant and basic information for management decisions. But such information may be an inadequate for any management decisions and more details are required for decisions in certain areas of operations. And reports prepared on the basis of such special studies and analysis are known as special reports are needed for making specific decisions. Such reports contain extraordinary information, which are considered necessary to overcome a particular problem or situation.

Since special reports are prepared for providing information to help in decision making with regard to a particular problem, no particular principle or form can be laid down or standardized. Much will depend upon the nature of problem under study. Each report has to be prepared in such a form as to meet the objective for which it is being prepared. The data required for such report may not fully available with accounting department, and the data have to be generated and collected for which special staff may be appointed.

9.7 Functions of Financial Reports :

These reports stimulate corrective actions, in addition to help in planning and control. The following are the functions of financial reports :

i) To provide Information : The main function of financial reports is to present and to communicate required information to operating management and top management. Operating management may include Foreman, Supervisors, Departmental Heads, Plant and Divisional Managers and Chief Executives. All these levels of management need information of varying degree and quality and such information are provided to them only through accounting reports.

ii) To help in Control : Another function of financial reports is to help the management in executing proper and adequate control. The control can be made more effective through reports as compared to personal investigation, survey and observation. Reports in fact provide is a base for control by obtaining necessary information in respect of each operative activity.

iii) To have management by exception : At present the most important principle of management is 'Management by Exception;. The main genesis of this principle lies in the fact that the management should interfere only in those areas and only at that time where and when a particular activity is not being carried out according to planned one. In the case when operation is normal, the management should not interfere. As such the management must have sufficient and necessary information about the areas, where significant deviations from the standard or plan have taken place. All such deviations or variances are conveyed through the reports and therefore reports help much in observing the principle of Management by Exception'.

iv) To achieve the overall objective : Financial reports also help, though indirectly, the management in achieving the objective of maximum profit. Reports motivates the executives and personnel to take all necessary steps which may lead to the earning of adequate return.

9.8 Benefits of Adequate Disclosure through reports :

The users of financial statements should be in a position to evaluate and assess the company's performance, financial position, and present and future cash flows, in general, they should be able to make intelligent investment decisions necessary for efficient allocation of scarce resources.
Need for financial disclosure in reports :

a) Full Disclosure : Full disclosure that means published financial statements and related notes should include any economic information related to the accounting entity that is significant enough to affect the decisions of an informed and prudent user of financial statements. Full disclosure is aimed at improving the clarity, quality, and quantity of economic data disclosed by the accounting entity. It increases the relevance and reliability of accounting information. It facilitates the following:

1. Under GAAP alternative accounting procedures, circumstances are used such as depreciation methods, inventory methods, and methods of revenue revenue recognition.
2. Companies occasionally make changes in accounting of reporting procedures, which affect the comparability of financial statements. This additional information mark be useful in making investment decisions.

The problems of disclosure can be resolved in the light of the objectives of financial reporting. All the countries do not have the same objectives. The solution to the problems of disclosure will not be the same for all countries. Basically, the following questions relating to disclosure need to be answered :

1. Who are the users of information, i.e., for whom is the information to be disclosed ?
2. How much information should be disclosed ?
3. What should be disclosed ?
4. How should it be disclosed ?

b) Adequate disclosure :

'Three concepts of disclosure generally proposed are adequate, fair and full disclosure'. Adequate disclosure means a minimum amount of disclosure so that the financial statements are not misleading. Fair disclosure would imply that the accounting and other information is unbiased and impartial. Full disclosure means the presentation of all relevant information. Hence the answer to this question is that the users of financial statements should be provided with all the significant and relevant information keeping in view the objectives of financial reporting, while the information which is immaterial, irrelevant or insignificant should be omitted" to take the presentation meaningful and understand able".

In actual practice the companies are generally reluctant to disclose more information than what they are required to do under the law of the land or under professional pressure. The reasons they advance for this are generally not well-founded.

What should be disclosed, depends again upon the basic objectives of financial accounting and reporting. This is also related to the class of users. All that information which meets the needs of users in serving at the objectives, should be disclosed. This also depends upon the environments prevailing in a country. In underdeveloped economies, companies only disclose the balance sheet, profit and loss account, auditor's report, and a few schedules as appendices. In developed economies, where the economic environment is predominant, besides the above a president's letter, a five-year or ten-year summary highlighting additional financial information, such as turnover, capital investment, profit, dividend, important ratios and the company's view about its future plans and prospects are also published. Further, in countries where the social environment dominates besides the economics, information on value added, employees, customers, Government, foreign exchange, etc., is also given in annual financial reports. Hence, is difficult to prescribe the same report for all purposes, groups or countries.

c) Benefits of adequate disclosure :

The adequate disclosure in the financial reports facilities the following benefits to all categories of users :

1. The traditional financial statements, namely, balance sheet, income statements the statement of retained earnings, statement of change in financial position, Chairman's speech, Director's report, auditor's report are usually included in the published annual reports of all the listed companies. This is regarded as the minimum information required to be supplied to external users.
2. Disclosure of accounting policies, including those on valuation of assets (current and fixed).
3. Any changes in accounting policies on methods of valuation, methods of charging depreciation, determination of earnings etc.
4. Events occurring after the balance sheet date.
5. If certain assets are pledged as security to specific creditors, contingency liabilities and unrealized gains.
6. Disclosure of segment - wise, accounting information (Product-wise and Geographic Division-wise).
7. Interim (Quarterly) reports of the company's performance and financial position.
8. Supplementary information on accounting adjustments for changes in prices.
9. Accounting for foreign transactions.
10. Future prospects of the company.

The information should be presented in such a manner that it can be easily understood by a person of average knowledge and prudence. He should derive the same meaning from the information, as it is expected to convey, i.e., there should be presentational faithfulness. The methods of disclosure of information have evolved as a result of the changing environments and consequential improvement in the ways of presentation effected by accountants on their own, on the recommendations of professional institutes, and as a result of Government measures. Still, there are no hard and fast methods of presentation. They differ from country to country, and even from a company to company in the same country. However, the financial statements Viz. Balance sheet, income statement, statement of retained earning and statement of changes in financial position are prepared and reported by all the listed companies.

9.9 Summary :

For any organisation, most important financial statements are profit and loss account and balance sheet. The objectives of preparation of the financial statements are to provide reliable and accurate information about economic resources and their use in business organisations and to provide adequate disclosure for the benefit of the interested groups. Financial reports must be prepared in such a way that they must be brief; possess suitable Title and be purpose - oriented. There are different types of reports based on information and users. The financial reports perform a variety of functions. There are certain benefits and problems associated with adequate disclosure.

9.10 Key Words :

a) Financial statements - statements which provide the end result of the activities of business.
b) Accounting reports - statements in the form of schedules and statements.
c) Operating reports - they consist of control and information reports.
d) Full disclosure - all relevant information should be disclosed.

9.11 Self - Assessment Questions :

1. Define financial reporting what are the essentials of an ideal report ?
2. What are the different types of financial reports ?
3. Write an essay on the benefits of adequate disclosure.

9.12 Reference Books :

1. P.K. Ghosh, GC Maheswari and R.N. Goyal *"Studies in Accounting Theory"* Wiley Eastern Ltd., New Delhi, 1998.
2. Ashish K. Bhatta Charya, *"Financial Accounting for Business Managers"* Prentice Hall of India, New Delhi 2002.
3. S.N. Maheswari *"Principles of Management Accounting"* Sultan chand & Sons, New Delhi, 1996.
4. Dr. S.P. Gupta *"Management Accounting"* Sahitiya Bhavan, Agra, 2003.

Lesson - 10

RECENT TRENDS IN PUBLISHED ACCOUNTS

Objectives :

- The objectives of this unit are to help you to understand the recent trends in the published accounts and their objectives.
- Present a format for preparation of fund flow statements
- Highlight the concept of value added statements and the advantages of such statements.

Structure :

101 Introduction :

Section 210, 216 and 217 of the Companies Act, 1956 make it compulsory for the board of directors to lay before the company's annual general meeting a copy of the profit and loss account and balance sheet together with the director's and auditor reports. All these documents are termed as the annual reports of the company and these are required to be prepared for every year as per the Companies Act. These documents are also popularly known as published accounts because all companies print and publish these annual reports. Corporate reporting is another more given to these published accounts, because they report to the public about the performance of the company.

10.2. Objectives of Published Accounts :

1. To give information about the performance of the company during the year usually comparing it with that of the previous year. Information about the performance may relate to production, sales, profit before taxation and profit after making provision for taxation.
2. to provide information about the difficulties faced by the company during the year and steps by the company to over come the difficulties.
3. to present information about source and applications of funds during the year.
4. to provide information about the products of the company
5. to give information about what the company owned and what the company owed at the end of the year.

6. to elicit information about the research and development undertaken during the year and the progress made thereof.
7. to give information about capital projects undertaken by the company in the past but continuing or completing during the year and projects undertaken during the year.
8. to provide information about employees - management relations during the year.
9. to present the general information about eh ecomonic scene discharging the social responsibilities of the business.
10. to give information about the role played by the company in discharging the social responsibilities of the business.
11. to give information about the future projects of the company.

10.3 Recent trends in published Accounts :

Accounting is the language employed to communicating financial information of a concern to various parties who are interested in such information. Communication of financial information and other information by published accounts serves its purpose only if it satisfies the needs of persons well-versed in accounting language on the one hand and laymen not familiar with accounting techniques on the other. Every effort was made under the companies Act, 1956 to provide the shareholders as much information as is possible. This has burdened the balance sheet with a mass of detailed information, which needs an expert to understand it.

Keeping in view the compliances of statutory forms as prescribed in the companies Act, now a days it is common practice to add to the profit and loss account and the balance sheet drawn in statutory forms, some voluntary supplementary information in a simple manner as would be easily understood by a layman. This voluntary information may include the following :

a. Profit and loss a/c and balance sheet drawn in a summarized manner in a columnar form.
b. Presentation of the 'highlights' of the information contained in the published accounts
c. Preparing funds flow statements

10.3.1 Summarised Profit and Loss Account and Balance Sheet :

Progressive countries are discarding the preparation of traditional two sided balance sheet and profit and loss account and are following columnar forms of balance sheet and profit and loss account which are a simple way of presentation of information. Balance sheet in columnar form may be prepared in any of the following two ways, American or British Model.

In India, the columnar of balance sheet and profit and loss account is not as popular as it is in advanced countries. One of the reasons for slow adoption of this form is that schedule vi has prescribed the two sided ('T') from for the preparation of the final accounts. Even then many of the companies in India have adopted this form of presentation of final accounts. Efforts should be made to make this form popular because it speaks out the correlation of every item with the other items. Thus, this form conveys more meaning to the layman.

10.3.2 Highlights :

Highlights are usually shown at the beginning of the annual report so that the reader may come across the important facts of the company, immediately he opends the reports. Highlights are also put under other headings like 'year at a glance' Highlights are given so that the reader may know the working of the company at a glance without loss of time. Highlights usually cover information about sales, production, profit before and after tax, amount spent on capital projects, working capital gross and net fixed assets, shareholders' equity and important landmarks of the year.

10.3.3. Funds flow statements :

The funds flow statements is becoming popular day by day because it explains why in spite of huge profits earned by the company, it is facing difficulty in making the payment of creditors in time. It is a financial statement which reveals the methods by which the businesss has been financed and how it has used its funds between the opening and closing balance sheet dates. This statements is known by various titles such as statement of sources and application of funds, statements of changes in working capital and statement of funds provided and applied.

Funds Flow Statements :

Problem - 1 :

From the following two balance sheets you are required to prepare the schedule of changes in working capital and funds flow statements.

Capital & Liabilities	2002 Rs.	2003 Rs.	Assets	2002 Rs.	2003 Rs.
Share Capital -1	2,00,000	2,50,000	Cash	30,000	7,000
Trade Creditors	70,000	70,000	Debtors	1,20,000	1,15,000
Retained Earnings	10,000	23,000	Stock in Trade	80,000	90,000
			Land	50,000	66,000
	2,80,000	3,18,000		2,80,000	3,18,000

Solution :

Schedule of changes in working Capital

	2002	2003	Changes in Working Capital Increase	Decrease
	Rs	Rs.	Dr. Rs	Cr. Rs.
Current Assets :				
Cash	30,000	47,000	17,000	
Debtors	1,20,000	1,15,000		5,000
Stock in Trade	80,000	90,000	10,000	
Current Liabilities :				
Trade Creditors	70,000	45,000	25,000	
			52,000	5,000
				47,000
Increase in working Capital			52,000	52,000

Funds flow Statements

For the year ended 31st December, 2003.

Source	Rs.	Applications	Rs.
Funds from operation	13,000	Purchase of Land	16,000
Issue of share Capital	50,000	Increase in Working Capital (1)	47,000
	63,000		63,000

10.4 Value Added Statements :

The value added is a measure of the increase on value created by production. It can be defined as the amount by which the value of the out put from a process of production exceeds the value of the intermediate inputs consumed by that process. As intermediate inputs at this stage do not include the use of capital goods, the value added obtained as above is generally known as gross value added i.e., gross of depreciation. This value added is essentially an out put measure which avoids double counting of the input values of goods and services produced by other producers over the same period and used for further production.

Value added measures the value of output from which all costs other than those of intermediate inputs (raw materials) will have to be recovered. A company makes its profile by working on material and in covering it as finished product by increasing its sales value. The difference between the sales value of the final product and the purchased cost of material and services is called the 'added value'. Thus if a manufacturer sells a product at Rs. 20/- per unit and its material cost is Rs. 15/- the value added is as far as possible by reducing materials costs and increasing its sales value. Thus the aim of a company should be towards improving added value; rather than profit. The value added can be known with the help of the following illustration.

Example :

PQR Ltd., make two products A and B with same type of labour in a shop floor - unit sales price and cost are as follows :

		Product "A" Rs.	Product "B" Rs.	
Selling Price		200-00		150-00
Direct Material	120-00		30-00	
Direct Labour	20-00		20-00	
Variable Overhead	10-00		10-00	
		150-00		80-00
Contribution		50-00		70-00
Fixed Over-head		30-00		20-00
Profit		**20-00**		**50-00**

The value added and profitability can be.calculated as follows :

	Product "A" Rs.	Product "B" Rs.
Selling Price	200-00	150-00
Less Material Cost	120-00	50-00
Value added	80-00	100-00
Contribution by value Added :	50	70
(Contribution to added value ratio)	80 = 62.5%	100 = 70%

It is observed that contribution from Product "B" is higher (Rs 70/- to Rs. 50/-) and the added value is also higher (Rs. 100/- per unit compared to Rs. 80/-).

Value added refers to the addition of utility to Raw Materials and other in puts during the production process. If measures the value of production carried out by a production unit of as enterprise to the current flow of goods and services. The intermediate goods used in production are further processed and the product is sold as output. Gross value added = Value of output - Value of intermediate goods.

The difference between the gross value added and net value added is equal to depreciation or consumption of fixed capital.

Thus, net value added = Gross value added - Depreciation value added can be measured at market price of at factor cost. From value added at market price, by deducting indirect taxes paid by the firm to the government. (Sales Tax, Excise Duties etc.,) and by adding subsidies paid by the Govt., to the firm we get value added at factor cost.

Thus value added at factor cost = Value added at market price - indirect taxes + subsidies

10.5 Advantages :

Value added and its Advantages : The value added concept is useful in various areas such as

1) To measure performance :

If Divisional performance is measured in terms of added value, management's attention will be drawn more effectively toward measures of improving performance. Thus better revenue from existing sales, including sales volume from higher output, lower material cost from cheaper sources and better equipment broadly encompass the available avenues for increased wealth creation.

2) To levy Indirect Tax :

In most of the countries levy of indirect tax (Excise Duties) is based on 'value added' and is popularly called VAT (Value Added Tax). Here tax is levied in a firm onthe basis of value addition. In India a modified value added tax MODVAT / CENVAT is applicable when the excise duty on inputs are deductible form the service duty payable on the final output.

3) To offer Incentive Schemes :

Value added incentives schemes are in vogue in recent years in many countries. By offering bonus payment to employees for value added achieved this should be an incentive for the work force to create more wealth.

10.6 Summary :

These have been many changes that took place in the published Accounts. The purpose of the published accounts is to project a detailed view about the financial performance of the organisation to both insiders and outsiders. The recent trends in the preparation of published accounts include presentation of funds flow statements, groups and charts etc., The value added statements have many advantages like measurement of divisional performance and to implement decisions related to incentive schemes.

10.7 Key words :

a) Published Account - Which consists of Profit and Loss account and balance sheet.

b) High lights - important aspects of financial performance

c) Funds flow statements - also called statements of sources and uses of funds which show the details relating to sources of income and its applications.

d). Value added statements - The statements which show changes in value added which are created by production.

10.8 Self-Assessment Questions :

1. What are published accounts and what are the objectives of published accounts ?
2. What is a funds flow statement illustrate it ?
3. What is a value added statements. What are the advantages of it ?

10.9 Reference Books :

1. Ghosh, GC Maheswari and R.N. Goyal *"Studies in Accounting they"* Wiley Eastern Ltd., New Delhi, 1998.
2. Ashish K. Bhatta Charya, *"Financial Accounting for Business Managers"* Prentice Hall of India, New Delhi 2002.
3. S.N. Maheswari *"Principles of Management Accounting"*, Sultan Chand & Sons, New Delhi, 1996.
4. Dr. S.P. Gupta *"Management Accounting"* Sahitiya Bhavan, Agra, 2003.

Lesson - 11

INFLATION ADJUSTED STATEMENTS

Objectives :

The objectives of this unit are to help you to understand :

- The need for inflation accounting;
- The effects of price level changes on financial accounting;
- Methods of inflation accounting; and
- The features, advantages and disadvantages of inflation accounting

Structure :

11.1 Introduction
11.2 Impact of Price level changes on financial statements
11.3 Methods of inflation accounting
11.4 Features of inflation accounting
11.5 Advantages of inflation accounting
11.6 Limitations of inflation accounting
11.7 Inflation accouting - some illustrations
11.8 Key Words
11.9 Self-Assessment Questions
11.10 Reference Books

11.1 Introduction :

The essential feature of the Historical Cost Accounting (HCA) is that it reflects assets and expenditure at their actual original cost to the enterprise. During a period of stable prices, financial statements compared on the historical cost basis provide reliable measurement of the results of the operations of the company. However, accountants are increasingly realizing that during an inflationary situation, financial statements which do not reflect the effect of changing prices tend to present a totally misleading picture, the value of assets stated at their original cost would be much lower than their current replacement value. Consequently, provision depreciation on the original cost would be inadequate as a measure of current costs. Therefore, profits based on traditional accounting principle will not present the real picture of profitability, which will tend to be overstated.

The earliest attempt on the inflation accounting was made by H.H. Swaney when he published his work "Stabilized Accounting" in the year 1936. In U.K. The subject received interest with the publication of the paper "Rising price level in relation to the accounts" by "The institute of charactered Accounts in England and Wales".

In India, the institutute of Chartered Accountants of India published in 1982 the Guidance Note on accounting for changing prices Guidance Notes are primarily designed to provide guidance to members and are not recommendatory in nature. The Guidance Note has been brought out by the institute in order to encourage the adoption of the accounting for changing prices and to suggest a methodology relevant in the preailing economic environment in India. This deals with three methods namely, CCA, CPP and periodic revaluation of fixed assets along with the adoption of LIFO formula, for inventory valuation. However, it recommends CCA method as it is the most appropriate in the context of the economic environment in India.

Thus, price level changes have become a common problem in any country. Financial statements or reports based on historical cost fail to reflect the effect of such changes in purchasing power on the financial position and profitability of the firm. Financial statements may be incorrectly interpreted unless adjustments are made to place the data on the current price level. In this way, the utility of the accounting records not taking care of price level changes is seriously impaired and makes a demand for adjusting financial accounting to know the real financial position and profitability of a concern.

11.2 Impact of Price Level Changes on Financial Statements :

The effects of inflation are more pronounced in the case of fixed assets. Under the historical accounting system, depreciation calculated on the basis of historical costs of old assets is usually lower than that of those calculated an current value or replacement value. This results in more profits, on paper which, if distributed in full, will lead to reduction of capital. Under the historical accounting system, depreciation is calculated on the original cost of the fixed assets with the result, that only an amount equivalent to the original costs of the fixed assets is available of its replacement when its life is over. But the replacement cost of the asset will be more than the original cost on account of inflation so that the replacement provision made by way of depreciation changes on the original cost will be insufficient for the purpose. This explains the need for changing depreciation on current value.

During the times of rising prices, the conventional system of accounts based on historical cost does not give a true and fair view of the business enterprise as is required under the Companies Act. 1956. Historical accounting system does not make provision for the changing price level. There is another drawback in the historical costs whereas operating expenses and incomes are taken at current prices. The inflation accounting is intended to correct this problem.

Financial accounting based on historical costs had shown closing stock at cost or market price whichever is lower. Sales are shown at current purchasing power of the rupee while the stocks are shown at cost or market price which ever is lower. Thus, profit disclosed by financial accounting based on historical cost during inflation does not represent increase in wealth of the business in terms of current purchasing power because closing stocks are not shown at their current value. Similarly, during inflation, balance sheet also does not exhibit a true and fair view of the financial position of the firm because closing stock is shown at its original cost which is lower than its current value. Further in case of price level changes, comparison of profitability of two plants set up at different dates becomes difficult.

From the above discussion, it is clear that conventional accounting based on historical cost has outlived its utility when prices are changing frequently. To overcome the drawbacks of conventional accounting, the adoption of accounting for changing prices is advocated. Accounting for changing prices is also known as inflation accounting because changes in prices are usually on the upward side. Inflation accounting for changing prices is a system of accounting which regularly records all items in financial statements as their current values. The system recognizes the fact that the purchasing power of money is decreasing day-by-day during inflation and finds out profit or loss or states the financial position of the business on the basis of the current prices prevailing in the economy.

11.3 Methods of inflation Accounting :

At present there are three major methods in inflation accounting.

a) Current Purchasing Power (CPP) or General Purchasing Power (GPP) approach.
b) Current Cost Accounting (CCA) approach.
c) Hybrid Method i.e., a mixture of CPP and CCA methods.

Note : Hybrid approach is not covered in this chapter.

a) Current Purchasing Power Accounting :

In current Purchasing Power Accounting the historic cost accounting data are adjusted on the basis of any established and approved general price index at given date. In India wholesale price index of the Reserve Bank of India can be taken which shows the change in the value of the rupee in the past years. This method takes into consideration the changes in the value of the items as a results of the general price level, but it does not account for changes in the value of individual items.

Steps : The Financial Statements under GPP approach shall be prepared based on the following steps.

i) Conversion Factor (CF) : The GPP approach requires the restatement of historical figures at current purchasing prices. This can be done by multiplying the historical figures by the conversion factor, as given below :

$$\text{CF} = \frac{\text{Price Index at the date of conversion}}{\text{Price Index at the date the item arose}}$$

Illustration : A company purchased a machinery on 1-1-1999 for a sum of Rs. 80,000. The Retail price index on that day was 2.00. Restate the value of the machinery under GPP approach on 31-12-2003. When the price index was 250.

$$\text{CF} = \frac{250}{200} = \frac{5}{4}$$

$$\text{Value as per G.P.P} = 80{,}000 \times \frac{5}{4} = \text{Rs. } 1{,}00{,}000$$

ii) Mild-Period Conversion Factor (MPCF) : In case of transactions occuring throughout a period, the historical values are restated as per Mid-Period conversion factor. Expenses are sales, purchases, salories, etc. MPCF is calculated by taking the average price index (price index at the begining and at the end of the period).

iii) Monetary and Non-Monetary items : All the figures in the Balance sheet shall be distinguished into monetary and non-monetary items, before converting them under GPP approach. Because, Monetary items (both Assets and liabilities) shall not be restated, because their values do not change because of inflation. Only the values of non-monetary assets and liabilities will change and hence restated under GPP approach.

Monetary items : Cash, Debtors, Creditors, Bank loan, preference capital etc.
Non-Monetary items : Buildings Machinery, Inventor, equity capital etc.

iv) Calculation of Gain or Loss on the above mentioned monitory items. (For details, see illustrations No 4 and 5).

b) Current Cost Accounting .

The current purchasing power method takes care of changes in the value of money but it does not account for changes in the value of the individual items. The value of the item may be increased on the basis of general price index whereas the actual value of that item might have decreased. In this method, historic values of items are not taken into account, rather current values of individual items are taken as the basis for preparing profit and loss account and balance sheet. Thus items are not adjusted as a result of the change in the general price level as they are adjusted in the CPP method.

11.4 Features of inflation Accounting

1. Fixed assets are shown in the balance sheet at their current values and not at their depreciated original costs.
2. Stocks are shown in the balance sheet at their values to the business, i.e., at the value prevailing on the date of the balance sheet. These are not shown at cost or market price whichever is lower as is done in case of historical accounting.
3. To find out profit for the year, depreciation is calculated on the current value of the relevant fixed assets.
4. The difference between the current value and the depreciated original cost of fixed assets is trasferred to Revaluation Reserve Account and is written on the liabilities side of the balance sheet. The relevation reserve is not available for distribution as dividend but is utilized for increased replacement cost of fixed assets and under provision of depreciation in the past years.
5. The cost of stock consumed during the year is taken at current value of the stock on the date of consumption and not the purchase price of the stock consumed.
6. The effects of the loss or profit on monetary assets or owing liabilities is shown in a separate statement and is not given in the balance sheet. Monetary items are those whose amont are fixed by contract or otherwise regardless of changes in the general price level. Monetary items can be debtors, creditors, cash and loans. The value of these items is fixed as we are not giving to get more from debtors or pay more to the creditors regardless of general increase in the price level.

Of the two approaches discussed, Current Cost Accounting is a better approach, as under this approach all assets and liabilities are shown at their realistic value and operative profit is arrived at after charging the value to the business of company's assets consumed during the period. However, C.C.A fails to reflect the general increase in prices and is subjective in its approach. The system offers some discretion to the directors in the valuation of assets.

11.5 Advantages of Inflation Accounting :

Following are the advantages of inflation Accounting :

1. Historical Accounting tends to inflate profits because less depreciation is charged. Inflated profits if distributed as dividend will lend to erosion of capital. Accounting adjusted to price level changes tends to correct this malady by charging depreciation on current values of assets. In this way, capital is kept intact which is essential in a limited liability business.
2. Balance sheet exhibits a true and fair view of the financial position of a firm because assets are shown at their current values.
3. For managerial decisions, the anticipated and actual profit must be expressed in rupees of the same purchasing power. Inflation accounting does this by matching the cost and revenue at current values.
4. Inflation accounting helps in making better comparison of the profitability of the two plants set up at different dates because current values and not historical costs of the plants will be taken for comparison purposes.
5. Financial ratios calculated on the basis of balance sheets and profits and loss account adjusted to current values would provide more meaningful information as compared to the ratios based on the historical costs.
6. A rate of return on capital employed adjusted to the current price index is more useful in the valuation of business by its, creditors and management.
7. Employees, shareholders and public are not misled because inflation accounting shows current profit based on current prices. Historical accounting shows exaggerated profits by depending on historical values which may be very low. Exaggerated profits may induce employees and share holders to make a claim for higher wages and dividends.

11.6 Limitations of inflation Accounting :

1. Charging depreciation on current values of fixed assets is not acceptable to income tax authorities. So no useful purpose will be served by following accounting for changing prices so far as income tax law in concerned.
2. Too many calculations are involved for adjusting accounting to changing prices and make financial statements complicated.
3. Charging depreciation is a process of distribution of anything in excess over the effective life of an asset is against the concept of depreciation.
4. Adjusting accounts to changing price is a never ending process because prices go on changing every day.
5. Price level accounting is not free from prejudice. Assets are recovered at values which will

be according to the whims of an individual or group of individuals. It would enable people to dress up their balance sheets according to their interests. On the other hand, actual cost recorded in historical accounting is an objective evidence and is free from prejudice.

6. The profit disclosed by system of price level accounting by taking items at current values is not a realistic profit and, therefore, to that extent, it should not be distributed as dividend. Distribution of unrealized profit as dividend amounts to erosion of capital which is not desirable.

11.7 Inflation Accounting Some Illustrations :

1) From the information given below calculate the net monetary gain or loss for the accounting year 30th June, 1998. (March 200).

Net monetary assets as on	1-7-1997	-	Rs. 1,000
Net monetary assets as on	30-6-1998	-	Rs. 7,000

Transations for the year are as follows :

Cash Sales - 8,000; Credit Sales - 10,000; Credit Purchases - 7,000; Wages incurred - 2,000; Operating expenses - 1,000; Interest paid on 30-6-98 - 2,000.

Index Values are as under ;	Index as on 1-7-1997	-	100
	Index as on 30-6-1998	-	150
	Average Index	-	125

Solution : Calculation of Monetary Gain or Loss as on 30-6-1998.

Particulars	HCA		CF	CPP
Net Monetary Assets (1-7-97)	1,000	x	150 / 100	1,500
Add : Incomes during the period :				
Sales (Cash + Credit)	18,000	x	150/125	21,600
	19,000			23,100
Less : Expenses during the period :				
Purchases (Cash + Credit)	7,000	x	150/125	8,400
Wages incurred	2,000	x	150/125	2,400
Operting expenses	1,000	x	150/125	1,200
Interest Paid	2,000	x	150/150	2,000
	12,000			14,000
Net Monetary assets (30-6-98)	7,000			9,100

Net Monetary Gain / Loss.
Loss = 2,100

Less : Payment to creditors	12,000	x	110/108	12,222
Cash Purchases	2,000	x	110/108	2,037
Payment of expenses	2,000	x	110/110	2,000
	16,000			16,259
Closing Balance	7,500			8,674

Net Monetary Gain / Loss
Loss = 1,174.

2. A Company had the following transactions at the given dates and price indices for the first quarter of 1996.

Particulars	HCA Value	Price Index
Opening balance (jan. 1)	8,000	100
Cash Sales (Feb. 1)	15,000	104
Payment to creditors (March. 1st)	10,000	106
Cash Purchases (March, 1st)	2,000	108
Payment of expenses (March 1st)	4,000	110
Closing balance	7,000	110

Calculate Monetary Gain / Loss.

Solution : Statement of Monetary Gain / Loss under CPPA

Particulars	HCA		CF	CPP Value
Opening Balance	8,000	x	110/100	8,800
Add : Cash Sales	15,000	x	110/104	15,865
	23,000			24,665
Less : Payment to Creditors	10,000	x	110/106	10,377
Cash Purchases	2,000	x	110/108	2,037
Payment of expenses	4,000	x	110/110	4,000
	16,000			16,414
Closing balance	7,000			8,251

Net Monetary Gain / Loss
Loss = 1,251

3. Compute the net monetary result of apex ltd., as on 31-12-95 from the data given below (March 2002)

Particulars	1-1-95	31-12-95
Cash	20,000	25,000
Debtors	50,000	60,000
Creditors	70,000	80,000
Loan	30,000	30,000

Retail Price Index numbers are as under.

January, 1st	-	200
Aug., for the year	-	210
December 31st	-	230

Solution : Converted value of Monetary Assets

As on 1-1-95 (Cash + or)	- 70,000	As on 1-1-95 =	70,000 x	230 / 200	80,500
As on 31-12-95	- 85,000	Additions =	15,000 x	230 / 210	16,429
Additions during the year - 15,000					
		Less : HCA Value of the closing Assets as on 31-12-95			96,929
					85,000
		Loss			11,929

Monetary Liabilities Converted Values

As on 1-1-95 (Crs + Loan)	- 1,00,000	As on 1-1-95 = 70,000 x 230/200	1,15,000
As on 31-12-95	- 1,10,000	Additions 1,00,000 x 230/210	10,952
Additions during years		10,000	1,25,952
		Less : HCA Value of clg. Liabilities as on 31-12-95	1,10,000
		Gain	15,952
Net Monetary Gain / Loss		Gain from Loss -	15,952
		Loss from Gain -	11,929
		Gain	(+) 4,023

4. The information given below relates to monetary accounts of Jayanath Co. Ltd., compute the general price level Gain / Loss.

Particulars	As on 1-1-95	As on 31-12-95
Monetary Assets	80,000	1,00,000
Monetary liabilities	1,00,000	1,00,000
Related Price Index	200	300
Average Index	240	

Monetary Assets	**Rs.**	**Converted values of monetary Assets**				
As on 1-1-95 -	80,000	As on 1-1-95 -	80,000	x	300/200 -	1,20,000
As on 31-12-95 -	1,00,000	Additions -	20,000	x	300/240 -	25,000
Additions during The year	20,000					1,45,000
		Less : HCA Value of Assets as on				1,00,000
		Loss				45,000

Monetary Liabilities	**Converted values**					
As on 1-1-95 -	1,00,000	As on 1-1-95 -	1,00,000	x	300/200 -	1,20,000
As on 31-12-95 -	1,00,000					
Additions -		Less : HCA Value closing liabilities -				1,00,000
		as on 31-12-95 Gain				50,000

Net monetary Gain or Loss	Loss from Gain -	45,000
	Gain from Loss -	50,000
	Gain -	5,000

5. From the following Particulars calculate Net Monetary Gain or Loss

	Rs.		Rs.
Opg., Cash balance	8,000	Cr. Purchase during the year	500
Cash / sales during the year	10,000	Operating Expenses	4,000
Cr. Sales during the year	5,000	Interest paid on 31st Dec.	5,000
Cash Purchases	1,500	Dividend paid on 31st Dec.	5,000

The following are the Price Indices

Index on the January, 1st	-	100
Index on the December, 31st	-	120
Average Index	-	110

Solution : Calculating of Monetary Gain or Loss

	Particulars	**HCA**		**CF**	**CPP**
	Opening Cash Balance	8,000	x	120/100	9,600
Add :	Sales (Cash + Credit)	15,000	x	120/110	16,364
		23,000			25,964
Less	Purchases	2,000	x	120/110	2,182
	Operating expenses	4,000	x	120/110	4,364
	Interest Paid	5,000	x	120/120	5,000
	Dividends	5,000	x	120/120	5,000
		16,000			16,546
Monetary Gain or Loss		7,000			9,418

Loss 2,418

6. A Company held shares in XYZ Co., which it bought for Rs. 21,000/- in 1979 when the general price Index was 105. At the end of 1994 the market price of the shares was Rs. 18,000/- and the index was 125. At the end of 1995 the market price was Rs. 20,000/- and the Index was 130. Compare required to calculate

1. CPP Value of the shares at the end of 1994 & 1995.
2. Under CPP Accounting what Gain or Loss would be shown in respect of the shares.
3. What in fact was the Gain or Loss in purchasing power in respect of the shares.

Solution : (1) Calculation of CPP Value of Shares

Cost Price Shares in 1979	-	Rs. 21,000			
Price Index in 1979	-	Rs. 105			
Price Index in 1994	-	Rs. 125			
Price Index in 1995	-	Rs. 130			
CPP Value of shares in 1994	-	21,000 x	125/105	=	25,000
CPP Value of shares in 1995	-	21,000 x	130/105	=	26,000

2) Calculation of Gain or Loss

Cost Price of shares in 1979 - 21,000
CPP Value in 1974 - 25,000
CPP Value 1995 - 26,000
Loss in 94 = 25,000-21,000 = 4,000
Loss in 95 = 26,000 - 21,000 = 5,000

3) Actual Gain / Loss on the basis of Market Price

CPP Values of shares in 1994	-	25,000
Market Price in 1994	-	18,000
Actual Loss		7,000
CPP Value of Shares in 1995	-	26,000
Market Price in 1995	-	20,000
Actual Loss		6,000

7) H Company held shares in X Co., which it bought for 10,000/- in 1991, when the general price Index was 110. At the end of 1994, the market price of the shares was Rs. 8,000/- and the Index was 132. At the end of the year 1995, the market price of the shares was Rs. 9,000/- and the index was 145.2.

You are required to calculate the following :

1. Calculate the CPP Value of shares at the end of years 1994 & 1995.
2. What inject was the Gain or loss of the shares during 1994 & '95.

1) Calculate of CPP Value of Shares

Cost Price of shares in 1991 - Rs. 10,000
Price Index in 1991 - 110
Price Index in 1994 - 132, Price Index in 1995 - 145.2

CPP Value of shares in 1994 - 10,000 x 132 / 110 = 12,000
CPP Value of shares in 1995 - 10,000 x 142.5 / 110 = 13,200

2. Calculate of Gain or Loss :

Cost of shares in 1991 - 10,000
CPP Value in 1994 - 12,000 Loss in 1994 = 12,000 - 10,000 = 2,000
CPP Value in 1995 - 13,200 Loss in 1995 = 13,200 - 10,000 = 3,200

Actual Gain or loss on the basis of Market Price

CPP Value of Shaes in '94 -	12,000	CPP Value in 1995 -	13,200
Market Price in 1994 -	8,000	Market Price in 1995 -	9,000
Actual Loss	4,000	Actual Loss	4,200

Conversion of Income Statement : Some Illustrations

Arjun Ltd., furnishes the following Income statement for the year ending 31-12-1995, prepared on the basis of conventional accounting. Your are required to adjust the same for price level changes under CPP method.

Particulars	Rs	Amout in Rs.
Sales		90,000
Less : Cost of Goods Sold		
Opening Stock	8,000	
(+) Purchases	60,000	
(-) Closing Stock	6,000	
	62,000	
(+) Wages and salaries	6,000	
Other expenses	4,500	
Depreciation on building	700	
Interest	300	
		73,500
Net Income		16,500
Dividends		4,000
Retained Earnings		12,500

Index Numbers :

January, 1st - 100
December, 31st - 200
Average Index - 150

Interest & Dividends are paid on Dec., 31st Building was purchased when Index was 50.

Solution : Conversion of the Income Statement

Particulars	HCA		CF	CPP Value
Sales	90,000	x	200 / 150	1,20,000
Less : Cost of goods sold				
Opening Stock	8,000	x	200 / 100	16,000
(+) Purchases	60,000	x	200 / 150	80,000
	68,000			96,000
(-) Closing Stock	6,000	x	200 / 150	8,000
	62,000			88,000
Add : Wages & Salaries	6,000	x	200 / 150	8,000
Other expenses	4,500	x	200 / 150	6,000
Depreciation	700	x	200 / 150	2,800
Interest	300	x	200 / 200	300
	73,500			1,05,100
	16,500			14,900
Less : Dividends	4,000			4,000
Retained earnings	12,500			10,900

9) Fair & Lovely Corporation has the following particulars relating the financial year 1997 in respect of its stock figures.

Opening Stock on 1-4-97 - 8,000

Purchases from 1-4-97 to 31-3-1998 - 60,000

Closing stock on 31-3-98 - 6,000

The corporation followed both FIFO & LIFO for issue of its stock. The following are the price indices relating to the financial year 1997 - 98. Opening Index - 100, Avg. Index - 150; Closing Inex - 200. Calculate cost of sales and closing inventory under CPP method.

Solution :

Particulars	HCA		CF	CPP Value
Opening Stock	8,000	x	200 / 100	16,000
(+) Purchases	60,000	x	200 / 150	80,000
	68,000			96,000
(-) Closing Stock	6,000	x	200 / 150	8,000
	62,000			88,000
b) Closing Stock	6,000	x	200 / 150	8,000

LIFO				
Opening Stock	8,000			
(+) Purchases	60,000			
	68,000			
(-) Closing Stock	6,000			
	62,000	x	200 / 150	84,000

From the following particulars prepare the Income statement under CPP method

Rates	25,000	Manufacturing	2,000
Int. Received	2,000	Administraive Expenses	1,500
Dividends	1,000	Selling & Distn. expenses	2,500
Projection sale		Interest paid	1,000
Assets	2,000		
Cost of goods sold	30,000		7,000
Opening Stock	5,000	Net Income	11,000
(+) Purchases	15,000	The following are the price indices	
	20,000	Opening Index	200
(-) Closing Stock	8,000	Closing Index	300
	12,000	Average Index	250
	18,000		

The Interest was paid on the last day of the year. The assets were sold when the index was 125.

Solution : Conversion of Income Statement

Particulars	HCA		CF	CPP
Sales	25,000	x	300 / 250	30,000
Interest received	2,000	x	300 / 250	2,400
Dividends	1,000	x	300 / 250	1,200
Profit on sale of assets	2,000	x	300 / 125	4,800
	30,000			38,400
Less : Cost of goods sold				
Opening Stock	5,000	x	300 / 200 =	7,500
(+) Purchases	15,000	x	300 / 250 =	18,000
	20,000			25,500
(-) Closing Stock	8,000	x	300 / 250 =	9,600
	12,000			15,900
Add : Manufacturing exp.	2,000	x	300 / 250 =	2,400

Administrative exp.	1,500	x	300 / 250 =	1,800
S & D Expenses	2,500	x	300 / 250 =	3,000
Interest paid	1,000	x	300 / 300 =	1,000
	19,000			24,100
				24,100
Net income	11,000			14,300

11) From the following, Income statement of ABC Corporation prepare converted Income Statement under CPP method.

Particulars		Amount Rs.	Other Expenses are as follows	
Net Salaries		95,000	Salesman Salaries	12,000
Less : Cost of goods sold			Advertisment	3,000
Opening Stock	15,000		Delivery van exp.,5,000	
(+) Purchases	35,000		Depreciation on Pron.	3,000
(+) Carriage inwards	5,000		Depre. on furniture2,500	
			Depre., on office equipment	2,000
	55,000			
(-) Closing Stock	10,000	45,000		27,500
			Net Income	
GP -		50,000		22,500
			Less : Dividends	5,000
			Taxes	2,000
				7,000
			Retained earnings	15,500

The relevant Price indices are as following -

Opening Index	100
Closing Index	200
Average Index	150

The indicies of P & M - 50; furniture - 75, Office equipment - 90, Dividends, Taxes are Paid on the last day of the year.

Solution : Conversion of Income Statement

Particulars	HCA		CF	CPP
Net Sales	95,000	x	200 / 150	1,26,667
Less : Cost of goods sold				
Opening Stock	15,000	x	200 / 100	30,000
(+) Purchases	35,000	x	200 / 150	46,667
Carriage inwards	5,000	x	200 / 150	6,667
	55,000			83,334

(-) Closing Stock	10,000	x	200 / 150	13,334
	45,000			70,000
Other Expenses	50,000			56,667
Sales man Salaries	12,000	x	200 / 150	16,000
Advertisement exp.,	3,000	x	200 / 150	4,000
Delivery van expenses	5,000	x	200 / 150	6,667
Depreciation:				
Plant & Machinery	12,000	x	200 / 50	12,000
Furniture	2,500	x	200 / 75	6,667
Office Equipment	2,000	x	200 / 90	4,444
	27,500			49,778
Net income	22,500			6,889
Less : Dividends	5,000	x	200 / 200	5,000
Taxes	2,000	x	200 / 200	2,000
Retained Earnings	15,500			- 111

12) Income Statement of M/s Sundaram Traders is given below.

Particulars	Amount Rs.	Particulars	Rs.
Sales	10,00,000	Operating Expenses	4,80,000
Cost of Sales		Selling Expenses	50,000
Opening Stock	1,00,000	General Expenses	25,000
(+) Purchses	5,00,000	Depreciation	50,000
	6,00,000		1,25,000
(-) Closing Stock	80,000		3,55,000
	5,20,000	Net income before taxes &	
Gross Profit	4,80,000	Dividends	3,55,000

The depreciable assets were acquired when the general price index was. The indices are: : At the begining of the year - 150; Index - 180 At the end of the year - 200. Compute the Income statement under CPP terms, assuming that the general price level gain was 10,000.

Solution : Preparation of Converted Income Statement

Particulars	HCA		CF	CPP Valaue
Sales	10,00,000	x	200 / 180	11,11,111
Less : Cost of goods sold :				
Opening Stock	1,00,000	x	200 / 150	1,33,333
(+) Purchases	5,00,000	x	200 /180	5,55,555
	6,00,000			6,88,888
(-) Closing Stock	80,000	x	200 / 180	88,889
	5,20,000			5,99,999

Gross Profit	4,80,000			5,11,112
Less : Selling Expenses	50,000	x	200 / 180	55,555
General Expenses	25,000	x	200 / 180	27,778
Depreciation	50,000	x	200 / 125	80,000
	1,25,000			1,63,000
Net Profit	3,55,000			3,47,779
Add : Moentary Gain				10,000
	3,55,000			3,57,779

Problem on Final Accounts :

15) The B/S of Uninversal Traders as on 31.3.1995 and its P & L A/c for the year ended 31-3-1996 are as under (March 97)

Balance Sheet as on 31-3-1995

Liabilities	Rs.	Assets	Rs.
Share Capital	4,00,000	Plant & Machinery	6,00,000
14% Debentures	2,40,000	Stock	96,000
Sundry Creditors	1,44,000	Debtors	48,000
		Cash	40,000
	7,84,000		7,84,000

Profit and Loss A/c for the year ended 31-3-1996

Dr. **Cr.**

Particulars	Amount in Rs.	Particulars	Amount in Rs.
To Opening Stock	96,000	By Sales	4,00,000
To Purchases	1,84,000	By Clg., Stock	80,000
To Gross Profit C/d	2,00,000		
	4,80,000		4,80,000
To Expenses	32,000	By Gross Prifit b/d	2,00,000
To Int., on debentures	33,600		
To Depreciation	60,000		
To Net Profit	74,400		
	2,00,000		2,00,000

1. The following relevant information is furnished. There is no change in the debtors and creditors during the year.
2. FIFO method is followed.
3. The Price indices are as under 31-3-1995 - 200; 31-3-96 - 300.
   Average for the year - 240

You are required to prepare final accounts after adjudstments for price level changes under CPP method.

Solution : Preparation of Converted Income Statement

Particulars Values	HCA		CF	CPP
Sales	4,00,000	x	300 /240	5,00,000
Less : Cost of Goods sold				
Opening Stock	96,000	x	300 / 200	1,44,000
(+) Purchases	1,84,000	x	300 / 240	2,30,000
	2,80,000			3,74,000
(-) Closing Stock	80,000	x	300 / 240	1,00,000
	2,00,000			2,74,000
Gross Profit	2,00,000			2,26,000
Less : Expenses	32,000	x	300 / 240	40,000
Depreciation	60,000	x	300 / 200	90,000
Int., on debentures	33,600	x	300 / 300	33,600
	1,25,600			1,63,600
Net Profit	74,400			62,400
Add : Monetary Gain / Loss				1,02,000
(i) Monetary Gain				
Total Retained earnings	74,400			1,64,000

(ii) Closing Cash Balance Rs.

Opening Cash Balance	40,000
Add : Addition during the year	1,84,000
	2,24,000
Less : Interest on debentures	33,600
	1,90,400

Statement of Monetary Gain / Loss :

Particulars	HCA		CF	CPP Value
Monetary Assets				
Sundry Debtors	48,000	x	300 / 200	72,000
Cash balance	40,000	x	300 / 200	60,000
Cash Additions during the Years (w.Notes ii)	1.84,000	x	300 / 240	2,30,000
	2,72,000			3,62,000

A) Monetary loss				90,000
Monetary Liabilities				
Debentures	2,40,000	x	300 / 200	3,60,000
Sundry Creditors	1,44,000	x	300 / 200	2,16,000
	3,84,000			5,76,000
(B) Monetary Gain				1,92,000
Net Monetry Gain (B-A)				1,02,000

(ii) Calculating of Cash Additions during the year

Sales	4,00,000
Less : Purchases	1,84,000
Expenses	32,000
	2,16,000
	1,84,000

Preparation of the Closing B/S

Liabilities	HCA		CF	CPP
Share Capital	4,00,000	x	300 / 200	6,00,000
Debentures	2,40,000			2,40,000
Sundry crs.	1,44,000			1,44,000
Retained earnings	74,400			1,64,400
				11,48,400

Assets	HCA		CF	CPP
P & M	6.00,000	x	300 / 200	9,00,000
Less : Dep.	60,000	x	300 / 200	90,000
Closing Stock	80,000	x	300 / 240	1,00,000
Sundry drs.	48,000			48,000
Closing Cash balance				1,90,400
				11,48,400

14. (March 1998) A Company had the following monetary items on January, 1st 1997.

Debtors	41,000	Less B/P :	10,000	
Bills Receivable	10,000	Creditors	25,000	35,000
Cash	20,000	Net Monetary Assets		36,000

The transactions effecting the monetary items during the year are :

1) Sales of 1,40,000 made evenly through out the year.
2) Purchases of goods of 1,05,000 made every through out the year.
3) Operating Expenses of 35,000 were incurred evenly through out the year.

4) One machine was sold Rs. 18,000/- on July, 1st 1997.

5) One machine Price index was as follows. On January, 1st 360, Jan 1 - 30 July 1 - 360, Aug., for the year - 350, July 1st Average - 350; Dec. 31-400; Dec., 31st - 400.

You are required to compute the General Purchasing Power Gain or loss for the year stated in terms of the current year and rupee.

Solution : Statement of the Monetary Gainor Loss.

Particulars	**HCA**		**CF**	**C PP Value**
Net Monetary assets	36,000	x	400 / 300	48,000
Add : Increase in Monetary items :				
Sales	1,40,000	x	400 / 350	1,60,000
Sale of Machinery	18,000	x	400 / 360	20,000
	1,58,000			1,80,000
	1,94,000			2,28,000
Monetary Loss				(-) 34,000

Less : Decrease in monetary items.

Purchase of goods	1,05,000	x	400 / 350	1,20,000
Operating expenses	35,000	x	400 / 350	40,000
Purchase of Machinery	25,000	x	400 / 400	25,000
	1,65,000			1,85,000
Monetary Gain				(+) 20,000
Net Monetary Gain / Loss (34,000 - 20,000)				(-) 14,000

11.9 Key Words :

1. Historical Cost Accounting - the acconting statements which are prepared on the basis of past transactions.
2. Inflation adjested statements - Accounting statements which are prepared on the basis of changes in price levels.
3. GPP - Accounting statements are adjusted on the basis of established price index.
4. CCA - Which takes care of changes in the value of money.

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Lesson - 12

HUMAN RESOURCE ACCOUNTING AND SOCIAL BALANCE SHEET

OBJECTIVES

After having studie ȷ this unit you should be able to:

- understand the Concept of Human Resource Accounting
- appreciate the need for and importance of Human Resource Accounting
- have an understanding of the Methods of Valuation of Human Resources.
- have an insight into the concept of Social Accounting and dimensions of Social Balance Sheet.

STRUCTURE

12.1. INTRODUCTION

Capital and natural resources of a country are passive factors of production; human beings are the active agents who accumulate capital, exploit the natural resources, build social, economic and political organizations and carry forward national development. Human resources are the energies, skills, talents and knowledge of people which are, or which potentially can be, applied to the production of goods or the rendering of useful services. As such, investment in human resources refers to all forms of investments directed to raise the knowledge, skills and aptitudes of the organization's workforce. The development of human resources constitutes an essential perquisite and a key factor in sustained and accelerated economic growth.

Human and Non-human elements are equally important in the contribution towards the objectives of an overall organizational system. It is a widely accepted fact that success of any organization or business or otherwise, to a great extent, depends upon the quality, calibre and character of the people working in it.

An enterprise with incompetent people will fail sooner or later but on the other hand competent persons can take the unit ahead even out of adverse environment. Human Resource Accounting, is not fully developed; but in its infancy and still in the process of development. The concept of Human Resource Accounting (HRA) is not an old concept but of relatively new origin and emerged in the late 1950s. It's origin was a logical derivation of the recognition of a fact by Rensis Likert, (1967) Social Psychologist, that human elements in the organization are the assets to the organization in the same sense as the physical assets to the organization.

12.2. CONCEPT AND DEFINITIONS

In simple words, human resources accounting is the art of, valuing, recording and presenting systematically the worth of human resources in the books of accounts of an organization. This definition brings out three important aspects of human resource accounting:

(i). Valuation of human resources
(ii). Recording the valuation in the books of accounts.
(iii). Disclosure of the information in the financial statements of the business.

According to Eric Flamholts Human Resource Accounting is Accounting for people as organizational resources. It is the measurement of the cost and value of people for the organization.

Mr. Woodruff Jr. Vice President of R.G. Barry Corporation defines it as follows: "Human resource accounting is an attempt to identify and report investments made in human resources of an organization that are presently not accounted for in conventional accounting practice. Basically it is an information system that tells the management what changes over time are occurring to the human resources of the business."

According to Venkataratnam C.S, and Srivastava, Human Resource Accounting (HRA) may be referred to aS a process of identifying, measuring and communicating information about human resources in financial terms to aid HRP and control.

The American Accounting Society Committee on human resource accounting defines it as "Human resource accounting is the process of identifying and measuring data about human resources and communicating this information to interested parties."

This definition gives emphasis on identity and measurement of human resources and giving this information to those who are interested in it.

12.3 NATURE AND IMPORTANCE OF HUMAN RESOURCE ACCOUNTING

Human Resource Accounting is the art of, valuing, recording and presenting systematically the worth of human resources in the books of accounts of an organization. The following points reveal the nature of HRA.

a) HRA is a subsystem of MIS and as such it must be integrated with the conventional accounting system and also it must be in a conflicting position with regard to the other sub systems of MIS.

b) HRA is not an isolated technique and as such it is an open system on which many factors and variables have their effect. Therefore, an organization must have a team consisting of, for instance, accountants, managers, behavioural scientists etc, for its development within the organization.

c) The success of HRA in an organization depends upon, among other factors, the method of valuation of human-assets selected.

The primary purpose of HRA is to facilitate the management of people as organizational resource. Thus it might not be inappropriate to refer to it also as 'Human Resource Management Accounting', i.e., the application of accounting to the management of human resources. The variables in human behaviour like group loyalty, skill, motivation and capacity for effective interaction, communication and decision making are the true indicators of organisational health. Information about human asset for planning and control is essential in the same way as data regarding other resources are needed for presentation in the financial statements. It is through a system of HRA that information regarding acquisition, development, maintenance and utilization of human asset would be available. If the value of human and physical assets are shown together in the balance sheet, a more realistic assessment of the firm can be presented before the investors, financiers, creditors, government and the general public.

Human Resource Accounting helps in different ways.

1 The Human Resource Accounting helps individual employees in improving their performance and bargaining power. It makes each of them conscious of the contribution that he is making towards the betterment of the firm vis-à-vis the expenditure incurred by the firm on him.

2. It helps the management in the decision-making process relating to the Employment, location and utilization of human resources, transfers, promotions, trading and retrenchment of human resources and planning of hysical assets vis-à-vis human resources.

3. It aids in evaluating the expenditure incurred for imparting further education and training to employees in terms of the benefits derived by the firm.

4. It helps identifying the causes of high labour turnover at various levels and taking preventive measures to contain it.

5. It assists in locating the real cause of low return on investment, that i whether it is due to improper or under-utilization of physical assets or human resources or both.

6 If a financial analyst is interested in understanding and assessing the inner strength of a firm, such inner strength does not merely depend on the physical assets owned and possessed by the firm.. It also depends upon the type of human resources available to the firm. The vigilant, dynamic and responsible management can steer the company well through most dverse and unfavourable circumstances.

7. The HRA data would also be relevant to investors, financiers, creditors, etc for decision making purposes. Strategic decisions concerning mergers and acquisitions could be based on the quality and skills of people available.

8. It is important to know whether human assets are appreciating or depreciating over a period of time and identify causal factors for proactive actions.

12.4. OBJECTIVES OF HUMAN RESOURCE ACCOUNTING

Different studies conducted on Human Resources Accounting and the proponents of the concept enlisted various objectives. The significant objectives are:

a. To provide quantitative information on human resources which will help the managers as well as investors in making decisions.

b. To furnish cost/value information for making management decision and maintaining human resources in order to attain cost effective organizational objectives.

c. To help in knowing whether the human resources have been properly utilized or not.

d. To allow management personnel to monitor effectively the use of human resources (Rensis Likert).

e. To communicate the worth of human resources to the organization and the society at large.

f. To help in determining the return on investment on human resources.

g. To provide information regarding the cost of recruitment, training and other costs of developing their skill; how long such development cost of HRA will yield benefit, what human resources are more costly to be managed by exception, how much cost on maintaining the human resources; how effectively human resources are being utilized etc. such information to the management will definitely increase in the efficiency of human resources management.

Activity

Taking your organization or an organization you know identify the factors and qualities of Human Resources that add to the value of the Human resources as an Asset and those negatively influence its value. Give your reasoning also.

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12.5. METHODS OF HR VALUATION

A few approaches for the valuation of human resources include the following:

1. *Historical Cost Approach*, developed by Brummet, Flamholtz and Pyle, emphasizes that the actual cost incurred on recruiting, selecting, hiring, training and developing the human resources of the organisation are capitalized and written off over the expected useful life of the human resources.
2. Replacement Cost Approach, developed by Rensis Likert and Eric G. Flamholtz, values the human resources at their present replacement cost.
3. Opportunity Cost Approach, suggested by Hekimian and Jones, values an employee according to his alternative use. In case an employee has no alternative use, no value is to be added.
4. Standard Cost Approach, suggested by David Watson, takes into account of the standard costs of recruiting, hiring, training and developing of employee year after year.
5. Present Value Approach values the human resources of an organization at their present value to the organization. For determination of the present value, a number of valuation methods that have been developed are:
   - Present Value of Future Earnings Model-Law and Schwarts (1971).
   - Reward Valuation Model – Flamholtz (1971).
   - Net Benefit Model – Morse (1973)
   - Certainty Equivalent Net Benefit Model – Pekin Ogan (1976).
   - Aggregate Payment Approach – S.K. Chakraborty (1976).
   - Total Cost Concept – N. Dasgupta (1978).

All these models at best can assess the value of the human factor in organizations. They cannot evaluate properly the values of different sources of human beings in organizations. And also they fail to evaluate the extent of matching the sources of animate resources with the applications. Further, the process of conversion of animate sources into animate applications and creation of inanimate liabilities and assets is not clear.

A brief appreciation of the various methods of Human Resource Valuation is presented above and a comprehensive explanation of each method is provided in the following discussion.

1. HISTORICAL COST APPROACH :

This model of valuing human resources was first developed by William C.Pyle (assisted by R. Lee Brummet and Eric G. Flamholtz) at R.G. Barry Corporation, a leisure footwear manufacturer in Colombus, Ohio (USA) in 1967. In this approach, actual costs incurred on recruiting, selecting, hiring, training and developing the human resources of an organization are capitalized and amortized over the expected useful life of the human resources. Prof. Flamholtz refers to such costs as original costs of human resources refers to the sacrifice that was actually incurred to acquire and develop people'. Thus, a proper record of expenditure made on hiring, selecting, training and developing the employees is kept and a part of it is written off to the income of the next few years during which human resources will provide services. The historical cost of human resources is very much similar to the book value of the other physical assets. The value of human resources can be increased substantially by making investments in training in the same manner as the value of fixed assets is increased by making additions in them. Such additional costs incurred in training and development are also capitalized and are amortized over the remaining life. The unexpired value is shown in the Balance Sheet as investment in human resources.

MERITS :

1. This approach is simple an easily calculated without sophistication
2. It meets the test of traditional principles of accounting i.e., it is only an extension of the concept of proper matching of cost and revenue.
3. It can help a firm in finding out a return on human resources investment.

DEMERITS :

1. It takes into account only the acquisition cost of employees, ignoring the aggregate value of their potential services.
2. It is difficult to determine the number of years over which the effect of investment on employees will be realized.
3. It is also difficult to fix a rate of amortization.
4. The value of an asset decreases with amortization. In case of human resources the situation is just the reverse. With the acquisition of experience and training in the course of time the utility of employees increases rather than decreasing.

2. REPLACEMENT COST APPROACH :

Rensis Likert and Eric G. Flamholtz are the proponents of this method. The cost of replacing the existing employees is taken as the measure of human resources of a company. The cost involved in replacing the existing employees with new employees of the equal talent and skills is used as the measure of the Human Resource value. This method takes into consideration the cost of acquiring and developing the new employees. Excepting this the replacement cost approach is almost equal in its approach to historical cost method.

Likert suggested determination of the value of total human organization on the basis of the assumption that a similar organization is to be created from scratch. Thus this approach concentrates on the current value rather than the past value. In this method the costs of recruiting, selecting, training, developing etc., of new employees to reach the level of competence of existing employees are taken into consideration. Hekimian and Jones have advocated the use of replacement cost approach saying that the value of a human being is assessed at the estimated cost of replacing him with another person of equivalent talents and experience.

MERITS :

1. This approach considers the current price level changes in valuation of Human Resource.

2. It provides a more realistic value of Human Resource under conditions of inflation.
3. It is an improvement over the Historical cost approach in the sense it has current or present orientation and rationality.

DEMERITS :

1. Human beings differ from one to another. Therefore it is difficult to find an exactly similar replacement for the existing employees.
2. Valuation under this method lacks verifiability due to changes in market position.
3. Measurement of qualitative aspects like knowledge, competence, emotional balances, commitment, morale and motivation etc. of the employees for comparison of the human resource for replacement is a difficult task.

3. OPPORTUNITY COST APPROACH :

Economic concept of opportunity cost is the basis of this method of measuring the value of human resources. Joel Dean in his book 'Managerial Economics' defined opportunity cost as the most profitable alternative use that is foregone by putting it to the present use. This approach to human resource valuation suggests that when there is an alternative use of the existing human asset the value of that alternative use is the value of the existing human asset.

This method of valuation is most suitable and rationale when the said employees are scarce and when there is market bidding for the scarce human resource. Thus it is clear those types of employees that can be readily hired from outside are specifically excluded as there involves no scarcity or bidding process for such a human resource. However, this approach has narrowed down the concept of opportunity cost by restricting it to the next best use of the employees within the same organization.

For example there are two departments A and B in a company with a capital in physical assets of Rs.20 lakhs (A) and Rs.10 lakhs (B). The desired rate of return on the total assets or capital, both in physical and human assets, is 10%. It is expected that with the employment of a specific skilled human resource Department A can make a profit of Rs.6 lakhs while Department B Rs.5 lakhs. Suppose the capitalized value of profits for Department A comes to Rs.30 lakhs and for Department B Rs.25 lakhs. Now if the physical assets value is deducted from these figures. The remaining value i.e., of human assets comes to Rs.10 lakhs in case of Department A and Rs.15 lakhs in respect to B. Therefore Department B can offer a higher bid for human resource when compared to B. This is also because Department B can offer a salary Rs.1.5 lacks (Rs.15 lakhs x 10%) as against only Rs.1.0 lakh (Rs.10 lakhs x 10%) in the case of A Department. Thus Department B values its human resource at Rs.1.5 lakhs and this stands as the opportunity cost for the human resources of Department A.

MERITS:

1. This approach is based on the principle of demand and supply of Human Resource.

2. As the competitive bidding process is the base for this method it provides an optional allocation of human resource within an organization.
3. This method provides a quantitative base for planning and developing the human assets of an organization due to value comparisons.

DEMERITS:

1. This method lacks objectivity and fails to provide valuation for that Human Resource in plenty and not in scarcity.
2. This method is discriminatory in approach and lets down the morale of employees and specialists who cannot be used in other divisions.
3. The skilled human resource, if existing in less profitable divisions, will be measured at a less value according to this method.

4. PRESENT VALUE APPROACH:

An important approach to the evaluation of human resource assets is to calculate their economic values. This concept is based on the view that difference in present and future earnings of two similar firms is due to the difference in their human organization. The economic value of the firm can be determined by obtaining the present value of future earnings. A number of valuation models have been developed for determining the present value of future earnings. Some of the important models have been discussed as below:

(a) THE LAV AND SCHWARTZ MODEL:

Lav and Schwartz developed an economic model in 1971 for determining the value of human resources in a firm, the value of human capital in a person of age 'T' is the present value of his remaining future earnings from employment in the form of salaries, wages, etc.
According to this model, the value of human resources is ascertained as follows:
(i) All employees are classified in specific groups according to their age and skill, (ii) Average earning is determined for various ranges of age, (iii) the total earnings which each group will get upto retirement age are calculated, (iv) The total earnings calculated as above are discounted at the rate of cost of capital. The value thus arrived at will be the value of human resources/assets.
The formula for calculating Human Resource value under this model is

$$V_T = \sum_{t=T}^{T} \frac{I(t)}{(i - r)^{t-T}}$$

Where

V_T = the value of human capital of a person T year old.
I(t) = the annual earnings of the person upto retirement.
r = the discount rate of the cost of capital
T = the age of retirement.

Lav and Schwartz have taken a hypothetical example to show the computation of value of human capital of a firm. The present values of future earnings for each group have been determined and the total of such present values has been shown as the firm's value of human resources. *However, the Lav and Schwartz model suffers from the following limitations:*

(i) The model does not consider the possibility of leaving a firm by an employee. (ii) The model ignores the possibility of promotion of employees. (iii) It does not consider the contribution of the firm in developing the value of human capital. Inspite of the above limitations, the Lav and Schwartz model is the most popular economic model for determing the value of human resources of a firm.

(b) REWARD VALUATION MODEL – FALMOTZ (1971):

This model identifies the major variables that determine an individual's value to an organization. According to this model, the ultimate measure of an individual's value to an organization is his expected realizable value. There is a dual aspect to an individual's value (i) the amount an organization could potentially realize from his service if he remains an employee of the organization during the period of his productive service life and (ii) the amount actually expected to be derived, taking into account the person's likelihood turnover. The model is based on the notion that a person's value to an organization depends upon the positions to be occupied by him in the organization. An individual generates values for an organization as he occupies and moves to different roles and renders services to the organization. The movement of people from one organizational role to another is a stochastic process.

The model suggests a five-step approach for assessing the value of an individual to the organization, which have to be followed:

(i) Forecasting the period a person will remain in the organization i.e. his expected service life.

(ii) Identifying the service states i.e. the roles that he will occupy including the time at which he will quit the organization.

(iii) Estimating the value derived by organization when a person occupies a particular position (i.e. a service state) for a specified time period.

(iv) Estimating the probability of occupying each possible mutually exclusive state at specified future times.

According to Flamholtz, an individual's expected realizable value is determined by two factors (i) the individuals conditional value and (ii) the probability that the individual will maintain his expected service life. The product of these two variables is the present worth the services actually expected to be derived by an organization. An individual's conditional value is determined by two factors (i) his skill; and (ii) his activation level. Besides, the personal factors determining the conditional value of an individual, there are organizational factors as well. These are (i) the role occupied/performed by the individual within the organization; and (ii) the organizational rewards.

Prof. Flamholtz has presented the following formula for calculating an individuals expected realizable value:

$$E(RV) = \sum_{t=1}^{n} \frac{R_1 P(R_1)}{(1+r)^1}$$

Where

E(RV)= Expected Realizable value

R_1= Value derived by organization in each possible state.

$P(R_1)$ = Probability that the organization will derive R_1

t = time

n = the state of exit

$(1-r)^1$ = the discount factor

Thus, a person's expected realizable value is the product of conditional value and the probability that the person will maintain organizational membership. The probabilities (P) in the above formula are determined on the basis of the firm's past experience.

(C) NET BENEFIT MODEL – MORSE (1973)

According to this model, the value of human capital is determined on the basis of the present value of net benefits derived by the organization from the expected future services of its employees. It involves the following steps:

(i) Determination of the gross value of future services to be rendered by employees in their individual capacities as well as operating in groups.

(ii) Determination of the cost, i.e., the total future payments to be made to the employees.

(iii) Calculation of 'net benefit' to the organization on account of human resources by subtracting (ii) from (i).

(iv) Calculation of the present value of the net benefits by discounting at predetermined rate of discount.

(d) CERTAINTY EQUIVALENT NET BENEFIT MODEL – PEKIN OGAN (1976)

Pekin Ogan's model extends some of the concepts advanced by Flamholtz & Lav and Schwartz and also specifies certain variables which have not been stated in the earlier studies. In the proposed model, the researcher has incorporated and highlighted the effects of costs and benefits. According to his approach, which he calls as 'Value – oriented quantification approach', the total adjusted net present human resource value of a professional service organization is equal to the aggregate discounted certainty equivalent net benefits of the employees in the organization. Pekin Ogan's model presents a new concept of determination of certainty – equivalent net benefits stream for each employee in an organization. This model takes with accounts the 'costs' generated by the employees for the organization, which the other models have ignored. It also makes use of the 'certainty factor' designed to measure the probability of continued employment and probability of survival.

(e) AGGREGATE PAYMENT APPROACH – S.K. CHAKRABORTY (1976)

Prof. Chakraborty was the first Indian to suggest a model for the Human Resource Valuation. This model values the human resource as a group and not on individual basis. This model involves the following steps:

(a) All the employees of an organization are divided in two groups, managerial and non-managerial.

(b) The average tenure of the employment of the employees in the group is estimated on the basis of past experience.

(c) The average salary of the group is determined on the basis of the salary wage structure prevalent the organization..

(d) The value of human resources is now determined multiplying the average salary of the group with the average tenure of the employees in that group.

(e) The value determined under (iv) above, is discounted at the expected average after tax return on capital employed over the average tenure period to ascertain the present value of the estimated future payment.

Chakraborty has also suggested that the recruitment, hiring selection, development and training cost of each employee should be recorded separately. This should be treated as deferred revenue expenditure and may be written off over the expected average stay of the employee in the organization. The deferred portion, not written off, should be shown in the Balance Sheet of the organization.

(f) TOTAL COST CONCEPT – N. DASGUPTA (1978)

Prof. N. DasGupta suggested this approach in 1978. He points out that all the earlier methods considered only employed persons and unemployed are ignored in the valuation process. This is a national approach where in the unemployed human resource is also taken into the purview along with employed persons.

DasGupta is of the view that the total cost incurred by the individual, the state and the organization in bringing the individual, upto that position in the organization should be taken as the value of a person on the day he starts serving the organization or becomes for appropriate employment. It will include his education, training expenses which he and the state have incurred. The value should be further adjusted by the amount of intelligence. The amount spent by the organization on recruitment training, familiarizing and developing human beings employed in the organization should be considered separately. However, it should also be treated as a cost increasing the value of human beings. In case the number is large, the valuation can be done group-wise. The value determined in the aforesaid manner should be adjusted at the end of each year by the organization on the basis of his age, seniority, status, performance, experience, leadership, managerial capabilities, etc. The measurement can be done with the help of psychologists and other confirmed experts.

This model seems to be sound theoretically, but its practical application may be difficult.

12.6. HR VALUATION – RECORDING AND DISCLOSURE

The exponents of human resource valuation models in most cases have not dealt with the mode of recording and disclosure of the accounting information relating to human resources in the books of accounts of financial statements of the organization. This has been left to the discretion of the accounting bodies who have yet to develop a generally accepted basis for valuation, recording and disclosure of human resource accounting information in the financial statements of organization. As regards disclosure of accounting information relating to human resources, Professor Chakraborthy has suggested that 'human assets' should be shown under the heading "Investment" in the Balance sheet of an organization. He has not favoured its inclusion under the heading fixed assets since it would cause problem of depreciations, capital gains and losses, in the event of their exit. Similarly, he has not favoured their inclusion in current assets on the ground that this will not be in conformity with the general meaning of the term.

According to Prof. Das Gupta, the human resources valued as per his model should be shown both on the "assets" as well as "liabilities" sides of the balance sheet. On the assets side, it should be shown after the fixed assets as Human Assets classified into two part – (i). value of individual, (ii) value of firm's investment. On the "liabilities" side, it should be shown after the capital as Human Assets Capital by that amount at which it has been shown on the asset side against 'value of individuals'.

The following illustration enables you understand the way the valuation is recorded in the Balance Sheet.

A business is started with a capital of Rs.10,00,000 and fixed Assets are acquired to the tune of Rs.5,00,000. The current Assets are Rs.2,80,000, goodwill Rs.60,000. The value of Human Resource is calculated as Rs.2,20,000 and an amount of Rs.1,90,000 is incurred on employee recruitment and subsequent development current liabilities Rs.1,60,000.

BALANCE SHEET AS ON 31[ST] DECEMBER

(including Human Resource Values)

Liabiabilities	**Rs.**	**Assets**	**Rs.**
Capital	10,00,000	Current Assets	2,80,000
Capital in Human Resource	1,90,000	Fixed Assets	6,00,000
Current liabilities	60,000	Human Resource Valve	2,20,000
		Investment in Human Resource	1,90,000
		Goodwill	60,000
	13,50,000		13,50,000

HRA DISCLOSURE – INDIAN EXPERIENCE

The Indian companies Act 1956, which provides guidelines for the preparation of financial statement of company does not stipulate any provisions for the disclosure of Human Resource values excepting the particulars of the employees whose remuneration per annum is above Rs.3.00 lakhs. But some large enterprises in the public sector felt the importance of human Resource Accounting and started disclosing information. In this regard BHEL is the pioneer providing Human Resource information since mid 1970. Enterprises like ACC, BHEL, CCI, EIL, ONGC and NTPC have, in 1980's began to take interest in extending financial reporting system to human resources also. Almost all of them have thought it appropriate to base their HRA along the model developed by LAV and Schwartz. Under this model the discounted value of employees' future earnings are treated as the value of the human assets of the organization. The following assumptions are usually made, in Indian context, while applying the model:

- Present pattern of employee compensation including direct and indirect benefits and prospective wage revisions are to be reckoned;
- Normal career growth as per present policies, with vacancies filled from the levels immediately below;
- Weightage for changes in efficiency due to age, experience and skills; and,
- the present value of future earnings is calculated on a discount factor of 12% per annum.

12.7. OBJECTIONS TO HRA

Because the concept of HRA is new and legal recognition is absent, there are some objections against the practice. Despite the following stated objections some organizations of repute, both in the public sector and private sector, follow Human Resource Accounting. For instance Infosys in private sector is a forerunner in this regard.

Some of the significant objections are:

a) Human assets are different from other Assets. Therefore these assets cannot be valued precisely and confidently. Moreover, the values are not convincing.

b) Human Resource assets remain theoretical because neither the tax laws nor the Accounting codes recognize Human Assets with monetary values.

c) Human beings and their valued skill and expertise is the personal property of the individual and cannot be owned permanently by the organization. Therefore showing human resource value in the company's Balance sheet lacks rationality.

d) The Human Resource values lack objectivity because the factors taken for Human Resource valuation are mostly arbitrary and not monetarily measurable.

e) The approaches to valuation give varying results due to adoption different bases.

f) Neither the procedure of disclosure is codified and the method of Human resource valuation recognized.

In these days of wider mobility and turnover of employees in the era of privatization, Human Resource valuation and Accountability stands with a weak rationale. This is more due to absence of permanent employees in many organizations.

However, the objections raised by the behavioral scientists against the traditional methods of preparing balance sheet without incorporating human value has given way for the development and popularity of human resource accounting.

12.8. SOCIAL ACCOUNTING – A FOUCS RATIONALE

Social Accounting is concerned with the development of measurement system to monitor social performances. It is rational assessment of and reporting on some meaningful domain of business enterprise activities that have social impact. It is an expression of company's social responsibilities and requirements of general corporate accountability. The information of social Accounting is communicated to social groups both within and outside the firm.

CONCEPT AND ORIGIN:

The concept of Social Accounting is not an application of a new set of accounting rules and procedures. In this field of accounting the same basic principles of enterprise accounting are applied. Salivary explained it as the expansion of the existing boundaries of the accounting beyond the normal economic consequences to include economic consequences, which the conventional systems did not consider. The areas covered by Social Accounting include pollution control, "Community relations, " Product quality, plant safety, equal employment opportunity, charitable contributions, employee benefits, and responsiveness to consumer complaints. Social Accounting is associated with the study and analysis of measuring and reporting practices of those activities of an organization which are undertaken by the enterprises with an objective of social welfare. Social Accounting tries to measure the effect of such activities on the society and the enterprise itself in quantitative as well as qualitative terms. It also tries to analyse and evaluate the organizational behaviour in the light of such activities.

The concept of Social Accounting originated in different forms by Adam Smith in 1776, Later on, Karl Marks and Engel also expressed their views about social costs in 1844, Karl Marx went to the extent of saying "under this free trade the whole severity of the economic laws will fall upon the workers". Pigou in 1920 also elaborated the divergence of social and private costs. Economists like E.H. Chamberlin in 1945, Joan Robinson in 1960 expressed their concern directly or indirectly about the social costs of an industrial organization.

DEFINITIONS :

For a more comprehension of the concept of Social Accounting some of the important definitions which are self explanatory are given below:

The National Association of Accountants (USA) Committee on Social Accounting defined it as the identification, measurement, monitoring and reporting of the social and economic effects of an institution on society..... It is intended for the internal managerial and external accountability purposes, and is an outgrowth of changing values that have led society to redefine its notion of a corporations' social responsibility.

Leonard Spacek described 'Social Accounting' as the means by which the effects of social programmes are attempted to be expressed in some type of quantitative terms.

Kohler defined 'Social Accounting' as the application of double entry book-keeping to 'socio-economic' analysis. But this is an orthodox definition as it is based on application of book-keeping principles rather than sophisticated techniques of management accounting to the national socio-economic situation. Now, the Social Accounting is used for toning up the economic health of a nation.

Elliot employed the expression, "Social responsibility accounting" which, according to him, "is a systematic assessment of and reporting on those parts of a company's activities that have a social impact. Social responsibility accounting, therefore, describes the impact of corporate decisions on environmental pollution, the consumption of non-renewable resources, and ecological factors; on the rights of individuals and groups; on the maintenance of public services; on public safety; on health and education and many other such social concerns"

Este defined it as 'the measurement and reporting, internal and external, of information concerning the impact of an entity and its activities on society. Thus, he viewed that social Accounting is an independent discipline which is to measure and report the activities of an entity in-so-far as they affect the society.

In conventional Accounting measurement of economic consequences in terms of money is the primary function but Social Accounting seeks to determine important variables of social consequences in terms of socio-economic non-monetary effects along with economic consequences. The function of Social Accounting is to measure and disclose the 'costs' and 'benefits' to society created by the production-related activities of a business enterprise.

In Nutshell social accounting is a branch of accounting which attempts to measure the social benefits that an organization provides and the social costs that an organization incurs.

OBJECTIVES :

K.V. Ramanathan suggests the following objectives for social accounting:

(a) to identify and measure the periodic net social contribution of an individual firm, which includes not only the social costs and benefits internalized by the firm, but also those arising from externalities and affecting different social segments:

(b) to help determine whether an individual firm's strategy and practices which directly affect the relative resource and power status of individuals, communities, social segments and generations are consistent with widely shared social priorities on the one hand and individuals' legitimate aspirations on the other; and

(c) to make available in an optional manner to all social constituents relevant information on a firm's goals, politics, programmes, performance and contribution to social goals.

SOCIAL ACCOUNTING IN INDIA :

Social Accounting has not been widely practiced in India, because social accounting has not been introduced a statutory requirement in Indian Companies Act 1956. There are no rigid instructions under the companies Act, 1956 to require companies to attach information about their social performance during the accounting year in notes and schedules, even though its need was felt by the High Powered Expert Committee on companies and MRTP Act (Sanchar Committee). It, has observed that the acceptance of the concept of social responsibility must be reflected in the information and the disclosures that the company makes available for the benefits of the various constituents like the share holders, creditors, workers and the community. A few attempts have, however, been made by some of the enlightened company managers, of both the public as well as private companies, to exhibit some information, descriptive as well as quantitative, regarding the social activities under taken by them in their respective annual reports particularly in public sector, there is growing awareness for reporting social accounts in annual reports as a supplement to the annual accounts.

The ten such public sector companies are : 1. Oil and Natural Gas Commission (ONGC), 2. Cement Corporation of India (CCI), 3. Steel Authority of India Limited (SAIL), 4. Bharat Heavy Electricals Limited (BHEL), 5. Oil India Limited (OIL), 6. Hindustan Aeronautics Limited (HAL), 7. India Petrochemicals Limited (IPCL), 8. Fertilizer Corporation of India (FCI), 9. Indian Iron and Steel Company Limited (IISCL), 10. Maruti Udyog Limited (MUL) etc.

Corporate Social Accounting and reporting and its success depends upon development of standards for Accounting, suitable legislation, quantification of social accounting information. Moreover, social indicators should be developed at national, regional and local levels. These indicators should be in the areas of (i) Employment opportunities; (ii) Product quality and safety; (iii) Quality of working life; (iv) Energy conservation; (v) Environment control; (vi) Research and Development; (vii) Foreign exchange transactions; (viii) Contribution to Govt. Exchequer; (ix) Social projects; (x) Consumerism; (xi) Health, education etc.
Above all mere legislation would not solve the problem, the organizations should take social accounting and reporting as their moral obligation.

12.9. SOCIAL BALANCE SHEET – A MODEL

In India there is no obligation for companies to provide information on social costs and social benefits in their Annual Statements. But progressive companies like Tata Iron & Steel Company, BHEL, Minerals and Metals Trading Corporation of India, Cement Corporation of India etc., provide such information. The social costs and benefits on account of social responsibilities discharged by the company may be presented in the form of narrative statement consisting of efforts in the areas of pollution control, saving is foreign exchange, hospitals and townships, increase in employment opportunities, spreading education, environment protection, saving is power consumption, social infrastructure provision etc.

For Social Accounting and Social Balance Sheet, Social Cost-Benefit Assessment is a pre-requisite. A business organization is also a social unit. It uses the society's resources and produces goods and services for which the society is the ultimate consumer. Thus, a business unit owes its very existence to the society. It is, therefore, necessary that a business should operate within the overall parameters determined by the society. Similarly, the society is also to see that such business, activities should be undertaken which are beneficial to the society as a whole. The basic philosophy behind this arrangement is that all sectors of the economy, public or private, small or big, should work for the overall good of the society. It is being increasingly realized that commercial evaluation of industrial projects is not enough to justify commitment of funds to a project, especially when it belongs to the public sector. Evaluation of such projects cannot be done strictly on commercial principles. Their evaluation should rather be done keeping in view the social costs and benefits associated with them. The concept of social cost-benefit has now started taking practical shape. The Planning Commission has already decided that in future the feasibility studies for the public sector projects will include an analysis of the social rate of return. In the case of private sector also, a socially beneficial project may be more easily acceptable to the Government and hence the social cost benefit analysis will be relevant while granting various licenses, approvals etc.

SOCIAL BALANCE SHEET – A MODEL

Liabilities	Rs.(Lacks)	Assets	Rs. (Lacks)
A. Organizational Equity	xx	A. Social Capital Investment	
		Township Buildings	
	xx		
		Canteen	
B. Social Equity			
contribution by staff	xx	Accommodation	
	xx		
		Township Roads	xx
		Township Water, Savrage	
		Township Electrification	xx
B. Other Social Assets			
Hospital Buildings & Equipment	xx		
		School Buildings	xx
		School Buses	xx
		Pollution control	
equipment	xx		
		Social infrastructure	xx
		C. Human Assets	xx
	xx		xx

ACTIVITY

CONSTRUCT A TENTATIVE SOCIAL BALANCE SHEET FOR A *SUGAR FACTORY BY INDENTIFYING THE SPECIFIC SOCIAL COSTS AND BENEFITS (* CHOOSE ANY MANUFACTURING UNIT IN YOUR AREA)

SOCIAL BALANCE SHEET
(XYZ SUGARS LTD)

Liabilities	Rs.	Assets	Rs.
	....	....	
	....	....	
	....	....	
	....	....	
		....	
		....	
		....	

12.10 SUMMARY

This unit is meant to help your ability to understand the Human Resource Accounting concept and its dynamics. In this process the methods of Human Resource valuation or measures of Human Resource as an asset are explained. The different methods include – Historical cost approach, Replacement cost approach, Opportunity cost approach, Economic Value method, etc. Each method of valuation is associated with its inherent merits and demerits.

Human Resource Accounting though hailed to accomplish a number of objectives there exist strong objections against it.

The unit also helped you to understand the social Accounting in the light of the increasing recognition of Social responsibilities and their discharge by the companies as social investment for business success. An awareness is also provided to you about the Social Balance Sheet.

12.11 SELF ASSESSMENT QUESTIONS

1. Explain the concept of Human Resource Accounting and its objectives and importance.
2. Explain and evaluate the methods of Human Resource Valuation.
3. Define Human Resource Accounting. Explain the objectives and objections relating to Human Resource Accounting.
4. What is Social Accounting? Construct an Illustrative Social Balance Sheet.
5. Brief Explain the present value approach to HR Valuation.

12.12 KEY WORDS

Historical Cost : The expenditure incurred to recruit, train, induct and develop an employee.

Opportunity Cost : The actual or assumed rate for capitalization of the differential earnings expected to be earned by an employee.

Human Resource Accounting : It is the process of identifying, measuring and communicating information about human Resources in financial terms to aid HRP and control.

Replacement Cost : It is the cost of replacing an existing employee.

HRP : Human Resource Planning which means etermining quantity and quality of Human Resource required.

12.13 FURTHER READING :

1. C.S. Venkata Ratnam Personnel Management and Human Resources, Tata Mc Graw Hill, New Delhi.
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4. K.R. Das et. Al., Corporation Finance & Financial Management, Kalyani Publishers, Ludhiana.
5. S.P. Jain, K.L. Narang, Advanced Accountancy (Part – I), Kalyani Publishers, Lidhiana.
6. Das Gupta, N. Human Resource Accounting, Sultan Chand & Sons, New Delhi.