ACCOUNTING FOR MANAGERS

(DBUS04)

(MBA 3Years)

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Chapter – 20

STANDARD COSTING AND VARIANCE ANALYSIS

20.0 Objective :

After going through this unit you should be able to

- Understand the concept of standard costing
- Know the types of standards and process in sitting standards
- Discuss the meaning and purpose of various analysis
- Analyse various types of variances viz., material variance, labour variance, and overhead variance.

Structure :

20.1 Introduction
20.2 Concept of Standard Costing
20.3 Types of Standard Costs
20.4 Variance analysis
20.5 Material Variance
20.6 Labour Variance
20.7 Overhead Variance
20.8 Sales Variances
20.9 Advantages and Limitations
20.10 Self Assessment Questions
20.11 Exercises
20.12 Suggested Readings

20.1 INTRODUCTION :

Financial Accounting is only historical costing and is only a post – marten examination of cost and hence, is not very much useful to management for cost control and cost reduction purposes. Besides this, historical costing is not useful to managerial decision making and policy formulating purposes. Hence, to the accounting world, a new concept (or) tool by name “Standard Costing “ appeared as a very big way out.

20.2 CONCEPT OF STANDARD COSTING : [DEFINITION]

Normally it is understood as a long step by step process of fixing standards, using standards, and their comparisons with the actuals, finding out of variances in between standards and actuals, analysing these variances, finding out of causative factors for these variances, classifying these causes into controllables and uncontrollables, controlling and taking remedial actions, revising these standards if necessary etc. Thus, it is a cost controlling and cost reducing device.

ICMA, London Defines :

"Standard Costing is the preparation and use of Standard costs, their comparison with actual costs and analysing of variances to their causes and points of incidence".

Controlling Process in standard Costing :

- **Formulation of Standard Costs :** For all elements of cost viz., Materials, Labour and Expenses, standard costs are fixed very much scientifically by experts based on multiple criteria.

- **Matching Actuals with Standards :** In this step, actual costs are compared with standard costs for the purposes of verifying whether actual cost is more or less than the standard costs.

- **Variances and Analysis thereof :** The difference between actual and the standard is known as variance and this is further analysed to find out whether variance is debit variance (or) Credit variance.

- **Analysis of causative factors for variances :** For all debit (or) unprofitable variances, causative factors (or) reasons responsible are unearthed and then are classified into controllable and uncontrollable reasons.

- **Corrective Measures :** In relation to controllable causes, the people responsible are held up and are instructed to take necessary remedial measures and see that they do not repeat in the time to come.

- **Reporting to Management :** Depending upon the degree of severity of the variances, information by following the principle of "Management by Exception", will be reported to the concerned management level for necessary cost control measures.

- **Revising the standards :** With regard to uncontrollable variances, an idea of revising the standards watching the changed scenario, may be though of.

What is Standard Cost ?

The whole of standard costing revolves around standard costs. Hence, we are very much obliged to explain what is standard cost.

It is a predetermined cost computed in advance of production on the basis of specification of all factors affecting costs.

Blocker and Weltmer defines :

Standard cost is a common sense cost reflecting the best Judgement of management as to what costs ought to be if this plant is operated with the highest degree of efficiency.

20.3 TYPES OF STANDARDS :

Importantly, there are : Basic, current, Ideal, Expected and Normal standards.

- **Basic standards :** It is a standard set for a long term in an unaltered way. It is suitable mostly to those products whose costs / prices do not change much.
- **Current Standard :** It is a standard set for a relatively shorter period based on current market conditions. It claims to be more realistic and most companies use it.
- **Ideal Standard :** It is self explanatory as this is set based on all idealistic conditions which are never seen.
- **Expected Standard :** It is a standard set based on certain conditions which are expected to be attained. Conditions prevailing in industry and that are likely to hit the industry in future are all considered while this standard is set. So, it is attainable standard.
- **Normal Standard :** It is a standard set on the basis of average conditions (or) normal conditions. Since we do not have any control over future, this normal standard may not be of much use.

20.3.1 Process in setting Standards :

The function of setting standards for costs (or) revenues is a rational and professional job. Hence, it is entrusted to a committee called – standards Committee consisting of Production Manager, purchase manager, personnel Manager, Cost Accountants etc. This committee sets standards for each and every element of cost viz., Materials, Labour and expense. Let us see them separately.

Standard for Direct Material Cost : [SMC]

This SMC is a product of standard quantity and standard price. So, it is clear that standard quantity and standard price are to be determined first and SMC is obtained by multiplying these two. SMC is briefly called as SC (Standard Cost).

Standard Material Quantity [SMQ]:

SMQ is briefly called – Standard Quantity (SQ). Based on input – output relations, normal material losses as per are laboratory tests, SQ is determined.

Standard price [SP] :

SP is determined taking multiple criteria into account like : price of material in Stock, materials already contracted, future price trends, discounts etc. So, SC for material is the product of SQ and SP. Therefore SC = SQ x SP

Standard for Direct Labour Cost [SLC]

This resembles SMC in that it is a product of standard hours and standard rate.

∴ SLC = SH x SR

In this also, SH and SR are to be found out.

- **Standard Hours :** With the help of time and motion studies in a laboratory, work study job analysis, Normal idle time, Therbligs etc. standard time (or) Hours are fixed.

- **Standard Rate :** This is 2nd aspect in finding SLC. It is fixed based on the past, going rates, consultations with Trade union, demand for labour, supply of labour etc.

  Thus, the product of SH and SR gives SLC.

- **Standard for Expenses : [Overheads]** While we fix standards for expenses (or) overheads (OH) we need to go in three steps.
  (1) Determination of total overhead

(2) Determination of production in units
(3) Calculation of standard overhead rate.

Sometime, for the entire overhead, a standard rate can be calculated. On the other hand, overhead can see split into fixed and variable overheads and separately, standard Overhead rates can be determined. The following formula can be used to calculate the overhead rate.

This rate can be calculated in hours also.

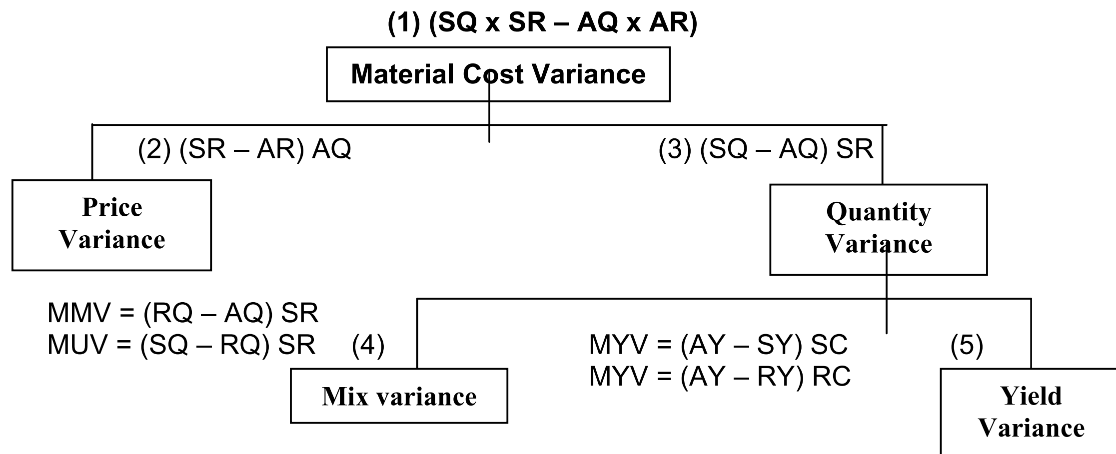
$$\text{Stamdard OH. Rate per unit} = \frac{\text{Total OH}}{\text{Budgeted output}}$$

$$\text{Standard overhead rate per hour} = \frac{\text{Standard overhead}}{\text{Budgeted Hours in the period}}$$

20.4 VARIANCE ANALYSIS

This part is the most integral part of standard costing. The purposes of cost Accounting can be achieved by costing through variance analysis in standard costing. Variances are to be calculated for all the elements of cost viz., Materials, Labour and Expenses (or) overhead (OH). We now examine Material Variance Analysis in the first place. The following chat will explain it best.

20.5 MATERIAL VARIANCE ANALYSIS :



(1) Material cost variance : This is the difference between standard cost of standard quantity for Actual output and actual cost of actual Material used for actual output. The formula for this is :
MCV = SC – AC = SQ x SR – AQ x AR
Where : SC = Standard cost, AC = Actual cost, SQ = SQ for AY, SR = Standard Rate, AQ = Actual Quantity, AR = Actual Rate.
Importantly, SQ = SQ for AY
Where AY = Actual Yield (or) Actual output.

(2) Material Price Variance : From the above chart, it is understood that 2nd variance is price variance and this will also lead to MCV. This is a part of the MCV and arises due to the difference in standard price set and the actual price paid.

The formula is :

MPV = (SR – AR) AQ where SR = Standard Rate, AR = Actual Rate and AQ = Actual Quantity of material.

(3) Material quantity variance : (MQV) It is also known as usage variance and it is a part of the MCV as per the above chart. This may arise due to any of the reasons viz., workers, quality of Materials, skill and efficiency of workers, changes in product design etc. Mostly, it arises due to the difference in utilisation of raw materials. Its formula is : MQV = (SQ – AQ) SR where SQ = SQ for AY, AQ = Actual Quantity, SR = Standard Rate, AY = Actual Yield.

Illu. I : A company produces a product X and operates a system of standard costing. Details of information for the month of July , 2002 are as under :

Standard output from each ton of material	**:**	**50 units**
Standard price per ton	**:**	**Rs.150**
Actual usage	**:**	**100 tons**
Actual price per ton	**:**	**Rs.200**
Actual output	**:**	**6000 units**

Calculate material variances.

Solution :

(a) Material Price Variance (MPV) :

Actual Quantity (Standard Price – Actual Price)

= 100 [150 – 200]

= Rs.5,000 (Adverse)

(b) Material Usage Variance (MUV) :

Standard price [Standard quantity – Actual Quantity]

$$=150\left[\left(1\,\text{x}\,\frac{6000\text{ units}}{50\text{ units}}\right)-100\right]$$

= 150 [120 – 100]

= Rs.3,000 (Favourable)

(c) Material Cost Variance (MCV) :

Standard cost of Material – Actual cost of Material

= [Standard quantity for Actual output x Standard price] –
[Actual quantity for Actual output x Actual Price]

= [120 x 150] – [100 x 200]

= 18,000 – 20,000

= Rs.2,000 (Adverse)

Rectification / Verification :

MCV = MPV + MUV

Rs.2,000 (Adverse) = Rs.5,000 (Adverse) + Rs.3,000 (Favourable)

Or, Rs.2,000 (Adverse) = Rs.2,000 (Adverse)

Illus. 2 : 80Kg. of material A at a standard price of Rs.2 per kg and 40kgs. of material B at a standard price of Rs.5 per kg. Were to be used to manufacture 100kgs. of a chemical.

During a month, 70kgs. of material A priced at Rs.2.10per kg. And 50kgs. of Material B priced at Rs.4.50per kg. were actually used and the output of the chemical was 102 kgs.
Find out the material variance.

Solution :

Material	Standard cost of 100kg of output			Actual cost of 102kg of output		
	Qty.	**Rate Rs.**	**Amount Rs.**	**Qty.**	**Rate Rs.**	**Amount Rs.**
A	80kgs	2	160	70kgs	2.10	147
B	40kgs	5	200	50kgs	4.50	225
	120kgs		**360**	**120kgs**		**372**

Standard cost per kg. Of output = Rs.3.60
Standard cost of 102kgs of output = 102 x Rs.3.60
= Rs.367.20
Material cost Variance = Standard cost – Actual cost
= 372 367.20 = Rs.4.80 (A)
Material Price variance = Standard Price – Actual price) x Actual Quantity
A = (2 – 2.10) x 70 = Rs.7 (A)
B = (5 – 4.50) x 50 = Rs.25 (F)

Total = Rs.18 (F)

Material Mix variance = (Revised Standard Quantity – Actual Quantity) x S.P.
A = (80 – 70) x 2 = Rs.20 (F)
B = (40 – 50) x 5 = Rs.50 (A)

Total = Rs.30 (A)

Material Yield Variance = (Actual yield – Standard yield) x Standard output price = (102 – 100) x Rs.3.60 = Rs.7.20 (F)

Verification :

MCV = MPV + MMV + MYV
= Rs.18 (F) + Rs.30 (A) + 7.20 (F)
Rs.4.80 (A) = Rs.4.80 (A)

Illu.3 : The standard cost of a chemical mixture is :
40% material A at Rs.20 per kg.
60% material B at Rs.30 per kg.

A standard loss of 10% expected in production. During a period there is used:
90kgs material A at cost of Rs.18 per kg
110kgs material B at cost of Rs.24 per kg.
The weight produced is 182kgs of good product.

Calculate :
1. **Material price variance**
2. **Material mix variance**

3. Material yield variance
4. Material cost variance.

Solution :

1. Material Price Variance = (SP – AP) x AQ

Material A	= (20 – 18) x 90	=	Rs.180 (F)
Material B	= (30 – 34) x 110	=	Rs.440 (A)

Total		**=**	**Rs.260 (A)**
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2. Material Mix Variance
   (SM – AM) x SP, where SM indicates Standard mix, AM actual mix, SP Standard price

Material A	= (80 – 90) x 20	=	Rs.200 (A)
Material B	= (120 – 110) x 30	=	Rs.300 (F)

	Total	**=**	**Rs.100 (F)**
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3. Material yield Variance
   (SY – AY) x SC where SY stands for standard yield, AY for actual yield, and SC for standard cost per unit.

   (180 – 182) x 28.8 = Rs.57.6 (F)

   Note :
   (a) 200 less 10% is the standard yield
   (b) standard rate of standard mix = (80 x 20 + 120 x 30)
   5,200 + 180 = 28.8 Approx.

4. Material Cost Variance :
   Standard cost of material – Actual cost of material
   (SP x SQ – AP x AQ0

   Where SPO indicates standard price, SQ Standard quantity, AP actual price and AQ actual quantity.

   (5,360 – 5,257.60) = Rs.102.40 (A)

   Standard cost of material is calculated as follows :
   Standard cost of standard output

	A – 80kgs @ 20	=	Rs.1,600
	B – 120kg @ Rs.30	=	Rs.3,600
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	200		5,200
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Less : Wastage10%	- 20	=	5,200

	180		

$\therefore$Standard cost of material for an actual output of 182kg.

Verification :

$$= \left(\frac{5,200 \text{ x } 182}{180} \right) \qquad = \text{Rs.}5,257.70$$

Materials Cost Variance = Materials price Variance + Materials Mix Variance + Material Yield Variance
Rs.102.40 (A) = Rs.260 (A) + Rs.100 (F) + Rs.57.60 (F) = Rs.102.40.

Illu.4 : The standard cost of a certain chemical mixture is:
35% material A at Rs.25 per kg.
65% material B at Rs.36 per kg.

A standard loss of 5% is expected in production. During a period the following materials are used:

125kgs of material A at Rs.27 per kg; and
275kgs of material B at Rs.34 per kg.
The actual output was 365kg.

Calculate :
1. **Material cost variance**
2. **Material price variance**
3. **Material mix variance**
4. **Material yield variance**

Solution :
Basic Calculations :

Material	Standard			Actual		
	Kg.	Rate Rs.	Amount Rs.	Kg.	Rate Rs.	Amount Rs.
A	140	25	3,500	125	27	3,375
B	260	36	9,360	275	34	9,375
	400		**12,860**	**400**		**12,725**

Standard output = 400 – 5% = 380kg.
Actual Output = 365kg.
Standard cost per kg. Of output = Rs.12,860 ÷ 380kg. = Rs.33.84

Computation of variances :

1. Material cost variance = Standard cost of actual output – Actual cost
   = (365 x 33.84) – 12,725 = Rs.373 (A)
2. Material price variance = (SP – AP) x AQ
   A = (25 – 27) x 125 = Rs.250 (A)
   B = (34 – 36) x 275 = Rs.550 (F)

   = 300 (F)
   ----
3. Material mix variance = (RSQ – AQ) X SP
   A = (140 – 125) x 25 = 375 (F)
   B = (260 – 275) x 36 = 540 (A)

   = 165 (A)
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4. Material yield variance = (AY – SY) x Standard cost per kg of output
   = (365 – 380) x 33.84 = Rs.508 (A)

Verification :

MCV = MPV + MMV + MYV

373 (A) = 300 (F) + 165 (A) + 508 (A)

Illu. 5: Pragati Company manufactures a product P by mixing three raw materials. For every 100kg of output, 125kg of raw material input are used. In April 1997, there was an output of 5,600kg of P. the standard and actual particulars of April, 1997 are as follows :

Raw Material	Standard		Actual	
	Mix	Price per kg.	Mix	Price Per kg.
I	50%	Rs.40	60%	Rs.42
II	30%	Rs.20	20%	Rs.16
III	20%	Rs.10	20%	Rs.12

Calculate all material variances. The actual quantity of material used was 7,000kg.

Solution :

$$\text{The Standard input for 5,600kg of output} = \frac{5,600}{100} \text{ x } 125 = 7,000\text{kg}$$

Raw Material	Standard for output of 5,600kg			Actual for output of 5,600kg		
	Qty Kg.	Rate Rs.	Amount Rs.	Qty kg.	Rate Rs.	Amount Rs.
I	3,500	40	1,40,000	4,200	42	1,76,400
II	2,100	20	42,000	1,400	16	22,400
III	1,400	10	14,000	1,400	12	16,800
Total	**7,000**		**1,96,000**	**7,000**		**2,15,600**

Material cost variance = Standard Cost of Actual Output – Actual Cost
= Rs.1,96,000 – 2,15,600 = Rs.19,600 (A)

Material price variance = (Standard Price – Actual Price) x Actual quantity
I = (Rs.40 – 42) x 42,000kg = Rs.8,400 (A)
II = (Rs.20 – 16) x 1,400kg = Rs.5,600 (F)
III = (Rs.10 – 12) x 1,400kg = Rs.2,800 (A)

= Rs.14,000 (A)

Material usage variance = (Standard quantity – Actual quantity) x Standard price
I = (3,500kg – 4,200) x Rs.40 = Rs.28,000 (A)
II = (2,100kg – 1,400) x Rs.20 = Rs.14,000 (F)
III = (1,400kg – 1,400) x 10 = NIL

= Rs.14,000 (F)

Material Mix variance = (Revised Standard quantity – Actual quantity) x Standard price
I = (3,500kg – 4,200) x Rs.40 = Rs.28,000 (A)
II = (2,100kg – 1,400) x Rs.20 = Rs.14,000 (F)

III = (1,400kg – 1,400) x Rs.10 = NIL

= Rs.14,000 (A)

Material yield variance = (Standard yield – Actual yield) x Material cost per unit of Output
= (5,600 – 5,600) x Rs.35 = NIL

(4) Material mix variance [MMV] : As per the chart of material variances, MMV is that portion of MQV due to changes in standard mix of materials and actual mix of the materials. It may be also due to subsequent shortage of raw materials. In this case, standard quantities are to be revised as per a formula and with these revised quantities the MMV is to be calculated. How do we revise the Quantity ?

For the sake of convenience, MMV is discussed in a phased manner. Some assumptions are made here. In the 1st phase, the following are the assumptions.

(1) only mix ratio differs.
(2) Total weights of the mixes are the same

MMV in this case uses the same formula used for MQV.

∴ MMV = (SQ – AQ) SR

In the 2nd phase, the assumption are :
(1) Mix compositions differ.
(2) Total weights of the mixes are also different

MMV in this case is calculated with the following formula.

MMV = (RSQ – AQ) SR where : RSQ = Revised Standard Quantity, AQ = Actual Quantity, SR = Standard Rate.

RSQ = Total weight of Actual Mix x old standard ratio.

Further, it is to be noted that MQV calculated as per the earlier said formula will be divided into two parts viz., (1) MMV (due to change in mix Ratio) and (2) MUV (due to efficiency (or) in efficiency in the utilisation of materials).

So, MMV = (RSQ – AQ) SR and
MUV = (SQ – RSQ) SR
From the above it is to be noted that MQV must be equal to the total of MMV and MUV.

(5) **Material yield variance (MYV) : In all processing industries, material loss is** inevitable. So, while setting standards for material and output from materials, a provision is made for normal loss while abnormal loss is not provided for. Though a provision is made for normal loss in the Standard, some difference is bound to arise between standard output for the actual input and the actual output. Hence, need for calculation of yield variance arises. Thus, there is difference between standard yield and actual yield because of efficiency (or) in efficiency of workers, poor quality of materials, etc. As per the material variances. Chart given above, it is 5th variance which is a part of the MQV which is due to reasons said above. For the sake of convenience, it is sought to be handled in two situations. They are :

(1) (a) Mix varies , (b) Weights do not vary.
In the above case, the formula for MYV is MY = (AY – SY) SC, where : AY = Actual Yield, SY = Standard yield for actual input of material used, SC = Standard cost of unit.

(2) (a) Mix Varies, (b) Weights also vary.
In this case, since there is alround change standards set are to be revised and Revised Mix is to be calculated and Revised yield also is to be found out. The earlier yield variance formula is expressed now in Revised Terms. The formula is:
MY = (AY – RY) RC

SC (or) RC calculation:
It is standard cost per unit of finished goods. It is calculated as per the following.

$$\text{SC (pu) (or) RC} = \frac{\text{Total Standard cost}}{\text{Total input - Normal loss}} \text{ (or)}$$

$$\frac{\text{Normal cost of Normal output}}{\text{Normal output}}$$

Verifications (or) checking:
(1) MCV = MPV + MQV
(2) MQV = Mix + Yield
(3) MQV = Mix + usage
(4) MQV = Mix + usage (or) yield
(5) MUV = MYU

20.6 DIRECT LABOUR COST VARIANCES :

These variances are about the 2nd element of cost, i.e. Labour. We get reminded of all material variance formula when we look at Labour variances. There is a lot of similarity. The first variance is Direct Labour Cost Variance (DLCV). This is difference between standard cost of labour and actual cost of labur. This is like MCV. It's formula is:

DLCV = SC – AC = SH X SR – AH X AR
SC = Standard cost,
AC = Actual Cost,
SH = SH for actual output,
SR= Standard Rate,
AH = Actual Hours,
AR = Actual Rate.

20.6.1 Labour Rate Variance [LRV]:

This is just like Material Price Variance. This is part of the DLCV which is due to difference between standard wage rate and actual wage rate paid. Formula is:
LRV = (SR – AR) AH,
Where: SR = Standard Rate
AR = Actual Rate,
AH = Actual Hours.

20.6.2 Labour Time (or) Total Efficiency Variance : (LTV (or) LEV)

This is again like material quantity variance. This is post of DLCV which is due to difference in standard Hours for Actual output and Actual Hours. The relevant formula is:

LTV (or) LEV : (SH – AH) SR where:
SH = Standard Hours,
AH = Actual Hours,
SR = Standard Rate.

20.6.3. Labour Efficiency variance : (LEV) :

(1) Idle Time Variance : As per the chart of labour variances, it is portion of the Labour Efficiency (or) Time variance. As there is material loss in the case of materials, there is problem of idle time is the case of Labour. This idle time is due to abnormal reasons viz., non – availability of raw materials, of special kind of labour, break down of Plant & Machinery etc. Formula is:

ITV = Abnormal Idle Hours x SR

Note: This is always adverse variance.

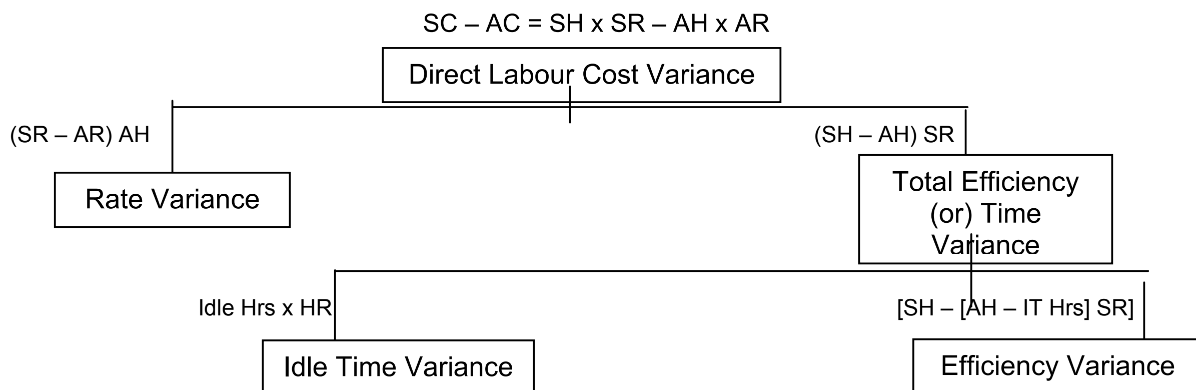
(2) Labour Mix variance : This is similar to material mix variance and all the formula of material mix variance can be used by using SH in the place of SQ and RSH (Revised standard hours) in the place of RSQ (or) RQ the relevant formula are :

(a) LMV = (RSH – AH) SR
(b) LUV = (SH – RSH) SR

From the above it can be understood that the total Labour Efficiency (or) Time variance is a sum of (1) Idle Time variance, (2) Mix variance and (3) usage variance. When LUV is calculated in Labour time variance, there is no need to specially calculate Labour yield variance as it is very much equal to LYU.

(3) Labour yield variance : This is very much similar to MYV. The formula are :

(1) LYU = (AY – SY) SC
(2) LYU = (AY – RY) RC



20.6.4 Labour Efficiency Variance : [LEV]

As per the chart, this is part of Total Efficiency variance. When we seek to calculate the real efficiency variance, from out of total Hrs. actually worked, Idle Hours lost due to abnormal condition shall be set a side and with these actual hours, efficiency variance is to be calculated. The formula is :

LEV = [SH – (AH – Idle Hours)] SR

When there is mix → Total Efficiency Variance [(SH – AH) SR] =

Idle Time Variance [Idle Hrs. x SR] + Mix Variance [(RH – AH) SR] + Usage Variance [(SH – RH) SR] (or) Yield Variance [(AY – SY) SC (or) (AY – RY) RC]

TLEV = Idle + Mix + Usage (or) Yield

- Denotes Total Actual Hours worked including idle Time Hours.

Verifications:

(1) LCV = Rate + Total Time (or) Total Efficiency.
(2) Total Efficiency Variance = Idle Time + Effeciency.
(3) Total Efficiency Variance = Idle + Mix + usage (or) Yield
(4) Usage = Yield.

Illu.6 : With the help of the following data, calculate :
(i) Labour Cost Variance,
(ii) Labour Rate Variance,
(iii) Labour Efficiency Variance
Standard hours : 40 @ Rs.3 per hour
Actual hour : 50 @ Rs.4 per hour

Solution :

(i) Labour Cost Variance [LCV] :

[Standard Time x Standard Rate] – [Actual Time x Actual Rate]
= [40 x 3] – [50 x 4]
= 120 – 200
= Rs.80 (Adverse)

(ii) Labour Rate Variance [LRV] :

Actual Time [Standard Rate – Actual Rate]
= 50 [3 – 4]
= Rs.50 (Adverse)

(iii) Labour Efficiency Variance [LEV] :

Standard Rate [Standard Time – Actual Time]
= Rs.3 [40 – 50]
= Rs.30 (Adverse)

Reconciliation / Check :
LCV = LRV + LEV
Rs.80 (Adverse) = Rs.50 (Adverse) + Rs.30 (Adverse)

Illu.7: From the data given below, calculate labour variances for the two departments :

	Dept. A Rs.	Dept. B Rs.
Actual gross wages (direct)	**2,000**	**1,800**
Standard hours produced	**8,000**	**6,000**
Standard rate per hour	**30 paise**	**35 paise**
Actual hours worked	**8,200**	**5,800**

Solution :

(i) Labour Cost Variance [LCV] :
Standard cost – Actual cost
Dept A :

$$(8{,}000 \text{ x } .30) - \left(8{,}200 \text{ x } \frac{2{,}000}{8{,}200}\right)$$

= 2,400 – 2,000
= Rs.400 [Favourable]
Dept B :

$$(6{,}000 \text{ x } .35) - \left(5{,}800 \text{ x } \frac{1{,}800}{5{,}800}\right)$$

= 2,100 – 1,800
= Rs.300 (Favourable)

(ii) Labour Rate Variance [LRV] :
Actual Time [Standard Rate – Actual Rate]
Dept A :

$$8{,}200\left[.30 - \frac{2{,}000}{8{,}200}\right]$$

= 2,460 – 2,000
= Rs.460 (Favourable)
Dept B :

$$5{,}800\left[.35 - \frac{1{,}800}{5{,}800}\right]$$

= 2,030 – 1,800
= Rs.230 (Favouable)

(iii) Labour Efficiency Variance [LEV] :
Standard Rate [Standard Time – Actual Time}

Dept. A : 30 [8,000 – 8,200]
= Rs.60 (Adverse)
Dept B : 35 [6,000 – 5,800]
= Rs.70 (Favourable)

Reconciliation / Verification :
LCV = LRV + LEV
Dept A : Rs.400 [Favourable] = Rs.460 (Favourable) + Rs.60 (Adverse)
Dept B : Rs.300 (Favourable) = Rs.230 (Favourable) + Rs.70 (Favourable)

Illu. 8 : Calculate Labour variances from the following data:

Gross Direct wages	**Rs.30,000**
Standard hours	**1,600**
Standard rate per hour	**Rs.15**
Actual hours paid	**1,500**

Actual hours paid include hours not worked (abnormal idle time) : 50

Solution :

(i) Labour Cost Variance [LCV] :
[Standard Time x Standard Rate] – [Actual Time x Actual Rate]
= [1,600 x 15] – [1,500 x 20]
= 24,000 – 30,000
= Rs.6,000 (Adverse)

(ii) Labour Rate Variance [LRV] :
Actual Time [Standard Rate – Actual Rate]
= 1,500 [15 – 20]
= Rs.7,500 (Adverse)

(iii) Labour Efficiency Variances [LEV] :
Standard Rate [Standard Time – Actual Time]
= 15 [1,600 – 1,450]
= Rs.2,250 (Favourable)

(iv) Labour Idle time Variance [LITV] :
Standard Rate x Abnormal Idle Time
= 15 x 50
= Rs.750 (Adverse)

Reconciliation / Check :
LCV = LRV + LEV + LITV
Rs.6,000 (Adverse) = Rs.7,500 (Adverse) + Rs.2,250 (Favourable) + Rs.750 (Adverse)

20.7 OVERHEAD VARIANCES (OH Variances)

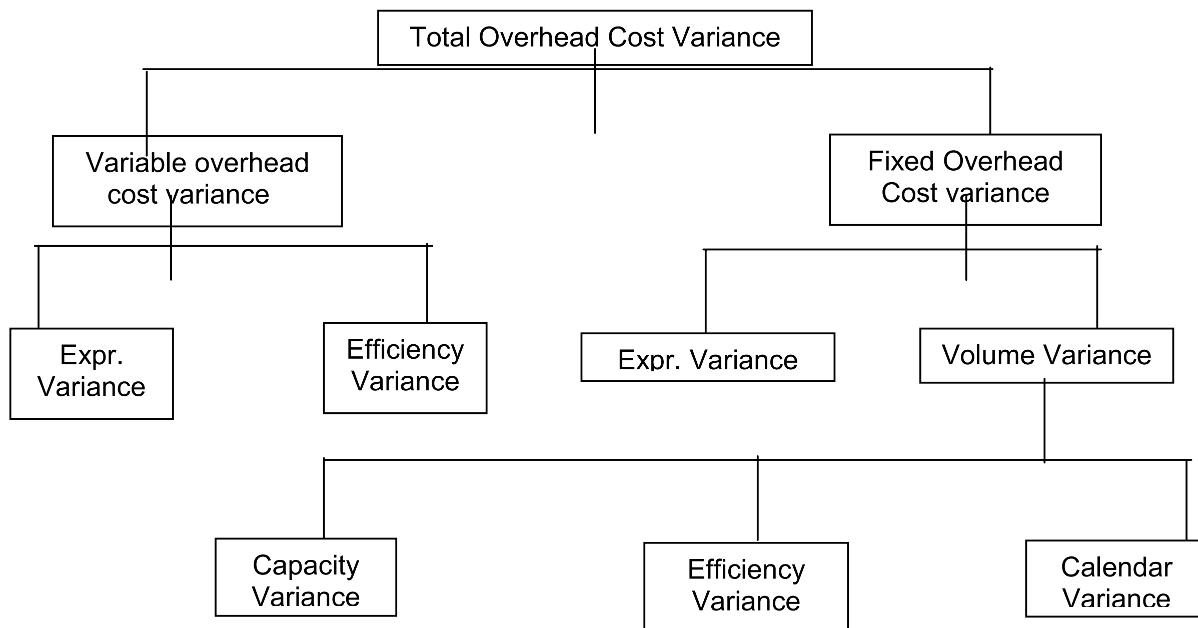
Overhead is the aggregate of all indirect costs viz., indirect material, indirect labour and indirect expenses. Under cost Accounting, and in standard costing overheads are absorbed (or) recovered from cost units on same suitable basis. Overhead rates of absorption are predetermined in terms of both labour hrs.(or) Machine hrs. and production units. So, the actual

output (or) hours worked are multiplied by the predetermined rates of OH absorption in order to find out standard overhead for actual production (or) hours worked and it is compared to actual overheads incurred to find out the variance between standard overhead and actual overhead. Thus, overhead variance analysis is made. Total overhead cost variances can be conveniently divided into:

(1) Variable overhead variance and
(2) Fixed overhead variance.

Variable Overhead Variance is further divided into (a) Expenditure variance and (b) Efficiency variance. Similarly, Fixed overhead variance is further divided into (a) Expenditure variance and (b) Volume variance and volume variance is further broken into (i) Capacity Variance (ii) Efficiency Variance and (iii) Calendar Variance. Total overhead cost variance is the difference between Standard overhead and Actual overhead. The whole of this is analysed as under.

Total overhead cost variance = Standard overhead – Actual overhead



20.7.1 Variable Overhead Cost Variances:

1. **Variable overhead Expenditure Variance :** This is the difference between Budgeted Variable overheads for actual output and actual overheads for actual output. The formula is :

   Variable Overhead Expenditure Variance = AH (Standard OH Rate – Actual OH Rate)

   = (Standard OH – Actual OH)

2. **Variable Overhead Efficiency variance :** (Standard time for Actual production – Actual hours) Standard rate per unit

   = (Budget overhead – Standard overhead)

This is the difference between Standard Hours for Actual production and actual hours taken, multiplied by Standard Rate per unit.

20.7.2 Fixed overhead cost variances :

Fixed overheads are those costs which do not very with the level of activity but which remain cost and for any level. The following are various variances in this category.

(a) Fixed Overhead Expenditure variance : It is that part of the Fixed overhead variance that is due to the difference between budgeted expenditure and actual expenditure.
Fixed Expenditure variance = Budgeted Fixed Overhead – Actual Fixed overhead.

(b) Volume Variance : Fixed Overhead variance may be caused as a result of changes in volume of activity, as per the chart given above. It is the difference between standard overhead and Budgeted overhead. The formula is:
Volume Variance = Standard overhead – Budgeted overhead.
(or)
Recovered Overhead – Budgeted overhead.

(i) **Capacity Variance :** It is a part of volume variance which is due to under (or) over utilisation of plant and machinery. In terms, formula, it is:
Capacity variance = SR ph (AH – Budgetary Hours)
= SR pu (Standard output – Budgetary Output)

(ii) **Efficiency Variance :** This variance is again another portion of volume variance. It arises due to increased (or) decreased output due to efficiency (or) in efficiency. The relevant formula is :
Efficiency Variance = SR ph (Standard hours for actual production – Actual hours)
= SR ph (SH – AH)

(iii) **Calendar variance :** This is also a part of volume variance. This arises due to the difference in Budgeted working days in the budgeted period and actual days in the same budgeted period. The formula is :
Calendar Variance = SR ph/pd x Excess (or) deficit hours / days worked

Checking / Verifications :

1. Total Overhead cost variance = Variance overhead cost + Fixed overhead cost
2. Variable overhead cost variance : Expenditure + Volume
3. Fixed overhead cost variance = Expenditure + volume
4. Volume variance = Capacity + Calendar + Efficiency

Illu.9 : A factory has estimated its overheads for one year at Rs.96,000. The factory runs for 300 days in a year. It works for 8 hours a day. The total budgeted production for the year is 24,000 articles.

Actual data are also given to you as under for the month of April.

Actual overhead	**Rs.8,500**
Output	**2,100 articles**
Idle time	**4 hours**

Calculate : (1) Overhead cost variance, (2) Overhead budget variance, (3) Overhead efficiency variance, (4) Idle Time variance.

Solution :

(1) Overhead Cost Variance :

Formula :

Standard overhead cost of actual output – Actual overhead cost

= Rs.8,400 – Rs.8,500 = Rs.100 (A)

(2) Overhead budget variance or expenditure variance

Budget overheads – Actual overheads

= Rs.8,000 – Rs.8,500 = Rs.500 (A)

(3) Overhead efficiency variance

(i) Where standard overhead rate per unit is given

(Actual production – Standard production in actual hours) x Standard overhead rate per unit

= (2,100 – 1,960) x Rs.4 = Rs.560 (F)

(ii) Where standard overhead rate per hour is given

(Actual Hours – Standard hours for actual production) x Standard overhead rate per hour

= (196 – 210) x Rs.40 = Rs.560 (F)

(4) Idle Time variance :

(i) Where standard overhead rate per unit is given

Formula :

Production lost in idle time x overhead standard rate per unit

= 40 x Rs.4 = Rs.160 (A)

(ii) Where standard overhead rate per hour is given

Formula :

Idle Time x overhead standard rate per hour

= 4 x Rs.40 = Rs.160 (A)

Check :

Overhead efficiency variance + Overhead idle time variance = Overhead volume variance

Rs.560 (F) + Rs.160 (A) = Rs.400 (F)

Overhead volume variance + Overhead budget variance = Overhead cost variance

Rs.400 (F) + Rs.500 (A) = Rs.100 (A)

Working Notes :

(i) Standard overhead cost of actual output

If monthly production is 2,000 units, overhead cost is Rs.8,000

If monthly production is 2,100 units, overhead cost is

8,000 / 2,000 x 2,100 = Rs.8,400'

$$\text{Monthly production} = \frac{24{,}000}{12} = 2{,}000 \text{ units}$$

$$\text{Monthly overhead cost} = \frac{96{,}000}{12} = \text{Rs.}8{,}000$$

(ii) Standard production in actual hours

Yearly hours 300 days x 8 = 2,400 hours
Monthly hours = 2,400 / 12 = 200 hours
∴Actual hours worked = 200 – 4 = 196 hours
If factory runs 200 hours standard production is 2,000 units
If factory runs 196 hours standard production 2,000 / 200 x 196 = 1,960 units

(iii) Standard overhead rate per hour

Monthly overhead cost Rs.8,000
Standard hours in a month 200
∴Rate per hour = 8,000 / 200 = Rs.40 per hour.

(iv) Standard overhead rate per unit

Standard units 2,000
Overhead cost Rs.8,000
∴Rate per unit 8,000 / 2,000 = Rs.4 per unit

Illu.10 : A manufacturing company operates a costing system and showed the following data in respect of the month of November.

Actual No. of working days	**22**
Actual man hours worked during the month	**4,300**
Number of products produced	**425**
Actual overhead incurred (Rs.)	**1,800**

Relevant information from the company's budget and standard cost data are as follows :

Budgeted number of working days per month	**20**
Budgeted man hours per month	**4,000**
Standard man hours per product	**10**
Standard overhead rate per man hour	**Rs.0.50**

You are required to calculate for the month of November.
(a) the overhead variance.
(b) The calendar variance
(c) The volume variance.

Solution :

(a) Overhead cost variance

Standard overhead cost of actual production – Actual overhead cost
Rs.2,125 – Rs.1,800 = Rs.325 (F)

(b) Overhead calendar variance

(i) where standard overhead rate per unit is given
(Revised budgeted quantity, i.e., budgeted quantity on the basis of actual no. of working days – Budgeted quantity) x Standard rate per unit
(440 – 400) x Rs.5 = Rs.200 (F)

(ii) where standard rate per hour is given

(Budgeted No. of hours for actual working days – Budgeted hours) x Standard overhead rate per hour

(4,400 – 4,000) x Re.0.50 = Rs.200 (F)

(c) Overhead volume variance

(i) Where standard rate per unit is given

(Actual production – Budgeted production) x Standard overhead rate per unit

(425 – 400) x Rs.5 = Rs.125 (F)

(ii) Where standard rate per hour is given

(Standard hours for Actual production – Budgeted hours) x Standard overhead rate per hour

(4,250 – 4,000) x Re.0.50 = Rs.125 (F)

Working Notes :

(1) Standard cost per unit

Re.0.50P x 10 hours = Rs.5 per unit

(2) Standard overhead cost of actual production

425 units x Rs.5 per unit = Rs.2,125

(3) Revised budgeted quantity

If 20 are the working days, standard production 400 units

If 22 are the working days, standard production 400/20 x 22 = 440 units

(4) Budgeted hours for actual working days

In 20 working days, the standard hours are 4,000

∴ In 22 working days, the standard hours are 4,000 / 20 x 22 = 4,400 hours

(5) Standard hours for actual production

Actual production x Standard hours per unit = 425 x 10 = 4,250 hours

Illu 11 : From the following standard and actual data of Product A you are required to calculate : (a) Overhead cost variance, (b) Overhead budget variance, (c) Overhead efficiency variance, (d) Overhead calendar variance, (e) overhead capacity variance, (f) Overhead volume variance.

Standard Data	Actual Production data
Standard hours for the period 2,400	**Hours worked 2,500 hours**
Standard no. of days 25	**Days worked 27**
Standard fixed overhead Rs.1,200	**Fixed overheads Rs.1,300**
Standard production 1,500 units	**Actual production 1,600 units**

Solution :

(a) Overhead cost variance :

(Standard overhead cost of actual output – Actual overhead cost)

Rs.1,280 – 1,300 = Rs.20 (A)

(b) Overhead budget variance or expenditure variance

Budgeted overhead – Actual overhead

Rs.1,200 – 1,300 = Rs.100 (A)

(c) Overhead efficiency variance

(i) Where standard overhead rate per unit is given
(Actual production – Standard production in actual hours) x Standard rate per unit
(1,600 – 3,125 / 2 units) x Re.0.80
= 75 /2 x Re.0.80 = Rs.30 (F)

(ii) Where standard overhead rate per hour is given
(Actual hours for actual production – Standard hours for actual production) x Standard rate per hour.
(2,500 – 2,560) x Re.0.50 = Rs.30 (F)

(d) Overhead calendar variance

(i) Where standard overhead rate per unit is given
(Revised budgeted quantity i.e., budgeted quantity on the basis of actual working days – Budgeted production) x Standard rate per unit
= (1,620 – 1,500) x Re.80
= 120 x Re.80 = Rs.96 (F)

(ii) Where standard overhead rate per hour is given
(Budgeted hours on the basis of actual working days – Budgeted hours) x Standard rate per hour
= (2,592 – 2,400) x Re.0.50 = Rs.96 (F)

(e) Overhead capacity variance

(i) Where standard overhead rate per unit is given
(Standard production from actual hours – Revised budgeted quantity for actual working days) x Standard rate per unit

$$\left(\frac{3,125}{2} - 1,620\right) \text{ x Re.0.80}$$

$$\frac{3,125 - 3,240}{2} \text{ x Re.0.80} = \text{Rs.46 (A)}$$

(f) Overhead volume variance

(i) Where standard overhead rate per unit is given
(Actual production – Budgeted production) x Standard rate per unit
(1,600 – 1,500) x Re.0.80 = Rs.80 (F)

(ii) Where standard overhead rate per hour is given
(Standard hours for actual production – Budgeted hours) x Standard rate per hour
(2,560 – 2,400) x Re.0.50 = Rs.80 (F)

Working Notes :

(1) Standard overhead cost of actual output

Total Standard overhead cost	Rs.1,200
Total Standard units	1,500 units

∴ Standard cost per unit = 1,200 / 1,500 = Re.0.80 per unit
∴ Standard cost of actual output 1,600 x 0.80 = Rs.1,280

(2) Standard production in actual hours
If 2,400 hours, the standard production is = 1,500 units
∴ 2,500 actual hours, the standard production is = 1,500 / 2,400 x 2,500 = 3,125 / 2 units

(3) Standard hours for actual production
If 1,500 units are the output, the standard hours = 2,400
∴1,600 units are the output, the standard hours = 2,400 / 1,500 x 1,600 = 2,560 hours

(4) Standard rate per hour
Total overhead cost Rs.1,200
Total Standard hours Rs.2,400
∴Overhead rate per hour = 1,200 / 2,400 = Re.0.50 per hour

(5) Revised budgeted quantity
In 25 working days, the standard production = 1,500 units
∴In 27 working days, the standard production = 1,500 / 25 x 27 = 1,620 units

(6) Budgeted number of hours
If there are 25 working days, total standard hours are = 2,400
If there are 27 working days, total standard hours are = 2,400 / 25 x 27 = 2,592 hours

20.8 SALES VARIANCES :

There are cases where standard costing systems are so devised as to present the cost variances only, i.e., material, labour and overhead variances. However, many accountants hold the view that a system of standard costing is incomplete if sales variances are not included as a part of comprehensive information presented to management but sales variances are among the more difficult variances from the point of view of calculations.

They can be presented in two different ways and, though the two separate approaches to the overhead variance yield the same result, different results are produced by two methods of calculating sales variances. Inspite of the divergence between them, both are very useful for management accountants. The two methods of calculating sales variances are the turnover method and the profit method showing the effects o change in sales on turnover and profit respectively.

Sales variances are the result of two types of changes which may occur in the comparison of budgeted sales with actual sales those due to price and those due to volume. A change in volume may be caused by changes due to either a change in quantity or a change in mix of sales.

A part from the fact there are two methods of calculating variances there are also two techniques which can be used and they are :

(a) The quantity Technique : This uses quantity of sales as the basis of calculations
(b) The value Technique : It is concerned with the value of sales as the basis of calculation.

Both these techniques are used in actual practice. Despite the utility of both the techniques it is considered that sales values are more important to management than quantities because values have the capacity to represent heterogeneous products more readily and in a better way than quantities

20.8.1 Variances based on Turnover :

1. **Value Variance :** It is the difference between budgeted sales and actual sales. Representing the total variance, made up of volume and price variances, sales variances are the responsibility of sales manager. The algebric representation of the variance is –

   Budgeted Sales – Actual Sales (or) BS – AS

2. **Volume Variance :** The variance represents the amount by which standards sales deviate from budgeted sales. It shows the effect of a change in volume on total sales. The formulation for the variance is –

   Budgeted Sales – Standard Sales (or) BS – SS

3. **Price Variance :** The amount by which actual sales deviate from standard sales constitutes price variance. It reveals to management the impact of change in prices on turnover. Symbolically it is represented by –

   Standard Sales – Actual Sales (Or) SS – AS

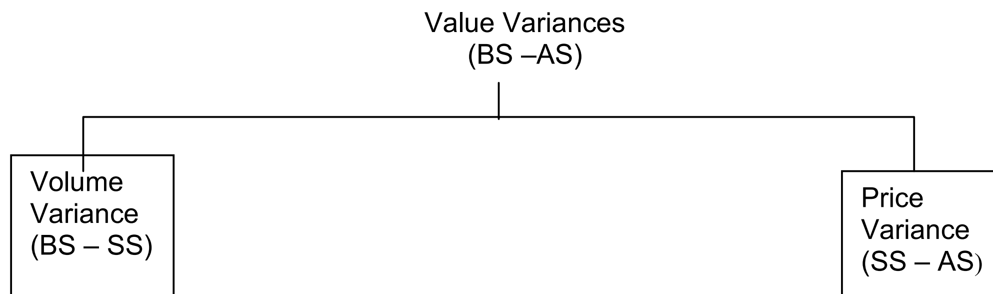
4. **Quantity Variance :** When revised standard sales differ from budgeted sales, it is called quantity variance. This variance shows the position of actual quantity of sales, ad distinct from the mix of sales, in comparison with budgeted or expected sales. The formula for the variance is –

   Budgeted Sales – Revised Standard Sales (Or) BS) – RSS

5. **Mix Variance :** The variance consists of the deviation between revised standard sales and standard sales. It highlights the fact that the actual mix of sales has not been in the same ratio as budgeted. The variance is algebraically expressed as –

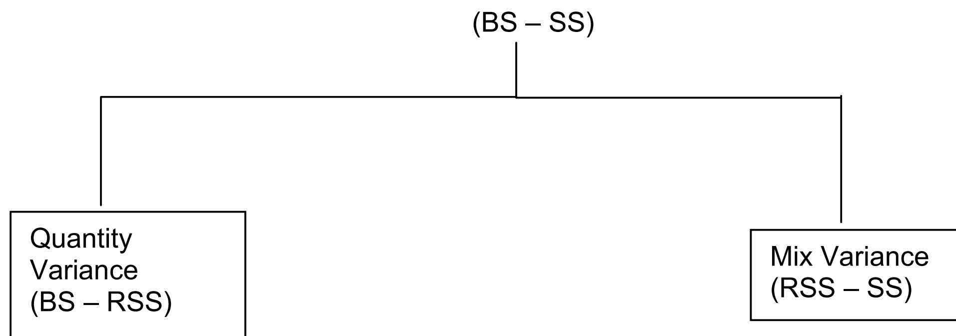
   Revised Standard Sales – Standard Sales (or) RSS – SS

   These variances can be diagrammatically represented as follows



Value Variance = Volume variance + Price Variances
= (BS – SS) + (SS – AS
= BS – SS + SS – AS
= BS - AS

Volume Variance



Volume variance = Quantity Variance + Mix Variance
= (BS – RSS) + (RSS – SS)
= BS – RSS + RSS – SS
= BS – SS

20.8.2 Variances based on Profits :

1. **Value Variance :** The difference between budgeted profits and actual profits. Constitutes value variance. Thus, the algebriac representation for the variance would be –

   Budgeted Profits – Actual Profits (or) BP – AP

2. **Price Variance :** It is the difference between standard profit and actual profit. This variance would exactly be the same as Price Variance calculated according to the turnover method owing to the fact that a price change would affect turnover and profit equally. Symbolically, the variance is –

   Standard profit – Actual profit (Or) SP – AP

3. **Volume Variance :** This is the amount by which standard profit differs from budgeted profit. There is an obvious interrelationship between this variance and the volume variance under the turnover method inasmuch as it would equal the percentage of profit on the volume variance calculated under the turnover method. The formula for the variance is –

   Budgeted profit – Standard profit (or) BP – SP

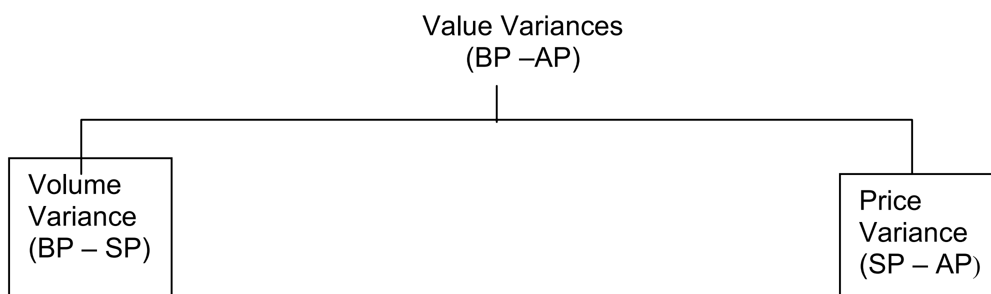
4. **Quantity Variance :** The amount by which revised standard profit deviates from budgetary profit is called Quantity variance. This is also related to the quantity variance under the turnover method as it is equal to the percentage of profit on the latter. The algebraic formulation for the variance is –

   Budgeted profit – Revised Standard profit (or) BP - RSP

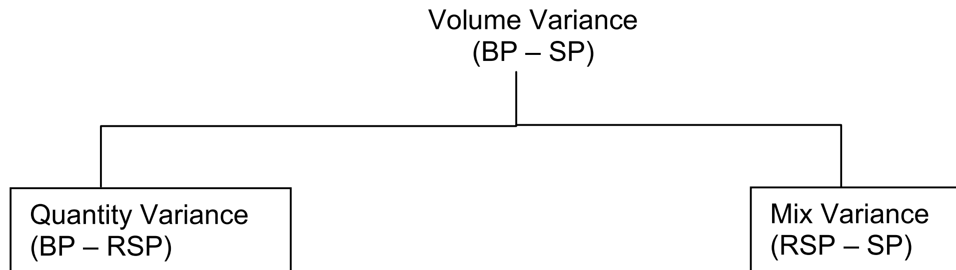
5. **Mix variance :** The difference between the revised standard profit and standard profit is the mix variance. It can be symbolically express as –

   Revised Standard Profit – Standard profit (or) RSP - SP

   The diagrammatic representation of the se variances would be as follows :



Value Variance = Volume variance + Price Variances
= (BP – SP) + (SP – AP)
= BP – SP + SP – AP
= BP - AP



Volume variance = Quantity Variance + Mix Variance
= (BP – RSP) + (RSP – SP)
= BP – RSP + RSP – SP
= BP – SP

Illu.12 : The following particulars are available in respect of the Sunshine Co. Ltd. for the period 1992 :

	Budgeted Sales			Actual Sales		
	Qty.	**Rate Rs.**	**Amount Rs.**	**Qty.**	**Rate Rs.**	**Amount Rs.**
X	**1,000**	**2**	**2,000**	**1,800**	**2.50**	**4,500**
Y	**3,000**	**3**	**9,000**	**4,200**	**2.75**	**11,550**
	4,000		**11,000**	**6,000**		**16,050**

You are required to calculate (a) Total Sales variance, (b) sales price variance, (c) Sales mix variance, (d) Sales quantity variance.

Solution :

Sales value variance = Budgeted Sales – Actual sales
X = (2,000 – 4,500) = 2,500 (F)
Y = (9,000 – 11,550) = 2,550 (F)
Alternatively total sales value variance = Total budgeted sales – Total actual sales
= 11,000 – 16,050 = 5,050 (F)
sales price variance = (Budgeted selling price – Actual selling price) x Actual selling price
X = (2 – 2.50) x 1,800 = 900 (F)
Y = (3 – 2.75) x 4,200 = 1,050 (F)
----
150 (F)

Sales mix variance = (Revised Standard sales mix – Actual sales mix) x standard selling price

$$\text{Revised standard sales mix} = \frac{\text{Total actual sales mix}}{\text{Total standard sales mix}} \text{ x Standard quantity of sales}$$

X = 6,000 / 4,000 x 1,000 = 1,500 units
Y = 6,000 / 4,000 x 3,000 = 4,500 units
X = (1,500 – 1,800) x 2 = 600 (F)
Y = (4,500 – 4,200) – 3 = 900 (F)

= 300 (A)

Sales quantity variance = (Revised Standard quantity – Standard or budgeted quantity) x Standard selling price

X = (1,500 – 1,000) x 2 = 1,000 (F)
Y = (4,500 – 3,000) x 3 = 4,500 (F)

= 5,500 (F)

Illu.13 : The budgeted and the actual sales for a period in respect of three products are given below :

Budgeted figures

Product	Quantity	Price	Value
A	**1,000**	**5**	**5,000**
B	**750**	**10**	**7,500**
C	**500**	**15**	**7,500**
	2,250		**20,000**

Actuals

Product	Quantity	Price	Value
A	**1,200**	**6**	**7,200**
B	**700**	**9**	**6,300**
C	**600**	**14**	**8,400**
	2,500		**21,900**

Calculate sales variances.

Solution :

Products	Budgeted			Actual			Actual Qty. x Budgeted price Value
	Qty.	Rate Rs.	Value	Qty.	Rate Rs.	Value	
A	1,000	5	5,000	1,200	6	7,200	6,000
B	750	10	7,500	700	9	6,300	7,000
C	500	15	7,500	600	14	8,400	9,000
	2,250		**20,000**	**2,500**		**21,900**	**22,000**

(1) Sales value variance = Budgeted sales – Actual sales
= 20,000 – 21,900
= 1,900 (F)

(2) Sales price variance = (Budgeted price – Actual price) x Actual quantity.
A = (6 – 5) x 1,200 = 1,200 F
B = (10 – 9) x 700 = 700 A
C = (15 – 14) x 600 = 600 A

(3) Sales volume variance = (Budgeted price - Actual quantity) x Budgeted selling price

A	= (1,000 – 1,200) x 5	=	1,000 F
B	= (750 – 700) x 10	=	500 A
C	= (500 – 600) x 15	=	1,500 F
			2,000 F

(4) Sales mix variance = (Budgeted price per unit of actual mix – Budgeted price per unit of budgeted) x Total Actual quantity

= (8.80 – 8.88) x 2,500

$$= \left(\frac{22,000}{2,500} - \frac{20,000}{2,250} \right) x\ 2,500$$

= 222 (A)

(5) Sales quantity variance = (Total actual quantity – Total budgeted quantity) x Budgeted price per unit of budgeted mix

= 2,222 (F)

$$= (2,500 - 2,250)\ x\ \frac{20,000}{2,250}$$

20.9 Advantages of Standard Costing :

In the areas of Accounting, Cost Accounting and Management Accounting, Standard Costing enjoys a significant place in acting as a cost controlling and cost reducing managerial tool. The utility of standard costing is unlimited. The following are some important merits.

1. **Application of "Management by Exception" principle :** here is no need to waste away the most significant time of Top management with negligible and inappropriate things in controlling. With the help of variance analysis, attention of the Management towards exceptional areas of performance may be drawn and accordingly, they may be contained. Management by Exception principle says that only exceptional aspect needs to be reported to the most right level of management.
2. **Optimum utilisation of Resources :** Because of the cost consciousness developed in the minds of people in the organisation, people tend to make the best utilisation of all scarce resources for the maximisation of profits and minimisation of costs.
3. **People are motivated :** Since standards are set with the involvement and participation of lower level people also, they are very much motivated to accomplish the standards that they also set, along with higher ups in the organisation.
4. **Most Important Managerial Tool of Cost control / Cost Reduction :** There are several tools and techniques to control costs and performance aspects. Among all these tools, standard costing is a significant tool to control and reduce costs.
5. **Weak sports un earthed :** The efficient and inefficient areas of working in the entire organisation are revealed by the variance analysis. Accordingly, remedial action can be planned.
6. **Valuation of Inventory at Standard Rates :** Since stocks can be valued at standard costs, this will reduce fluctuation of profits due to adoption of different methods for stock valuation.

Disadvantages :

- Setting standards itself is the most difficult task.
- Categorising the causes for variances into controllable and un controllable itself is another difficult barrier.
- Standard costing is not very much suitable to those industries which are exposed to constant changes in the market.
- Standards set once are never revised as per the changed scenario and hence, they may prove to be of no use.
- It is a costly and time-consuming tool.
- Employees resist the new life style in the organisation, because of standard costing.
- Not very much suitable to small and medium sized organisations.

In spite these problems (or) criticisms, standard costing has got its own value and no limitations can stand against the utility of standard costing.

20.10. SELF ASSESSMENT QUESTIONS

A. Short Answer Questions

1. Define Standard Costing
2. What are the different types of material variances
3. How is material mix variance calculated?
4. Discuss various types of sales variance?
5. How is the overhead volume variance computed.
6. Explain overhead calendar variance.

B. Essay Type Questions

1. What is meant by standard costing? State its main objectives
2. What is variance? Indicate its significance to the Management?
3. Explain the different methods of disposal of variances, stating the suitability of each.
4. Define Standard costing? Explain its merits and demerits.
5. Define and explain briefly the following terms.
   (a) Wages rate variance (b) Labour Efficiency Variance (c) Labour Mix variance (d) Labour Idle Time variance.

20.11 EXERCISES

1. Find out material cost variance from the following:
   Material price variance Rs.4,000 unfavourable
   Material usage variance Rs.2,500 favourable
   Material Mix variance Rs.1,500 favourable

   [Ans.: 1,500 unfavourable]

2. The standard materials required for producing 100 units is 120 Kg. A standard price of 0.50 paise per kg is fixed and 24,000 units were produced during the period. Actual materials purchased were 3,00,000 kg at a cost of Rs.1,65,000. Calculate material cost variance.

   [Ans.: Material Cost Variance 2,92,800 (adverse)]

3. Calculate Material Yield Variance from the following.

   Standard rate Rs.25, Standard Yield 2500 Kgs.
   Actual yield 2515 kgs.

   [Ans.: 375 favourable]

4. Calculate: (a) Material Cost Variance (b) Material price variance (c) Material Usage variance form the following.

	Standard		Actual	
Material	Quantity (Units)	Rate (Rs.)	Quantity (units)	Rate Rs.
X	2,000	20	2,100	19
Y	3,000	30	2,900	31

[Ans.: (a) 200 favourable (b) 800 unfavourable (c) 1,000 favourable]

5. From the following Calculate:

   (i) Material Cost variance
   (ii) Material price variance
   (iii) Material usage variance and
   (iv) Material mix variance

Product	**Standard**		**Actual**	
	Quantity (Units)	**Rate per Unit Rs.**	**Quantity (Units)**	**Rate per Unit Rs.**
A	1,000	15	1,100	16
B	1,500	20	1,450	19

[Ans.: (I) 150 (a) (ii) 350 (f) (iii) 500 (A) (iv) 400 (f)]

6. The standard cost of a chemical mixture is :

   40% material A at Rs.20 per kg.
   60% material B at Rs.30 per kg.
   A standard loss of 10% is expected in production. During a period there is used :
   90 Kg. Material A at a cost of Rs.18 per kg.
   110 kg material B at a cost of Rs.34 per kg.

   The weight produced is 182 kg of good product.

   Calculate : (i) Material Cost variance (ii) Material price variance (iii) Material mix variance.

   [Ans.: (I) 470 (adverse) (ii) 260 (adverse) (iii) 300 (favourable)

7. From the following find out Labour Mix variance.
   (a) Total Weight of standard labour hours 8,000 hours
   (b) Total weight of actual labour hours 8,500 hrs.
   (c) Standard cost of standard labour mix Rs.32,000
   (d) Standard cost of actual labour mix Rs.36,000

[Ans.: 2,000 (unfavourable)]

8. The following data is taken out from the books of a manufacturing company:
   Budgeted labour composition for producing 100 units
   20 Men @ Rs.15 per hour for 25 hours
   30 Women @ Rs.12 per hour for 30 hours
   Actual labour composition for producing 100 units
   25 Men @ Rs.18 per hour for 24 hours
   25 Women @ Rs.13 per hour for 25 hours
   You are required to Calculate:

   (i) Labour cost variance
   (ii) Labour rate variance
   (iii) Labour efficiency variance
   (iv) Labour mix variance.

   [Ans.: (I) 625 A (ii) 2,425 A (iii) 1,800 F (iv) 487.50 A]

9. Calculate fixed overhead variance from the following:

	Standard	**Actual**
Fixed Overheads	Rs.8,000	Rs.8,500
Output in units	4,000 units	3,800 units

[Ans.: 900 adverse]

10. From the following particulars calculate :

    (i) Variable overhead variance
    (ii) Fixed overhead variance
    (iii) Volume variance and
    (iv) Expenditure variance

Particulars	Standard	Actual
Fixed Overheads	Rs.8,000	Rs.8,500
Variable overheads	Rs.12,000	Rs.11,200
Output in units	4,000	3800

[Ans.: (a) 200 favourable (b) 900 unfavourable (c) 400 unfavourable (d) 500 unfavourable]

11. From the following data, calculate overhead variance.

Budgeted Overheads :		
Fixed	Rs.6,000	
Variable	Rs.4,000	Rs.10,000
Budgeted output		Rs.10,000
Budgeted hours		5,000
Actual overheads :		
Fixed	5,,000	
Variable	5,000	10,000
Actual output (units)		8,000
Actual hours worked		5,000

[Ans.: (1) Overhead Cost Variance 2,000 (adverse) (2) Variable Overhead variance 1,800 (adverse) (3) Fixed overhead variance 200 adverse]

12. The following table shows the budgeted and actual sales of M/s. Sphinx Ltd. Salem for 1986-87. Compute price, volume and mix variances of sales.

Products	Budget			Actual		
	Units	Price per unit Rs.	Total Rs.	Units	Price per unit Rs.	Total Rs.
A	3,000	30	90,000	3,500	35	1,22,500
B	2,000	20	40,000	2,400	25	60,000
C	1,000	10	10,000	500	5	2,500
Total	**6,000**		**1,40,000**	**6,400**		**1,85,000**

[Ans.: Sales Volume variance 18,000 (f); Sales Price Variance : Rs.27,000 (f); Sales Quantity Variance Rs.9,333 (f); Sales mix variance Rs.8,667 (f)]

20.12 SUGGESTED READINGS

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Chapter – 1

ACCOUNTING FUNCTIONS, CONCEPTS AND STANDARDS

1.0 Objective :

After studying this lesson we should be able to

Understand the meaning and functions of accounting

- Know the accounting concepts and conventions
- Explain the international and Indian Accounting Standards

Structure :

1.1 Introduction to Accounting
1.2 Meaning of Accounting
1.3 Functions of Financial Accounting
1.4 Limitations of Financial Accounting
1.5 Accounting Principles
1.6 Accounting Standards
1.7 Self Assessment Questions
1.8 Suggested Readings

1.1 INTRODUCTION TO ACCOUNTING:

The accounting system which we have today, has developed over years, with the development of Trade, commerce and industry. In the past, Number of transactions was a few. But now, this number has become increased by several times. The business people were able to memorise. When the transactions were limited. Now, a full-fledged professional system of accounting is necessitated. Thus, need for an accounting system has arisen.

When the historical perspective of accounting is attempted, it is believed to have existed as early as 4500 B. C. in the ancient civilisations of Babylonia and Assyria. A proper form to accounting seems to have developed only at the end of 15th century. History of accounting also tells us further that it grew into its full status in England though it is said to have been developed in Italy.

1.2 MEANING OF ACCOUNTING:

Much can be learnt about accounting when the explanation and definition given by smith and Ashburne is attempted. Nature, functions and principal objectives of accounting are very succinctly described.

Smith and Ashburne define accounting as: Accounting is the science of recording and classifying business transactions and events, primarily of financial character and the art of

making significant summaries, analysis and interpretation of those transactions and events and communicating the results to the persons who must make decisions or form Judgements.

This definition emphasises two important aspects of accounting where the first one is financial reporting while, the 2nd one is decision making aspect by the users of accounting information.

The word accounting in general can be said to be consisting of the following three branches.

(1) Financial accounting,
(2) Cost Accounting, and
(3) Management Accounting.

(1) Financial Accounting:

Accounting is financial accounting unless and until it is stated otherwise. Financial accounting may be defined as a science and art of recording and classifying business transactions and preparing summaries thereof for determining year end profit (or) loss and the financial position of the concern. Further, it is that part of accounting which is used to inform the business data to several users of this data. The two principal statements prepared in financial accounting are (1) Income and expenditure statement (Or) Profit (or) loss a/c and (2) Balance sheet. Profit (or) loss a/c is prepared for a specific accounting period in which all financial transactions of revenue nature relating to that accounting period are included to determine profit (or) loss. At the same time, Balance Sheet is prepared on a particular date and it exhibits the financial soundness of the organisation on that particular data on which it is prepared.

1.3 FUNCTIONS OF FINANCIAL ACCOUNTING [what does it do?]

Financial accounting is very much useful to the management by virtue of the following important functions.

1.3.1 Recording :

It is the principal job, that Financial accounting does. Since it is not possible to physically remember all business events, all the events of business are to be reduced to black and white. Thus, supplementing and complimenting the human mind is the major job that the accounting performs. This recording is made in several books of account called journal and ledgers called as subsidiary books.

1.3.2 Classifying :

When all accounting data are kept as a big heap of data, it is not useful to any user of the data. So, data collected must be properly classified and then only, the real utility can be had by any user of data. So, classifying means putting all similar data at one particular place.

Example: All data relating to “Salaries” will be recorded in a ledger called – “Salaries” This ledger presents all pertinent data relating to “Salaries”.

1.3.2. Summarising :

The most important job of Financial Accounting is that it presents all accounting data ultimately in the form of profit (or) loss a/c and Balance sheet. There two statements are the summary of all accounting data. This is how accounting performs summarising function.

1.3.4 Considers only Financial Events:

Accounting takes into consideration only those items in business which are capable of being expressed in terms of money. Money alone is the medium by which all transactions are measured. This means that non – financial data, behavioral data etc. are not considered by accounting and accounts.

Example: Co. has got good profit because of good conduct and character of our manager. But unfortunately, our accounting system does not account for this though he is really responsible for the profitability of the company.

1.3.5. Communicating and Interpreting:

Very important function of Financial Accounting is that it communicates the data to the users of accounting data and accounting help them by suitably interpreting the accounting data in such a way that the users may be helped in taking a decision (or) in developing a policy. In the latest scenario, it is an important function about which, people are very much worried about.

1.3.6. Furnishing Authentic / Reliable data:

One of the important expectations of the users of accounting data is that is should be reliable, consistent and authentic. Financial accounting furnishes data by following principles of accounting consistently and also by using internationally accepted accounting standards for preparing accounting information; in order to make the data more reliable and authentic.

1.4 LIMITATIONS OF FINANCIAL ACCOUNTING:

The following are important handicaps (limitations) from which, Financial Accounting suffers.

(1) **Historical in Nature:** The data recorded in financial Accounting are all historical data in a sence that Financial accounting records only those transactions that have already taken place (past events) and does not record items like: estimated costs, budgeted figures, standard costs etc. which are very useful, for planing controlling purposes. So, the limitation is that Financial Accounting does not suit to cost control and cost Reduction.

(2) **Information as a whole:** For the entire organisation, for all Departments, Sections, Products, Services, cost centres, self business units, Responsibility centres etc. Put together, Financial Accounting furnishes information. In a classified manner, information is not available. Thus, the limitation is that we cannot have data for a specific area of the organisation.

(3) **Provides only limited data:** Management needs a lot of data for decision making purposes. But, Financial accounting furnishes only a limited data, that too, not in the desired pattern by the management but in its routine way.

(4) **Consider only quantifiable data:** Financial Accounting considers only monetary and quantitative things that are capable of being expressed materially and it fails to note in its records the value of non – monetary items.

Human resources are very much important in the organisation but unfortunately, they are not recorded in the books of accounting.

(5) Does not satisfy all management levels : Accounting needs of managers differ from level to level. There are top, middle and lower levels of management. But, the data furnished by Financial Accounting does not suit to all levels of management.

(6) Does not help management in Decision Making: The data of Financial Accounting is barely inadequate for managerial strategic decision making. Ex: Decisions like : Make (or) buy, introduction of a new product, deletion of an existing bad product, best Production mix etc. cant be decided by the management with financial accounting information.

(7) Chances of manipulation: There are several chances of manipulating data, for the personal benefits, as per the whims and fancies of Management. Sometimes, more profits may be shown in under to take more wages of salaries, issue more dividends to share holders, to raise the value of shares in the market.

Sometimes, by changing (or) manipulating the system of inventory valuation, there may be under valuation (or) over – valuation which may further lead to changes in profits. Thus, results may vary from time to time, while there is no valid, sound reasons for change.

1.5 ACCOUNTING PRINCIPLES:

To convey the language of business, Financial accounting (or) Accounting needs to follow certain common principles in the absence of which, there will be chaotic situation crated and them, every accountant takes advantage of the situation and thus, accounting becomes purely personal while, it should not be. Hence, there are some principles to be observed, which will definitely enhance the utility of this accounting data. These principles are broken into (a) Accounting concepts and (b) Accounting Conventions.

1.5.1 Accounting Concepts:

Accounting concepts are necessary assumptions and conditions depending upon which, the very accounting is based, in order to make accounting data more meaningful and utilitarian. The following are some important accounting concepts.

(1) Business Entity concept: This concept tells us that business organisation has a separate status and identity and is different from the people doing business (owners of business). If this distinctive assumptions is not followed while transactions of business are recorded, it is not possible to segregate business transactions from personal transactions and thus, determination of business profit becomes difficult. Hence, this assumption needs to be considered important.

(2) Going concern concept: It is another important assumption in business that business goes for ever (or) atleast, business will continue to exist in the near future. It also means that it is not going to be liquidated. It means further that the business organisation goes to utilise its current resources to realise its objectives. That is why, in accounting, the resources (Fixed assets) are never exhibited at the present value but are shown in the Balance sheet by following diminishing balance method. This is also called going concern value (Cost – Depreciation).

(3) Cost Concept: This is an important concept in accounting which says that recording of data in books of account is based on cost concept. This is very much similar to “going

concern concept" as per which assets are recorded at cost minus depreciation (or) at going concern value. This approach is followed because, it is not always possible to ascertain market value (or) present value to the resources utilised in business as we don't have any idea of liquidating business.

(4) **Dual Aspect concept:** This concept is the central pillar over which the entire modern accounting Edifice rests. It is based on the basic postulate that these should be a corresponding "Credit" for every "debit". Similarly, there must be both receiver and giver of the benefit, in every business transaction. So, all debits must be equal to all credits in business in a period. From this concept only, the following equations have emerged:
(1) External liabilities + capital = Assets (or)
(2) Total assets = Total Liabilities (or)
(3) Assets – Liabilities = Capital.

Example: There is a business transaction : Purchase of an asset for Rs.50,000.
In this, there are two aspects (debit and credit). One will get asset which is a debit aspect and one will give cash which is a credit aspect. Thus, there is dual aspect in this single transaction.

(5) **Money Measurement concept:** Accounting considers those transactions in business which are capable of being expressed in monetary terms. As per this concept, accounting does not consider non – monetary events in business.

(6) **Accounting period concept / Accrual concept:** Summarisation of financial accounting takes place at the end of a period where period may be any period of any length. This period is technically known as accounting period. While ascertaining profit (or) loss of business in a period, all revenues whether they are actually received (or) paid in that period, are taken into account. It is the same case with balance sheet also.

(7) **Matching concept:** Costs and revenues of a period are matched with each other, whether they are received (or) not and receivable (or) not, for arriving at profit (or) loss during an accounting period. This is more or less similar to 6th concept discussed above.

1.5.2 Accounting Conventions:

These are the traditions and customary things which will further enhance the utility of accounting information to its users. The following are the most important conventions.

(1) **Disclosure Convention :** The implication of this convention is that the users of accounting information must be able to take a decision freely based on the data supplied by accounting. So, accounting is obliged to reveal all material information that is supposed to be recorded. Importantly, the material to be disclosed should not only include figures from final accounts but also information that is there after preparation of final accounts but before presentation of financial statements. This is all about the care that the accountant should take while disclosing any accounting data.

(2) **Consistency convention:** This is a point about making the accounting data reliable and authentic. This will be there only when principles, postulates, concepts, conventions etc. of accounting are consistently employed while preparing the final accounts.

(3) **Conservatism:** This is an important convention that risks and uncertainties in business must be minimised and a policy like: "Play safe" is to be adopted.

Example:

(1) Providing a provision for Bad debts,
(2) Valuing inventory at cost (or) Market value whichever is less.

(4) Materiality convention: While recording events in the books of accounts, all items which are materially worthwhile are recorded. Cost of recording must be less than the benefits of recording. There is no any point that all insignificant material information also should be recorded.

1.6 ACCOUNTING STANDARDS

According to Kohler, "Accounting Standard is a mode of conduct, imposed by customs, law or professional body for the benefit of public accountants and accountants generally". Accounting standards are definitive statements for the purpose of preparing financial statements. They are the rules to be adopted for the accounting treatment of various items of financial statements.

Accounting standards are different from Generally Accepted Accounting principles (GAAP) or Accounting Concepts. GAAP or accounting concepts are the generally accepted accounting principles to achieve comparabi9lity and uniformity of the financial statements. They provide a number of alternative treatments for the same item. But accounting standards provide solutions to specific issues. Accounting standards narrow down the areas of differences in accounting principles and provide standard accounting norms to be followed by accountants.

1.6.1. Purposes of Accounting Standards :

Accounting Standards serve the following purposes :

1. Accounting standards provide the norms on the basis of which financial statements should be prepared.
2. They ensure uniformity in the preparation and presentation of financial statements, by removing the effect of diverse accounting practices. Accounting standards make financial statements more meaningful and comparable.
3. They provide a useful system to resolve potential financial conflicts of interest between various groups.
4. They help auditors in the audit of accounts.

With the liberalisation and globalisation of business in recent years and opening up of markets to international investors, huge amounts of capital has been flowing across the national borders. Much of this cross – border flow has been in the form of easily tradable securities, bonds, equities or other negotiable instruments. Indeed, as business ruthlessly transcends geographical barriers, it needs to speak the same language. Accounting is the language of business, but every country has its own language which is called as generally accepted accounting principles (GAAP). As such, there is a need to hormonise national standards with international standards. Accounting standards would yield financial statements that could be effortlessly interpreted by any user around the world.

Rational investors, domestic as well as international, normally make their investment decisions on the basis of published financial statements, in addition to a wide variety of factors. Uniformity in accounting standards, policies and practices is, therefore, an imperative necessity for a meaningful inter – firm comparison and evaluation.

1.6.2 International Accounting Standards (IAS) :

Keeping in view the importance of uniform accounting standards, policies and procedures 16 accounting bodies from nine nations formed the International Accounting Standard Committee (IASC) on June 29, 1973 with its headquarters at London. Since 1983, IASC ‘s members have included all the professional accounting bodies that are members of the International Federation of Accountant (IFAC). As of January, 1996 there where 118 member bodies in 85 countries. Both the Institute of chartered Accountants of India (ICAI) and the Institute of Cost and Works Accountants of India (ICWAI) are the members of IASC.

The responsibility of IASC is to improve the quality and soundness of financial reporting in member countries all over the world. Its other responsibility is to keep the member bodies informed of the latest developments and standards by issuing exposure drafts from time to time. Looking to the objectives and aims of IASC, accountancy bodies from different countries have joined IASC to enable them to have up to date information on international accounting matters and to take guidance from these in laying down their own standards.

Objectives of IASC :

(a) Formulate and publish accounting standards to be observed in the presentation of financial statements and to promote their world wide acceptance and observance; and

(b) Work for the improvement and harmonisation of regulations accounting standards and procedures relating to the presentation of financial statements.

Standards framed by Committee so far :

The committee has so far laid down standards regarding the following matters.

IAS – 1 Disclosure of accounting policies
IAS – 2 Valuation and presentation of inventories
IAS - 3 consolidated financial statements
IAS – 4 Depreciation Accounting
IAS – 5 Information to be disclosed in financial statements
IAS – 6 Accounting responses to changing prices
IAS – 7 Statement of changes in financial position
IAS – 8 Unusual and prior period items and changes in accounting policies.
IAS – 9 Accounting for research and developmental activities
IAS –10 Contingencies and events occurring after balance sheet date
IAS – 11 Accounting for construction contracts
IAS – 12 Accounting for taxes on income
IAS – 13 Presentation of current assets and current liabilities
IAS – 14 Reporting of financial information by segments
IAS – 15 Information reflecting the effects of changing prices
IAS – 16 Accounting for property, plant and equipment
IAS – 17 Accounting for lease
IAS – 18 Revenue recognition
IAS – 19 Accounting for retirement benefits in the financial statements of Employees
IAS – 20 Accounting for government grants and disclosure of government assistance
IAS – 21 Accounting for effects of changes in foreign exchange rates
IAS – 22 Accounting for business combinations

IAS – 23 Capitalisation of borrowing costs
IAS – 24 Related party disclosures
IAS – 25 Accounting for investments
IAS – 26 Accounting and reporting of retirement benefit plans
IAS – 27 Consolidated financial statements and accounting for investment in subsidiaries
IAS – 28 Accounting for investment in associates
IAS – 29 Financial reporting in hyper – inflationary economies
IAS – 30 Disclosure in the financial statement of banks and similar financial institution
IAS – 31 Financial reporting of interest in joint ventures
IAS – 32 Financial instruments : disclosure and presentation
IAS – 33 Earnings per share
IAS – 34 Interim financial reporting
IAS – 35 Discontinuing operations
IAS – 36 Impairment of assets
IAS – 37 Provisions, contingent liabilities and contingent assets
IAS – 38 Intangible assets
IAS – 39 Financial instruments; recognition and measurement
IAS – 40 Investment property

1.6.3 Accounting Standards Board :

Accounting Standards Board (ASB) has been set up in India by the Council of the Institute of Chartered Accountants of India with a view to form Indian Accounting Standards. The Council was set up in April, 1977. While formulating the standards, the board attempts to harmonise the diverse accounting policies and practices in India and also takes into account the applicable laws, customs, usages and business environment in the country. While formulating the Accounting standards, ASB will give due consideration to Standards issued by IASC (International Accounting Standard Committee) and try to integrate them to the extent possible in the light of the conditions and practices prevailing in India.

To issue accounting standards authority lies with the Council, ASB has also been entrusted with the responsibility of propagating the Accounting Standards and of persuading the concerned parties to adopt them in the preparation and presentation of financial statements. ASB will issue guidance notes on Accounting Standards and give classification on issue arising therefrom ASB will also review the Accounting Standards at periodical intervals.

So far, the Accounting Standards Board (ASB) has issued the following 18 accounting standards.

No.	Title	Applicability on or after
AS – 1	Disclosure of Accounting Policies	1-4-1991
AS – 2	Valuation of inventories	1-4-1999
AS – 3	Changes in Financial Position	Recommendatory
AS – 4	Contingencies and Events occurring after the Balance Sheet date	1-4-1995
AS – 5	Prior period and Extraordinary Items and Changes in Accounting Policies	1-4-1996
AS – 6	Depreciation Accounting	1-4-1995

As – 7	Accounting for Construction Contracts	1-4-1991
AS – 8	Accounting for Research and Development	1-4-1991
AS – 9	Revenue Recognition	1-4-1991
AS – 10	Accounting for Fixed Assets	1-4-1991
AS – 11	Accounting for the Effects of changes in Foreign Exchange Rates	1-4-1995
AS – 12	Accounting for Government Grants	1-4-1994
AS – 13	Accounting for Investments	1-4-1995
AS – 14	Accounting for Amalgamations	1-4-1994
AS – 15	Accounting for Retirement Benefits in the Financial Statements of Employers	1-4-1995
AS – 16	Borrowing Costs	1-4-2000
AS – 17	Segment Reporting	1-4-2001
AS – 18	Related Party Disclosures	1-4-2001

1.6.4. Relationship Between National and International Accounting Standards:

The relationship between national (Indian) and international standards may be described as under –

i. Within each country the issue of financial statements are governed by the local regulations. Neither the Indian accounting standards nor the International Accounting Standards can apply, it is consistent with local regulations. The preface to the statements of Accounting standard issued, in India clearly states, “The Accounting Standards by their very nature cannot and do not override the local regulations which govern the preparation and presentation of financial statements in our country”. However, the institute will determine the extent of disclosure to be made in financial statements and the related auditor’s reports. Such disclosure may be by way of appropriate notes explaining the treatment of particular items. Such explanatory notes will be only in the nature of clarification and therefore need not be treated as adverse comments on the related financial statements.

ii. Within the country the Local Accounting standard prevails over the International Accounting Standards – particularly when such local standards are mandatory.

iii. The main purpose if IAS is to harmonise as far as possible the diverse accounting standards and accounting policies of different countries. It concentrates on essentials, and , therefore, does not make it complex so that it can be applied effectively on a world – wide basis. This serves as a basis for a local standards.

iv. The idea of issuing the International Standards is to ensure that financial statements comply with such standards in all material respects and disclose the fact of such compliance. Where local regulation requires deviation from International Standards, the local members of IASC endeavour to persuade the relevant authorities of the benefits of harmonisation with International Accounting Standards. From this it also follows that local standards should deviate from international standards only if local circumstances or local laws necessitate deviations.

v. Where there is no local standard, International Standard should be followed by the Public Accountants.

1.6.5. Gaps between Indian and International Accounting Standards :

The variances between the Indian and international accounting standards are much too significant to be comfortably ignored. What adds another dimension is the absence of an Indian framework that sets out the concepts that underline the preparation and presentation of financial statements. The disturbing outcome of this is that the consistency of accounting standards within an overall framework is unclear.

Further, IASC has made a number of revisions and improvements in the IAS under the “compatibility and improvement project. It has issued 10 revised international accounting standards in November, 1993. But a similar comprehensive exercise of reviewing the Indian accounting standards and, if considered necessary revising them has not been undertaken so far. As a result, differences exist in a number of situations between the Indian and international accounting standards.

In contrast to the international accounting standards, preparation of consolidated accounts of a group company is optional in India, which makes the assessment of the real financial health of the group difficult. Similarly lack of segment-wise business reporting in India leads to equate performance appraisal of business. Absence of disclosure of earnings per share (EPS) provides only insufficient information to investors in India. Further, real value of the fixed assets are not reflected in financial statements as minimum rates of depreciation are used; wide disparities in inventory valuation are taking place distorts the reported profits. Lack of disclosure of current portion of the long term debt leads to incorrect assessment of the liquidity position of the company.

1.6.6. Need for harmonisation of International Accounting Standards :

Accounting standards differ from country to country due to various factors. With the emergence of multinationals and globalisation of economies, it is desired that financial statements should be widely acceptable all over the world. The need to harmonise accounting standards arise due to following reasons.

1. Accounting practices and policies are different in different countries.
2. Multinational corporations have a different view pointy than national enterprises. There is a need to harmonise accounting standards to make the financial statements of multinational corporations reliable and easily understandable.
3. There is a widespread diversity of accounting practices in different countries. Harmonisation is required to evolve a uniform accounting standard for their world – wide applications.
4. Within a country itself, there may be a number of different accounting practices pertaining to a question. Harmonisation will ensure standardisation of accounting practices in the particular country.

Thus, the harmonisation of accounting standards all over the world is the need of the hour. It will make international financial information easier, valuable and comparable. Further, it will save time and money that is currently involved in analysing different financial statements. Multinational corporations will find it easy to report their information. However, harmonisation does not mean that accounting standards to permit flexibility to make the necessary

adjustments to suit their purpose. With the globalisation of a national economy, harmonisation of accounting standards is becoming indispensable to broaden the field of international accounting.

1.7 SELF ASSESSMENT QUESTIONS

A. Short Answer Questions

1. Define Accounting.
2. What are various branches of Accounting?
3. What are accounting concepts?
4. What are accounting conventions?
5. What are accounting standards?
6. Explain the significance of the following accounting concepts.
7. Dual Aspect Concept
8. Business entity concept
9. Going concern concept
10. Cost Concept
11. Accrual Concept.

B. Essay Questions

1. What is Book-keeping? Distinguish between Book-keeping and Accounting.
2. Explain the functions of Accounting.
3. Explain how accounting is useful to various users.
4. Explain the advantages and limitations of Accounting.
5. What do you mean by Accounting Principles? Explain the features of Accounting Principles.
6. What are the main Accounting Concepts? Narrate them briefly.
7. What are the Accounting Conventions? Explain them in brief
8. `Materiality is a Relative Term' Comment
9. `Business has Indefinite Life' Explain this in the light of Going Concern Concept.

1.8 SUGGESTED BOOKS

1. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
2. Asish K. Bhattacharyya, **Financial Accounting,** Prentice Hall of India, New Delhi, 2005
3. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
4. Pillai, R.S.N., Bagavathi, Uma, S., **Fundamentals of Advaned Accounting (Vol.I)** S. Chand & Company Ltd., New Delhi, 2006
5. Shukla, M.C., Grewal, T.S., Gupta, S.C., **Advanced Accounts (Volume I)** S. Chand & Company Limited, New Delhi, 2005
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Chapter – 2

ACCOUNTING INFORMATION AND ITS APPLICATIONS

2.0:Objective :

After studying this unit we should be able to

- Know the meaning of accounting information and its users
- Understand the advantages of accounting information
- Make accounting information useful

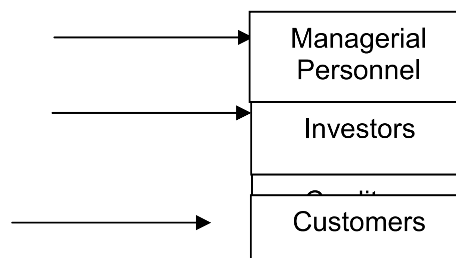
Structure :

2.1 Introduction
2.2. Users of Accounting Data
2.3 Advantages from Accounting Information
2.4 Making Accounting Information useful
2.5 Self Assessment Questions
2.6 Suggested Readings

2.1 INTRODUCTION:

There is no any specific definition on Accounting information as such, to describe clear boundaries. In fact, it knows no boundaries. The scope of Accounting information is far and wide as it includes and derives data from several sources. The main sources are financial accounting, Cost Accounting, Management Accounting etc. So, how can be prescribe limits to accounting information. Broadly accounting information may include importantly items viz., Trading, Profit (or) loss a/c, balance sheet, cost sheet, quotations (or) tenders, contract accounts, process Accounts, marginal cost statement, cost statement based on standards set, fixed budgets, flexible budgets, zero based budgets, analysis of financial statements and interpretation thereof, Funds Flow statement, Cash Flow statement, Ratio analysis, Marginal cost data for various strategic decisions, Activity based cost data, Data on Responsibility centres, inflation accounting data so as to set off the adverse effects of recording data at historical costs, human resource accounting information etc. This is only some partial pertinent Accounting information to be disseminated to different users of accounting information for different decision making purposes.

Clientele to Accounting Information
[Applications of Accounting Data]



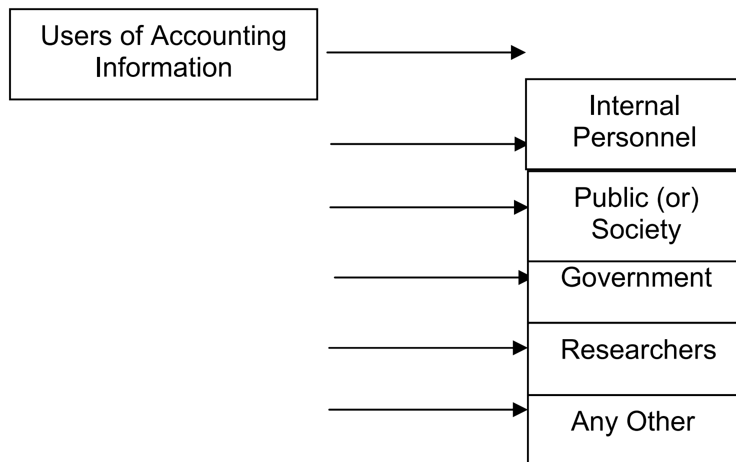


Figure : 2.1

2.2 USERS OF ACCOUNTING DATA:

The above figure amply makes it clear that several beneficiaries are there from accounting information. A small attempt is made here to know about the uses to the respective clients (Customers). Several people apply this data for many and varied purposes.

(1) Managerial personnel: Perhaps the largest beneficiary of accounting data is Management at different levels. Management needs accounting data for several managerial decisions and development of policies. Some, examples, of managerial applications of data may be discussed here for better understanding.
- (a) Make (or) Buy
- (b) Determination of the best new product to be introduced.
- (c) Worst product to be discontinued.
- (d) Best capacity of operation
- (e) Depth of processing etc.

(2) Investors and Prospective Investors: Another very important party that applies and that is badly in need of financial accounting information is share holders and prospective shareholders. They need reliable and consistent data as they do not want to put the hard earned money in a losing organisation. Whether an organisation is a solvent one (or) insolvent one is capable of being assessed based on accounting data. Thus, these people look before they take a leap.

(3) Creditors: These people apply data for knowing about credit worthiness. Suppliers of goods are very much worried about the soundness if the organisation. So, these are interested in looking into liquidity position and profitability aspects, for which, they may look into Profit & Loss A/c, Balance Sheet, Ratio analysis, Cash Flow statement etc.

(4) Workers: The biggest pretext (or) lame excuse that the management's often use to avoid, huge payments of salaries is that there is no adequate profit (or) there is a lot of rise in cost of production and hence, they may postpone their demand for wage hike. Workers can easily understand whether it is all true (or) untrue, when, they look into accounting information.

(5) **Government and other Agencies:** Government and Government Agencies are no less than any person, to be benefited by the Accounting information. Tribunals apply cost data for solving disputes concerned with wages and disputes of shareholders about the distribution of dividends etc. Further, Government also is very much worried whether there would consistence in payment of taxes in the time to come or not. For all these purposes, it is very much essential that there must be good accounting information to the Government. Government. Government is interested in the collection of data from business organizations on sales, profits, investments, stocks, liquidity, dividend policy, Costs, prices etc. This accounting information helps Government in deciding the social and economic policies. Information is collected and applied in a uniform way so that it is useful in taking important decisions.

(6) **Public and Academic Researchers:** For general awareness public at large can have published Accounts of course on paying a nominal fees in the office of Registrar of Joint Stock of companies. At the same time, for enhancing and enriching academic qualifications, researchers need a lot of data. Thus Corporate sector encourages academic researchers in giving them all the required quantitative and qualitative accounting information.

Thus, several clientele are there to be benefited by the accounting data.

2.3 ADVANTAGES FROM ACCOUNTING INFORMATION:

(1) **Recorded data is supplied:** Since all business transactions are professionally recorded, and since there is no need to depend upon human memory, any data any statement, at any time, and for any purpose can be had from this accounting information. So, recorded information is assured always.

(2) **Easy preparation of Financial Statements:** Since the Journal and Ledger are prepared systematically, preparation of Profit & Loss a/c and Balance Sheet are no difficult things. Thus, the trader can easily know about the progress (or) otherwise of the company, at the end of the accounting period.

(3) **Information to all desired:** For decision-making purposes and creation of policies, accounting information can be had by any party [for details see above figure].

(4) **Comparability is afforded:** Both for internal and external purposes, comparison of current data with the past data and also, comparison of actual data with standard and budgeted data are very much essential, for the purposes of Commenting upon the soundness of the organisation. This is very much possible with comparative financial statements and variance analysis in standard costing and budgetary control.

(5) **Tax Management:** Properly maintained book – keeping records will help in managing the organisation as far as tax matters with the Government are concerned.

(6) **Documentary proof:** For all Governmental agencies, the financial accounts do supply all relevant and required data, for solving court cases relating to wages, dividends etc.

(7) **Management the biggest beneficiary:** It need not be repeatedly said that management is the 1st and foremost party to remain benefited by the accounting

information. It has been said already that management requires this Accounting information for strategic Managerial decisions.

2.4 MAKING ACCOUNTING INFORMATION USEFUL:

When we discuss the limitations of financial accounting (or) accounting as above, it is found that all this Accounting information is not very much helpful to the management internally and externally. But, it is also equally true that accounting / financial accounting is a sine – quo – non-to every business organization. Hence, something needs to be done in order to make this more meaningful to the management in particular. So, how can be go about it? The following steps may be thought of.

(1) No delay in Accounts preparation: Sometimes, undue delay will creep into the preparation and then, presentation of Profit & Loss a/c and balance sheet of the company. Because of this delay, management is kept in darkness and is not aware of the performance aspects. If at all, it intends to remedy any erroneous aspects, it is not possible. Hence, should the accounting information be useful to the management, at the earliest possible time after the end of the period, financial statements must be informed about results to be evaluated and reviewed.

(2) Comparability must be there: Utility of financial Accounting information is very much enhanced when there is chance for comparability. This is possible in several ways. Present year’s accounting data can be compared to that of past years and thereby, we can understand whether we are better off (or) worse off. Another way is that actual data can be compared with standard (or) Budgeted data with the help of standard costing and budgetary control techniques.

(3) Use of Uniform costing Techniques: When all the firms in industry do follow the same principles of accounting and Cost Accounting, for the accounting purposes, the statements prepared by them will be uniform and hence, there can be inter firm comparison. Thus, information will be useful when it is uniform.

2.5 SELF ASSESSMENT QUESTIONS :

1. What is Accounting Information?
2. Who are the users of Accounting Information?
3. Explain the advantages of accounting information
4. How do you make accounting information useful to the users?

2.6 SUGGESTED BOOKS

1. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
2. Asish K. Bhattacharyya, **Financial Accounting,** Prentice Hall of India, New Delhi, 2005
3. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
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Chapter – 3

DOUBLE ENTRY SYSTEM

3.0: Objective :

After studying this unit we should be able to :

- Understand the meaning of Double Entry system of book keeping
- Know the advantages of double entry system
- Distinguish between Double Entry System and Single Entry System
- Understand accounting equation and Classification of Accounts

Structure

3.1 Introduction

3.2 Double Entry System

3.3 Accounting Equation

3.4 Accounting Transaction

3.5 What is an Account?

3.6 Rules of Debit, Credit

3.7 Accounting process

3.8 Accounting Cycle

3.9 Self Assessment Questions

3.10 Exercises

3.11 Suggested Readings

3.1 INTRODUCTION

Double entry system is a rational system of accounting. All business organisations and Tax Authorities are compelling the business people to prepare accounts on the basis of double entry system. This system is based on the principle of dual aspect in Accounting. It implies that a business transactions is entered doubly (or) twice.

3.2 CONCEPT: DOUBLE ENTRY SYSTEM

Already it has been said that every business transaction has two aspects. They are: the debit aspect and the credit aspect. It says further that there must be one giving some benefit and there must be another receiving the benefit, in every transaction. It means that there cannot be any receiving of benefit when there is no any giving of benefit. So, receiving aspect is called, “debit aspect” whereas, the giving aspect is called “Credit aspect”. Hence, the system under which both debit and credit aspects of the same transaction are recorded is known as double entry system.

3.2.1 Important concepts made brief:

(1) **Assets:** These are valuable resources for utilisation in business.

(2) **Fixed Assets:** These are long term resources. Example: Lands, buildings, plant and Machinery etc.

(3) **Liquid Assets:** These are short term circulating current, floating resources which are convertible into cash immediately. Example: Cash, Bills, Debtors etc.

(4) **Fictitious Assets:** These are also resources of business having no physical form and real value. Example: Loss on issue of shares, preliminary expenses etc.

(5) **Intangible Assets:** These are also assets having no physical existence. Example: Goodwill, Patents, Trademarks etc.

(6) **Wasting Assets:** These are assets which are exhausted while they are used. Example: Mines

(7) **Capital:** It is that part of business wealth which is used for further production.

(8) **Fixed Capital:** The amount spent for acquiring fixed assets is fixed capital.

(9) **Working Capital:** It is that part of total capital which is used for the day – to – day operation of the company.

(10) **Liabilities:** These are obligations of business to be met in future.

(11) **Fixed Liabilities:** These are long term obligations to be met. Example: Capital, Loans, Debentures etc.

(12) **Current Liabilities:** These are short term obligations to be met within less than year. Example: Creditors, Bills payable etc.

(13) **Contingent Liabilities:** These are obligations to be when there are risks and uncertainties in future. Example: Bad debts.

(14) **Account:** It is a summarised statement of transactions of a person, thing, expense, income etc.

(15) **Proprietor:** He is owner of business, known by different names as: partner in case of partnership firms, and shareholder in case of Joint Stock Companies.

(16) **Drawings:** There are cash (or) goods used by proprietors from business.

(17) **Solvent:** Solvent is one who is able to meet the financial obligations when they are due.

(18) **Insolvent:** This is opposite of solvent. He is not able to meet debts on due date.

(19) **Debtors:** He is receiver of the benefit.

(20) **Creditors:** He is given of the benefit.

(21) **Equity:** A claim which can be enforced against the assets of a firm is called equity. This can be of two types as:

(1) Owner's Equity (or) capital.

(2) Creditors Equity.

(22) **Revenue:** It means something realised (or) receivable in business, from sale of goods.

(23) **Expense:** This is payment for the purchase of goods.

(24) **Cash Discount:** It is an incentive from company to encourage the prompt payment of dues payable to the company.

(25) Trade Discount: It is an incentive in the farm of some deduction from gross (or) catalogue price allowed to traders to buy on large scale from the company.

(26) Voucher: It is documentary evidence in support of a business transaction.

(27) Reserve: It is an amount set aside from profit so as to meet some contingencies in future.

(28) Accounting period: It is a period of 12 months for which, accounts are usually kept. This can be a financial year commencing form 1st April and ending on 31st March (or) a calendar year commencing from 1st January to 31st December.

(29) Gross profit: it is the difference between selling price and cost price of goods before deducting selling expenses.

(30) Net profit: It is remaining profit in gross profit after setting aside all expenses from gross profit.

(31) Profit and loss account: It is an important financial statement prepared in the account period so as to know about the profit (or) loss in business.

(32) Balance Sheet: This is another important financial statement prepared along with profit (or) loss statement, in order to reveal the financial position of the business on a particular date.

3.3. ACCOUNTING EQUATION:

The whole of financial accounting (i.e., recording of transactions) is based on the 'Accounting Equation'. This can be stated to be that for a business to run it needs resources. These resources have to be supplied to the business by someone. The resources possessed by the business are known as 'Assets'. To begin with, these resources are supplied by the owner of the business. The total amount supplied by the owner of the business is known as 'Capital or Owner's equity'. If the proprietor is the only one who supplies resources, i.e., assets, the following equation would hold true:

CAPITAL = ASSETS

Normally however some of the assets of the business are provided by someone other than owner. The indebtedness of the business for these resource is known as 'Liabilities'. Thus because of legal distinction between the claims of creditors (outside liabilities) and those of owners (ownership liabilities or owner's equity or capital), the equation can now be expressed as:

CAPITAL + LIABILITIES = ASSETS

The two sides of the equation are always equal. On right – hand side are the resources are known as 'Liabilities'. On Left – hand side are the sources from which these resources were obtained. This equation is also known as 'Basic Accounting Equation' or 'Balance Sheet Equation'.

Loss affects both the side of the accounting equation. It reduces the capital in one side of the accounting equation. In the other side of the equation it reduces the asset i.e., cash.

The two sides of the equation are always equal. On the right – hand side are the resources possessed by the business. On the left – hand side are the sources from which these resources were obtained. So, the two sides will always be equal, no matter how many transactions are entered into. The actual assets, capital and liabilities may change, but the equality of assets

(Property and rights in property) with that of liabilities (amounts owing to outsiders) and capital (amount owning to the proprietor) will always hold true under all circumstances.

3.3.1 Advantages of Accounting Equation:

The advantages of Accounting Equation are:

(i) Accounting equation shows the sources of funds and its application. Sources are two fold – own fund (comes from the owner), and borrowed funds (borrowing from banks and other financial institution, creditors). The funds so collected are invested on various assets such as land, building, Plant etc.

(ii) It shows owner's equity, Liabilities, and Assets. So, if two things are given the other can be found out by applying the equation.

(iii) Accounting equation reveals the success or failure of a business. If owner's equity decreases it implies failure. In the reverse case there is success.

(iv) It shows the impact of each transaction on owner's equity, Liability and Asset.

(v) Accounting equation, if presented in detail – item wise, helps to calculate various ratios such as Capital to total assets, owner's equity to total assets, Liabilities to total assets, current assets to fixed assets etc. These ratios help a lot in taking important decisions affecting a business.

The Accounting equation deals with increases and decreases in assets, liabilities, and capital. The increases and decreases in capital take place through:

1. Income and benefits which result in capital, and
2. Expenses and losses which result in decrease in capital.

To show the effect of incomes and benefits, and expenses and losses on capital, the Accounting Equation may be expanded as follows:

Assets = Liabilities + (Capital + Income – Expenses)

This above equation is called an 'Expanded Accounting Equation' or 'Financial or Operating Equation'.

3.4. ACCOUNTING TRANSACTIONS:

There are any business activities involving transfer of money (or) money 's worth.

Example : Purchases, Sales, Receipt (or) payment of cash, Supply of a service etc.

These transactions may be cash (or) credit transactions.

Example:

(1) Sold goods to Ramesh for cash Rs.2,000/-

(2) Purchased goods from Gopal on credit Rs.1,000/-

In these two cases, the 1st one is a cash transaction while the 2nd one is a credit transaction.

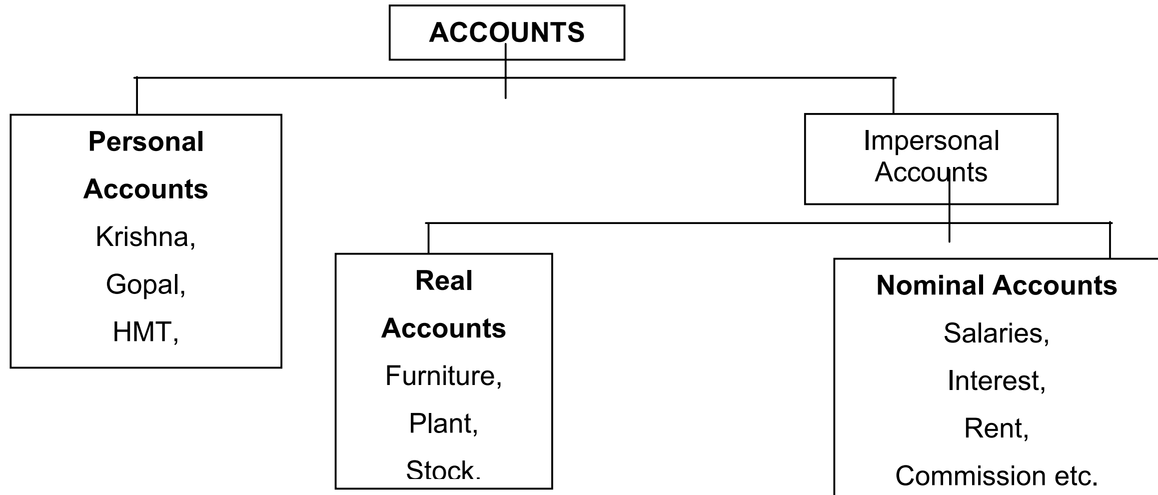
3.5 WHAT IS AN ACCOUNT?

It is a summarised record of all transactions pertaining to a person, a good, a service, revenue (or) expense. It is "T" shaped, dividing the accounting into two equal halves where the left half is "Debit side" while, the right side is "credit side". The following is an example.

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.

3.5.1 Types of Accounts:

Broadly, business transactions can be divided into three important categories viz., personal, Real and Nominal. Thus, there are three types of accounts. The following chart will make it clear.



Personal accounts:

All business transactions with persons, firms, companies, etc. and accounts thereof are called personal accounts. [See chart for examples]

Real Accounts:

Transactions related to real properties and assets and their accounts are known as Real accounts. [See chart for examples].

Nominal Accounts:

Accounts relating to expenses, losses, incomes, gains etc. are termed as nominal accounts. [See chart for examples]

3.6 RULES OF DEBIT / CREDIT:

Since dual aspect is there in all business transactions, there are two accounts in every transaction. Rules of debit / credit vary from one type of account to another type of account.

Personal Accounts:

(a) Debit the Receiver
(b) Credit the giver.

Real Accounts:

(a) Debit what comes in.

(b) Credit what goes out.

Nominal Accounts:

(a) Debit all expenses / losses
(b) Credit all incomes / gains

Example 1: Paid cash to Rajiv Rs.5,000

In this case the two accounts affected are Rajiv account and Cash account. Rajiv account is a personal account and cash account is a real account. Rajiv has received the benefit (cash Rs.5,000) from the business and, therefore, his account has to be debited as per the first part of the rule for personal accounts ``debit the receiver.'' As cash has gone out, Cash account will be credited according to the second part of the rule for real accounts ``credit what goes out.''

Example 2: Received Cash from Sunil Rs.1,000

In this case Cash account and Sunil's account are the two accounts affected. Cash Account is a real account and Sunil 's account is a personal account. As cash has come in, cash account will have to be debited according to the first part of the rule for real accounts ``debit what comes in.'' Sunil has given the benefit (Cash Rs.1,000) to the business and, therefore, his account will have to be credited as per the second part of the rule for personal accounts ``credit the giver.''

Example 3: Purchase of Machinery for Rs.2,00,000.

This is a cash transaction. Both the accounts viz., Machinery account and cash account are real accounts. The real account is debited when things come in and credited, when things go out. Here, machinery comes in and cash goes out. So, machinery account is debited and cash account is credited.

Example 4: Paid Wages Rs.1,000

In this case the accounts affected are Wages account and Cash account. Wages account is a nominal account and cash account is a real account. As per the first part of the rule for nominal account is ``debit all expenses and losses.'' Wages account will have to be debited as it is an expense to the business. As cash has gone out, Cash account will have to be credited according to the second part of the rule for real accounts ``credit what goes out. ''

Examples 5: Received Rs.400 as Discount.

In this case, Cash account and Discount account are the two accounts affected. Cash account is a real account and Discount account is a nominal account. As cash has come in, cash account will have to be debited according to the first part of the rule for real accounts ``debit what comes in. '' As per second part of the rule for nominal accounts, ``credit all incomes and gains,,'' discount account will be credited as it is an income to the business.

Illu 1: Analysis the following transaction and find out the two accounts involved. How do you treat them and why?

2002

Jan 1	**Ganesh started his business with cash.**
Jan 3	**Borrowed from rao**
Jan 5	**Purchased Machinery**
Jan 5	**Purchased furniture from Raj on credit.**
Jan 8	**purchased goods for cash.**
Jan12	**Purchased goods from Vijay on credit**

Jan 15 Sold goods for cash
Jan 18 sold goods to Gupta on credit
Jan 20 Received cash from Gupta
Jan 22 Paid cash to Vijay
Jan 23 Deposited into Bank
Jan 25 Withdrew cash for personal use.
Jan 30 Withdrew from bank for office use
Jan 31 Paid Salary
Jan 31 Paid rent by cheque.

Solution:

Before answering the question you have to be familiar with the following.

1. Ascertain what accounts are involved in a transaction.
2. Ascertain what is the nature of the accounts involved.
3. Ascertain which rule of debit and credit is applicable for each of the accounts involved.
4. Ascertain which account is to be debited and which is to be credited.
5. Record the date of transaction in the 'Date column'.

Analysis of Transaction

Date	Accounts involved	Nature of Accounts	How affected	Whether to be Debited or Credited
2002 Jan 1	Cash a/c Capital a/c	Real Personal	Cash is coming in Ganesh is the giver	Debit Credit
Jan 3	Cash a/c Loan from Rao a/c	Real Personal	Cash is coming in Rao is the giver	Debit Credit
Jan 5	Machinery a/c Cash a/c	Real Real	Machinery is coming in Cash is going out	Debit Credit
Jan 8	Purchases a/c Cash a/c	Nominal Real	Purchase is an expense Cash is going out	Debit Credit
Jan 12	Purchases a/c Vijay's a/c	Nominal Personal	Purchase is an expense Vijay is the giver	Debit Credit
Jan 15	Cash a/c Sales a/c	Real Nominal	Cash is coming in Sales is a revenue	Debit Credit
Jan 18	Gupta a/c Sales a/c	Personal Nominal	Gupta is the receiver Sales is a revenue	Debit Credit
Jan 20	Cash a/c Gupta a/c	Real Personal	Cash is coming in Gupta is the giver	Debit Credit
Jan 22	Vijay a/c Cash a/c	Personal Real	Vijay is the receiver Cash is going out	Debit Credit
Jan 23	Bank a/c Cash a/c	Personal Real	Bank is the receiver Cash is going out	Debit Credit
Jan 25	Drawings a/c Cash a/c	Personal Real	Ganesh is the receiver Cash is going out	Debit Credit
Jan 30	Cash a/c	Real	Cash is coming in	Debit

	Bank a/c	Personal	Bank is the giver	Credit
Jan 31	Salary a/c Cash a/c	Nominal Real	Salary is an expenses Cash is going out	Debit Credit
Jan 31	Rent a/c Bank a/c	Nominal Personal	Rent is an expense Bank is the giver	Debit Credit

3.7 ACCOUNTING PROCESS:

In order to accomplish its main objective of communicating information to the users, accounting performs the following functions.

(a) Recording: It is concerned with the recording of financial transactions in an orderly manner, soon after their occurrence in the proper books of account.

(b) Classifying: It is concerned with the systematic analysis of the recorded data so as to accumulate the transactions of similar type at one place. This function is performed by maintaining the ledger in which different accounts are opened to which related transactions are posted.

(c) Summarising: It is concerned with the preparation and presentation of the classified data in a manner useful to the users. This function involves the preparation of financial statements such as Income Statement, Balance Sheet, Statement of Changes in Financial Position. Statement of Cash Flow, Statement of Value Added.

(d) Interpreting: Now a days, the aforesaid three functions are performed by electronic data processing devices and the accountant has to concentrate mainly on the interpretation aspects of accounting. The accountants should interpret the statements in a manner useful to the users, so as to enable the users to make reasoned decisions out of alternative courses of action. The accountant should explain not only what has happened but also (a) Why it happened, and (b) what is likely to happen under specified conditions.

3.8 ACCOUNTING CYCLE:

An accounting cycle is a complete sequence beginning with the recording of the transactions and ending with the preparation of the final accounts.

1. **Journal:** Record the transactions and events in the Journal.
2. **Ledger Posting:** Transfer the transactions (recorded in the journal), in the respective accounts opened in the Ledger.
3. **Balancing the accounts:** Ascertain the difference between the total of debit amount column and the total of credit amount column of a ledger account.
4. **Trial Balance:** Prepare a list showing the balances of each and every account to verify whether the sum of the debit balances is equal to the sum of the credit balances.
5. **Trading, Profit and Loss Account:** Prepare Trading and profit & Loss Account to ascertain the profit or loss for the accounting period.
6. **Balance Sheet:** Prepare the Balance Sheet to ascertain the financial position as the end of a accounting period.

3.9 SELF ASSESSMENT QUESTIONS

A. Short Answer Questions

1. What is Double Entry of System of Accounting?
2. What is Single Entry System?
3. What is Accounting Equation?
4. What are personal accounts?
5. What are real accounts?
6. What are nominal accounts?
7. What is Accounting cycle?

B. Essay Questions

1. What is Double Entry system? Distinguish between Double Entry and Single Entry System.
2. How do you classify accounts? Explain the rules of debit and credit.
3. Define Double Entry System of book-keeping? What are its advantages?
4. Mention the rules for recording business transactions under accounting equation approach
5. Give an example of business transactions affecting only : (a) Assets (b) Liabilities (c) Capital
6. ``Accounting equation holds goods under all circumstances.'' Elaborate giving at least five examples.
7. What is the effect of revenue earned and expenses incurred on the accounting equation?
8. Explain the accounting process.

3.10 SUGGESTED BOOKS

1. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
2. Asish K. Bhattacharyya, **Financial Accounting,** Prentice Hall of India, New Delhi, 2005
3. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
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6. Tulsian, P.c., **Accountancy** Tata McGraw-Hill Publishing Company Limited, New Delhi.

Chapter – 4

JOURNAL – LEDGER – TRIAL BALANCE

4.0 Objective :

After studying this unit we may be able to :

- Understand the meaning of Journal, Ledger and Trial balance
- Pass Journal entries and post them into ledger.
- Prepare the Trial balance

Structure :

4.1 Introduction

4.2 Journal

4.3 Ledger

4.4 Trial balance

4.5 Self Assessment Questions

4.6 Exercises

4.7 Suggested Readings

4.1 INTRODUCTION:

The first important function in accounting is to record all business transactions in the books of original entry viz., Journal and Ledgers. In this chapter, we discuss Journal in the 1st place.

4.2 JOURNAL

The word Journal is stated to have been borrowed from a Latin word – Journ, which means – a day. So, it is a day book, where in, all day – to – day business transactions are recorded in a chronological order. Journal is considered to be a book of original entry, first entry (or) prime entry. All transactions are to be recorded first in Journal before they are recorded in ledgers. The Journal is a complete and chronological record of business transactions. The stager and process of recording business events in Journal is known as journalising while the entries made in the Journal one known as Journal entries.

Proforma of Journal

Date	Particulars (with narration)		L. F.	Debit Rs.	Credit Rs.
2006 Aug 1	Cash a/c To Sales a/c (Being goods sold for cash)	Dr.		12,000	12,000

- **Date:** The first column deals with the date of business transaction.
- **Particulars:** The 2nd column is about the details of the two accounts involved in the business transaction. In the 1st line we mention the debit aspect whereas, credit aspect is mentioned in the 2nd line.
- **Narration:** Narration is written briefly and it is kept within brackets. It is brief explanation to the business transaction.
- **L.F. :** L. F. stands for Ledger Folio. It is reference number of the page in the respective ledger in which, this account appears.
- **Debit:** It is the amount debited.
- **Credit:** It is the amount credited.

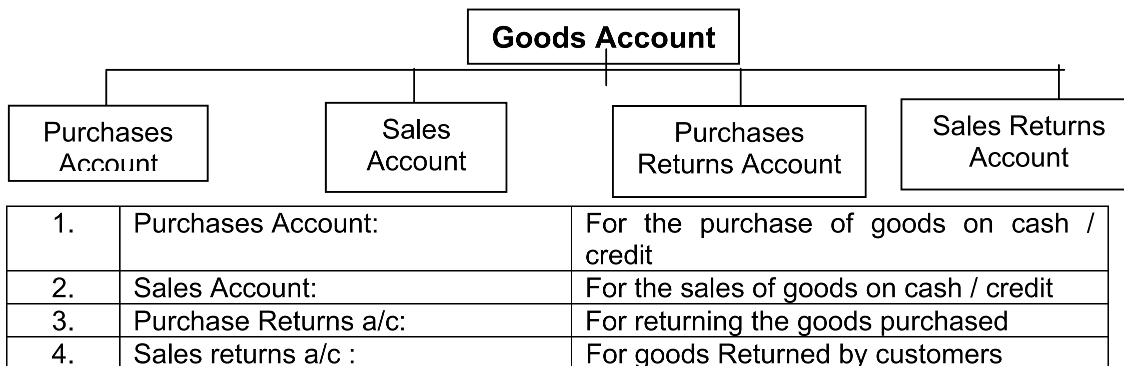
4.2.1 Need for Journal:

(a) Need for Journal arises as we have to record all business transactions date – wise in a separate book called Journal. If necessary, one can take stock of all business transactions at a time from this journal. Hence, Journal is very much significant.
(b) Since narration is present for every transaction, in this Journal, transactions become easily understandable to us. Thus, journal is needed.
(c) Location of errors is easy when journal is there and hence, it is needed and important.

4.2.2. Handling some Important Transactions:

The under mentioned accounts need same special treatment. (1) Goods account, (2) Owner's transactions, (3) Bank transactions, (4) Debts becoming bad etc.

(1) Goods a/c: When we record transactions relating to goods, we are reminded of purchases, purchase returns, sales and sales returns. But, in accounting, instead of goods Account, the following appropriate account is used.



1.	Purchases Account:	For the purchase of goods on cash / credit
2.	Sales Account:	For the sales of goods on cash / credit
3.	Purchase Returns a/c:	For returning the goods purchased
4.	Sales returns a/c :	For goods Returned by customers

Hence, the appropriate account is to be chosen from the above as per the real need.

(2) Proprietor's a/c: Business entity concept in accounting states that owners of business are distinct from business itself and these two are two different entities and hence, their transactions also must be separated. So, all transactions relating to the proprietor must not be changed to business a/c and must be changed separately to an a/c called – Drawings a/c. Accordingly, the money brought by the other into business as capital is credited to the capital a/c while, the money (or) goods used by the owners are debited an account called – "Drawings".

(3) Bank Transactions: Normally, a business man opens a current a/c with a bank. So, most of the business transactions are routed through cheques. Accordingly, Bank a/c will be credited when any payment is made by cheque and similarly when something is received by cheque, the same a/c will be debited.

(4) Debts going bad: All debtors to the business do not pay their dues completely. Sometimes, they may not be able to clear the dues on becoming insolvent. Then, a part payment only is realised from the debtor's property. So, the unrealised part of the debt is called – bad debt. Example: X is a debtor to ABC company for an amount of Rs.20,000. X due to his insolvency position, paid only Rs.10,000. Hence, the unrealised amount in this example is Rs.10,000. The treatment is that unrealised amount of Rs.10,000 is to be debited to bad debts a/c and the personal a/c of X is to be credited.

4.2.3. Composite Entries:

Sometimes two or more transactions of the same nature may take place on the same date. Instead of making a separate entry for each such transaction it is proper to combine them and give a combined entry. Such entry of recording a number transactions is termed as Compound Journal Entry. In case of compound entry the total of all debits should be equal to the total of all credits. The compound entry may be recorded in any of the following three ways.

i. One account may be debited, while several other accounts may be credited.
ii. One account may be credited, while several other accounts may be debited.
iii. Several accounts may be debited and several accounts may also be credited.

Illu 1: Journalise the following transactions with narration:2002
Aug 1 Commenced Business with Cash Rs.40,000 and Goods Rs.20,000
Aug 3 Purchased goods from 'X' and Co. for Rs.10,000 paid Cash Rs.5,000
Aug 5 Goods returned to X & Co. Rs.200
Aug 10 Sold goods to Y & Co. Rs.30,000 and Cash received from him Rs.20,000
Aug 15 Y & Co. returned goods Rs.500

Solution:

Journal Entries

Date	Particulars		L. F.	Debit Rs.	Credit Rs.
2002					
Aug 1	Cash a/c Purchases a/c To Capital a/c (Being cash and goods invested in business)	Dr. Dr.		40,000 20,000	 60,000
Aug 3	Purchases a/c To Cash a/c To X & Co. (Being purchase of goods from X & Co. and paid cash partly)	Dr.		10,000	 5,000 5,000
Aug 5	X & Co. To Purchase Returns a/c (Being return of goods to X & Co.)	Dr.		200	 200
Aug 10	Y & Co.	Dr.		10,000	

	Cash a/c To Sales a/c (Being sale of goods on credit and cash)	Dr.		20,000	30,000
Aug 15	Sales returns a/c To Y & Co. (Being return of goods from Y & Co.)	Dr.		500	500

4.3. LEDGER

4.3.1 Need for Ledger:

Journal will not be able to help us when we want to know the final status of a particular want to know the final status of a particular account because, it contains innumerable transactions without being classified. Hence, a separate account for each transaction in the Journal is needed. The separate statement (or) account for an exclusive transaction is called ledger. Thus, new for ledger arises in accounting.

4.3.2 Ledger Defined:

It is a summary statement of all transactions relating to a person, asset, expense (or) income which have occurred during a given accounting period. The latest position (or) status, of any account can be easily noted by referring to this ledger. The following statements will help are correctly understand the concept ledger.

(a) For all types of accounts, ledger is opened.
(b) It is a final and permanent record.
(c) It is an easy means of reference.
(d) It supplies the final status of any a/c.

4.3.3. Proforma of ledger:

Each account in the ledger is divided into two equal halves by a vertical line of separation where, each of the two sides is further broken into 4 (four) columns for Date, particulars, Folio, and Amount. The left hand side is called debit side while, the right hand side is known as credit side. The following is the proforma of ledger.

Mr. Kumar

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.
2006				2006			
Aug 4	To Cash		1,000	Aug 3	By Purchases a/c		2,000
Aug 10	To Balance c/d		1,000				
			2,000				**2,000**
				Aug 15	By Balance b/d		1,000

From the above ledger of Mr. Kumar, it can be understood that we purchased goods worth Rs.2,000 from Mr. Kumar and Kumar was paid Rs.1,000 in Cash and stock, another amount of Rs.1,000 is to be paid to him. In our accounting terminology, Mr. Kumar is our creditor.

4.3.4. Other Ledgers:

As a matter of convenience, Ledger is subdivided into personal and impersonal ledgers. Depending upon the size of the organisation, personal ledger is further divided into debtors ledger and creditors ledger. The personal ledger contains only personal accounts (as defined earlier). In this there is no need to add a/c to every person, as a separate account is not opened for every person. Finally, the total picture of debtors / creditors is shown in Trial Balance. On the other hand, impersonal ledger contains all real and nominal accounts as defined earlier.

Creditors Ledger: It is also called "Suppliers Ledger". It contains all creditors accounts of the business.

Debtors Ledger: It is also called "Customers Ledger". It contains all accounts of debtors the business.

General Ledger: It contains all accounts except Debtors / Creditors. Accounts of owner's expenses, incomes, capital, drawings etc. are found in this ledger.

4.3.5. Ledger Posting:

It is a periodical posting at entries from the Journal in the ledger based on the following guidelines.

- Ledger posting begins where Journal writing is complete.
- For each item in the Journal, a separate a/c is to be opened.
- Every account (or) ledger is named rightly. Name should precede while "account" should follow as for example: Kumar Account, Salaries Account, Furniture Account etc.
- Debit side of the Journal entry is to be posted on the debit side of the ledger starting with To.
- Similarly, the credit side of the Journal entry is to be posted on the credit side of the respective ledger starting with By.

Example for clarity:

Business Transaction:

Salary of Rs.10,000, paid on June 30th, 2006. In the journal, and ledger it will appear as under.

Date	Particulars (with narration)		L. F.	Debit Rs.	Credit Rs.
2006 June 30	Salary a/c To Cash a/c	Dr.		10,000	10,000

Salary a/c

Dr. **Cr.**

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.
2006 June 30	To Cash a/c	-	10,000				

Cash a/c

Dr. **Cr.**

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.
				2006 June 30	By Salaries a/c	-	10,000

4.3.6. Balancing of ledgers:

The very purpose of ledger will be lost, if the accounts maintained in the ledger are not balanced. Unless the a/c is balanced, we cannot under stand the final status of any account. Hence, balancing of ledger Accounts must be performed, for which, the following hints may be of same help.

(1) See the totals of both the sides and put the highest amount in both the sides.

(2) Find out the difference of there two totals.

(3) Enter this difference in amount column of that side showing less total, writing, against the difference in the particulars column, the words like: “To Balance c/d” (c/d means carried down) on the debit side of the a/c and “By Balance c/d” on the credit side of the account. In this way, total of two sides will agree.

(4) The balance is brought forward at the beginning of the next period. If “To Balance c/d” is written on the debit side of the a/c before balancing, it is brought forward on the credit side and “By Balance b/d” (b/d means brought down) is written against the balance in the particulars column and vice – versa.

(5) Sometimes, the totals of the debit side and credit side and equal. It means that the account has Nil balance. In this situation, the a/c is said to have been closed having no closing and no opening balance.

Essense:

An a/c is said to have a debit balance if the total of its debit side is more than the total of the credit side. Similarly, an a/c is considered to have a credit balance if the total of the credit side is greater than the total of the debit side. See the following examples.

Nithin a/c

Dr. **Cr.**

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.
2006 Feb 10	To Cash		7,000	2006 Feb 5	By Purchases a/c	-	10,000
Mar 12	To Cash		6,000	Mar 7	By Purchases a/c		5,000
Mar 31	To Balance c/d		2,000				
			15,000				**15,000**
				2006 April 1	By Balance b/d		2,000

Sankar a/c

Dr. **Cr.**

Date	Particulars	Folio	Amount Rs.	Date	Particulars	Folio	Amount Rs.
2006 Jan 8	To sales a/c		10,000	2006 March 28	By Cash a/c		15,000
	To Sales a/c		5,000				
			15,000				**15,000**

Illu. 2: Rama, the businessman entered into the following transactions with Krishna on the following dates. Draft the ledger account of Krishna and balance the same :

		Rs.
1997 Jan	Opening debt of Krishna to Rama	100
3	Sold goods to Krishna subject to 10% Trade Discount	1,000
8	Krishna returned goods	100
9	Sold goods to Krishna	200

Solution :

In Rama's Ledger
Krishna's Account

Dr. **Cr.**

Date	Particulars	JF	Amount Rs.	Date	Particulars	JF	Amount Rs.
1997 Jan 1	To Balance b/d		100	1997 Jan 8	By Sales Returns		100
3	To Sales a/c (1,000 – 100)		900		By Balance c/d		1,100
9	To Sales a/c		200				
			1,200				**1,200**
Feb 1	To Balance b/d		1,100				

Illu. 3: Prepare the Personal Account of Srinivas from the following transactions :

		Rs.
1997 Jan 1	Debit balance on Srinivas's Account	1,000
2	Sold goods on credit to Srinivas	5,400
6	Received from Srinivas	6,300
6	Allowed him discount	100
10	Srinivas bought goods on credit	1,500
15	Received cash from Srinivas	1,450
15	Allowed him Discount	50
20	Purchased goods on credit from Srinivas	1,040
25	Paid cash to Srinivas	500
28	Returned goods to Srinivas	140
31	Paid cash to Srinivas in full settlement of his account	390

Solution :

Srinivas's Account

Dr. **Cr.**

Date	Particulars	JF	Amount Rs.	Date	Particulars	JF	Amount Rs.
1997 Jan 1	To Balance b/d		1,000	1997 Jan 6	By Cash a/c		6,300
2	To Sales a/c		5,400	15	By Discount a/c		100
10	To Sales a/c		1,500		By Cash a/c		1,450
25	To Cash a/c		500	20	By Discount a/c		50
28	To Purchase Returns a/c		140		By Purchase a/c		1,040
31	To Cash a/c		390				
	To Discount a/c (Bal. Fig)		10				
			8,940				**8,940**

4.4 TRIAL BALANCE

With the knowledge of Journal and Ledger, it is now clear to us that same accounts show debit balance and same others show credit balance. But, as per double entry book keeping principles accounts are said to be arithmetically accurate only when total of all debit balances is equal to the total of all credit balances. So, the statement prepared by the accountant for this purpose of verification is known as Trial Balance. Thus, Trial Balance is a statement of all debit and credit balances.

It is prepared on a date and the following are the important columns that need to be provided.

(1) Name of the account [Particulars]
(2) Debit
(3) Credit

Proforma of a Trial balance

S. No.	Name of Account	Debit Rs.	Credit Rs.s

Illu.4: Record the following transactions in journal, post them to ledger, balance all ledger accounts (including temporary accounts) and prepare a trial balance as at April 1, 2006 to check the arithmetical accuracy of posting for the month of March 2006 :

March 1 Commenced business with Cash Rs.40,000 and building worth Rs.2,00,000.
2 Deposited into bank Rs.25,000.

4 Cash Purchases Rs.5,000.
Credit Purchases Rs.15,000.
6 Furniture purchased and cheque issued Rs.5,000.
8 Cash Sales Rs.15,000
Credit Sales Rs.8,000
15 Received Rs.2,000 cash and a cheque of Rs.3,000 from a customer. Discount allowed Rs.500.
17 Paid salaries Rs.2,000.
20 Paid to suppliers Rs.5,000 cash and Rs.5,000 by cheque. Discount received Rs.1,000.
25 Paid cash to the petty cashier Rs.200.
28 Withdrew cash for personal use Rs.1,000.
Issued a cheuqe to pay tuition fees Rs.1,000.
31 Petty expenses incurred by the petty cashier 150.

Solution :

Date	Particulars		LF	Debit Amount Rs.	Credit Amount Rs.
1997 Mar 1	Cash a/c Building A/c To Capital a/c (Being commencement of business with cash & Building)	Dr. Dr.		40,000 2,00,000	2,40,000
2	Bank a/c To Cash a/c (Being cash deposited in bank)	Dr.		25,000	25,000
4	Purchases a/c To Cash a/c (Being cash purchases of goods)	Dr.		5,000	5,000
	Purchases a/c To Supplier a/c (Being credit purchase of goods)	Dr.		15,000	15,000
6	Furniture a/c To Bank a/c (Being furniture purchased by cheque)	Dr.		5,000	5,000
8	Cash a/c To sales a/c (Being cash sale of goods)	Dr.		15,000	15,000
15	Cash a/c Bank a/c Discount Allowed a/c To Customer a/c (Being amount received from a customer and discount allowed)	Dr. Dr. Dr.		2,000 3,000 500	5,500
17	Salaries a/c To Cash a/c (Being salaries paid)	Dr.		2,000	2,000
20	Supplier a/c	Dr.		11,000	

	To Cash a/c To Bank a/c To Discount received a/c (Being amount paid to supplier & discount received)				5,000 5,000 1,000
25	Petty cash a/c To Cash a/c (Being payment of petty cashier)	Dr.		200	 200
28	Drawings a/c To Cash a/c To Bank a/c (Being amount withdrawn for purchaser)	Dr.		2,000	 1,000 1,000
31	Petty Expenses a/c To Petty Cash a/c (Being analysis of petty expenses)	Dr.		150	 150

LEDGER BOOK

Capital Account

Dr. **Cr.**

Date	**Particulars**	**Amount Rs.**	**Date**	**Particulars**	**Amount Rs.**
1997 Mar 31	To Balance c/d	2,40,000	1997 Mar 1	By Cash a/c	40,000
				By Building a/c	2,00,000
		2,40,000			**2,40,000**
			April 1	By Balance b/d	2,40,000

Building Account

Dr. **Cr.**

Date	**Particulars**	**Amount Rs.**	**Date**	**Particulars**	**Amount Rs.**
1997 Mar 1	To Capital a/c	2,00,000	1997 Mar 31	By Balance c/d	2,00,000
		2,00,000			**2,00,000**
April 1	To Balance b/d	2,00,000			

Cash Account

Dr. **Cr.**

Date	**Particulars**	**Amount Rs.**	**Date**	**Particulars**	**Amount Rs.**
1998 Mar 1	To Capital a/c	40,000	1997 Mar 2	By Bank a/c	25,000
8	To Sales a/c	15,000	4	By Purchases a/c	5,000
15	To Customer a/c	2,000	17	By Salaries a/c	2,000
			20	By Supplier a/c	5,000
			25	By Petty Cash a/c	200
			28	By Drawings a/c	1,000
			31	By Balance c/d	18,800

		57,000			**57,000**
April 1	To Balance b/d	18,800			

Bank Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1996 Mar 2	To Cash a/c	25,000	1996 Mar 6	By Furniture a/c	5,000
15	To Customer a/c	3,000	20	By Supplier a/c	5,000
			28	By Drawings a/c	1,000
			31	By Balance c/d	17,000
		28,000			**28,000**
April 1	To Balance b/d	17,000			

Purchases Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 4	To Cash a/c	5,000	1997 Mar 31	By Balance c/d	20,000
	To Supplier a/c	15,000			
		20,000			**20,000**
April 1	To Balance b/d	20,000			

Furniture Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 6	To Bank a/c	5,000	1997 Mar 31	By Balance c/d	5,000
		5,000			**5,000**
April 1	To Balance b/d	5,000			

Sales Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 31	To Balance c/d	23,000	1997 Mar 8	By Cash a/c	15,000
				By Customer a/c	8,000
		23,000			**23,000**
			April 1	By Balance b/d	23,000

Customer Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997			1997		

Mar 8	To Sales a/c	8,000	Mar 15	By Cash a/c	2,000
				By Bank a/c	3,000
				By Discount allowed a/c	500
				By Balance c/d	2,500
		8,000			**8,000**
April 1	To Balance b/d	2,500			

Supplier Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 20	To Cash a/c	5,000	1997 Mar 4	By Purchases a/c	15,000
	To Bank a/c	4,000			
	To Discount Received a/c	1,000			
31	To Balance c/d	4,000			
		15,000			**15,000**
			April 1	By Balance b/d	4,000

Discount allowed Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 15	To Customer a/c	500	1997 Mar 31	By Balance c/d	500
		500			**500**
April 1	To Balance b/d	500			

Salaries Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 17	To Cash a/c	2,000	1997 Mar 31	By Balance c/d	2,000
		2,000			**2,000**
April 1	To Balance b/d	2,000			

Discount Received Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 31	To Balance c/d	1,000	1997 Mar 20	By Supplier a/c	1,000
		1,000			**1,000**

Petty Cash Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 25	To Cash a/c	200	1997 Mar 31	By Petty expenses a/c	150
				By Balance c/d	50
		200			**200**
April 1	To Balance b/d	50			

Drawing Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 28	To Cash a/c	1,000	1997 Mar 31	By Balance c/d	2,000
	To Bank a/c	1,000			
		2,000			**2,000**
April 1	To Balance b/d	2,000			

Petty Expenses Account

Dr. **Cr.**

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
1997 Mar 31	To Petty Cash a/c	150	1997 Mar 31	By Balance c/d	150
		150			**150**
April 1	To Balance b/d	150			

S. No.	Particulars	LF	Amount Rs.	Amount Rs.
1.	Capital a/c		-	2,40,000
2.	Building a/c		2,00,000	-
3.	Cash a/c		18,800	-
4.	Bank a/c		17,000	-
5.	Purchases a/c		20,000	-
6.	Furniture a/c		5,000	-
7.	Sales a/c		-	23,000
8.	Customer a/c		2,500	-
9.	Supplier a/c		-	4,000
10.	Discount Allowed a/c		500	-
11.	Salaries a/c		2,000	-
12.	Discount Received a/c		-	1,000
13.	Petty Cash a/c		50	-
14.	Drawings a/c		2,000	-
15.	Petty expenses a/c		150	-
	Total		**2,68,000**	**2,68,000**

4.5 SELF ASSESSMENT QUESTIONS

A. Short Answer Questions :

1. What is Journal
2. What is a compound entry?
3. What is a Ledger?
4. What is a Trial Balance?
5. Give a format of a journal and briefly explain its contents
6. Enumerate any five utilities of ledger

B. Eassy Type Questions :

1. Explain the procedure of posting
2. Explain the procedure for balancing a ledger account
3. Explain the methods of preparing a trial balance.
4. Distinguish between Journal and Ledger.

4.6 EXERCISES

1. Journalise the following transactions.

2006		**Rs.**
August 1	Shri Rajan invested to business	20,000
2	Opened an account with the bank of India by depositing cash	10,000
3	Purchased goods for cash	500
4	Purchased machinery for cash	800
5	Cash purchases of goods	300
6	Cash sales	900
15	Withdraw cash for personal use	200
16	Purchased goods from Preetam & Sons on credit	600
25	Received cash on account from Ramanand	350
26	Paid cash to Minakshi Bros	250
29	Paid rent	125
30	Received Commission	175
30	M/s Ram & Sons returned goods	100

2. Journalise the following transactions in the books of Sudhir Kumar

2006		**Rs.**
Jan.1	Sudhir commenced business with cash	40,000
3	Purchased goods for cash	500
5	Sold goods for cash	300
6	Purchased one motor car for cash	15,000
9	Sold machinery for cash	9,000
11	Purchased a building on credit from Narendra	20,000
15	Sold furniture on credit to Randhir Kapoor	9,500
17	Paid Cartage	110
22	Received Commission	50
27	Cash Sales	1,200
29	Cash Purchases	600

30	Received on account from Ahmed	350
31	Paid cash to Sunit kumar on account	190

3. Pass Journal entries of the following transactions in the books of Rajesh.

2006		**Rs.**
July 1	Rajesh commenced business with cash	16,000
3	He bought goods as his capital in beginning	4,000
7	Sold goods to Dinesh on credit	6,500
8	Purchased a horse for cash	3,100
17	Ramesh's a/c which is over due is closed as the amount is not recoverable	700
20	Goods burnt by fire	390
21	Received cash on account from Dinesh	3,300
25	Goods distributed as free samples	325

4. Journalise the following transactions in the books of Ram. Post them in the ledger and balance the various accounts opened in the ledger.

2006		**Rs.**
April 2	Ram started his business with cash	70,000
3	Deposited into bank	50,000
4	Purchased goods for cash from Mr. X	5,000
5	Bought goods on credit from Mr. Y	6,000
6	Returned goods to Y	1,000
10	Sold goods for cash for to Mr .A.	6,000
15	Sold goods to Mr. B	6,000
16	Mr. B Returned goods	1,000
17	Drew from bank for personal use	5,000
25	Paid to Mr. Y in full settlement by cheque	4,800
26	Received a cheque from Mr. B in full settlement	4,900
27	Drew cash from bank for office use	10,000
30	Drew cash for personal purposes	5,000
30	Paid salaries to staff	5,000
30	Issued a cheque for Rs.3,000 in favour of Sri Devi a landlady towards rent for April	
30	Withdrew goods for private use	1,000

5. Journalise the following transactions in the books of Mr. X Post them in the ledger and balance the various accounts opened in the ledger also prepare Trial balance.

2006		**Rs.**
April 1	Mr. X Commenced business with cash	80,000
4	Purchased furniture	22,000
5	Bought goods for cash from Mr. Y	24,000
8	Purchased goods from Mr. Z	40,000
12	Sold goods on credit to Mr.A	10,400
16	Received from Mr.A on account	4,800
20	Sold goods for cash to Mr. B	5,200
21	Paid to Mr. Z on account	12,000

27	Withdrew cash for personal use	500
28	Brought in further capital	10,000
29	Paid to Mr. Z on account	16,000
30	Paid to General expenses	250
30	Paid Rent	520
30	Paid Salaries to employees	12,000

4.7 SUGGESTED BOOKS

1. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
2. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
3. Pillai, R.S.N., Bagavathi, Uma, S., **Fundamentals of Advaned Accounting (Vol.I)** S. Chand & Company Ltd., New Delhi, 2006
4. Shukla, M.C., Grewal, T.S., Gupta, S.C., **Advanced Accounts (Volume I)** S. Chand & Company Limited, New Delhi, 2005
5. Tulsian, P.c., **Accountancy** Tata McGraw-Hill Publishing Company Limited, New Delhi.

Chapter – 5

PREPARATION AND ANALYSIS OF TRADING AND PROFIT AND LOSS ACCOUNT

5.0 Objective :

After study of this unit we should be able to

- Understand the meaning of financial statements
- Know how to prepare trading and profit and loss account

Structure

5.1 Introduction
5.2 Trading Account
5.3 Profit and Loss account
5.4 Self Assessment Questions
5.5 Exercises
5.6 Suggested Readings

5.1 INTRODUCTION

It has been explained in a preceding Chapter that the accuracy of the books of accounts is determined by means of preparing a Trial balance. Having determined the accuracy of the books of accounts every businessman is interested in knowing about two more facts. They are : (I) Whether he has earned a profit or suffered a loss during the period covered by the Trial balance? (ii) Where does he stand now? In other words, what is his financial position?

The determination of the Profit or Loss is done by Preparing a Trading and Profit and Loss Account (or an Income Statement). While the financial position is judged by means of preparing a balance sheet of the business. The two financial statements together (i.e., Incomes Statement and the Balance sheet) are termed as Final Accounts. As term indicates, Final Accounts means accounts which are prepared at the final stage to give the financial position of the business.

5.1.1. Trading and Profit and Loss Account :

The Trading and Profit and Loss Account is a final summary of such accounts which affect the profit or loss position of the business. In other words, the accounts contain the items of Income and Expenses relating to a particular period. The account is prepared in two parts (I) Trading Account, and (ii) Profit and Loss account.

5.2 TRADING ACCOUNT

Trading Account gives the overall result of trading i.e., purchasing and selling of goods. In other words, it explains whether purchasing of goods and selling them has proved to be profitable for the business or not. It takes into account on the one hand the cost of goods sold and on the other the value for which they have been sold away. In case the sales value is higher than the cost of goods sold, there will be a profit, while in a reverse case, there will be a

loss. The profit disclosed by the Trading Account is termed as gross Profit. Similarly the loss disclosed by the Trading Account is termed as Gross Loss.

5.2.1 Opening and Closing Stocks :

All goods purchased have been sold away by the trader. However, it does not normally happen. At the end of the accounting year, a trader may be left with certain unsold goods. Such stock of goods with a trader unsold at the end of the accounting period is termed as closing stock. Such a stock will become the opening stock for the next period. While calculating the amount of profit or loss on account of trading, a trader will have to take such Opening and closing Stocks into consideration.

5.2.2. Expenses on Purchases etc.

We have presumed that the trader has not incurred any expenses for purchase of goods and bringing them to his shop for sale. However, a trader has to incur various types of expenses for purchasing of goods as well as for bringing them to his shop for sale. Such expenses may include brokerage or commission paid to agents for purchase of goods, cartage or carriage charges for bringing the goods to the trader's shop, wages paid to coolies for transportation of goods etc. All such expenses increase the cost of the goods sold and hence they have also to be included in the cost of purchasing the goods. In other words, cost of goods sold will be calculated as follows.

Cost of Goods sold = Opening Stock + Net purchases + Expenses on Purchasing
Of goods – Closing stock

Cost of goods sold calculated above will then the compared with the net sales to find out the amount of profit or loss made by the business.

5.2.3 Equation for Preparing Trading Account :

The following equation can be derived for preparing Trading Account.

Gross Profit	Sales – Cost of goods sold
Cost of goods sold	Opening stock + Purchases + Direct expenses – Closing Stock
Therefore Gross Profit =	Sales – (Opening stock + Purchases + Direct expenses – closing stock)
Gross Profit	(Sales + Closing stock) – (Opening stock + Purchases + Direct expenses)

The term `Direct expenses' include those expenses which have been incurred in purchasing the goods, bringing them to the business premises and making them fit for sale. Examples of such expenses are carriage charges, octroi, import duty, expenses for seasoning the goods etc.

The Trading Account can be prepared in the following form on the basis of equation given above.

Trading Account
For the year ending ….
Dr. **Cr.**

Particulars	**Rs.**	**Particulars**	**Rs.**

To Opening Stock	X x x	By Sales Less Returns	X x x
To Purchases less returns	X x x	By Closing stock	X x x
To Direct expenses	X x x	By Gross Loss *	X x x
To Gross Profit *	X x x		
	X x x		X x x

- Only one figure will be appear

5.2.4 Important points regarding Trading Account

1. **Stock :** The term `stock' includes goods lying unsold on a particular date. The stock may be of two types. (I) Opening stock (ii) Closing stock.

The term `Opening stock' means goods lying unsold with the businessman in the beginning of the accounting year. This is shown on the debit side of the Trading account.

The term `Closing stock' includes goods lying unsold with the business at the end of the accounting year. It should be noted that stock at the end of the accounting year is taken after the books of accounts have been closed. The amount of closing stock is shown on the credit side of the Trading Account as an asset in the Balance Sheet. This has been explained later. The closing stock at the end of the accounting period will become the Opening stock the next year. The opening stock is therefore shown on the debit side of the Trial balance.

Valuation of Closing Stock : The closing stock is valued on the basis of `` cost or market price whichever is less' principle. It is therefore, very necessary that the cost of the goods lying unsold should be carefully determined. The market value of such goods will also be found out on the Balance Sheet date. The closing stock will be valued at the lower of the two values. This valuation is done because of the accounting convention of `conservatism' according to which expected losses are to be taken into account while not expected profits.

2. **Purchases :** The term `Purchases' includes both cash and credit purchase of goods. The term``goods'' as already explained in an earlier chapter means items purchased for resale. Assets purchased for permanent use in the business such as purpose of plant, furniture etc., are not included in the purchases of goods. Similarly, purchase of article such as stationery meant for using in the business will also not be included in the item of purchases. In case , a proprietor has himself used certain goods for his personal purposes., the value of such goods at cost will be deducted from the purchases and included in the drawings of the proprietor. Similarly, in case certain goods are given by way of free samples etc., the value of such goods should be charged to advertisement account and deducted from purchases. The amount of purchases will be the net purchases made by the proprietor. The term `net purchases' means total purchases of goods made by the businessman less the goods that he has returned back to the suppliers. In other words, purchases will be taken to the Trading Account after deducting purchases returns and goods as drawing from the gross purchases made during the accounting period.

3. **Sales :** The term `Sales' includes both cash and credit sales. Gross sales will be shown in the inner column of the Trading account out of which sales returns will be deducted. The net sales will then be shown in the outer column of the Trading Account. Proper care should be taken in records sale of those goods which have been sold at the end of the financial year but have not yet been delivered. The sale value of such goods should be included in the sales, but care should be taken that they are not included in the closing stock at the end of the accounting period. Sales of assets like plant and machinery, land and buildings or similar other articles which were purchased for using in the business, and not for sale, should not be included in the figure of `sales' to be taken to the Trading Account.

4. **Wages :** The amount of wages is taken as a direct expenses and, therefore, is debited to the Trading Account. Difficulty arises in those cases when the Trial balance includes a single amount for wages and salaries. In such a case, the amount is taken to the Trading Account.. However, if the Trial balance shows salaries and wages, the amount is taken to the Profit and Loss Account. In actual practice such difficulties do not arise because the businessman knows for which purpose he has incurred the expenditure by way of wages or salaries. However, in an examination problem, it will be useful for the students to follow the principle given above i.e., `Wages ad salaries' to be charged to trading account while `salaries and wages' to be charged to the profit and loss account. Wages paid for purchases of an asset for long term use in the business e.g., wages paid for plant and machinery or wages paid for construction of a building should not be charged to the Wages Account. They should be charged to the concerned Asset account.
5. **Customs and Import Duty :** In case the goods have been imported from outside the country, customs and import duty may have to be paid. The amount of such duty should be charged to the Trading Account.
6. **Freight, Carriage and Cartage :** Freight, carriage and Cartage are taken as direct expenses incurred on purchasing of the goods. They are, therefore, taken to the debit side of the Trading Account. The terms ``Freight in'' ``Cartage in'' and ``Cartage in'' have also the same meaning. However, ``Cartage out.'', ``Freight Out'' and ``Carriage out'' are taken to be the expenses incurred on selling the goods. They are, therefore, charged to the Profit and Loss account. The term ``inward'' is also used for the term ``IN''. Similarly the term ``outward'' is also used for the term ``out''. In other words ``Carriage'' or ``Carriage inward'' or ``Carriage in'' are used as synonymous terms. Similarly carriage out or ``Carriage outward'' are also the synonymous terms. The same is true for other expenses like Freight or Cartage.
7. **Royalty :** Royalty is the amount paid to the owner for using his rights. For example, the royalty is paid by a ``Lessee', of a coal mine to its owner for taking out the coal from the coal mine. Similarly, royalty is paid to the owner of a patent for using his right. It is generally taken as a direct expenses and, therefore, is charged to the Trading Account. However, where royalty is based on sales, for example in case of the book publishing trade, it may be charged to profit and loss account.
8. **Gas, Electricity, Water, Fuel etc.** : All these expenses are direct expenses and, therefore, they are charged to the Trading Account.
9. **Packing Materials :** Packing Materials used for packing the goods purchased for bringing them to the shop or convert them into a saleable state are direct expenses and, therefore, they are charged to the Trading Account. However, packing expenses incurred for making the product look attractive or packing expenses incurred after the product has been sold away are charged to the Profit and Loss account.

5.2.5 Closing Entries :

Closing entries are entries passed at the end of the accounting year to close different accounts. These entries are passed to close the accounts relating to incomes, expenses, gains and losses. In other words, these entries are passed to close the different accounts which pertain to Trading and Profit and Loss account. The accounts relating to assets and liabilities are not closed but they are carried forward to the next year. Hence, no closing entries are to be passed regarding these accounts which relate to the Balance sheet.

The principle of passing a closing entry is very simple. In case an account shows a debit balance, it has to be credited in order to close it. For example, if the purchases account is to be

closed, the purchases account will have to be credited so that it may be closed because it has a debt balance. The Trading Account will have to be debited.

The closing entries are passed in the Journal Proper. The different closing entries to be passed by the Accountant for preparing a Trading Account are being explained below.

5.2.6 Importance of the Trading Account :

Trading Account provides the following information to a businessman regarding business.

1. Gross profit disclosed by the Trading Account tells him the upper limit within which he should keep the operating expenses of the business besides saving something for himself. The cost of purchasing and the price at which he can sell the goods are governed largely by market factors over which he has no control. He can control only his operating expenses.
2. He can calculate his Gross profit ratio and compare his performance year after year. A fall in the Gross Profit Ratio means increase in the cost of purchasing the goods or decrease in the selling price of the goods or both. In order to maintain at least same figure of gross profit in absolute terms, he will have to push up the sales or make all out efforts to obtain goods at cheaper prices. Thus, he can prevent at least fall in the figure of his gross profit if can not bring any increase in it.
3. Comparison of stock figures of one period from another will help him in preventing unnecessary lock up of funds in inventories.
4. In case of new products, the businessman can easily fix up the selling price of the products by adding to the cost of purchases, the percentage gross profit that he would like to maintain.

Illu.1 : From the following information take the appropriate items relating to trading account and prepare trading account for the year ending 31-12-2002.

	Rs.
Stock 1-1- 2002	**2,000**
Purchases	**7,000**
Productive wages	**1,500**
Freight	**750**
Marine Insurance	**250**
Customs duty	**400**
Salaries	**1,500**
Power	**120**
Carriage inwards	**75**
Carriage outwards	**100**
Sales	**15,000**
Packing material	**200**
Sales returns	**400**
Purchase returns	**300**
Office lighting	**250**
Office rent	**1,200**
Stock 31-12-2002	**3,000**

Solution :

Trading a/c for the year ended 31-12-2002

	Rs.	Rs.		Rs.	Rs.
To Opening stock		2,000	By Sales	15,000	
To Purchases	7,000		Less : Returns	500	14,600
Less : Returns	300	6,700	By Closing stock		3,000
To Freight		750			
To Marine insurance		250			
To Customs duty		400			
To Carriage inwards		75			
To Power		120			
To Productive wages		1,500			
To Packing materials		200			
To Gross profit c/d		5,605			
		17,600			**17,600**
			To Gross profit b/d		5,605

Illu.2 :The following information is taken from in the books of Srinivas. Prepare Trading account for the year ended 31-12-2003 and write closing entries.

	Rs.		Rs.
Opening stock	**5,000**	**Sales returns**	**400**
Sales a/c	**20,000**	**Manufacturing expenses**	**100**
Purchase returns	**200**	**Octroi**	**500**
Carriage inwards	**300**	**Fuel**	**700**
Wages a/c	**4,000**	**Purchases a/c**	**8,000**
Closing stock (31-3-2003)	**2,000**		

Solution :

Journal Entries

Date	Particulars		L.F.	Debit	Credit
2003				**Rs.**	**Rs.**
Mar.1	Trading a/c	Dr.		18,600	
	To Opening stock a/c				5,000
	To Purchases a/c				8,000
	To Wages a/c				4,000
	To Carriage inwards a/c				300
	To Manufacturing expenses a/c				100
	To Octori a/c				500
	To Fuel a/c				700
	(Being the transfer of accounts to trading account)				
	Purchase returns a/c	Dr.		200	
	To Purchases a/c				200
	(Being the transfer of returns to purchases a/c)				
	Sales a/c	Dr.		20,000	

	Closing stock a/c To Trading a/c (Being the transfer of accounts to trading account)	Dr.		2,000	22,000
	Sales a/c To Sales returns a/c (Being the transfer of returns to sales a/c)	Dr.		400	400

Trading a/c of Srinivas for the year ended 31-3-2003

	Rs.	Rs.		Rs.	Rs.
To Opening stock		5,000	By Sales	20,000	
To Purchases	8,000		Less : Returns	400	19,600
Less : Returns	200	7,800	By Closing stock		2,000
To Wages		4,000			
To Carriage inwards		300			
To Manufacturing expenses		100			
To Octroi		500			
To Fuel		700			
To Gross profit c/d		3,200			
		21,600			**21,600**
			By Gross profit b/d		3,200

Illu.3 : From the following information prepare the trading account of Sankar for the year ended 31-12-2002.

2002		**Rs.**
Jan 1	**Raw material**	**24,000**
	Work – in – progress	**10,000**
	Finished goods	**2,42,000**
Dec 31	**Purchases**	**3,56,000**
	Purchase returns	**12,500**
	Manufacturing wages	**1,82,000**
	Factory rent	**16,500**
	Coal, water	**8,500**
	Sales	**6,57,000**
	Carriage	**24,000**
	Customs duty	**15,000**
	Raw materials	**32,000**
	Work – in – progress	**12,000**
	Finished goods	**3,08,000**

Solution :

Trading a/c of Sankar for the year ended 31-12-2002

	Rs.	Rs.		Rs.	Rs.
To Opening stock			By Sales		6,57,000
Raw materials	24,000		By Closing stock		
Work-in-progress	10,000		Raw materials	32,000	
Finished goods	2,42,000	2,76,000	Work-in-progress	12,000	

To Purchases	3,56,000		Finished goods	3,08,000	3,52,000
Less : Returns	12,500	3,43,500			
To Wages		1,82,000			
To Factory rent		16,500			
To Coal water		8,500			
To Carriage		24,000			
To Customs duty		15,000			
To Gross profit c/d		1,43,500			
		10,09,000			**10,09,000**
			By Gross profit b/d		1,43,500

Illu.4 : Following are the balances extracted from the books of M/s Hero Motors Company as on 31st March 2003. You are required to prepare the Manufacturing Account and Trading Account for the year ended on that date:

	Rs.		**Rs.**
Raw Materials (Opening stock)	**50,000**	**Repairs to Machinery**	**3,750**
Work – in – progress (opening stock)	**37,500**	**Royalty**	**2,500**
Finished goods (opening stock)	**45,000**	**Purchases returns**	**1,250**
Raw material purchases	**1,25,000**	**Sales returns**	**2,500**
Finished goods purchases	**50,000**	**Factory insurance**	**3,750**
Productive wages	**75,000**	**Factory rent**	**46,250**
Coal and fuel	**12,500**	**Stock on 31st March 2003**	
Sales	**3,95,000**	**Raw materials**	**37,500**
Carriage inwards	**2,500**	**Work – in – progress**	**45,000**
Railway freight	**1,250**	**Finished goods**	**25,000**

Solution :

Manufacturing a/c of Hero Motors Co. for the year ended 31-3-2003

	Rs.	**Rs.**		**Rs.**	**Rs.**
To Opening stock		2,000	By Closing stock		
Raw materials	50,000		Raw materials	37,500	
Work-in-progress	37,500	87,500	Work-in-progress	45,000	82,500
To Purchases	1,25,000		By Manufacturing cost transferred to trading a/c		2,76,250
Less : returns	1,250	1,23,750			
To Productive wages		75,000			
To Coal & fuel		12,500			
To Carriage inwards		2,500			
To Railway freight		1,250			
To Repairs to machinery		3,750			

To Royalty		2,500			
To Factory insurance		3,750			
To Factory rent		46,250			
		3,58,750			**3,58,750**

Trading a/c for the year ended 31-3-2003

	Rs.		Rs.	Rs.
To Opening stock of finished goods	45,000	By Sales	3,95,000	
To Manufacturing cost transferred from Manufacturing a/c	2,76,250	Less : Returns	2,500	3,92,500
To Purchase of finished goods	50,000	By Closing stock of finished goods		25,000
To Gross profit transferred to profit & Loss a/c	46,250			
	4,17,500			4,17,500

5.3 PROFIT AND LOSS ACCOUNT

The Trading Account simply tells about the gross profit or loss made by a businessman on purchasing and selling of goods. It does not take into account the other operating expenses incurred by him during the course of running the business. All such expenses are charged to the Profit and Loss account. Besides this, a businessman may have other sources of income. For example, he may receive rent from some of his business properties. He may have invested surplus funds of the business in some securities. He might be getting interest or dividends from such investments. In order to ascertain the true profit or loss which the business has made during a particular period, it is necessary that all such expenses and incomes should be considered. Profit and loss Account considers all such expenses and incomes and gives the net profit made or loss suffered by a business during a particular period. It is generally prepared in the following form.

Profit and Loss Account
For the year ending ….
Dr. **Cr.**

Particulars	**Rs.**	**Particulars**	**Rs.**
To Gross Loss b/d *	X x x	By Gross Profit b/d*	X x x
To Salaries	X x x	By Discount received	X x x
To Rent	X x x	By Net loss transferred to Capital a/c	X x x
To Commission	X x x		
To Advertisements	X x x		
To Bad debts	X x x		
To Discount	X x x		
To Net profit transferred to Capital Account	X x x		

- Only one figure will appear

5.3.1 Important points regarding Profit and Loss Account :

1. **Gross profit or Gross Loss:** The figure of gross profit or gross loss is brought down from the Trading Account. Of course, there will be only one figure i.e., either of gross profit or gross loss.
2. **Salaries :** Salaries payable to the employees for the services rendered by them in running the business being of indirect nature are charged to the profit and loss account. In case of a partnership firm, salaries may be allowed to the partners. Such salaries will also be charged to the Profit and Loss Account.
3. **Salaries less Tax :** In case of employees earning salaries beyond a certain limit, the employer has to deduct at source income tax from the salaries of such employees. In such a case, the amount of gross salaries should be charged to the Profit and Loss Account, while the tax deducted by the employer will be shown as a liability in the balance sheet of the business till it is deposited with the Tax Authorities.
4. **Interest :** Interest on loans whether short term or long term is an expenses of an indirect nature and, therefore, is charged tot he Profit and Loss Account. However, interest on loans advanced by a firm to third parties is an item of income and therefore, will be credited to the Profit and Loss account.
5. **Commission :** Commission may be both an item of income as well as an item of expense. Commission on business brought by agents is an item of expenses while commission earned by the business for giving business to others is an item of income. Commission to agents is, therefore, debited to the Profit and Loss account while commission received is credited to the Profit and Loss account.
6. **Trade expenses :** Trade expenses are expenses of a miscellaneous nature. They are of small amounts and varied in nature and, therefore, it is not considered worthwhile to open separate accounts for each of such types of expenses. The term `` Sundry Expenses'', ``Miscellaneous Expenses'' or ``Petty Expenses'' have also the same meaning. They are charged to the Profit and Loss Account.
7. **Printing and Stationery :** This item of expenses includes expenses on printing of bills, invoices, registers, files, letter heads, ink, pencil, paper and other items of stationery etc. It is of an indirect nature and, therefore, charged to the Profit and Loss Account.
8. **Advertisement :** Advertisement expenses are incurred for attracting the customers to the shop and therefore, they are taken as selling expenses. They are debited to the Profit and Loss Account. However, advertisements expenses incurred for purchasing of goods should be charged to the Trading account, while advertisement expenses incurred for purchase of a capital asset (e.g. cost of insertion in a newspaper for purchase of car) should be taken as capital expenditure and debited to the concerned asset account. Similarly, advertisements expenditure incurred for sale of a capital asset should be deducted out of the sale proceeds of the asset concerned.
9. **Bad debts :** Bad debts denotes the amount lost from debtors to whom the goods were sold on credit. It is a loss, and therefore, should be debited to the Profit and Loss account.
10. **Depreciation :** Depreciation denotes decrease in the value of an asset due to wear and tear, lapse of time, obsolescence, exhaustion and accident. For example, a motor car purchased gets depreciated on account of its constant use. A property purchased on lease for Rs.12,000 for 12 years will depreciate at the rate of Rs.1,000 per year. On account of new inventions old assets become obsolete and they have to be replaced. Mines, etc., get

exhausted after the minerals are completely taken out of them. An asset may meet an accident and may lose its value. It is necessary that depreciation on account of all these factors is charged to the Profit and Loss account to ascertain the true profit or loss made by the business.

In case the total of the credit side of the Profit and Loss Account is greater than the debit side of the Profit and Loss account, the difference is termed as Net profit. In a reverse case, it will be termed as Net Loss. The amount of Net profit or Net loss shown by the Profit and Loss account will be transferred to capital account in case of sole proprietary form. In case of a partnership firm, the amount of net profit or net loss will be transferred to the partners' `capital accounts in the agreed ratio. In the absence of any agreement, the partners will share profits and losses equally.

5.3. 2 Importance of Profit and Loss Account :

The profit and loss account provides information regarding the following manner.

1. It provides information about the net profit or net loss earned or suffered by the business during a particular period. Thus, it is an index of the profitability or otherwise of the business.
2. The profit figure disclosed by the profit and loss account for a particular period can be compared with that of the other period. Thus, it helps in ascertaining whether the business is being run efficiently or not.
3. An analysis of the various expenses included in the Profit and Loss Account and their comparison with the expenses of the previous period or periods helps in taking steps for effective control of the various expenses.
4. Allocation of profit among the different periods or setting aside a part of the profit for future contingencies can be done. Moreover, on the basis of profit figures of the current and the previous period estimates about the profit in the year to come can be made. These projections will help the business in planning the future courses of action.

Illu.5 : From the following ledger balances prepare Trading, Profit and Loss account for the year ending 31-12-2000.

	Debit Rs.	Credit Rs.
Opening Stock (1-1-2000)	2,000	
Purchases	18,000	
Sales		21,000
Wages	300	
Carriage inwards	100	
Carriage outwards	150	
Sales returns	2,000	
Purchase returns		1,000
Salaries	2,400	
Rent	600	
Discount	50	
General expenses	500	
Commission		1,800

Closing stock as on 31-12-2000 for Rs.9,000.

Solution :

Trading, Profit & Loss a/c for the year ended 31-12-2000

	Rs.	Rs.		Rs.	Rs.
To Opening stock		2,000	By Sales	21,000	
To Purchases	18,000		Less : Returns	2,000	19,000
Less : Returns	1,000	17,000	By Closing stock		9,000
To Wages		300			
To Carriage inwards		100			
To Gross profit c/d		8,600			
		28,000			**28,000**
To Salaries		2,400	By Gross Profit b/d		8,600
To Rent		600	By Commission		1,800
To General expenses		500			
To Discount		50			
To Carriage outwards		150			
To Net profit (transferred to capital account)		6,700			
		10,400			**10,400**

Illu.6 : From the following Trial Balance of Ramamohan Rao as on 31-12-2003. Prepare Trading, Profit and Loss Account.

	Rs.		Rs.
Opening stock	**12,600**	**Sales**	**26,000**
Salaries, wages	**2,000**	**Purchase returns**	**200**
Carriage	**200**	**Discount received**	**300**
Sales returns	**500**	**Capital**	**8,000**
Trading expenses	**550**	**Creditors**	**900**
Rent	**250**	**Loan**	**2,000**
Plant	**2,500**		
Plant repairs	**450**		
Cash in hand	**300**		
Cash at bank	**1,000**		
Debtors	**5,150**		
Income tax	**600**		
Drawings	**900**		
Commission on purchases	**400**		
Purchases	**10,000**		
	37,400		**37,400**

Closing stock value as on 31-12-2003 Rs.3,000.

Solution :

Trading, Profit & Loss a/c of Rammohan Rao for the year ended 31-12-2003

	Rs.	Rs.		Rs.	Rs.

To Opening stock		12,600	By Sales	26,000	
To Purchases	10,000		Less : Returns	500	25,500
Less : Returns	200	9,800	By closing stock		3,000
To Carriage		200			
To Commission on purchases		400			
To Gross profit c/d		5,500			
		28,500			**28,500**
			By Gross profit b/d		5,500
To Salaries, wages		2,000	By Discount received		300
To Rent		250			
To Trading expenses		550			
To Plant repairs		450			
To Net profit (transferred to capital a/c)		2,550			
		5,800			**5,800**

Note :

1. Income tax and drawings are personal expenses and hence they are not to be shown in profit and loss a/c.
2. Drawings are to be deducted from capital on the liability side of the Balance Sheet.

Illu.7 :From the following trial balance prepare trading and profit and loss account for the year ended March 31st 2004.

	Debit Rs.	**Credit Rs.**
Capital		**7,610**
Cash in hand	**30**	
Purchases	**8,990**	
Sales		**11,060**
Cash in bank	**885**	
Fixtures and Fittings	**225**	
Freehold premises	**1,500**	
Lighting and heating	**65**	
Bills Receivable	**825**	
Returns inwards	**30**	
Salaries	**1,075**	
Creditors		**1,950**
Debtors	**5,700**	
Stock at January 1st, 1997	**3,000**	
Printing	**225**	
Bills Payable		**1,875**
Rates, Taxes and Insurance	**190**	
Discounts received		**445**
Discounts allowed	**200**	
	22,940	**22,940**

Closing stock on 31st March 2004 was valued at Rs.1,800.

Solution :

Trading, Profit & Loss a/c for the year ended 31-3-2004

	Rs.		Rs.	Rs.
To Opening stock	2,000	By Sales	11,060	
To Purchases	8,990	Less : returns	30	11,030
To Gross profit c/d	840	By closing stock		1,800
	12,830			**12,830**
To Salaries	1,075	By Gross profit		840
To Light, Heat	65	By Discount		445
To Printing	225	By Net loss – transferred to capital a/c		470
To Rates, taxes, insurance	190			
To Discount allowed	200			
	1,755			**1,755**

5.4 SELF ASSESSMENT QUESTIONS

1. What are financial statements?
2. What is a trading account?
3. What do you meant by direct expenses?
4. Distinguish between capital and revenue expenditure
5. Distinguish between capital and revenue income
6. What is Profit & Loss account?
7. Explain the important points to be followed in the preparation of trading and profit & loss account.

5.5 EXERCISES

1. From the following information, prepare the final accounts for the year ending 31-3-06.

	Rs.		Rs.
Cash in hand	7,000	Furniture	2,500
Building	4,000	Capital	60,000
Drawings	4,000	Wages	8,000
Creditors	33,000	Debtors	30,000
Bad debts	1,000	Misc. Expenses	700
Postage & Telegram	400	Insurance	2,200
Printing	1,500	Discount received	1,000
Discount allowed	2,000	Rent & Rates	4,500
Carriage	3,000	Stock	18,000
Returns outward	2,300	Returns inward	1,500
Purchases	70,000	Sales	1,00,000
Outstanding expenses	1,000	Bills Payable	4,000

Stock on 31-3-06 Rs.26,000.
[Ans.: Gross Profit Rs.27,800, Net Profit Rs.16,500]

2. From the following information, prepare the final accounts for the year 2006.

Dr. Balances	Rs.	Cr. Balances	Rs.
Cash at Bank	7,000	Sundry Creditors	30,000
Sundry Debtors	60,000	Discount	1,000
Plant & Machinery	50,000	Returns	4,000
Cash in hand	1,000	Sales	1,50,000
Advertising	6,000	Capital	56,000
Rent, Rates & Taxes	5,000		
Bank Charges	500		
Discount	2,000		
Stock	20,000		
Returns	5,000		
Purchases	70,000		

Stock as on 31-12-1996 Rs.31,000.

[Ans.: Gross Profit Rs.81,000, Net profit Rs.63,000]

3. From the following information, prepare the final accounts for the year 2006:

Dr. Balances	Rs.	Cr. Balances	Rs.
Furniture	15,000	Bills payable	20,000
Carriage	9,000	Sales	2,20,000
Bad Debts	5,000	Returns	7,000
Manufacturing Expenses	7,000	Creditors	50,000
Bills receivable	12,000	Capital	1,89,000
Rent	10,000		
Stock	45,000		
Repairs	8,000		
Salaries	30,000		
Cash at Bank	10,000		
Cash in hand	5,000		
Wages	40,000		
Returns	10,000		
Purchases	1,10,000		
Debtors	70,000		
Plant & Machinery	80,000		
Drawings	20,000		

Stock as on 31-12-2006 Rs.51,000

[Ans.: Gross Profit Rs.57,000, Net profit Rs.4,000]

5.7 SUGGESTED BOOKS

1. Agarwala, A.N., Amitabha Mukherjee, Mohammed Hanif, **Principles and Practice of Accountancy,** Kitab Mahal Agencies, New Delhi.
2. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
3. Chopde, L.N., & Choudhari, D.H., **Accountancy,** Sheth Publishers, Pune
4. Jain, S.P., Narang, K.L., **Accoutancy, Part - I,** Kalyani Publishers

5. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005

6. Pillai, R.S.N., Bagavathi, Uma, S., **Fundamentals of Advaned Accounting (Vol.I)** S. Chand & Company Ltd., New Delhi, 2006

7. Shukla, M.C., Grewal, T.S., Gupta, S.C., **Advanced Accounts (Volume I)** S. Chand & Company Limited, New Delhi, 2005

8. Tulsian, P.c., **Accountancy** Tata McGraw-Hill Publishing Company Limited, New Delhi.

Chapter – 6

PREPARATION & ANALYSIS OF BALANCE SHEET

6.0: Objective :

After study of this unit we should be able to

- Understand the meaning of balance sheet
- Know the methods in the preparation of balance sheet

Structure :

6.1 Introduction
6.2 Arrangement of Assets and Liabilities
6.3 Important points regarding to Balance Sheet
6.4 Need for Adjustments in Final Accounts
6.5 Adjustments in Final Accounts
6.6 Self Assessment Questions
6.7 Exercises
6.8 Suggested Readings

6.1 INTRODUCTION

Having prepared the Trading and profit and loss account, a businessman will like to know the financial position of his business. For this purpose, he prepares a statement of his assets and liabilities as on a particular date. Such a statement is termed as ``Balance Sheet''. Thus, Balance Sheet is not an account but only a statement containing the assets and liabilities of a business on a particular date. It is, as a matter of fact, a classified summary of the various remaining accounts after accounts relating to Incomes and Expenses have been closed off by Transfer to Manufacturing, Trading and Profit and Loss account.

Balance sheet has two sides. On the left hand side, the liabilities of the business are shown while on the right had side the assets of the business appear. These two terms have been explained later in the chapter.

It will be useful here to quote definitions of the Balance Sheet given by some prominent writers. According to Palmer, ``The Balance sheet is a statement at a given date showing on one side the trader's property and possessions and on the other hand his liabilities.'' According to Freeman, ``A Balance Sheet is an itemised list of the asset, liabilities and proprietorship of a business of an individual at a certain date. The definition given by the American Institute of Certified Public Accountants makes the meaning of Balance Sheet more clear. According to it, Balance Sheet is ``a list of balance in the assets and liability accounts. The list depicts the position of assets and liabilities of a specific business at a specific point of time.

6.2 ARRANGEMENT OF ASSETS AND LIABILITIES

There is no prescribed form of Balance Sheet for a sole proprietary and partnership concern. However, the assets and liabilities may be shown in any of the following order.

1. Liquidity Order
2. Permanency Order

1. **Liquidity Order :** In case a concern adopts liquidity order, the assets which are more readily convertible into cash come first and those which cannot be so readily converted come next and so on. Similarly, those liabilities which are payable first come first, and those payable later on come next and so on. A proforma of Balance Sheet according to liquidity order is given below.

Balance Sheet as on…..

Liabilities	**Rs.**	**Assets**	**Rs.**
Bank overdraft	X x x	Cash in hand	X x x
Outstanding expenses	X x x	Cash at bank	X x x x
Bills payable	X x x	Prepaid expenses	X x x
Sundry Creditors	X x x	Bills receivable	X x x
Long term loans	X x x	Sundry Debtors	X x x
Capital	X x x	Closing stock	X x x
		Furniture	X x x
		Plant and Machinery	X x x
		Buildings	X x x
		Land	X x x
		Goodwill	X x x
	X x x		**X x x**

2. **Permanency order :** In case of permanency order, assets which are more permanent come first, less permanent come next and so on. Similarly, liabilities which are more parmanent come first, less permanent come next and son. In other words, an asset will be sold in the last or a liability which will be paid the last come first and that order is followed both for all assets and liabilities In case a Balance Sheet is to be prepared according to permanency order, arrangement of assets and liabilities will be reversed than what has been shown above in case of liquidity order. Arrangement of assets according to any of these orders is also termed as `Marshalling of Assets and Liabilities.

6.3 IMPORTANT POINTS REGARDING BALANCE SHEET

1. **Liabilities :** The term `Liabilities' denote claims against the assets of a firm whether those of owners of the business or of the creditors. As a matter of fact, the term `Equity is more appropriate than the term liabilities. This is supported by the definition given by American Accounting Association. According to this association, liabilities are `Claims' of the creditors against the enterprise arising out of past activities that are to be satisfied by the disbursement or utilisation of corporate resources. While the term `equity' stands both for owners equity (owners claims) as well as the outsiders equity (outsiders claims). However, for the sake of convenience, we are using the term `Liabilities' for purpose of this book.

   Liabilities can be classified in two categories.
   1. Current Liabilities and
   2. Long term or Fixed Liabilities.

   (i) Current Liabilities : The term `Current liabilities' is used for such liabilities which are payable within a year from the date of the Balance Sheet either out of current assets or by creation of new current liabilities. The broad categories of current liabilities are as follows.

   (a) Accounts payable i.e., bills payable and trade creditors

(b) Outstanding expenses i.e., expenses for which services have been received by the business but for which payment has not been made.
(c) Bank overdraft
(d) Short-term loans, i.e., loan from Bank which are payable within one year from the date of the Balance Sheet.
(e) Advance payments received by the business for the services to be rendered or goods to be supplied in future.

(ii) **Fixed Liabilities :** All liabilities other than current liabilities come within this category. In other words, these are liabilities which do not become due for payment in one year and which do not require current assets for their payment.

2. Assets : The term ``Assets'' denotes the resources required by the business from the funds made available either by the owners of the business or others. It thus includes all rights of properties which a business owns Cash, investments, bills receivable, debtors, stock of raw materials, work in progress and finished goods, land, buildings, machinery, trade marks, patents, rights etc., are some examples of assets. Assets may be classified into the following categories.

(a) Current assets : Current assets are those assets which are acquired with the intention of converting them into cash during the normal business operations of the company. According to Grady, ``the term Current assets used to designate cash and other assets or resources commonly identified as those which are reasonably expected to be realised in cash or sold during the normal operating cycle of the business. Thus the term current assets include cash and bank balances, stocks of raw materials, work-in-progress and finished goods, debtors, bills receivable, short-term investments, prepaid expenses etc.
(b) Liquid Assets : Liquid assets are those assets which are immediately convertible into cash without much loss. Liquid assets are a part of current assets. In computing liquid assets, stocks of raw materials, work-in-progress and finished goods and prepaid expenses are excluded while all other current assets are taken.
(c) Fixed Assets : Fixed Assets are those assets which are acquired for relatively long periods for carrying on the business of the enterprise. They are not meant for resale. Land and buildings, machinery, furniture are some of the examples of Fixed assets. Sometimes, the words Block Capital is also used for them.
(d) Intangible assets : Intangible assets are those assets which cannot be seen and touched. Goodwill, patents, trade marks etc., are some examples of intangible assets.
(e) Fictitious Assets : These are assets not represented by tangible possession or property. Examples of such assets are : formation expenses incurred for establishing a business such as, registration charges paid to the registrar of a joint stock company for getting a company incorporated, discount on issue of shares, debit balance in the profit and loss account when shown on the assets side in case of a joint stock company etc.

Ilu.1 : From the following balances prepare Trial Balance as on 31-12-2003. Prepare Trading and Profit and Loss Account for the above year ended and Balance Sheet as on that date.

	Rs.		Rs.
Rajakumar 's capital	**15,000**	**Opening stock (1-1-2003)**	**15,000**
Drawings	**3,000**	**Purchases**	**60,000**
Furniture, Fittings	**500**	**Sales**	**80,000**

Typewriters	**1,000**	**Purchase returns**	**500**
Cycles	**250**	**Sales returns**	**1,000**
Debtors	**15,000**	**Carriage inwards**	**750**
Creditors	**13,500**	**Carriage outwards**	**1,250**
Rent	**2,500**	**Rates, Taxes**	**600**
Salaries	**3,600**	**Cash in hand**	**2,425**
Discount allowed	**425**	**General expenses**	**1,800**

Closing stock on 31-12-2003 Rs.11,000.

Solution :

Trial balance of Raj Kumar as on 31-12-2003

	Rs.		**Rs.**
Drawings	3,000	Capital	15,000
Furniture, fittings	500	Creditors	13,500
Typewriters	1,000	Sales	80,000
Cycle	250	Purchase returns	500
Debtors	15,000		
Rent	2,400		
Salaries	3,600		
Discount allowed	425		
General expenses	1,800		
Opening stock (1-1-2003)	15,000		
Purchases	60,000		
Sales returns	1,000		
Carriage inwards	750		
Carriage outwards	1,250		
Rates, taxes	600		
Cash in hand	2,425		
	1,09,000		**1,09,000**

Trading, Profit & Loss a/c of Raj Kumar for the year ended 31-12-003

	Rs.	**Rs.**		**Rs.**	**Rs.**
To Opening stock		15,000	By Sales	80,000	
To Purchases	60,000		Less : returns	1,000	79,000
Less : Returns	500	59,500	By Closing Stock		11,000
To Carriage inwards		750			
To Gross profit c/d		14,750			
		90,000			**90,000**
To Salaries		3,600	By Gross profit b/d		14,750
To Rent		2,400			
To Discount allowed		425			
To General expenses		1,800			
To Carriage outwards		1,250			
To Rates, taxes		600			
To Net profit transferred to capital a/c		4,675			
		14,750			**14,750**

Balance Sheet of Raj Kumar as on 31-12-2003

	Rs.	Rs.		Rs.	Rs.
Creditors		13,500	Cash in hand		2,425
Capital	15,000		Debtors		15,000
Add : Net profit	4,675		Stock		11,000
	19,675		Furniture, Fittings		500
Less : Drawings	3,000	16,675	Typewriters		1,000
			Cycle		250
		30,175			**30,175**

Illu.2 : From the following trail balance of Rao and Bors. Preparing Trading and Profit and Loss account for the year ended 31st , 2002 and Balance Sheet as on that date.

Trial Balance of Rao & Bros. As on 31-12-2002

	Debit Rs.		Credit Rs.
Debtors	**12,000**	**Creditors**	**7,900**
Drawings	**2,900**	**Capital**	**30,000**
Rent, Taxes	**250**	**Sales**	**14,290**
Trade expenses	**670**	**Purchases returns**	**280**
Purchases	**8,640**	**Discount received**	**240**
Sales returns	**190**		
Carriage inwards	**250**		
Wages	**2,920**		
Salaries	**1,200**		
Stock (1-1-2002)	**3,100**		
Discount allowed	**180**		
Bad debts	**200**		
Plant, Machinery	**2,510**		
Furniture, Fittings	**1,800**		
Cash in hand	**500**		
Cash at Bank	**15,400**		
	52,710		**52,710**

Closing stock as on 31-12-2002 Rs.14,220.

Solution :

Trading and Profit & Loss a/c of Rao & Bros. , for the year ended 31-3-2004

	Rs.	Rs.		Rs.	Rs.
To Opening stock		3,100	By Sales	14,290	
To Purchases	8,640		Less : Returns	190	14,100
Less : Returns	280	8,360	By Closing stock		14,220
To Wages		2,920			
To Carriage inwards		250			
To Gross profit c/d		13,690			
		28,320			**28,320**
To Salaries		1,200	By Gross profit b/d		13,690
To Rent, Taxes		250	By Discount received		240
To Trade expenses		670			

To Discount allowed		180			
To Bad debts		200			
To Net profit (transferred to capital a/c)		11,430			
		13,930			**13,930**

Balance Sheet of Rao & Bros. as on 31-12-2004

Liabilities	**Rs.**	**Rs.**	**Assets**		**Rs.**
Creditors		7,900	Cash in hand		500
Capital	30,000		Cash at bank		15,400
Add : Net profit	11,430		Debtors		12,000
	41,430		Closing stock		14,220
Less : Drawings	2,900	38,530	Furniture, Fittings		1,800
			Plant, Machinery		2,510
		46,430			**46,430**

Illu.3 : From the following Trial Balance prepare Trading and profit and Loss account for the year ended 31st March, 2004 and balance sheet as on that date.

	Rs.		**Rs.**
Machinery	**30,000**	**Capital**	**1,00,000**
Stock (1-4-2003)	**16,000**	**Sales**	**2,03,600**
Wages	**50,000**	**Creditors**	**12,500**
Carriage	**500**	**Purchase returns**	**2,000**
Salaries	**5,000**	**Discount received**	**250**
Factory rent	**2,400**	**Bills payable**	**8,500**
Repairs	**400**		
Fuel, power	**2,500**		
Furniture	**5,500**		
Buildings	**40,000**		
Debtors	**20,000**		
Purchases	**1,22,000**		
Sales returns	**3,600**		
Drawings	**2,000**		
Discount allowed	**750**		
Office expenses	**1,000**		
Manufacturing expenses	**600**		
Bills receivable	**5,000**		
Cash in hand	**2,400**		
Cash at Bank	**15,400**		
Office rent	**1,800**		
	3,26,850		**3,26,850**

Closing stock as on 31-3-2004 Rs.20,000.

Solution

Trading, Profit & Loss a/c
for the year ended 31-3-2004

	Rs.	Rs.		Rs.	Rs.
To Opening stock		16,000	By Sales	2,03,600	
To Purchases	1,22,000		Less : Returns	3,600	2,00,000
Less : Returns	2,000	1,20,000	By Closing stock		20,000
To Carriage inwards		500			
To Fuel, Power		2,500			
To Wages		50,000			
To Factory rent		2,400			
To Manufacturing expenses		600			
To Gross profit c/d		28,000			
		2,20,000			**2,20,000**
To Salaries		5,000	By Gross profit b/d		28,000
To Repairs		400	By Discount allowed		250
To Discount allowed		750			
To Office expenses		1,000			
To Office rent		1,800			
To Net Profit (transferred to capital a/c)		19,300			
		28,250			**28,250**

Balance Sheet as on 31st March, 2004

Liabilities	**Rs.**	**Rs.**	**Assets**	**Rs.**
Creditors		12,500	Cash in hand	2,400
Bills payable		8,500	Cash at Bank	15,400
Capital	1,00,000		Bills receivable	5,000
Add : Net profit	19,300		Debtors	20,000
	1,19,300		Closing stock	20,000
Less : Drawings	2,000	1,17,300	Furniture	5,500
			Machinery	30,000
			Buildings	40,000
		1,38,300		**1,38,300**

Illu.4 : From the following trial balance of M/s Jairaj & Co. prepare Trading and profit and Loss Account for the year ending 31st March 2004 and Balance Sheet as on that date.

	Debit Rs.	**Credit Rs.**
Stock (1-4-2003)	**20,000**	**-**
Purchases	**80,000**	**-**
Sales	**-**	**1,15,000**
Returns inward	**15,000**	**-**
Returns outward	**-**	**10,000**

Carriage inwards	**7,000**	**-**
Carriage outwards	**8,000**	**-**
Wages	**10,000**	**-**
Salaries	**12,000**	**-**
Rent	**7,000**	**-**
Drawings	**10,000**	**-**
Capital	**-**	**69,000**
Interest Received	**-**	**7,000**
Investments	**30,000**	
Cash	**5,000**	**-**
Bank	**8,000**	**-**
Debtors	**12,000**	**-**
Creditors	**-**	**15,000**
Bills Payable	**-**	**5,000**
Commission Received	**-**	**3,000**
	2,24,000	**2,24,000**

Closing stock on March 31, 2004 was valued at Rs.19,000.

Solution :

Trading, Profit & Loss a/c Jai raj & Co.
for the year ended 31-3-2004

	Rs.	Rs.		Rs.	Rs.
To Opening stock		20,000	By Sales	1,15,000	
To Purchases	80,000		Less : Returns	15,000	1,00,000
Less : Returns	10,000	70,000	By Closing Stock		19,000
To Wages		10,000			
To Carriage inward		7,000			
To Gross profit c/d		12,000			
		1,19,000			**1,19,000**
To Salaries		12,000	By Gross profit b/d		12,000
To Carriage outwards		8,000	By Interest received		7,000
To Rent		7,000	By Commission received		3,000
			By Net Loss (transferred to capital a/c)		5,000
		27,000			**27,000**

Balance Sheet of Jai Raj & Co. as on 31st March, 2004

Liabilities	**Rs.**	**Rs.**	**Assets**	**Rs.**
Creditors		15,000	Cash	5,000
Bills payable		5,000	Bank	8,000
Capital	69,000		Debtors	12,000
Less : Drawings	10,000		Stock	19,000
	59,000		Investments	30,000
Less : Net Loss	5,000	54,000		
		74,000		**74,000**

6.4. NEED FOR ADJUSTMENTS IN FINAL ACCOUNTS

After ascertaining the arithmetical accuracy of the books of accounts by preparing a Trial balance, a trader has to ascertain the results of his business activities and the financial position of the organisation. For this purpose he has to prepare a Trading and profit and loss account and a balance sheet. Final accounts (i.e., the Trading and profit and loss account and balance sheet) are prepared on the basis of a trial balance. But the trial balance is not the complete tool for the purpose of preparation of final accounts. The trial balance contains only those items, which have been recorded in the books of accounts. It does not consider the items such as expenses payable, income receivable, expenses paid in advance and income received in advance, non cash items such as depreciation on asset, interest on capital, interest on drawings, anticipated loses such as reserve for bad debts, reserve for discount on debtors etc. Unless these items are considered and given effect, the final accounts cannot disclose a true and fair view of the organisation. Hence, necessary adjustments about the above items should be made.

6.4.1. Meaning of Adjustments :

Adjustments in final accounts mean bringing into accounts the items which have not been included in the trial balance It means bringing into account the expenses incurred but not paid, income earned but not actually received, depreciation on assets, interest on capital, interest on drawings, reserve for bad debts, reserve for discount on debtors and anticipated gains like reserve for discount on creditors.

6.4.2. Adjustment Entries :

Various adjustments in Trading and profit and loss account and Balance sheet are made by means of journal entries. Journal entries passed for adjustments at the end of the year are called adjustment entries. All the adjustment entries are passed in the journal proper.

6.5 ADJUSTMENTS IN FINAL ACCOUNTS :

The following are usual items of adjustments which require adjustments while preparing Trading and Profit and Loss Account and Balance Sheet.

1. Outstanding expenses
2. Prepaid expenses
3. Outstanding income
4. Income received in advance
5. Depreciation on assets
6. Treatment of bad debt, provision for doubtful debts and provision for discount
7. Provision for bad debts
8. Provision for discount on debtors
9. Provision for discount on creditors
10. Interest on Drawings
11. Interest on capital
12. Closing Stock

6.5.1 Outstanding Expenses :

Expenses which are incurred during the year but not paid, are called ``outstanding or unpaid expenses''. Such unpaid expenses must be considered, otherwise the profit will be overstated. Outstanding expenses must be duly accounted for because the parties who have

given services have claim against the business and hence these become the liabilities at the end of the year.

For example, office rent due for the month of December is not paid in the same month, it will be outstanding rent for the month of December. Office rent outstanding is a liability and must be shown in the Balance sheet and the amount due for Office rent will be transferred to the Profit and Loss account. Next year, when this due amount will be paid off, office rent outstanding account will be debited and cash account credited.

6.5.2. Prepaid Expenses :

When an expenses is paid in advance, and the benefit of the amount paid will be available in the next year, it is called prepaid expenses. Such expenses are shown in the Balance Sheet as an asset. Such expenses are paid during the year but not incurred..

6.5.3. Outstanding Income :

The income which is earned but not yet received in cash during the year is called as an outstanding income. Such incomes, which are earned in the current year should be credited to the Profit and Loss Account and as the amount is yet to be received, it will be transferred to the Balance Sheet on the assets side. For example, the commission earned in the month of December, 2005, but received as yet, will be outstanding incomes for the year ending 31st December, 2005. The original amount of commission shown in the Trial balance will be increased by the amount of commission receivable. Next year, when the amount due on commission will be received, it will be credited by debiting the cash account.

6.5.4. Income received in Advance :

Sometimes, a trader receives the amount of income in advance before rendering the full service. Such incomes should not be transferred to the credit side of the profit and loss account. The portion of such income is deducted from the income concerned and it is treated as liability. For example, during the year ended 31st March, 2006, the total amount received as Rent is Rs.650, out of which Rs.50 are related to the next months of April, 2006. In this case, Rent for the year ended 31st march, 2006 will be only (Rs.650 – 50) = Rs.600 and Rs.50 will be shown in the Balance Sheet as liability. Next year, rent received in advance account will be transferred to Rent (received account).

6.5.5. Depreciation :

The assets become useless after some time by continuous usage. Every fixed asset has a definite period of utility to the business. The value of an asset goes on decreasing year by year. Such a loss in value is known as depreciation. It is an invisible loss, but must be shown in the profit and loss account each year as long as the asset is in use. And the asset must be shown in the Balance sheet at its reduced value. Generally, the depreciation is charged on the basis of the life of the asset. One thing should be noted that, depreciation is charged only on fixed assets, and not on floating assets, because floating assets are not held by the business for a long time.

6.5.6. Bad debts :

A businessman has to sell goods on credit also in order to increase sales. In credit sales, goods are delivered to the customers immediately and cash is received from the debtors after a certain period. Hence, there is a risk of loss due to bad debt. It is likely that some customers may not pay their dues for one or the other reason. Thus, the debt due from customers becomes bad for recovery. Bad debt is the irrecoverable debt from customers. Bad debt is a

loss to business. It reduces profits. It is a nominal account. Hence, it is placed on debit side of Profit and Loss account.

Sundry Debtors : It represents the total debt due from various parties on account of sale of goods on credit.

Provision for Doubtful debts : The term `doubtful debts' suggests that the debt may be recovered or may not be recovered. It is rather doubtful about recovery of such debt. Under such a circumstances, it cannot be considered as bad. At the same time, it cannot be considered good for recovery. If all such debtors are treated as good and shown in the balance sheet, it will amount to showing the assets at a higher value. The profit and loss account also will not show true position. The profit will be overstated. On other hand, if all such debts are shown as bad the profit will be understated and the balance sheet will not show true position as the debtors will be understated. Hence, it is necessary to show the position which is very close to the correct position. This can be done by providing for doubtful debts. The amount of doubtful debt provision is estimated on the basis of past experience. A certain percentage of debt is treated as doubtful and accordingly provided for while preparing financial statement. The amount thus provided for is called ``Provision for doubtful debts''. There is a distinction between provision for doubtful debts and reserve for doubtful debts. A provision is interpreted as the amount retained by way of providing for a known liability. The amount of such provision cannot be determined with substantial accuracy. The term `reserve is interpreted as, the amount retained for known liability which is in excess of the necessary amount. The amount which is in excess of the required amount is referred to as a `reserve;. However, for the purpose of accounting the above distinction is ignored as the distinction does not materially affect accounting treatment.

6.5.7. Provision for Discount on Debtors :

In business, a proprietor may be required to allow discount to debtors if they pay their dues before the due dates. The discount allowed would be a loss to business and it is in connection with the debtors created during the year. Hence, it is quite advisable to make a provision for such discount by charging the profit and loss account. Such a provision is called as ``Provision for discount on debtors.''

6.5.8. Bad debts recovery :

After writing off bad debts, it is quite likely that some debtors may pay their dues which have been written off as bad. The amount received from debtor against such bad debts written off is called as `Bad debts Recovery'' The amount received is credited to Bad debts Recovery Account.

6.5.9. Reserve or provision for discount on Creditors :

As the trader allows a cash discount to his debtors he may also receive a cash discount from him creditors if he makes the payment during the stipulated period. As such, the trader may receive the cash discount from his creditors which can be estimated. Thus, the cash discount likely to be received from creditors is estimated and a provision is made for discount on creditors. Such a provision is called as `Provision or Reserve for Discount on Creditors.''.

A Discount received from creditors is a gain, and it is transferred to the credit of the Profit and Los Account. A reserve for discount on creditors is created by debiting such a Reserve Account and crediting the profit and loss account. The debit balance of Reserve for discount on creditors is shown in the Balance Sheet by subtracting it from sundry creditors.

The actual amount of discount received is credited to the Discount Received Account and debited to the Creditors personal account. At the end of the year, the total amount of Discount received is transferred to the credit side of Reserve for Discount on Creditors Accounts . Then, a new estimate is made regarding the Discount receivable from Sundry Creditors by crediting the Profit and Loss Account.

6.5.10 Interest on Drawings :

Drawings denotes the money withdrawn by the proprietor from the business for his personal use. It is usual practice to charge interest on drawings in case interest is allowed to the proprietor on his capital. In case of a partnership firm, interest on drawings will be charged on the drawings made by each partner.

Computation of Interest on drawings : There is a difference between the method of computation of interest on capital and interest on drawings. In most cases interest on capital is charged on the opening balance in the capital account. However, in case of additional capital introduced during the year by the proprietor, interest may be charged from the date of introducing additional capital till the end of the accounting period. Since the interest is to be charged on the amount withdrawn by the proprietor from the date on which he withdrew the amount from the business till the end of the accounting period, it requires computation of interest on each with

6.5.11. Closing Stock :

Stock remaining unsold at the end of the accounting year is called ``Closing stock''. Closing stock has to be taken into account while preparing final accounts. Unless it is taken into account Trading and profit and loss account and balance sheet will not disclose a true and fair view of the state of affairs of the business concern. Closing stock is credited to Trading Account and shown in the Balance Sheet on the Assets side.

Illu.5 : From following Trial Balance of Swaroop, prepare Trading and Loss account for the year ended 31st March 2006 and a Balance sheet as on that date.

Debit Balances	***Rs.***	***Credit Balances***	***Rs.***
Stock	**45,000**	**Capital**	**75,000**
Plant and machinery	**75,000**	**Sales**	**4,20,750**
Purchases	**2,25,000**	**Sundry Creditors**	**15,000**
Trade expenses	**10,000**	**Bad debts provision**	**200**
Carriage inwards	**2,500**	**Bills payable**	**2,000**
Carriage outwards	**1,500**		
Factory rent	**1,500**		
Discount	**350**		
Insurance	**700**		
Sundry debtors	**60,000**		
Office rent	**3,000**		
Stationery	**600**		
Salaries	**17,800**		
Advertising	**15,000**		
Bills receivable	**6,000**		
Drawing	**6,000**		
Wages	**20,000**		

Furniture	**7,500**		
Coal and gas	**1,000**		
Cash in hand	**2,000**		
Cash at Bank	**12,500**		
	5,12,950		**5,12,950**

Adjustments :

a. **Closing stock amounted to Rs. 35,000**
b. **Depreciate Machinery by 10% and Furniture by 5%**
c. **Raise the Bad debts provision to 5% on Debtors**
d. **Outstanding Factory rent Rs.300 and Office rent Rs. 600**
e. **Insurance prepaid Rs.100.**

Solution :

Trading Profit & Loss Account of
Dr. **Swaroop for the year ending 31.3.2006** **Cr.**

To Opening Stock		45,000	By Sales	4,20,750
To Purchase		2,25,000	By Closing Stock	35,000
To Wages		20,000		
To Coal and Gas		1,000		
To Carriage Inwards		2,500		
To Factory Rent	1,500			
Add outstanding	300	1,800		
To Gross profit c/d		1,60,450		
		4,55,750		**4,55,750**
To Salaries		17,800	By Gross profit b/d	1,60,450
To Advertising		15,000		
To Stationary		600		
To Office Rent	3,000			
Add outstanding	600	3,600		
To Insurance	700			
Less Prepaid	100	600		
To Discount		350		
To Carriage outwards		1,500		
To Trade expenses		10,000		
To Depreciation				
Machinery	7,500			
Furniture	375	7,875		
To Provision for Bad Debts		2,800		
To Net Profit transferred to capital		1,00,325		
		1,60,450		**1,60,450**

Balance sheet of Swaroop as on 31-3-2006

Liabilities	***Rs.***	***Assets***	***Rs.***
Sundry creditors	15,000	Cash in Hand	2,000
Bills payable	2,000	Cash at Bana	12,500
Outstanding		Bills receivable	6,000
Factory rent 300		Debtors 60,000	
Office rent 600	900	Less P.B.D. 3,000	57,000
Capital 75,000		Closing Stock	35,000
Add Net Profit 1,00,325		Plant & Machinery 75,000	
1,75,325		Less Deprecia 7,500	67,500
Less Drawings 6,000	1,69,325	Furniture 7,500	
		Less Deprecia. 375	7,125
		Prepaid Insurance	100
	1,87,225		**1,87,225**

Existing Rs. 200+ New Rs. 2,800= Rs.3,000.

Illu.6 : From following Trial Balance, prepare Trading, Profit and Loss account for the year ended 31-12-2006 and the Balance Sheet as on that date:

Debit Balances	***Rs.***	***Credit Balances***	***Rs.***
Chandra Sekhar's drawing	**4,500**	**Chandra Sekhar's Capital**	**24,000**
Purchases	**20,000**	**Sales**	**30,500**
Returns inwards	**1,500**	**Discounts**	**1,900**
Opening Stock	**8,000**	**Sundry Creditors**	**10,000**
Salary	**4,200**	**Bills payable**	**2,500**
Wages	**1,200**		
Rent	**350**		
Bad debts	**400**		
Discounts	**700**		
Sundry debtors	**14,000**		
Cash in hand	**260**		
Cash at Bank	**5,940**		
Insurance	**400**		
Trade expenses	**300**		
Printing	**150**		
Furniture	**2,000**		
Machinery	**5,000**		
	68,900		**68,900**

Adjustments :

a. **Closing Stock Rs. 7,000**
b. **Insurance pre – paid Rs. 60**
c. **Outstanding salary Rs. 200 and wages Rs. 200**
d. **Make provision for doubtful debts at 5% on Sundry debtors**
e. **Calculate interest on capital at 5% p.a.**

f. **Depreciate Machinery at 5% and Furniture at 10%**
g. **Reserve for discount on creditors at 1%.**

Solution :

Dr. Trading and Profit and Loss Account as on 31-12-2006 Cr.

	Rs.	Rs.		Rs.	Rs.
To Opening Stock		8,000	By Sales	30,500	
To Purchases		20,000	Less Returns	1,500	29,000
To Wages	1,200		By Closing Stock		7,000
Add Outstanding	200	1,400			
To Gross Profit c/d		6,600			
		36,000			**36,000**
To Salary	4,200		By Gross profit b/d		6,600
Add outstanding	200	4,400	By Discounts		1,900
To Rent		350	By Discount reserve on Creditors		100
To Bad debts		400	By Net loss – transfer to capital		390
To Discount		700			
To Insurance	400				
Less pre-paid	60	340			
To Trade expenses		300			
To Printing		150			
To Provision for Doubtful debts		700			
To Interest on Capital		1,200			
To Depreciation c/d					
Machinery 5%		250			
Furniture 10%		200			
		8,990			**8,990**

Balance Sheet as on 31-12-2006

Liabilities		***Rs.***	***Assets***		***Rs.***
Bills payable		2,500	Cash in Hand		260
Sundry Creditors	10,000		Cash at bank		5,940
Less Discount reserve	100	9,900	Sundry Debtors	14,000	
Outstanding salary		200	Less provision	700	13,300
Wages		200	Closing Stock		7,000
Capital	24,000		Furniture	2,000	
Add Interest	1,200		Less Depreciation	200	1,800
Less Net Loss	25,200 390		Machinery	5,000	
Less Drawings	24,810 4,500	20,310	Less Depreciation	250	4,750
			Prepaid Insurance		60
		33,110			**33,110**

Illu.7 : From the following Trial Balance of Ravi prepare final accounts for the year ending 31-3-2006.

	Rs.		Rs.
Drawings	**4,500**	**Capital**	**24,000**
Purchases	**20,000**	**Sales**	**30,500**
Returns inwards	**1,500**	**Discounts**	**1,900**
Stock (1-4-2005)	**8,000**	**Creditors**	**10,000**
Salary	**4,200**	**Bills payable**	**2,500**
Wages	**1,200**		
Rent	**350**		
Bad debts	**400**		
Discounts	**700**		
Debtors	**14,000**		
Cash	**6,200**		
Insurance	**300**		
Printing	**150**		
Furniture	**2,000**		
Machinery	**5,000**		
	68,900		**68,900**

Adjustments:

a) **Closing Stock : Rs.7,000**
b) **Prepaid insurance : Rs.60**
c) **Outstanding salary: Rs.500; wages Rs.200**
d) **Make a provision for doubtful debts at 5% on debtors.**
e) **Calculate interest on capital at 5% and on drawings at 6%.**
f) **Depreciate machinery at 5% and furniture at 10%.**

Solution :

Trading and Profit and loss a/c of
for the year ending 31-3-2006

Dr. **Cr.**

	Rs.		Rs.
To Opening stock	8,000	By Sales 30,500	
To Purchases	20,000	**Less:** Sales returns 1,500	29,000
To Wages 1,200		By Closing stock	7,000
Add: O/s 200	1,400		
To Gross Profit (transferred to Profit & Loss a/c)	6,600		
	36,000		**36,000**
To Salary 4,200		By Gross profit	6,600
Add: O/s 500	4,700	By Discount	1,900
To Rent	350	By Interest on drawings (45,000 x 6%)	270
To Bad debts	400	By Net Loss (transferred to Capital a/c)	520
To Discount	700		
To Insurance 400			
Less: Prepaid 60	340		

To Trade expenses	300		
To Printing	150		
To Provision for doubtful debts (1,400 x 5%)	700		
To Interest on Capital (24,000 x 5%)	1,200		
To Depreciation on			
- Machinery	250		
- Furniture	200		
	9,290		**9,290**

Balance Sheet of Ravi as on 31-3-2006

Liabilities		**Rs.**	**Assets**		**Rs.**
Creditors		10,000	Cash		6,200
Bills payable		2,500	Debtors	14,000	
Capital	24,000		**Less:** Provision for bad debts	700	13,300
Less: Drawings	4,500		Prepaid Insurance		60
	19,500		Closing Stock		7,000
Less: Net loss	520		Furniture	2,000	
	18,980		**Less:** Depreciation	200	1,800
Add: Interest on Capital	1,200		Machinery	5,000	
Less: Interest on drawings	270	19,910	**Less:** Depreciation	250	4,750
Outstanding salary		500			
Outstanding wages		200			
		33,110			**33,110**

Illu.8 : The following Trial Balance is extracted from the books of merchant on 31-12-2006:

	Rs.	**Rs.**
Capital		**12,500**
Furniture	**640**	
Vehicles	**6,250**	
Buildings	**7,500**	
Bad debts	**125**	
Provision for bad debts		**200**
Debtors and creditors	**3,800**	**2,500**
Stock on 1-1-2006	**3,460**	
Purchases and sales	**5,475**	**15,450**
Bank overdraft		**2,850**
Returns	**200**	**125**
Advertising	**568**	
Commission		**375**
Cash	**650**	
Insurance	**1,250**	
General expenses	**782**	

Salaries	**3,300**	
	34,000	**34,000**

Adjustments:

a) **Stock on 31-12-2006 was Rs.3,250.**
b) **Depreciate buildings by 5%, Furniture by 10% and Vehicles by 20%.**
c) **Outstanding interest Rs.85, Salaries 300 and taxes Rs.120.**
d) **Prepare insurance is Rs.100.**
e) **1/3 of the commission received is in respect of work to be done next year.**
f) **Write off further bad debts Rs.100 and provision for bad debts is to be made equal to 5% on debtors.**

Prepare final accounts for the year ending 31-12-2006.

Solution :

Trading and Profit & Loss a/c
for the year ending 31-12-2006

Dr. **Cr.**

	Rs.		**Rs.**
To Opening stock	3,460	By Sales 15,450	
To Purchase 5,475		**Less:** Sales Returns 200	15,250
Less: Purchase Returns 125	5,350	By Closing stock	3,250
To Gross profit	9,690		
	18,500		**18,500**
To Advertising	568	By Gross Profit	9,690
To Insurance 1,200		By Commission 375	
Less: prepaid 100	1,150	**Less:** Received Earlier 125	250
To General expenses	782	By Provision for bad debts (3,800 – 100 = 3,700 x 5/100 = 185 – 200)	15
To Salaries 3,300			
Add: Outstanding 300	3,600		
To Outstanding interest	85		
To Bad debts (100 + 125)	225		
To Depreciation			
Buildings	375		
Furniture	64		
Vehicles	1,250		
To Net Profit	1,736		
	9,955		**9,955**

Balance Sheet as on 31-12-2006

Liabilities	**Rs.**	**Assets**	**Rs.**
Capital 12,500		**Current Assets:**	
Add: Net profit 1,736	14,236	Cash	650
Current Liabilities:		Debtors 3,800	
Bank overdraft	2,850	**Less:** Bad debts 100	

Outstanding interest	85	3,700	
Outstanding Salaries	300	**Less:** Provision for Bad debts 185	3,515
Outstanding taxes	120	Prepaid insurance	100
Creditors	2,500	Closing Stock	3,250
Commission received	125	**Fixed Assets:**	
		Furniture 640	
		Less: Depreciation 64	576
		Vehicles 6,250	
		Less: Depreciation 1,250	5,000
		Buildings 7,500	
		Less: Depreciation 375	7,125
	20,216		**20,216**

6.4 SELF ASSESSMENT QUESTIONS

1. What is a Balance Sheet?
2. What is Marshalling?
3. Explain the important points to be considered in the preparation of the balance sheet.
4. Give the proforma of trading and profit and loss account with hypothetical figures
5. Prepare a Balance sheet of an organisation with hypothetical figures.
6. Explain the need for adjustments in final accounts
7. Give five journal entries for adjustments in final accounts
8. How do you treat the following in final accounts?
   (a) Outstanding expenses
   (b) Prepaid expenses
   (c) Outstanding income
   (d) Income received in advance
   (e) Depreciation on assets
   (f) Treatment of bad debt, provision for doubtful debts and provision for discount
   (g) Provision for bad debts
   (h) Provision for discount on debtors
   (i) Provision for discount on creditors
   (j) Interest on Drawings
   (k) Interest on capital
   (l) Closing Stock

6.5 EXERCISES

1. From the following information, prepare the final accounts for the year 2006.

Dr. Balances	Rs.	Cr. Balances	Rs.
Returns	15,000	Capital	1,41,000
Cash in hand	2,000	Returns	10,000
Bills Receivable	20,000	Bank overdraft	20,000
Purchases	1,50,000	Bills Payable	30,000
Bad debts	5,000	Sales	3,40,000
Income Tax	2,000	Commission	9,000
Bank Charges	1,000		
Salaries	35,000		

Insurance	5,000		
Rent & Rates	12,000		
Carriage	8,000		
Wages	70,000		
Power	10,000		
Stock	50,000		
Furniture	15,000		
Machinery	70,000		
Building	80,000		

Stock as on 31-12-2006 Rs.61,000.

[Ans.: Gross Profit Rs.1,08,000, Net Profit Rs.59,000, Balance Sheet Total Rs.2,48,000]

2. From the following information, prepare the final accounts for the year 2006.

Dr. Balances	Rs.	Cr. Balances	Rs.
Cash at Bank	5,000	Capital	60,000
Bills Receivable	9,000	Bills Payable	7,000
Salaries	11,500	Creditors	30,000
General Charges	3,000	Sales	2,20,000
Taxes & Insurance	4,000	Returns	4,000
Cash in hand	2,000	Commission	5,000
Interest	5,000		
Advertising	9,000		
Returns	5,000		
Purchases	1,20,000		
Stock	40,000		
Debtors	50,000		
Bad debts	2,500		
Furniture	10,000		
Building	50,000		

Stock as on 31-12-96 Rs.21,000.

[Ans.: Gross Profit Rs.80,000, Net Profit Rs.50,000, Balance Sheet Total Rs.1,47,000]

3. From the following Trial Balance of M/s Ram & Sons, prepare trading and profit and loss account for the year ending on 31st December, 2006 and the balance sheet as on that date.

Particulars	Dr. Rs.	Cr. Rs.
Purchase	21,750	
Discount allowed	1,300	
Wages	6,500	
Salaries	2,000	
Sales		35,000
Travelling Expenses	400	
Commission	425	
Carriage Inward	275	
Administration Expenses	105	

Trade Expenses	600	
Interest	250	
Building	5,000	
Furniture	200	
Debtors	4,250	
Capital		13,000
Creditors / Cash	7,045	2,100
	50,100	**50,100**

Stock on 31st December, 2006 was Rs.6,000. Depreciate buildings by 20%, create a provision for bad debts at 10% on debtors. Provide for outstanding wages Rs.475, salaries Rs.500 and goods used by the proprietor Rs.500.

[Ans.: Gross profit Rs.12,500, Net Profit Rs.5,495, Balance Sheet Total Rs.21,070]

4. From the following ledger balances prepare Trading and profit and Loss Account for the year ended 30th September, 2006 and a Balance Sheet as on that date.

Particulars	Rs.	Particulars	Rs.
Rama's Capital a/c	1,19,400	Cash	530
Rama's drawings a/c	10,550	Repairs & Renewals	3,370
Bills Receivable	9,500	Bank	18,970
Plant and Machinery	28,800	Interest and Discount (Dr.)	5,870
Sundry debtors (including Madan's dishonoured bill Rs.1,000)	62,000	Bad Debts	3,620
Loan a/c (Cr.) at 6%	20,000	Sundry Creditors	39,630
Wages (Manufacturing)	40,970	Fixtures & Fittings	8,970
Returns Inwards	2,780		
Purchases	2,56,590		
Sales	3,56,430		
Commission received	5,640		
Rent and Taxes	5,620		
Stock on 1st October, 2006	89,680		
Salaries	11,000		
Travelling Expenses	1,880		
Insurance (including Rs.300 p.a. paid up 31st March 2006)	400		

Stock in hand on 30th September, 2006 was Rs.1,28,960. Write off half of Madan's dishonoured bill. Depreciate Plant and Machinery by 5% and Fixtures and Fittings by 10%.

[Ans.: Gross Profit Rs.95,370; Net Profit Rs.66,563 and Balance Sheet Total Rs.2,55,043].

5. From the following Trial Balance of Mr. A, Prepare Trading and Profit & Loss Account for the year ending 31st December, 2006 and a Balance Sheet as on that date :

Debit Balances	Rs.	Credit Balances	Rs.
Drawings	5,275	Capital	59,700
Bills Receivable	4,750	Loan at 8% on (1-1-88)	10,000
Machinery	14,400	Commission received	2,820

Debtors (including X for Dishnoured Bill of Rs.1,000)	30,000	Creditors	29,815
Wages	20,485	Sales	1,78,215
Returns inwards	2,390		
Purchases	1,28,295		
Rent	2,810		
Stock (1-1-06)	44,840		
Salaries	5,500		
Travelling Expenses	945		
Insurance	200		
Cash	9,750		
Repairs	1,685		
Interest on Loan	500		
Discount Allowed	2,435		
Bad Debts	1,810		
Furniture	4,480		
	2,80,550		**2,80,550**

The following adjustments are to be made:

(i) Stock in the shop on 31st December, 2006 was Rs.64,480.
(ii) Half the amount of X's bill is irrecoverable.
(iii) Create a provision of 5% on other debtors.
(iv) Wages include Rs.600 for erection of new machinery.
(v) Depreciate Machinery by 5% and Furniture by 10%.
(vi) Commission include Rs.300 being Commission received in advance.]

[Ans.: Gross profit Rs.47,285, Net Profit Rs.30,472, Balance Sheet Total Rs.1,25,312].

6. The following are the balances of Messers Gupta & Co. as on June, 2006.

Debit Balances	Rs.	Credit Balances	Rs.
Cash in hand	540	Sales a/c	98,780
Cash at Bank	2,630	Returns outward	500
Purchases a/c	40,675	Capital Account	62,000
Returns Inwards	680	Sundry creditors	6,300
Wages Account	8,480	Rent	9,000
Fuel & power	4,730		
Carriage on Sales	3,200		
Carriage on Purchases	2,040		
Stock (1-7-06)	5,760		
Building a/c	32,000		
Freehold Land	10,000		
Machinery	20,000		
Patents	7,500		
Salaries	15,000		
General expenses	3,000		
Insurance	600		
Drawings	5,245		
Sundry debtors	14,500		
	1,76,580		**1,76,580**

Prepare Trading and Profit & Loss a/c and a Balance Sheet as on 30th June, 2006 after taking into account the following adjustments:

(i) Stock on hand as on 30th June, 2006 is Rs.6,800.
(ii) Machinery is to be depreciated at 10% and Patents at 20%.
(iii) Salaries for the month of June, 2006 amounting to Rs.1,500 were unpaid.
(iv) Insurance, includes a premium of Rs.170 on a policy expiring on 31st December, 2006.
(v) Further Bad Debts are Rs.725.
(vi) Rent Receivable Rs.1,000.

[Ans.: Gross profit Rs.43,715, Net profit Rs.26,275, Balance Sheet Total Rs.90,830].

6.9 SUGGESTED BOOKS

1. Agarwala, A.N., Amitabha Mukherjee, Mohammed Hanif, **Principles and Practice of Accountancy,** Kitab Mahal Agencies, New Delhi.
2. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
3. Chopde, L.N., & Choudhari, D.H., **Accountancy,** Sheth Publishers, Pune
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5. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
6. Pillai, R.S.N., Bagavathi, Uma, S., **Fundamentals of Advaned Accounting (Vol.I)** S. Chand & Company Ltd., New Delhi, 2006
7. Shukla, M.C., Grewal, T.S., Gupta, S.C., **Advanced Accounts (Volume I)** S. Chand & Company Limited, New Delhi, 2005
8. Tulsian, P.c., **Accountancy** Tata McGraw-Hill Publishing Company Limited, New Delhi.

Chapter – 7

FINANCIAL STATEMENT ANALYSIS

7.0 Objective :

After going through this unit we should be able to :

- Understand the meaning of financial statements
- Know the objectives of analysis of financial statements
- Explain the types and formats of financial statements
- Know the methods of financial analysis

Structure :

7.1 Introduction
7.2 Meaning of Financial Statements
7.3 Objectives of Analysis of Financial Statements
7.4 Types of Financial Statements
7.5 Formats of Financial Statements
7.6 Limitations of Financial statement Analysis
7.7 Types of Financial Analysis
7.8 Methods of Financial Analysis
7.9 Self Assessment Questions
7.10 Exercises
7.11 Suggested Readings

7.1 INTRODUCTION :

Accounting process involves recording, classifying and summarising various business transactions. The daily transactions of a business are recorded in different subsidiary books. These transactions are posted into various ledger accounts and the balances are taken out at the end of a financial period. The aim of maintaining various records is to determine profitability of enterprise from operations of the business and also to find out its financial position. The term analysis of financial statements is applied to almost every kind of detail inquiry into financial data. A financial executive has to evaluate the past performance, present financial position, liquidity situation, enquire into profitability of the concern and to plan for future operations. The analysis of financial statements is an attempt to determine the significance and meaning of the financial statements data so that the forecast may be made of the future prospects for earnings, ability to pay interest and debt maturities and profitability.

7.2 MEANING OF FINANCIAL STATEMENTS :

According to Himpton John, ``A financial statement is an organised collection of data according to logical and consistent accounting procedures. Its purpose is to covey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an income statement.'' On the basis of the information provided in the financial statements, management makes a review of the progress of the company and decides the future course of action. The annual reports constitute one of the major vehicles of corporate

financial reporting to shareholders. It is, therefore, essential that these reports are elaborate, standardised in terms of accounting treatment and provides details for analysis and understanding of corporate performance by the shareholders. In India, the Institute of Chartered Accountants of India have for long been spearheading the process of standadisation in accounting treatment and enhancing disclosure requirements to shareholders. All companies are now required to state whether their accounts are prepared with applicable accounting standards and give particulars of any material departures from those standards and the reasons therefore. The trend in the area of corporate financial reporting in India, may be observed from the greater disclosure norms set at every stage and personal accountability of both directors and auditors. With the introduction of corporate governance concept.

7.3 OBJECTIVES OF ANALYSIS OF FINANCIAL STATEMENTS :

The following are the main objectives of the analysis of financial statements.

1. To estimate the earning capacity of the firm
2. To judge the financial position and financial performance of the firm.
3. To determine the long term liquidity of the funds as well as solvency
4. To determine the debt capacity of the firm
5. To decide about the future prospects of the firm.

As a matter of fact, the objectives of analysis of these statements, depend to a large extent on the point of view of the analyst, the degree of interest in the company and the need for depth of enquiry and finally on the amount and quality of the data available.

7.4 TYPES OF FINANCIAL STATEMENTS :

1. **Income Statement :** The income statement or profit and loss account is considered as a very useful statement of all financial statements. It depicts the expenses incurred on production, sales and distribution and sales revenue and the net profit or loss for a particular period. It shows whether the operations of the firm resulted in profit or loss at the end of a particular period.
2. **Balance Sheet :** Balance Sheet is a statement which shows the financial position of a business as on a particular date. It represents the assets owned by the business and the claims of the owners and creditors against the assets in the form of liabilities as on the date of the statement.
3. **Statement of Retained Earnings :** The statement of retained earnings is also called the profit and loss appropriation account. It is a link between the income statement and the balance sheet. Retained earnings are the accumulated excess of earnings over loses and dividends. The balance shown by the income statement is transferred to the balance sheet through this statement after making the necessary appropriations.
4. **Funds Flow Statements :** According to Anthony, ``The funds flow statement described the sources from which additional funds were derived and the use to which these funds were put.'' Funds Flow statement helps the financial analyst in having a more detailed analysis and understanding the changes in the distribution of resources between two balance sheet periods. The statement reveals the sources of funds and their application for different purposes.

5. **Cash Flow Statement :** A cash flow statement depicts the changes in cash position from one period to another. It shows the inflow and outflow of cash and helps the management in making plans for immediate future. An estimated cash flow statement enables the management to ascertain the availability of cash to met business obligations. This statement is useful for short-term planning by the management.
6. **Schedules :** These are the statements which explain the items given in income statement and balance sheet. Schedules are part of financial statements which give detailed information about the financial position of a business organisation.

7.5 FORMATS OF FINANCIAL STATEMENTS :

The two main financial statements viz., the income statement and the balance sheet, can either to presented in the horizontal form or the vertical form. Where statutory provisions are applicable, the statement has to be prepared in accordance with such provisions.

7.5.1 Income Statement :

There is no legal format for the profit and loss account. Therefore, it can be presented in the traditional `T' form, or vertically in statement form. An example of the two formats given as under.

(i) Horizontal Forms

Manufacturing, Trading and Profit & Loss account
…… for the year ending………

Dr. **Cr.**

Particulars	**Rs.**	**Rs.**	**Particulars**	**Rs.**	**Rs.**
To Opening Stock :			By Cost of finished goods c/d		X x x
Raw materials	X x x		By Closing stock		
Work in progress	X x x	Xx x	Raw materials	X x x	
To Purchases of raw materials		X x x	Work in progress	X x x	X x x
To Manufacturing wages		X x x			
To Carriage inwards		X x x			
To other factory expenses		X x x			
		X x x			**X x x**
To Opening stock of finished goods		X x x	By Sales		X x x
To cost of finished goods b/d		X x x	By Closing stock of finished goods		X x x
To Gross profit c/d		X x x	By Gross loss c/d		X x x
		X x x			**X x x**
To Gross loss b/d		X x x	By gross profit b/d		X x x
To Office and administration expenses		X x x	By Miscellaneous receipts		X x x
To Selling and distribution expenses		X x x	By Net loss c/d		X x x
To Interest and financial		X x x			

expenses					
To Provision for income tax		X x x			
To Net profit c/d		X x x			
		X x x			**X x x**
To Net loss b/d		X x x	By Balance b/d (from previous year)		X x x
To General reserve		X x x	By Net profit b/d		X x x
To Dividend		X x x			
To Balance c/d		X x x			
		X x x			**X x x**

(ii) Vertical Form :

Income statement of ….. for the year ending…….

Particulars		**Rs.**	**Rs.**
Sales			X x x
Less : Sales returns		X x x	
Sales tax/Excise Duty	(1)	X x x	X x x
Net Sales			**X x x**
Cost of goods sold			
Materials consumed			X x x
Direct labour			X x x
Manufacturing expenses			X x x
Add /Less : Adjustment for change in stock			X x x
	(2)		X x x
Gross Profit	**(1) - (2)**		**X x x**
Less : Operating expenses		X x x	
Office and administration expenses		X x x	
Selling and distribution expenses		X x x	X x x
Operating profit			**X x x**
Add : Non-Operating income			X x x
			X x x
Less : Non-operating expenses (including interest)			X x x
Profit before interest and tax			X x x
Less : Interest			X x x
Profit before tax			X x x
Less : Tax			X x x
Profit after tax			**X x x**
Appropriations			
Transfer to reserves			X x x
Dividends declared/paid			X x x
Surplus carried to Balance Sheet			X x x
			X x x

7.5.2 Balance Sheet :

The companies act, 1956 stipulates that the balance sheet of a joint stock company should be prepared as per Part I of scheduled VI of the Act. However, the statement form has been emphasized upon by accountants for the purpose of analysis and interpretation.

(i) Horizontal Form :
Balance Sheet of …….. as on ……….

Liabilities	Rs.	Assets	Rs.
Share capital (with all particulars of authorised, issued, subscribed capital)	X x x	**Fixed Assets**	
Called up capital	X x x	1. Goodwill	X x x
Less : Calls in arrears	X x x	2. Land & Buildings	X x x
Add : Forfeited shares	X x x	3. Leasehold property	X x x
Reserves and Surplus		4. Plant and machinery	X x x
1. Capital reserves	X x x	5. Furniture & Fittings	X x x
2. Capital redemption reserve	X x x	6. Patents and trade marks	X x x
3. Share premium	X x x	7. Vehicles	X x x
4. Other reserves	X x x	**Investments**	
Less : Debit balances of profit & loss a/c (If any)	X x x	**Current Assets, Loans and Advances**	
5. Profit & loss appropriation a/c	X x x	**(a) Current assets**	
6. Sinking fund	X x x	1. Interest accrued on investments	X x x
Secured Loans		2. Loose tools	X x x
Debentures	X x x	3. Stock in trade	X x x
Add : outstanding interest	X x x	4. Sundry debtors	X x x
Loans from banks	X x x	Less : Provision for doubtful debts	X x x
Unsecured Loans		5. Cash in hand	X x x
Fixed deposits	X x x	6. Cash at bank	X x x
Short term loans and advances	X x x	**(b) Loans and Advances**	
Current Liabilities & Provisions		7. Advances to subsidiaries	X x x
(a) Current Liabilities		8. Bills receivable	X x x
1. Bills payable	X x x	9. Prepaid expenses	X x x
2. Sundry creditors	X x x	**Miscellaneous expenditure** (to the extent not written off or adjusted)	
3. Income received in advance	X x x	1. Preliminary expenses	X x x
4. Unclaimed dividends	X x x	2. Discount on issue of shares and debentures	X x x
5. Other liabilities	X x x	3. Underwriting commission	X x x
(b) Provisions		Profit and loss account (Loss), if any	X x x
6, Provision for taxation	X x x		

7. Proposed dividends	X x x		
8. Provident fund & pension fund			
Contingent liabilities not provided for	X x x		
	X x x		**X x x**

(ii) Vertical Form :

Balance Sheet of …. As on ….

	Particulars	**Schedule No.**	**Current Year**	**Previous Year**
1.	**Sources of funds**			
	1. Shareholder's funds			
	(a) Capital		X x x	X x x
	(b) Reserves and surplus		X x x	X x x
	2. Loan Funds			
	(a) Secured Loans		X x x	X x x
	(b) Unsecured loans		X x x	X x x
	Total		**X x x**	**X x x**
II.	**Application of Funds**			
	1. Fixed assets			
	(a) Gross Block		X x x	X x x
	(b) Less : Depreciation		X x x	X x x
	© Net block		X x x	X x x
	(d) Capital work in progress		X x x	X x x
	2. Investments			
	3. Current Assets, Loans and advances			
	a. Inventories		X x x	X x x
	b. Sundry debtors		X x x	X x x
	c. Cash and bank balances		X x x	X x x
	d. Other current assets		X x x	X x x
	e. Loans and advances		X x x	X x x
			X x x	X x x
	Less : Current Liabilities and Provisions			
	(a) Current Liabilities		X x x	X x x
	(b) Provisions		X x x	X x x
	Net Current Assets		X x x	X x x
	4. (a) Miscellaneous expenditure to the extent not written off or adjusted		X x x	X x x
	(b) Profit & Loss a/c (debit)		X x x	X x x
	Total		**X x x**	**X x x**

(iii) Vertical Form for Analysis :

Balance Sheet of …….. as on …………….

	Particulars		**Rs.**
	Assets		

1.	**Current Assets**		
	Cash and bank balances		X x x
	Debtors		X x x
	Stock		X x x
	Other current assets		X x x
2.	**Fixed Assets**		**X x x**
	Less : Depreciation		X x x
3.	**Investments**		**X x x**
			X x x
	Total Assets	**(1 + 2 + 3)**	**X x x**
	Liabilities		
(a).	**Current Liabilities**		
	Bills payable		X x x
	Creditors		X x x
	Other Current liabilities		X x x
			X x x
(b)	**Long term debt**		
	Debentures		X x x
	Other long term debts		X x x
			X x x
©	**Capital and Reserves**		
	Share capital		X x x
	Reserves and Surplus		X x x
	Total Liabilities	**(a + b + c)**	**X x x**

7.5.3. Statement of Retained Earnings

The preparation of Statement of Retained Earnings is a common feature in corporate accounting practice, to show how the balance in Profit and Loss account is appropriated for various purposes like provision for dividend, transfer to reserve a/c

Profit & Loss appropriation account

Particulars	Rs.	Particulars	Rs.
To Transfers to reserves	X x x	By Last year's balance	X x x
To Dividends paid (interim or final)	X x x	By Current year's net profit (transferred from profit & loss a/c)	X x x
To dividends proposed	X x x	By Excess provisions (which are no longer required)	X x x
To Surplus carried to balance sheet	X x x	By Reserves withdrawn (if any)	X x x
	X x x		**X x x**

7.6 LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS :

The analysis of financial statements has certain limitations also. Hence any person using this technique must keep in mind those limitations. Main limitations are as follows.

1. The analysis of financial statements is only a means to reach conclusions and no conclusion in itself. So, it cannot work as a substitute for sound judgement. The judgement ultimately, will depend upon the intelligence and skill of the analyst.
2. The figures drawn from one year statements have limited use and value. So, it will be dangerous to depend upon them only.
3. The basic nature of financial statements is historic. Past can never be hundred per centre presentative of the future. Hence, future course of business events should be forecast and interpreted in the context.
4. The results of the analysis of financial statements should not taken as an indication of good or bad management. The ratios or other figures explain only probable state events.
5. Any change, in the method or procedure of accounting mass the utility of such analysis The figures of different financial statements lose the characteristic of comparability.
6. The figures of one firm are seldom fully comparable with those of the other because there is difference in the nature of products, procedure in accounting, cost of plant and machinery, nature and pattern of financing, etc. But analysis generally ignores these facts and make an objective comparison of two business firms. The results will be naturally misleading.
7. The repaid changes in the value of money also reduce the validity of such analysis and no useful conclusions can be drawn from a comparative study fo the financial statements of different years.
8. An analyst should also be cautions from window dressing in the accounts.

7.7 TYPES OF FINANCIAL ANALYSIS :

Two types of analysis are undertaken to interpret the position of an enterprise. They are : (1) Vertical Analysis (2) Horizontal analysis. The Companies Act, 1956 permits the companies to present the financial statements in vertical as well as horizontal form.

(i) **Vertical Analysis :** It is the analysis of relationship as between different individual components. It is also the analysis between these components and their totals for a given period of time. Such an analysis examines only the relationship as between different components for a given point of time. It does not focus light on changing behaviour of the above relationships. It is also regarded as static analysis. Comparison of current assets to current liabilities or comparison of debt to equity for one point of time are the examples of vertical analysis. Thus, the vertical analysis can be made in the following ways.

1. By preparation of common size statements of the two similar units
2. By preparing common size statement of different years of the same business unit.

(ii) **Horizontal Analysis :** It is the analysis of changes in different components of the financial statements over different periods with the help of a series of statements. Such an analysis makes it possible to study periodic fluctuations in different components of the financial statements. Study of trends in debt or share capital or their relationship over the past ten year period or study of profitability trends for a period of five or ten years are examples of horizontal type of analysis. Horizontal analysis is also known as `dynamic analysis' since this reflects changes in financial position of the company over a long period of time. It comprises :

1. Comparison of the Financial Statements of different years of the same business unit.

2. Comparison of Financial Statement of a particular year of different business units.

7.8 METHODS OF FINANCIAL ANALYSIS :

A number of methods or devices are used to study the relationship between different statements. An effort is made to use those devices which clearly analyse the position of the enterprise. The following methods of analysis are generally used.

1. Comparative statements
2. Trend analysis
3. Common size statements;
4. Funds Flow analysis;
5. Cash flow analysis
6. Ratio analysis
7. Cost-Volume-Profit analysis.

7.8.1 Comparative Statement Analysis :

Comparative financial statements are those statements which are designed to provide time perspective to the consideration of various elements of financial position embodied in such statements. In these statements figures for two or more periods are shown side by side to facilitate comparison. Both the income statement and balance sheet can be prepared in the form of comparative financial statements.

(i) **Comparative Income Statement :** The income statement discloses net profit or net loss on account of operations. A comparative income statement will show the absolute figures for two or more periods, the absolute change from one period to another and if desired the change in terms of percentages. Since the figures for two or more periods are shown side by side, the reader can quickly ascertain whether sales have increased or decreased, whether cost of sales has increased or decreased etc. Thus, only a reading of data included in comparative income statement will be helpful in deriving meaningful conclusions.

(ii) **Comparative Balance Sheet :** Comparative balance sheet as on two or more different dates can be used for comparing assets and liabilities and finding out any increase or decrease in those items. Thus, while in a single balance sheet the emphasis is on present position, it is on change in the comparative balance sheet. Such a balance sheet is very useful in studying the trends in an enterprise.

(iii) Comparative financial statements can be prepared for more than two periods or on more than two dates. However, it becomes very cumbersome to study the trend with more than tow periods data. Trend percentages are more useful in such cases.

(iv) According to American Institute of Certified Public Accountants ``the presentation of comparative financial statements in annual and other reports enhances the usefulness of such reports and brings out more clearly the nature and trend of current changes affecting the enterprise. Such presentation emphasises the fact that statements for a series of periods are far more significant than those of a single period and that the accounts of one period are but an installment of what is essentially a continuous history. In any one year, it is ordinarily desired that the balance sheet, the income statement and the surplus statement be given for one more proceeding year as well as for the current year.''

Illu.1 : The income statements of a company are given for the years ending on 30th June, 2003 and 30th June 2004. Rearrange the figures in a comparative form and study the profitability position of the company:

	2003 (Rs.'000)	**2004 (Rs.'000)**
Net Sales	**785**	**900**
Cost of goods sold	**450**	**500**
Opening Expenses:		
General and administrative expenses	**70**	**72**
Selling expenses	**80**	**90**
Non – Operating expenses:		
Interest paid	**25**	**30**
Income – Tax	**70**	**80**

Solution :

Comparative Income Statement for the year 2003 & 2004

	Rs.'000			
Particulars	**2003**	**2004**	**Change in Rs.**	**Change in %**
Net Sales	785	900	115	14.65
(-) Cost of goods sold	450	500	50	11.11
Gross profit (1)	**335**	**400**	**65**	**19.40**
Less: Operating expenses: General and administrative expenses	70	72	2	2.86
Selling Expenses	80	90	10	12.50
Total operating expenses(2)	**150**	**162**	**12**	**8.00**
Operating profit (1-2) (3)	**185**	**238**	**53**	**8.65**
(-) Non – operating expenses interest paid	25	30	5	20.00
Total Non-Operating expenses (4)	**25**	**30**	**5**	**20.00**
Profit before Taxes (3-4) (5)	160	208	48	30.00
(-) Income Tax Paid	70	80	10	14.28
Profit after Taxes (6)	**90**	**128**	**38**	**42.22**

Profitability position of a company: As there is raise in the sales revenue, but raise in the expenditure pattern is lesser than that of the raise in sales revenue, the overall profitability is said to be good.

Illu.2 : From the following income statement of Y Ltd., prepare a comparative income statement.

(Amount in Lakhs rupees)
For the ear ended 31 March

		2003 *Rs.*		*2004* *Rs.*
Net Sales		**1,370**		**1,442**
Cost of goods sold		**838**		**926**
Gross Profit		**532**		**516**
Operating expenses:				
Administration expenses	**94**		**92**	
Selling expenses	**188**	**282**	**182**	**274**
Operating profit		**250**		**242**
Add: Other incomes - dividend		**44**		**50**
		294		**292**
Less: Other deductions -				
Interest paid		**44**		**44**
Et profit before tax		**250**		**248**
Income tax		**124**		**124**
Net profit after tax		**126**		**124**

Solution :

Comparative Income Statement of Y Ltd.

Particulars	*2003*	*2004*	*Increase/ Decrease Rs.*	*Increase/ Decrease %*
Net Sales	1,370	1,442	(+) 72	(+) 5.26%
Less: Cost of goods sold	838	926	(+) 88	(+)10.50%
Gross Profit (A)	**532**	**516**	**(-) 16**	**(-) 3.01%**
Less: Operating expenses:				
Administration expenses	94	92	(-) 2	(-) 2.13%
Selling Expenses	188	182	(-) 6	(-) 3.18%
Total operating expenses (B)	**282**	**274**	**(-) 8**	**(-) 2.84 %**
	250	242	(-) 8	(-) 3.2%
Add: Operating incomes	-	-	-	-
Operating profit before interest and tax	**250**	**242**	**(-) 8**	**(-) 3.2%**
Add: Non – operating income dividend	44	50	(+) 6	(+)13.64%
Earnings before interest and taxes	**294**	**292**	**(-) 2**	**(-) 0.68%**
Less: Interest paid	44	44	NIL	NIL
Earnings before tax	**250**	**248**	**(-) 2**	**(-) 0.8%**
Less: Income Tax	124	124	NIL	NIL
Earnings After Taxes	**126**	**124**	**(-) 2**	**(-) 1.59%**

Illu.3 : The following are the balance sheets of a company for the years 2003 and 2004. Prepare a comparative balance sheet and study the financial position of the company:

Balance Sheet as on 30th June 2003 and 2004.

Liabilities	***2003***	***2004***
	Rs.	***Rs.***
Equity share capital	**6,00,000**	**8,00,000**
Reserves and Surplus	**3,30,000**	**2,22,000**
Debentures	**2,00,000**	**3,00,000**
Long term loans	**1,50,000**	**2,00,000**
Bills payable	**50,000**	**45,000**
Sundry Creditors	**1,00,000**	**1,20,000**
Other current liabilities	**5,000**	**10,000**
	14,35,000	**16,97,000**
Assets	***2003***	***2004***
	Rs.	***Rs.***
Land & Buildings	**3,70,000**	**2,70,000**
Plant & Machinery	**4,00,000**	**6,00,000**
Fixtures & Fittings	**45,000**	**55,000**
Cash in hand & at Bank	**20,000**	**80,000**
Bills receivables	**1,50,000**	**90,000**
Sundry Debtors	**2,00,000**	**2,50,000**
Stock	**2,50,000**	**3,50,000**
Prepaid expenses	**-**	**2,000**
	14,35,000	**16,97,000**

Solution :

Comparative Balance Sheet of a company for the year 2003 & 2004

	Year ending 31st December		**Increase/ Decrease (Amounts)**	**Increase/ Decrease (Percentage)**
	2003	**2004**		
Assets	**Rs.**	**Rs.**	**Rs.**	**Rs.**
Current Assets:				
Cash in hand and Bank	20,000	80,000	+60,000	+ 300.00
Bills receivable	1,50,000	90,000	-60,000	- 40.00
Sundry Debtors	2,00,000	2,50,000	+50,000	+ 25.00
Stock	2,50,000	3,50,000	+1,00,000	+ 40.00
Prepaid expenses	-	2,000	+2,000	- 100.00
Total Current Assets (1)	**6,20,000**	**7,72,000**	**+1,52,000**	**+ 24.52**
Fixed Assets:				
Land & Buildings	3,70,000	2,70,000	-1,00,000	- 27.03
Plant & Machinery	4,00,000	6,00,000	+2,00,000	+ 50.00
Fixture & Fittings	45,000	55,000	+ 10,000	+ 22.22
Total Fixed Assets (2)	**8,15,000**	**9,25,000**	**+1,10,000**	**+ 13.49**
Total Assets (1 + 2)	**14,35,000**	**16,97,000**	**+2,62,000**	**+ 18.26**
Liabilities & Capital	**Rs.**	**Rs.**	**Rs.**	**Rs.**

Current Liabilities:				
Bills Payable	50,000	45,000	-5,000	- 10.00
Sundry Creditors	1,00,000	1,20,000	+20,000	+ 20.00
Other current liabilities	5,000	10,000	+5,000	+ 100.00
Total Current Liabilities (1)	**1,55,000**	**1,75,000**	**+20,000**	**+ 12.90**
Liabilities:				
Long term loans:				
Debentures	2,00,000	3,00,000	+1,00,000	+ 50.00
Long-term loan on Mortgage	1,50,000	2,00,000	+50,000	+ 33.33
Total Long Term loans (2)	**3,50,000**	**5,00,000**	**+1,50,000**	**+ 42.86**
Share holders funds:				
Equity Share Capital	6,00,000	8,00,000	+2,00,000	+ 33.33
Reserve & Surplus	3,30,000	2,22,000	-1,08,000	- 32.73
Total Share holders Funds (3)	**9,30,000**	**10,22,000**	**+92,000**	**+ 9.90**
Total Liabilities (1+2+3)	**14,35,000**	**16,97,000**	**+2,62,000**	**+ 18.26**

Interpretation:

1. The comparative balance sheet of the company reveals that during 2004 their has been an increase in fixed assets of 1,10,000 i.e., 13.49% while long-term liabilities to outsiders have relatively increased by Rs.1, 50,000 and equity share capital has increased by Rs.2 lakhs. This fact depicts that the policy of the company is to purchase fixed assets from the long-term sources of finance thereby not affecting the working capital.

2. The current assets have increased by Rs.1, 52,000 i.e., 24.52% and cash has increased by Rs.60, 000. On the other hand, there has been an increase in inventories amounting to Rs.1 lakh. The current liabilities have increased only by Rs.20, 000 i.e., 12.9%. This further confirms that the company has raised long-term finances even for the current assets resulting in to an improvement in the liquidity position of the company.

3. Reserved and surplus have decreased from Rs.3, 30,000 to Rs.2, 22,000 i.e., 32.73% which shows that the company has utilized reserves and surpluses for the payment of dividends to shareholders either in cash or by the issue of bonus shares.
4. The overall financial position of the company is satisfactory.

Illu.4 : The following are the Balance Sheets of Vidhi Ltd., for the years ended 31.3.2001 and 31.3.2002:

Liabilities	***31.3.01 Rs.***	***31.3.02 Rs.***	***Assets***	***31.3.01 Rs.***	***31.3.02 Rs.***
Equity Capital	**1,00,000**	**1,65,000**	**Fixed Assets (Net)**	**1,20,000**	**1,75,000**
Preference capital	**50,000**	**75,000**	**Inventory**	**20,000**	**25,000**
Reserves	**27,500**	**25,000**	**Debtors**	**50,000**	**62,500**
Overdraft	**25,000**	**25,000**	**Bills receivable**	**10,000**	**30,000**
Creditors	**20,000**	**25,000**	**Prepaid expenses**	**5,000**	**6,000**

Provision for tax	17,500	25,000	Cash in Bank	20,000	26,500
			Cash in hand	5,000	15,000
	2,30,000	3,40,000		2,30,000	3,40,000

Prepare a comparative Balance Sheet and comment.

Solution :

Comparative Balance Sheet of Vidhi Ltd. for the year ended 31-3-01

Particulars	*31-3-01*	*31-3-02*	*Increase/ decrease Rs.*	*Increase/ decrease Rs.*
Current Assets:				
Inventory	20,000	25,000	(+) 5,000	(+) 25%
Debtors	50,000	62,500	(+) 12,500	(+) 25%
Bills receivable	10,000	30,000	(+) 20,000	(+) 200%
Prepaid expenses	5,000	6,000	(+) 1,000	(+) 20%
Cash in bank	20,000	26,500	(+) 6,500	(+) 32.5%
Cash in hand	5,000	15,000	(+) 10,000	(+) 200%
Total Current Assets (A)	1,10,000	1,65,000	(+) 55,000	(+) 50%
Current Liabilities:				
Overdraft	25,000	25,000	NIL	NIL
Creditors	20,000	25,000	(+) 5,000	(+) 25%
Provision for tax	17,500	25,000	(+) 6,500	(+) 42.86%
Total Current Liabilities (B)	62,500	75,000	(+) 12,500	(+) 20%
Working Capital A – B	47,500	90,000	(+) 42,500	(+) 89.47%
Add: Fixed assets (Net)	12,000	1,75,000	(+) 55,000	(+) 45.83%
Capital employed	1,67,500	2,65,000	(+) 97,500	(+) 58.21%
Less: Long term liabilities	-	-	-	-
Shareholder funds	1,67,500	2,65,000	(+) 97,500	(+) 58.21%
Proof:				
Equity capital	1,00,000	1,65,000	(+) 65,000	(+) 65%
Preference capital	50,000	75,000	(+) 25,000	(+) 50%
Reserves	17,500	25,000	(+) 7,500	(+) 42.86%
	1,67,500	**2,65,000**	**(+) 97,500**	**(+) 58.21%**

Comment on financial position: Compared with 2001 and 2002 total current assets increased by 50% and current liabilities increased by 20% working capital is increase by 58.21%. Share capital is increased by 65% of an amount available by issuing the shares in mostly used for working capital.

7.8.2 Common size Statement Analysis :

Common size statement is financial tool of studying key changes and trends in financial position of a company. In common size statement, each time is stated as a percentage of the total of which that item is a part, each percentage exhibits the relation of the individual item to its respective total. Therefore, the common size percentage method represents a type of ratio analysis. That is why this statement is also designated as ``component percentage'' or ``100 per cent statement''. Preparation of the common size statement involves two steps.

(i) State the total of the statement as 100 per cent
(ii) Compute the ratio of each item to the total in the statement.

Common-size statement can be used both for vertical and horizontal analysis. Comparison of the company's position with the related industry as a whole is possible with the help of vertical analysis. In contrast, horizontal analysis facilitates trend analysis of the financial position of the company over the past several years. There are two types of common size statements, viz., common size income statement and balance sheet.

(a) Common Size Income Statement :

The Common size income statement is designed to exhibit what proportion of the net sales has been absorbed by the various costs and expenses incurred by the enterprise, and the proportion that remains as net income. For preparing common size income statement all items in the income statement are expressed in percentage form in terms of total sales.

The common size income statements for a number of years are very helpful in pointing out efficiencies and inefficiencies. It must be remembered that the percentages may be influenced by variation in sale prices, higher or lower cost of goods acquired or both. Common size percentages must be supplemented for making detailed analysis of financial and operating data. It will, therefore, be more useful to use trend ratios as well as individual ratios showing relationships between balance sheet and income statement items.

(b) Common Size Balance Sheet :

Common size balance sheet is prepared by stating the total assets as 100 and reducing individual assets into percentages of the total. likewise, individual liability items are expressed as percentages of the total liabilities. Thus, the common size balance sheet percentage shows the relation of each asset item to total assets and of each liability percentage shows the relation of each asset item to total assets and of each liability and owner's equity item to total liabilities and owners' equity. A closer scrutiny of the common size balance Sheet discloses that this statement focuses on two important aspects.

1. Distribution pattern of liabilities as between current liabilities, long term liabilities and equity capital.
2. Distribution pattern of assets as between current assets, fixed assets and others

The common size balance sheet analysis can, of course, be carried further and extended to the study of what portion of a sub-group, rather than the total, an item is. Thus, in assessing the liquidity of current assets, it may be of interest to know not only what proportion of total assets is inventories, but also what proportion of current assets to represented by this asset. A study of common size statement of the company with that of a competitive company or the industry would show whether or not the company is managing assets efficiently. An analysis of the pattern of distribution of liabilities reveals the debt equity position of the company too large a percentage of liabilities and a relatively low margin of safety for creditors.

While common size statements do not focus light on the relative sizes of individual companies which are compared, the problem of actual comparability between them is a matter to be resolved by the analyst judgement. Comparison of common size statement of a single enterprise over the years is valuable in that it reveals the changing proportions of components within group of assets and liabilities. However, care must be exercised in interpreting such changes and the trend which discloses.

Illu.5 : Following are the income statements of X & Co. Ltd. and Y & Co. Ltd. For the year ended 31st December 2003.

Expenses	*X & Co. Ltd. Rs.*	*Y & Co. Ltd. Rs.*	*Incomes*	*X & Co. Ltd. Rs.*	*Y & Co. Ltd. Rs.*
To Opening Stock	**20,000**	**32,000**	**By Sales**	**3,84,000**	**4,31,000**
To Purchases	**1,40,000**	**1,60,000**	**By Closing stock**	**40,000**	**45,000**
To Wages	**40,000**	**30,000**	**By Profit on sale of land**	**8,000**	**14,000**
To Manufacturing expenses	**20,000**	**25,000**	**By Discount**	**2,000**	**6,000**
To Salaries	**45,000**	**48,000**			
To Office expenses	**15,000**	**1,7000**			
To Selling expenses	**42,000**	**50,000**			
To Depreciation	**20,000**	**28,000**			
To Loss by fire	**10,000**	**5,000**			
To Interest paid	**18,000**	**23,000**			
To Profit	**64,000**	**78,000**			
	4,34,000	**4,96,000**		**4,34,000**	**4,96,000**

You are required to prepare common size income statement.

Solution :

Comparative Income Statement of X & co. ltd. and Y & Co. Ltd.
For the year ended 31-12-2003

	Particulars	**X & Co. Ltd. Amount Rs.**	**%**	**Y & Co. Ltd. Amount Rs.**	**%**
	Sales (A)	3,84,000	100	4,31,000	100
Less:	Cost of goods sold:				
	Opening Stock	20,000	5.21	32,000	7.42
Add:	Purchases	1,40,000	36.46	1,60,000	37.12
	Wages	40,000	10.42	30,000	6.96
	Manufacturing expenses	20,000	5.20	25,000	5.80
		2,20,000	**57.29**	**2,47,000**	**57.30**
Less:	Closing Stock	40,000	10.42	45,000	10.44
	Cost of goods sold (B)	1,80,000	46.87	2,02,000	46.86
	Gross profit (A) – (B) = (c)	**2,04,000**	**53.13**	**2,29,000**	**53.14**
Less:	Operating Expenses:				
	Salaries	45,000	11.72	48,000	11.14
	Office Expenses	15,000	3.91	17,000	3.94
	Selling expenses	42,000	10.94	50,000	11.60

	Depreciation	20,000	5.21	28,000	6.50
Total operating expenses (D)		**1,22,000**	**31.78**	**1,43,000**	**33.18**
	(c) – (D)	82,000	21.35	86,000	19.95
Add:	Operating Income:				
	Discount	2,000	0.52	6,000	1.39
	Operating Profit Before Interest and Tax (OPBIT)	84,000	21.87	92,000	21.34
Less:	Non – operating expenses Loss by fire	10,000	2.60	5,000	1.16
		74,000	**19.27**	**87,000**	**20.18**
Add:	Non – operating Income:				
	Profit on sale of land	8,000	2.08	14,000	3.25
	Earnings before interest and Tax	**82,000**	**21.35**	**1,01,000**	**23.43**
Less:	Interest paid	18,000	4.69	23,000	5.34
	Earnings after taxation	**64,000**	**16.66**	**78,000**	**18.09**

Illu.6 : The following are the Balance Sheet of Gayatri & Co. for the year 2003 and 2004:

Liabilities	*2003*	*2004*	*Assets*	*2003*	*2004*
	Rs.	*Rs.*		*Rs.*	*Rs.*
Bills payable	**25,000**	**38,000**	**Bank a/c**	**50,000**	**70,000**
Creditors	**75,000**	**1,00,000**	**Debtors**	**1,00,000**	**1,50,000**
Outstanding Taxes	**50,000**	**75,000**	**Stock**	**1,00,000**	**1,50,000**
6% Debentures	**50,000**	**75,000**	**Land**	**50,000**	**50,000**
6% Preference share capital	**1,50,000**	**1,50,000**	**Buildings**	**1,50,000**	**1,35,000**
Equity share capital	**2,00,000**	**2,00,000**	**Machinery**	**1,50,000**	**1,35,000**
Reserve	**1,00,000**	**1,22,000**	**Furniture**	**50,000**	**70,000**
	6,50,000	**7,60,000**		**6,50,000**	**7,60,000**

From the above information's, prepare common size Balance Sheet.

Solution :

Common Size Balance Sheet of Gayathri Co.
For the year 2003 & 2004

	2003		**2004**	
Particulars	**Amount**	**%**	**Amount**	**%**
Assets:				
Current Assets:				
Bank	50,000	7.69	70,000	9.21
Debtors	1,00,000	15.38	1,50,000	19.74
Stock	1,00,000	15.39	1,50,000	19.74

Total Current Assets (1)	**2,50,000**	**38.46**	**3,70,000**	**48.69**
Fixed Assets:				
Land	50,000	7.69	50,000	6.58
Buildings	1,50,000	23.08	1,35,000	17.76
Machinery	1,50,000	23.08	1,35,000	17.76
Furniture's	50,000	7.69	70,000	9.21
Total Fixed Assets (2)	**4,00,000**	**61.54**	**3,90,000**	**51.31**
Total Assets (1 +2)	**6,50,000**	**100.00**	**7,60,000**	**100.00**
Liabilities:				
Current Liabilities:				
Bills payable	25,000	3.85	38,000	5.00
Creditors:	75,000	11.54	1,00,000	13.16
Outstanding taxes	50,000	7.69	75,000	9.87
Total Current Liabilities (1)	**1,50,000**	**23.08**	**2,13,000**	**28.03**
Long term debts:				
6% Debentures	50,000	7.69	75,000	9.87
Total long term debts (2)	**50,000**	**7.69**	**75,000**	**9.87**
Shareholder's funds:				
6% Preference share capital	1,50,000	23.08	1,50,000	19.74
Equity Share Capital	2,00,000	30.77	2,00,000	26.31
Reserve	1,00,000	15.38	1,22,000	16.05
Total shareholder's fund (3)	**4,50,000**	**69.23**	**4,72,000**	**62.10**
Total Liabilities (1+2+3)	**6,50,000**	**100.00**	**7,60,000**	**100.00**

Comment: Overall financial position of the company in 2004 is satisfactory as there is slight raise in current assets with slight fall in fixed assets and slight rise in current liabilities as well as shareholder funds.

Illu.7 : The Balance Sheets of M Company and N Company as on 31-3-2004 are given below. Prepare common size Balance Sheet and compare the financial position of the companies.

Balance Sheet as on 31-3-04

Liabilities	***M Com.***	***N Com***	***Assets***	***M Com***	***N Com***
	Rs.	***Rs.***		***Rs.***	***Rs.***
Pref. Share capital	**1,20,000**	**1,60,000**	**Buildings**	**80,000**	**1,23,000**
Equity share capital	**1,50,000**	**4,00,000**	**Machinery**	**2,34,000**	**6,00,000**
Reserve fund	**14,000**	**18,000**	**Short-term**		
Debentures	**1,50,000**	**1,30,000**	**Investments**	**1,000**	**40,000**
Bills payable	**2,000**	**NIL**	**Stock**	**10,000**	**25,000**
Creditors	**12,000**	**4,000**	**Debtors**	**4,000**	**8,000**
Outstanding expenses	**15,000**	**6,000**	**Prepaid expenses**	**1,000**	**2,000**
Proposed dividends	**10,000**	**90,000**	**Cash & Bank**	**8,000**	**10,000**
	4,38,000	**8,08,000**		**4,38,000**	**8,08,000**

Solution :

Common size Balance Sheet as on 31-3-04

Particulars	*M Company*		*N Company*	
	Amount Rs.	*Percentage*	*Amount Rs.*	*Percentage*
Assets side:				
Current Assets:				
Short term investments	1,000	0.23%	40,000	4.95%
Stock	10,000	2.28%	25,000	3.09%
Debtors	4,000	0.91%	8,000	0.99%
Prepaid expenses	1,000	0.23%	2,000	0.25%
Cash & Bank	8,000	1.83%	10,000	1.24%
Total Current Assets (A)	24,000	5.48%	85,000	10.52%
Fixed Assets:				
Buildings	80,000	18.26%	1,23,000	15.22%
Machinery	3,34,000	76.26%	6,00,000	74.26%
Total Fixed Assets (B)	4,14,000	94.52%	7,23,000	89.48%
Total Assets (A) + (B)	4,38,000	100%	8,08,000	100%
Liabilities side:				
Current Liabilities:				
Bills payable	2,000	0.46%	NIL	NIL
Creditors	12,000	2.74%	4,000	0.50%
Outstanding expenses	15,000	3.42%	6,000	0.74%
Proposed dividends	10,000	2.26%	90,000	11.14%
Total Current liabilities (c)	39,000	8.90%	1,00,000	12.38%
Long term liabilities:				
Debentures	1,15,000	26.26%	1,30,000	16.09%
Total long term liabilities (D):	1,15,000	26.26%	1,30,000	16.09%
Capital & Reserves:				
Preference share capital	1,20,000	27.40%	1,60,000	19.80%
Equity share capital	1,50,000	34.24%	4,00,000	48.50%
Reserve fund	14,000	3.20%	18,000	2.23%
Total Capital & Reserves (E)	2,84,000	64.84%	5,78,000	71.53%
Total liabilities (C)+(D)+(E)	4,38,000	100%	8,08,000	100%

7.8.3 Trend Analysis :

Trend analysis depicts behaviour of the ratios over a period of time and the trends in the operation of the enterprise. The trend figures are index figures giving a bird's eye view of the comparative data by presenting it over a period of time. This is horizontal analysis of financial statement, often called as Pyramid Method of ratio analysis 0- a guide to yearly changes. Under this form of analysis, generally financial ratios are studied for a specified number of years. It is a dynamic analysis depicting the changes over a stated period. Their method of analysis is one of `direction'. The working of trend analysis involves the following three steps.

1. selection of a base year
2. Assignment of an index number of 100 to each item of the base year
3. Calculation of percentage relationship that each item bears to the same item in the base year.

Objectives of Trend Analysis :

It is of great significance in making comparative study of financial statements for several years. It shows the direction of movement over a period of time. The following are the objectives of Trend analysis.

(i) To draw a comparative chart and make a comprehensive study of Financial statements.

(ii) Trend analysis indicates the direction of movement or changes in item over a long period of time.

(iii) To have a better view of things unaffected by short term fluctuations, by studying a long term trend percentage analysis.

Limitations of Trend Analysis :

This tool has its own limitations. It is necessary that the base year must be a normal year. Further, it places all items at par in the base year with the result that a variation in the least significant item may receive an emphasis out of all proportion to its importance.

Illu.8 : From the following particulars, compute trend percentages:

	Year			
	2000	**2001**	**2002**	**2003**
Equity share capital	**10**	**12**	**14**	**16**
Preference share capital	**10**	**10**	**10**	**10**
Reserves	**05**	**08**	**05**	**10**
Creditors	**03**	**05**	**13**	**12**

Solution :

Liabilities	**Trend percentage**				**Rs. In lakhs (Base Year 2000)**			
	2000	**2001**	**2002**	**2003**	**2000**	**2001**	**2002**	**2003**
	Rs.	**Rs.**	**Rs.**	**Rs.**	**%**	**%**	**%**	**%**
Equity share capital	10	12	14	16	100	100	140	160
Pref. Share capital	10	10	10	10	100	100	100	100
Reserves	05	08	05	10	100	160	100	200
Creditors	03	05	13	12	100	167	433	400
Total	**28**	**35**	**42**	**48**	**100**	**125**	**150**	**171**

Illu.9 : From the following data, prepare a statement showing trend percentages.

	2000	**2001**	**2002**	**2003**
	Rs.	**Rs.**	**Rs.**	**Rs.**
Sales	**10,000**	**9,500**	**12,000**	**13,000**
Cost of goods sold	**6,000**	**5,890**	**6,960**	**7,280**
Gross Profit	**4,000**	**3,610**	**5,040**	**5,720**

Solution :

Trend Ratios

	2000	**2001**	**2002**	**2003**	**2000**	**2001**	**2002**	**2003**
	Rs.	**Rs.**	**Rs.**	**Rs.**	**%**	**%**	**%**	**%**
Sales	10,000	9,500	12,000	13,000	100	95-0	120.0	130.0
(-) Cost of goods sold	6,000	5,890	6,960	7,280	100	98-16	116.0	121.33
Gross profit	**4,000**	**3,610**	**5,040**	**5,720**	**100**	**90-25**	**126.0**	**143.0**

7.9 SELF ASSESSMENT QUESTIONS :

1. Define Financial Statement.
2. What are the objectives of financial statements?
3. What are the different methods used in financial statements?
4. State the objectives and limitations of Financial statement analysis.
5. What are financial statements? Explain various methods of financial statement analysis.
6. Write short notes on Comparative Financial Statements.
7. What do you understand by `Common size Statements
8. What are trend ratios? How are they computed?

7.10 EXERCISES :

1. Prepare the comparative Income statement from the following:

Income Statement

Particulars	***1998 Rs.***	***1999 Rs.***	***Particulars***	***1998 Rs.***	***1999 Rs.***
To Cost of goods sold	1,00,000	1,00,000	By Sales	2,50,000	3,00,000
To Operational expenses	75,000	1,10,000			
To Interest	25,000	20,000			
To Tax	25,000	30,000			
To Net Profit	25,000	40,000			
	2,50,000	**3,00,000**		**2,50,000**	**3,00,000**

2. From the 31-3- 1998 and 31-3-1999 following information of 'A' Ltd., Prepare Comparative Balance Sheet and write the interpretation:

	(Rs.'000)	
Liabilities	***1998***	***1999***
Share Capital	2,400	3,600
Reserves	1,872	2,124
Debentures	300	600
Long-term debt	900	1,530

Bills payable	1,530	702
Other liabilities	42	60
	7,044	8,616
	(Rs.'000)	
Assets	***1998***	***1999***
Land and Buildings	1,620	1,040
Plant	1,860	4,716
Furniture	54	108
Other fixed Assets	120	180
Long –term Investments	276	354
Bank	708	60
Bills receivable	1254	1120
Stock	960	780
Prepaid expenses	18	18
Other current assets	174	2240
	7,044	8,616

3. A firm has a profit before interest and taxes of Rs.5, 00,000, interest charges Rs.1,00,000 and taxes Rs.50, 000. Calculate earnings after taxes.

4. The Balance Sheet of Hero Co. and Villan Co. compare the financial position of the companies by means of common size Balance Sheet.

Liabilities	**Hero Co. Rs.**	**Villain Co. Rs.**
Preferential share Capital	1,00,000	1,50,000
Equity share Capital	1,70,000	5,10,000
Reserve fund	10,000	8,000
P & L a/c	4,000	10,000
Debentures	1,00,000	1,00,000
Bills payable	17,000	30,000
Creditors	27,000	10,000
Provision for taxes	20,000	1,10,000
	4,48,000	**9,28,000**

Assets	**Hero Co. Rs.**	**Villain Co. Rs.**
Buildings	75,000	1,00,000
Machinery	2,25,000	4,00,000
Furniture	5,000	23,000
Motor car	1,00,000	2,00,000
Inventory	11,000	65,000
Debtors	5,000	10,000
Cash at Bank	26,150	1,28,800
Cash in hand	850	1,200
	4,48,000	**9,28,000**

5. Prepare a common size statement from the following balance sheet.

Liabilities	***1999***	***2000***	***Assets***	***1999***	***2000***
Capital	1,000	1,200	Debtors	450	390
Capital reserve	90	185	Cash	200	15
General reserve	500	450	Stock	320	250
Sinking fund	90	100	Investments	300	250
Debentures	450	650	Buildings	800	1,400
Creditors	200	150	Land	198	345
Other liabilities	15	20	Furniture	77	105
	2,345	**2,755**		**2,345**	**2,755**

6. From the following prepare a comparative statement:

	31-3-01 Rs.	***31-3-02 Rs.***		***31-3-01 Rs.***	***31-3-02 Rs.***
To cost of goods sold	1,00,000	1,20,000	By Sales	2,00,000	2,50,000
To Office expenses	20,000	20,000			
To Selling expenses	10,000	20,000			
To Other expenses	30,000	-			
To Net Profit	40,000	90,000			
	2,00,000	**2,50,000**		**2,00,000**	**2,50,000**

7. From the following particulars compute trend percentages:

	2000	**2001**	**2002**	**2003**
Cash	20	24	16	28
Debtors	40	50	65	80
Stock	60	80	70	100
Other Current Assets	10	15	25	30

7.11 SUGGESTED READINGS

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Chapter – 8

PREPARATION & ANALYSIS OF FUNDS FLOW ANALYSIS

8.0 Objective :

After reading this unit we should be able to :

- Understand the meaning of funds flow statement
- Know how to prepare the funds flow statement
- Prepare the statement of changes in working capital

Structure :

8.1 Introduction

8.2 Meaning of Funds Flow Statement

8.3 Preparation of Funds Flow Statement

8.4 Statement of Changes in Working capital

8.5 Self Assessment Questions

8.6 Exercises

8.7 Suggested Readings

8.1 INTRODUCTION :

A funds flow statement is a valuable aid to financial manager or a creditor in evaluating the uses of funds by a firm and in determining how these funds are financed. Such a statement provides an efficient method for the financial Manager to assess the growth f the firm and its resulting financial needs and to determine the best way to finance those needs. In nut-shell, funds statements are very useful in planning, intermediate and long-term financing. It is an important tool of working capital analysis also.

8.2 MEANING OF FUNDS FLOW STATEMENT :

The funds flow statement is an attempt to report the flow of funds between various assets and liabilities and owner's capital during an accounting period. In the words of Smith and Brown, ``Funds flow statement is prepared to indicate in summary form, changes (and trends if prepared regularly) occurring in items of financial position between two different balance sheet dates. `Such a statement is prepared to indicate the increases and utilisation of resources of a business during an accounting period. A funds flow statement is also known by various other names such as `Statement of Sources and Application of Funds,; `Where Gone statement,' Statement of Funds Generated and Expended' etc.

The funds statement is a method by which we study the net funds flow between two points in time. These points conform to beginning and ending financial statements, dates for whatever period of examination is relevant – quarter or a year. Here, the term funds denotes the `working capital'. Working capital is often regarded as the differences of current assets and current liabilities. Hence, the term `funds' and working capital, both are synonymous.

8.2.1 Meaning of Funds :

The term funds has been defined in a number of ways. Some interpret funds as cash only and fund flow statement prepared on this basis is called a cash flow statement. IN this type of statement only inflow and outflow of cash is taken into account. For its preparation the net income is adjusted for the amount of the increase or decrease in accounts receivable, accounts payable, inventories, accrued revenue and expenses, etc., This type of statement is prepared specially for the use of management in predicting future cash requirements.

On the other hand, in a funds flow statement, a broader approach is adopted interpreting the term, `funds'. It is conceived as all financial resources and it extends the concept to include all the current assets of financial resources. The narrower definition of fund, such as cash flow often leads to the omission of such items which do not directly affect cash or working capital. But in a broader sense, the assets of a firm represent the net uses of funds and its liabilities and net worth represents net resources. Thus, the term funds flow refers to changes in working capital. Changes in working capital position of a business units are significant considerations in the analysis of operating results and financial condition. The sources of working capital, the disposition of working capital and the composition of the working capital at the end of the period, are all important factors in evaluating past activities and in judging a company's ability to prosper in the future. A funds flow statement helps a lot in such appraisal.

In view of this definition of `funds' it becomes necessary to understand the terms of `current assets' , `current liabilities,' non current assets' non current liabilities.

Current Assets : For accounting purposes, the term current assets means cash and such other assets which are reasonably expected to be realised in cash or sold or consumed during the normal operating cycle of the business. Thus, the term current assets includes the following.

1. Cash and bank balances
2. Accounts receivable i.e., debtors and bills receivable
3. Stocks of raw material, work in progress and finished goods
4. Temporary investments or short term investments
5. Prepayment, e.g., prepaid rent, unexpired insurance etc.
6. Accrued incomes

Current Liabilities : The term current liabilities includes all such obligations which are likely to mature within one year in the normal course of business operations and which are paid out of current assets or by creating current liabilities. The broad categories of current liabilities are :

1. Accounts payable, i.e., creditors and bills payables
2. Outstanding expenses, e.g., wages, rent, commission etc.
3. Bank overdrafts
4. Income received in advance
5. Dividend payable
6. Provision for doubtful debts
7. Provision for taxation – may be current or non current
8. Proposed dividends – may be current or non current

Provision against current against current assets, such as, provision for bad and doubtful debts, etc., are also treated as current liabilities because such provisions reduce the amount of current assets.

Non Current assets : All those assets which are not current asset are termed as non current assets. Examples are :

1. Goodwill
2. Land and buildings
3. Plant and machinery
4. Furniture
5. Long term investments
6. Profit and loss account (debit balance)
7. Preliminary expenses
8. Patent rights and trade marks
9. Discount on the issue of shares and debentures

Non-Current Liabilities : This category includes all those liabilities which are not current liabilities. Examples are :

1. Share capital – equity and preference
2. Debentures and long term loans
3. Profit and loss account (credit balance)
4. Provision and reserves e.g., capital reserves, general reserves, sinking fund etc.
5. Proposed dividends
6. Share premium account
7. Share forfeiture accounts.

8.3. PREPARATION OF FUNDS FLOW STATEMENT

Broadly speaking the funds flow statement consists of two parts – (1) Schedule of changes in working capital and (2) statement of sources and uses of funds.

8.3.1. Form of Funds Flow statement :

Generally, this statement is prepared in two formats – in Report Form or in an account form.

Report form Funds Flow Statement

Sources of Funds	**Rs.**
1. From operation	X x x
2. Issue of Share capital	X x x
3. Issue of Debentures	X x x
4. Long term loans	X x x
5. Sales of fixed assets	X x x
6. Non Trading Receipts, e.g., dividends or donation received	X x x
7. Decrease in working capital (as per schedule	X x x
Total	**X x x**
Application of Funds	
1. Trading losses	X x x
2. Redemption of Pref. Share capital/Debentures	X x x
3. Repayment of long term debts	X x x
4. Purchase of any fixed assets	X x x
5. Non trading payments	X x x
6. Increase in working capital (as per schedule)	X x x
Total	**X x x**

Account Form of Funds Flow statement

Sources of Funds	Rs.	Applications of Funds	Rs.
1. Funds from operations	X x x	1. Trading loss (if any)	X x x
2. Issue of share capital	X x x	2. Redemption of Pref. Shares	X x x
3. Issue of Debentures	X x x	3. Repayment of Loans	X x x
4. Long term loans	X x x	4. Purchase of any fixed asset	X x x
5. Sale of fixed assets	X x x	5. Non-trading payments	X x x
6. Non trading receipts	X x x	6. Increase in working capital	X x x
7. Decrease in working capital	X x x		
	X x x		**X x x**

8.3.2. Sources of Funds :

The transactions that increase working capital are sources of funds. Some of them are :

(1) Funds from Operations : Sales are the main source of funds inflow and at the same time fund flow out for expenses and costs of goods sold. Thus, funds are increased if inflow from sales exceeds the outflow for expenses and goods sold. It can be calculated as under :

Calculations of Funds from Operations :

		Rs.	Rs.
	Net profit shown as Profit & Loss a/c		**X x x**
Add :	1. Depreciation and Depletion	X x x	
	2. Amortization of Fictitious and Intangible assets	X x x	
	3. Provision for taxation	X x x	
	4. Appropriation of Retained Earnings	X x x	
	5. Dividend (if any paid out of current year's profit)	X x x	
	6. Loss on sale of any asset (if debited) to Profit & Loss a/c	X x x	
	7. Any other non cash expenditure	X x x	X x x
			X x x
Less :	1. Dividend received from outside	X x x	
	2. Retransfer of excess provisions`	X x x	
	3. Profit on sale of fixed assets (if already credited to P & L a/c)	X x x	
	4. Appreciation in the value of fixed assets (if credited in P & L a/c)	X x x	X x x
	Funds From Operations		X x x

a) Depreciation and Depletion : The treatment of depreciation and depletion of non current assets like building and machinery is a difficult problem. These items are non fund items because they are nothing to do with current assets and current liabilities. So to delete their effect, their amount should be credited to current year's profit in order to find out the amount of funds.

b) Amortization of non fund items : This also does not affect the flow of funds. The amortization of some items belonging to the category of deferred revenue expenditure or intangible assets is simply a write off entry. This affects the profits as per financial

accounts but does not affect the funds from profit. Profit, therefore should be corrected by adding all such writing-off in order to calculate correct amount of funds from profit.

c) **Provision for taxation :** Provision for taxes made from current year's profit also does not affect the flow of funds. So it must be added back to the profits.

d) **Appropriation of Retained Earnings** It is simply a transfer entry. It must also be added back to the profit in order to compute funds from incomes.

The following items are deducted from profits –

(i) **Dividends Received from outside :** Generally, it is credited in P & L a/c. As it is a non-business income, it is shown separately as a source of funds so, here, it must be deducted from profits.

(ii) **Retransfer of Excess Provisions :** It does not create any inflow of funds, while profits are increased. Hence, it must be deducted.

(iii) **Profit or Gain on Sale of Assets :** Any profit or gain on the sale of non current assets (which has been credited to P & L a/c) must be eliminated from the amount of profit.

(iv) **Appreciation in the Value of Fixed Assets :** If any fixed asset has been appreciated during the year and credited to Profit and Loss a/c, it must also be deducted from the profit.

(2) **Issue of Share capital :** Increase in Share capital increases funds but shares issued and allotted for other than cash consideration do not generate fund.

(3) **Issue of Debentures or Long term loans :** Issue of debentures accepted public deposits and long term loans, all results in the increase of funds. If debentures like shares have been allotted to somebody for other than cash consideration, they will not be taken into account.

(4) **Sale of Fixed Assets :** When any fixed assets (like land, building, machinery, furniture or long term investments) is sold cash or account receivable is increased without increasing current liability, it results in the generation of funds.

(5) **Non Trading Receipts :** Any non trading receipt like dividends, rent, interest etc., received in cash also increased funds.

8.3.3 Application of Funds :

The following are the examples for the application of fund

1. **Purchase of Any fixed Asset :** If any fixed asset is purchased for cash, it is an application of funds.
2. **Payment of Loans etc.** : Any repayment of loan or redemption of preference shares is also an application of funds.
3. **Payment of Dividend :** Payment of dividend reduces the working capital and is an application of funds. But mere declaration of dividend (proposed dividends) is not an application of fund.
4. **Increase in working capital :** Increase in working capital is also an application of funds because it increase the investment in current sales.

8.4 STATEMENT OF CHANGES IN WORKING CAPITAL

The Statement of changes in working capital denotes the movement of working capital. The variation or change in working capital is shown by a schedule of working capital. As working capital represents the excess of current assets over current liabilities, the schedule of

working capital shows the aggregate of current assets, current liabilities at the end of two years and then the increase or decrease in working capital is measured by comparing the net working capital. Its performance is as follows :

Schedule of Changes in Working Capital

Particulars	**Previous Year**	**Current Year**	**On Working capital**	
	Rs.	**Rs.**	**Increase**	**Decrease**
Current assets :				
1.				
2.				
3.				
4.				
Total current Assets				
Current Liabilities				
1.				
2.				
3.				
4.				
Total Current Liabilities				
Net Working capital				
Increase/Decrease in working capital				

Illu.1 : The following are the summarised balance sheet of Good Luck Ltd., as on 31st December 2002 and 31st December 2003.

Liabilities	**2002**	**2003**	**Assets**	**2002**	**2003**
Share creditors	**1,03,000**	**96,000**	**Cash and bank balance**	**90,000**	**90,000**
Outstanding expenses	**13,000**	**12,000**	**Temporary investment**	**1,10,000**	**14,000**
8% Debentures	**90,000**	**70,000**	**Sundry debtors**	**67,000**	**43,000**
Depreciation fund	**40,000**	**44,000**	**Prepaid expenses**	**1,000**	**2,000**
Reserve for contingencies	**60,000**	**60,000**	**Stock in trade**	**82,000**	**1,06,000**
Profit and loss a/c	**16,000**	**23,000**	**Land & Buildings**	**1,50,000**	**1,50,000**
Capital	**2,30,000**	**2,30,000**	**Machinery**	**52,000**	**70,000**
	5,52,000	**5,35,000**		**5,52,000**	**5,35,000**

You are required to prepare a schedule of changes in working capital.

Solution :

Schedule showing changes is working capital

Particulars	**2002**	**2003**	**Increase**	**Decrease**
Current assets:				
Cash & Bank	90,000	90,000	-	-
Temporary investment	1,10,000	74,000	-	36,000
Sundry Debtors	67,000	43,000	-	24,000

Prepaid expenses	1,000	2,000	1,000	-
Stock in trade	82,000	1,06,000	24,000	-
Total current Assets (A)	**3,50,000**	**3,15,000**		
Current Liabilities:				
Sundry Creditors	1,09,000	96,000	7,000	-
Outstanding expenses	13,000	12,000	1,000	-
Total Current Assets (B)	**1,16,000**	**1,00,000**		

Working Capital (A) – (B) = 2,34,000 2,07,000
Decrease in working capital = 2,34,000 – 2,07,000 = Rs.27,000

Illu.2 : Prepare a statement of changes in working capital from the following Balance Sheets of Manjit and Company Limited.

Liabilities	**2002 Rs.**	**2003 Rs.**	**Assets**	**2002 Rs.**	**2003 Rs.**
Equity capital	**2,50,000**	**2,50,000**	**Fixed assets**	**3,00,000**	**3,50,000**
Debentures	**1,85,000**	**2,25,000**	**Long – term Investments**	**1,00,000**	**50,000**
Tax payable	**38,500**	**21,500**	**Work in progress**	**40,000**	**45,000**
Accounts payable	**48,000**	**96,000**	**Stock – in – trade**	**75,000**	**1,12,500**
Interest payable	**18,500**	**22,500**	**Accounts receivable**	**35,000**	**70,000**
Dividend payable	**25,000**	**17,500**	**Cash**	**15,000**	**5,000**
	5,65,000	**6,32,500**		**5,65,000**	**6,32,500**

Solution :

Schedule showing changes is working capital

Particulars	**2002 Rs.**	**2003 Rs.**	**Increase/ Decrease Rs.**	**Increase/ Decrease Rs.**
Current assets:				
Work – in – progress	40,000	45,000	5,000	-
Stock in trade	75,000	1,12,500	37,500	-
Accounts receivable	35,000	70,000	35,000	-
Cash	15,000	5,000	-	10,000
Total current Assets (A)	**1,65,000**	**2,32,500**		
Current Liabilities:				
Tax payable	38,500	21,500	17,000	-
Accounts payable	48,000	96,000	-	48,000
Interest payable	18,600	22,500	-	4,000
Dividend payable	25,000	17,500	7,500	-
Total Current liabilities (B)	**1,30,000**	**1,57,500**		
Working capital (A) – (B)	**35,000**	**75,000**		

Net increase is working capital = 75,000 – 35,000 = Rs.40,000

Illu.3 : Prepare a statement of changes in working capital:

Assets	2000 Rs.	2001 Rs.	Liabilities	2000 Rs.	2001 Rs.
Cash	**60,000**	**94,000**	**Capital**	**4,00,000**	**5,00,000**
Debtors	**2,40,000**	**2,30,000**	**Creditors**	**1,40,000**	**90,000**
Stock	**1,60,000**	**1,80,000**	**P & L a/c**	**20,000**	**46,000**
Land	**1,00,000**	**1,32,000**			
	5,60,000	**6,36,000**		**5,60,000**	**6,36,000**

Solution :

Statement of changes in working capital

Particulars	2000 (Rs.)	2001 (Rs.)	Changes in Working Capital	
			Increase Rs.	Decrease Rs.
Current Assets:				
Cash	60,000	94,000	34,000	-
Debtors	2,40,000	2,30,000	-	10,000
Stock	1,60,000	1,80,000	20,000	-
Total Current Assets (A)	**4,60,000**	**5,04,000**		
Current Liabilities:				
Creditors	1,40,000	90,000	50,000	-
Total Current Liabilities (B)	**1,40,000**	**90,000**		
Working Capital (A) - (B)	**3,20,000**	**4,14,000**	-	-
Net increase in working capital	94,000	-	-	94,000
Total	**4,14,000**	**4,14,000**	**1,04,000**	**1,04,000**

Illu.4 : The following were comparative balance sheets of XYZ co. as on 31st March 2002 and 2003:

Liabilities	31-3-2002 Rs.	31-3-2003 Rs.	Assets	31-3-2002 Rs.	31-3-2003 Rs.
Share capital	**50,000**	**53,000**	**Fixed Assets**	**50,000**	**60,000**
Profit & Loss a/c	**28,000**	**37,000**	**Investments**	**6,000**	**9,000**
General Reserve	**10,000**	**12,000**	**Stock**	**31,000**	**36,000**
12% Debentures	**16,000**	**23,000**	**Accounts Receivable**	**24,000**	**27,000**
Creditors	**20,000**	**21,000**	**Cash**	**20,000**	**25,000**
Provision for tax	**12,000**	**15,000**	**Preliminary expenses**	**5,000**	**4,000**
	1,36,000	**1,61,000**		**1,36,000**	**1,61,000**

Additional Information:

(a) Depreciation provided on fixed assets Rs.15,000
(b) Tax paid during the year Rs.13,000
(c) Interim dividend paid Rs.5,000
Prepare Funds Flow Statement.

Solution :

Schedule of changes in working capital

	31-3-2002 Rs.	31-3-2003 Rs.	Increase (+) Rs.	Decrease (-) Rs.
Current Assets:				
Cash	20,000	25,000	5,000	
Accounts Receivable	24,000	27,000	3,000	
Stock	31,000	36,000	5,000	
	75,000	**88,000**		
Current Liabilities:				
Creditors	20,000	21,000		1,000
Working capital	55,000	67,000		
Net increase in working capital	12,000			12,000
	67,000	**67,000**	**13,000**	**13,000**

Dr. Share Capital Account Cr.

	Rs.		Rs.
To Balance c/d	53,000	By Balance b/d	50,000
		By Bank	3,000
	53,000		**53,000**

Dr. General Reserve Account Cr.

	Rs.		Rs.
To Balance c/d	12,000	By Balance b/d	10,000
		By Profit & Loss a/c	2,000
	12,000		**12,000**

Dr. 12% Debentures Account Cr.

	Rs.		Rs.
To Balance c/d	23,000	By Balance b/d	16,000
		By Bank	7,000
	23,000		**23,000**

Dr. Provision for taxation Account Cr.

	Rs.		Rs.
To Bank (Tax)	13,000	By Balance b/d	12,000
To Balance c/d	15,000	By Profit & Loss a/c	16,000
	28,000		**28,000**

Dr. Fixed Assets Account Cr.

	Rs.		Rs.
To Balance b/d	50,000	By Depreciation (P& L a/c)	15,000
To Bank a/c	25,000	By Balance c/d	60,000
	75,000		**75,000**

Dr. **Investment Account** **Cr.**

	Rs.		Rs.
To Balance b/d	6,000	By Balance c/d	9,000
To Bank a/c	3,000		
	9,000		**9,000**

Dr. **Preliminary Expenses Account** **Cr.**

	Rs.		Rs.
To Balance b/d	5,000	By P & L a/c	1,000
		By Balance c/d	4,000
	5,000		**5,000**

Calculation of funds from operations:

	Rs.	Rs.
Balance of P & L a/c (31-3-2003)		37,000
Add: Non – cash and non – operating items:		
i. Transfer to general reserve	2,000	
ii. Provision for tax	16,000	
iii. Depreciation fixed assets	15,000	
iv. Interim dividend paid	5,000	
v. Preliminary expenses written off	1,000	39,000
		76,000
Less: P & L a/c balance on 31-3-2002		28,000
Funds from operations		**48,000**

Funds Flow Statement for the year ending 31-3-2003

Sources	Rs.	Application	Rs.
Issue of shares	3,000	Purchase of Fixed Assets	25,000
Issue of Debentures	7,000	Purchase of Investments	3,000
Funds from operations	48,000	Tax paid	13,000
		Interim Dividend paid	5,000
		Net increase in working capital	12,000
	58,000		**58,000**

Illu.5 : Extracts from Balance Sheets:

Particulars	**As on 31-3-1999 Rs.**	**As on 31-3-2000Rs.**
Equity shares capital	**4,00,000**	**5,00,000**
8% preference share capital	**2,00,000**	**1,50,000**

Additional information:

(i) Equity shares were issued during the year against the purchase of machinery Rs.50,000

(ii) 8% preference shares worth Rs.1,00,000 were redeemed during the year.

Prepare necessary accounts to find out sources / applications of funds.

Solution :

Dr. Equity Share Capital Account Cr.

Particulars	Rs.	Particulars	Rs.
To Balance c/d	5,00,000	By Balance b/d	4,00,000
		By Machinery a/c	50,000
		By Cash	50,000
	5,00,000		**5,00,000**

Dr. 8% Preference Share Capital Account Cr.

Particulars	Rs.	Particulars	Rs.
To Cash	1,00,000	By Balance b/d	2,00,000
To Balance c/d	1,50,000	By Cash	50,000
	2,50,000		**2,50,000**

Working Notes:

1. Issue of shares against the purchase of Machinery is neither a source nor application of funds.
2. Issue of shares worth Rs.50,000 for cash a source of funds.
3. Redemption of preference shares of Rs.50,000 is a source of funds.

Illu.6 The following are the summarised balance sheets of Y co. Ltd., on 31st December 2002 and 31st December 2003.

Liabilities	2002 Rs.	2003 Rs.	Assets	2002 Rs.	2003 Rs.
Share capital	**9,00,000**	**12,00,000**	**Plant & Machinery (at cost)**	**6,00,000**	**9,67,500**
Debentures	**3,00,000**	**4,50,000**	**Land & Building (at cost)**	**4,50,000**	**6,00,000**
Profit & Loss a/c	**1,87,500**	**3,75,000**	**Stock**	**4,50,000**	**5,25,000**
Creditors	**1,72,500**	**1,35,000**	**Bank**	**30,000**	**60,000**
Provision for bad and doubtful debts	**9,000**	**4,500**	**Preliminary expenses**	**10,500**	**9,000**
Provision for Depreciation on land & building	**30,000**	**36,000**	**Debtors**	**1,03,500**	**91,500**
On plant and Machinery	**45,000**	**52,500**			
	16,44,000	**22,53,000**		**16,44,000**	**22,53,000**

You are required to ascertain:

(a) Changes in working capital for 2003 and

(b) Funds Flow statement.

Addition information:

(i) During the year a part of machinery costing Rs.1,05,000 (accumulated depreciation thereon Rs.3,000) was sold for Rs.9,000

(ii) Dividends of Rs.75,000 were paid during the year.

Solution :

Dr. Provision for Depreciation Land & Building A/c Cr.

	Rs.		**Rs.**
To Balance c/d	36,000	By Balance b/d	30,000
		By P & L Adj. A/c (B /f)	6,000
	36,000		**36,000**

Dr. Land & Buildings a/c Cr.

	Rs.		**Rs.**
To Balance b/d	4,50,000	By Balance c/d	6,00,000
To Bank a/c	1,50,000		
	6,00,000		**6,00,000**

Dr. Plant and Machinery Account Cr.

	Rs.		**Rs.**
To Balance b/d	6,00,000	By Bank a/c (sale)	9,000
To Bank a/c (Purchase) (B/F)	4,72,500	By Provision for department on Plant & Machinery	3,000
		By P & L Adj. A/c (Loss)	93,000
		By Balance c/d	9,67,500
	10,72,500		**10,72,500**

Dr. Provision for depreciation on Plant & Machinery a/c Cr.

	Rs.		**Rs.**
To Plant & Machinery	3,000	By Balance b/d	45,000
To Balance c/d	52,500	By P & L Adj. A/c (B /f)	10,500
	55,500		**55,500**

Schedule showing changes in working capital

Particulars	**2002**	**2003**	**Increase**	**Decrease**
Current assets:				
Stock	4,50,000	5,75,000	75,000	-
Bank	30,000	60,000	30,000	-
Debtors	1,03,500	91,500	-	12,000
Total Current Assets (A)	**5,83,500**	**6,76,500**		
Current Liabilities:				
Creditors	1,72,500	1,35,000	37,500	
Provision for bad and doubtful debts	9,000	4,500	4,500	
Total Current Liabilities (B)	**1,81,500**	**1,39,500**		

Working capital (A) – (B) 4,02,000 5,37,000

Net increase is working capital = 5,37,000 – 4,02,000 = **Rs.1,35,000**

Dr. Profit & Loss Account Cr.

	Rs.		**Rs.**
To Provision for depreciation Land & Building	6,000	By Balance b/d	1,87,500
To Lost on sale of machinery	93,000	By Funds from operation	

		(B / f)	
To Preliminary expenses	1,500		
To Dividends	75,000		
To Balance c/d	3,75,000		
	5,61,000		**5,61,000**

Funds Flow Statement

Sources	**Rs.**	**Applications**	**Rs.**
Funds from operations	3,72,500	Purchase of Plant & Machinery	4,72,500
Issue of Share capital	3,00,000	Purchase of Land & Buildings	1,50,000
Issue of Debentures	1,50,000	Dividend paid	75,000
		Net Increase in working capital	1,35,000
	8,32,500		**8,32,500**

Illu.7 : The following is the Balance Sheet of X Ltd. on 31st December 1992 and 1991: -

Liabilities	**1991**	**1992**	**Assets**	**1991**	**1992**
Equity share capital	**3,00,000**	**4,00,000**	**Goodwill**	**1,15,000**	**90,000**
Preference shares	**1,50,000**	**1,00,000**	**Land and Buildings**	**2,00,000**	**1,70,000**
General Reserve	**40,000**	**70,000**	**Machinery**	**80,000**	**2,00,000**
Profit & Loss a/c	**30,000**	**48,000**	**Sundry debtors**	**1,60,000**	**2,00,000**
Proposed Dividend	**42,000**	**50,000**	**Stock**	**77,000**	**1,09,000**
Sundry Creditors	**55,000**	**83,000**	**Bills receivable**	**20,000**	**30,000**
Bills payable	**20,000**	**16,000**	**Cash in hand and at Bank**	**25,000**	**18,000**
Provision for taxation	**40,000**	**50,000**			
	6,77,000	**8,17,000**		**6,77,000**	**8,17,000**

Additional Information:

(a) Depreciation written off on Machinery and Buildings in 1992 were Rs.10,000 and Rs.20,000 respectively.
(b) During the year 1992 Dividends Rs.20,000 were paid
(c) The income tax paid during the year was Rs.35,000.

Prepare Funds Flow Statement.

Solution :

Working Notes:

Dr. Equity Share Capital Account Cr.

Particulars	**Rs.**	**Particulars**	**Rs.**
31-12-1992		1-1-1992	
To Balance b/d	4,00,000	By Balance b/d	3,00,000
		31-12-1992	
		By Cash (Bal. Fig)	1,00,000
	4,00,000		**4,00,000**

Dr. 8% Redeemable Preference share Capital Cr.

Particulars	Rs.	Particulars	Rs.
31-12-1992		1-1-1992	
To Cash (Bal. Fig)	50,000	By Balance b/d	1,50,000
To Balance c/d	1,00,000		
	1,50,000		**1,50,000**

Dr. General Reserve Account Cr.

Particulars	Rs.	Particulars	Rs.
31-12-1992		1-1-1992	
To Balance c/d	70,000	By Balance b/d	40,000
		31-12-1992	
		By P & L a/c (Bal. Fig)	30,000
	70,000		**70,000**

Dr. Provision for taxation Account Cr.

Particulars	Rs.	Particulars	Rs.
31-12-1992		1-1-1992	
To Cash Balance c/d	35,000	By Balance b/d	40,000
To Balance c/d	50,000	31-12-1992	
		By P & L a/c (Bal. Fig)	45,000
	85,000		**85,000**

Dr. Goodwill Account Cr.

Particulars	Rs.	Particulars	Rs.
1-1-1992		31-12-1992	
To Balance b/d	1,15,000	By P & L a/c (Bal. Fig)	25,000
		By Balance c/d	90,000
	1,15,000		**1,15,000**

Dr. L & B Account Cr.

Particulars	Rs.	Particulars	Rs.
1-1-1992		31-12-1992	
To Balance b/d	2,00,000	By P & L a/c (Dep.)	20,000
		By Cash (sale) (bal. Fig)	10,000
		By Balance c/d	1,70,000
	2,00,000		**2,00,000**

Dr. Machinery Account Cr.

Particulars	Rs.	Particulars	Rs.
1-1-1992		31-12-1992	
To Balance b/d	80,000	By P & L a/c (Dep.)	10,000
31-12-1992		By Balance c/d	2,00,000
To Cash (Bal. Fig)	1,30,000		
	2,10,000		**2,10,000**

Cash from Operations:

Particulars	Rs.	Rs.
Balance of profit as per P & L a/c for the year ended 31-12-1992		**48,000**

Add: Non- Cash and Non – operating expenses:		
General Reserve	30,000	
Proposed dividend	50,000	
Interim dividend	20,000	
Provision for taxation	45,000	
Depreciation on Machinery & Buildings	30,000	
Goodwill written off	25,000	2,00,000
		2,48,000
Less: Non – Cash and Non – operating incomes		
NIL	-	-
		2,48,000
Less: Balance of Profit as per P & L a/c for the year ended 31-12-1991		30,000
Cash from operations		**2,18,000**

Statement of Sources and Uses for the year ended 31st December 1992

Particulars	**Rs.**	**Rs.**
Cash & Bank Balance as on 31-12-1991		**25,000**
Sources:		
Issue of equity shares	1,00,000	
Sale of building	10,000	
Increase in Creditors	28,000	
Cash from operations	2,18,000	3,56,000
		3,81,000
Uses:		
Redemption of 8% Preference shares	50,000	
Proposed dividend of 1991 paid (assumed)	42,000	
Income – Tax paid	35,000	
Plant purchased	1,30,000	
Increase in Debtors	40,000	
Increase in Stock	32,000	
Increase in Bills receivable	10,000	
Decrease in Bills payable	4,000	
Interim dividend paid	20,000	3,63,000
Cash and Bank balance on 31-12-2000		**18,000**

Illu.8 : Prepare a funds statement from the following particulars:

Assets	**2000 Rs.**	**1999 Rs.**	**Liabilities**	**2000 Rs.**	**1999 Rs.**
Cash	**36,000**	**60,000**	**Trade creditors**	**1,70,000**	**1,94,000**
Debtors	**1,08,000**	**1,00,000**	**Accrued Expenses**	**38,000**	**26,000**
Stock	**1,60,000**	**1,40,000**	**Mortgages**	**60,000**	**40,000**
Investment (Marketable)	**-**	**20,000**	**Capital**	**2,60,000**	**2,00,000**
Fixed assets	**3,40,000**	**2,80,000**	**Retained earnings**	**68,000**	**59,000**
Accumulated depreciation	**(48,000)**	**(1,01,000)**			
Fixed assets (Net)	**2,92,000**	**1,79,000**			

Goodwill	-	20,000			
	5,96,000	**5,19,000**		**5,96,000**	**5,19,000**

Additional information:

(a) **Depreciation provided during 2000 amounted to Rs.27,000**
(b) **Dividends paid in 2000 amounted to Rs.14,000.**

Solution :

Schedule of Changes in working capital

	1999 Rs.	2000 Rs.	Increase in W. C.	Decrease in W. C.
Current Assets:				
Cash	60,000	36,000	-	24,000
Debtors	1,00,000	1,08,000	8,000	-
Stock	1,40,000	1,60,000	20,000	-
Investments	20,000	-	-	20,000
	3,20,000	**3,04,000**		
Current Liabilities:				
Trade Creditors	1,94,000	1,70,000	24,000	-
Accrued Expenses	26,000	38,000	-	12,000
	2,20,000	**2,08,000**		
Working capital (C. A. – C. L)	1,00,000	96,000		
Net Decrease in W. C.	-	4,000	4,000	
	1,00,000	**1,00,000**	**56,000**	**56,000**

Dr. Funds Flow Statement Cr.

Sources	Rs.	Applications	Rs.
Issue of shares [2]	60,000	Purchase of fixed Assets [1]	1,40,000
Raising of Mortgages [3]	20,000	Payment of Dividend	14,000
Funds from operations [4]	70,000		
Net Decrease in W. C.	4,000		
	1,54,000		**1,54,000**

Working Notes:

(1)

Dr. Net Fixed Assets Account Cr.

Particulars	Rs.	Particulars	Rs.
To Balance b/d	1,79,000	By Depreciation	27,000
To Cash – Purchases (Balancing figure)	1,40,000	By Balance c/d	2,92,000
	3,19,000		**3,19,000**

(2)

Dr. Share Capital Account Cr.

Particulars	Rs.	Particulars	Rs.
To Balance c/d	2,60,000	By Balance b/d	2,00,000
		By Cash – Issue (balancing figure)	60,000
	2,60,000		**2,60,000**

(3)

Dr. Mortgages Accounts Cr.

Particulars	Rs.	Particulars	Rs.
To Balance c/d	60,000	By Balance b/d	40,000
		By Cash – raised (Balancing figure)	20,000
	60,000		**60,000**

Dr. Adjusted Profit and loss Account Cr.

Particulars	Rs.	Particulars	Rs.
To Depreciation	27,000	By Balance b/d	59,000
To Goodwill written off	20,000	BY Funds from operations (balancing figure)	70,000
To Dividend paid	14,000		
To Balance c/d	68,000		
	1,29,000		**1,29,000**

Illu.9 : From the following balances extracted from Messrs. Surya Tiles Ltd. as on 31st March 2001 and 2002, you are required to prepare (a)Schedule of changes in working capital and (b) Funds Flow Statement.

Liabilities	31st March 2001 Rs.	31st March 2002 Rs.	Assets	31st March 2001 Rs.	31st March 2002 Rs.
Share capital	**1,00,000**	**1,10,000**	**Buildings**	**40,000**	**38,000**
General Reserve	**14,000**	**18,000**	**Plant & Machinery**	**37,000**	**36,000**
P & L a/c	**16,000**	**13,000**	**Investment**	**10,000**	**21,000**
Creditors	**8,000**	**5,400**	**Stock**	**30,000**	**23,400**
Bills payable	**1,200**	**800**	**Bills receivable**	**2,000**	**3,200**
Provision for tax	**16,000**	**18,000**	**Debtors**	**18,000**	**19,000**
Provision for doubtful debts	**400**	**600**	**Cash at Bank**	**6,600**	**15,200**
			Preliminary expenses	**12,000**	**10,000**
	1,55,600	**1,65,800**		**1,55,600**	**1,65,800**

Additional Information:

(i) Depreciation charged on Plant was Rs.4,000

(ii) Provisions for taxation Rs.19,000 was made during the year 2002.

(iii) Interim dividend of Rs.8,000 was paid during the year.

(iv) A piece of machinery was sold for Rs.8,000 during the year 2002. It has costed Rs.12,000. Depreciation of Rs.7,000 has been provided for it.

Solution :

Schedule of changes in working capital

Particulars	2001 Rs.	2002 Rs.	Increase (+) Rs.	Decrease (-) Rs.
Current assets:				
Cash at Bank	6,600	15,200	8,600	-
Debtors	18,000	19,000	1,000	

Bills receivable	2,000	3,200	1,200	
Stock	30,000	23,400		6,600
Total Current Assets (A)	**56,000**	**60,800**		
Current liabilities:				
Provision for doubtful debts	400	600		200
Bills payable	1,200	800	400	
Sundry creditors	8,000	5,400	2,600	
Total Current Liabilities (B)	**9,600**	**6,800**		
Working Capital			**13,800**	**6,800**

Net increase in working capital = 13,800 – 6,800 = 7,000

Funds Flow Statement for the year ended

Sources:	
Net in working capital	7,000
Funds from operations	29,000
Sales of machinery	8,000
	44,000
Applications:	
Purchase of plant	8,000
Taxes paid	17,000
Investments purchases	11,000
Interim dividend paid	8,000
	44,000

Working Notes: Funds from operations – **Rs.**

Profit & Loss account balance on 31-12-02	13,000
Add: items which do not decrease funds from Operations:	
Preliminary expenses written off	2,000
Provision for taxation	19,000
Depreciation: Plant	4,000
Buildings	2,000
Interim dividend	8,000
	48,000
Less: Profit on sale of machinery	3,000
	45,000
Less: Profit & Loss a/c balance on 31-12-2001	16,000
Funds from operations	**29,000**

Purchase of Plant:

Balance as on 31-12-2001	37,000
Less: Depreciation	4,000
	33,000
Less: Books value of machinery sold	

(12,000 – 7,000)	5,000
	28,000
Less: Balance as on 31-12-2002	36,000
Purchase of Plant	**8,000**

Taxes Paid:

Provision for tax as on 31-12-01	16,000
Add: Provision created for 2002	19,000
	35,000
Less: Provision for taxes on 31-12-2002	18,000
Taxes Paid	**17,000**

Note: investments have not been treated as current asset.

Illu.10 : Prepare funds flow statement from the following information:

Liabilities	2002 Rs.	2003 Rs.	Assets	2002 Rs.	2003 Rs.
Capital	77,000	81,200	Buildings	52,000	60,100
Creditors	10,500	14,800	Machinery	25,000	20,000
Creditors for machinery	25,000	25,000	Motorcar	21,000	16,800
Bank Loan	5,000	26,000	Furniture	1,500	2,300
B /P	14,000	16,000	Stock	12,000	37,400
Provision for bad debts	1,000	800	Debtors	4,000	12,600
			B / R	14,800	11,020
			Cash in hand	2,100	3,500
			Petty Cash	100	80
	1,32,500	1,63,800		1,32,500	1,63,800

(i) Rs.5,000; on motorcar Rs.4,200 and on furniture Rs.300.
(ii) Drawings of Mr. X were Rs.15,000
(iii) Additional capital introduced during the year was Rs.10,000

Solution :

Schedule of changes in working capital of
Mr. X as on 31st December 2003

Particulars	2002 (Rs.)	2003 (Rs.)	Changes in Working Capital	
			Increase	Decrease
Current Assets:				
Stock	12,000	37,400	25,400	-
Debtors	4,000	12,600	8,600	-
B / R	14,800	11,020	-	3,780
Cash in Hand	2,100	3,500	1,400	-
Petty Cash	100	80	-	20

Total Current Assets (A)	**33,000**	**64,600**		
Current Liabilities:				
Creditors	10,500	14,800	-	4,300
B / P	14,000	16,000	-	2,000
Provision for bad debts	1,000	800	200	-
Total Current Liabilities (B)	**25,500**	**31,600**		
Working Capital (A) – (B)	**7,500**	**33,000**		
Increase in working capital	25,500	-	-	25,500
Total	**33,000**	**33,000**	**35,600**	**35,600**

Calculation of Funds from operations:

		Rs.
Profit during the year 2003		9,200
Add: Non –operating funds debited to P & L a/c:		
Depreciation on Building	5,200	
Depreciation on Machinery	5,000	
Depreciation on Motorcar	4,200	
Depreciation on Furniture	300	14,700
Funds from operations		**23,900**

Funds Flow Statement of 'X' as on 31-12-2003

Sources	**Amount (Rs.)**	**Uses**	**Amount (Rs.)**
Funds from operations	23,900	Drawings	15,000
Additional Capital Introduced	10,000	Purchase of Buildings	13,300
Additional Bank Loan raised	21,000	Purchase of Furniture	1,100
		Increase in working capital	25,500
	54,900		**54,900**

Working Notes:

Dr. Buildings a/c Cr.

Particulars	**Rs.**	**Particulars**	**Rs.**
To Opening Balance	52,000	By Depreciation	5,200
To Cash (Buildings purchased)	13,300	By Closing balance	60,100
	65,300		**65,300**

Dr. Furniture A/c Cr.

Particulars	**Rs.**	**Particulars**	**Rs.**
To Opening Balance	1,500	By Depreciation	300
To Cash (Furniture purchased)	1,100	By Closing Balance	2,300
	2,600		**2,600**

Dr. Capital A/c Cr.

Particulars	**Rs.**	**Particulars**	**Rs.**
To Drawings (Cash)	15,000	By Opening Balance	77,000
To Closing Balance	81,200	By Additional Capital introduced (Cash)	10,000
		By P & L a/c (2003 ear profit) (B / F)	9,200

	96,200		**96,200**

Illu.11 : From the following Balance – Sheet of Mr. Kumar you are requested to prepare a schedule of changes in working capital and statement of Funds Flow.

Liabilities	**1999 Rs.**	**2000 Rs.**	**Assets**	**1999 Rs.**	**2000 Rs.**
Capital	**80,000**	**85,000**	**Land & Buildings**	**50,000**	**50,000**
Profit & Loss a/c	**14,500**	**24,500**	**Plant**	**24,000**	**34,000**
Creditors	**9,000**	**5,000**	**Stock**	**9,000**	**7,000**
Mortgage	**-**	**5,000**	**Debtors**	**16,500**	**19,500**
			Cash	**4,000**	**9,000**
	1,03,500	**1,19,500**		**1,03,500**	**1,19,500**

Solution :

Statement showing changes in Working Capital

	1999	**2000**	**Increase**	**Decrease**
Current Assets:	9,000	7,000		2,000
Debtors	16,500	19,500	3,000	
Cash	4,000	9,000	5,000	
Current Liabilities:				
Creditors	9,000	5,000	4,000	
			12,000	**2,000**

Net increase in Working capital = Rs.12,000 – 2,000 = Rs.10,000.

Funds from operations

	Rs.
Balance of profit in 2000	24,500
Less: Balance of profit in 1999	14,500
Funds from operations	**10,000**

Funds Flow Statement

		Rs.
Sources of funds		
Funds from operations	10,000	
Issue of Capital	5,000	
New Mortgage	5,000	20,000
Application of Funds		
Purchase of Plant		10,000
Net Increase in working Capital		**10,000**

Illu.12 : The Balance Sheet of Shri. Constructions Ltd. were as follows:

Liabilities	**31-12-98**	**31-12-99**	**Assets**	**31-12-98**	**31-12-99**
Share Capital	**70,000**	**74,000**	**Cash**	**9,000**	**7,800**
Debentures	**12,000**	**6,000**	**Debtors**	**14,900**	**17,700**
Provision for bad debts	**700**	**800**	**Stock**	**49,200**	**42,700**
Creditors	**10,360**	**11,840**	**Land**	**20,000**	**30,000**
P & L 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) **Dividend paid Rs.3,500**
(b) **Land Purchased Rs.10,000**
(c) **Goodwill written off Rs.5,000**
(d) **Debentures redeemed Rs.6,000**

Prepare funds flow statement.

Solution :

Schedule of Changes in Working Capital

	1998 Rs.	1999 Rs.	Increase in W. C. Rs.	Decrease in W. C. Rs.
Current Assets:				
Cash	9,000	7,800	-	1,200
Debtors	14,900	17,700	2,800	-
Stock	49,200	42,700	-	6,500
	73,100	**68,200**	**-**	**-**
Current Liabilities:				
Trade Creditors	10,360	11,840	-	1,480
Reserve for Doubtful debts	700	800	-	100
	11,060	**12,640**		
Working Capital (C. A. – C. L.)	62,040	55,560		
Net Decrease in W. C.	-	6,480	6,480	
Working Capital	**62,040**	**62,040**	**9,280**	**9,280**

Fund Flow Statement (for the year ended 31-12-1999)

Sources	**Rs.**	**Use of Funds**	**Rs.**
Issue of Share Capital (74,000 – 70,000)	4,000	Redemption of Debentures Rs. (12,000 – 6,000)	6,000
Funds from operations	9,020	Purchase of land Rs. (30,000 – 20,000)	10,000
Net Decrease in working capital	6,480	Payment of Dividend	3,500
	19,500		**19,500**

Funds from operations

		Rs.
	Closing Balance of P/ L a/c (1999)	10,560
Add:	Non – fund and non – operating items which have already been debited to P/ L A/c:	
	Goodwill Written off	5,000
	Dividend paid	3,500
		19,060
Less:	Opening balance of P & L a/c (1998)	10,040
Funds from operations		**9,020**

Illu.13 :The following is the summarised balance sheet of Mr. Ramesh & co.

Liabilities	1997 Rs.	1998 Rs.	Assets	1997 Rs.	1998 Rs.
Equity share capital	3,00,000	3,50,000	Fixed Assets (net)	5,10,000	6,20,000
Preference capital	2,00,000	1,00,000	Investments	30,000	80,000
Debentures	1,00,000	2,00,000	Current Assets	2,40,000	3,75,000
Reserve	1,00,000	2,70,000	Discount on debentures	10,000	5,000
Provision for doubtful debts	10,000	15,000			
Current liabilities	80,000	1,45,000			
	7,90,000	10,80,000		7,90,000	10,80,000

Additional Information:

(a) A machine costing Rs.70,000 whose book value was Rs.30,000 was disposed off Rs.25,000.

(b) Preference share redemption was carried out at a premium of 5%.

(c) The provision for depreciation stock at Rs.1,50,000 on 31-12-87 and at Rs.1,90,000 on 31-12-88.

Prepare Funds Flow Statement.

Solution :

Schedule of Changes in Working Capital

	1997 Rs.	1998 Rs.	Increase	Decrease
Current Assets	2,40,000	3,75,000	1,35,000	65,000
Less: Current liabilities	80,000	1,45,000		65,000
Working capital	1,60,000	2,30,000	1,35,000	65,000
Net Increase in Working capital	70,000			70,000
	2,30,000			**1,35,000**

Calculation of Funds from operations.

	Rs.
Depreciation provided on Fixed Assets	80,000
Loss on sale of machinery	5,000
Discount Issue of Debenture 's written off	5,000
Premium on redemption of preference share capital	5,000
Transfers to Reserves	1,70,000
Provision for doubtful debts provided	5,000
Funds from operations	**2,70,000**

Dr. Funds flow Statements Cr.

Sources	Rs.	Applications	Rs.
Issue of equity share capital	50,000	Redemption of preference capital	1,00,000
Issue of Debentures	1,00,000	Premium on Redemption	5,000
Sale of machinery	25,000	Purchase of machinery	2,20,000
Funds from operations	2,70,000	Investment purchase	50,000
		Investments in working capital	70,000
	4,45,000		**4,45,000**

Working Notes:

(1)

Dr. **Fixed Assets Account** **Cr.**

To Balance b/d	5,10,000	By Bank 25,000	
To Bank (Bal. Fig) Purchase	2,20,000	By Loss on sales 5,000	30,000
		By Depreciation Provision a/c	80,000
		By Balance c/d	6,20,000
	7,30,000		**7,30,000**

Dr. **Provision for Depreciation Account** **Cr.**

To Fixed Assets a/c (accumulated depreciation on machinery sold) (70,000 – 30,000)	40,000	By Balance b/d	1,50,000
To Balance c/d	1,90,000	By Loss on sales Depreciation (Bal. Fig)	80,000
	2,30,000		**2,30,000**

(2) Investments purchased = Rs.80,000 – 30,000 = Rs.50,000

(3) Discount on Debentures written off = Rs.10,000 – 5,000 = Rs.5,000

(4) Issue of Equity share capital = Rs.3,50,000 – 3,00,000 = Rs.50,000.

(5) Redemption of Preference Share capital = Rs.2,00,000 – Rs.1,00,00 = 1,00,000

(6) Premium on redemption of preference share capital
= 5% on Rs.1,00,000 = Rs.5,000

(7) Issue of Debentures = Rs.2,00,000 – 1,00,000 = Rs.1,00,000

(8) Transfer to Reserve = Rs.2,70,000 – 1,00,000 = Rs.1,70,000

(9) Provision for doubtful debts provided = Rs.15,000 – 10,000 = Rs.5,000.

8.5 SELF ASSESSMENT QUESTIONS:

1. What is Funds Flow Analysis?
2. What are the sources and Applications of Funds
3. Draw a Proforma Funds Flow Statement
4. How do you the Statement of Changes in Working Capital position help in Funds flow Analysis?
5. What are the uses of Funds Flow Statement? What are its disadvantages?
6. Income statement concentrates on operating part while Funds Flow statement throws light on the activities and the direction of operations. Comment.

8.6 EXERCISES :

1. Calculate funds from operations from the following:
   Net profit for the year Rs.80,000
   Administrative expenses Rs.20,000
   Depreciation Rs.42,000
   Loss on sale of Machinery Rs.10,000
   Interest on investments Rs.5,000
   Selling and distribution expenses Rs.15,000
   [Ans.: Funds from Operations Rs.1,27,000]

2. The following were the Balance Sheet of XYZ Co. Ltd. as on 31st March 2002 and 2003.

Liabilities	31-3-02 Rs.	31-3-03 Rs.	Assets	31-3-02 Rs.	31-3-03 Rs.
Share capital	2,64,000	3,96,000	Land & Buildings	1,66,200	3,39,600
General Reserve	18,000	27,000	Machinery	1,06,800	1,53,900
P & L a/c	58,500	62,400	Furniture	7,200	4,500
12% Debentures	10,000	78,000	Stock	66,300	78,000
Provision for Tax	29,400	37,700	Debtors	1,09,500	1,17,300
Creditors	1,00,500	1,09,200	Cash at Bank	14,400	12,000
			Preliminary expenses	10,000	5,000
	4,80,400	**7,10,300**		**4,80,400**	**7,10,300**

You are required to prepare funds flow statement after taking into account the following:

(a) Depreciation written off during year
  On Buildings Rs.20,400
  On Machinery Rs.38,400
  On Furniture Rs.1,200

(b) Interim dividend paid during the year Rs.26,000

(c) Income tax paid Rs.30,000.

[Ans.: Net increase in working capital Rs.8,400; Funds from operations Rs.1,42,200]

3. The following are the summarised balance sheets of M/s Vivek Ltd. on 31st December, 2003 and 31st December, 2004.

Liabilities	2003 (Rs.)	2004 (Rs.)
Share capital	12,00,000	16,00,000
Debentures	4,00,000	6,00,000
Profit & Loss Account	2,50,000	5,00,000
Creditors	2,30,000	1,80,000
Provision for :		
Bad and doubtful debts	12,000	6,000
Depreciation on land and buildings	40,000	48,000
Depreciation on plant & Machinery	60,000	70,000
	21,92,000	21,92,000
Assets :		
Plant and Machinery (at cost)	8,00,000	12,90,000
Land and buildings (at cost)	6,00,000	8,00,000
Stock	6,00,000	7,00,000
Bank	40,000	80,000
Preliminary expenses	14,000	12,000
Debtors	1,38,000	1,22,000
	21,92,000	30,04,000

Additional Information :

(a) During the year a part of the machinery costing Rs.1,40,000 (accumulated depreciation thereon Rs.4,000) was sold for Rs.12,000.

(b) Dividend for Rs.1,00,000 was paid during the year.

Ascertain :

(i) Change in working capital for 2004
(ii) Funds Flow statement for 2004.

[Ans.: Net increase in working capital Rs.1,74,000; Funds from operations Rs.4,92,000]

4. From the following Balance Sheets of B Ltd., prepare a source and uses of funds statement for 2004.

Assets	31st December, 2004 (Rs.)	31st December, 2003 (Rs.)
Cash	75,000	35,000
Accounts receivable	90,000	98,000
Merchandise inventory	1,20,000	87,000
Long term investments	10,000	15,000
Land	30,000	20,000
	3,25,000	2,55,000
Liabilities and Stockholders		
Equity accounts payable	45,000	50,000
Notes payable (short term)	35,000	20,000
Notes payable (due December, 2005)	20,000	-
Capital stock	1,50,000	1,25,000
Retailed earnings	75,000	60,000
	3,25,000	2,55,000

[Ans.: Increase in working capital Rs.35,000; Funds from operations Rs.15,000]

5. Seeta Mahalakshmi Ltd., presents the following financial statements for 2000 and 2001. Prepare a source and Application of funds statement:

	2000 Rs.	**2001 Rs.**
Assets		
Cash	1,06,000	62,000
Investments	1,74,000	-
Sundry Debtors	6,92,000	10,56,000
Stock in trade	8,64,000	13,66,000
Net fixed assets	22,26,000	27,96,000
	40,62,000	**52,80,000**
Liabilities		
Sundry Creditors	8,26,000	12,54,000
Bills payable	4,52,000	6,28,000
Loan from bank	2,00,000	4,70,000
Reserves and surplus	13,84,000	17,28,000
Share capital	12,00,000	12,00,000

Depreciation of Rs.3,78,000 was written off for 2001 on fixed assets.
[Ans.: Increase in working capital Rs.44,000; Funds from operations Rs.7,22,000]

6. From the following Balance Sheet as on 31st December 2003 and 31st December 2004 you are required to prepare a schedule of changes in the working capital and a funds flow statement taking the provision for tax and proposed dividends as non – current liabilities.

Liabilities	**As on 2003 Rs.**	**31st Dec. 2003 Rs.**	**Assets**	**As on 2003 Rs.**	**31st Dec. 2003 Rs.**
Share capital	10,000	15,000	Fixed Assets	10,000	20,000
Profit and loss a/c	4,000	6,000	Current	13,000	14,500
Provision for tax	2,000	3,000			
Proposed Dividends	1,000	1,500			
Sundry Creditors	4,000	6,000			
Outstanding expenses	2,000	3,000			
	23,000	**34,500**		**23,000**	**34,500**

Additional Information:

(a) Tax paid during 2004 Rs.2,500
(b) Dividends paid during 2004 Rs.1,000

[Ans.: Net decrease in working capital Rs.1,500; Funds from operations Rs.7,000]

8.7 SUGGESTED READINGS :

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Chapter – 9

ISSUE OF SHARES

9.0 Objective:

After reading this unit you should be able to :

- Know the meaning of a company
- Understand the types of shares of a company
- Follow the procedure in the issue of shares of a company
- Record the entries on the issue, allotment of shares
- Understand the provisions relating to the issue of shares at premium and at discount.
- Know the provisions relating to the issue of shares for other than cash

Structure:

9.1 Introduction

9.2 Types of shares

9.3 Procedure for issuing shares

9.4 Accounting entries for issue of shares

9.5 Issue of Shares for consideration other than Cash

9.6 Issue of Bonus Shares

9.7 Self Assessment Questions

9.8 Exercises

9.9 Suggested Readings

9.1. INTRODUCTION

A joint stock company is a voluntary association of persons formed for the purpose of some business for profit with common capital, divisible into transferable shares and possessing a corporate legal entity and a common seal. It is created by a process of law and can be put to an end only by a process of law. It is a legal person and is something different from its members. It is, therefore capable of acting in s own name. But as it has no physical existence, it must act through its agents and all the contracts entered into by its agents must be under the seal of the company. The members as such do not carry on the business of the company. A group of persons who are individually called the directors and collectively form the Board of Directors are appointed. The company acts through the Board of Directors or subordinates appointed by the Board for the purpose.

The company must be compulsorily registered. The capital of a company is divided into small units called shares. Any one who holds or buys share in a company is called shareholder.

9.1.1. Definition of a company

According to Section 3(1)(i) of Indian Companies Act,1956 ,"Company means a company formed and registered under the Companies Act or an existing company formed and registered under any previous, Indian Companies Act".

9.1.2. Features of a company

a. **Incorporation:** A company comes into existence only after registration under the Companies Act.
b. **Artificial legal person:** A company is a corporate body. It is an artificial body created by law.
c. **Distant legal entity:** A company is regarded as a separate entity from its members.
d. **Common seal:** A company is not a natural person. It cannot sign documents. So the common seal is used as a substitute for signature.
e. **Perpetuity:** A company has perpetual or continuous existence.
f. **Limited liability:** The liability of a shareholder is limited. If a shareholder pays the face value of the shares in full to the company, he need not pay even a single paisa.
g. **Number of members:** In a public limited company, the minimum number of members is seven and there is no limit to maximum number. In case of Private limited company, minimum is two and maximum is fifty.
h. **Separation of ownership and management:** A company is owned by the shareholders. It is managed by a separate body called 'Board of Directors'.
i. **Rigidity of objects:** The scope of the business of a company cannot be charged. It cannot do any business which is not included in the 'Objects Clause' of its Memorandum of Association.
j. **Transferability of shares:** Shares can be easily transferred from one person to another. A shareholder can sell hi shares easily and quickly whenever he wants money.
k. **Financial Resources:** A company can secure large capital compared to sole trader or partnership.
l. **Statutory regulations:** A company is governed by the Companies Act. It has to follow the various provisions of the Act.

9.1.3. Various kinds of Companies

There are three main classes of Joint Stock Companies.

1. **Chartered Companies:** These are the companies formed by the grant of a Royal Charter. They are prevalent in England. This kind of companies are not there in India. Ex. British East India Company.
2. **Statutory Companies:** These are the companies formed by the enactment of special Act of Parliament or State Assembly. The Reserve Bank of India, the State Bank of India, Life Insurance Corporation of India etc., are the examples of Statutory companies.
3. **Registered Companies:** These are the companies formed and registered under the Companies Act, 1956. This is the common way of forming companies. Ex. Tata Iron and Steel Co., HMT Ltd. etc.

   The registered companies are further classified into four groups:

   a) **Companies limited by shares:** In these companies the liability of the members is limited to the extent of the value of shares held by them.

b) **Companies limited by Guarantee:** In these companies the members liability is not only upto the face value of the shares but also extended to the amount guaranteed by them.

c) **Unlimited companies:** In these companies the liability of the members is unlimited. The members are fully liable for all the debts of the company.

d) **Government Companies:** In these companies the government share is more than 51%. Further a registered company may be a Private Limited Company or a Public Limited Company.

9.2. TYPES OF SHARES

The capital of a company is divided into units of small denominations. Each such unit into which the capital of the company is divided, is called a share. For Eg: in one company the total capital of Rs.10,00,000 is divided into 1,00,000 units of Rs.10 each. Thus each unit of Rs.10 is called a share of Rs.10 each. The company is said to have 1,00,000 shares of Rs.10 each. Thus share means a part of companies capital divided in Rs.10, Rs.50, Rs.100 each.

9.2.1. Types of Shares:

A company can issue two types of shares. They are (1) Equity shares and (2) Preference shares. Equity shareholders are the owners of the business. They have the right to vote and hence they elect Board of Director of their choice. The dividend on equity shares is not fixed. It will be changing according to the amount of profit available for distribution in the firm of dividends. The equity shareholders will not be paid back during the lifetime of the company. In case of winding up of the equity shareholders are paid back only after all other claimants are paid the amount due to them.

Features of Equity Shares:

The features of Equity Shares are:

1. Dividend is payable on these shares only after payment of dividend on preference shares.
2. At the time of liquidation, equity capital is returnable only after repayment of preference capital.
3. These shares are always non-cumulative.
4. Dividend is not a fixed amount.
5. Equity shareholders are entitled to vote on all resolutions.

9.2.2. Preference Shares:

Preference shares are those shares, which enjoy preferential rights both with respect to dividend and with respect to repayments of capital either during the lifetime or on winding up of the company. They will have the first change on the distributable amount of net profits.

Kinds of preference shares:

The preference shares may be of the following types.

a. Cumulative Preference Shares: The dividend payable on these shares goes on accumulating till it is fully paid off. A cumulative preference shareholder has a right to claim the fixed dividend of the current year out of future profit. Company is bound to pay dividend only if it has sufficient profits available for distribution.

b. Non-cumulative Preference Shares: In the case of non-cumulative preference shares, the dividend shall be payable only out of the profits of the current year. If it is not paid in a particular year, it is lost and the arrears of dividend cannot be carried forward. In other words, the unpaid dividends cannot accumulate.

c. **Participating Preference Shares:** Participating preference shares are not only entitled to a fixed rate of dividend, but also to a share in the surplus profits which remain after the claims of the equity shareholders have been met.
d. **Non-participating Preference Shares:** Non-participating preference shares entitled to only a fixed rate of dividend. They do not share in the surplus which belong to the equity share holders.
e. **Convertible Preference Shares:** The holders of these shares have a right to convert them into equity shares within a certain period of time.
f. **Non-convertible Preference Shares:** The preference shares without a right of conversion into equity shares are known as non-convertible preference shares.
g. **Redeemable Preference Shares:** These are the shares to be repayable after certain specified period by the company.
h. **Non-Redeemable Preference Shares:** Non-redeemable preference shares constitute permanent capital of the company. These shares cannot be refunded before the winding up of the company.

9.2.3. Categories of Share Capital

1. Authorised capital: The company is authorised to raise the capital to the maximum extent of this capital. A company can not issue shares for more than this amount. This amount is stated in Memorandum of Association of the company. This capital is also known as Nominal or Registered capital.

2. **Issued capital** : It is the part of authorised capital. The company has issued to the public for cash or for consideration other than cash. For example, Shares to vendors or promoters. The part of the capital which is not issued by the company is called unissued capital. This capital can be issued later or when needed.
3. **Subscribed Capital** : It is that part of the issued capital, which is actually subscribed by the public known as subscribed capital. A company can allot only that number of shares which are issued. If the applications for the purchase of shares issued are not received in full, such unissued part of capital is called unsubscribed capital.

4. **Called-up capital:** The shares, which are offered to the public for subscription is known as called-up capital.

5. **Paid-up capital**: The part of called-up capital, which is actually paid by the shareholders is known as paid-up capital. If the called-up amount is paid in full by the shareholders, the paid-up and called-up capital would be the same. If the shareholders fail to make the payment of their due amounts till the last date, such part is known as calls-in-arrears. A few shareholders make the payment of calls in advance. That advance received amount is known as calls-in-advance.

6. **Reserve capital:** By passing a special resolution, a portion of uncalled amount shall not be called up by the company except in case of winding up or liquidation. This is known as reserve capital. This can be shown in the balance sheet of a company by way of a note.

7. **Working capital**: This is the capital used in purchasing fixed assets for long-term. The balance of cash is used for running the business. This later part of the capital is called working capital (or) the capital which is going to be used to transact the business is working capital.

9.3 PROCEDURE FOR ISSUING SHARES

The procedure for the issue of shares of the company involves the following steps:

1) Issue of Prospectus
2) Receipt of Applications for Shares
3) Allotment of Shares to applicants
4) Issue of Share certificate
5) Receipt of call money

9.3.1. Issue of Prospectus

At the time of issue of debentures or shares to the public, the company issues prospectus. Normally favourable and strong points of the company are pressed upon to attract the investors.

9.3.2. Receipt of Applications for Shares

In response to the invitation given through the prospectus, applications on prescribed form for purchase of shares are received through a scheduled bank at least 4 days after the issue of prospectus. The filled application forms are deposited with the Company's bankers along with the application money. The applications received directly in company's office are also sent to the company's Bankers along with the required application fee.

9.3.3. Allotment of Shares to applicants

Allotment of shares means distribution of shares amongst the applicants. After the closure of subscription list the bankers would forward all applications to the company. The Board of Directors then make the allotment of shares. All the applications are properly scrutinised and classified in different groups. Normally applications for small number of shares are rejected. The shares have to be allotted within 60 days of the issue of prospectus, subject to the following restrictions:

a. The company making the issue has to follow the provisions of the Companies Act, 1956, as well as guidelines of the Securities and Exchange Board of India (SEBI)
b. No allotment may be made of any shares of the company offered to the public for subscription unless the minimum subscription which is 90% of the issued capital has been received.
c. *Minimum Subscription* (Section 69) is the minimum amount, which in the opinion of the directors must be raised in cash by the issue of shares for providing:
    1) the purchase price of any property acquired or to be acquired;
    2) the preliminary expenses payable by the company and any commission payable in connection with the issue of shares;
    3) the repayment of money borrowed for the aforesaid expenditure;
    4) the working capital and
    5) any other expenditure stating the nature and purpose thereof and the estimated amount in each case.
d. The amount payable on application shall not be less than 5% of the nominal amount (face value) of the share.
e. All money received from applicants of shares shall be deposited in a scheduled bank and shall be kept till certificate of commencement of business is obtained by the company.
f. As per the latest amendment in Companies Act a company can remain open the issue for the maximum period of 30 days. If the amount of minimum subscription is not received in these 30 days then the company will refund the amount to applicants within next 30 days. If

the company delays in the refund then the directors and officers of the company will be liable to pay interest @ 15% p.a. for delayed period.

g. A company cannot issue more number of shares than those mentioned in the prospectus.
h. Shares issued for consideration other than cash be separately mentioned in the Balance Sheet.

9.3.4. Despatch of Allotment letters:

Letters of allotment are sent to successful applicants. The number of shares allotted are mentioned in the letter and the allotment money is demanded (if whole amount is not received with applications) to be paid upto a specified date. The agreement for the purchase of shares is deemed to be completed as soon as the allotment letters are issued.

9.3.5. Filing Allotment Return to Registrar:

After the allotment of shares is over the company is required to file a return to the Registrar of companies within 30 days from the date of allotment or extended date by the Registrar. It is the information of allotment furnished by the company to the Registrar in which a declaration is given that all legal formalities were followed by the company in this connection.

The unsuccessful applicants are issued letters to regret together with refund of application money.

9.3.6. Issue of Share certificate

After allotment of shares, a contract comes into being between the company and the allottees. Then all transactions relating to the shares are regulated by the terms and conditions of issue of the shares as well as by the provisions of Articles of Association. The allottees are issued necessary share certificates. The procedure for the issue is the same whether shares are issued at par, at premium or at discount.

9.3.7. Receipt of call money

In case the full amount of shares is not called with application and allotment, the balance may be called in one or more installments. Such installments after allotment are known as "Calls on shares". The following points are mentioned in the articles of association of the company in this connection:

(1) The right to demand the balance of amount on shares issued lies with the directors. They may pass a resolution in directors meeting for the amount to be called and the place of deposit.
(2) The amount called on a call shall not exceed 25% of the nominal value of shares.
(3) Each shareholder shall be informed at least 14 days before the last day of the call.
(4) There shall be a gap of at least one month between two consecutive calls.
(5) The rate of interest to be charged by the company on calls in arrears or interest to be allowed by it on calls in advance shall be mentioned in its articles of association. If the company adopts Table-A of companies act the rate of interest on call in arrears is 5% per annum and on calls in advance 6% per annum.

9.3.8. Register of Members:

Every company is required to keep a register to maintain complete particular for each member.

9.3.9. Index of Member:

Every company having 50 or more members shall maintain a list of members in the form of an index.

9.3.10. Books of Accounts:

Under the companies act every company has to maintain books of accounts compulsorily on double entry system.

18.3.11. Preliminary Expenses:

All such expenses incurred in connection with the formation of the company are called preliminary expenses or promotion expenses or formation or organisation expenses. The following are the examples of such expenses:

(1) Expenses incurred in getting prepared the legal documents;
(2) The fee for filling of necessary documents with the register, registration fee, duty payable on authorised capital;
(3) Expenses for printing of prospectus and advertisement;
(4) Printing charges of application forms and other necessary forms;
(5) Expenses for company's seal;
(6) Commission on first issue of shares and debentures

Preliminary expenses are of capital nature to be shown in company's balance sheet as fictitious asset.

9.4. ACCOUNTING ENTRIES FOR ISSUE OF SHARES

A company can issue its shares in two types: 1) for cash, and 2) for consideration other than cash. These shares may be issued at par or at premium or at discount. Issue price may be payable either in lump sum along with application, or in installments at different stages, it means, partly on application, partly on allotment and the balance on call or calls.

9.4.1. Issue of Shares at Par:

Date	Particulars	Debit Rs.	Credit Rs.
	On receipt of application money:		
	Bank a/c Dr.	xxx	
	To Share application a/c		xxx
	For transfer of application money to share capital a/c:		
	Share application a/c Dr.	xxx	
	To Share capital a/c		xxx
	For adjustment of excess application money towards allotment:		
	Share application a/c Dr.	xxx	
	To Share allotment a/c		xxx
	For refund of excess application money:		
	Share application a/c Dr.	xxx	
	To Bank a/c		xxx
	For the allotment of money due:		
	Share allotment a/c Dr.	xxx	
	To Share capital a/c		xxx
	On receipt of allotment money:		
	Bank a/c Dr.	xxx	

	Particulars	Debit	Credit
	To Share allotment a/c		xxx
	On making the first call: Share first call a/c Dr. To Share capital a/c	xxx	 xxx
	On receipt of first call money: Bank a/c Dr. To Share first call a/c	xxx	 xxx
	On making the Second and Final call: Share second and final call a/c Dr. To Share capital a/c	xxx	 xxx
	On receipt of second and final call money: Bank a/c Dr. To Share second and final call a/c	xxx	 xxx

Illus.1:

Aptech Ltd. offered to the public 50,000 equity shares of Rs.10 each, payment as follows:

Rs.2.50 on application;
Rs.3.50 on allotment;
Rs.2.00 on first call and
Rs.2.00 on second and final call.

The company received applications for 50,000 shares which it duly allotted. Both the calls were made and duly received.

Pass the Journal entries in the books of the company and show how the share capital will appear in the Balance Sheet.

Solution:

Journal Entries in the Books of Aptech Limited

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
	Bank a/c (50,000 x Rs.2.50) Dr. To Equity share application a/c (Being share application money received on 50,000 shares @ Rs.2.50 per share)		1,25,000	 1,25,000
	Equity share application a/c Dr. To Equity share capital a/c (Being share application money transferred to Equity share capital a/c)		1,25,000	 1,25,000
	Equity share allotment a/c Dr. To Equity share capital a/c (Being share allotment money due on 50,000 equity shares @ Rs.3.50 per share)		1,75,000	 1,75,000
	Bank a/c Dr. To Equity share allotment a/c (Being share allotment money received)		1,75,000	 1,75,000
	Equity share first call a/c Dr. To Equity share capital a/c (Being share first call money due on 50,000 shares @ Rs.2 per share)		1,00,000	 1,00,000
	Bank a/c Dr.		1,00,000	

	To Equity share first call a/c (Being Equity share first call money received)			1,00,000
	Equity share second and final call a/c Dr. To Equity share capital a/c (Being Equity share final call money due on 50,000 shares @ Rs.2 per share)		1,00,000	1,00,000
	Bank a/c Dr. To Equity share second and final call a/c (Being Equity share final call money received)		1,00,000	1,00,000

Balance Sheet of Aptech Ltd., as on ……..

Liabilities	**Rs.**	**Assets**	**Rs.**
Share capital: Authorised: Issued, subscribed, called up & paid up : 50,000 shares @ Rs.10 each	5,00,000 5,00,000	Cash at bank	5,00,000 5,00,000

9.4.2 Issue of Shares at a Premium:

A. Use of Amount of Premium:

Amount called on shares in the form of premium is credited in Share Premium Account. According to Section 78 of the Companies Act, 1956, the amount of premium may be used for the following purposes:

a. to issue fully paid bonus shares to the members;
b. to write off preliminary expenses of the company;
c. to write off the expenses or the commission paid or discount allowed on the issue of shares or debentures of the company;
d. to provide premium on redemption of preference shares or premium on redemption of debentures of the company.

Share premium cannot be used for the purpose of dividends. The use of Share Premium for the purpose other than mentioned above shall mean reduction of share capital.

B. Accounting for Share Premium:

The premium on issue of shares is a capital receipt. As such it shall be credited to a separate account called “Share Premium Account”. Premium may be called with share application or allotment. The share application or allotment account is debited with the amount of premium and Share Premium account is credited with the amount of premium only. Generally amount of premium is due with allotment.

C. Share Premium to be shown in the Balance Sheet:

“Share Premium Account” is to be shown on the liabilities side of the Balance Sheet under the heading “Reserves and Surpluses”.

Date	Particulars	Debit Rs.	Credit Rs.
	When premium is received with application money:		
	Bank a/c Dr.	xxx	
	To Share application a/c		xxx
	To Share premium a/c		
	When the premium is payable with allotment money:		
	Share allotment a/c Dr.	xxx	
	To Share Capital a/c		xxx
	To Share premium a/c		xxx

Illus.2:

X Y Z Co. Ltd. issued 1,00,000 equity shares of Rs.10 each at a premium of Rs.5 per share payable as follows :

On application Rs.2
On allotment Rs.8 (including premium)
On First call Rs.3
On Final call Rs.2

All the shares offered were subscribed for by the public and cash duly received. Pass journal entries to record the above issue of shares and prepare balance sheet.

Solution:

Journal Entries of XYZ Company Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c (1,00,000 x 2) Dr.		2,00,000	
	To Equity share application a/c			2,00,000
	(Being share application money received on 1,00,000 shares @ Rs.2 per share)			
	Equity share application a/c (1,00,000 x 2) Dr.		2,00,000	
	To Equity share capital a/c			2,00,000
	(Being share application money transferred to Equity share capital a/c)			
	Equity share allotment a/c(1,00,000 x 2) Dr.		8,00,000	
	To Equity share capital a/c (1,00,000 x 3)			3,00,000
	To Share premium a/c (1,00,000 x 5)			5,00,000
	(Being share allotment money due on 1,00,000 equity shares @ Rs.3 per share on capital a/c and Rs.5 per share on share premium a/c)			
	Bank a/c Dr.		8,00,000	
	To Equity share allotment a/c			8,00,000
	(Being share allotment money received)			
	Equity share first call a/c Dr.		3,00,000	
	To Equity share capital a/c			3,00,000
	(Being share first call money due on 1,00,000 equity shares @ Rs.3 per share)			
	Bank a/c Dr.		3,00,000	
	To Equity share first call a/c			3,00,000

	(Being Equity share first call money received)			
	Equity share second and final call a/c Dr. To Equity share capital a/c (Being Equity share final call money due on 1,00,000 equity shares @ Rs.2 per share)		2,00,000	2,00,000
	Bank a/c Dr. To Equity share second and final call a/c (Being Equity share final call money received)		2,00,000	2,00,000

Balance Sheet of XYZ Ltd., as on ……..

Liabilities	**Rs.**	**Assets**	**Rs.**
1. Share capital: Authorised: Issued, subscribed, called up & paid up : 1,00,000 equity shares @ Rs.10 per share	10,00,000	**Current Assets:** Cash at bank	15,00,000
2. Reserves & Surplus: Share premium	5,00,000		
	15,00,000		15,00,000

9.4.3 Over-subscription of Shares

Shares are said to be over-subscribed when the number of shares applied for is more than the shares offered for the issue. It happens in case of public issue of reputed and popular companies. The board of directors may make the allotment of shares as under in case of over-subscription.

a. Pro-rata or proportional allotment to all the applicants. For example, 2000 shares are issued for which applications for the purchase of 6000 shares are received. If all the applicants are made pro-rata allotment, it means 200 shares will be allotted for every 600 shares applied or two shares for every 6 shares applied. Excess money received is not refunded but retained and adjusted towards sums due for allotment.
b. Some of the applications may be rejected fully while remaining applicants be allotted shares in full. In such case, the application money to non-allottees is refunded along with a letter of regret.

Illus.3:

A company issued Rs.5,00,000 new capital divided into Rs.10 shares at premium of Rs.4 per share, payable as under:

On Application Rs.1 per share; on allotment Rs.4 per share and Rs.2 premium; on final payment Rs.5 per share and Rs.2 premium.

Over-payments on application were to be applied towards sums due on allotment. Where no allotment was made money was to be returned in full. The issue was over-subscribed to the extent of 13,000 shares. Applicants for 12,000 shares were allotted only 1,000 and applicants for 2,000 were sent letters of regret. All money due on allotment and final call was duly received. Make the necessary entries in company's books.

Solution:

Journal entries in the books of a Company

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c (63,000 x 1) Dr. To Equity share application a/c (Being equity share application money received on 63,000 shares @ Rs.1 per share)		63,000	 63,000
	Equity share application a/c (63,000 x 1) Dr. To Equity share capital a/c (50,000 x 1) To Equity share allotment a/c (1,000 x 6) To Equity share first call a/c (1,000 x 5) To Bank a/c (2,000 x 1) (Being the amount received on share application transferred to share capital a/c and the excess application money transferred to share allotment, share call account and the balance amount returned)		63,000	 50,000 6,000 5,000 2,000
	Equity share allotment a/c (50,000 x 6) Dr. To Equity share capital a/c (50,000 x 4) To Equity share premium a/c (50,000 x 2) (Being Equity share allotment money due on 50,000 shares @ Rs.4 per share and premium @ Rs.2 per share)		3,00,000	 2,00,000 1,00,000
	Bank a/c Dr. To Equity share allotment a/c (Being Equity share allotment money received on 50,000 shares i.e. Rs.3,00,000-6,000 = Rs.2,94,000)		2,94,000	 2,94,000
	Equity share first &n final call a/c (50,000 x 7) Dr. To Equity share capital a/c (50,000 x 5) To Equity share premium a/c (50,000 x 2) (Being Equity share final call money due on 50,000 shares @ Rs.5 per share and premium @ Rs.2 per share)		3,50,000	 2,50,000 1,00,000
	Bank a/c Dr. To Equity share first & final call a/c (Being equity share first and final call money received on 50,000 shares i.e. Rs.3,50,000 – 5,000 = Rs.3,45,000)		3,45,000	 3,45,000

No. of shares issued Rs. $\frac{5,00,000}{10}$ = 50,000 shares

Oversubscribed shares = 13,000 shares

Application money received on = 63,000 shares @ Rs.1 = 63,000

2,000 applications were returned back i.e. 2,000 shares x Rs.1 = 2,000

Balance application money received 61,000

Actual application money for 50,000 shares @ Rs.1 = 50,000

Excess application money received	11,000
Less: Adjustment towards allotment money for 1,000 shares x Rs.6	6,000
Balance amount adjusted towards first & final call money	5,000

9.4.4 Under subscription

Shares are said to be under-subscribed when the number of shares applied for is less than the number of shares offered. Foe example, in case a company has offered 10,000 shares to public but the public applied for 9,000 shares only, it is case of under-subscription. In such a case, it must be ensured whether the company has received the minimum subscription after which allotments will be made to all the applicants. No adjustment is needed in such a case.

Illus.4:

Sruthi Ltd., invited application for 5,00,000 Equity shares of Rs.10 each payable as follows.

With application Rs.2; on allotment Rs.3; on first call Rs.2.50; on second and final call Rs.2.50.

Applications totalled 4,70,000 share were received. The Board of Directors accepted all the applications. Both the calls were made. You are required to pass necessary Journal Entries in the books of Sruthi Ltd.

Solution:

Journal of Anusha Co. Ltd.

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c (4,70,000 x 2) Dr. To Equity share application a/c (Being application money received on 4,70,000 shares @ Rs.2 per share)		9,40,000	9,40,000
	Equity share application a/c Dr. To Equity share capital a/c (Being share application money transferred to share capital a/c)		9,40,000	9,40,000
	Equity share allotment a/c Dr. To Equity share capital a/c (Being share allotment amount due on 4,70,000 shares @ Rs.3 per share)		14,10,000	14,10,000
	Bank a/c Dr. To Equity share allotment a/c (Being the allotment money received)		14,10,000	14,10,000
	Equity share first call a/c Dr. To Equity share capital a/c (Being shares first call money due on 4,70,000 shares @ Rs.2.50 each)		11,75,000	11,75,000
	Bank a/c Dr. To Equity share first & final call a/c (Being the first call money received)		11,75,000	11,75,000

	Particulars		Debit	Credit
	Equity share final call a/c Dr. To Equity share capital a/c (Being the final call money due on 4,70,000 shares @ Rs.2.50 each)		11,75,000	11,75,000
	Bank a/c Dr. To Equity share final call a/c (Being the final call money received)		11,75,000	11,75,000

Note: The students are advised to prepare the following ledger accounts also

1. Bank a/c
2. Equity share capital a/c and
3. Opening Balance Sheet of Sruthi ltd.

9.4.5 Issue of Shares at a Discount:

A. Conditions for issue of shares at discount:

According to Section 70 of Companies Act, 1956 a company may issue its shares at discount only if the following conditions are fulfilled:

a. The share must belong to a class already issued;
b. The issue must be authorized by an ordinary resolution of the company;
c. The sanction of the Company Law Board must be obtained;
d. The resolution must specify the maximum rate of discount at which the shares are to be issued. No resolution shall be sanctioned by the Company Law Board if the maximum rate of discount specified in the resolution exceeds 10% unless it is of the opinion that a higher percentage of discount may be allowed in the special circumstance of the case;
e. At least one year must have elapsed since the date on which the company was entitled to commence business and
f. The issue must be made within two months from the date receiving the sanction of the Company Law Board or within such extended time as the Company Law Board may allow.

B. To write off discount on issue of shares:

Discount on issue of shares is a capital loss of the company. It may be written off either out of capital profits of the company or out of the profits prior to incorporation. In case there is no Capital Reserve or capital profit in a company, the discount on issue of shares may be written off out of Profit & Loss Account. Discount on issue of shares is a fictitious asset to be shown on Assets side of the balance sheet till it is written off.

Date	**Particulars**	**Debit Rs.**	**Credit Rs.**
	When the shares are issued at discount at the time of allotment: Share allotment a/c Dr. Discount on issue of shares a/c Dr. To Share capital a/c	 xxx xxx	 xxx

Illus.5:

M Ltd., invited applications for 50,000 shares of Rs.10 each at a discount of 6% payable as follows:

On application Rs.2.50; on allotment Rs.3.40 and on First and final call Rs.3.50

The applications received were for 45,000 shares and all of these were accepted. All money due was received.

Pass necessary entries in the journal of the company. Also show how the transactions would appear in Balance Sheet of the company.

Solution:

Journal Entries in the Books of M Limited

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
	Bank a/c (45,000 x Rs.2.50) Dr. To Equity share application a/c (Being share application money received)		1,12,500	 1,12,500
	Equity share application a/c (45,000 x Rs.2.50) Dr. To Equity share capital a/c (Being share application money on 45,000 shares @ Rs.2.50 per share transferred to capital a/c)		1,12,500	 1,12,500
	Equity share allotment a/c (45,000 x Rs.3.40) Dr. Discount on issue of shares a/c (45,000 x Rs.0.60) To Equity share capital a/c (45,000 x Rs.4) (Being Equity share allotment money due on 45,000 shares @ Rs.3.40 per share and discount @ Rs.0.60 per share)		1,53,000 27,000	 1,80,000
	Bank a/c Dr. To Equity share allotment a/c (Being share allotment money received)		1,53,000	 1,53,000
	Equity share first & final call a/c Dr. To Equity share capital a/c (Being Equity share final call money due on 45,000 shares @ Rs.3.50 per share)		1,57,500	 1,57,500
	Bank a/c Dr. To Equity share first & final call a/c (Being share first and final call money received)		1,57,500	 1,57,500

Balance Sheet of M Ltd., as on ……..

Liabilities	Rs.	Assets	Rs.
Share capital:		**Current Assets:**	
Authorised:		Cash at bank	4,23,000
Issued:		Discount on issue of Shares	27,000
50,000 shares @ Rs.10 each	5,00,000		
Subscribed:			
45,000 shares @ Rs.10 each	4,50,000		
Called up & paid up :			
45,000 shares @ Rs.10 each	4,50,000 4,50,000		4,50,000

9.4 .6 Calls in Arrears and Calls in Advances:

A. Calls in Arrear:

It often happens that some shareholders fail to pay the amount due on allotment and/or calls on the shares held by them. The total of unpaid amount on account of one or more installments is called Calls in Arrear or Unpaid calls.

(i) Interest on Calls in Arrear:

The directors may charge interest on calls in arrear at a stipulated rate mentioned in the articles of association of the Company. If the company adopts Table-A of Companies Act, 1956 (which is a model of articles of association), interest at the rate not exceeding 5% per annum shall be charged for the period from the date fixed for payment to the date of actual payment. The directors may waive the application of this rule at their discretion.

(ii) Accounting for Calls in Arrear:

It is not mandatory to maintain a separate account for calls in arrear. The debit balance of allotment and/or call accounts will be shown in the Balance Sheet not as an asset but by way of deduction from the called-up capital.

B. Calls in Advance:

A shareholder may sometimes pay a part or whole of the amount not yet called up on his shares in order to save himself of the trouble of paying several calls on various dates. Any amount received from a shareholder in excess of the amount due is called "Calls-in-Advance". The following entry is to be passed:

Bank a/c Dr. (With the amount received
To Calls in Advance a/c in advance)
(Amount received on ….. shares @ Rs……
per share in anticipation of future calls)

Note: No dividend is payable by the company on calls-in-advance as it is not a part of Share Capital. As such "Calls in Advance" is shown under the 'Current Liabilities' on liabilities side of the Balance Sheet.

(i) Interest on Calls in Advance:

Interest on calls in advance may be allowed by the company at a specified rate mentioned in the articles of association of the company. If the company adopts 'Table-A' of Companies Act, 1956, interest at the rate of 6% per annum may be allowed to the shareholders.

(ii) Adjustment of Calls in Advance:

The amount received in respect of future calls shall be adjusted when the call received in advance is made due.

Date	Particulars		Debit Rs.	Credit Rs.
	For calls in arrears:			
	Calls in arrears a/c	Dr.	xxx	
	To Share call a/c			xxx
	When call money is received in advance:			
	Bank a/c	Dr.	xxx	
	To Share call a/c			xxx

	Particulars		Debit	Credit
	To Calls in advance a/c			xxx
	When calls in advance amount is adjusted Against the subsequent calls: Calls in advance a/c Dr. To Share call a/c		xxx	xxx
	For receipt of Interest on calls in arrears: Bank a/c Dr. To Interest on calls in arrears a/c		xxx	xxx
	For payment of interest on calls in advance: Interest on calls in advance a/c Dr. To Bank a/c		xxx	xxx

Illus.6:

Sarada & Co. Ltd., invited application for 5,000 equity shares of Rs.100 each payable Rs.25 on application, Rs.50 on allotment and the balance on 1st and final call. The issue was fully subscribed and all the money was duly received except 1st call on 250 shares. Record the above transactions in the books of the company and show its balance sheet.

Solution:

Journal Entries in the books of Sarada & Co. Ltd.

Date	Particulars	L.F.	Debit Rs.	Credit Rs.
	Bank a/c Dr. To Equity share application a/c (Being share application money received on 2,500 equity shares @ Rs.25 each)		1,25,000	1,25,000
	Equity share application a/c Dr. To Equity share capital a/c (Being share application amount transferred to share capital a/c)		1,25,000	1,25,000
	Equity share allotment a/c Dr. To Equity share capital a/c (Being share allotment amount due on 5,000 shares @ Rs.50 each)		2,50,000	2,50,000
	Bank a/c Dr. To Equity share allotment a/c (Being share allotment amount received)		2,50,000	2,50,000
	Equity share first & final call a/c Dr. To Equity share capital a/c (Being first and final call amount due on 5,000 shares @ Rs.25 each)		1,25,000	1,25,000
	Bank a/c (4,750 x 25) Dr. Calls in Arrears a/c (250 x 25) Dr. To Equity share first & final call a/c (5,000 x 25) (Being share first and final call amount received on 4,750 shares)		1,18,750 6,250	1,25,000

Balance Sheet of Singh & Co. Ltd., as on ……..

Liabilities		**Rs.**	**Assets**	**Rs.**
Share capital: Authorised: Issued, Subscribed: 5,000 shares @ Rs.100 each Called up & paid up : 5,000 shares @ Rs.100 each Less: Calls in arrears	 5,00,000 6,250	 5,00,000 4,93,750 4,93,750	**Current Assets:** Cash at bank	 4,93,750 4,93,750

Illus.7:

Anusha Co. Ltd., issued equity shares of Rs.25 each payable Rs.10 on application, Rs.5 on allotment and the balance on first and final call. Another person Karunya, a holder of 150 shares made the full payment at the time of application.

Pass necessary journal entries and prepare the balance sheet of the company.

Solution:

Journal of Anusha Co. Ltd.

Date	**Particulars**	**L.F.**	**Debit Rs.**	**Credit Rs.**
	Bank a/c Dr. To Equity share application a/c (10,000 x10) To Calls in Advance a/c (150 x 15) (Being share application amount received on 10,000 shares @ Rs.10 each and full payment received on 150 shares)		1,02,200	 1,00,000 2,250
	Equity share application a/c (10,000 x 10) Dr. To Equity share capital a/c (Being share application amount transferred to equity share capital a/c)		1,00,000	 1,00,000
	Equity share allotment a/c Dr. To Equity share capital a/c (Being share allotment amount due on 10,000 shares @ Rs.5 each)		50,000	 50,000
	Bank a/c (9,850 x 5) Dr. Calls in Advance a/c (150 x 5) Dr. To Equity share allotment a/c (Being share allotment money received on 9,850 shares and allotment money on 150 shares received in advance adjusted)		49,250 750	 50,000
	Equity share first & final call a/c Dr. To Equity share capital a/c (Being shares first and final call money due on 10,000 shares @ Rs.10 each)		1,00,000	 1,00,000
	Bank a/c (9,750 x 10) Dr. Calls in Advance a/c (150 x 10) Dr. Calls in Arrears a/c (100 x 10) Dr. To Equity share first & final call a/c		97,500 1,500 1,000	 1,00,000

	(Being share first call amount on 9,750 shares received, on 150 shares received in advance adjusted and on 100 shares not received)			

Balance Sheet of Anusha Ltd., as on ……..

Liabilities		Rs.	Assets	Rs.
Share capital:			**Current Assets:**	
Authorised:			Cash at bank	2,49,000
Issued, Subscribed:				
10,000 shares @ Rs.25 each		2,50,000		
Called up & paid up :	2,50,000			
10,000 shares @ Rs.25 each	1,000	2,49,000		
Less: Calls in arrears		2,49,000		2,49,000

9.4.7 Forfeiture of Shares:

When a shareholder fails to pay one or more installments (viz,. allotment and/or call or calls) due on the shares held by him, the company has the authority to forfeit such shares. Forfeiture of shares means the cancellation of allotment to defaulting shareholders and to treat the amount already received in such shares as forfeited. In this case a shareholder ceases to be a member of the company.

A. Procedure for forfeiture of shares:

There is no specific procedure laid down in Indian Companies Act in respect of forfeiture of shares. The right of forfeiture should be contained in the articles of association of the company for non-payment of installment or installments. If procedure for forfeiture of shares has not been laid down in the articles of the company, the provision of Table-A' shall apply. Accordingly, (1) the Board of Directors shall serve a notice to the defaulting shareholder to make the payment of such calls in arrear with interest, if any, on a further date (not being earlier than the expiry of 14 days from the date of serving notice); (2) it shall be stated therein that in the event of non-payment upto the specified date, his shares shall be liable for forfeiture.

Despite the receipt of such notice, if the shareholder fails to make payment of his dues, by stipulated date, his shares be forfeited by passing a resolution by the Board of Directors to this effect and the member be informed accordingly.

The forfeiture of shares under the provisions of the articles may be made only for non-payment of installments and not for any other reasons. In case the shares are forfeited for non-payment of business debts, the forfeiture shall be treated as illegal and invalid.

The articles may provide that even after forfeiture of shares the member may remain liable for payment of his arrears. It is not treated as suitable in practice and therefore, the companies generally reissue the shares forfeited immediately so that the past member's liability is automatically finished.

Date	Particulars	Debit Rs.	Credit Rs.
	Forfeiture of shares issued at par: Share capital a/c Dr.	xxx	

	To Forfeited shares a/c To Various calls a/c		xxx xxx
	Forfeiture of shares issued at premium and the premium amount not paid by shareholders: Share capital a/c Dr. Share Premium a/c Dr. To Forfeited shares a/c To Various calls a/c	 xxx xxx	 xxx xxx
	Forfeiture of shares issued at discount: Share capital a/c Dr. To Forfeited shares a/c To Discount on issue of shares a/c To Various calls a/c	 xxx	 xxx xxx xxx

Illus.8:

Yashwant Limited had offered 50,000 equity shares of Rs.10 each to public for subscription, payable as follows.

Rs.1 on application
Rs.2 on allotment
Rs.3 on first call
Rs.4 on second and final call

All the calls were made and duly received except from A holding 200 shares who failed to pay both the calls and B holding 500 shares who failed to pay the final call.

Pass journal entry on the forfeiture of shares of both A and B.

Solution:

Journal of Yashwant

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share capital a/c (200 x 10) Dr. To Equity share first call a/c (200 x 3) To Equity share second & final call a/c (200 x 4) To Forfeited shares a/c (200 x 3) (Being forfeiture of 200 shares of A for non-payment of first call money of Rs.3 per share and final call of Rs.4 per share)		2,000	 600 800 600
	Equity share capital a/c (500 x 10) Dr. To Equity share second & final call a/c (500 x 4) To Forfeited shares a/c (500 x 6) (Being forfeiture of 500 shares of B for non-payment of second and final call of Rs.4 per share)		5,000	 2,000 3,000

Illus.9:

Pass Journal entries for the forfeiture of shares in the following cases:

a. **A holds 200 shares of Rs.10 each in X Ltd., payable Rs.3 on application, Rs.4 (including share premium of Rs.1) on allotment, Rs.2 on first call and Rs.2 on second and final call. The company forfeits A's share for non-payment of first call**
b. **B is a holder of 300 shares in the above company. His shares are forfeited for non-payment of allotment and first call money.**

Solution:

Journal Entries

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share capital a/c (200 x 8) Dr. Share Premium a/c (200 x 1) Dr. To Equity share first call a/c (200 x 2) To Forfeited shares a/c (200 x 7) (Being forfeiture of 200 shares of A for non-payment of first call money)		1,600 200	 400 1,400
	Equity share capital a/c (300 x 8) Dr. Equity share premium a/c (300 x 1) Dr. To Equity share allotment a/c (300 x 4) To Equity share first call a/c (300 x 2) To Forfeited shares a/c (300 x 3) (Being forfeiture of 300 shares of B for non-payment of Allotment & first call money)		2,400 300	 1,200 600 900

9.4.8 Re-issue of Forfeited shares:

The forfeited shares become the property of the company. A company can reissue the forfeited shares in accordance with the provisions contained in the articles of the company as and when it is convenient. These shares may be reissued at par, at premium or at discount. The provisions of Section 79 (For issue of shares at discount) do not apply on reissue of forfeited shares at discount. But the maximum amount of discount which may be allowed on reissue is as under:

Case	Maximum permissible discount
1. When shares were originally issued at par or at premium	1. the amount credited for forfeited shares
2. When shares were originally issued at discount	2. amount credited to forfeited shares account plus the amount of original discount.

Date	Particulars	Debit Rs.	Credit Rs.
	On re-issue of forfeited shares: Bank a/c Dr. To Forfeited shares a/c To Share capital a/c	 xxx	 xxx xxx
	If the re-issue is at par: Bank a/c Dr. To Share capital a/c	 xxx	 xxx
	If the re-issue is at premium: Bank a/c Dr. To Share capital a/c To Share premium a/c	 xxx	 xxx xxx
	If the re-issue is at discount: Bank a/c Dr. Discount on issue of shares a/c Dr. Forfeited shares a/c Dr. To Share capital a/c	 xxx xxx xxx	 xxx

	Particulars		
	To record the transfer of profit on Forfeited shares: Forfeited shares a/c Dr. To Capital Reserve a/c	xxx	 xxx

Illus.10:

The directors of A Co. Ltd. decided to forfeit the following shares:
200 shares issued to X on which he paid Rs.3 on application but failed to pay Rs.5 (including premium of Rs.2) and the first and final call of Rs.4
These shares were re-issued to Y at a discount of 10%. Journalise.

Solution:

Journal Entries in the books of A Company Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share capital a/c (200 x 10) Dr. Share Premium a/c (200 x 2) Dr. To Equity share allotment a/c (200 x 5) To Share first & final call a/c (200 x 4) To Forfeited shares a/c (200 x 3) (Being 200 shares of Rs.10 each issued at a premium of Rs.2 per share forfeited for non-payment of allotment, first and final call money)		2,000 400	 1,000 800 600
	Bank a/c (200 x 9) Dr. Forfeited shares a/c Dr. To Equity share capital a/c (Being re-issue of forfeited shares @ a discount of 10% i.e. Rs.9 per share)		1,800 200	 2,000
	Forfeited shares a/c Dr. To Capital reserve a/c (Being the balance of Shares forfeited a/c transferred to Capital reserve a/c)		400	 400

Working Notes: Amount transferred to Capital reserve a/c:

		Rs.
Amount received on 200 forfeited shares	(200 x 3)	600
Less: Discount allowed on reissue (10-9 =1)	(200 x 1)	200
Amount transferred to Capital reserve		400

Illus.11:

X Ltd., forfeited 10 shares of Rs.10 each (Rs.6 called up) issued at a discount of 10% to Nirupama on which she had paid Rs.2 per share. Out of these 8 shares were re-issued to Mina as Rs.8 called up at Rs.6 per share. Give journal entries.

Solution:

Journal Entries in the books of X Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share capital a/c (10 x 6) Dr. To Discount on issue of shares a/c (10 x 1) To Share call a/c (10 x 3) To Forfeited shares a/c (10 x 2) (Being forfeiture of 10 shares of Rs.10 each issued at a discount of 10% for non-payment of share call of Rs.3)		60	 10 30 20
	Bank a/c (8 x 6) Dr. Discount on issue of Shares a/c (8 x 1) Dr. Forfeited shares a/c Dr. To Equity share capital a/c (8 x 8) (Being 8 shares re-issued out of 10 shares forfeited at Rs.8, Rs.6 called up)		48 8 8	 64
	Forfeited shares a/c Dr. To Capital reserve a/c (Being the balance left in forfeited shares a/c transferred to Capital reserve a/c)		8	 8

Illus.12:

Rahul was holding 30 shares of Rs.10 each X Ltd., issued at 10 % discount. He paid Rs.2 on application but could not pay the allotment money of Rs.3 and his shares were forfeited. Make journal entry in the books of the company.

Solution:

Journal Entries in the books of X Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share capital a/c (30 x 6) Dr. To Share allotment a/c (30 x 3) To Discount on issue of shares a/c (30 x 1) To Forfeited shares a/c (30 x 2) (Being forfeiture of 30 shares of Rs.10 each issued at 10% discount for non-payment of allotment money)		180	 90 30 60

Working Notes:

Face value of share = Rs.10

Discount given on each share = 10%

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

Discount on 1 share = Rs.1

Discount on 30 shares = 30 x Rs.1 = Rs.30

9.5 ISSUE OF SHARES FOR CONSIDERATION OTHER THAN CASH:

a. Issue to vendors for the purchase of assets:

Date	Particulars	Debit Rs.	Credit Rs.
	On Purchasing the Assets:		
	Sundry asset a/c Dr.	xxx	
	To Vendor a/c		xxx
	For issue of shares to Vendor:		
	Vendors a/c Dr.	xxx	
	To Share capital a/c		xxx
	To Share premium a/c (if any)		xxx
	Issue of Promoters for Service rendered:		
	Goodwill a/c Dr.	xxx	
	To Share premium a/c		xxx
	(With the nominal value of shares allotted)		

Illus.13:

Sarath Co. Ltd. was formed with an authorised capital of Rs.20,00,000 divided into 2,00,000 shares of Rs.10 each. It acquired machinery costing Rs.3,00,000 and other assets costing Rs.7,00,000 from Mr. Bhaskar. In consideration Rs.5,00,000 paid in cash and the balance in shares at a premium of Rs.2.50 per share. The company further issued to the public 1,00,000 shares payable Rs.4 on application, Rs.5.50 (including premium Rs.2.50) on allotment and the balance of first and final call.

The purchase consideration was fully satisfied. Shareholders holding 1,000 shares failed to pay the final call and after due notice they were forfeited and re-issued at a price of Rs.6 per share. The preliminary expenses Rs.45,000 were paid by the company.

Journalise the above transactions and show the balance sheet.

Solution:

Journal Entries in the books of Sarath Co. Ltd.

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Machinery a/c Dr.		3,00,000	
	Other Assets a/c Dr.		7,00,000	
	To Bhaskar a/c			10,00,000
	(Being the machinery and other assets purchased from Bhaskar)			
	Bhaskar a/c Dr.		10,00,000	
	To Bank a/c			5,00,000
	To Equity share capital a/c (40,000 x 10)			4,00,000
	To Equity share premium a/c (40,000 x 2.50)			1,00,000
	(Being the consideration of Rs.5,00,000 paid in cash and the balance on shares at a premium of Rs.2.50 per share) (Rs.10,00,000 –5,00,000 =5,00,000) $\frac{5,00,000}{12.50}$ = 40,000 shares			

	Particulars		Dr.	Cr.
	Bank a/c Dr. To Equity share application a/c (Being the application money received on 1,00,000 shares @ Rs.4 per share)		4,00,000	4,00,000
	Equity share application a/c Dr. To Equity Share capital a/c (Being the application money received on 1,00,000 shares @ Rs.4 per share)		4,00,000	4,00,000
	Equity share allotment a/c (1,00,000 x 5.50) Dr. To Equity Share capital a/c (1,00,000 x 3) To Equity share premium a/c (1,00,000 x 2.50) (Being Equity share allotment money due on 1,00,000 shares @ Rs.5.50 per share including a premium of Rs.2.50)		5,50,000	3,00,000 2,50,000
	Bank a/c Dr. To Equity share allotment (Being the Equity share allotment money received)		5,50,000	5,50,000
	Equity share first and final call a/c Dr. To Equity Share capital a/c (Being the first and final call money due on 1,00,000 equity shares @ Rs.3 per share)		3,00,000	3,00,000
	Bank a/c Dr. To Equity shares first and final call a/c (Being Equity share first and final call money received on 99,000 shares)		2,97,000	2,97,000
	Equity share capital a/c (1,000 x 10) Dr. To Equity share first & final call a/c (1,000 x 3) To Shares forfeited a/c (1,000 x 7) (Being forfeiture of 1,000 shares for non-payment and first & final call money)		10,000	3,000 7,000
	Bank a/c (1,000 x 6) Dr. Forfeited shares a/c Dr. To Equity share capital a/c (Being the re-issue of 1,000 forfeited shares @ Rs.6 per share)		6,000 4,000	10,000
	Forfeited shares a/c Dr. To Capital Reserve a/c (Being the balance in forfeited shares a/c transferred to capital reserve a/c)		3,000	3,000
	Preliminary expenses a/c Dr. To Bank a/c (Being preliminary expenses paid)		45,000	45,000

Working Notes:

			Rs.
1.	Amount due on first and final call Less: Calls in arrears Cash received on first and final call	1,00,000 X 3 1,000 X 3 99,000 @ Rs.3	3,00,000 3,000 2,97,000

2.	Money received on 1,000 forfeited shares Less: Discount allowed on the re-issue of shares (10 - 6 = 4) Amount transferred to Capital Reserve	(1,000 X 7) (1,000 X 4)	7,000 4,000 3,000

Ledger Accounts in the Books of Sarath Co. Ltd.

Dr. **Bank a/c** **Cr.**

	Rs.		Rs.
To Equity Share Application a/c	4,00,000	By Mr. Bhaskar a/c	5,00,000
To Equity Share Allotment a/c	5,50,000	By Preliminary Expenses a/c	45,000
To Equity Share final call a/c	2,97,000	By Balance c/d	7,08,000
To Equity Share capital a/c	6,000		
	12,53,000		12,53,000
To Balance b/d	7,08,000		

Balance Sheet of a Sarath Co. Ltd. as on ……..

Liabilities	Rs.	Assets	Rs.
I. Share Capital:		**I. Fixed Assets:**	
Authorised:2,00,000 shares of Rs.10 each	20,00,000	Machinery	3,00,000
		Other Assets	7,00,000
Issued, Subscribed and paid up:		**II. Current Assets:**	
(1,00,000 + 40,000) 1,40,000 shares of Rs.10 each	14,00,000	Cash at bank	7,08,000
II. Reserves & Surplus		**III. Miscellaneous Expenditure:**	
Share Premium (1,00,000 +2,50,000)	3,50,000	Preliminary expenses	45,000
Capital reserve	3,000		
	17,53,000		17,53,000

9.6. ISSUE OF BONUS SHARES:

Bonus shares are the shares allotted to existing equity shareholders without any consideration being received from them, in cash or in kind. They are issued to capitalise profits of the company. Bonus shares can be issued only if Articles of Association permit such an issue.

9.6.1 SEBI guidelines regarding issue of bonus shares :

SEBI has issued certain guidelines regarding issue of bonus shares. The following is the effect of these guidelines on alisted company.

1. The bonus issue can be made only out of free reserves built out of the genuine profits or securities premium collected in cash.
2. Reserves created by revaluation of fixed assets are not available for issue of bonus shares
3. The bonus issue cannot be made unless the partly paid shares, if any, existing are made fully paid up.
4. The declaration of bonus issue, in lieu of dividend, cannot be made

5. Once the company announces bonus issue after the approval of the Board of Directors, it must implement the proposal within a period of six months from the date of such approval and it does not have the option of changing the decision
6. If the Articles of Association of the company does not already contain a provision for capitalisation of reserves etc., for issue of bonus shares, the company must pass a resolution at its general body meeting making provisions in the Articles of Association for capitalisation.
7. If consequent to the issue of bonus shares, the subscribed and paid up capital exceeds the authorised share capital, the company has to pass a Resolution at its general body meeting for increasing the authorised capital.
8. No company can pending conversion of FCDs/PCDs, the issue bonus shares unless similar benefit is extended to the holders of such FCDs/PCDs through reservation of shares in proportion to such convertible part of FCDs and PCDs. The shares so reserved may be issued at the time of conversion of such debentures on the same terms on which the bonus issue was made.
9. The company issuing bonus shares must not have defaulted in payment of interest or principal in respect of fixed deposits and interest on existing debentures or principle on redemption thereof. It also must have sufficient reason to believe that it has not defaulted in respect of the payment of statutory dues of the employees such as contribution to provident fund, gratuity, bonus etc.

On issue of bonus shares, reserves used for such an issue are debited and Bonus to Equity Shareholders Account is credited with the amount for which bonus shares are issued. Then, Bonus to Equity Shareholders Account is debited and Equity Share capital Account is credited with the amount of the issue.

A. When bonus is utilised for making partly paid shares into fully paid shares:

Date	Particulars		Debit Rs.	Credit Rs.
	When bonus is declared:			
	Profit & Loss a/c	Dr.	xxx	
	General Reserve a/c	Dr.	xxx	
	To Bonus to shareholders a/c			xxx
	When share call amount due:			
	Share final call a/c	Dr.	xxx	
	To Share capital a/c			xxx
	When bonus is utilised for the purpose:			
	Bonus to shareholders a/c	Dr.	xxx	
	To Share final call a/c			xxx

B. When bonus is utilised for issuing free fully paid shares:

Date	Particulars		Debit Rs.	Credit Rs.
	When bonus is declared:			
	Profit & Loss a/c	Dr.	xxx	
	Other Reserves a/c	Dr.	xxx	
	To Bonus to shareholders a/c			xxx
	For issue of bonus shares:			
	Bonus to shareholders a/c	Dr.	xxx	
	To Share capital a/c			xxx

Illus.14:

The Balance Sheet of A Co. Ltd. On 31st December 2005 is as follows:

	Rs.		Rs.
Share Capital:		**Sundry Assets**	**4,75,000**
2,000 shares of Rs.100 each	**2,00,000**		
Share Premium	**50,000**		
Reserve Fund	**1,00,000**		
P & L Account	**80,000**		
Creditors	**45,000**		
	4,75,000		**4,75,000**

The company decided to issue bonus shares at the rate of three shares for every four shares held and decided, for this purpose, to utilize share premium Rs.60,000 out of reserve and the balance out of P & L a/c. Give Journal entries.

Solution:

Working Notes: No. of Bonus Shares issued:

For every 4 shares in A Co. Ltd. …… 3 Bonus shares will be issued

For 2,000 shares in A Co. Ltd. …… ? = 2,000 X ¾ = 1,500 shares

= 1,500 Bonus shares @ Rs.100 each = Rs.1,50,000

Journal Entries in the Books of A Co. Ltd.

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Share Premium a/c Dr.		50,000	
	Reserve Fund a/c Dr.		60,000	
	Profit & Loss a/c (1,50,000 – (50,000 + 60,000)) Dr.		40,000	
	To Bonus shareholders a/c			1,50,000
	(Being Bonus shares to be issued)			
	Bonus to shareholders a/c Dr.		1,50,000	
	To Share capital a/c			1,50,000
	(Being Bonus shares issued for every 4 shares held in A Co. Ltd.)			

Illus.15

A limited company has resolved to utilize Rs.5,00,000 out of its reserve fund in declaration of a bonus to the shareholders. The bonus, however is to be applied to the extent of Rs.2,00,000 in payment of final call of Rs.40 per share on 5,000 Equity shares of Rs.100 each and to the extent of Rs.3,00,000 in the issue of 3,000 fully paid Equity Shares of Rs.100 each to the existing shareholders. Give the journal entries necessary to give effect of the above resolution.

Solution:

Journal Entries in the Books of a Limited Company

Date	Particulars	L.F	Debit Rs.	Credit Rs.

	Reserve Fund a/c Dr. To Bonus shareholders a/c (Being the reserve fund amount to be capitalized transferred to Bonus to shareholders a/c)		5,00,000	5,00,000
	Equity share final call a/c Dr. To Equity share capital a/c (Being the final call amount due on 5,000 equity shares @ Rs.40 per share)		2,00,000	2,00,000
	Bonus to shareholders a/c Dr. To Equity share final a/c (Being the amount of bonus utilized towards the payment of final call)		2,00,000	2,00,000
	Bonus to shareholders a/c Dr. To Equity share capital a/c (Being the issue of 3,000 fully paid bonus shares of Rs.100 each.)		3,00,000	3,00,000

Illus.16:

M/s Karthik Company Limited, having an authorised capital of 5,00,000 equity shares of Rs.10 each, issued 4,00,000 shares to the public for subscription. The amounts payable are as follows:

Rs.3 per share on application, Rs.5 (including premium) on allotment, Rs.2 on first call and Rs.2 on second call. The company received applications for 6,00,000 shares. Hence, the directors made allotment as follows:

a. **Applicants for 2,50,000 shares were allotted Rs.2,50,000 shares**
b. **Applicants for 1,60,000 shares were allotted Rs.1,00,000 shares**
c. **Applicants for 1,20,000 shares were allotted Rs.40,000 shares**
d. **Applicants for 50,000 shares were allotted Rs.10,000 shares**
e. **Applicants for 20,000 shares were allotted Nil shares**

Excess amount received with application was adjusted towards the remaining instalments. The amounts on the calls were received in full.

Pass necessary Journal entries for the above transactions and also show Balance Sheet.

Solution:

Journal entries in the books of a Company

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c (6,00,000 x 3) Dr. To Equity share application a/c (Being equity share application money received on 6,00,000 shares @ Rs.3 per share)		18,00,000	18,00,000
	Equity share application a/c (6,00,000 x 3) Dr. To Equity share capital a/c (4,00,000 x 3) To Equity share allotment a/c (1,80,000 x 3) To Bank a/c (20,000 x 3) (Being application money on 4,00,000 shares transferred to share capital, 1,80,000 shares money transferred to Equity share allotment and		18,00,000	12,00,000 5,40,000 60,000

	20,000 shares money returned back)			
	Equity share allotment a/c (4,00,000 x 5) Dr. To Equity share capital a/c (4,00,000 x 3) To Equity share premium a/c (4,00,000 x 2) (Being the allotment money due on 4,00,000 shares @ Rs.5 per share including a premium)		20,00,000	12,00,000 8,00,000
	Bank a/c Dr. To Equity share allotment a/c (Being Equity share allotment money received) Rs.20,00,000-5,40,000 = Rs.14,60,000)		14,60,000	14,60,000
	Equity share first call a/c Dr. To Equity share capital a/c (Being Equity share first call money due on 4,00,000 shares @ Rs.2 per share)		8,00,000	8,00,000
	Bank a/c (4,00,000) Dr. To Equity share first call a/c (Being the equity shares first call money received)		8,00,000	8,00,000
	Equity share second & final call a/c Dr. To Equity share capital a/c (Being share second & final call money due on 4,00,000 shares @ Rs.2 per share)		8,00,000	8,00,000
	Bank a/c (4,00,000 X 2) Dr. To Equity share second & final call a/c (Being final call money received)		8,00,000	8,00,000

Balance Sheet of Karthik Ltd., as on ……..

Liabilities	Rs.	Assets	Rs.
Share capital:		**Current Assets:**	
Authorised:		Cash at bank	48,00,000
5,00,000 equity shares @ Rs.10 each	50,00,000		
Issued, subscribed, called up & paid up :	40,00,000		
4,00,000 shares @ Rs.10 each			
Reserves and surplus:	8,00,000		
Equity share premium	48,00,000		48,00,000

Note: The students are advised to prepare the following ledger accounts also.

1. Equity share capital a/c = Rs.40,00,000
2. Equity share premium a/c = Rs.8,00,000
3. Bank a/c = Rs.48,00,000

Illus.17:

Giri Company Ltd. was registered with 20 lakh equity shares of Rs.10 each. The company offered 10 lakh shares for subscription at a premium of Rs.50 per share payable Rs.30 on application (Rs.25 for premium) Rs.28 on allotment (Rs.25 for premium) and the balance Rs.2 on call.

All the shares were subscribed and paid for except Suri who failed to pay the call money on his 500 shares which were later forfeited and reissued to Mahesh at the same amount offered to public; who paid the money.

Write necessary Journal entries and prepare the Balance Sheet.

Solution:

Journal Entries in the books of Giri Company Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c Dr. To Equity share application a/c (10,00,000 x 30) (Being the application money received on 10 lakh shares @ Rs.30 per share)		3,00,00,000	 3,00,00,000
	Equity share application a/c Dr. To Equity Share capital a/c (10,00,000 x 5) To Equity share premium a/c (10,00,000 x 25) (Being the share application money on 10 lakhs shares @ Rs.5 transferred to share capital a/c and Rs.25 per share transferred to Equity share premium a/c)		3,00,00,000	 50,00,000 2,50,00,000
	Equity share allotment a/c (10,00,000 x 28) Dr. To Equity Share capital a/c (10,00,000 x 3) To Equity share premium a/c (10,00,000 x 25) (Being Equity share allotment money due on 10 lakhs shares @ Rs.28 per share including a premium of Rs.25 per share)		3,00,00,000	 30,00,000 2,50,00,000
	Bank a/c Dr. To Equity share allotment a/c (10,00,000 x 28) (Being Equity share allotment money received)		2,80,00,000	 2,80,00,000
	Equity share first and final call a/c (10,00,000 x 2) Dr. To Equity Share capital a/c (Being equity share final call money due on 10 lakhs shares @ Rs.2 per share)		20,00,000	 20,00,000
	Bank a/c Dr. To Equity shares final call a/c (Being Equity share final call money received on 9,99,500 shares @ Rs.2 per share (10,00,000 –500)		19,99,000	 19,99,000
	Equity share capital a/c (500 x 10) Dr. Equity share premium a/c (500 x 50) Dr. To Share first call a/c (500 x 2) To Forfeited shares a/c (500 x 58) (Being forfeiture of 500 shares for the non-payment of first and final call money)		5,000 25,000	 1,000 29,000
	Bank a/c (500 x 60) Dr. To Equity share capital a/c (500 x 10) To Equity share premium a/c (500 x 50) (Being the reissue of forfeited shares at the same amount)		30,000	 5,000 25,000
	Forfeited shares a/c Dr. To Capital Reserves a/c (Being the balance of shares forfeited a/c transferred to capital reserve a/c)		29,000	 29,000

Working Notes: Calculation of Amount transferred to Capital Reserve A/c:

Amount received on 500 forfeited shares (500 x 58) = Rs.29,000

Ledger Accounts

Dr. Bank a/c Cr.

	Rs.		Rs.
To Equity Share Application a/c	3,00,00,000	By Balance c/d	6,00,29,000
To Equity Share Allotment a/c	2,80,00,000		
To Equity Share final call a/c	19,99,000		
To Equity Share capital a/c	5,000		
To Equity Share premium a/c	25,000		
	6,00,29,000		6,00,29,000
To Balance b/d	6,00,29,000		

Dr. Equity Share Capital a/c Cr.

	Rs.		Rs.
To Balance c/d	1,00,00,000	By Equity Share Application a/c	50,00,000
		By Equity Share Allotment a/c	30,00,000
		By Equity Share final call a/c	20,00,000
	1,00,00,000		1,00,00,000
		By Balance b/d	1,00,00,000

Dr. Equity Share Premium a/c Cr.

	Rs.		Rs.
To Balance c/d	5,00,00,000	By Equity Share Application a/c	2,50,00,000
		By Equity Share Allotment a/c	2,50,00,000
	5,00,00,000		5,00,00,000
		By Balance b/d	5,00,00,000

Dr. Capital Reserve a/c Cr.

	Rs.		Rs.
To Balance c/d	29,000	By Forfeited shares a/c	29,000
	29,000		29,000
		By Balance b/d	29,000

Balance Sheet of Giri Co. Ltd., as on ……..

Liabilities	Rs.	Assets	Rs.
Authorised Capital:		Current Assets:	
2,00,00,000 shares @ Rs.10 each	2,00,00,000	Cash at bank	6,00,29,000
Subscribed Capital:			
10,00,000 shares @ Rs.10 each	1,00,00,000		
Equity share premium	5,00,00,000		
Capital Reserve a/c	29,000		
	6,00,29,000		6,00,29,000

Illus.18:

Jhansi CO. Ltd. has an issued capital of 20,000 equity shares of Rs.100 each which was fully called-up and paid-up with the exception of some amounts from the following three shareholders.

Srikanth holds 400 shares on which he paid only application money of Rs.25 per share.

Bhargav holds 200 shares on which he paid Rs.25 on application and Rs.30 on allotment of each share.

Deepak holds 100 shares on which he paid Rs.25 on application, Rs.30 on allotment and Rs.20 on first call respectively on each share.

All the three failed to pay their arrears as well as final call of Rs.25 on each share. In due course, their shares were forfeited and reissued to Tarakaram for Rs.80 per share. Give necessary Journal entries in the books of Jhansi Company.

Solution:

Working Notes:

	Application money paid Rs.	**Allotment money paid Rs.**	**First call money paid Rs.**	**Final call money paid Rs.**
Srikanth holds 400 shares	25	-	-	-
Bhargav holds 200 shares	25	30	-	-
Deepak holds 100 shares	25	30	20	-
Total 700 shares	**75**	**60**	**20**	**Nil**

			Rs.	**Rs.**
a	Application money received	20,000 shares @ Rs.25		5,00,000
b	Allotment money due:	20,000 shares @ Rs.30	6,00,000	
	Less: Calls in arrears (Srikanth)	400 shares @ Rs.30	12,000	5,88,000
c	First call money received:			
	First call money due	20,000 shares @ Rs.20	4,00,000	
	Less: Calls in arrears	600 shares @ Rs.20	12,000	
	(Srikanth + Bhargav)			3,88,000
	First call money received***			
d	Second and Final call money received:			
	Final call money due	20,000 shares @ Rs.25	5,00,000	
	Less: Calls in arrears:	700 shares @ Rs.25	17,500	
	(Srikanth + Bhargav + Deepak)			4,82,500
	Final call money received***			

Journal Entries in the books of Jhansi Company Limited

Date	**Particulars**	**L.F**	**Debit Rs.**	**Credit Rs.**
	Bank a/c Dr.		5,00,000	
	To Equity share application a/c			5,00,000
	(Being the application money received on 20,000 equity shares @ Rs.25 each)			
	Equity share application a/c Dr.		5,00,000	
	To Equity Share capital a/c			5,00,000
	(Being Equity share application money transferred to Equity share capital a/c)			

	Particulars		Dr.	Cr.
	Equity share allotment a/c Dr. To Equity Share capital a/c (Being Equity share allotment money due on 20,000 shares @ Rs.30 each)		6,00,000	6,00,000
	Bank a/c Dr. To Equity share allotment a/c (Being Equity share allotment money received with an exception of 400 shares)		5,88,000	5,88,000
	Equity share first call a/c Dr. To Equity Share capital a/c (Being equity share first call money due on 20,000 shares @ Rs.20 each)		4,00,000	4,00,000
	Bank a/c Dr. To Equity shares first call a/c (Being Equity share first call money received with an exception of 600 shares)		3,88,000	3,88,000
	Equity share second & final call a/c Dr. To Equity Share capital a/c (Being equity share second call money due on 20,000 shares @ Rs.25 each)		5,00,000	5,00,000
	Bank a/c Dr. To Equity share second and final call a/c (Being Equity share second call money received with an exception of 700 shares)		4,82,500	4,82,500
	Equity share capital a/c (700 x 10) Dr. To Equity share allotment a/c (400 x 30) To Equity share first call a/c (600 x 20) To Equity share second & final call a/c (700 x 25) To Forfeited shares a/c (700 x 25) (Being 700 shares forfeited for non-payment of allotment, first, second & final call amounts)		70,000	12,000 12,000 17,500 28,500
	Bank a/c (700 x 80) Dr. Forfeited shares a/c (700 x 20) Dr. To Equity share capital a/c (700 x 100) (Being the reissue of 700 forfeited shares @ Rs.80 per share)		56,000 14,000	70,000
	Forfeited shares a/c Dr. To Capital Reserve a/c (Being the balance of shares forfeited a/c transferred to capital reserve a/c)		14,500	14,500

1. Amount transferred to Capital Reserve a/c:

	Rs.	
Amount received on 700 forfeited shares		28,500
Less: Discount allowed on re-issue of shares (100 – 80=20) 700 x 20	14,000	
Capital Reserve	14,500	

2. Forfeited shares amount:

		Rs.
a. Srikanth	400 x Rs.25	10,000
b. Bhargav (25 + 30)	200 x Rs.55	11,000

c. Deepak (25 + 30 + 20) 100 x Rs.75 7,500
28,500

Illus.19:

Meenakshi and Co. Ltd. issued 2,000 shares of Rs.10 each at a premium of Rs.2 per share. The share amount is to be received as follows:

On application Rs.2
On allotment Rs.5 (including premium)
On first call Rs.3
On second call Rs.2

Applications were received for 3,000 shares. The total shares were allotted to the applications of 2,400 shares pro-rata. Raju to whom 40 shares were allotted did not pay the allotment money. His shares were forfeited after first call. Mohan to whom 60 shares were allotted did not pay the calls. His shares were also forfeited after the second call. Then 80 of such shares were reissued at Rs.9 per share to Mr. Rao. These shares included the shares of Raju. Show Journal, Cash book entries and Balance Sheet.

Solution:

Journal Entries in the books of Meenakshi Company Limited

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Bank a/c (3,000 x 2) Dr. To Equity share application a/c (Being the application money received on 3,000 shares @ Rs.2 per share)		6,000	 6,000
	Equity share application a/c Dr. To Equity Share capital a/c (2,000 x 2) To Bank a/c (600 x 2) * (Being the transfer of application money on 20,000 shares @ Rs.2 per share to share capital a/c and refunded application money to the applicants of 600 shares @ Rs.2 per share)		5,200	 4,000 1,200
	Equity share allotment a/c (2,000 x 5) Dr. To Equity Share capital a/c (2,000 x 3) To Equity Share premium a/c (2,000 x 2) (Being the allotment money due on 2,000 shares @ Rs.5 per share including the premium of Rs.2 per share)		10,000	 6,000 4,000
	Bank a/c ** Dr. Equity share application a/c Dr. To Equity share allotment (Being receipt of allotment money and surplus money on application adjusted to share allotment a/c)		9,016 800	 9,816
	Equity share first call a/c Dr. To Equity Share capital a/c (Being the first call money due on 2,000 shares @ Rs.3 per share)		6,000	 6,000
	Bank a/c Dr. To Equity shares first call a/c (Being the receipt of first call money on 1,900 shares @ Rs.3 per share)		5,700	 5,700

	Particulars		Dr.	Cr.
	Equity share capital a/c (40 x 8) Dr. Equity share premium a/c (40 x 2) To Equity share allotment a/c To Equity share first call a/c To Forfeited shares a/c (Being forfeiture of 40 shares held by Raju for non-payment of allotment money & first call money)		320 80	 184 120 96
	Equity share final call a/c Dr. To Equity Share capital a/c (Being final call money due on 1,960 shares @ Rs.2 per share)		3,920	 3,920
	Bank a/c Dr. To Equity share final call a/c (Being the receipt of final call money on 1,900 shares @ Rs.2 per share)		3,800	 3,800
	Equity share capital a/c (60 x 10) Dr. To Equity share first call a/c (60 x 3) To Equity share final call a/c (60 x 2) To Forfeited shares a/c (60 x 5) (Being forfeiture of 60 shares held by Mohan for non-payment of first call @ Rs.3 and final call @ Rs.2 per share)		600	 180 120 300 28,500
	Bank a/c (80 x 9) Dr. Forfeited shares a/c Dr. To Equity share capital a/c (700 x 100) (Being 80 shares out of 100 forfeited shares re-issued @ Rs.9 at a discount of Rs.1 per share)		720 80	 800
	Forfeited shares a/c Dr. To Capital Reserve a/c (Being profit on re-issue of 80 shares transferred to capital reserve a/c leaving a balance of Rs.100 in the shares forfeited a/c)		216	 216

Dr. Bank a/c Cr.

	Rs.		Rs.
To Equity Share Application a/c	6,000	By Equity share application a/c	1,200
To Equity Share Allotment a/c	9,016	By Balance c/d	24,036
To Equity Share first call a/c	5,700		
To Equity Share final call a/c	3,800		
To Equity Share capital a/c (800 x 9)	720		
	25,236		25,326
To Balance b/d	24,036		

Dr. Forfeited shares a/c Cr.

	Rs.		Rs.
To Equity Share capital a/c	80	By Equity Share capital a/c	96
To Capital Reserve a/c	216	Equity Share capital a/c	300
To Balance c/d	100		
	396		396

		By Balance b/d	100

Balance Sheet of Meenakshi Co. Ltd., as on ……..

Liabilities	Rs.	Assets	Rs.
Share Capital:		**Current Assets:**	
Authorised		Cash at bank	24,036
…… shares @ Rs.10 each	---		
Issued : 2,000 shares of Rs.10 each	20,000		
Subscribed: 1980 shares of Rs.10 each fully paid up	19,800		
Share premium a/c (4,000 – 80)	3,920		
Forfeited shares	100		
Capital reserve	216		
	24,036		24,036

Working Notes:

* Since total number of shares offered to public were only 2,000, the allotment in no case should exceed 2,000 shares. This allotment has been made to those who applied for 2,400 shares, others apply for 600 shares were not allotted any shares. Hence the refund amount is Rs.1,200 i.e. 600 shares @ Rs.2 per share.

** **Calculation of the amount received on allotment:**

			Rs.
Total amount due on allotment of 2,000 shares @ Rs.5			10,000
Less: Excess application money of 400 shares adjusted on allotment (400 x 2 = 800)			800
			9,200
Less: Amount not received on 40 shares of Raju:			
Allotment due on 40 shares of Raju = 40 shares @ Rs.5		200	
Less: Advance money received from Raju on application adjusted towards allotment:			
Amount received on application: 48 shares @ Rs.2	96		
Amount adjusted on application : 40shares @ Rs.2	80	16	184
Amount received on allotment			9,016

Shares applied by Raju:

If allotted 2,000 shares … applied 2,400

If Raju allotted 40 shares … applied ? = $\frac{2,400}{2,000}$ X 40 = 49 shares

= Shares applied by Raju = 48; Shares allotted to Raju = 40

Calculation of amount transferred to Capital Reserve:

		Rs.
Balance in forfeited shares account		396
Less: Discount allowed on re-issued	80	
Less: Amount to be retained in respect of 20 shares not yet re-issued i.e. (20 x 5)	100	
		180
Amount to be transferred to Capital Reserve		216

Illus.20:

A company issued 50,000 equity shares of Rs.10 each as par on the following terms of payment.

On application Rs.3
On allotment Rs.4
On first call Rs.2
On second & final call Rs.1

Applications were received for 60,000 shares. Allotments were made on the following basis.

a) To applications for 10,000 shares in full
b) To applications for 20,000 shares – 15,000 shares
c) To applications for 30,000 shares – 25,000 shares

All excess amounts paid on application to be adjusted against amounts due on allotment.

The shares were fully called and paid except amounts of allotment, first and second calls not paid by those who allotted 2,000 shares out of the group applying for 20,000 shares. All the shares on which calls were not paid were forfeited by the Board of Directors.

1,000 forfeited shares were reissued as fully paid on receipt of Rs.8 per share.

Show the Journal entries and also show how share capital, capital reserve and forfeited shares amount appear in the balance sheet.

Solution:

Journal Entries in the books of Meenakshi Company Limited

Date	**Particulars**	**L.F**	**Debit Rs.**	**Credit Rs.**
	Bank a/c Dr. To Equity share application a/c (Being the application money received on 60,000 shares @ Rs.3 per share)		1,80,000	 1,80,000
	Equity share application a/c Dr. To Equity Share capital a/c To Equity Share allotment a/c (Being the application money on 50,000 shares @ Rs.3 transferred to Equity share capital a/c and the balance amount transferred to Equity share allotment a/c)		1,80,000	 1,50,000 30,000
	Equity share allotment a/c Dr. To Equity Share capital a/c (Being Equity share allotment money due on 50,000 shares @ Rs.4 per share)		2,00,000	 2,00,000
	Bank a/c * Dr. To Equity share allotment (Being the Equity share allotment money received with an exception of 2,000 shares)		1,64,000	 1,64,000

	Particulars		Dr.	Cr.
	Equity share first call a/c Dr. To Equity Share capital a/c (Being the first call money due on 50,000 shares @ Rs.2 per share)		1,00,000	1,00,000
	Bank a/c (48,000 x 2) Dr. To Equity shares first call a/c (Being the receipt of first call money on 48,000 shares @ Rs.2 per share) (i.e. 50,000 – 2,000 = 48,000)		96,000	96,000
	Equity share second & final call a/c Dr. To Equity Share capital a/c (Being Equity final call money due on 50,000 shares @ Rs.1 per share)		50,000	50,000
	Bank a/c (48,000 x 1) Dr. To Equity share second & final call a/c (Being second & final call money received with an exception of 2,000 shares) (i.e. 50,000 – 2,000 = 48,000)		48,000	48,000
	Equity share capital a/c (2,000 x 10) Dr. To Equity share allotment a/c * To Equity share first call a/c (2,000 x 2) To Equity share final call a/c (2,000 x 1) To Forfeited shares a/c (Being forfeiture of 2,000 shares held for the non -payment of allotment, first call and final call amount)		20,000	 6,000 4,000 2,000 8,000
	Bank a/c (1,000 x 8) Dr. Forfeited shares a/c Dr. To Equity share capital a/c (1,000 x 10) (Being the re-issue of 1,000 forfeited shares @ Rs.8 per share)		8,000 2,000	 10,000
	Forfeited shares a/c * Dr. To Capital Reserve a/c (Being the balance of share forfeited a/c transferred to capital reserve a/c)		2,000	2,000

Working Notes:

For 20,000 shares applied, 15,000 shares were allotted. i.e. For 4 shares applied, 3 shares were allotted.

When shares allotted were 3 ….. Shares applied for were 4

When shares allotted were 2,000 ….. Shares applied for were ?

= 4/3 X 2,000 = 8,000/3 = 2,667 approximately

		Rs.
Application money received on 2,667 shares were =	2,667 @ Rs.3	8,001
Rounded off to		8,000
Application money on 2,000 shares applied:	2,000 shares @ Rs.3	6,000
This excess money is adjusted towards share allotment		2,000
Allotment money due on 2,000 shares:		8,000
Less: Application money already adjusted towards	(2,000 X 4)	

allotment	2,000
Amount not received on allotment	6,000

Allotment money due on 50,000 shares @ Rs.4		2,00,000
Amount not received on allotment		6,000
Amount received on allotment		1,94,000
Less: Excess application money transferred to share allotment		30,000
Amount received on allotment*		1,64,000

Amount transferred to Capital Reserve a/c:		
Balance amount of 2,000 shares forfeited		8,000
1,000 shares were re-issued and amount to be utilised from Share forfeited a/c for re-issue of 1,000 shares	(8,000 X 1/2)	4,000
		2,000
Less: Amount utilised for re-issue of forfeited shares		2,000
Capital Reserve:		

Dr. Bank a/c Cr.

	Rs.		Rs.
To Equity Share Application a/c	1,80,000	By Balance c/d	4,96,000
To Equity Share Allotment a/c	1,64,000		
To Equity Share first call a/c	96,000		
To Equity Share final call a/c	48,000		
To Equity Share capital a/c	8,000		
	4,96,000		4,96,000
To Balance b/d	4,96,000		

Dr. Equity share capital a/c Cr.

	Rs.		Rs.
To Equity Share Allotment a/c	6,000	By Equity Share Application a/c	1,50,000
To Equity Share first call a/c	4,000	By Equity Share Allotment a/c	2,00,000
To Equity Share final call a/c	2,000	By Equity Share first call a/c	1,00,000
To Forfeited shares a/c	8,000	By Equity Share second & final call a/c	50,000
To Balance c/d	4,90,000	By Bank a/c	8,000
		By Forfeited shares a/c	2,000
	5,10,000		5,10,000
		By Balance b/d	4,90,000

Dr. Forfeited shares a/c Cr.

	Rs.		Rs.
To Equity Share capital a/c	2,000	By Equity Share capital a/c	8,000
To Capital Reserve a/c	2,000	Equity Share capital a/c	
To Balance c/d	4,000		
	8,000		8,000
		By Balance b/d	4,000

Balance Sheet of a Company as on ……..

Liabilities	Rs.	Assets	Rs.
Share Capital:		**Current Assets:**	
Authorised, Issued, Subscribed And paid up: (50,000 –1,000) 49,000 shares @ Rs.10 per share	4,90,000	Cash at bank	4,96,000
Reserves & Surplus			
Capital reserve	2,000		
Forfeited shares	4,000		
	4,96,000		4,96,000

Illus.21:

Himani Co. Ltd. offered to the public 20,000 equity shares of Rs.100 each at a premium of Rs.10 per share. The payment was to be as follows:

On application	**Rs.20**
On allotment	**Rs.40 (including premium)**
On first call	**Rs.25**
On second & final call	**Rs.25**

Applications received total for 35,000 shares; applications for 10,000 shares were rejected; those totaling 15,000 shares were allotted 10,000 shares and the remaining applications were accepted in full. The directors made both the calls. One shareholder holding 500 shares failed to pay the two calls as a consequence his shares were forfeited. 200 of these shares were re-issued as fully paid @ Rs.80 per share.

Expenses of the issue came to Rs.15,000

Prepare the cash book, and the journal on the basis of information given above.

Solution:

Dr. Cash Book Cr.

	Rs.		Rs.
To Equity Share Application a/c	7,00,000	By Equity share application a/c	2,00,000
To Equity Share Allotment a/c*	7,00,000	By Issue expenses	10,000
To Equity Share first call a/c	4,87,500	By Balance c/d	21,81,000
To Equity Share second & final call a/c	4,87,500		
To Equity Share capital a/c	16,000		
	23,91,000		23,91,000
To Balance b/d	21,81,000		

Working Notes:

Equity share allotment money received:

	Rs.
Allotment money due = 20,000 shares @ Rs.40 each (including a premium of Rs.10 per share)	8,00,000
Less: Excess Application money received on 5,000 Shares @ Rs.20 each	1,00,000
Allotment money received	7,00,000

Journal Entries in the books of Himani Co. Ltd.

Date	Particulars	L.F	Debit Rs.	Credit Rs.
	Equity share application a/c (25,000 x 20) Dr. To Equity Share capital a/c (20,000 x 20) To Equity Share allotment a/c (5,000 x 20) (Being application money on 20,000 shares transferred to Equity share capital a/c and the amount on 5,000 shares transferred to Equity share allotment a/c)		5,00,000	 4,00,000 1,00,000
	Equity share allotment a/c (20,000 x 40) Dr. To Equity Share capital a/c (20,000 x 30) To Equity Share premium a/c (20,000 x 10) (Being Equity share allotment money due on 20,000 shares @ Rs.40 per share including a premium of Rs.10 per share)		8,00,000	 6,00,000 2,00,000
	Equity share first call a/c (20,000 x 25) Dr. To Equity Share capital a/c (Being the first call money due on 20,000 shares @ Rs.25 per share)		5,00,000	 5,00,000
	Equity share capital a/c (500 x 100) Dr. To Equity share first call a/c (500 x 25) To Equity share second & final call a/c (500 x 25) To Forfeited shares a/c (Being forfeiture of 500 shares for the non-payment of first and second call money)		50,000	 12,500 12,500 25,000
	Forfeited shares a/c Dr. To Share capital a/c (Being the discount allowed on re-issue of 200 forfeited shares @ Rs.20 per share)		4,000	 4,000
	Forfeited shares a/c Dr. To Capital Reserve a/c (Being the balance of forfeited shares a/c transferred to capital reserve a/c)		6,000	 6,000

Working Notes:

Amount transferred to Capital Reserve a/c:

500 forfeited shares amount …. Rs.25,000

200 forfeited shares amount …. ?

$$= \frac{200}{500} \times 25,000 = \text{Rs.}10,000$$

	Rs.
Amount on 200 forfeited shares	10,000
Less: Discount allowed on re-issue (200 x 20)	4,000
Balance transferred to Capital Reserve	6,000

9.7. SELF ASSESSMENT QUESTIONS

A. Short Answer Questions :

10. Definition of a company
11. Preference shares
12. Equity Shares
13. What is under subscription
14. What is over subscription
15. Calls in advance
16. Calls in arrears
17. Forfeiture of shares

B. Essay Questions :

1. Define a company? Explain the features of a company.
2. What is a share? Discuss their different classes
3. Explain different kinds of share capital.
4. Discuss the provisions relating to the issue and allotment of shares as per the Companies Act,1956.
5. What is forfeiture of shares? Explain the provisions relating to re-issue of forfeited shares.
6. When can the shares be forfeited? Can forfeited shares be issued at discount? If so, to what extent? Where would you transfer the balance left in the forfeited shares account after such shares have been reissued
7. Explain in brief the provisions of the Companies Act, 1956 regarding the issue of shares at a discount.

9.8. EXERCISES

1. Samsun Ltd., made an issue of 10,000 equity shares of Rs.100 each, payable Rs.20 on application, Rs.40 on call. All the shares are subscribed and amounts duly received. Pass journal entries to give effect to these.

2. The authorised capital of a company is 1,00,000 shares of Rs.10 each. On April 10, 2005 it issued 50,000 shares to the public at par. All the shares were subscribed. The company called Rs.2 on application, Rs.3 on allotment and Rs.2 on first call. Presuming that all moneys are received. Show these items in the balance sheet.

3. A Limited Company was incorporated with a capital of Rs.4,00,000 consisting of 20,000 equity shares of Rs.10 each and 10,000 preference shares of Rs.20 each. It offered to the public 10,000 equity 5,000 preference shares payable as follows:

	Equity shares Rs.	Preference shares Rs.
On application	2	4
On allotment	3	6
On first call	2	4
On second and final call	3	6

The company received applications for just 10,000 Equity and 5,000 Preference shares. The shares were duly allotted and all money duly received.
Show how the above transactions would appear in journal.

4. Crane Ltd. offered 2,00,000 equity shares of Rs.10 each at a premium of 40% payable as follows:
   Rs. 4 (including 50% of premium) on application
   Rs. 4 (including the balance premium) on allotment
   Rs. 5 on first and final call.
   The company received applications for 2,00,000 shares which it duly allotted. All the moneys including premium were received on due date.
   Pass the Journal entries.
5. Mr. Kiran holds 100 shares of Rs.20 each on which he has paid Rs.2 as application money and Rs.4 as allotment. Vamsi holds 200 shares of Rs.20 each on which he has paid Rs.2 on application, Rs.4 on allotment and Rs.6 as first call. They all fail to pay the final call of Rs.8. The directors forfeit their shares and reissued them at Rs.18. Journalise the transactions to record the forfeiture and reissue.

6. Sandhya Ltd. allotted shares of Rs.10 each to Mrs. Jeevika who paid Rs.2 per share on application, Rs.3 per share on allotment but failed to pay Rs.5 per share on the call. Consequently her shares were forfeited and reissued to Mrs. Chandra at Rs.8 per share. Give journal entries relating to forfeiture and reissue in the books of Sandhya Ltd.
7. Rajesh Tyres Ltd., issued equity shares of Rs.10 each payable 25% on application, 50% on allotment an d25% on call. All the 1 lakh were subscribed and paid for except Mehta who failed to pay the call money on his 300 shares, which were later forfeited and reissued to Ganesh @ Rs.8 per share. Pass necessary journal entries for forfeiture & resissue and prepare the Balance Sheet of the company
   (Ans: Balance Sheet total Rs.10,01,650)

8. Visala Company Ltd., having an authorized capital of Rs.2,00,00,000 in shares of Rs.10 each, invited applications for 10,00,000 share payable as follows:

   On application Rs.2.50; on allotment Rs.3.50; on first call Rs.2 and second & final call Rs.2

   The company received applications for 9,00,000 shares. All the applications were accepted. All moneys due as stated above were received with exception of the second & final call on 2,000 shares; these were forfeited and reissued as fully paid @ Rs.9 per share.

   Write the necessary journal entries in the books of the company also show the balance sheet of the company.
   (Ans: Amount transferred to Capital reserve Rs.14,000; Balance Sheet total Rs.90,14,000)
9. A Ltd. invited applications for 10,000 shares of Rs.100 each at a discount of 6% payable as follows:

On application	Rs.25
On allotment	Rs.34
On first and final call	Rs.35

   The applications received were for 9,000 shares and all of these were accepted. All moneys due were received except the first and final call on 100 shares, which were forfeited. 50 shares were reissued @ Rs.90 fully paid. Assuming that all requirements of the Law were compiled with, pass entries in the cash book and journal of the company. Also show how the transactions will be reflected in the company's balance sheet.

(Ans: Amount transferred to capital reserve Rs.2,750; Cash book balance Rs.8,47,000; Balance Sheet total Rs.9,00,700)

10. Manoj & Co. made an offer of 1,00,000 equity shares of Rs.10 each payable as follows:

    On application Rs.2; on allotment Rs.3; on first call Rs.2.50; and on second call Rs.2.50

    Applications were received for 1,60,000 shares and allotments were made on pro rata to the applicants of 1,20,000 shares, the remaining applications being rejected and money refunded. Application money paid in excess by the allottees was adjusted with the money due on allotment.

    Ravi the holder of 200 shares failed to pay the allotment money and on his failure to pay the first call, his shares were forfeited. Sohan another shareholder to whom 500 shares were allotted, failed to pay the first and second call amount and his shares were also forfeited after making the second call.

    Out of the forfeited shares 600 shares were reissued to Ranjit as fully paid on payment of Rs.9 per share. Record the above transactions in the journal of Manoj & Co.

    (Ans: Amount transferred to capital reserve Rs.1,800)

11. Keerthi Co. Limited issued 60,000 equity shares of Rs.10 each at a premium of Rs.2.50 per share payable on application. The amount payable on allotment was fixed at Rs.4 per share and an equivalent sum was due on a call to be made.
    Total applications received were for 1,00,000 shares and after consulting Stock Exchange, the following scheme of allotments was decided upon.

Category	A	B	C
Grouping of Shares	1 –100	101 – 500	Over 500
No. of applications received	1,200	175	5
No. of shares applied for	70,000	35,000	5,000
No. of shares allotted	42,000	14,000	4,000

    It was decided that the excess amount received on applications would be utilized in payment of allotment money and surplus, if any, would be refunded to the applicants.

    All the dues were received except a shareholder belonging to category A who had applied for 100 shares defaulted in payment of Allotment money. His shares were forfeited.

    Show the necessary journal entries in the books of the company to record the above transactions.
    (Ans: Amount transferred to capital reserve Rs.300)

12. Nikhita Ltd. acquired land costing Rs.2,00,000 and in payment allotted 20,000 equity shares of Rs.10 each as fully paid. Further the company issued 80,000 equity shares to the public payable as follows:
    On application Rs.3; on allotment Rs.3 and on first and final call Rs.4
    The public applied for all the shares which were allotted. All moneys were received except the call on 400 shares. After due notice these shares were forfeited and Reissued for Rs.9 each as fully paid. Write necessary Journal entries and prepare Balance Sheet.

(Ans: Amount transferred to capital reserve Rs.2,000; Balance Sheet Total Rs.10,02,000)

13. Sahiti Co. Ltd., has the following items in the Balance Sheet.
    a. 1,00,000 Equity shares of Rs.50 each, Rs.40 paid up.
    b. General reserve Rs.11,00,000
    c. Share premium Rs.5,00,000
    d. Capital reserve Rs.7,00,000

    The company decided:
    To capitalize its general reserve
    To convert the existing shares into fully paid up
    To issue 20,000 bonus shares of Rs.50 each at a premium of Rs.10 per share out of share premium and capital reserve.
    Pass Journal entries.

14. The extracts are given from the draft balance sheet of Zinda Ltd. as on 31st December, 2002:

	Rs.
Authorised capital:	
20,000 equity shares of Rs.10 each	2,00,000
Issued and subscribed capital:	
7,000 equity shares of Rs.10 each fully paid up	70,000
Reserve fund	36,000
Profit and Loss account	29,000

The Board of Directors pass a resolution to capitalize a part of existing reserves and profits by issuing bonus shares. One bonus share is being issued for every 4 equity shares held at present. For this purpose, Rs.10,000 are to be provided out of Reserve fund and the balance out of Profit and Loss account.

9.9 SUGGESTED BOOKS

1. Agarwala, A.N., Amitabha Mukherjee, Mohammed Hanif, **Principles and Practice of Accountancy,** Kitab Mahal Agencies, New Delhi.
2. Basu & Das, **Practical in Accountancy, Volume – one,** Rabindra Library, Calcutta
3. Chopde, L.N., & Choudhari, D.H., **Accountancy,** Sheth Publishers, Pune
4. Jain, S.P., Narang, K.L., **Accountancy, Part - I,** Kalyani Publishers
5. Maheswari, S.N., Maheswari, S.K., **Advanced Accountancy (Vol.I)**, Vikas Publishing House Pvt. Ltd., New Delhi, 2005
6. Pillai, R.S.N., Bagavathi, Uma, S., **Fundamentals of Advanced Accounting (Vol.I)** S. Chand & Company Ltd., New Delhi, 2006
7. Shukla, M.C., Grewal, T.S., Gupta, S.C., **Advanced Accounts (Volume I)** S. Chand & Company Limited, New Delhi, 2005
8. Tulsian, P.c., **Accountancy** Tata McGraw-Hill Publishing Company Limited, New Delhi.

Chapter – 10

ISSUE OF DEBENTURES

10.0: Objective:

After going through this unit you should be able to :

- Know the meaning of debentures and kinds of debentures
- Understand the procedure for the issue of debentures
- Discuss the issue of debenture at premium and discount
- Understand various methods of redemption of debentures
- Know the provisions relating to the conversion of debentures into shares

Structure:

10.1 Introduction

10.2 Features or characteristics of debentures

10.3 Types of Debentures

10.4 Issue of Debentures

10.5 Issue of Debentures for consideration other than cash

10.6 Issue of Debentures as collateral security

10.7 Issue of Debenture according to the condition of Redemption

10.8 Redemption by Conversion

10.9 Writing off Discount on Issue of Debentures

10.10 Interest on Debentures

10.11 Self Assessment Questions

10.12 Exercises

10.13 Suggested Readings

10.1 INTRODUCTION :

There are two types of capital of a company: (1) Share Capital and (2) Loan Capital. Share capital includes equity shares and preference shares. Loan Capital includes debenture and long-term loan. According to Section 2(12) of Indian Companies Act, 1956, the bonds are also included in debentures.

A debenture is a written acknowledgement of debt by a company under its common seal, generally secured by floating charge on company's assets. Interest is paid to debenture holders at a fixed rate at regular intervals. Company retains the amount of debentures as and when its requirement is over or after a specified period, this is known as "redemption of debentures".

The term debenture is derived from the Latin word "debere" which means "to owe a debt". A debenture may be defined as document issued by the company as an evidence of debt. It is the acknowledgement or the company's indebtedness to its holders.

10.2 CHARACTERISTICS OF DEBENTURES :

The following are the features of debentures.

1. Debenture-holders are entitled to periodical payment of interest at an agreed rate. They are also entitled to redemption of their capital as per the agreed terms.
2. They have no voting rights.
3. Usually debentures are secured by charge on or mortgage of the assets of the company.
4. Debenture holders have the right to use the company for any unpaid dues.
5. They can enforce the security by sale in case of default.
6. They can apply for winding up of the company to safeguard their interests.

10.3 TYPES OF DEBENTURES :

A company may issue various kinds of debentures with different rights are given below:

10.3.1. On the basis of ownership:

(a) Registered Debentures: The debentures which are transferable only by transfer deed. Names, addresses and particulars of the debentures possessed by them are entered in the register of debenture holders. Interest is paid to one whose name appears in the register of debenture holders on the due date of interest.

(b) Bearer Debentures: Debentures which are transferred by mere delivery and the company does not keep the record of debenture holders' names, addresses etc. Payment of interest is made on production of coupons attached with the debenture certificate.

10.3.2 On the basis of Redemption:

(a) Redeemable Debentures: The debentures which are redeemed or the payment of which is made during the life time of company, generally after specified period of time.

(b) Irredeemable Debentures: In this case the issuing company does not fix any date by which they should be redeemed and the debenture holders cannot demand payment so long as it is a going concern. Usually such debentures are payable after a long period of time (not pre decided) or on winding up of the company.

10.3.3. On the basis of conversion:

(a) Convertible Debentures: The holders of such debentures are given the option to convert the debentures into share or new debentures after a specified time. Those, which are fully convertible are called "Fully Convertible Debentures" or simply FCDS'. Those, which are partly convertible are called "Partly Convertible Debentures" or simply PCDS'.

According to SEBI's guidelines the debentures must be converted within 36 months of issue.

(b) Non-Convertible Debentures: The holders of such debentures have no right to convert them into shares or new debentures. These are called NCDS'. If NCDS' are issued by the company and later on company wishes to convert the debentures then it would be an option to debenture holders.

10.3.4. On the basis of Security:

(a) **Secured or Mortgage Debentures:** The debentures which are secured either on a particular asset or on general assets of the company. When a particular asset is put or pledged is known as fixed charge and when no specific asset is put called floating charge.

(b) **Unsecured or Naked Debentures:** The debentures which are not secured . In other words, no assets are pledged by the company to the debenture holders. Companies of very good standing are able to issue such debentures.

10.3.5. On the basis of interest rate: There was restriction of the Government on the rate of interest upto 31-7-1991, now company is free to decide rate of interest on debentures. On the basis of interest rate the debentures may be**:**

(a) **Fixed rate of interest:** The rate of interest on the debenture is generally fixed and remains same upto redemption. Market rate of interest does not effect the interest rate of debentures.

(b) **Zero interest Debentures:** The debentures on which no interest is paid by the company's called zero interest debentures. Such debentures are either issued at heavy discount or such debentures converted into equity shares offered at low rate i.e., below market price.

10.4 ISSUE OF DEBENTURES :

According to Section 292 of Indian Companies Act, 1956 the Board of Directors have the power to raise the capital by issue of debentures. But if total value of debentures issued so far and offered is more than by the aggregate amount of paid up share capital and free reserves then the directors have to take permission of the shareholders in their meeting (Section 293).

Section 78 and 79 of Companies Act (rules related to premium and discount respectively) will not be applied on issue of debentures. In other words, there will be no restriction on issue of debentures at premium or discount.

If the debentures are issued at discount then such discount will be a capital loss and company has to write off such capital loss from any capital profits or revenue profits during the life time of debentures. Till the discount is not written off fully, it will be appeared in the Balance Sheet on assets side under the head "Miscellaneous Expenditure". At the time of redemption of debentures, there should not be any balance in "Discount on issue of debentures account".

According for issue of debentures for cash is the same as the accounting for issue of shares with one change, i.e., the word 'shares' shall be replaced by 'debentures' and 'shares capital' by 'debentures'. The terms used for the issued of shares will be changed as follows at the time of issue of debentures:

Terms of issue of Shares	Terms of issue of Debentures
1. Share Application/Allotment/ I call/ II call …..etc.	Debenture Application/Allotment/ I call/ II call …..etc.
2. Share Capital	Debentures
3. Discount on issue of Shares	Discount on issue of Debentures

Note: There is no difference between the premium on issue of shares and debentures. Both are now known as "Securities Premium".

Illus. 1: Make necessary entries in the books of Sona Ltd., in following cases:

(a) 5,000, 13% Debentures of Rs.100 each were issued. The whole amount is payable on application. The issue was fully subscribed for and was fully paid up.

(b) 5,000, 13% Debentures of Rs.100 each were issued at a premium of Rs.10 per debenture, payable as : Rs.25 on application; Rs.35 on allotment (including premium) and the balance on call. A holder of 100 debentures did not pay the allotment and call money. Rest of the amount was duly received.

(c) 5,000, 13% Debentures of Rs.1000 each were issued at Rs.950 per debenture, payable as: Rs.300 on application, Rs.500 on allotment and the balance on call. Sohan, holding 10 debentures, did not pay the call money and Mohan, holding 200 debentures, paid the whole amount due along with the allotment money.

Solution :

Journal of Sona Ltd.

Date	Particulars	L. F.	Rs.	Rs.
(a)	Bank a/c Dr. To Debenture Application a/c (Being application money received)		5,00,000	 5,00,000
	Debenture Application a/c Dr. To 13% Debentures a/c (Being application money transferred on allotment)		5,00,000	 5,00,000
(b)	Bank a/c Dr. To Debenture Application a/c (Being application money received)		1,25,000	 1,25,000
	Debenture Application a/c Dr. To 13% Debentures a/c (Being application money transferred on allotment)		1,25,000	 1,25,000
	Debenture Allotment a/c Dr. To 13% Debentures a/c To Securities Premium a/c (Being allotment money due on 5,000 debentures @ Rs.35 including premium)		1,75,000	 1,25,000 50,000
	Bank a/c Dr. To Debenture Allotment a/c (Being allotment money received on 4,900 debentures)		1,71,500	 1,71,500
	Debenture call a/c Dr. To 13% Debentures a/c (Being call money due @ Rs.50 per debenture)		2,50,000	 2,50,000
	Bank a/c Dr. To Debenture call a/c (Being call money received on 4,900		2,45,000	 2,45,000

	debentures)			
(c)	Bank a/c Dr. To Debenture Application a/c (Being application money received)		1,50,000	1,50,000
	Debenture Application a/c Dr. To 13% Debentures a/c (Being application money transferred on allotment)		1,50,000	1,50,000
	Debenture Allotment a/c Dr. Discount on issue of debentures a/c Dr. To 13% Debentures a/c (Being allotment money due on 500 debentures and discount @ Rs.50)		2,50,000 25,000	2,75,000
	Bank a/c Dr. To Debenture Allotment a/c To Debentures calls in advance a/c (Being allotment money received and the amount of calls in advance on 200 debentures)		2,80,000	2,50,000 30,000
	Debenture call a/c Dr. To 13% Debentures a/c (Being call money due on 500 debentures @ Rs.150 each)		75,000	75,000
	Bank a/c Dr. Debenture call in advance a/c Dr. To Debenture call a/c (Being call money advance adjusted and the balance received, except 10 debentures)		43,500 30,000	73,500

10.5 ISSUE OF DEBENTURES FOR CONSIDERATION OTHER THAN CASH :

When debentures are allotted by the company to the vendor of business to discharge the purchase consideration or to the vendor of asset to discharge the value of assets are called "Issue of debentures for consideration other than cash". The accounting entries are as follows:

			Rs.	Rs.
(a)	On Purchase of Assets or business: Assets a/c Dr. To Vendor a/c (Being assets purchased)		xxx	xxx
	Sundry assets a/c (individually) Dr. To Sundry liabilities a/c (individually) To Vendors a/c (purchase consideration) (Being assets and liabilities acquired)		xxx	xxx xxx
(b)	Issue of debentures to discharge vendors balance: Vendor a/c Dr. To Debentures a/c (Being debentures issued)		xxx	xxx

Note: The debentures may be issued at par, premium or discount. In case debentures are issued at premium, then the "Securities premium account" will be credited and the "Discount on issue of debentures account" will be debited if it is issued at discount.

Illus.2: Rahul Ltd., acquired machine of Rs.6,60,000 from Madhu Ltd. Rahul Ltd., discharged the consideration by issuing 12% debentures of Rs.100 each at a premium of 10%. Give journal entries in the books of Rahul Ltd.

Solution:

Journal of Rahul Ltd.

Date	Particulars	L. F.	Rs.	Rs.
	Machinery a/c Dr. To Madhu Ltd. (Being asset purchased)		6,60,000	 6,60,000
	Madhu Ltd. a/c Dr. To Debentures a/c To Debenture premium a/c (Being debentures issued at 10% premium)		6,60,000	 6,00,000 60,000

Note: No. of debentures = 6,60,000/110 = 6,000

10.6 ISSUE OF DEBENTURES AS COLLATERAL SECURITY :

A collateral security is an additional or secondary but contingent security for the performance of an obligation. Sometimes, a company deposits its debentures as additional security to secure loan from the bank. Hence, the debentures are deposited to provide security for the loan taken to the lender. Generally, there will be no entry on issue of debentures as collateral security. In such a case, the loan would appear as a liability, the debentures issued will be shown only within brackets below the particulars of the loan to indicate the facts that they have been issued only as a security and the amount would not be shown in the outer column. A memorandum of such an issue would also be kept in the debentures ledger. They carry no interest. After repayment of loan, debentures deposited are returned to the company and are cancelled by the company.

Alternatively, a debenture suspense account may be debited with the amount of debentures issued as additional security and the amount is credited to the debentures account. The reverse entry may be passed on payment of loan. If company is interested to pass journal entry on issue the following entries are passed.

			Rs.	Rs.
(a)	Issue of debentures as collateral security: Debenture suspense a/c Dr. To Debentures a/c (Being ….Debenture of Rs……each issued as collateral security against a loan of Rs….)		5,00,000	 5,00,000
(b)	On repayment of loan: Debentures a/c Dr. To Debentures suspense a/c (Being debentures issued as collateral security withdrawn)		5,00,000	 5,00,000

Note: Debenture suspense a/c will be shown in the balance sheet on the assets side, debentures a/c will be shown on the liabilities side along with other debentures.

Illus.3: Bajaj Ltd., took loan on 5-1-2006 from UTI of Rs.50,00,000 and alloted Rs.60,00,000, 15% debentures as collateral security.

Solution:

These will be appeared in the Balance Sheet as follows:

Liabilities	Rs.	Assets	Rs.
Secured Loan: Loan from UTI (issued Rs.60,00,000,15% debentures as collateral security)	50,00,000	Bank	50,00,000

Alternatively:

If accounting entries are passed, the entries will be:

Journal

Date	Particulars	L.F.	Rs.	Rs.
	Bank a/c Dr. To UTI Loan a/c (Being loan taken from UTI)		50,00,000	50,00,000
	Debentures suspense a/c Dr. To 15% Debentures a/c (Being issue of 15% debentures as collateral security)		60,00,000	60,00,000

Balance Sheet of Bajaj Ltd as on 31st March, 2006

Liabilities	Rs.	Assets	Rs.
15% Debentures (issued as Collateral Security)	60,00,000	Debenture Suspense account	60,00,000
UTI Loan	50,00,000	(issued as collateral security) Bank	50,00,000
	110,00,000		**110,00,000**

Illus.4: X Ltd., issued 2,000,14 debentures of Rs.100 each to the public at a discount of 10%. The company also took a loan of Rs.4,00,000 from the Central Bank and deposited 5,000, 14% debentures with the bank as a collateral security. How will you deal with the issues of debentures in the books of the company and show them in Balance Sheet?

Solution:

When no entry is to pass for the debentures issued as collateral security:

Date	Particulars	L.F.	Rs.	Rs.
(a)	Bank a/c Dr. Discount on issue of Debentures a/c Dr. To 14% Debentures a/c (Being 2,000, 14% debentures issued at a discount of 10%)		1,80,000 20,000	2,00,000
(b)	Bank a/c Dr. To Bank Loan a/c (Being loan of Rs.4 lakhs taken from		4,00,000	4,00,000

	bank against collateral security of 5,000 14% debentures of Rs.100 each)			

Note: (a) When debentures are issued on lump sum payment then the debentures are issued directly without putting the amount in "Debenture application account".
(b) No entry is passed for the issue of debentures as collateral security.
Above will be shown in the balance sheet as follows:

Balance Sheet of XLtd as on …………

Liabilities	**Rs.**	**Assets**	**Rs.**
Share Capital	………	Cash at bank	5,80,000
Secured Loans: 14%, 2,000 debentures of Rs.100 each	2,00,000	Discount on issue of Debentures	20,000
Bank Loans: (5,000, 14% Debentures of Rs.100 each deposited as collateral security)	4,00,000		
	6,00,000		**6,00,000**

When accounting entry is to pass for the debentures issued as Collateral Security:

Date	**Particulars**	**L.F.**	**Rs.**	**Rs.**
(c)	Debenture Suspense a/c Dr.		5,00,000	
	To 14% Debentures a/c			5,00,000
	(Being 5,000, 14% debentures of Rs.100 each deposited as collateral security to secure the bank loan of Rs.4 lakhs)			

Balance Sheet of X Ltd as on …………

Liabilities	**Rs.**	**Assets**	**Rs.**
Share Capital	………	Cash at bank	5,80,000
Secured Loans:		Debenture suspense account	5,00,000
14%, 2,000 debentures of Rs.100 each	2,00,000	Discount on issue of Debentures	20,000
14%, 5,000 debentures of Rs.100 each issued as collateral security	5,00,000		
Bank Loans: (5,000, 14% Debentures of Rs.100 each deposited as collateral security)	4,00,000		
	11,00,000		**11,00,000**

10.7 ISSUE OF DEBENTURE ACCORDING TO THE CONDITION OF REDEMPTION :

Generally company declares on issue of debentures regarding the redemption of debentures. The debentures may be redeemed either at par or at premium. When the debentures are to be redeemed at a premium(declared on issue) then the premium payable on

redemption will be a capital loss and it is known by the company at the time of issue of such debentures. The accounting entries in different situations are as follows:

Date	Particulars	L.F.	Rs.	Rs.
(a)	**Debentures issued at par and to be redeemed at premium**: (i)On receipt of application: Bank a/c Dr. To Debenture application a/c (Being application money received)		At par value	At par value
(b)	(ii) On allotment of debentures: Debenture application a/c Dr. Loss on issue of debentures a/c Dr. To Debentures a/c To Premium on redemption of debentures a/c (Being debentures allotted and provided for premium)		Amount received Premium on redemption	At par Premium on redemption

Debentures issued at discount and redeemable at premium

Date	Particulars	L.F.	Rs.	Rs.
(a)	On receipt of application: Bank a/c Dr. To Debenture application a/c (Being debentures application received)		Amount received	Amount received
	On allotment: Debenture application a/c Dr. Discount on issue of debentures a/c Dr. Loss on issue of Debentures a/c Dr. To Debentures a/c To Premium on redemption of Deb.a/c (Being debentures allotted at discount and provided for premium on redemption)		Amount received Discount provided Premium payable on redemption	Par value Premium payable on redemption

Note: The "Loss on Issue of Debentures a/c" and "Discount on issue of Debentures a/c" are capital losses and appears in the balance sheet on assets side. However, it is a fictitious assets which must be written off as soon as possible. The losses can be written off from any capital profit including securities premium or revenue profit. The entry for writing off of the losses will as follows:

Date	Particulars	L.F.	Rs.	Rs.
	Capital Reserve/ Revenue profits a/c Dr. To Loss on issue of Debentures a/c To Discount on issue of Debentures a/c			

It is to be noted that writing off of above losses is not a legal necessity. However, sound financial principles require that such losses should be written off at earlier but in any case before the redemption of debentures. In other words, "till the above losses are not written off completely, the redemption procedure cannot be started".

Illus.5 Journalise the following transactions in the books of the company:
(a) Debenture issued at Rs.1000 and redeemable at Rs.1100;
(b) Debenture issued at Rs.1100 and redeemable at Rs.1050/1100/1150;
(c) Debenture issued at Rs.950 and redeemable at Rs.1100.
Note: Face value of each debenture is Rs.1000

Solution:

Date	Particulars	L.F.	Rs.	Rs.
(a)	Bank a/c Dr. To Debenture application a/c (Being debenture application money received)		1,000	 1,000
	Debenture application a/c Dr. Loss on issue of debentures a/c Dr. To Debentures a/c To Premium on redemption of debentures a/c (Being debenture allotted and provided premium on redemption)		1,000 100	 1,000 100
(b)	Bank a/c Dr. To Debenture application a/c (Being application money received)		1,100	 1,100
	Debenture application a/c Dr. Loss on issue of debenture a/c Dr. To Debenture a/c To Debenture premium a/c To Premium on redemption of debentures a/c (Being debenture allotted at premium and provided premium on redemption)		1,100 50/100/150	 1,000 100 50/100/150
	Debenture premium a/c Dr. To Loss on issue of debentures a/c (Being loss on issue written off)		50/100/150*	 50/100/150*
(c)	Bank a/c Dr. To Debenture application a/c (Being application money received)		950	 950
	Debenture application a/c Dr. Discount on issue of debentures a/c Dr. Loss on issue of debentures a/c Dr. To Debentures a/c To Premium on redemption of debentures a/c (Being debentures allotted at discount and provided Premium on redemption)		950 50 100	 1,000 100

* When "loss on issue" is Rs.50, then it will completely be written off from "securities premium" and there will be balance of Rs.50 in the "Securities Premium a/c". In second condition whole "loss on issue" will be set off from "Securities Premium a/c" and there will be no balance but in the third situation only Rs.100 of "loss on issue" will be written

off and balance of Rs.50 will be shown in the Balance Sheet at assets side as "Miscellaneous Expenditure" and must be written off during
the life time of debentures.

10.8 REDEMPTION BY CONVERSION:

Redemption of debentures by conversion is possible when the debentues were originally issued as `convertible debentures.' They may be partly convertible debentures or fully convertible debentures.

The exact terms of conversion are mentioned in the debenture issue agreement or trust deed. The prospective buyers of debentures know in advance all the conditions and terms of the conversion.

(i) **Conversion on the date of redemption :** When the debentures were issued, a specified redemption date is fixed and on that date the conversion takes place. Technically, instead of repaying cash, shares are given to the debenture holders. In such a case, the actual amount payable to the debenture holders has to be converted into shares. The original issue price of debentures is immaterial. Even if the debentures were originally issued at discount, the amount payable on redemption is taken as the basis for conversion.

(ii) **Conversion before redemption due date :** Sometimes, option may be given to the debenture holders to convert their debentures into shares earlier than the due date for redemption. In such cases there is no problem if the debentures were originally issued at par or premium. However, if the original issue of debentures was at discount, provisions of Sec.79 of the Companies Act relating to issue of shares at discount are to be satisfied . So, in such cases, the conversion must be only for the actual amount originally collected on the debentures.

10.9 WRITING OFF DISCOUNT AND ISSUE OF DEBENTURES :

When debentures are issued at discount, it is prudent to write off the loss during the life of debentures. When the directors of the company decide to write it off, it can be done in two ways:

First method:

Under this method the total discount is spread over the life of debentures equally. Thus, if debentures are issued for 15 years, the total discount is divided by 15 and the amount so arrived at is taken to the profit and loss account every year for 15 years. This method is suitable only in one respect, that is, it spreads the burden of discount equally over the years. Thus it is good only when debentures are redeemed at the expiry of the period.

Second method:

If the debentures are redeemed every year by serving a notice and by drawing a lot, the first method fails in as much as the burden of discount is not in the proportion of benefit received out of money collected by issuing debentures. Under these circumstances the second method is adopted. Under this method the discount is written off in the proportion of debentures outstanding during the year.

Illu.6: Mahindra Ltd. issued 10,000 14% debentures of Rs.100 each at a discount of 12%. How much discount on issue of debentures be written off each year, if (a)

Debentures are issued for 5 years; or (b) Rs.2,00,000 debentures are redeemable annually.

Solution:

(a) If debentures are issued for five years:

The discount on issue of debentures Rs.1,20,000 (12% of Rs.10,00,000) will be written off in five equal installments of Rs.24,000 (1,20,000/5) each. This amount will be transferred every year to Profit and Loss Account till written off fully.

(b) When debentures are redeemable in five equal installments:

Year	Unpaid amount Rs.	Ratio to unpaid amount	Amount of Discount to be written off Rs.
1	10,00,000	5	1,20,000 x 5/15 = 40,000
2	8,00,000	4	1,20,000 x 4/15 = 32,000
3	6,00,000	3	1,20,000 x 3/15 = 24,000
4	4,00,000	2	1,20,000 x 2/15 = 16,000
5	2,00,000	1	1,20,000 x 1/15 = 8,000
			Total = 1,20,000

Illu.7: On 1st January, 2000 a company issued debentures of the face value of Rs.1,00,000 at a discount of 6%. The debentures were payable by annual drawings of Rs.2,00,000 made on 31st December each year. Discount on issue of debentures be written off in the ratio of debentures outstanding each year. Show discount on Issue of debentures account for first three years.

Solution:

Computation of amount of discount to be written off every year:

Year	Amount used Rs.	Ratio	Amount to be written off Rs.
2000	10,00,000	5	60,000 x 5/15 = 20,000
2001	8,00,000	4	60,000 x 4/15 = 16,000
2002	6,00,000	3	60,000 x 3/15 = 12,000
2003	4,00,000	2	60,000 x 2/15 = 8,000
2004	2,00,000	1	60,000 x 1/15 = 4,000
			Total = 1,20,000

Discount on Issue of Debentures Account

		Rs.			Rs.
2000 Jan.1	To Debentures a/c	60,000	2000 Dec.31	By P & L a/c	20,000
			Dec.31	By Balance c/d	40,000
		60,000			60,000
2001 Jan.1	To Balance b/d	40,000	2000 Dec.31	By P & L a/c	16,000
			Dec.31	By Balance c/d	24,000
		40,000			40,000
2002 Jan.1	To Balance b/d	24,000	2000 Dec.31	By P & L a/c	12,000
			Dec.31	By Balance c/d	12,000

		24,000			24,000

Illu.8: Kedar Company Ltd. issued debentures of Rs.6,00,000 on 1st July, 2002 at a discount of 5%. The debentures are repayable in three equal instalments of Rs.2,00,000 each on 30th June every year. Calculate the amount of discount to be written off at the end of each year, assuming that the books are closed on 31st March every year.

Solution:

Calculation of Amount of Discount to be written off

Year 31st March	Amount used (Rs.)	Months for which amount is used	Total product	Ratio	Amount to be written off
2002	6,00,000	9 months	54,00,000	9	1,250 x 9 = 11,250
2003	6,00,000	3 months	18,00,000 }	9	1,250 x 9 = 11,250
	4,00,000	9 months	36,00,000 }		
2004	4,00,000	3 months	12,00,000 }	5	1,250 x 5 = 6,250
	2,00,000	9 months	18,00,000 }		
2005	2,00,000	3 months	6,00,000	1	1,250 x 1 = 1,250
			Total	24	30,000

Note: Total Discount = Rs.30,000/24 = Rs.1,250

Amount to be written off in proportion of outstanding amount of debentures at the end of every year after given the weightage to the period for which it was outstanding.

Accordingly Rs.11,250; Rs.11,250; Rs.6,250 and Rs.1,250 has been written off at the end of 31st March, 2002, 2003, 2004, 2005 respectively.

10.10 INTEREST ON DEBENTURES :

As discussed earlier the debenture is a loan capital. So, the company has to pay the interest on debentures by pre-decided rate. Debenture interest is the cost of using funds borrowed by the company. Therefore, the amount of debenture interest is charged to profit and loss account. The company has to keep in mind the following important rules at the time of payment of interest:-

(1) The interest is always payable on face value of debentures not on issue price.
(2) The interest will be paid on due dates only but, if the debentures are redeemed then it will be redeemed after paying the interest upto the date of redemption.
(3) One who is registered holder on the due date of interest will get the interest.

Example: 12%, Rs.100 Debentures are issued at Rs.80 per debenture by a company. The interest is payable on 30th June and 31st December every year. Mr. Ramesh purchased 500 debentures from Mr. Shyam on 30th November. In this example:

a. Company will always pay the interest on Rs.100
b. Company will pay the interest on 30th June and 31st December only
c. One who is register holder of security on the due date of interest will get interest. Ramesh acquired the debentures on 30th November and the interest will be due on 31st December then he will get the interest of last 6 months (from 1st July). Although Shyam held the debentures for 4 months but he will not receive any amount of interest.

10.10.1 Other important points of interest on debenture:

a. The interest is a charge on the profit of the company therefore, the company has to pay the interest whether there is profit or not.

b. According to Schedule VI, Part A of Companies Act, 1956, the debenture interest should be shown separately in the Profit and Loss Account. It should not be merged with general interest.

c. The company has to deduct the income tax from the amount of interest by the rate prescribed under the Income-Tax Act and such deducted amount must be deposited with the Central Government by the 7th of next month. This will be deposited in the name of the recipient of interest or debenture holder. The debenture holder will adjust this amount with the personal income tax or may get refund from the Government. Such amount deducted by the company is termed as “Tax deducted at source”.

The following journal entries will be passed by the company related to debenture interest:

(i) On due date of interest	Debenture Interest a/c Dr. To Debenture-holders a/c (Debenture interest due)	Gross amount of Interest
(ii) On Payment	Debenture-holders a/c Dr. To Bank a/c To Tax deducted at source (Being debenture interest paid and tax is deducted at source)	Gross interest Net payment Income Tax
(iii) Tax deposited with Government	Tax deducted at Source a/c Dr. To Bank a/c (Being tax deducted, deposited)	Income Tax
(iv) Transfer of Interest	Profit & Loss a/c Dr. To Debenture Interest a/c (Being debenture interest transferred)	Gross Interest

Note: (i) When the tax is not to be deducted at source then in above (ii) entry, the gross interest will be paid to the debenture holders and (iii) entry will not be passed.

	Debenture Interest a/c Dr. To bank a/c (Being debenture interest paid)	By total interest amount

Illus.9: On 1st January, 2004 Sahiti Ltd. issued 5,000 12%debentures of Rs.100 each at a discount of 5% payable in full on application on or before 1st Feb., 2002. Interest on the debentures would be paid on 30th June and 31st December every year. In response to these, public subscribed for 5,000 debentures. On the same date Sahiti Ltd. borrowed Rs.1,50,000 from the Bank of Rajasthan Ltd. and deposited debentures of Rs.3,00,000 as collateral security.

Pass necessary Journal entries regarding the issue of debentures, raising of bank loan and payment of debenture interest for 2004. Also show the item of debentures in the Balance Sheet of the Company on 31st December, 2004.

SOLUTION :

Journal of Sahiti Ltd.

Date	Particulars		L.F.	Rs.	Rs.
2004 Date of Receipt	Bank a/c To Debenture Application a/c (Being application money @ Rs.95 per debenture received for the purchase of 5,000, 12% debentures of Rs.100 each)	Dr.		4,75,000	4,75,000
Date of allotment	Debenture Application a/c Discount on Issue of Debentures a/c To 12% Debentures a/c (Being transfer of application money to 12% Debentures a/c, on allotment)	Dr. Dr.		4,75,000 25,000	5,00,000
Date of receipt	Bank a/c To Bank Loan a/c (Being Rs.1,50,000 borrowed from the Bank of Rajasthan Ltd. and deposited debentures of the nominal value of Rs.3 lakhs as collateral security)	Dr.		1,50,000	1,50,000
June 30	Debenture Interest a/c To Bank a/c (Interest paid on 5,000 debentures for 5 months)	Dr.		25,000	25,000
Dec.31	Debenture Interest a/c To Bank a/c (Interest paid on 5,000 debentures for 6 months)	Dr.		30,000	30,000
Closing entry	P & L a/c To Debenture Interest a/c (Being balance transferred)	Dr.		55,000	55,000

Balance Sheet as at 31st December, 2004

	Rs.		Rs.
Secured Loans: 5,000, 12% Debentures of Rs.100 each Bank Loan (Debentures of the nominal value of Rs.3,00,000 deposited as collateral security)	5,00,000 1,50,000	**Miscellaneous Expenditure:** Discount on Issue of Debentures	25,000

10.11 SELF ASSESSMENT QUESTIONS :

1. What are Debentures? Explain their features.
2. State the provisions relating to the issue of debentures.
3. How do you treat issue of debentures at discount from accounting point of view?
4. Explain the accounting treatment of debentures issued at discount.
5. Explain the accounting treatment of Issue of debentures as collateral security.

10.12 EXERCISES :

1. B Ltd. made the following issues of debentures:
   a. For cash, 6,000, 7% Debentures of Rs.100 each at 5% premium.
   b. To a creditor, from whom machinery worth Rs.1,00,000 was purchased: 1,100, 7% Debentures of Rs.100 each.

   Record the above transactions in the Journal of the company.

2. A company issued 1,000, 14% debentures of Rs.100 each at Rs.95 payable – Rs.30 on application, Rs.50 on allotment and the balance of cal. Anand holding 50 debentures did not pay the money. Rest of the amount was duly received in time. Prepare 14% Debentures Account in the books of the company.
   (Ans: Total of 14% Debentures a/c Rs.1,00,000)

3. The Rajasthan Timber Ltd. issued on 1st January, 2005 - 10,000, 14% Debentures of Rs.100 each at rs.95. The debenture money is payable as: Rs.50 on application and the balance on allotment. Applications for 15,000 debentures along with the deposits required were received. Allotment was made proportionately. Over-subscription being applied in payment on the balance due on allotment. Allotments were made on 15th January. Interest was payable on 30th June and 31st December each year, the first payment being due for the period from 1st February to 30th June, 2005. Pass necessary Journal entries in the books of the company.
   (Ans: Cash on allotment 2,00,000; Interest Rs.61,250)

4. On 1st January, 2004, the Sasikant Ltd. issued Rs.20,00,000, 12% Debentures of Rs.1,000 each as under:
   a. 950 Debentures at a premium of 20% on cash
   b. 400 Debentures to a Vendor who sold Land & Buildings costing Rs.4,40,000
   c. 600 Debentures to Rajasthan Bank Ltd. for a loan of Rs.4,00,000 as a collateral security

   Interest on Debentures is payable on 30th June and 31st December @ 12% per annum. Journalise the above transactions for the year 2004 and show the Bank Loan in the Balance Sheet of the company when no entry is passed in the books of the company for debentures deposited as a collateral security.
   (Ans: a. Bank Rs.13,24,000, b. Discount on Issue of Debenture Rs.10,000; Debentures Interest Rs.84,000 + Rs.84,000; Interest on bank Loan Rs.48,000)

5. Manasa Ltd. issued 200, 15% Debentures of Rs.100 each. Give Journal entries in each of the following cases in the books of the company:
   a. Issued at Rs.93, repayable at Rs.100
   b. Issued at Rs.94, repayable at Rs.106
   c. Issued at Rs.100, repayable at Rs.110
   d. Issued at Rs.110, repayable at Rs.110

6. On 1st January, 2003 Rajsekhar Ltd. issued 1,000, 14% Debentures of Rs.200 each at a discount of 6%. The debentures were repayable by annual installments of Rs.40,000 each, from 31st December, 2003 each year. The directors decided to write off discount on issue over the period of debentures in such a way as to charge each year with an amount proportionate to debentures outstanding in that year. Show the Discount on Issue of Debentures Account for three years in the Ledger of Rajsekhar Ltd.

(Ans: Discount to be w/o Rs.4,000; Rs.3,200; Rs.2,400 in 2003, 2004, 2005 respectively)

10.13 SUGGESTED READINGS

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Chapter – 11

PROCEDURE FOR DECLARING AND DISTRIBUTION OF DIVIDENDS

11.0: Objective :

After reading this lesson you should be able to :

- Understand the meaning of dividend
- Know the provisions relating to declaration of dividends under the Companies Act
- Classify various types of dividends
- Understand the tax on the distribution of dividends
- Know the factors to be considered before recommending dividend by the Board

Structure :

11.1 Introduction
11.2 Sources of Dividends
11.3 Types of Dividends
11.4 Tax on the Distribution of Dividend
11.5 Factors to be considered before recommending dividend
11.6 Self Assessment Questions
11.7 Exercises
11.8 Suggested Readings

11.1 INTRODUCTION :

Dividend is divisible profit among members. Preference shareholders have a preferential right on the divisible profit of the company. They are entitled to a fixed rate of dividend. The balance of divisible profit left after distribution of preference dividend is available for distribution among equity shareholders.

11.1.1 Declaration of Dividend :

The following principles must, however, be kept in view while declaring dividends by a Joint Stock Company : -

(a) Dividends must be paid according to Section 205 of the Companies Act.
(b) Dividends must be paid according to the Articles of Association of the Company. If the company has no Articles of its own, then it must be paid according to Regulations 85 to 94 of Table A of Schedule I appended to the Companies Act.
(c) The Article of Association of the Company must not be ultra virus the Company Law.
(d) Dividends must not be paid so as to deprive the creditors or debenture- holders of their security.

11.2. SOURCES OF DIVIDENDS :

According to Section 205, the dividend can be declared or paid by a company for any financial year only :

(a) Out of current year's profits after providing for depreciation, or
(b) Out of previous years profits after providing for depreciation, or
(c) Out of both or
(d) Out of moneys provided by the Central or a state Govt. for the payment of dividend in pursuance of a guarantee given by that Govt.

The Central Govt. may permit any company to declare or pay dividend for any financial year out of the profits of the company for that year or any previous year or years without providing for depreciation.

11.2.1. Dividend out of Revenue Reserves:

According to Section 205 A (3) of companies Act, a company can declare dividend out of revenue reserves which are free and uncommitted if the following conditions are satisfied as per companies (Declaration of Dividend out of Reserves Rules 1975)

(a) The rate of dividend must be 10% or the average of the rates of the five preceding years, which ever is less :
(b) The amount drawn from such reserves should not exceed an amount equal to $1/10^{th}$ of the sum of the paid up capital and free reserves. The amount so drawn must first be utilised to set off the losses incurred in the financial year and only the balance can be utilised for declaration of dividend :
(c) The balance of reserves after such draw shall not fall below 15% of its paid up share capital.

For the purpose of this rule, "profits earned by a company in previous years and transferred by it to the reserves" mean the total amount of net profits after tax, transferred to reserves as at the beginning of the year for which the dividend is to be declared. The reserves include amounts transferred from the development rebate reserve and exclude all capital reserves including reserves created by revaluation of assets.

11.2.2. Dividend out of Capital Profits :

Capital Profits represents the profits which are earned by a company on transactions not related to its usual business. Dividend can be paid out of capital profits only if :

(a) they are realised in cash:
(b) surplus remains after revaluation of all assets, and
(c) the Articles of Association of the Company does not forbid such Distribution.

It should be noted that if capital profits are transferred to capital reserve, they cannot be used for payment of dividend. The following types of capital profits cannot be used for payment of dividend :

(a) Securities Premium a/c
(b) Profit left after the reissue of forfeited shares
(c) Capital redemption reserve a/c
(d) Profits prior to incorporation
(e) Profit on the redemption of debentures
(f) Premium on the issue of debentures
(g) Profit on the acquisition of building

(h) Profit on sale of fixed assets

However, the capital profits can be used for the purposes mentioned below :

(a) For issue of bonus shares
(b) For writing off fictitious assets such as preliminary expenses etc.
(c) For providing Premium on redemption of shares / debentures.
(d) For writing off losses on revaluation of the assets of the company.

11.3. TYPES OF DIVIDENDS :

11.3.1. Interim Dividend : It is a dividend paid between two annual general meetings, i.e., in the middle of the year, before ascertainment of the profit for the year. Directors have full authority to pay interim dividend in anticipation of profit for the year. However, directors will be personally liable to reimburse the interim dividend paid, if there are no profits at the end of the financial period. This dividend is usually paid for six months and can be declared and paid only if the depreciation for the full year has already been provided. If the interim dividend is paid without sufficient profits then it amounts to payment of dividend out of capital and directors are liable to make good the amount.

Calculation of Interim Dividend : Interim dividend is generally paid for six months. The calculation of actual amount depends upon the term used. If the interim dividend on Rs.6,00,000 for six months is 6% p.a., the actual amount is 6% of Rs.6,00,000 for six months or 3% of Rs.6,00,000 for the full year i.e., Rs.18,000. If, however, the rate is mentioned as 6% interim dividend on Rs.6,00,000, the actual amount is simply 6% of Rs.6,00,000 = Rs.36,000. To avoid this confusion, most companies mention the amount, as so many rupees or paisa per share as the interim dividend.

Interim dividend paid should be recorded in the debit side of Profit & Loss Appropriation Account.

11.3.2. Final Dividend : Any dividend declared by a company at its annual general meeting is known as final or normal dividend. The final dividend is always paid in addition to the interim dividend and is not adjusted against the interim dividend unless the resolution mentions it specifically. Thus, if a company has 6,000 shares of Rs.100 each, Rs.80 paid up and declares an interim dividend of 3% and final dividend of 6%, the total amount of dividend is Rs.43,200, (i.e., interim dividend Rs.14,400 + final dividend Rs.28,800).

If final dividend paid is given in the Trial Balance, it should be recorded in the debit side of Profit & Loss Appropriation Account.

If final dividend proposed for the current year is given in the adjustments, it is to be shown on the debit side of Profit & Loss Appropriation Account and on the liabilities side of the Balance Sheet under the heading “Provisions”.

11.3.3. Preference share dividend : It is usually paid in priority to equity share dividend. The rate of such dividend is also fixed in advance. Preference share dividend cannot be paid if there are no profits. Unless otherwise given, preference dividends are always cumulative and therefore payable in future when there are adequate funds.

Calls-in-advance will not be considered for paying any dividend.

Calls-in-arrears are deducted from the called up capital to arrive at the paid up capital on which dividend is to be paid.

Proportionate dividend is paid on paid up capital from the date of issue to the end of the year, when shares are issued in the middle of any year.

11.4 TAX ON THE DISTRIBUTION OF DIVIDEND

The tax law in India requires companies to pay tax on dividend distributed to share holders. This is known as corporate dividend tax (CDT). The salient features of corporate dividend tax are as follows :

(a) The corporate dividend tax is in addition to the income tax payable by a domestic company.
(b) Corporate Dividend Tax is chargeable on any amount of dividend declared, distributed or paid by a company to share holders.
(c) The rate of corporate dividend tax at present, is 10%.
(d) Corporate dividend tax is payable even if no income tax is payable by the domestic company on its total income.
(e) Corporate Dividend Tax is payable to the credit of the Central Government within 14 days of :
  (i) Declaration any dividend
  (ii) Distribution of any dividend
  (iii) Payment of any dividend

  Whichever is earlier.

(f) Corporate dividend tax is treated as the final payment of tax on the dividend and no further credit shall be claimed by the company or by any person in respect of the tax so paid.

A Company creates a provision for proposed dividend in the financial statements of the year to which it relates. Therefore, a company should provide for the Corporate Dividend tax in the year in which provision is created for the proposed dividend.

Corporate dividend tax is considered as an appropriation of profit, and it is disclosed in the profit and loss appropriation account.

11.5 FACTORS TO BE CONSIDERED BEFORE RECOMMENDING DIVIDEND :

1. **Transfer to Reserve :**
   (a) Statutory Reserve, i.e., the reserve which is legally required to be created, e.g., in the case of banking companies twenty per cent of the profits must be transferred to reserve account or in the case of electricity companies contingency and tariff reserve has to be created.
   (b) Provision for reserve according to the Articles of Association.
   (c) Contractual Requirements, e.g., if the terms of the issue of debentures or redeemable preference shares provided that reserve should be created for their redemption, it must be provided.

(d) Other considerations. The directors should transfer a portion of the profits to the general reserve having regard to the fact that purchase of some fixed asset was to be financed out of the profits of the year or some will be required for future development of the company.

2. **Dividend Equalisation Reserve :** Sometimes the profits of the company fluctuate violently from year to year. In such circumstances, it is desirable to transfer a part of the profits, before declaring dividend, to the Dividend Equalisation Reserve to maintain a uniformity in the declaration of dividends.

3. **Cash Requirements :** If the working capital is just sufficient, it is not advisable to declare a dividend. If it is declared it will have to be paid to the shareholders within 42 days and thus the working capital will be reduced.

4. **Past Policy :** While declaring dividend, the directors should follow a consistent policy. On account of fluctuation in the rate of dividend, the value of the shares in the market will be very much affected.

5. **Preference shares :** Before declaring dividend to the equity shareholders, preference shareholders must be paid dividend.

In determining what profits are to be distributed to the shareholders, the courts have to take into consideration the following points : -

1. That the interest of the minorities is not sacrificed ;
2. That the interest of creditors, debenture-holders and third parties is not adversely affected;
3. That no dividend should be paid out of capital except under certain circumstances, which will be discussed later on. Dividends are considered to be paid out of capital when
   (a) a company pays dividend in spite of the fact that it has not made any profit during the year under review and there is no balance of undistributed profits;
   (b) revenue expenditure is charged to capital account; or
   (c) a fixed asset is sold and is treated as an ordinary sale.
4. That the requirements of the Companies Act and the Articles and Memorandum of Association are complied with. It must be mentioned here that even if the Articles of Association and Memorandum of Association permit the payment of dividends out of capital, such payment will be illegal.

The legal decisions have laid down the following principles for the distribution of profits :
(a) the shareholders' capital cannot be used to pay dividends, and
(b) a dividend can only be paid out of bona fide surplus/

The complications for ascertaining the profits available for dividends arise under the following heads :

1. Whether capital profits are available for dividends.
2. Whether all the surplus made by a company engaged in working a wasting asset is available for dividends.

3. Whether the loss of fixed assets must be made good before distribution of the surplus.
4. Whether profits made prior to incorporation are available for dividends.

Journal Entries for Interim Dividend

Date	Particulars		L.F.	Debit	Credit
	1. Interim Dividend paid during the year Interim Dividend a/c By Bank a/c	 Dr.		 X x x	 X x x
	2. Interim dividend transferred P & L Appropriation a/c To Interim dividend a/c	 Dr.		 X x x	 X x x

Journal Entries for final dividend

Date	Particulars		L.F.	Debit	Credit
(i)	On recommending payment of dividend to shareholders Profit & Loss appropriation a/c (Or) Dividend Equivalisation reserve a/c (or) General Reserve a/c To Proposed Dividend a/c	Dr		X x x	X x x
(ii)	On Declaring the dividend Proposed Dividend a/c To Dividend payable a/c	Dr.		X x x	X x x
(iii)	On Providing for Corporate dividend tax : Profit & Loss appropriation a/c To Corporate Dividend tax a/c	Dr.		X x x	X x x
(iv)	On setting aside he amount for paying dividend : Dividend Bank a/c To Bank a/c	Dr.		X x x	X x x

Note : It is always preferable to open a separate bank a/c every time the dividend is declared.

(v)	On payment of Dividend : Dividend Payable a/c To Dividend Bank a/c	Dr.		Xxx	Xxx
(vi)	On transfer of dividend payable to unpaid dividend a/c : Dividend Payable a/c To Unpaid Dividend a/c	Dr.		Xxx	Xxx
(vii)	On transfer of unpaid dividend to central govt's Revenue a/c : Unpaid Dividend a/c To Investor Education & Protection Fund a/c	Dr.		Xxx	Xxx

Illu.1 : Nathiya Ltd., has a credit balance on P & L a/c of Rs.3,00,000 on 1-4-2005 and the net profit for the year 2005-06 is Rs.30,00,000. It was decided that the following decisions be carried out regarding provisions, reserves and dividends :

(i) General Reserve Rs.3,50,000
(ii) Investment Allowance Reserve Rs.3,50,000
(iii) Provision for taxation @ 50%
(iv) Dividend equalisation fund a/c Rs.2,00,000
(v) Dividend on 10% preference shares of Rs.20,00,000
(vi) Dividend at 15% on 3,00,000 equity shares of Rs.10 each fully paid.

You are required to give P & L Appropriation a/c and give journal entries for payment of dividend.

Solution :

Profit & Loss A/c for the year ended 31-3-06

	Rs.		Rs.
To Provision for Taxation (30,00,000 x 50%)	15,00,000	By Net Profit before tax	30,00,000
To Net profit c/d	15,00,000		
	30,00,000		**30,00,000**

Profit & Loss Appropriation A/c for the year ended 31-3-06

	Rs.		Rs.
To General reserve	3,50,000	By Balance b/d	3,00,000
To Investment Allowance Reserve	3,50,000	By Net profit after tax	15,00,000
To Dividend Equalisation fund	2,00,000		
To Proposed pref. Dividend (20,00,000 x 10%)	2,00,000		
To Proposed Equity dividend (30,00,000 x 15%)	4,50,000		
To Corporate Dividend tax (2,00,000 + 4,50,000) x 10%	65,000		
To Balance c/d	1,85,000		
	18,00,000		**18,00,000**

Note :

(i) Provision for taxation is a charge against profit. So, it should be subtracted from current years profit before appropriation of profits.

(ii) Corporate dividend tax @ 10% has been calculated on the proposed preference and equity dividend as they are declared after 1st June 1997.

Journal Entries

Date	**Particulars**		**L.F.**	**Debit Rs.**	**Credit Rs.**
	Proposed Equity Dividend a/c	Dr.		4,50,000	
	Proposed Preference Dividend a/c	Dr.		2,00,000	
	To Equity Dividend payable a/c				4,50,000
	To Preference Dividend payable a/c				2,00,000

	(Declaration of preference dividend and equity dividend)				
	Dividend Bank a/c To Bank a/c (Amount for paying dividend transferred to Dividend Bank a/c)	Dr.		6,50,000	6,50,000
	Equity Dividend a/c Preference Dividend a/c To Dividend Bank (Payment of Preference dividend and equity dividend)	Dr. Dr.		4,50,000 2,00,000	6,50,000
	Profit & Loss Appropriation a/c To Corporate Dividend Tax a/c (Provision for Corporate Dividend tax)	Dr.		65,000	65,000

11.6 SELF ASSESSMENT QUESTIONS

1. What is dividend?
2. Explain the sources of dividends.
3. Can dividend be declared out of capital profits?
4. Explain various types of dividends.
5. How do you treat the dividend on preference shares?
6. Explain the provisions relating to the tax on the distribution of dividend.
7. What are the factors to be considered before recommending dividend to the shareholders by the Board of Directors?

11.7 EXERCISES :

1. Due to inadequacy of Profit during the year, the company proposes to declare dividend out of general reserves. From the following particulars, you are to ascertain the amount that can be drawn applying the companies (Declaration of dividend out of Reserves) Rules 1975.

		Rs.
(i)	17,500 8% Preference shares of Rs.100 each fully paid	17,50,000
(ii)	700000 Equity shares of Rs.10 each full paid	70,00,000
(iii)	General Reserve	21,00,000
(iv)	Capital reserve on revaluation assets	3,50,000
(v)	Securities Premium	3,50,000
(vi)	P & L a/c balance (or)	63,000
(vii)	Net Profit for the year	3,57,000

Average rate of dividend during the last five years 15%.

[Ans.: Transfer to Reserve Rs.4,20,000]

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Chapter – 12

ACCOUNTING DISCLOSURE AND BOOKS OF ACCOUNTS

12.0 Objective:

After studying this lesson, you should be able to:

- Understand the meaning and need for accounting disclosure.
- The Provisions relating to the disclosure of accounts under Companies Act 1956
- Know the books of accounts to the submitted under the Companies Act

Structure:

12. 1 Introduction
12. 2 The scope
12. 3 Nature and contents
12. 4 Indian Companies Act 1956
12. 5 Books of Account
12.6 Self Assessment Questions
12.7 Suggested Readings

12.1 ACCOUNTING DISCLOSURE :

Disclosure can be defined as a process through which a business enterprise communicates with the external parties. American Accounting Association defines disclosure `as the movement of information from the private domain (i.e., inside information) into the public domain. ``Such a conversion of private into public information can take place in financial statements or through non accounting channels. There are three concepts of disclosure generally proposed viz., adequate, fair and full disclosure. These terms are indicative and relative and not definitive. Of these three, the most commonly used is adequate disclosure. Fair and full are more positive concepts. Fair disclosure implies an ethical objective of providing equal treatment for all potential financial statement readers. Full disclosure implies the presentation of all relevant information. However, it is contended that there is no difference among these concepts. Disclosure of information significant to investors and other users should be adequate fair and full so that it can help them in making economic decisions in the best possible way.

Adequacy of disclosure cannot be tested accurately and precisely since no definite test to measure it exists in financial reporting. But when information is reported outside the business enterprises, adequacy of disclosure can be tested. The basis of the test is the extent to which the items of information are helpful to users, for whom disclosure is made, in making economic decisions. If users vary in number or quality, more or less information of grater or lesser variety would be adequate.

Accounting Disclosure is part of the financial reporting that companies are statutorily required to present annually. The nature, scope and content of corporate financial reporting have undergone considerable changes over the years. Several countries have resorted to legislation,

from time to time, to improve the overall quantity and quality of disclosures in company annual reports, in order to make them adequate, meaningful and reliable.

12.1.2. Basic Questions in Disclosure :

The concept of adequate disclosure is broad in scope and the following basic questions are involved in it :

1. User
2. Purpose
3. Quantum
4. Mode
5. Timing

1. **User :** The identification of users of external financial report and the selection of items of information needed for predictions required in their decisions and judgements regarding the company is essential in adequate disclosure. There is a need to identify the user(s) because of variation in their purposes and by identifying the user class, the purposes for which financial information is used, can be identified. The identification of users helps in defining user group characteristics which impings on the specific type of information to be presented, as well as the manner of presentation. The determination of target user(s) is necessary to provide a basic criterion against which alternative accounting concepts can be tested.

2. **Purpose :** The concept of adequate disclosure involves identifying the purpose for which information is to be disclosed. Since the ultimate test of the quality of disclosure is its effectiveness in conveying pertinent information, an important step in development of standard of disclosure for published financial statements is the establishment of the purpose to be served. Where information users do not know the objective or goals they should persue, accounting cannot determine the information to be communicated to them. Identification of target user group leads to the user's purpose in using the financial information.

   There are many views available in literature about the purpose of information to be disclosed in annual reports. Traditional information has been used in (I) Making investment decisions and (ii) exercise of investors' control over management. From management's view point, measuring past performance is the primary purpose of financial reporting. One study concluded that 75 per cent of the companies considered their overall purpose (in financial reporting) to be accountability for performance or stewardship. A second and far less important purpose cited was that financial statement indicate investment quality. The study suggests that reported information should account for performance or stewardship to date as financial statement information being reported are less than adequate to evaluate present financial condition. In today's investment market, the primary purposes to which the information is directed are, to assist in evaluations for the extensions of credit, to aid investment decision-making and judge the quality of management performance in the past.

3. **Quantum :** The quantity and quality of information depends on needs and expectations of user(s) and the degree of uncertainty prevailing in the investment market. The basic determination of the quantity of information to be reported are primarily dependent upon a critical assessment of the information needs which are relevant to a specific set

of users and their attendant purpose in using the information. Needs and expectations of users are a part of environment that determines the type of needs are diverse, forms a basis for evaluating the quality of disclosure. Usually, selection of reported information is based on presumed or known decision modes or user(s). It may, however, be emphasized that the reported information is intended only to aid the users in making predictions in economic decisions. User information needs also differ depending on the degree of sophistication the user groups have.

4. **Information overload :** In recent years a theoretical approach to external reporting issues called `expand disclosure' has emerged. Simply stated, proponents of this approach argue that more information is assuredly desirable to less because expanded disclosure is frequently a reasonable means of resolving accounting controversies and reporting problems. The arguments in support of expanded disclosure are the following.
First, investors and creditors use and therefore, need a broad informational set to assess the level and likelihood of future cash flows.

Second, accountant's limited knowledge of user's preferences and behaviour makes it difficult to defend a single reporting option against available competing alternatives. As a consequence, it is argued that these difficult choice can be avoided by presenting more detailed disclosures or by reporting simultaneously several alternatives that satisfy some logical criteria.

Third, the market efficiency doctrine supports the data expansion approach. The investment market is sensitive to many forms of information, some of which are not incorporated in the accounting system or financial reports. As long as there are sufficient disclosures, the disclosed data will be evaluated and efficiently impounded in security prices. Complete disclosure is viewed as the critical issue and where0or in what manner-the disclosure is affected is unimportant.

Fourth, expanded or increased disclosure would be helpful in resolving traditional measurement controversies. Reporting historical and current cost data, for example, eliminates the controversy over inflation accounting.

5. **Mode :** The question of adequacy of disclosure is not only identifying the user and determining the information and their purpose, but it also signifies the method of disclosing information. The method of disclosure determines the usefulness of information, but the question of method is secondary to above three major questions. Alternative forms of reporting may affect the quality of users' decisions and information presented in a misleading, unsuitable form will not achieve the purpose of adequate disclosure. Several different methods of making disclosure are available such as :

(i) form and arrangement of formal statements;
(ii) terminology and detailed presentations,
(iii) parenthetical information,
(iv) footnotes
(v) supplementary statements and schedules
(vi) Comments in the auditors certificates
(vii) Chairman's or President's letter and
(viii) Report of the Board of Directors.

6. **Timing :** Timelines in reporting is an essential element of adequate disclosure. The value of reported financial data for investor decisions depends upon its usefulness and timeliness. It is argued that ``timely disclosure is fundamental to good investor relations.'' A major consideration in timely disclosure is the responsibility to report promptly and accurately any company news which may materially affect security values or influence investor decisions. Timely financial accounting information is communicated early enough to be used for the economic decisions which it might influence and to avoid delays in making these decisions.

   ``Timeliness of annual reports is an important determinant of their usefulness, the price reaction to the disclosure of earning announcement was significantly more pronounced than the reaction to late announcements suggesting a decrease in the information content as the reporting lag increases.

7. **Qualitative Characteristics :** Information that is reported to facilitate economic decision should possess certain characteristics or criteria. Such attributes or characteristics make financial information useful. The qualitative objectives are closely related to the broad ethical goals of truth, justice and fairness that are generally accepted as desirable goals by society as a whole. However, these qualities are less abstract and they can be applied more directly to information in financial accounting. They are also generalisations that require judgement in using them to evaluate and improve accounting principles. These characteristics denote the quality of information and hence satisfy user needs. These would help in achieving the concept of adequate disclosure in financial reporting.

8. **Relevance :** Relevance is closely and directly related to the concept of useful information. Relevance implies that all those items of information should be reported that may aid the users in making predictions or decisions. In general, information that is given greater weight in decision making is more relevant.

9. **Materiality :** The concept of materility permeates the entire field of accounting and auditing. The materiality concept implies that not all financial information need or should be communicated in accounting reports only material information should be reported. Immaterial information may and probably should be omitted. Information should be disclosed in an annual report which is likely to influence economic decision of the users. Information that meets this requirement is material.

10. **Understandability :** Information in annual reports should be presented in a way which can be understood by reasonably well informed as well as by sophisticated users. Presenting information which can be understood by users of the information and is expressed in a form and with terminology adopted to the user's range of understanding.

11. **Comparability :** Economic decision requires making a choice among possible courses of actions. In making decisions, the decision maker will make comparisons among alternatives, which is facilitated by financial information. Comparability implies to have like things reported in a similar fashion and unlike things reports differently. Hendriksen observes that the ``primary objectives of comparability should be to facilitate the making of predictions and financial decisions by creditors, investors and others.'' He defines comparability as ``the quality or state of having enough like characteristics to make comparison appropriate.''

Comparable financial accounting information presents similarities and differences that arise from basic similarities and differences in enterprises or enterprises and their transactions, and not merely from difference in financial accounting treatment. Information, if comparable, will assist the decision maker to determine relative financial strengths and weakness and prospects for the future, between two or more firms or between periods in a single firm.

12. **Consistency :** Consistency of method over a period of time is a valuable adjunct to comparability. Consistency is an important factor within a single enterprise. The qualitative standard of fair presentation in financial statements depends, in part on consistency of method. Although financial accounting rpactices and procedures are largely conventional consistency on their use permits comparison over time. It is relatively unimportant to the investor what precise rules or conventions are adopted by a company in reporting its earnings, if he knows what method is being followed and is assured that it is followed consistently from year to year. Lack of consistency produces lack of comparability.

13. **Reliability :** Reliability of financial information disclosed is an important characteristic. Reliable information is required to form judgements about the earning potential and financial position of a firm. Reliability of information is important to users because it influences their economic decisions. Reliability differs from item to item. Some items of information presented in an annual report may be more reliable than others. For example, information regarding plant and machinery may be less reliable than certain information about current assets because of differences in uncertainty of reliability.

14. **Freedom from Bias :** As the purpose of information in an annual report is to serve the different user needs in decision making process, there should be no purposeful bias in reporting, i.e., for favouring any group. Information, free from bias, that is, objective and fair would enhance the relevance of information to selected purposes and users. Freedom from bias means that facts have been impartially determined and reported, Wagner has defined objectivity in accounting as a quality said to exist when financial data are presented in a manner that produces a high reliable connection between the event taking place in a given business entity and the mental image created in the user's mind about those events. Objectivity in financial presentations is attained by the individual practitioners through the competent and ethical exercise of professional judgement in conjunction with reference points (procedures and principles) socially prescribed by the members of the profession as a corporate body.

    Accounting information should not concentrate at a few users to the detriment of others who may have opposing interests. Information would be free from bias if financial statement representations in an annual report have been made exactly according to transactions and events in the business enterprise. Complete reporting about business facts and situations, accounting practices followed judgements and assumptions made, and degree of uncertainty in transaction, increase the objectivity and fairness of the information reported.

12. 2: TRUE AND FAIR VIEW OF ACCOUNTS

Financial statements provide true and fair view of the financial position and operations of the reporting enterprise only if it meets qualitative characteristics discussed in the previous section. Often an enterprise, in preparing and presenting financial statements, balances

between different qualitative characteristics. Let us take an example, Companies are required to provide information about different business and geographical segments. The objective is to provide information to enable readers of financial statements to understand business risks from the perspective of the board of directors of the company. Therefore, enterprises use the internal management information system to identify segments for external reporting. The accounting policy enhances the relevance, but compromises with comparability.

A reporting enterprise must ensure that financial statements meet the minimum threshold of all the qualities mentioned in the previous section.

Generally, financial statements provide a true and fair view if

1. It is free from any material error and bias;
2. It is prepared using the appropriate accounting policy and applicable accountings standards; and
3. It is prepared in the format prescribed by the regulator or in absence of a prescribed format it is prepared in a manner that facilitates analyses of the financial position and the performance of the reporting enterprise.

A firm ensures that financial statements are free from any material error or bias by ensuring that the internal control system is adequate and operating effectively.

12. 3: OBJECTIVES OF FINANCIAL REPORTING :

The objective of corporate financial reporting is to provide information that is relevant for valuation of the company. Financial statements are at the centre of the corporate financial report. Other components of the corporate financial report are the report of the board of directors. Management Discussions and Analysis (MDA) and voluntary disclosure. The MDA provides futuristic information such as future business scenario, likely impact of recent breakthrough in technology, the likely impact of new government policy and regulations and the strategy for risk management. Voluntary disclosure refers to disclosure of information that is not mandatory under the law governing the company. Voluntary disclosure includes disclosure of non-financial information.

The objective of financial statements is the same as that of a corporate financial report. Financial statements provide historical information, which is relevant in forecasting the ability of the company to generate adequate cash flows in future. Decision usefulness is the overriding principle for the preparation and presentation of financial statements. Transparency is the corner stone of financial statements.

Information that is useful to equity shareholders is also useful to to other stakeholders. Debt holders, creditors, employees, suppliers and customers are interested in the survival and growth of the company which in turn depends on the ability of the company to generate adequate cash flows in future. Therefore, although financial statements are targeted to present and prospective investors, other stakeholders use the same to assess survival and growth of the firm.

Investors, who delegate the right to manage the company to the board of directors, use financial statements to evaluate the performance of the board in its stewardship function. Therefore, financial statements should provide information that is useful to evaluate the performance of the company and its management. Usually, application of the principle of

decision usefulness results in reporting information that is useful (relevant) for valuation of the company and also useful in evaluating the performance of the company.

12. 4: COMPANIES ACT 1956 AND SUBMISSION OF ACCOUNTS

The Company Law Committee, 1952, known as the Bhabha Committee, pleaded for more detailed information to be provided on annual reports for the benefit of investors. It further wanted that the contents of the Schedules to the Profit and Loss Account should be made more comprehensive. The 1956 Act substantially enlarged the scope and requirements of disclosure.

The Indian companies Act of 1956, for the first time introduced a uniform law relating to Companies throughout India. The Companies Act, 1956 reproduced, verbatim or with slight modifications, many of the provisions of the Companies Act 1948 enacted by the British Parliament. This Act is both a Consolidating and Amending Act. The Act has been amended, from time to time, by subsequent enactment's, the latest being the Companies (Amendment) Act, 1988. Sections 209 to 223 deal with the legal requirements relating to the preparation and presentation of accounts. It will be worthwhile to note the provisions of these sections concerning disclosure, as amended to date.

12. 5 MAINTENANCE OF BOOKS OF ACCOUNTS

Section 209 stipulates that every company shall keep proper books of account with respect to:

a) All sums of money received and expended by the company and the matters in respect of which the receipt and expenditure take place;
b) All sales and purchases of goods by the company;
c) All assets and liabilities of the Company, and
d) In the case of a Company pertaining to any class of Companies engaged in production, processing, manufacturing or hiring activities, such particulars relating to utilisation of material or labour or to other items of cost as may be prescribed if such class of companies is required by Central Government to include such particulars in the books of account;

The Section further clarifies that proper books of account shall not be deemed to be kept:

a) If the books are not kept which as are necessary to give a true and fair view of the state of affairs of the Company or branch office, as the case may be, and to explain its transactions, and
b) If such books are not kept on accrual basis and according to double entry system of accounting.

12.5.1. Preservation of Records :

It is also provided that the books of account of every Company relating to a period of not less than eight years immediately preceding the current year (for the entire period preceding the current year, in the case of companies incorporated within past eight years), together with the vouchers relevant to any entry in such books of account shall be preserved in good order.

12.5.2. Cost records :

The clause relating to Cost Accounting and Cost Records, requiring maintenance of particulars as to material, labour and other items of Cost was introduced by the Companies (Amendment) Act, 1956, with the objective of making the **Efficiency Audit** possible. This statutory provision for maintaining cost accounts in certain classes of industries is intended to

promote cost consciousness and facilitate overall improvement in industrial efficiency and production.

The 1988 Amendment to the Act has made it obligatory for the Companies to adopt the mercantile system of accounting. Accounts will hence forward have to be maintained on **Accrual Basis,** as **Cash Basis** fails to disclose a true and fair view of the State of affairs of the company or its profit or loss for a period.

Section 209 – A confers the **right to inspect,** the books of account and the other books and papers of every Company, to the Registar or to any such officer of the Government as may be authorised by the Central Government. This provision is aimed at keeping a watch on the Company's performance and to evaluate precisely the level of efficiency in the conduct of the Company's affairs.

12.6 RECENT AMENDMENTS :

The companies (amendment) Bill, 2006 introduced in Rajya Sabha on 6-3-2006 and passed on 21-3-2006 proposes following amendments to the Companies Act, 1956.

12.6.1 Director Identification Number (DIN)

In view of the need for individual identity of persons appointed as Directors or intending to be directors of companies to be established Section 253 of the Companies Act, 1956 is proposed to be amended and new sections 266A, 266B, 266C, 266D, 266E, 266F and 266G are proposed to be inserted to provide for DIN to every individual director.

DIN means a identification number which the Central Government may allot to any individual intending to be appointed as director or to any existing director of a company for the purpose of his identification. No company shall appoint or reappoint any individual as director of the company unless he has been allotted a DIN. An individual shall make an application to the Central Government for allotment of DIN. An individual who has already been allotted a DIN shall not obtain another DIN>

12.6.2. To implement comprehensive E-Government system and programme :

Sections 610B, 610C, 610D and 610E are proposed to be inserted to provide for filing of applications. Documents etc. through electronic form, for electronic records and application of the provisions of Information Technology Act, 2000. The Thrust is proposed to be on electronic mode of filing of E-forms under MCA 21 programme through Companies (Central Government's) General Rules and Forms (Amendment) Rules, 2006.

12.7 SELF ASSESSMENT QUESTIONS

A. Short Answer Questions :

1. Concept of disclosure
2. What is financial reporting?
3. Preservation of Records
4. Explain the objectives of financial reporting.
5. Explain the various aspects of Reliability of financial reports

B. Essay Questions :

1. Voluntary disclosure should be monitored by regulatory authorities, because it has the potential to mislead readers of financial statements. Elucidate the statement.

2. What is accounting disclosure? Explain the various acts inacted regarding accounting disclosure by a Company.
3. Explain the legal stipulations regarding various books to be maintained by a Company.
4. Explain the scope, Nature and contents of legal requirements relating to accounting disclosure.
5. Briefly describe the financial reporting practices in India.
6. Describe the process of evolution of Indian companies Act 1956.
7. State the books of account to be maintained by a company.

12. 8 FURTHER READINGS

Asish K. Bhatacharyya, **Financial Accounting** Prentice Hall of India Private Limited, New Delhi, 2005

1. K.R. Bulchandani, **Business Law for Management** Himalaya Publishing House, 2006
2. R.K. Lele , Jawaharlal, **Accounting Theory** Kitab Mahal Publishers, New Delhi
3. T.S. Reddy, A. Murthy, **Corporate Accounting,** Margham Publications, 2006

Chapter – 13

ANNUAL REPORTS OF COMPANIES

13.0: Objective:

After reading this his lesson we should be able to:
- Inculcate knowledge about Annual Accounts to be prepared by a company.
- Impart knowledge about form and contents of Balance sheet and profit and loss account of a company.
- Know of the legal requirements now in vogue relating accounting disclosure and related documents.

Structure:

13. 1 Introduction

13. 2 Annual Accounts and Balance Sheet.

13. 3 Form and contents of the Balance Sheet and Profit and Loss Account.

13. 4Balance Sheet of the Holding Company and financial year & holding company and its subsidiary.

13. 5 Board's Report

13. 6 Filing of Reports with the Registrar

13.7 Accounts of foreign company.

13. 8 Annual reports of government companies.

13. 9 Self Assessment Questions.

13.10 Further Readings

13. 11 Appendices

13.1 INTRODUCTION

The companies act, 1956 has made it a statutory requirement for a company to keep proper books of accounts for recording financial transactions and preparing its Profit and Loss Account and Balance Sheet in the prescribed form at the proper time. The principles and methods of preparing final accounts by joint stock companies are the same as in case of other organisations. However, the form and contents of these two statements are governed by the relevant provisions of the Companies Act and the related provisions are contained in Sections 209 to 223. .

13.1.1. Books of Account to be maintained by the Company

Every company shall keep at its registered office proper books of account with respect to –

1. all sums of money received and expended by the company and the matters in respect of which the receipt and expenditure take place.
2. All sales and purchases of goods by the company;
3. The assets and liabilities of the company; and
4. In the case of a company pertaining to any class of companies engaged in production, processing, manufacturing or mining activities, such particulars relating to utilisation of material or labour or to other items of cost as

prescribed, if such class of companies is required by the Central Government to include such particulars in the books of account.

This is to ensure that proper record relating to utilisation of material and labour are available which would make the efficiency audit possible. Efficiency audit is possible only when a system of cost accounting is adopted and costing records maintained. Registrar of companies may inspect the books of account and other books and papers of the company without giving any previous notice to the company.

All or any of the above books of account may be kept at such other place in India as the Board of Directors may decide. When the Board so decides, the company shall, within seven days of the decision, file with the Registrar a notice in writing giving the full address of that other place.

Where a company has a branch office, whether in or outside India, the company shall be deemed to have complied with the above provisions, if proper books of account relating to the transaction effected at the branch office are kept at that office and proper summarised returns made up to date at intervals of not more than three months, are sent by the branch office to the company at its registered office.

The proper books of account shall be deemed to be kept with respect to the matters specified therein :

(i) if such books give a true and fair view of the state of affairs of the company or branch office and explain its transactions; and
(ii) if such books are kept on accrual basis and according to the double entry system of accounting.

Accounts, deeds, vouchers, writings and documents and all other statutory records are all required to be kept by the company. Books of account should be so maintained that the balance sheet and profit and loss account can be prepared as required under Schedule VI to the companies Act and give a fair presentation of the actual state of affairs and the working results of the company. Every company is required to maintain its books of account on accrual basis, popularly known as mercantile system of accounting.

Where any particulars or information is required to be given in the balance sheet or profit and loss account of a company or in any document required to be annexed thereto, it shall be the duty of the concerned officer of the company to furnish without delay tot he company and also to the company's auditor, whenever he so requires, those particulars or that information in as full manner as possible. The particulars or information may relate to payments made to any director or other person by any other company, body corporate, firm or person. If any person knowingly makes default in performing the duty cast on him, he shall be punished with imprisonment which may extend to six months, or with fine which may extend to Rs.50,000 or with both (Sec.221)

The books of account and other books and papers shall be open to inspection by any director during business hours. The company shall preserve the books of account for not less than eight years preceding the current year together with the vouchers relevant to any entry in such books of account.

Members of a company do not have a right of access to the accounting records of a company. The Directors may authorise a member to inspect accounting records.

The following persons shall take all reasonable steps to secure compliance of the above requirements by the company.

(i) where the company has a Managing Director or Manager, such managing director or manager and all officers and other employees of the company

(ii) where the company has neither a managing director nor manager, every director of the company [section 209(6)

If any of the above persons fail to take all reasonable steps to secure the above compliances by the company or his own willful act been the cause of any default by the company, in respect of each offence, he shall be punishable with imprisonment for a term which may extend to six months or with fine which may extend to Rs.10,000 or with both. However, no person shall be sentenced to imprisonment for any such offence unless it was committed willfully.

It shall be the defence for such a person to prove that the competent and reliable person was charged with the duty of seeing that above requirements were complied with and was in a position to discharge that duty. If any person is put incharge by the managing director, manager or Board of Directors with the duty of seeing that the above requirements are complied with, makes a default in doing so, he shall, in respect of each offence, be punishable with imprisonment for a term which may extend to six months or with fine which may extend to Rs.10,000 or with both.

13.1.2. Inspection of Books of Account [Section 209A] :

The books of account and other books and papers of every company shall be open to inspection during business hours by the Registrar, or by such officer of Government as may be authorised by the Central Government in this behalf or by such officers of the Securities and Exchange Board of India as may be authorised by it. Such inspection may be made without giving any previous notice to the company or any officer thereof. Inspection by the Securities and Exchange board of India shall be made in respect of the matters referred to in Section 55A.

It shall be the duty of every Director, other officer or employee of the company to produce to the person making inspection, all such books of account and other books and papers of the company in his custody or control and to furnish him with any statement, information or explanation relating to the affairs of the company as the said person may require of him within such time and at such place as he may specify. It shall be also the duty of every director, Other officer or employee of the company to give to the person making inspection all assistance in connection with the inspection which the company may be reasonably expected to give.

The person making the inspection, may during the course of inspection make copies of the books of account and other books and papers, or place of any marks of identification thereon in token of the inspection having been made.

13. 2 ANNUAL ACCOUNTS AND BALANCE SHEET (Section 210)

At every annual general meeting of a company, the Board of Directors of the company shall lay before the company a balance sheet and profit and loss account for the preceding financial year, relating to the period as given below. In case of a company not carrying on business for profit, an income and expenditure account, instead of profit and loss account, shall be laid before the company at its annual general meeting. There shall be at least one annual general meeting in the course of one year.

The profit and loss account shall relate –

1. in the case of the first annual general meeting of the company, to the period beginning with the incorporation of the company and ending with a day which shall not precede the day of the meeting by more than nine months; and

2. in the case of any subsequent annual general meeting of the company, to the period beginning with the day immediately after the period for which the account was last submitted and ending with a day which shall not precede the day of the meeting by more than six months. Where an extension of time has been granted for holding the meeting, the accounts shall relate to the extended period so granted.

The period to which the above accounts relate is referred to as a ``financial year'' and it may be less or more than a calendar year but it shall not exceed fifteen months. Where special permission has been granted by the Registrar, the period may extend to eighteen months.

Audited accounts can be laid only in annual general meeting or in an adjourned annual general meeting for consideration. The balance sheet and profit and loss account has to be for a financial year and not for part of the financial year. A financial year may be less or more than a calendar year, but not more than 15 months, except where special permission is granted by the Registrar in any particular year, in which case a financial year can extend 18 months.

13. 3 FORM AND CONTENTS OF THE BALANCE SHEET (Section 211)

1. Every Balance Sheet of a Company shall give a True and Fair view of the state of affairs of the Company as at the end of the financial year, and shall be in the form set out in part I of Schedule VI or as near thereto as circumstances admit or in such other form as may be approved by the Central Government either generally or any particular case. The Notes at the end of Part 1 provide general instructions for preparation of the Balance Sheet. Insurance and Banking Companies, those engaged in power generation or other classes of Companies for which specific forms of Balance Sheet have been prescribed under separate relevant legislation do not have to conform to Schedule VI.

13.3.1. FORM AND CONTENTS OF PROFIT AND LOSS ACCOUNT:

Every profit and Loss account of a Company shall give a True and Fair view of the profit or loss of the Company for the financial year, and shall comply with the requirements of Part II of Schedule VI, so far as they are applicable thereto. As stated earlier, Insurance and banking companies and special categories of organisations are exempt from the condition of adherence to Schedule VI.

13. 4 BALANCE SHEET OF HOLDING COMPANY (Section 212 and 213) :

Section 212 details the particulars regarding the subsidiary Companies operations that require to be reflected in the **Holding Company's Balance Sheet**. The following documents in respect of each subsidiary require to be attached:

a) a copy of the Balance Sheet of the subsidiary
b) a copy of its Profit and Loss Account
c) a copy of the Report of its Board of Directors
d) a copy of the Report of his Auditors

e) a statement of the holding Company's interest in the subsidiary.

The **Time Lag** between the close of the financial year of the holding Company and that of its subsidiaries shall not exceed six months. Where the financial years of the subsidiaries do not coincide with that of the holding company, the Statement to be attached to the Holding Company's Balance Sheet should contain the following information in respect of each of its subsidiaries.

a) Whether during this time lag, there has been any change in the holding company's interest in the subsidiary company, and

b) Whether during the same period any material changes have occurred in respect of the fixed assets, investments or loans of the subsidiary or in respect of any borrowings to meet its current liabilities.

The Act requires the disclosure of the interest of the holding company in its subsidiary. The holding company should indicate the extent of its interest in each of its subsidiaries at the close of the subsidiaries immediately preceding financial year.

13.4.1. Financial Year of Holding Company :

Section 213 deals with the case where the financial years of the holding company and the subsidiary have to be modified so as to be brought into entire accord with each other, and the case where they are to be brought only within six months of each other. In the former case, the exercise of Government's power is discretionary and, in the latter case, it is obligatory.

13.4.2. Authentication of Accounts (Section 215) :

Section 215 is to the effect that the Balance Sheet and Profit and Loss Account should be approved by the **Board of Directors** before they are signed on behalf the directors and submitted to the auditors for their report on them. By way of Authentication, the Balance Sheet and the Profit and Loss account shall be signed on behalf of the Board of Directors by the Manager or Secretary, if any, and not less than two directors of the Company, one of whom shall be a Managing Director where there is one.

13.4.3. Annexing of Profit and Loss account and Auditors Report to Balance Sheet (Section 216 and 218) :

Section 216 is intended to safeguard the interests of the shareholders, creditors or the general public. Otherwise they may be misled by partial presentation of accounting information not confirming to statutory requirements. It directs that Profit and Loss Account shall be annexed to the Balance Sheet and the Auditor's Report, including the auditor's separate, special or supplementary report, if any, shall be attached thereto.

13. 5 BOARD'S REPORT (Section 217)

Section 217 makes it obligatory for the report of the Board of Directors to be attached to the Balance Sheet laid before the Company in general meeting. The Board's Report shall comment on the state of Company's affairs specify the amounts transferred to reserves and the amounts recommended to be paid by way of dividend. It refer to notable changes or commitments that materially affect the financial position of the Company that occurred between the end of the financial year of the Company and the date of the Report. The latest amendment to the Section in 1988 further specifies that mention should be made about the conservation of energy, technological absorption and foreign exchange earnings and outgo.

The Report should also contain information on the changes that have taken place during the financial year in the nature of the Company's business or in the business of its subsidiaries or in the class of business in which the Company has an interest, in so far as such information is, in the opinion of the directors, material to an adequate understanding of the Company's affairs by its members and is not harmful to the business of the Company or its subsidiaries.

13.5.1. Details of Employees :

The Board's report shall also include a statement showing the name of every employees of the company who :

1. if employed throughout the financial year, was in receipt of remuneration for that year which, in the aggregate, was not less than Rs.24 lacs per annum; or
2. if employed for a part of the financial year, was in receipt of remuneration for any part of that year, at a rate which in the aggregate, was not less than two lacks rupees per month; or
3. if employed throughout the financial year or part thereof, was in receipt of remuneration in that director or manager and holds by himself or along with his spouse and dependent children, not less than two percent, of the equity shares of the company [Sec.217(2A)]

The statement shall also indicate whether any such employee is a relative of any director or manager of the company and if so, the name of such director, and such other particulars as may be prescribed. The Board's report shall also specify the reasons for failure, if any, to complete the buy back within the specified time [Section 217(2B)].

13. 5.2. Penalty for Improper Issue :

Under **Section 218,** Improper Issue, Circulation or Publication of the Balance Sheet and Profit and Loss Account, ignoring the Act's stipulations about statements or Reports to be annexed or attached, will invite punishment with fine for the Company and every officer of the Company who is in default.

13.5.3. Right of Members to copies of Balance Sheet and Auditor's Report :

A copy of every balance sheet including the profit and loss account**,** the auditor's report and every other document required by law to be annexed or attached to the balance sheet which is to be laid before a company in the general meeting shall be sent to every member of a company not less than 21 days before the date of the meeting. It shall also be sent to every trustee of the holders of any debentures issued by the company, whether such member or trustee is or is not entitled to have notices of general meetings of the company sent to him, and to all persons other than such members or trustees, being persons so entitled.

13. 6 FILING OF THE REPORTS WITH THE REGISTRAR

Section 220 stipulates that three Copies of the Balance Sheet and the Profit and Loss Account as laid before the Company at an Annual General Meeting shall be filed with the Registrar within 30 days of the meeting.

The 1988 amendment to Section 220 stipulates that all companies will have to file the annual accounts with the Registrar within 30 days of calling the annual general meeting, Irrespective of whether the annual accounts are laid before the annual general meeting or not.

If the default is made in complying with the above requirements, the company and every officer of the company who is in default shall be punishable with fine which may extend to Rs.50 every day during which the default continues.

13.7 ACCOUNTS OF FOREIGN COMPANY :

Section 594 requires every foreign company to make out the balance and profits and loss account, every calendar year, with the relevant annexed and attached documents as stipulated in the Act and deliver three copies of the same to the Registrar. But, the Central Government in exercise of the powers conferred on it by **Section 594 (1),** has set out requirements certain.

As a result of representations made by several foreign shopping and airlines companies having places of business in India in regard to the difficulties experienced in complying with the modified provisions of the Act, the Government have carried out further modifications in requirements, permitting disclosure under broad heads, with the items of indirect expenditure allocated on a reasonable basis.

13.8 ANNUAL REPORTS ON GOVERNMENT COMPANIES:

Where the Central and / or any State Governments hold 51 percent or more of the Shares of the Company, including preference shares carrying no voting rights that company becomes a Government Company.

Section 619 – A lays down that:

1) Where the Central Government is a member of a Government company, the Central Government shall cause an annual report on the working and affairs of that Company to be prepared within three months of its annual general meeting before which the audit report is placed, and as soon as may be after such preparation, land before both Houses of Parliament together with a Copy of the audit report and any Comments upon, or supplement to, the audit report, made by the Comptroller and Auditor General of India
2) Where in addition to the Central Government, any State Government is also a member of a Government Company, that State Government shall cause a copy of the annual reports prepared to be laid before the House or both Houses of the State Legislature together with a copy of the audit report and the relevant comments or supplements.
3) Where the Central Government is not a member of a Government Company, every State Government which is a member of that company, or where only one State Government is member of the Company, that State Government shall cause an annual report on the working and affairs of the Company to be prepared within three months of its annual general meeting and as soon as may be after such preparation laid before both Houses of the State legislature with a copy of the audit report and relevant comments or supplement.
4) The provisions of this section shall apply to a Government Company in liquidation as they apply to any other Government Company.

13.9 SELF ASSESSMENT QUESTIONS

1. Efficiency audit is possible only when a system of Cost Accounting is adopted. Explain.

2. Discuss the need for the balance sheet and profit and loss account having to be approved by the Board of Directors before they are submitted to the auditors for their report on them.
3. What are the guidelines provided by Accounting Standard – 4 of the Institute of Chartered Accountants of India regarding disclosure of material changes subsequent to the close of the financial years?
4. Distinguish between the rights of the members of Companies listed in the Stock Exchanges as distinct from other Companies in the matter of entitlement to get Copies of Balance Sheet and Annual Report? How about debenture holders and depositors?
5. Describe the matters that have to be specified, involving financial information, in the Prospectus of a Company.
6. What are the reports to be set out in the Prospectus of Company?
7. Discuss the provisions of the Indian Companies Act regarding presentation of accounts by foreign companies.
8. Explain the responsibility of the Central and State Governments in presenting the annual reports on Government Companies.
9. Give a brief account of the financial particulars that require to be furnished, under the Companies (Acceptance of Deposits) Rules, 1975 in the advertisement inviting public deposits.

13. 10 FURTHER READINGS:

1. Asish K. Bhatacharyya, **Financial Accounting** Prentice Hall of India Private Limited, New Delhi, 2005
2. K.R. Bulchandani, **Business Law for Management** Himalaya Publishing House, 2006
3. R.K. Lele , Jawaharlal, **Accounting Theory** Kitab Mahal Publishers, New Delhi
4. T.S. Reddy, A. Murthy, **Corporate Accounting,** Margham Publications, 2006

Chapter – 14

LEGAL REQUIREMENTS RELATING TO COMPANY AUDIT

14.0: Objective:

After studying this lesson, readers should be able to:

- Get an idea about the role of audit, powers and duties of Auditors.
- Understand the legal provisions to conduct audit in a company.
- Know the Audit of Cost Accounts.

Structure:

14.1 Introduction

14.2 Appointment and Remuneration of Auditors

14.3 Special Resolution for Appointment of auditors

14.4 Provisions to resolutions for appointment and removal of auditor

14.5 Auditors qualifications and Disqualification's

14.6 Powers and Duties of Auditors

14.7 Audit of accounts of Branch Office of a company

14.8 Signature of Audit Report

14.9 Penalty for non – compliance

14.10 Power of Central Government to direct special audit

14.11 Audit of Cost Accounts

14.12 Self Assessment Questions

14.13 Suggested Readings

14.1 INTRODUCTION:

Auditing is a process by which a competent, independent person accumulates and evaluates evidence about various assertions contained in financial statements of any entity for the purpose of determining and reporting the quality of disclosure of financial information, judging them against the back drop of established criteria. Auditing is as equally concerned with what is found out as how it is found out. Auditing is not sweaty search with any foregone conclusion. Nor does it end abruptly with any accidental catch in the audit mesh. Essentially auditing is a process, a professional exercise, confirming to the quality parameters of generally accepted auditing practices.

It is an indispensable component of corporate performance reporting. The shareholders entrust the funds to the management and the management is accountable to the shareholders for the proper use of funds. Accounting provides the discipline for recording the transactions of

the Company and the process of audit, which is a statutory requirement, verifies these records and related documents and attests to the true and fair presentation of the state of affairs of the Company in the annual report and the financial statements therein. The appointment of the auditor is vested int eh general body of the shareholders.

The auditor makes his reports to the shareholders through the Company and is responsible to the Company for any failure in the performance of his professional duty. The Central Government has powers to order special audit of the Cost Structure. Section 224 to 233 spell out the legal requirements relating to the audit of the Companies.

14.2 APPOINTMENT AND REMUNERATION OF AUDITORS:

Section 224 deals with provisions concerning the appointment of auditor and related aspects such as remuneration, ceiling on audit work etc.

APPOINTMENT OF FIRST AUDITORS :

1. Every company, even a private company, must appoint an auditor or auditors to audit its accounts.
2. The first auditor or auditors of a company shall be appointed by the Board of Directors within one month of the registration of the company and such an auditor shall hold office till the conclusion of the first annual general meeting. The company, may, however, at a general meeting remove any such auditor or all or any of such auditors and appoint in his or their places any other person or persons who have been nominated for appointment by any member of the company and of whose nomination notice has been given to the members of the company not less than fourteen days before the date of the meeting.
3. If the board fails to make such appointment, the company in general meeting may appoint the first auditor. Such an auditor is also automatically re-appointed.

Subsequent appointments [Section 224(1)]

1. Every company shall at each annual general meeting appoint an auditor or auditors to hold office from the conclusion of that meeting until the conclusion of the next annual general meeting and shall, within seven days of the appointment, give intimation thereof to every auditor so appointed, unless he is a retiring auditor. It may be stated here that though n theory an auditor is appointed by the shareholders, in practice the directors make the appointment because of the strong voting position exercised by the directors through block votes, proxies, etc., and the disinterest of many shareholders.
2. An auditor so appointed unless he is a retiring auditor shall, within thirty days of the receipt from the company of the intimation of his appointment, inform the Registrar in writing that he has accepted, or refused to accept, the appointment.
3. Where at an annual general meeting no auditors are appointed or re-appointed, the Central Government appoints a person to fill the vacancy.
4. The company shall within seven days of the Central Government's power under sub section (3), becoming exercisable give notice of that fact to that Government. If the company fails to intimate this fact to the Central Government, the company and every officer who is in default, shall be punishable with a fine which may extend to five hundred rupees.

5. Where it is found that the appointment of the auditor at the annual general meeting was invalid ab initio, the new auditor in his place shall be appointed at the general meeting of the shareholders.
6. The auditor appointed by whatever authority shall be re-appointed at the annual general meeting unless -
   (a) he is not qualified for reappointment; or
   (b) he has given the company notice in writing of his unwillingness to be re-appointed oor
   (c) a resolution has been passed at that meeting appointing somebody instead of him or providing expressly that he shall not be re-appointed; or
   (d) a notice ahs been given to the company of an intended resolution to appoint some person or persons in the place of a retiring auditor, and by reason of the death, incapacity or disqualification of that person or all of those persons, as the case may be the resolution cannot be proceed with.

REMOVAL OF AUDITOR :

An auditor appointed at a general meeting should normally be re-appointed at the next general meeting unless he chooses to discontinue or is otherwise disqualified. If the shareholders with to remove an existing auditor and appoint another person, a special notice of resolution has to general meeting concludes without re-appointment of existing auditor or appointment of another auditor, the Central Government will then appoint a person to fill the vacancy. The Board may fill any casual vacancy in the office of an auditor but if the vacancy is caused by his resignation, the vacancy shall only be filled by the Company in general meeting. Removal of an auditor or before the expiry of his term can only be done by the Company in general meeting, with the prior approval of the Central Government.

On the appointment of an auditor, except in instances of re-appointment, the company should inform him about the appointment within seven days of the conclusion of the concerned annual general meeting. The auditor should communicate in writing his acceptance or non – acceptance of the appointment, to the Registrar, within 30 days of receipt of intimation of appointment. A person who is in full – time employment elsewhere cannot be appointed as auditor, though he may be a partner in an audit firm.

Continues association of an auditor with a group of Companies may lead to a tendency on the part of auditor to shield the shortcomings of management from shareholders. There is also the possibility of concentration of professional work with a few to the exclusion of others, if there limit on the number of audits a person can undertake. The Act stipulates a ceiling of 20 companies for each individual auditor, out of which not more than 10 should be companies having paid up share capital of Rs.25 lakhs or more. At the time of appointment or reappointment of an auditor, the Company should obtain a certificate from the auditor that his appointment is within the limits specified by the Act. Branch audits are not to be included while calculating the specified number of 20 audits.

REMIUNERATION:

Where the auditor is appointed by the Board or the Central Government, auditor's remuneration will be fixed by the Board or Central Government respectively. In all other cases, it shall be fixed by the Company in annual general meeting or in any manner as

determined by a general meeting. The remuneration fixed will be inclusive of all expenses allowed to the auditor. For extra advice, if any, on legal or technical matters, the cost of such advice is permissible extra expenditure which can be claimed fro the company.

14.3 SPECIAL RESOLUTION FOR APPOINTMENT OF AUDITOR IN CERTAIN CASES:

Section 224A stipulates that in the case of Company in which not less than twenty five per cent of the Subscribed Share Capital is held by public financial institution or a nationalized bank or a general insurance company or in any combination thereof, the appointment or reappointment of the auditor should be made by the Company by a special resolution.

14.4 PROVISIONS AS TO RESOLUTIONS FOR APPOINTMENT OR REMOVAL OF AUDITOR:

Section 225 sets out the provisions relating to the resolutions for appointing or removing auditors. A retiring auditor whom it is proposed to remove must duly receive a copy of the special notice of the appropriate resolution to be moved at the next annual general meeting of the company. The retiring auditor, in such case, has the right to make a representation, in writing, to the Company and request the notification of the same to the members of the Company. If, for some reason, it cannot be circulated to the shareholders, he can require that it should be read out at the general meeting. These provisions are aimed at curbing efforts of unscrupulous management to remove independent and conscientious auditors. Any such endeavor will result in the auditor's representation highlighting the need for detail investigation into the affairs of the company. Where the Company Law Board feels that this right is being abused for needless publicity, it can instruct that the representation need not be sent to the shareholders and need not be read at the annual general meeting. The concerned auditor may even be directed to pay the costs of the litigation incurred by the Company. The right of representation, for the retiring auditor, mentioned above is without prejudice to his right to be heard orally at the general meeting of the Company.

The Company Law Board has clarified that the failure to forward a copy of the notice of resolution to the retiring auditor will render the resolution illegal and ineffective. The resolution regarding illegal and ineffective, if any, should also be forwarded to the retiring auditor. The 1988 amendment to Section 408(6) empowers the Central Government to direct a company to remove its auditor and appoint another in his place.

14.5 AUDITORS QUALIFICATIONS AND DISQUALIFICATIONS:

The necessary qualifications of an auditor who can audit the accounts of a limited company are given in Section 226 of the Companies Act which lays down that a person shall not be qualified for appointment of an auditor of a company (public or private) unless he is a chartered Accountant within the meaning of the Chartered Accountants Act, 1949, and that provided a firm whereas all the persons practising in India are qualified for appointment as aforesaid may be appointed by its firm name to be auditors of a company, in which case any partner so practising may act in the name of the firm.

According to Section 226(2), a person who holds a certificate under the Restricted Auditors Certificates (Part B states) Rules, 1956, is also qualified to act as auditor of a company. However, the Central Government may by notification in the Official Gazette make rules providing for he grant, renewal, suspension or cancellation of such certificates and may prescribe conditions and restrictions for such purposes.

Disqualifications of an Auditor :

The following persons are not qualified to act as auditors:

a) a body corporate

b) an officer or employee of the company

c) a person who is a partner, or who is in the employment, or an officer or employee of the company

d) a person who is indebted to the company for an amount exceeding one thousand rupees, or who has given any guarantee or provided any security in connection with the indebtedness of any third person to the company for an amount exceeding one thousand rupees.

e) A person holding any security (i.e., any instrument carrying voting right) of the company.

A person will also be disqualified become an auditor of a body corporate if he is disqualified as above in relation to its holding company or its subsidiary company or subsidiary company of its holding company.

If an auditor becomes, subject to after his appointment, to any of the disqualifications specified in the foregoing paragraph, he shall be deemed to have vacated his office as such.

14.6 POWERS AND DUTIES OF AUDITORS:

An auditor to perform his duties must have certain powers without which it may not be possible for him to perform his duties honestly and, thereby, he might be held liable for any loss which the company might suffer. In the case of the auditor of an individual or a firm, the question does not arise as the powers and duties of such an auditor depend upon the agreement which is entered in between him on the one hand and the private individual or the firm in the other, as the case may be. But in the case of the auditors of Joint stock companies the companies act has laid down the powers and duties of an auditor.

Section 227 deals with the powers and duties of auditors. The auditor shall have the right of access to the company's books, accounts and vouchers or other related documents, at all times, wherever kept, and call for such information or explanation as he considers necessary for the performance of his duties. Among the things he has to look into, will be:

a) Whether the secured loans and advances of the Company are backed up by proper security and that in terms thereof are not prejudicial to the interests of the company or its members.

b) Whether the transactions shown in the books are not detrimental to the interests of the company.

c) Whether the company, not being an investment company or a banking company, has sold its shares, debentures or other securities at a price less than the one at which they were bought by the company.

d) Whether loans and advances given by the company have shown as deposits.

e) Whether personal expenses have been charged to revenue account.

f) Where shares have been allotted for cash, whether cash has actually been received after allotment, and if cash has not been received whether the position is properly reflected in the account books and balance sheet.

The powers of the auditors include the following.

1. Right of access to books of account
2. Right to call information and explanation
3. Right to receive notice of and attend general meeting
4. Right to make statement at the general meeting
5. Right to indemnified
6. Right to visit the branches
7. Right to take legal and technical advice
8. Right to remuneration
9. Right to sign the audit report
10. Right of lien

Duties of an Auditor :

An auditor is appointed by the shareholders except in the case of the first auditor of the company who is appointed by its promoters or the Board of Directors or an auditor who is appointed by the directors during the currency of the year on account of the death of the auditor or by the Central Government in certain cases. It is the right of the shareholders to appoint an auditor. He is appointed by them to keep a check on the work of directors, as far as accounts are concerned. He is to send a report to the shareholders even though he might have been appointed by the directors. The shareholders fix his remuneration if he is appointed by them. In cast he is appointed by the directors of the Government his remuneration is fixed by the directors or the Government respectively. The shareholders may allow him to continue to act as auditor for next year or may appoint another auditor with the approval of the Central Government. It is they who pay him, of course, out of the funds of the company. The question is whether he is the agent of shareholders or of the directors, or he is an officer of the company, just like the Secretary, Manager, Accountant, etc. Apparently it appears that he performs the functions of an agent as well as that of an officer of the company.

14.7 AUDIT OF ACCOUNTS OF BRANCH OFFICE OF A COMPANY:

According to Section 228 of the Companies Act, 1956, a company having a branch shall get the accounts of that branch audited by its auditor appointed under Section 224, or by any person qualified under Section 226. If the branch is in a foreign country, by the auditor of the company or by any person who is qualified under section 226, or by an accountant duly qualified to act as an auditor of the accounts of the branch office in accordance with the laws of that country.

Where, the accounts of any branch are audited by a person other than the company's auditor, the company's auditor –

(a) shall be entitled to visit the branch if he deems it necessary to do so for the performance of his duties as auditor; and

(b) shall have a right of access at all times to he books and accounts and vouchers of the company maintained at the branch office.

Provided that in the case of a banking company having a branch office outside India, it shall be sufficient if the auditor is allowed access to such copies of and extracts from, the books and accounts of the branch as have been transmitted to the principal office of the company in India.

In case, at the Company's general meeting a decision is taken to appoint a person other than the company's auditor for the audit of the branch accounts, the company can at that meeting appoint another duly qualified person and in the case of foreign branch, a person with requisite a person in consultation with company's auditor. The branch auditor will have the same of the same. The branch auditor shall submit his report on branch accounts to the company's auditors, who shall deal with it as he considers necessary while preparing the auditor's report for the company. The branch auditor's remuneration and terms and conditions of appointment will be fixed either by the Company at general meeting or by the Board of Directors if so authorised by the general meeting.

The Central Government has powers to make rules providing for appropriate exemptions from above conditions, when found necessary. Accordingly, the Government has framed the companies (Branch Audit exemption rules, 1961, fixing exemptions based on quantum of activity, or other appropriate grounds. **Section 228** deals with provisions relating to Branch Audit.

Audit Report :

International Auditing Guideline 3, (IAG-3) `Basic Principles Governing an Audit' states that the auditor should review and assess the conclusions drawn from audit evidence obtained as the basis of expression of his opinion on the financial information. After review and assessment of conclusions, the auditor frames up an overall conclusion. The overall conclusion must concern matters with regard to the following.

(a) Whether the financial information disclosed in financial statements has been prepared using acceptable accounting policies.

(b) Whether the said policies are consistently applied year after year

(c) Whether the financial information complies with relevant regulations and statutory requirements;

(d) Whether the view presented by the financial information as a whole is consistent with the auditor's knowledge of the business of the entity; and

(e) Whether there is adequate disclosure of all material matters relevant to the proper presentation of the financial information.

Thus, the overall conclusion of auditor concerns itself with the adherence to accounting policies, consistency in application of accounting policies, compliance to the provisions of statues, truth and fairness of financial information and proper disclosure. The overall conclusion of the auditor in this regard, is reduced to clear written expression of opinion and expression of facts. The audit report contains these expressions.

In this connection, it is pertinent to understand the matters required to be reported by company auditor as per section 227(2) and 227(3) of the Act.

Under Section 227(3) of the Act, the audit report shall state :

(a) Whether the auditor has obtained all the information and explanations which to the best of his knowledge and belief were necessary for the purposes of his audit;

(b) Whether in his opinion, proper books of account as required by law have been kept to the company so far as appears from his examination of those books and proper returns adequate for the purpose of his audit have been received from branches not visited by him.

(c) Whether the report on the accounts of any branch audited by branch auditor (under section 228) has been forwarded to him and how the auditor has dealt with the same in preparing his final report.

(d) Whether the company's balance sheet and profit and loss account dealt with by the report are in agreement with the books of account and returns.

(e) Whether, in his opinion, the profit and loss account and the balance sheet comply with the accounting standards referred to in sub-section (3C) of Section 211.

(f) In thick type or in italics the observations or comments of the auditor which have any adverse effect on the functioning of the company.

(g) Whether any director is disqualified from being appointed as director under clause (g) of sub section (1) of section 274.

(h) Whether the cess payable under section 441 A has been paid and if not, the details of the amount of cess no paid.

Where any of the matters referred to above (items a, b, c, d, e) is answered in negative, or with a qualification, the audit report shall state the reason for the answer.

Basic Elements of Auditor's report

The auditor's report should incorporate the following elements in it :

(a) title

(b) addressee

(c) identification of the financial statements audited

(d) a reference to the auditing standards, practices followed

(e) expression or disclaimer of opinion on the financial statement

(f) signature

(g) auditor's address

(h) the date of the report

The specific contents of the report will be according to the requirements of the Act if the report is mandatory in the Act. In companies act, section 227 casts the duty on auditor to make report to shareholders. In addition, to this report, the auditor makes out a long form audit report to the management. It contains detailed observation of auditors on various matters connected with financial area of the company. It points out weakness, lapses and errors/frauds observed in the system. It suggests corrective measures. A good report must at least meet the following qualification.

(a) it should be based on factual information

(b) it should be convincing

(c) it should be forceful

(d) it should be unbiased

(e) it should point out mistakes

(f) it should be a constructive criticism and not be in reprimanding tone

(g) it should be offer constructive and timely suggestions to the management

(h) it should be brief. F it is lengthy, the object of the report is defeated even if it is well written.

Singing of Auditor's Report :

Only the person appointed as the auditor of the company, or a partner in the firm of auditors (if all the partners of the firm are entitled to rpactice in India) may sign the auditor's report or may sign or authenticate any other document of the company required to be signed or authenticated by the auditor (Section 229). In case it has been signed by a partner of the firm of auditors, he should inform the Registrar within a reasonable time that he has signed the report. This intimation should be sent preferable within seven days after the date on which the audit report was signed. If any auditor's report is made, or any document of the company is signed or authenticated, otherwise than in confirmity with the requirements of Section 227 and 229, the auditor concerned and the person, if any, other than the auditor who signs the reports or signs or authenticates the document, shall, if the default is wilful, be punishable with fine which may extend to not thousand rupees (section 233).

Report of the auditor (including the auditor's separate, special or supplementary report, if any) shall be attached to every balance sheet placed before every annual general meeting (Section 216), while the report is to be annexed to every annual returns.

14.8 SIGNATURE OF AUDIT REPORT ETC.:

Section 229, stipulates that it is only the Company's, Auditor, if an individual or where a firm is so appointed, only a partner of the firm practicing in India, may sign the auditor's report or sign or authenticate any other document of the Company required so to be done by law. In the case of a firm, the partner should sign in his own name, for and on behalf of the firm.

14.9 PENALTY FOR NON – COMPLIANCE:

Default by the Company in complying with provisions of Sections 225 to 231 of the Act will render the company and every officer of the company who is in default, punishable with fine up to five hundred rupees. Failure of auditor to comply with provisions of sections 227 and 229 will, if the default is willful, be punishable with fine up to one thousand rupees. Any person other than the auditor who signs the report or signs or authenticates the document is also liable for punishment (Sections 232 and 233).

14.10 POWER OF CENTRAL GOVERNMENT TO DIRECT SPECIAL AUDIT IN CERTAIN CASES:

Where the Central Government has reason to believe that the affairs of a company are not being managed in accordance with sound business principles or prudent commercial practice or they are being managed in a way likely to cause serious injury or damage to the interest of the trade, industry or business to which it pertains or the financial position of the company is such as to endanger it solvency, it may order a special audit of the company's accounts, so that a critical appreciation of the company's working and the state of its affairs may be available to the Government. The central Government may appoint either the Company's auditor himself or any other chartered Accountant, whether he is in practice or not. This auditor,

appointed under this **Section 233- A,** will be known as special auditor and shall make his report to the Central Government and not to the members of the company. On receipt of the report, the Government may take whatever action it considers necessary. If it is not taking any action, it may, within four months from the date of receipt of the report with it's comments for being circulated to the members of the Company and for being read before the Company at its next general meeting. The Central Government will decide on the remuneration payable to the special auditor and the same shall be paid by the Company.

14.11 AUDIT OF COST ACCOUNTS:

Section 233 – B deals with cost audit. The Central Government may, with reference to any company, direct the audit of its cost accounts indicating the manner in which it is to be conducted. This audit shall be by a Cost Accountant within the meaning of the Cost and Works Accountants Act 1959. If sufficient number of Cost Accountants are not available, the Government may, by notification, in official gazette direct that, for a specified period, Chartered Accountants with prescribed qualifications may also conduct audit of Cost Accounts of companies. The Cost auditor shall be appointed by the Board of directors of the Company with the previous approval of the Central Government. This audit will be in addition to the normal statutory audit conducted under Section 224. The auditor shall make his report to the Central Government in such form and within such time as may be prescribed and shall also at the same time forward a copy of the report to the company. The following are the important points in this section.

The cost audit is to be done by a cost accountant only within the meaning of the Cost and Works Accountants Act, 1959.

1. However, the event of sufficient cost accountants not being available, the central government may, by notification in the Official Gazette direct that Chartered Accountants possessing the prescribed qualification may be permitted to do cost audit.
2. It is only the Board of Directors with the prior approval of the Central Government which is competent to appoint cost auditor.
3. The qualification and disqualifications prescribed for a statutory auditor under S.226(3) and (4) are applicably to the cost auditor. It may be mentioned here that a person competent to audit the accounts of a company under S.224, is not competent to conduct cost audit. No relative of a director can be appointed as the cost auditor of the company.
4. If a person, appointed for conducting the audit of cost accounts of a company, becomes clause (b) of S 233B(5), he shall, on and from the date on which he becomes so subject, cease to conduct the audit of the cost accounts of the company
5. If a cost auditor becomes, subject, after appointment, to any disqualification specified in S 226(3) he shall be deemed to have vacated his fofice as such.
6. On receipt of an order from the Government for the appointment of a cost auditor, it shall be the duty of the company to render every assistance to such a cost auditor to conduct the cost audit.
7. The cost auditor has to submit his report to the Central Government instead of to the company. The Government may send a copy to the directors of the company.
8. The Government may call upon the company to furnish any further information and explanation on the report submitted by the cost auditor. Such information and explanation must be furnished by the company within thirty days of the receipts of the copy of the report by the company. After considering the explanation submitted by the

company, the Central Government may ask the company to furnish further information and explanation within the prescribed time.

9. The Central government may allow the company to circulate the whole or such portions of the audit report as it may specify in this behalf
10. The company has to send the copy of the report or portions of it along with the notice of the next annual general meeting of the shareholders after the submission of the report.
11. If any default is made by the company in this regard, it shall be punishable with a fine up to rupees five thousand and every officer of the company who is in default, may be punishable with simple imprisonment which may extend to three years or with a fine which may extend to fifty thousand rupee or both.

The companies act does not lay down the method of filing the vacancy by the cost auditor if he resigns; how can be removed for misconduct, etc., Perhaps all these things depend upon the Central Government which will have to be approached in such case.

It may be pointed out here that the cost audit is in addition to the statutory audit of the company.

14.12 SELF ASSESSMENT QUESTIONS

1. Branch audits are not to be included while calculating the specified limit of 20 audits. Why
2. A retiring auditor shall be re-appointed. What are the circumstances when this may not happen?
3. After notice of the general meeting is issued in the usual course and before the holding of the meeting, it happens that the holdings of the public financial institutions exceed 25 per cent of the total subscribed share capital. The Act stipulates that in such a situation special resolution is necessary for appointment or reappointment of auditor. What is the way out of this statement?
4. Can the statutory auditor of a company also function as an internal auditor of the company. Discuss the implications.
5. One need is that the auditor’s certificate is to be based only on the result of the scrutiny of the books of account maintained by the company, and the auditor does not have to report to the shareholders of the company, the infringements of the provisions of the Companies Act or draw their attention to the inadequate provision of depreciation, or to under – or- overvaluation of stock in trade etc. What are your views? Are you aware of any guidelines in this regard?
6. Auditor is a watch dog, not a blood hound: explain with reference to the extent and depth of examination of the company’s transactions.
7. Discuss the need for a cost Audit.

14.13 FURTHER READINGS:

1. Asish K. Bhatacharyya, **Financial Accounting** Prentice Hall of India Private Limited, New Delhi, 2005
2. K.R. Bulchandani, **Business Law for Management** Himalaya Publishing House, 2006
3. R.K. Lele , Jawaharlal, **Accounting Theory** Kitab Mahal Publishers, New Delhi
4. T.S. Reddy, A. Murthy, **Corporate Accounting,** Margham Publications, 2006

Chapter – 15

INFLATION ACCOUNTING AND ITS METHODS

15.0: Objective:

After going through this lesson one should be able to:

- Understand the meaning and importance of inflation accounting.
- Differentiate inflation accounting from historical cost accounting.
- Know the various methods of accounting for inflation.

Structure:

15.1 Introduction

15.2 Historical Cost Accounting

15.3 Inflation Accounting

15.4 Methods of Inflation Accounting

15.5 Current Purchasing Power Accounting (CPPA)

15.6 Current Cost Accounting (CCA)

15.7 Self Assessment Questions

15.8 Suggested Readings

15.1 INTRODUCTION:

The subject of accounting for changing prices has received wide attention in financial accounting literature due to inflation prevailing, although in different degrees, in many countries of the world. Because of the increase in prices, a demand has been made in accounting that business enterprises should prepare inflation adjusted financial statements in place of historical cost based financial statements. It has been rightly argued that historical cost accounting does not contain useful information to satisfy the needs and purposes of management as well as external users.

15.2 HISTORICAL COST ACCOUNTING:

Historical cost Accounting (HCA) also known as conventional accounting, records transactions appearing in both the balance sheet and the profit and loss account in monetary amounts which reflect their historical costs i.e., prices that are generally the result of arms' length transactions. The historical cost principle requires that accounting records be maintained at original transaction prices and that these values be retained throughout the accounting the process to serve as the basis for values in the financial statements. HCA is based on the realisation principle which requires the recognisation of revenue when it has been realised. The realisation principle has an important implication affecting both the profit and loss account and the balance sheet. This principle requires that only realised revenues be included in the income statement

Limitations of Historical Accounting :

Conventional Accounts based on `stability of monetary unit' show the business transactions in chronological order, almost like history. No adjustments are made to reflect changing prices. As a result, they suffer from the following limitations.

1. **Unrealistic Values of Fixed Assets :** Fixed assets are recorded at cost as and when purchased. Subsequent changes in the market values of such assets are ignored. The fixed assets are, thus, shown in the balance sheet at unrealistic values, not at all reflecting the current economic realities.
2. **Insufficient depreciation Provision :** Depreciation is computed on the basis of the original cost of the assets and their estimated life time. As a result, the depreciation provided on assets and charged to the profit and loss account does not reflect the realistic cost of using such assets, based on their present values.
3. **Problems in replacement of Fixed Assets :** Depreciation made on fixed assets is based on their original cost. So, the accumulated depreciation, when invested in outside securities, is not at all sufficient to replace the assets due to the higher market prices which are the consequence of inflation.
4. **Inflated Profits :** The profits shown by income statement under historical accounting are highly reliable. Depreciation on fixed assets is insufficient, resulting in higher profits. Similarly, sales are shown at current market prices whereas cost of goods sold includes stocks purchased in the past at lower price levels. The inflated profits result in payment of higher taxes.
5. **Errors of Owners Capital :** Inflation erodes the value of money and thus the value of owners' capital erodes due to the decline in the purchasing power of money. No effort is made in historical accounts to protect the value of capital. In fact, dividends paid out of unrealistic profits shown by the income statement may result in payment of dividend out of capital.
6. **Reliability and Utility of Accounting Records :** Accounting records are used by different people for different purposes. Employees, creditors, owners potential investors, tax authorities etc., are interested in the accounting data. The unreliable profit shown by historical accounts and the unrealistic asset values shown in balance sheet seriously affect the value of the accounting records for the various purposes for which the users need them.
7. **Violation of Matching principle :** An important accounting principle is matching of expenses and incomes. During inflationary periods, sales reflect current market prices whereas the purchases reflect earlier prices. Thus, the matching of income and expenditure becomes distorted due to changing prices.
8. **Holding and Operating gains :** The legitimate business profit made as a result of trading is called operating gain. Profit made on goods by storing them for appreciation in price is called holding gain. Operating gain is a trading profit whereas holding gain is a speculative profit. No distinction is made in historical accounts between these two types of gains.
9. **Violation of the law of additivity :** During the period of inflation, accounting data may not be capable of being added. For example, 500 units purchased at Rs.10 per unit and another 400 units purchased at Rs.14 per unit should not be added as they are because the amounts give a wrong picture without the quantities. However, in historical accounts, all the goods and assets purchased are added, irrespective of the purchase prices, thus distorting the results.
10. **Inter firm and intra firm comparison :** Historical accounting data is not really useful for comparison purposes, comparing the data of two different periods of the same business is not possible because of different price levels during the periods. Similarly, comparison of the data relating to two or more businesses is also not possible without reference to the price levels at which each business has computed its data.

11. **Managerial decision making :** The top management has to make decisions relating to profitability, capital expenditure etc. Historical accounting data may lead to wrong decisions, adversely affecting the future prospects of the business.

15.3 INFALTION ACCOUNTING:

The limitations of historical accounting has paved the way for inflation accounting. According to the American Institute of Certified Public Accountants (AICPA) ``Inflation Accounting is a system for accounting which purports to record, as a built in mechanism, all economic events in terms of current cost. “Inflation Accounting” has come to assume a wide definition, covering all accounting approaches and methods of dealing with price changes. Management needs of accounting information are varied. On most occasions, management desires information relating to current and future operations taking note of the impact of changes in the purchasing power of money. The published financial statements, the Balance Sheet in particular, which present an amalgam of costs, ranging from near past to distant past, can hardly claim to portray the real, current picture of the company’s financial status. The monetary unit in which the conventional accounts are prepared (the rupee, in our case) is not a stable unit of measurement. With inflation, its purchasing power declines. Therefore it is argued that we must evolve alternative methods of calculation to reflect, to the maximum extent possible, the current conditions.

15.4 METHODS OF ACCOUNTING FOR INFLATION:

The search for a viable solution to the accounting problem of providing for the effects of inflation in the published financial statements has led to a variety of formal statements and proposals emanating from the professional bodies and researchers of different countries. The central theme in all these approaches has been the maintenance of the operating capability of the enterprise with respect to the two most significant components of operating capital, namely, fixed assets and inventories. The following are the methods of accounting for price level changes, based on different methods of measuring inflation.

1. Using LIFO basis for inventory valuation together with periodic revaluation of fixed assets.
2. Current Purchasing Power Accounting (CPPA).
3. Current Cost Accounting (CCA), also described as Replacement Cost Accounting (RCA).

15.5 CURRENT PURCHASING POWER ACCOUNTING (CPPA) :

This method was evolved in 1974 by the Institute of Charted Accountants in England and Wales. It was issued as Statement of Standard Accounting Practice No7 (SSAP-7) entitled ``Accounting changes in the purchasing power of money.’’ This method is designed to convert the mixed historical costs in financial statements into equivalent rupee of current purchasing power. The method is variously referred to as Constant Purchasing Power Accounting, General Price Level Accounting (GPLA), Constant Rupee Accounting or General Purchasing power Accounting (GPPA). Historical costs are adjusted for changes in the general level of prices as measured by a general price level index. The historical financial statements have transactions depicting measurements that represent purchasing powers at various points in time, and CPPA converts these historical measures into current purchasing power, a uniform unit of measurement at the same point in time, lending comparability to all accounting numbers.

The most broad – based consumer goods price index can constitute the acceptable general price level index for conversion of the historical cost financial statements. The historical cost

figures are multiplied by a conversion factor which is the ratio of the price level index at the date of conversion and the price level index at the transaction date. It is assumed that all transactions take place evenly throughout the year.

Monetary and Non – monetary items:
For CPPA, we have to group the Balance Sheet items into monetary and non – monetary items.

A. Monetary Items:
Monetary items are those whose amounts are fixed by contract or otherwise in terms of rupees, regardless of change in the purchasing power of money. Cash and bank balances, debtors, bills receivable etc., constitute monetary assets and creditors, bank overdraft, loan capital and debentures are instances of monetary liabilities.

Gain or loss on holding monetary items:
In a period of inflation, holders of monetary Assets lose general purchasing power, and the holders of monetary liabilities stand to gain. If a cash balance of Rs.50,000 is held in tact from the beginning to the end of the year, and there was a 10 per cent rate of inflation in that year, the firm would need Rs.55,000 to maintain the same general purchasing power. But since the amount available is only Rs.50,000, there is a loss of general purchasing power to the extent of Rs.5,000. In respect of debtors and bills receivables also, the amounts to be received in future will command a decreasing amount of general purchasing power. If a loan of Rs.80,000 contracted on1st January is payable by the 31st December of the year and the inflation during the year is of the order of 10 per cent, the amount of Rs.80,000 repaid at the year end has a reduced purchasing power. To compensate for inflation, the amount repayable will be Rs.88,000 but since the contract is for the repayment of actual loan of Rs.80,000 only, there is a purchasing power gain of Rs.8,000 resulting from the holding of the monetary liability.

The CPPA method contemplates the computation of the purchasing power gain or loss by an enterprise on holding net monetary items. There are two ways of determining purchasing power gains or losses on monetary items. We can calculate the gain or loss relating to each monetary liability or monetary asset, as the case may be, and add up the amounts to arrive at the total gain or loss or calculate the gain or loss on net monetary asset (i.e., monetary assets minus monetary liabilities) taking into consideration all monetary items as if they were maintained in a single account. Let us look at the method of calculation with an example.

B. Non – monetary items
All assets and liabilities other than monetary items fall under non – monetary items. Thus non – monetary assets would include inventories, plant and equipment, buildings etc. Most liabilities are monetary in nature, with the exception of share capital and retained earnings which can be regarded as non – monetary liabilities. The non – monetary items do not represent fixed amount to be received or paid at a future date and, in this sense, differ from monetary items. Their prices in terms of the monetary unit are subject to change over time. We may now look at the conversion process for translating figures from historical rupees to rupees of current purchasing power, preparatory to the presentation of CPPA Balance Sheet. We have already seen the nature of adjustments relating to monetary items, and will now have a summary of the procedure for dealing with monetary and non – monetary items in the Balance Sheet.

The Preparation of CPPA Balance sheet involves the following steps:

1. The Balance sheet shows the historical costs of items of assets and liabilities as at the beginning of the year and as at the end of the year. The past or historical costs in the Balance Sheet as at the beginning of the year should be restated in terms of current purchasing power of the rupee as at the beginning of the year. The procedures vary with reference to the monetary and non – monetary items, as explained below.
2. Non – monetary items such as inventories, Plant and equipment, buildings, invested capital etc., appear at their original costs relating to the dates of their acquisition or transaction. These should be restated in terms of the current purchasing power of the rupee as at the beginning of the year.
3. As at the beginning of the year, the monetary items are expressed in terms of the current purchasing power and therefore, do not require any adjustment.
4. The figure in 2 and 3 above should then be updated from rupees of the purchasing power at the beginning of the year to rupees of the purchasing power at the end of the year.
5. The Balance Sheet items appearing on historical cost basis at the end of the year also require to be restated in terms of the current purchasing power as at the year end. The following procedures are to be observed for non – monetary and monetary items.
6. Non – monetary items at the end of the year are adjusted for price level changes after their dates of acquisition and thus get expressed in current purchasing power as at the end of the year.
7. Monetary items as at the end of the year do not require any conversion.
8. The difference between total equity interest (i.e., net assets) on the basis of the adjusted opening and closing Balance Sheets, after allowing for new capital introduced and distribution of profit by way of dividend, is the profit or loss in CPP terms for the year. This can be cross checked with the final figure in the converted profit and loss account, after allowing for the loss or gain on holding net monetary items.

Profit and Loss Account under CPPA:

The items in Profit and Loss Account that will call for adjustments are the opening and closing inventories, the transactions during the year and the depreciation written off for the year. The formula applied will be:

Current year index divided by the index applicable to the item at the beginning or at the time when it was created, or the average index for the year in case of the transactions during the year.

15.6 CURRENT COST ACCOUNT METHOD :

The general complaint that CPP method is not satisfactory in dealing with price level changes has made the British Government withdraw the Statement of Standard Accounting Practice – 7 (SSAP-7) which was issued in 1974. The committee formed under the Chairmanship of Sir Francies in Sandilands recommended the usage of CCA method in its report in September, 1975. The method was extensively studied and reported later on. In March, 1980 the accounting Committee of U.K. has issued SSAP – 16 (Statement of Standard Accounting Practice – 16) recommending the usage of CCA Method.

In India also, the institute of the Charted Accountants of India has published a guidance note on Accounting for changing prices in 1982, which describes both CPP and CCA methods, but recommends CCA method as the most appropriate to the Indian economic conditions. The main features of this method are;

i) Assets and liabilities should be shown at their value to the business.

ii) Profit of the year is arrived at after charging "the value to the business", of assets consumed during the period.
This calls for three adjustments to be effected:
a) Depreciation adjustment:
b) Cost Of Sales Adjustment (COSA); and
c) Monetary working Capital adjustment.

iii) To determine the current cost profit attributable to the shareholders, another adjustment known as the gearing adjustment is also to be carried out.

The salient points to note about the methodology of CCA are:

1. **Fixed Assets :** Fixed assets are to be shown in the Balance Sheet at their value to the business. The value of an asset to the business is the amount which the business would lose, if it were deprived of that asset. In this context, it is also necessary to understand the distinction between the gross replacement cost and the net replacement cost. The cost that will have to be incurred on the date of valuation of an asset to obtain a similar asset constitutes the gross replacement cost..

   Items of equipment, vehicles, furniture etc., should be valued at their net replacement cost. The gross replacement cost for this purpose will have to be determined with reference to the published prices or estimates by experts. Published price indices for the asset categories can also be used to determine the gross replacement costs of given types of items. These will be in the nature of specific indices. For land and building, the current market value of land and the current cost of acquisition of the building will together indicate the gross replacement cost of land and building.

2. **Investments :** Investments that are not in the nature of current assets should also be shown in the Balance sheet at their value to the business. For quoted investments, market prices will be available. Those that are not quoted will have to be valued on the basis of the current cost net worth of the company to which the investments relate or on the basis of the present value of the expected future income streams from the investments.

3. **Inventories :** Inventories should be valued at the current replacement cost on the date of the Balance Sheet or the net realizable value, whichever is lower.

4. **Determination of Current Operating Profit :** The current operating profit is to be determined by carrying out the following adjustments.

i) Depreciation Adjustments:

The profit and loss account for the period is to be charged, for depreciation, with an amount equal to the value to the business of the fixed assets utilized during the period. The depreciation thus charged should be based on the average net replacement cost for

the period, of the fixed assets, and not on their historical cost. The current depreciation charge is arrived at by apportioning the net average replacement cost of the fixed assets over their expected remaining useful life as the net average replacement cost of the fixed assets over their expected remaining useful life as at the beginning of the period. When the fixed assets are revalued every year, there will also be at the beginning of the period. When the fixed assets are revalued every year, there will also be a shortfall of depreciation representing the effect of price rise during the period. This shortfall is known as backlog depreciation, and is to be charged either to the general reserves or against the related revaluation surplus on the fixed assets.

ii) Cost of Sales Adjustment (COSA)

This adjustment has the objective of determining the current cost operating profit. It represents the difference between the value to the business and the historical cost of the stock consumed in the period. The following formula can be applied to determine COSA.

COSA = (C – O) – I a (C/ Ic – O/ Io), where

O = Historical cost of opening stock
C = Historical cost of closing stock
Ia = Average index number for the period.
Io = Index number appropriate to the opening stock
Ic = Index number appropriate to the closing stock.

Io and Ic may be the index number at a point of time or may be average index number if the period during which opening stock and closing stock are built up depending on information given in the problem.

iii) Monetary Working Capital Adjustment (MWCA)

The monetary working capital adjustment aims at determining the impact of changing prices on working capital as a prelude for determining the current cost operating profit. The following formula can be applied for arriving at the MWCA:

MWCA =(C – O) – Ia (C / Ic – O / Io), where

O = Opening monetary working capital
C = Closing monetary working capital
Ia = Average index number for the period
Io = Index number appropriate to opening monetary working
Ic = Index number appropriate to closing monetary working

iv) Gearing adjustment

When we refer to gearing (it is capital gearing), we are looking at the ratio between borrowed funds and shareholders' funds. The fixed assets and working capital in business are partly financed by borrowings. While these borrowings have commitments to pay the borrowed amount, in pre determined installments, at stipulated future dates, irrespective of changes in price levels, during periods of inflation, the value to the business of the assets increases and exceeds the borrowings that has financed them. To the extent of this excess, less the interest on borrowings, the shareholders gain advantage during periods of rising prices, which they be able to realize when the assets are used or sold in the ordinary course of business. The opposite will be the effect during periods of falling prices.

In an inflationary period, the depreciation adjustment, the COSA adjustment and the MWCA adjustment result in additional charges to profit and loss account to arrive at the current cost

profit or loss, but the gains from borrowings, that have to be repaid without any adjustment for price level changes, do not get reckoned. This leads to understatement of profits attributable to shareholders. In periods of deflation, the profits attributable to shareholders will be overstated. The gearing adjustments sets right this distortion and indicates the current cost profit attributable to the shareholders. It takes cognizance of the impact of price changes on that proportion of the net operating assets, which is related to the shareholders, interest. The formula for gearing adjustment will be:

Gearing Adjustment = S { L/ (L + S)}, where
L = Average net borrowing
S = Average shareholders' interest
A = Total of current cost adjustment

In the calculation of net borrowing, cash or any monetary asset which does not enter into the calculation of MWCA must be deducted from the total borrowings.

Accounting treatment of Gearing Adjustment :

The gearing adjustment is added to the profit disclosed by the historical accounts in the income statement. Alternatively, it can be reduced from the total of current cost adjustments shown in the income statement.

In the balance sheet the gearing adjustment is subtracted from the current cot reserve.

Specimen of Current cost income statement

		Rs.	**Rs.**
	Sales		Xxx
Less :	Cost of goods sold and other operating expenses		Xxx
	Profit before interest and tax		**Xxx**
Less :	CCA Adjustments :		
	COSA	Xxx	
	MWCA	Xxx	
	Depreciation adjustment	Xxx	Xxx
	Current cost operating profit		**Xxx**
Add :	Gearing Adjustment		Xxx
			Xxx
Less:	Provision for income tax		Xxx
	Current cost profit after tax		**Xxx**
Less :	Dividends		Xxx
	Retained earnings		**xxx**

Preparation of Current cost balance sheet

The following are the relevant points to note while preparing the balance sheet.

(a) All monetary items both monetary assets and monetary liabilities are shown at their stated values since they do not require any adjustment.
(b) Inventories are to be shown at the current value on the balance sheet date. For this purpose, conversion factor is as follows.

$$\frac{\text{Index on Balance Sheet date}}{\text{Index on the date of acquiring the inventory items}}$$

It is preferable to use different conversion factors for different items in the stocks, depending on the dates on which they were purchased.

(c) All the fixed asses have to be shown at their current placement values. For this purpose, specific indexes have to be used for each type of fixed assets to ascertain its current value. The profit on revaluation of the fixed assets at the end of each accounting year is to be credited to `current cost reserve a/c' and debited to the assets accounts. The assets are shown in the balance sheet at their current value less depreciation based on the current value, retrospectively.

(d) **Current cost reserve :** The balance of current cost reserve has to be shown on the liabilities side of the balance sheet as a separate item. A separate note may be prepared to show the opening balance of the reserve, additions in the form of (a0 revaluation profit on fixed assets (b) COSA (c) MWCA and deductions in the form of () gearing adjustment (b) backlog depreciation and (c) additional depreciation.

(e) Share capital, retained earnings and other liabilities are shown to complete the balance sheet.

Hybrid Method :

Some accounting experts have combined the CCA and CPP methods to develop a hybrid method with the intention of reaping the advantages of both the method.

In this method, fixed assets and inventories are to be converted on the basis of the specific price indexes as done in CCA method. The general price index is ignored in their case. Gain or loss on monetary items is computed and taken into account as in CPP method.

The hybrid method is still evolving and is not yet full-fledged. It also suffers from the negative features of both, CCA and CPP methods. This method cannot be of much practical use now.

Illu.1 : The following information is given to you regarding X ltd. for the financial year ended 31-3-1997.

	1-4-1996 Rs.	**31-3-1997 Rs.**
Monetary assets	**80,000**	**80,000**
Monetary liabilities	**1,00,000**	**1,00,000**
Retail price index	**200**	**300**

Ascertain gain or loss on monetary items.

Solution :

Statement showing monetary result of X Ltd.
for the year ended 31-3-1997

Particulars	**Rs.**	**Rs.**
Monetary liabilities on 1-4-1996 should have gone up in line with general prices upto Rs.1,00,000 x 1.5	1,50,000	
But the liabilities stayed at	1,00,000	

Gain on holding of monetary liabilities		**50,000**
Monetary assets on 1-4-1996 should have gone up in line with general prices upto Rs.80,000 x 1.5	1,20,000	
But the assets stayed at	80,000	
Loss on holding of monetary assets		**40,000**
Net gain monetary items		**10,000**

Working note :

Conversion factor for items on 1-4-1996 = $\frac{\text{Closing index number}}{\text{Opening index number}}$

= 300/200 = 1.5

Illu.2 : The opening balance sheet and income statement for the year 1996 of Chandra Ltd. are as follows

Balance Sheet as on 1-1-1996

Liabilities	**Rs.**	**Assets**	**Rs.**
Share capital	**7,00,000**	**Plant & Machinery (New)**	**6,00,000**
10% Debentures	**2,00,000**	**Furniture**	**80,000**
Current liabilities	**2,00,000**	**Inventory**	**1,20,000**
		Debtors	**1,00,000**
		Cash	**2,00,000**
	11,00,000		**11,00,000**

Income Statement for the year ending 31st December, 1996

	Particulars	**Rs.**	**Rs.**
	Sales		**20,00,000**
Less :	**Cost of goods sold**		
	Opening Inventory (FIFO)	**1,20,000**	
	Purchases	**14,20,000**	
		15,40,000	
	Closing inventory	**1,40,000**	**14,00,000**
	Gross profit		**6,00,000**
Less :	**Operating expenses**	**3,08,000**	
	Interest on debentures	**20,000**	
	Depreciation on machinery	**90,000**	
	Depreciation on furniture	**8,000**	**4,26,000**
	Net profit		**1,74,000**

Debtors and current liabilities remained unchanged throughout the year. Interest on debentures was paid on 31-12-1996.

The general price index during the year was as follows.

On 1-1-1996 = Rs.300; On 31-12-1996 : Rs.360; Average for the year Rs.320

You are required to prepare the final accounts for the year 1996, after adjusting for price level changes under CPP method.

Conversion method or Restatement of Income Method :

Solution :

Income statement of Chandra Ltd., restated as per CPP Method

for the year ended 31st December, 1996

	Particulars		HCA Rs.	Conversion Factor	CPP Rs.
	Sales	**A**	**20,00,000**	**360/320**	**22,50,000**
	Opening Inventory (FIFO)		1,20,000	360/300	1,44,000
	Purchases		14,20,000	369/320	15,97,500
	Cost of goods available for sale		**15,40,000**		**17,41,500**
Less :	Closing inventory (FIFO)		1,40,000	360/320	1,57,500
	Cost of goods sold	**B**	**14,00,00**		**15,84,000**
	Gross Profit (A – B)	**C**	**6,00,000**		**6,66,000**
	Operating expenses		3,08,000	360./320	3,46,500
	Interest on debentures		20,000	360/360	20,000
	Depreciation on machinery		90,000	360/300	1,08,000
	Depreciation on furniture		8,000	360/300	9,600
	Total Expenses	**D**	**4,26,000**		**4,84,100**
	Profit before general		1,74,000		1,81,900
	Price level gain or loss (C-D)	E			
Less	Loss on general price level or monetary loss (Note 1)		-		14,000
	Retained earnings		**1,74,000**		**1,67,900**

Statement showing gain or loss on monetary items

	Particulars	HCA Rs.	Conversion Factor	CPP Rs.
	Net monetary liabilities on 1-1-1996 (Rs.2,00,000 + 2,00,000 – 1,00,000 – 2,00,000)	1,00,000	360/300	1,20,000
Add :	Purchases	14,20,000	360/320	15,97,500
	Operating expenses	3,08,000	360/320	3,46,500
	Interest on debentures	20,000	369.360	20,000
		18,48,000		**20,84,000**
Less :	Sales	20,00,000		22,50,000
	Net monetary assets on 31-12-1996	1,62,000		1,66,000
	Monetary assets on HCA basis			1,52,000
	Loss on general price level			**14,000**

Balance sheet of Chandra ltd. as on 31-12-1996

Liabilities	HCA Rs.	Conv. Factor	CPP Rs.	Assets	HCA Rs.	Conv. Factor	CPP Rs.
Share capital	7,00,000	360/300	8,40,000	Plant & Machinery	6,00,000	360/300	7,20,000
Retained earnings	1,74,000	-	1,67,900	Less : Depreciation	90,000	360/300	1,08,000
				(A)	5,10,000		6,12,000
10%	2,00,000	360/360	2,00,000	Furniture	80,000	360/300	96,000

Debentures							
Current liabilities	2,00,000	360/360	2,00,000	Less : Depreciation	8,000	360/300	96,000
				(B)	72,000		86,400
				Total Fixed assets (A+B)	5,82,000		6,98,400
				Inventory	1,40,000	360/320	1,57,500
				Debtors	1,00,000	360/360	1,00,000
				Cash	4,52,000	360/370	4,52,000
	12,74,000		14,07,900		12,74,000		14,07,900

Working Note :

1. Monetary assets on 31-12-1996

   Cash + Debtors – Debentures – Current Liabilities

   = Rs.4,52,000 + 1,00,000 – 2,00,000 – 2,00,000

   = Rs.5,52,000 – 4,00,000 = Rs.1,52,000

2. Cash = Opening Balance + Sales receipts – Payments for purchases – Payments for expenses

   = Rs.2,00,000 + 20,000 – 14,20,000 – 3,28,000

   = Rs.22,00,000 – 17,48,000 = Rs.4,52,000

Illu.3 : A company purchased a fixed asset on 1-1-1996 for Rs.1,00,000 and decided to depreciate it at 10% per annum on straightline basis. The replacement value of the asset on the following dates was noted as follows.

31-12-1996 Rs.1,20,000; 31-12-1997 Rs.1,50,000; 31-12-1998 Rs.2,00,000

Assuming depreciation is chargeable on the basis of the eyar end replacement value, under CCA method of Inflation Accounting. You are required to compute for each of the 3 years.

(1) Depreciation adjustment

(2) Backlog depreciation

Solution :

Computation of depreciation adjustment and back-log depreciation

	Rs.
As on 31-12-1996	
Depreciation under CCA method Rs.1,20,000 x 10/100	12,000
Depreciation under HCA method Rs.1,00,000 x 10/100	10,000
Depreciation adjustment	**2,000**
Backlog depreciation – Nil	
As on 31-12-1997	
Depreciation under CCA method Rs.1,50,000 x 10/100	15,000
Depreciation under HCA method Rs.1,00,000 x 10/100	10,000
Depreciation adjustment	**5,000**
Backlog depreciation = (Rs.1,50,000 – 1,20,000) x 10/100	**3,000**
i..e, Rs.3,000 depreciation provided in 1997 for the year 1996	
As on 31-12-1998	
Depreciation under CCA method Rs.2,00,000 x 10/100	20,000

Depreciation under HCA method Rs.1,00,000 x 10./100	10,000
Depreciation adjustment	**10,000**
Backlog depreciation	
For 1996 (Rs.2,00,000 – 1,50,000) x 10/100	5,000
For 1997 (Rs.2,00,000 – 1,50,000) x 10/100	5,000
Total backlog depreciation to be provided	**10,000**

15.7 SELF ASSESSMENT QUESTIONS:

1. Explain the meaning of `Inflation Accounting'
2. State the objectives of `Inflation Accounting'
3. Write a brief note on `Current purchasing power method'
4. What are the defects of the historical cost accounting system in a period of inflation?
5. ``Owing to change in purchasing power of money, the balance sheet figures, if based on historical cost, cannot give a true and fair view of the affairs of business.' Explain
6. What is relevance of ``Accounting for Inflation''? Discuss the relative merits of the particular methods which have been developed in recent years to correct the distortion in accounting profits from a persistent and at times'' run away inflation''.
7. What are the limitations of Historical accounts? How are they overcome with the help of Inflation accounting?
8. Describe the different methods of Inflation Accounting
9. Discuss the merits of current purchasing power accounting
10. Distinguish between historical, current cost and current purchasing power concepts of accounts.
11. Explain the following with reference to Current Cost Accounting:
    (a) Value to the business;
    (b) Holding gains;
    (c) Operating profit.
12. What is the purpose of cost of sales adjustment (COSA)? Give an example of the averaging method, using your own figures.
13. Discuss Gearing Adjustment in the context of Current Cost Accounting.
14. Historical accounting shows unreal profits resulting in distribution out of capital. Explain.

15.8 SUGGESTED BOOKS:

1. E. R. Farmer, Accounting for Inflation and Price level Changes, Gee and Co.
2. R.K. Lele, Jawarlal, Accounting Theory, Kitab Mahal, 1989
3. M.C. Sukla and others, Advanced Accounts, S Chand & Co., 2005

Chapter – 16

COST ACCOUNTING : NATURE AND SIGNIFICANCE

16.0: Objective:

After reading this unit we should be able to :

- Know the meaning, definition and objectives of cost accounting
- Understand the advantages of limitations of cost accounting
- Discuss the installation of cost accounting system

Synopsis:

16.1. Nature and Significance
16.2. Limitations of Financial Accounting
16.3. Importance of Cost Accounting
16.4. Limitations of Cost Accounting
16.5. Installation of Costing System
16.6. Financial Accounting Vs. Cost Accounting
16.7. Self Assessment Questions
16.8. Suggested Readings

16.1 NATURE AND SIGNIFICANCE

All aspects of accountancy have arisen from practical necessity. The oldest forms of accounting developed as a result of the need of commercial firms to present the resultant annual profit or loss. The emphasis of accounting is to know the profit or loss of a firm but not on other aspects like the profitability of a particular product or department; how much capital is locked up in unremunerative projects, how to control expenditure and reduce wastage etc. The main emphasis is on their ascertainment and exhibition of the profits earned or losses incurred by the business rather than on aspects of planning and control and decision making.

The cost of manufacture of products or of rendering a service is, no doubt, available in financial accounts for a division or enterprise as a whole and that too at the end of the accounting period. But if the cost of individual products or services and the profit or loss from each are required concurrently as the process of manufacture or of rendering the service proceeds, recourse has to be made to cost accounting. Cost accounting developed as an advanced phase of accounting science trying to make up the deficiencies of financial accounts and is essentially a creation of the twentieth century. Let us know the meaning of Costing, Cost Accounting and Cost Accountancy.

Costing : Costing is the technique and process of ascertaining costs. It expresses faithfully the actual cost of any particular unit of production and also discloses how such total cost is constituted.

Cost Accounting : It is a normal mechanism by means of which costs of products and services are ascertained and controlled. It embraces all accounting procedures relating to recording of all income and expenditure and the preparation of periodical statements with a view to ascertain

and control costs. Thus, it includes three things : Cost Ascertainment, Cost Presentation and Cost Control.

Cost Accountancy : It is the application of costing and cost accountancy principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It is the science, art and practice of a cost accountant.

16.1.1 Cost Accounting – Definitions:

Walter W. Bigg – Cost Accounting is the provision of such analysis and classification of expenditure as it will enable the total cost of any particular unit of production to be ascertained with reasonable degree of accuracy and at the same time to disclose exactly how such total cost is constituted.

R. N. Carter – Cost Accounting is defined as a system of recording in accounts the materials used and labour employed in the manufacture of a certain commodity or on a particular job.

Wheldon – Costing is the classifying, recording and appropriate allocation of expenditure for the determination of the cost of products or services; and for the presentation of suitably arranged data for purposes of control, and guidance of the management. It includes the ascertainment of cost of every order, job, contract, process; service or unit as may be appropriate. It deals with the costs of production, selling and distribution'.

16.1.2 Objectives of Cost Accounting:

The main objectives of cost accounting are given below:

1. **Ascertainment of Costs :** It enables management to ascertain the cost of a product, job or operation in a systematic way. Expenses relating to a product are collected from diverse sources. In addition to direct expenses relating to a product, joint expenses pertaining to several products are also taken into account (dividend on some equitable basis) while ascertaining the cost of a product**.**

2. **Determination of Selling Price :** Cost Accounting provides useful cost data for fixing the selling price of a product. By dividing the expenses into fixed and variable components, it helps management to fix the price of a product in a scientific manner. For example, in times of falling prices, the manufacturer knows where to stop the production and to what extent he can cut down the prices. The margin at various levels of production can also be found out easily.

3. **Control of Inefficiencies :** Cost Accounting involves the study of various operations in an undertaking. All activities are put to a close examination, with a view to find out the sources of efficiency or inefficiency. Once the weak spots are located through such studies, rectification steps can be initiated promptly to set the things in order. A number of techniques such as standard costing, budgetary control are employed for this purpose.

4. **Facilitates Preparation of Financial Statements :** Cost accounting facilitates the preparation of daily, weekly or monthly reports regarding stock of raw materials, work-in-progress, and finished goods. It helps management to take stock of production, sales and operating results from time to time and prepare financial statements as and when required.

5. **Provides Basic for Operating Policy :** Cost accounting helps management in the planning and execution of operating policies relating to : (i) cost – volume relationship, (ii) shutting down or operating the plant incurring losses, (iii) make or buy decisions and (iv) producing with existing plant and equipment or replacing them with improved facilities.

16.2 LIMITATIONS OF FINANCIAL ACCOUNTING

Financial Accounting is concerned with recording, classifying and summarising financial transactions pertaining to an accounting period. The basic objective is to provide a commentary to the shareholders and outside parties on the financial status of an enterprise in the form of a profit and loss account and balance sheet. The profit or loss of business operations is revealed through these statements year after year; observing the statutory requirements of the Companies Act, 1956.

Cost Accounting, on the other hand, aims at providing cost data for managerial planning, controlling and decision – making. It provides a complete explanation as to how the scarce inputs are put to use in business. The sources of efficiency or inefficiency are revealed through periodical reports. The profit or loss relating to each job, department or product can also be found out easily.

Financial Accounting provides a post-mortem examination of past events and, hence, not amenable for exercising control measures. It does not offer a running commentary on the profitability of various jobs, departments or processes in an organisation. These serious limitations have ultimately paved the way for the emergence of cost accounting. Let us now examine the limitations of financial accounting in greater detail :

1. Financial Accounting discloses only the net result of the collective activities of the business as a whole. It does not indicate the profit or loss of each department, job, process or contract.
2. Expenditure is not split up according to departments, process and products and, hence, prices of articles manufactured cannot be fixed accurately.
3. Financial accounting does not indicate the remunerative prices which may be quoted in times of depression.
4. It does not ensure proper control over materials and supplies, wages, labour and overheads.
5. Expenses are not classified as direct and indirect items and are not assigned to the product at each stage of production to show the controllable and uncontrollable items of overhead cost.
6. It does not provide any measure to judge the efficiency of the concern.
7. Financial Accounting is purely historical, since the data is summarised at the end of the accounting period. Prompt cost information on a day – to – day basis is not available.
8. It does not provide a complete analysis of losses due to idle time, idle plant and equipment.
9. It does not offer cost data for comparison with previous periods.

Despite these limitations, financial statements remain the basic documents from out of which cost information is obtained.

As we are aware, the trading and profit and loss accounts portray overall results of working of an enterprise during a specified period. Whereas costing, with its objective and analytical approach, discloses the detailed information relating to profit or loss. The information contained in financial statements is digged, analysed and presented in a convenient form, facilitating managerial planning and control. The limitations of Financial Accounting and the use of Cost Accounting can be seen vividly from the following example.

Trading and Profit and Loss Account for the Year ending 31st March, 2002

Dr. **Cr.**

	Rs.		**Rs.**
To Materials	15,000	By Sales	30,000
To Wages	5,000		
To Productive expenses	2,500		
To Gross profit c/d	7,500		
	30,000		**30,000**
To Administrative expenses	2,500	By Gross profit b/d	7,500
To Selling & Distribution expenses	2,000		
To Net profit	3,000		
	7,500		**7,500**

The above figures throw light on the financial status of the firm in aggregate. They do not reveal as to how various individual departments are performing within the firm. Costing helps management in finding out the answers to such questions. Suppose there are three products in the concern and the information, as presented in financial statements, is generated department wise is given as follows:

Particulars	**Product A Rs.**	**Product B Rs.**	**Product C Rs.**	**Total Rs.**
Direct Materials	5,000	8,000	2,000	15,000
Direct Wages	1,500	3,050	450	5,000
Prime cost	**6,500**	**11,050**	**2,450**	**20,000**
Works overhead	800	1,000	700	2,500
Cost of Production	**7,300**	**12,050**	**3,150**	**22,500**
Overheads:				
Administrative	1,200	700	600	2,500
Selling & Distribution	1,000	750	250	2,000
Total Cost	**9,500**	**13,500**	**4,000**	**27,000**
Sales	12,000	15,000	3,000	30,000
Profit	**(+) 2,500**	**(+) 1,500**	**(-) 1,000**	**(+) 3,000**

The statement reveals that products A and B are functioning profitably. Product C, however, is languishing behind, and because of this product the overall profitability has come down to 10 percent. On the basis of this information management can :

(i) Discontinue Product C,
(ii) Increase its selling price,
(iii) Decrease its production cost, or
(iv) Divert investment to other products.

16.3. IMPORTANCE OF COST ACCOUNTING

Cost Accounting offers a number of benefits to management, employees, creditors, government and society in general. The importance of cost accounting can be understood after going through the following benefits derived from it.

16.3.1. Benefits to Management:

Cost Accounting helps management in carrying out its functions efficiently and effectively in the following way.

(i) Planning : Cost Accounting ascertains costs of different courses of action and provides a sound basis for picking up a suitable course of action. It compiles up-to-date cost data, analyses by products, operations, elements, functions and departments and presents them in a suitable form. Based on such data, management can plan its future operations in a competent way.

(ii) Budgeting : Cost Accounting is not a post-mortem examination of past events. It is a system of foresight. It does not merely record actual costs incurred but works out estimated and standard costs for exercising control. It prepares budgets for future operations based on past experience and likely changes in future. It helps management to make an objective assessment of organisational strengths, weaknesses, opportunities and threats (SWOT Analysis) before undertaking a project.

(iii) Decision – Making : Cost Accounting compels management to arrive at decisions based on cost data, in place of trial and error judgements. Valuable cost data enables management to decide issues such as: make or buy, expand or contract business activities, putting scarce inputs to effective use, evaluating the profitability of various alternatives, selling below cost price etc.

(iv) Organising : Cost Accounting requires that the work in an organisation must be logically divided, in the form of departments, cost centres and responsibility centres. Work is clearly earmarked for various departments such as purchasing, inspection, storage and accounting departments. An efficient system of communication is also promoted between these departments using printed forms, rulings and statements.

(v) Controlling : Cost Accounting serves as a means of control in the following ways:

(a) A sound system of material control in the form of buying, receiving, inspection, storage, issue of materials prevents wastage, pilferage, under-and-over stocking of materials at various levels. The fixation of stock levels and inventory control ensures regular and adequate supply of materials of right quality whenever required.

(b) A proper system of control over labour costs by job and time records helps management avoid idle time, defective work etc. and utilise human assets in the best possible way.

(c) Plant capacity and other facilities are employed in the best possible way.

(d) It provides systematic and comparative records to management, facilitating the introduction of corrective measures at the right time.

(vi) Pricing : Cost Accounting provides useful data for quoting appropriate prices for domestic as well as foreign markets (by employing techniques such as marginal costing, budgeting) well a head of production schedule. It also enables management to fix minimum prices during depression by dividing expenses into fixed and variable components.

(vii) Efficient use of Resources : Cost Accounting conducts a continuous war against wastes of all kinds. The standards for measuring efficiency are established initially. Deviations checked promptly, weak spots are identified, and remedial steps taken up

earnestly. The reasons for profit or loss during a period are analysed thoroughly for future guidance. Every attempt is made to put resources to the best possible use. Unprofitable products, activities are dispensed with. Costs and revenues of two products, two periods, two departments etc., are compared from time to time with a view to improve efficiency continuously.

16.3.2. Benefits to Employees:

Cost Accounting offers a number of benefits to employees in the following ways :

i. It facilitates the introduction of various incentive schemes and bonus plans and, thus, offers adequate rewards for efficient and sincere workers.
ii. Employee performance is appraised in a scientific manner, by setting standards of efficiency, and measuring the same through time and motion studies. Job and time cards help management in finding out people who are regular, productive and, therefore, deserve promotions from time to time.
iii. Workers get continuous employment, overtime incentive, better job security and larger compensation owing to increased prosperity of industries.

16.3.3. Benefits to the Creditors:

Bankers, debenture – holders and other creditors study the data provided by cost accountants to ascertain the solvency, profitability and future prosperity of an enterprise before they lend. The reports submitted by cost accountants immensely help them in taking right decisions.

16.3.4. Benefits to the Government :

The procedures and techniques of cost accounting are useful in preparing national plans aimed at achieving economic progress. In order to decide things pertaining to taxation, import and export policies, price ceiling, granting of quotas and subsidies, Government requires cost data relating to various industries. It is also interested in seeing that corporate funds are not squandered away in uneconomical activities. Cost Audit is, therefore, made compulsory now for industries belonging to Cement, Tyres, Refrigerators, Motor Vehicles, Tractors, Vanaspathi, Cotton Textiles etc.

16.3.5. Benefits to the Society:

Costing offers innumerable benefits to the society in the following ways:

i. It wages a war against wastes of all kinds. Consumers, therefore, get quality goods at an economical price.
ii. It brings stability by improving managerial and operating efficiency.
iii. Cost saving and cost reduction efforts carried out by various firms help in curbing inflationary tendencies in the economy.
iv. Continuous employment opportunities are provided to various sections in te society when Cost Accounting procedures, methods and practices are followed in different industries.

16.4. LIMITATIONS OF COST ACCOUNTING

Cost accounting can never be an exact science because of the inherent element of judgement. There is often, no uniformity in costs ascertained by different cost accountants using the same data. Disagreements in the cost of a product usually arise owing to different procedures of cost ascertainment, allocation and apportionment followed by cost accountants. For this reason, cost results must be accepted as reasonable approach to accuracy and not as price measurements. Accuracy in cost accounting is, therefore, relative. Unless uniform

principles are followed in the collection, allocation and apportionment of expenses, results are bound to be different. Also, costs have no utility in themselves. Their usefulness, to a large extent, depends on how promptly remedial steps are taken up by top management, once certain loopholes are detected and pointed out by the cost accountant.

1. **It is expensive :** The system of cost accounting involves additional expenditure to be incurred in installing and maintaining it. However, before installing it, care must be taken to ensure that the benefits derived is more than the investment made or this system of accounting.

2. **The system is more complex :** As the cost accounting system involve number of steps in ascertaining cost such as collection and classification of expenses, allocation and apportionment of expenses, it is considered to be complicated system of accounts. Moreover, the system makes use of several documents and forms in preparing the reports. This will tend to delay in the preparation of accounts.

3. **Inapplicability of same costing method and technique :** All business enterprises cannot make use of a single method and technique of costing. It all depends upon the nature of business and type of product manufactured by it. If a wrong technique and method is used, it misleads the results of business.

4. **Not suitable for small scale units :** A cost accounting system is applicable only to a large sized business but not to a small sized business but not to a small – sized one. Hence, there is limitation to its application to all types of business.

5. **Lack of accuracy :** The accuracy of cost accounting get distorted owing to the use of notional cost such as standard cost, estimated cost etc.

6. **It lacks social accounting :** Cost accounting fails to take into accounts the social obligations of the business. In other words, social accounting is outside the purview of cost accounts.

16.5. INSTALLATION OF COSTING SYSTEM

16.5.1. Some Practical Difficulties :

Several practical difficulties may come in the way of installing a system of cost accounting in a concern. These may be stated as follows:

1. **Lack of Support :** Many a time a system of cost accounting is introduced without adequate preparation. The Managing Director may be interested in introducing the system but not others in the top management. At other times, the management may be interested in installing the system, but not the departmental heads. This problem can be overcome if discussions are held at various levels in a proper manner, before introducing a system of cost Accounting.

2. **Resistance at lower levels :** Employees at lower levels may have certain emotional objections against the introduction of a system of cost accounting. They may label the same as another device to extract additional work. In such case, the management must try to sell the concept sincerely. They must explain as to how the system is going to work and how the employees are going to get various kinds of benefits from time to time.

3. **Shortage of Trained taff :** Cost Accounting requires sills of a special kinds for its success. Unless it is installed and implemented in a careful manner, success cannot be

guaranteed. This, however, is not easy. Trained staff may not be readily available to translate the plan into action. In such cases, it is better to train the existing hands first before installing a system of cost accounting.

4. **Cost :** To keep the costs under control, unnecessary sophistication and formalities may be dispensed with. Cost Accounting may prove to be useless if it is installed as a decorative piece. The system must be designed in such a way that the basic requirements of a concern for prompt cost information must be served in an economical manner.

16.5.2. Factors to be considered before Installing a Cost Accounting System

The following factors are to be considered before installing a cost accounting system in any organisation.

1. **History of the organisation :** The history of an organisation implies the duration of its existence, position in the industry, the rate of growth, policy and philosophy of management. The history of business unit serves as the basis for designing the cost accounts in respect of necessity, simplicity, and investment involved in installing cost accounts.

2. **Nature of the industry :** The method of costing to be installed depends on the nature of industry. The nature of business such as manufacturing, mining, trading etc., determines the costing techniques to be applied. Similarly, the type of product manufactured also determine the determine the method of costing that is to be employed.

3. **Technical Consideration :** Technical consideration that influence the installation of cost accounts are : size and layout of the factory; existence of production and service departments, flow of production; capacity of machines and degree of mechanisation; existence of laboratories internal transport and material handling equipment's; production control techniques; inspection of testing of materials and finished goods.

4. **Organisational factors :** The organisational factors to be considered are : (a) size and the type of organisation such as line, line and staff, functional and committee organisation (b) the levels of management, viz., top level, middle level and bottom level management, (c) extent of delegation and responsibility (d) extent of centralisation and decentralisation, (e) extent of departmentation, (f) availability of modern office equipment's, and (g) number of managerial and supervisory staff.

5. **Selling and distribution method :** The chief factors to be considered with regard to distribution process are the warehousing facilities, external transport, market research and other promotional measures, terms of sale and procurement of orders from customers.

6. **Accounting aspects :** The factors to be considered in respect of accounting are: number of financial records, existing forms, registers used, and number of copies required.

7. **Area of control to be exercised :** The areas where cost control is to be exercised is to be identified so that each manager may take action relevant to his activities. If material control occupies significant area of control, it must be given top most priority for exercising control over materials.

8. **Reporting :** The cost accounting system to be installed must ensure proper reporting of cost data to all levels of management. It must also to be pointed out that duplication of reporting is to be avoided.

9. **Uniformity :** The practice of adopting uniform costing facilitates inter-firm comparison among various firms belonging to the same industry. further, it also has the benefit of adopting common costing practice if a holding company has number of subsidiaries.

10. **Use of electronic data processing :** Now a days it has become a common practice to use computers everywhere. In this situation it is essential to ensure that the computers meet the needs of the system.

11. **Practical Consideration :** The cost accounting system to be installed must be flexible in operation and must be capable of adoption to changing conditions. The system must be periodically scrutinised so as to make necessary changes owing to development in business.

16.5.3. Ideal system of Cost Accounting:

An ideal system of cost accounting when installed and handled properly will be able to offer a number of benefits to management, employees in particular and society in general. Such a system must possess the following features :

1. **Suitable :** It must be suitable. It must be devised according to the nature, conditions, requirements and size of the organisation.
2. **Simple :** It must be simple and easy to understand and implement.
3. **Flexible :** The system must be flexible enough to take note of changes that confront an organisation from time to time.
4. **Economical :** The system must be cost – effective. The benefits must outweigh the costs.
5. **Comparable :** The management must be able to make comparison of facts with the past figures, figures of other concerns or other departments of the same unit.
6. **Timely :** it must be able to provide useful cost data when required.
7. **Uniform :** All forms and proformas etc., necessary to the system should be of uniform size and quality.
8. **Labour – saving :** The system must involve minimum clerical work. Employees should feel it easy while implementing the system.
9. **Control :** It must provide for a satisfactory system of control over materials, labour and overhead costs.
10. **Reconciliation :** The system must be so devised that the financial as well as cost records are capable of easy reconciliation.

16.6. FINANCIAL ACCOUNTING VS. COST ACCOUNTING

Basis for Difference	Final Accounting	Cost Accounting
1. Objective	The objective is to find out the profitability of operations during a particular period for the benefit of owners and outsiders.	The objective here is to help management through the provision of prompt cost data and thereby improve managerial decision making.
2. Coverage	Here, the transactions are recorded for a definite	Here the transactions are identified with cost units.

	period. It mainly deals with all commercial transactions.	Attention is focussed on transactions relating to manufacturing.
3. Analysis of Costs	In Financial accounting the expenditure is analysed item-wise, e.g., wages, salaries, depreciation etc., hence it is not amenable for offering a commentary.	Records expenses by departments, elements, produces or processes to study them analytically.
4. Analysis of profits	The profitability of individual products or departments is not known.	The profits or loss relating to each job, process, operation department can be found out.
5. Material control	Material control is not ensured, as figures are not available.	A systematic procedure for purchasing, storing and issuing of materials exists.
6. Labour cost control	Wage sheets under financial accounting do not reveal labour efficiency, idle time and effective hours of work. Hence, control not possible.	Labour time records and wage sheets permit management to find out effective and idle hours and ensure control accordingly.
7. Cost Classification	Distinction between fixed (uncontrollable) and variable (controllable) costs not maintained.	Costs are classified into fixed and variable elements and attention is focussed on controllable costs, which can be reduced by suitable steps.
8. Stock Valuation	Here, stock valued at cost price or market price, whichever is less.	Here stock is valued at cost.
9. Control means	Does not provide any means to measure the efficiency and exercise control over costs.	Techniques like standard costing employed to ensure control over operations.
10. Recording	Records actual (historical) costs. It is only a post-mortem examination of events that have taken place, leaving very little room for initiative corrective steps promptly.	Actual facts are combined with estimated ones while recording transactions. Transactions are recorded in an objective manner, according to the purpose for which costs have been incurred.
11. Comparison	Data here is not sufficient for drawing inter–period and inter-firm comparisons from time to time.	Detailed comparison of results of two periods or two firms in an industry possible in cost accounting.
12. Legal need	Statements prepared as per the legal requirements, i.e., as laid down by Companies Act, Income Tax Act.	Statements prepared internally as per the managerial requirements.
13. Approach	Data generated for external parties. Deals with external	Data generated for managerial decision-making.

	transactions.	Deals with internal transactions.

16.7 SELF ASSESSMENT QUESTIONS

A. Very short answer questions (5 lines)

1. Costing
2. Cost Accounting
3. Cost Accountancy
4. Financial Accounting

B. Short Answer questions (10 lines)

1. What is Costing ?
2. Define Costing.
3. Explain the advantage of costing
4. Explain the relationship between cost accounting and management accounting.
5. What are the characteristics of good system of costing?
6. Explain the objectives of cost accounting.
7. Define the concept of Cost Accounting.

C. Essay type questions.

1. Define Cost Accounting and discuss the nature and scope of Cost Accounting Define cost accounting and explain the advantages of it.
2. Explain the benefits and limitations of cost accounting.
3. Describe the objectives and advantages of cost accounting
4. What is the necessity of cost accounting ? What are the differences between Financial Accounting and cost accounting?
5. "A good system of costing serves as a means of control over expenditure and helps to secure economy in manufacture." Explain.
6. Distinguish between Financial Accounting, Cost Accounting and Management Accounting.
7. Describe the relationship between cost accounting and financial accounting. What are the advantages of cost accounting.
8. Define Cost accounting. Explain the differences between cost accounting and financial accounting.
9. Explain the functions and advantages of cost accounting.
10. What essential points should be kept in view while installing a new costing system?
11. Explain the terms of Costing, Cost Accounting and Cost Accountancy.
12. State the advantages and disadvantages of maintaining cost accounts.
13. What are the functions and characteristics of a good costing system?
14. Bring out the pre – requisites for the installation of cost accounting system.

16.8 SUGGESTED READINGS

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Chapter – 17

UNDERSTANDING AND CLASSIFICATION OF COSTS

17.0: Objective :

After going through this unit we should be able to :

- Understand the meaning of cost
- Classify the cost and the basis of time, volume, functions and controllability
- Know the components of total cost
- Prepare the cost sheet

Structure :

17.1 Introduction
17.2 How is ``cost '' Understood?
17.3 Cost Classification
17.4 Components of Total Cost
17.5 Cost Sheet
17.6 Self Assessment Questions
17.7 Exercises
17.8 Suggested Readings

17.1 INTRODUCTION

The term ``costs'' is the important component of accounting subject. There cannot be any system of accounting without the word costs. Financial Accounting, Cost Accounting and Management Accounting are mostly associated with costs. But, the most confusion causing component also is cost because, costs as such make no sense. There must be same prefix (or) suffix to this term costs, in the absence of which, one cannot make anything from it. It means that the mere word costs doesn't make any sense. If it is production costs, it makes same meaning. Similarly, if it is costs of sales, it makes some sense. Hence, it must be carefully understood.

17.2 HOW IS ``COST'' UNDERSTOOD?

Cost cannotes different meanings to different people.

- **CIMA (Chartered Institutes of Management Accountants] of London defines cost as :** It is the amount of expenditure (Actual/Notional) incurred or attributable to a specified thing (or) activity.
- **AICPA (American Institute of Certified Public Accountants) committee on terminology defines costs as :** The amount measured in money, of cash expended (or) other property transferred, capital stock issued, services performed (or) a liability incurred in considerations of goods or services received or to be received.
- **Shilling law :** Costs is defined as the resources that must be sacrificed to attain a particular objective.

Thus, the term costs is to be understood.

17.3 COST CLASSIFICATION :

Cost Classification is grouping up of Cost having similarity. It means that all costs that are alike are grouped under one heading. This can be done on several criteria like : time, volume, functions, elements, controllability etc.

17.3.1. Cost Classification by Time :

Cost can be divided into Historical costs and pre determined costs. Historical costs are the costs that were spent or incurred for the purpose of securing some benefits. Pre-determined costs may be both Expected Costs and standard costs. Expected costs are the costs that are guessed based on past and human judgement. They may be exact (or) not. On the other hand, standard costs are costs which are very much systematically, scientifically and professionally determined by professional experts. These standard costs are used as bench marks for evaluating the performance. Standard costs are set for all elements of costs viz., material, labour and expenses.

17.3.2. Cost Classification by Volume :

Costs are divided into Fixed costs, variable costs and semi-fixed, semi-variable costs, based on the volume of output.

Fixed Costs are the costs that do not change in sympathy with changes in output. Normally, they are common for all lavels of output and for a period also. In the short run, they are fixed. But beyond a particular level and time period also, these costs may vary. Fixed costs are often called period costs. Eg. : Rent, Insurance, Repairs on buildings etc.

Variable Costs : The opposite of fixed costs is variable costs. They vary in sympathy with changes in output. So, if volume varies, costs also vary. Hence, they are known as Variable Costs. Variable costs are also known as direct costs. Eg. Material cost, Labour cost etc.

Semi Variable (or) Semi Fixed Costs :

These costs are not exactly variable costs (or) fixed costs. These are variable to some extent and fixed to some extent. Eg. Maintenance of Motor Vehicles, Electricity, Telephone expenses, service Department wages. In the case of 1st one, the total cost may include some fixed components towards depreciation at a flat rate and some variable component towards cost of fuel oil which is incurred in proportion to the use of the vehicle. Thus, it is good example of semi variable (or) semi fixed cost. The 2nd example also can be discussed on a similar basis.

17.3.3. Cost Classification by Functions :

It is assumed that there are three important functions to any organisation in general. They are (I) Manufacturing (2) Office and Administration and (3) Selling and Distribution. Accordingly, Cost is ascertained for these functions.

1. **Manufacturing Costs :** Manufacturing costs is a total of all direct (or) variable costs of manufacture and manufacturing overheads. So, it is an aggregate of direct material, direct labour, direct expenses and some indirect costs (Manufacturing overheads)

2. **Office/Administration Cost :** It is cost of formulating a policy, directing the organisation and controlling the operations of an undertaking which is not directly related to production, selling, distribution, research or development. Thus, it includes all office expenses, remuneration paid to managers, directors, legal expenses, depreciation of office premises.
3. **Selling and Distribution costs :** It is the cost of seeking and stimulating demand and the cost of dispatching and delivering products. Eg. Advertisement expenses, sales promotion expenses, warehouse rent, loading expenses etc.

17.3.4 Cost Classification by Controllability :

Cost Classification can also be made based on controllability. There can be two types of costs.

Controllable Costs : It is a cost which can be controlled by the business actions. Eg. Direct material, Direct labour etc.

Uncontrollable Costs : These costs are not available for control. It means that we are not able to control them by means of human action. Eg., Fixed Costs like : Rent, Insurance etc.

17.3.5 Cost Classification by Elements and Nature of Cost :

Broadly, elements of costs are three. They are : Materials, labour and expenses. Further, each of these can be divided into direct and indirect costs based on the nature of cost. Material Cost is divided into direct material cost and indirect material cost.

1. **Direct Material Cost :** It is any material cost which is directly assignable or chargeable to a product/a cost centre/cost unit.
2. **Indirect Material Cost :** As in the case of direct material cost, it is not chargeable/assignable directly to a product or a cost centre but charged separately. Ex. Oil, grease, printing.
3. **Direct labour Cost :** Any assignable and chargeable labour cost to a product/service/cost centre is called Direct labour cost. Eg. Wages paid to Mr.A and Mr. B on a product XYZ.
4. **Indirect Labour Cost :** It is any labour cost not directly chargeable to product but charged separately. Eg. Store keepors, inspectors, time booking, time keeping offices etc.
5. **Direct Expenses :** These are also direct but they are over and above direct material and direct labour costs. Chargeable or assignable to a product/service/cost centre. Eg. Cost of special experiment, machinery, drawings etc. for a specific product.
6. **Indirect Expenses :** These are all indirect expenses which may include anything over and above indirect material and indirect labour. Eg. Rent, Taxes etc.
7. **Direct Costs :** It is any cost that is directly chargeable to a product/cost centres.
8. **Indirect costs :** It is any cost to be charged to the product but not chargeable/assignable directly to a product.

Overheads :

This is a concept which tells that it is another general word used to signifiy all indirect cost in the organisation. So, Overhead is an aggregate of all indirect costs. It includes all indirect materials, indirect labour and indirect expenses. This overhead can be classified again on the basis of functions seen earlier. Thus, there may be manufacturing overheads, office overheads and selling distribution overheads.

17.4 COMPONENTS OF TOTAL COST

Total Cost is the sum of all costs associated with a particular unit, or process or department or batch or the entire concern. It comprises of cost of production, and selling and distribution expenses. It is also called `Cost of Sales'. It includes (1) Prime cost (2) Factory cost (3) Office Cost (4) Cost of Sales.

Components of Total Cost

Direct Materials Direct Labour Direct Expenses	**Prime Cost**
Prime Cost +Factory overheads	**Factory Cost**
Factory Cost + Office Overheads	**Office Cost**
Office Cost + Selling and Distribution overheads	**Total Cost**
Total Cost + Profit/Loss	**Sales**

Let us know explain the above chart starting with prime cost.

1. **Prime Cost :** It consists of costs as direct material, direct labour, and direct expenses. It is also known as basic, first or flat cost
2. **Factory Cost :** It comprises prime cost, in addition, works or factory overheads which include costs of indirect material, indirect labour and indirect factory expenses. This cost is also known as works cost, production or manufacturing cost.
3. **Office Cost :** It comprises of factory cost and office and administration overheads. This is also termed as total cost of production.
4. **Office Cost :** It comprises of factory cost and office and administration overheads. This I also termed as total cost of production.
5. **Total Cost :** It comprises of cost of production and selling and distribution overheads. It also termed as Cost of sales.

17.4.1. Items to be included under various overheads :

A. Factory Overheads :

1. Factory rent, Insurance, Taxes	11. Consumable Stores
2. Depreciation on Plant & machinery	12. Cotton, Waste, Greece
3. Cost of Fuel and Coal	13. Workmen Compensation
4. Gas, Electricity, Steam	14. Normal Wastage of Materials
5. Salaries of works manager	15. R & D. Expenses
6. Repairs and Depreciation on Factory Buildings	16. Normal Idle Time
7. Canteen and Recreation Expenses	17. Factory Lighting, heating
8. Workers Recruitment and Training expenses	18. Internal transport, watch and ward
9. Drawing, Office expenses	19. Stores maintenance expenses
10. Purchase Dept. Expenses	20. Service Dept. Expenses

B. Office Overheads :

1. Office Salaries	7. Subscription to trade association
2. Counting Office salaries	8. Office Lighting & Heating
3. Rent, Depreciation of Office buildings	9. Bank expenses, Subscriptions to journals
4. Repairs, depreciation on Office furniture	10. General Manager's salary
5. Office Stationery, Postage, Telephone	11. Directors fees
6. Audit fees, legal expenses	12. Depreciation on accounting machinery

C. Selling & Distribution Overheads :

1. Advertisement expenses	9. Delivery van repairs
2. Sales staff salaries, commission	10. Sales branch expenses
3. Sales representative expenses	11. M.T.s Repairs
4. Samples, Catalogues	12. Special packing expenses
5. After sales services	13. Stock loss on transport
6. Showroom rent and lighting	14. Demonstration expenses
7. Warehouse insurance, staff salaries	15. Discount to consumers
8. Loss on stock in warehouse	16. Sales Office expenses

17.4.2 Items excluded from Cost Sheet :

The total cost of a product should include only those items of expenses which are a charge against profit. Items of expenses which are relating to capital assets, capital losses, payments by way of distribution of profits are matters of pure finance. They should not form a part of the costs. The following are the examples of such expenses.

1. Expenses on acquisition of capital	9. Goodwill
2. Dividends on capital	10. Income tax
3. Abnormal Wastage of materials	11. Charities
4. Discount on Debentures	12. Donations, staff pension fund
5. Underwriting commission	13. Transfer of reserves
6. Preliminary expenses	14. Capital losses
7. Cost of abnormal idle time	15. Rent, interest and commission received
8. Fines and penalties	16. Compensation

17.5 COST SHEET

Cost Sheet is a statement presenting the items entering into cost of products or services. It shows the total cost components by stages and cost per unit of output during a period. It is usually prepared to meet three objectives : to prepare estimates of costs for future use; to facilitate a comparative study of costs with previous cost sheets; and to know the cost trends.

Specimen of Cost Sheet

Particulars	**Total Cost Rs.**	**Cost per unit Rs.**
Direct Materials :		

Opening stock of Materials	X x x	
Add : Purchase of Materials	X x x	
	X x x	
Less : Closing stock of materials	X x x	X x x
Direct wages		X x x
Direct expenses		X x x
Prime Cost		X x x
Add : Factory Overheads		
Factory rent, rates, taxes	X x x	
Fuel, power and water	X x x	
Lighting and heating	X x x	
Indirect wages	X x x	
Depreciation, repairs	X x x	
Salaries of works manager	X x x	
Indirect materials	X x x	
Drawing office and works office expenses	X x x	
Depreciation on Factory building	X x x	X x x
Works Cost/Factory Cost		**X x x**
Add : Office Administration overheads		
Office rent, insurance lighting	X x x	
Office salaries, telephone	X x x	
Law and audit expenses	X x x	
Director's remuneration	X x x	
General Manager's salary	X x x	
Printing and stationery	X x x	
Maintenance repairs	X x x	
Bank charges	X x x	
Miscellaneous expenses	X x x	X x x
Cost of Production		**X x x**
Add : Opening stock of finished goods	X x x	
Less : Closing stock of finished goods	X x x	
Cost of goods sold		**X x x**
Add : Selling and Distribution Overheads	X x x	X x x
Show room expenses, salesmen's salaries & Commission, warehouse rent, carriage outwards, advertising, delivery expenses, samples and free gifts etc.		
Cost of Sales	X x x	X x x
Add : Net profit (or deduct net loss)	X x x	X x x
Sales	**X x x**	**X x x**

Illu.1 : From the books of accounts of M/s Aryan Enterprises, the following details have been extracted for the year ending March 31st, 2006.

	Rs.
Stock of Materials :	
Opening Stock	**1,88,000**
Closing Stock	**2,00,000**
Materials purchased during the year	**8,32,000**

Direct wages paid	**2,38,400**
Indirect wages	**16,000**
Salaries to Administrative staff	**40,000**
Freights :	
Inward	**32,000**
Outward	**20,000**
Cash discount allowed	**14,000**
Bad debts written off	**18,800**
Repairs to Plant & Machinery	**42,400**
Rent, Rates and Taxes – Factory	**12,000**
Office	**6,400**
Travelling expenses	**12,400**
Salesmen's salaries and commission	**33,600**
Depreciation written off	
Plant & Machinery	**28,400**
Furniture	**2,400**
Directors' fees	**24,000**
Electricity charges (factory	**48,000**
Fuel (for boiler)	**64,000**
General charges	**24,800**
Manager's salary	**48,000**

The Manager's time is shared between the factory and the office in the ratio of 20:80. From the above details you are required to prepare (a) Prime Cost (b) Factory Overheads (c) Factory Cost (d) General Overheads and (e) Total Cost.

Solution :
M/s Aryan Enterprises
Cost sheet for the year ending 31-3-2006

	Rs.	**Rs.**
Direct Material Consumed		
Opening Stock	1,88,000	
Add : Purchases	8,32,000	
	10,20,000	
Add : Freight inward	32,000	
	10,52,000	
Less : Closing stock	2,00,000	8,52,000
Direct wages		2,38,400
Prime Cost (a)		**10,90,400**
Factory Overheads (b)		
Indirect wages	16,000	
Repairs to plant & machinery	42,400	
Rent, Rates and Taxes – factory	12,000	
Depreciation – Plant and Machinery	28,400	
Electricity charges	48,000	
Fuel	64,000	
Manager's salary (Rs.48,000 x 20%)	9,600	2,20,400
Factory Cost ©		**13,10,800**
General Overheads (d)		

Salaries to Administrative staff	40,000	
Freight outward	20,000	
Rent, rates and Taxes – Office	6,400	
Travelling	12,400	
Salesmen's salaries and Commission	33,600	
Depreciation – Furniture	2,400	
Bad debts	18,800	
Director's fees	24,000	
General charges	24,800	
Manager's salary (Rs.48,000 x 80%)	38,400	2,20,800
Total Cost (E)		**15,31,600**

Notes :

1. Cash discount, being a financial item, has been excluded from cost accounts. However, normal bad debts are taken as a part of selling overheads and therefore, have been included in costs.
2. General overheads include all overheads other than factory overheads.

Illu.2 : The following data have been extracted from the books of M/s Moonshire Industries Ltd., for the calendar year, 2006.

	Rs.
Opening stock of Raw material	**25,000**
Purchases of Raw Material	**85,000**
Closing stock of Raw Material	**40,000**
Carriage inward	**5,000**
Wages – Direct	**75,000**
Indirect	**10,000**
Other Dividend charges	**15,000**
Rent and Rates – Factory	**5,000**
Office	**500**
Indirect consumption of material	**500**
Depreciation – Plant etc.	**1,500**
Office Furniture	**100**
Salary – Office	**2,500**
Salesman	**2,000**
Other factory expenses	**5,700**
Other office expenses	**900**
Managing Director's Remuneration	**12,000**
Other selling expenses	**1,000**
Travelling expenses of salesman	**1,100**
Carriage and Freight outward	**1,000**
Sales	**2,50,000**
Advance income tax paid	**15,000**
Advertisement	**2,000**

Managing Director's remuneration is to be allocated, Rs.4,000 to factory Rs.2,000 to the Office and Rs.6,000 to selling depts. From the above information prepare (a) Prime Cost (b) Works cost (c) Cost of production (d) Cost of Sales

(e) Net profit.

Solution :

M/s Moonshine Industries Limited
Statement of Cost and Profit for the year 2006

	Rs.	**Rs.**
Material consumed		
Opening Stock	25,000	
Add : Purchases	85,000	
Add : Carriage inward	5,000	
	1,15,000	
Less : Closing stock	40,000	75,000
Wages		75,000
Other Direct wages		15,000
Prime Cost		**1,65,000**
Factory Expenses		
Indirect wages	10,000	
Rent and Rates	5,000	
Indirect material	500	
Depreciation of Plant	1,500	
Other factory expenses	5,700	
Managing Director's Remuneration	4,000	26,700
Factory Cost		**1,91,700**
Office and Administrative Expenses		
Rent and Rates	500	
Depreciation on Office Furniture	100	
Salary	2,500	
Other Office expenses	900	
Managing Director's Remuneration	2,000	6,000
Cost of Production		1,97,700
Selling & Distribution Expenses :		
Salary – Salesmen	2,000	
Managing Director's remuneration	6,000	
Other selling expenses	1,000	
Advertisement	2,000	
Travelling expenses	1,100	
Carriage and freight outward	1,000	13,100
Cost of sales		**2,10,800**
Profit		39,200
Sales		**2,50,000**

Note : Income tax is not included as it is not a cost.

17.6.SELF ASSESSMENT QUESTIONS

A. Short Answer Questions

1. What is meant by classification of overheads on time basis?

2. What are the items not to be included in costing?
3. What are the advantages of cost sheet?

B. Essay Type Questions :

1. Explain the various methods of costing.
2. How do you classify costs? State various methods
3. Explain elaborately the parts of total cost and components to be included therein.
4. Explain similarities and differences between cost centre, and cost unit.
5. Discuss the basis for the classification of costs.
6. Define cost. State the items of cost.
7. Explain with examples of fixed and variable expenses.

17.7.EXERCISES

1. The all India Water proof Manufactures Ltd., manufactured and sold 850 water proofs in the year ending 31st March 2003. The summarised Trading and Profit and Loss Account is as follows:

	Rs.		**Rs.**
To Materials	64,000	By Sales	3,20,000
To Direct wages	96,000		
To Manufacturing expenses	40,000		
To Gross profit	1,20,000		
	3,20,000		**3,20,000**
To Office Salaries	48,000	By Gross profit	1,20,000
To Rent, Rates and Taxes	8,000		
To Selling Expenses	16,000		
To General Expenses	24,000		
To Net Profit	24,000		
	1,20,000		**1,20,000**

For the year ending 31st March 2004, it has been estimated that:

(a) Output and sales will be 1,000 waterproofs.

(b) Price of materials will rise by 25% on the previous year's level.

(c) Wages will rise by 12.5%

(d) Manufacturing cost will rise in proportion to the combined cost of materials and wages.

(e) Selling cost per unit will remain unchanged.

(f) Other expenses will remain unaffected by the raise in output.

Prepare a cost statement, showing the price at which the waterproofs would be marketed so as to show a profit at 12% on the selling price.

[Ans.: Prime Cost Rs.2,21,177; Factory Cost Rs.2,76,472; Cost of Production Rs.3,56,472; Total Cost Rs.3,75,296; Selling Price Rs.4,26,473]

2. From the books of M/s. Swamy Associates Ltd., the following balances extracted for the calendar year 2002:

Stock of materials on 1st Jan. 2002 Rs.20,000
Purchases of raw materials Rs.5, 50,000 and returns Rs.11, 000
Stock of finished goods as on 1st Jan. 2002 Rs.25,000
Sale of scrap during the year 2002 Rs.4, 000
Productive wages Rs.2,50,000
Finished goods sold Rs.12,00,000
Works overhead charges Rs.75,000
Office and general expenses Rs.50,000
Stock of materials on 31st December 2002 Rs.70, 000
Stock of finished goods on 31st December 2002 –30,000

Ascertain:

(a) Prime cost
(b) Works cost
(c) Cost of production
(d) Cost of goods sold
(e) Profit / Loss by preparing cost sheet.

[Ans.: Prime Cost Rs.7,39,000; Works cost Rs.8,10,000; Cost of Production Rs.8,60,000; Cost of goods sold Rs.8,55,000; Net Profit Rs.3,45,000]

3. Prepare cost sheet from the following particulars:

Opening materials Rs.30,850
Opening work in progress Rs.60,850
Purchase of materials Rs.1,43,250
Direct wages Rs.1,78,500
Works overheads Rs.1,42,800
Office overheads 1,12,700
Closing material Rs.37,700
Closing work in progress Rs.67,750
Sales for the year Rs.8,60,625.

[Ans.: Prime Cost Rs.3,14,900; Works cost Rs.4,50,800; Cost of Production Rs.5,63,500; Net profit Rs.2,97,125]

4. The following extract of costing information relates to commodity for the half year 30th June, 2005.

	Rs.
Stock on 1st January 2005:	
Raw materials	22,000

Finished product (1,600 tonnes)	17,600
Purchase of raw materials	1,32,000
Direct wages	1,10,000
Rent, rates, insurance and works on cost	44,000
Carriage inward	1,584
Stock on 30th June, 2005:	
Raw materials	24,464
Finished product (3,200 tonnes)	35,200
Work in progress – 1st January 2005	5,280
30th June 2005	17,600
Cost of factory supervision	8,800
Sales – finished goods	3,30,000

Advertising, discount allowed and selling cost 75 paise per tonne sold. 25,600 tonnes of commodity was produced during the period:

You are required to ascertain:
(a) Value of raw materials used
(b) Cost of output for the period
(c) Cost of sales
(d) Net profit for the period and
(e) Net profit per tonne.

[Ans.: Prime Cost Rs.2,41,120; Factory Cost Rs.2,81,600; Cost of production Rs.2,81,600; Cost of goods sold Rs.2,64,000; Net profit Rs.48,000]

5. Prepare Cost Sheet showing the different elements of cost from the following information:

Opening Balances	***Rs.***	***Closing Balances***	***Rs.***
Raw materials	25,000	Raw materials	40,000
Work-in-progress	1,000	Work-in-progress	500
Finished goods	2,000	Finished goods	1,000
Purchase of materials	85,000	Carriage in	5,000
Direct wages	75,000	Indirect wages	10,000
Direct charges	15,000	Rent & Rates:	
Indirect materials	500	Factory	5,000
Other factory expenses	5,700	Office	500
Prepaid income tax	15,000	Depreciation:	
Salaries:		Plant & Machinery	1,500
Office	2,500	Furniture	100
God own	2,000	Manager's remuneration	12,000
Other office expenses	900	Advertisement	2,000
Bad debts	1,000	Carriage out	1,000
Travelling expenses	1,100		
Sales	2,50,000		

Manager's remuneration is to be allocated Rs.4, 000 to Factory, Rs.2, 000 to Office and Rs.6, 000 to Sales departments.

[Ans.: Prime Cost Rs.1,65,000; Net works cost Rs.1,92,200; Cost of Production Rs.2,00,200; Net profit Rs.38,700]

6. From the following particulars, prepare Cost Sheet showing the different elements of cost for the year ending 31-12-1999.

Materials purchased Rs.1,25,000; Works overheads Rs.45,000; Direct wages Rs.1,00,000; Opening materials Rs.23,400; Carriage inwards Rs.1,600; Opening work-in-progress Rs.15,000; Closing materials Rs.20,000; Opening finished goods (2000 tonnes) Rs.30,000; Closing work-in-progress Rs.4,800; Closing finished goods (3000tonnes) Rs.46,000.

Selling and distribution expenses Rs.1.50 per Tonne sold. During the above period 16000 tonnes of units were produced.

[Ans.: Material consumed Rs.1,30,000; Prime Cost Rs.2,30,000; Gross works cost Rs.2,75,000; Net works cost Rs.2,85,000; Cost of goods sold Rs.2,69,200; Total Cost Rs.2,91,700]

7. The following information has been obtained from the records of ABC Corporation for the Period from June 1 to 30, 2002:

	On June 1, 2002	***On June 30, 2002***
	Rs.	***Rs.***
Cost of raw materials	60,000	50,000
Cost of work-in-progress	12,000	15,000
Cost of stock of finished goods	90,000	1,10,000
Purchase of raw materials during June, 2002		4,80,000
Wages paid		2,40,000
Factory overheads		1,00,000
Administration overheads		50,000
Selling and distribution overheads		25,000
Sales		10,00,000

Prepare a statement giving the following information:

(a) Raw materials consumed
(b) Prime cost
(c) Factory cost
(d) Cost of goods sold and
(e) Net profit.

[Ans.: Prime cost Rs.7,30,000; Factory cost Rs.8,27,000; Cost of goods sold Rs.8,57,000; Net Profit Rs.1,18,000]

17.8. SUGGESTED READINGS

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Chapter – 18

ABSORPTION COSTING AND MARGINAL COSTING

18.0 Objective :

After reading this unit we should be able to :

- Know the meaning of absorption costing
- Understand the meaning and definition of marginal costing
- Analyse the differences between absorption costing and marginal costing

Structure :

18.1 Introduction

18.2 Absorption Costing

18.3 Marginal Costing

18.4 Advantages of Marginal Costing

18.5 Limitations of Marginal Costing

18.6 Difference between Absorption Costing & Marginal Costing

18.7 Exercises

18.8 Suggested Readings

18.1 INTRODUCTION :

The cost of a product (or) a process can be ascertained any one of the following Techniques.

(i) Absorption Costing
(ii) Marginal Costing

18.2 ABSORPTION COSTING :

Absorption costing is also known by several names viz., Traditional, Conventional, Full cost method etc. In this system, all costs (both variable and fixed costs) without exception are charged to the products. Variable costs are directly assigned to the products while, fixed costs are apportioned on a suitable basis over various products produced during a period.

Illu.1 : Galexy Co. is manufacturing x, y, z products. Their costs are as under.

Particulars		**X Rs.**	**Y Rs.**	**Z Rs.**
Direct Material p.u.	**Rs.**	**3**	**4**	**5**
Direct Labour	**Rs.**	**2**	**3**	**4**
Selling Price	**Rs.**	**10**	**15**	**20**
Output	**(Units)**	**1,000**	**1,000**	**1,000**

Total overheads are Rs.6,000 out of which Rs.3,000 are fixed and the rest are variable. It is decided to apportions these costs over different products in the ratio of output. You are required to prepare a statement showing cost of each product and profit as per absorption costing.

Solution :

Statement of Cost and Profit
(As per Absorption Costing Technique)

Particulars	**1,000 units**		**1,000 units**		**1,000 units**	
	p.u Rs.	**Total Rs.**	**P.U. Rs.**	**Total Rs.**	**P.U. Rs.**	**Total Rs.**
Direct material	3	3,000	4	4,000	5	5,000
Direct labour	2	2,000	3	3,000	4	4,000
Overheads :						
Variable Overheads	1	1,000	1	1,000	1	1,000
Fixed Overheads	1	1,000	1	1,000	1	1,000
Total Cost	**7**	**7,000**	**9**	**9,000**	**11**	**11,000**
Profit	3	3,000	6	6,000	9	9,000
Selling Price	**10**	**10,000**	**15**	**15,000**	**20**	**20,000**

Total Profit = Rs.3,000 + Rs.6,000 + Rs.9,000 = Rs.18,000

The system of absorption costing suffers from several limitations. It holds that prices are a function of costs. The demand side of the product is totally forgotten. Only history is considered for pricing the product. Charging fixed overheads on an important suitable base brings all the problems. These costs are to be invariably incurred whether there is production (or) no production. This means that cost of the product depends not only upon expenses incurred but also upon volume of activity.

For example, if the costs of material and labour for a unit is Rs.3 and Rs.4 respectively and the fixed costs are Rs.2,000 and the volume of output is 1,000 units. The total cost of production is as under :

	Rs.
Direct material costs	3,000
Direct labour costs	4,000
Fixed Overheads	2,000
Total Costs	**9,000**

The cost per unit comes to Rs.9. In case, the output goes down to 800 units the cost of production will be as follows.

	Rs.
Direct material costs	2,400
Direct labour costs	3,200
Fixed Overheads	2,000
Total Costs	**7,600**

The cost per unit comes to Rs.9.50 p.u. From the above it is clear that the cost of the product has gone up by Rs.0.50 ps. P.u. not because of any increase in DMC or DLC but only because of a lower volume of output. This seems to be a little bit illogical.

Hence, some people argue that Fixed Overheads should not be considered while computing the costs of products. They should rather be charged against the total Fund of contribution arising as a surplus over variable costs. Marginal costing is a tool and appropriate technique explained below and is a technique of cost accounting which deals with this concept.

18.3 MARGINAL COSTING :

Marginal costing is a specific technique of costing in which only variable costs are charged for costing the products, while fixed costs are charged against a fund called contribution which is excess of the selling price over and above the variable costs.

ICMA defines Marginal costing as :

It is a technique where only the variable costs are charged to cost units, the fixed costs attributable being written off in full against the contributions for that period. This will be made clear in the following example.

Illu. 2: Prepare a statement of cost and profit as per marginal costing technique, using the same data in the above example.

Solution :
Statement of Cost and Profit
(As per Marginal Costing Technique)

Particulars	**1,000 units**		**1,000 units**		**1,000 units**	
	p.u Rs.	**Total Rs.**	**P.U. Rs.**	**Total Rs.**	**P.U. Rs.**	**Total Rs.**
Direct material	3	3,000	4	4,000	5	5,000
Direct labour	2	2,000	3	3,000	4	4,000
Overheads :						
Variable Overheads	1	1,000	1	1,000	1	1,000
Total Cost	**6**	**6,000**	**8**	**8,000**	**10**	**10,000**
Contributions	4	4,000	7	7,000	10	10,000
Selling Price	**10**	**10,000**	**15**	**15,000**	**20**	**20,000**

Total fund of contribution from the three products amounts to Rs.21,000 as under.

	Rs.
Total fund of contribution (X = Rs.4,000 + Y = 7,000 + Z = 10,000)	21,000
Less : Total Fixed Cost	3,000
Profit	**18,000**

Thus marginal costing takes only variable costs into account while costing the products. Other details of marginal costing will be dealt with in the following pages.

Marginal Cost :

In general, marginal costs are the total of all fixed costs viz., Direct material cost, Direct labour cost and direct expenses and variable overheads. In other words, it is the total of prime cost and variable overheads.

ICWA, London :

Marginal cost is defined as the amount at any given volume of output by which aggregate costs are changed, if the volume of output is increased or decreased by one unit of output. In one way, it is the additional cost of producing one additional unit.

Illu.3 Milton Plastic works produce plastic cans. The variable cost of the can is Rs.5. The fixed costs per annum are Rs.5,000. Currently, 200 cans are being produced. The cost sheet is as under.

	Rs.
Variable cost (Rs.200 x 5)	**1,000**
Fixed Costs	**5,000**
Total Cost	**6,000**

If production is raised by one unit (plastic cans) the cost sheet for 201 cans would be as under :

	Rs.
Variable cost (Rs.201 x 5)	**1,005**
Fixed Costs	**5,000**
Total Cost	**6,005**

Marginal cost is Rs.5 (i.e., cost of producing one additional unit). Thus, marginal costs include only variable costs. Within the capacity of the organisations an increase of one unit in production, obviously will cause an increase in variable costs only. The following illustration amply makes it clear..

Calculate Marginal Costs from the following data.

Total Cost Rs.	Production Units	DMC Rs.	DLC Rs.	Variable Overheads	Fixed Costs Rs.
3,250	500	1,000	750	500	1,000
5,500	1,000	2,000	1,500	1,000	1,000
7,500	1,500	3,000	2,250	1,500	1,000
10,000	2,000	4,000	3,000	2,000	1,000
12,250	2,500	5,000	3,750	2,500	1,000

Solution :
Marginal Cost Statement

Units	Total Cost (a)		Fixed Cost (b)		Marginal Cost C = (a-b)	
500	3,250	6.50	1,000	2.00	2,250	4.50

1,000	5,500	5.5	1,000	1.00	4,450	4.50
1,500	7,750	5.17	1,000	0.67	6,750	4.50
2,000	10,000	5.00	1,000	0.50	9,000	4.50
2,500	12,250	4.90	1,000	0.40	11,250	4.50

From the above, it is clear that with an increase in production, the total cost p.u. is decreasing. This is due to the fact that the fixed overheads are spread over relatively more units of output. Hence, cost of production p.u. comes decreasing with every vise in volume of output. While marginal cost p.u. remains constant at Rs.4.50, the Fixed costs p.u. decreases from Rs.2 to Rs.0.40.

Illu.4 : Prepare Marginal Cost Statement from the following information:

	Variable Cost Rs.	**Fixed Cost Rs.**
Materials	**60,000**	**-**
Labour	**30,000**	**-**
Factory expenses	**20,000**	**30,000**
Administrative expenses	**10,000**	**20,000**
Sales Rs.2,00,000		

Solution :

Marginal Cost Statement

		Rs.
Sales		2,00,000
Less: Cost of Sales:		
Materials	60,000	
Labour	30,000	
Variable Overhead	30,000	1,20,000
Contribution		**80,000**
Less: Fixed overheads		50,000
Net Profit		**30,000**

Contribution = Sales – Variable Cost.

18.3.1. Basic Features of Marginal Costing :

Importantly, the following are the basic features.

(a) It is not an independent system of ascertaining costs as Job costing (or) Process costing.
(b) It is a special technique of presentation of costs for managerial decision making.
(c) All elements of cost viz., materials, labour and Expenses, are divided into fixed and variable costs up to the possible extent.
(d) Only variable costs are product costs.
(e) Fixed costs are considered as period costs being charged to Profit & Loss a/c of the year in which they are incurred.
(f) Stocks of finished goods and WIP are valued at variable costs (or) marginal costs.

(g) Prices are fixed based on marginal costs by adding "Contribution" which is the excess of sales over marginal cost of sales etc.

18.3.2. Premises of Marginal costing :

Marginal costing dwells on the following assumptions.

(1) All elements of cost are capable of being segregated into fixed, variable and semi variables.
(2) Variable cost per unit of output remains constant irrespective of levels of output and then, it varies in sympathy with changes in volume of output.
(3) Selling price remains constant for all levels of activity.
(4) Fixed costs remain uncharged for the entire volume of output.
(5) Volume of output alone influences the costs.

18.3.3. Contribution : (C)

It is the most important concept in marginal costing for managerial decisions. It is the difference between sales and variable costs. It is known by different names. It is called – contribution margin, (or) gross margin. Contribution contributes first to fixed costs and then only, to profit. In terms of a formula, it can be expressed as

Contribution = Sales – Variable (Marginal) Cost
Contribution = Fixed Cost + Profit – Loss
Simply, C = S – V.

18.3.4. Marginal Cost Equation :

The algebraic expression of contribution is known as Marginal cost equation. It is understood as:

$S - V = F \pm P = C$
Where :
S = Selling price
V = Variable Cost
F = Fixed Cost
P = Profit
C = Contribution
It is very much useful to find out the 4th item, if three out of the four are known to us.
$S - V = F \pm P$

Illu.5 : Calculate variable cost from the following

- **Sales = Rs.1,50,000**
- **Fixed Cost = Rs.30,000**
- **Profit = Rs.40,000**

Solution :

Marginal Cost Equation = $S - V = F \pm P = F - P$
$S - V = F + P$
$- V = F + P - S = 30{,}000 + 40{,}000 - 1{,}50{,}000$
$= 70{,}000 - 1{,}50{,}000$
$= - 80{,}000$

$\therefore$ V C = **Rs.80,000**

Illu.6 : From the under mentioned data, find out profit.

- **F . C. = Rs.2,50,000**
- **VC = Rs.10/- p. u.**
- **Selling price = Rs.15/- p. u**
- **Output level = 75,000 units of output**

Solution :

Marginal Cost Equation = S – V = F + P
= F + P = S – V
= P = S – V – F
= 11,25,000 – 7,50,000 – 2,50,000
= 11,25,000 – 10,00,000 = Rs.**1,25,000**

18.4 ADVANTAGES OF MARGINAL COSTING :

Largely, the following are the advantages :

(a) Statements prepared in Marginal costing are amply clear and easily understandable.
(b) Since fixed costs are kept outside the purview, over and under absorption of overheads does not arise at all.
(c) Helps management in managerial decision making [Discussed earlier in a detailed manner].
(d) Facilitates for the calculation of BE point.
(e) Complimentary to standard costing and budgetary control.
(f) Helps in cost control & Cost Reduction.
(g) It is picturesque description and reporting tool to management etc.

18.5 LIMITATIONS :

Limitations of B.E. Analysis are limitations of Marginal costing. They are briefly discussed.

(1) It is all conditional and based on assumptions.
(2) All costs are not amenable or division into fixed and variable.
(3) Variable costs do not always remain constant and always do not vary in proportion to volume of activity.
(4) Fixed costs also are not completely constant.
(5) Exclusion of fixed costs from the product costs in marginal costing, is a little bit illogical.
(6) Not very much suitable to cost control and cost reduction.

But, Marginal costing is very much invaluable to the management for marginal decision making.

Illu.7 : Electro Electronics Ltd. deals in electric goods and submits the following information in respect of the goods manufactured by it.

Selling price	**Rs.5.00**
Variable cost per unit	**Rs.2.00**
Fixed Overheads	**Rs.75,000**
Units produced	**Rs.75,000**

The company is expected to reduce the selling price in order to meet the competition. You are required to calculate the level of output to maintain present level of profit if the proposed reduction in prices is 10 per cent and 20 per cent.

Solution :

Marginal Cost Statement
No.of Units : 75,000

	Present Price	**Price Reduction**		
	Rs.	**10% (Rs.)**	**15% (Rs.)**	**20% (Rs.)**
Sales	3,75,000	3,37,500	3,18,750	3,00,000
Less : Marginal Cost	1,50,000	1,50,000	1,50,000	1,50,000
Contribution	**2,25,000**	**1,87,500**	**1,68,750**	**1,50,000**
Less : Fixed Cost	75,000	75,000	75,000	75,000
Profit	**1,50,000**	**1,12,500**	**93,750**	**75,000**
Contribution per unit	3.00	2.50	2.25	2.00

Profit to be maintained Rs.1,50,000 (desired profit)

Contribution to be earned = Desired profit + Fixed Cost
= Rs.1,50,000 + Rs.75,000 = Rs.2,25,000

No. of units required to be sold at different levels of Price reduction = $\frac{\text{Total Contribution to be earned}}{\text{Contribution per unit}}$

Hence,
At 10% reduction = Rs.2,25,000/Rs.2.50 = 90,000 units
At 15% reduction = Rs.2,25,000/Rs.2.25 = 1,00,000 units
At 20% reduction = Rs.2,25,000/Rs.2.00 = 1,12,500 units

Illu.8 : Paper Private limited receives a special order from Sabee Private Limited for supply of 50,000 units of a product that usually sells for Rs.10 per unit. Sabee Pvt. Ltd., offers Rs.9 per unit for this product. Papee Pvt. Ltd. incurs Rs.6 per unit in variable costs to manufacture each item, plus Rs.2 per unit for variable administrative cost. Total fixed manufacturing costs are Rs.3,00,000. Other fixed costs amounts to Rs.1,50,000 pr year. Productivity capacity is 4,00,000 units annually and sales volume through normal sales outlets will be about 3,00,000 units of this year.

Write a short report on the advisability or otherwise of accepting the offer.

Solution :

Marginal Cost Statement

Particulars	**Per unit**	**Current year Capacity 3,00,000 units**	**Proposed Additional Output 50,000 units**	**Total Capacity 100% 4,00,000 units**
	Rs.	**Rs.**	**Rs.**	**Rs.**

Sales	10.00	30,00,000	4,50,000	40,00,000
Less : Marginal Cost				
Variable Cost	6.00	18,00,000	3,00,000	24,00,000
Variable admn. Cost	2.00	6,00,000	1,00,000	8,00,000
	8.00	**24,00,000**	**4,00,000**	**32,00,000**
Contribution	2.00	6,00,000	50,000	8,00,000
Fixed Cost		4,50,000		4,50,000
Profit/Loss		**1,50,000**	**50,000**	**3,50,000**

Comments : If the order is accepted, revenues will increase by Rs.4,50,000 (Rs.9 x 50,000). The incremental costs will only be Rs.4,00,000 (8 x 50,000) – the variable cost of producing the extra unit. Therefore, the company will gain Rs.50,000 (Rs.4,50,000 – Rs.4,00,000) by accepting the special order.

18.6 DIFFERENCES BETWEEN ABSORPTION COSTING AND MARGINAL COSTING

In absorption costing, without exception, all costs are recovered from production whereas, only variable costs are charged to production in marginal costing. Fixed costs are completely ignored in marginal costing. The basis for this is that only variable costs are incurred for additional output while fixed expenses remain constant. Hence, there is no point in burdening additional output with the share of fixed overheads otherwise it will give a wrong idea about the likely profit to be earned an additional sales. On account of recovery of only variable expenses from production, the costing stocks in marginal costing will be valued at marginal cost. Thus, marginal costing differs from absorption costing in two areas.

1. Recovery of overheads; and
2. Valuation of stocks

1. **Absorption or Recovery of Overheads :** In absorption costing, both variable and fixed overheads are recovered from production. On other hand, in marginal costing there will be under recovery of overheads, as only variable overheads are charged to production and are recovered from production. Thus, there is over recovery in Absorption costing while there is under recovery of overheads in marginal costing.
2. **Valuation of Stocks :** Stocks of work in progress and finished goods are valued at works cost and total cost of production respectively, in absorption costing. This works cost and total cost of production do include fixed overheads. But, in marginal costing, all items in production are valued only at variable costs. Thus, under valuation will be there in closing stock valuation, leading to carrying over of fixed expenses of one period to the next period. The following illustration will make the above point clear.

Illu.9 : Using the same data of the earlier illustration compute profit under both Absorption and marginal costing systems assuming that the units sold of the products x, y z are 900 in each case.

Solution :

Statement of Profit
(Under Absorption Costing System)

Particulars	X Rs.	Y Rs.	Z Rs.
Direct Material	3,000	4,000	5,000
Direct Labour	2,000	3,000	4,000
Overheads : Variable	1,000	1,000	1,000
Total Marginal Cost	**6,000**	**8,000**	**10,000**
Add : Fixed overheads	1,000	1,000	1,000
Total Cost of production	**7,000**	**9,000**	**11,000**
Less : Closing stocks	700	900	1,100
Cost of goods sold	**6,300**	**8,100**	**9,900**
Profit	2,700	5,400	8,100
Sales	**9,000**	**13,500**	**18,000**

Total Profit : X Rs.2,700 + Y Rs.5,400 + Z Rs.8,100 = Rs.16,200

Statement of Profit
(Under Marginal Costing Technique)

Particulars	X Rs.	Y Rs.	Z Rs.
Total Marginal Costs	6,000	8,000	10,000
Less : closing stock	600	800	1,000
Marginal cost of production of goods sold	**5,400**	**7,200**	**9,000**
Contributions (Sales - marginal costs)	3,600	6,300	9,000
Sales	**9,000**	**13,500**	**18,000**

Thus, total profit under marginal costing will be

	Rs.
X's contribution	3,600
Y's Contribution	6,300
Z's contribution	9,000
Total Contribution Fund	**18,900**
Less : Total Fixed costs	3,000
Total Profit	**15,900**

From the above, we notice that the profit in Absorption Costing is Rs.16,200, while, the profit in marginal costing is Rs.15,900. The reason for the difference is closing stock valuation system. The closing stock in absorption costing technique includes Rs.300 by way of fixed expenses and hence, the profit in absorption costing is higher than the other profit. In the same way if there is opening stock but no closing stock and if the valuation includes Fixed expenses in absorption costing, profit in absorption costing will be relatively less when compared to the profit in marginal costing. This tells us that these would not be any difference in profit, when there is no problem of stock.

18.7 EXERCISES

1. Hind General Corporation produces only one product which had the following costs.
   Variable Manufacturing costs Rs.4 per unit
   Fixed Manufacturing costs Rs.2,00,000 per year
   The normal capacity is set at 2,00,000 units. There are no work in process inventories.
   In 2005 the company produced 2,00,000 units and sold 90 per cent of them at a price of Rs.7 per unit. In 2006, the company produced 2,10,000 units and sold 2,15,000 units at the same price.
   You are required to prepare income statements for 2005 and 2006 based on absorption costing.
   [Ans.: Net income : 2005 Rs.3,60,000; 2006 Rs.4,40,000]

2. Prabhakaran Industries Ltd., Salem furnishes the following details for the year ended 31st December, 1986, for preparing the Comparative Income Statement of the year ended Marginal costing and Absorption costing.
   Sales 2,000 units at Rs.20 per unit
   Fixed Manufacturing cost Rs.4,200
   Variable Manufacturing cost 2,100 units at Rs.12 per unit
   Inventory at close 100 units
   Fixed selling and administrative expenses Rs.1,000
   Variable selling and administrative expenses Rs.1,400
   [Ans.: Absorption Costing : Net Income Rs.9,600; Marginal Costing : Net Income Rs.9,400]

3. Prepare Marginal Cost Statement from the following information:

	Variable Cost Rs.	**Fixed Cost Rs.**
Materials	60,000	-
Labour	30,000	-
Factory expenses	20,000	30,000
Administrative expenses	10,000	20,000
Sales Rs.2,00,000		

[Ans.: Net profit Rs.30,000]

4. From the following data, prepare Marginal Costing Statement:

Particulars	**Product – A Rs.**	**Product – B Rs.**	**Product – C Rs.**
Sales	30,000	60,000	80,000
Direct materials	12,000	25,000	36,000
Direct labour	8,000	10,000	14,000
Factory overheads:			
Fixed	6,000	8,000	6,000
Variable	2,000	3,000	5,000
Fixed office overheads	1,000	2,000	2,000
Sales overheads:			
Fixed	2,000	2,000	3,000

Variable	1,000	`3,000	3,000

[Ans.: Net profit Rs.16,000]

18.8 SUGGESTED READINGS

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Chapter – 19

COST – VOLUME – PROFIT ANALYSIS

19.0 :Objective :

After reading this unit you should be able to

- Know about CVP Analysis
- Understand the break even analysis
- Calculate the break even point, profit volume ratio, and margin of safety
- Present the break even chart
- understand the managerial uses of marginal costing

Structure

19.1 Introduction

19.2 Break Even Analysis

19.3 Graphic method of Break – even Analysis (or) Break – even chart:

19.4 Managerial Uses / applications of Marginal Costing

19.5 Self Assessment Questions

19.6 Exercises

19.7 Suggested Readings

19.1 INTRODUCTION :

Cost – Volume – profit analysis is an important technique for knowing the relationship among costs, volume and Profits. Profit depends upon several factors. Most important factors are : Cost of production, Volume of Activity / sales, and the sales of the products. Cost – Volume – Profit analysis is an important tool used to plan for profit in the business organisation.

If it is closely observed, it becomes evident to us that all the variables in Cost – Volume – Profit are inter–dependent. Profit depends upon sales and selling price depends largely on cost of sales and cost of sales depends upon volume of production. Thus, Cost – Volume – Profit analysis gives an opportunity to the management to have good control over business. Several important critical questions as under mentioned may be answered with the help of Cost – volume – profit analysis.

(1) To avoid losses, how much sales should be made?

(2) To make a desired profit, how much should be produced / sold ?

(3) What is the best sales / Production mix?

(4) Is making better than buying (or) vice – versa?

19.2 BREAK EVEN ANALYSIS (BE Analysis)

Both Cost volume profit analysis and break even analysis are often synonymously used as Break even analysis is the most widely used concept and widely known form of Cost volume profit analysis. Break Even analysis refers to the study of relationship among different items viz., cost, volume and profit. Besides this, Break even analysis also refers to the techniques of identifying that level of activity at which, total revenues equal the total expenses. It is a point where there is “no profit, no loss”.

Before we go for Break Even Analysis, features of marginal costing, assumptions, basics of marginal costing viz., marginal cost equation, contribution, P / V ratio, margin of safety concepts etc are dealt with.

19.2.1. Profit Volume Ratio (P/v (or) C/s Ratio)

It is also called – contribution Ratio (or) margin Ratio. It expresses the relation of contribution to sales. Often, it is expressed as:

$$\text{P / V Ratio} = \frac{\text{Contribution}}{\text{Sales}}$$

Where : Contribution = Sales – Variable cost

$$\therefore \text{P / V ratio} = \frac{\text{S - V}}{\text{S}} = \frac{\text{C}}{\text{S}} = \frac{\text{F + P}}{\text{S}} =$$

$$\text{P / V} = \frac{\text{Change in profit}}{\text{Change in Sales}} \text{ (or) } \frac{\text{Change in Contribution}}{\text{Change in Sales}}$$

P/V in a % = C / S x 100

Importance of P/ V :

Higher and higher the P/v ratio, the higher and higher will be the profit and **Vice – versa.** So, every management seeks to increase the P/ V ratio. The possibilities to increase the P/ V are:

(a) Increasing the selling price p. u.

(b) Reducing the VC.

(c) Shifting to those products having higher P/v ratio.

Illu.1 : From the following data, calculate : P/V, FC, and Sales volume to earn a desired profit of Rs.40,000/-

Sales :	**Rs.1,00,000**
Profit :	**Rs.10,000**
Variable costs :	**70%**

Sales = Rs.1,00,000

Variable cost = 70%

$$= \frac{1,00,000 \text{ x } 70}{100}$$

= **Rs.10,000.**

$$(1) \quad \text{P/ V Ratio} = \frac{\text{S - V}}{\text{S}} = \frac{1,00,000 - 70,000}{1,00,000}$$

= 30,000 / 1,00,000 x 100 = 30%

(2) FC = ?

Equation = S – V = F + P

F + P = S – V

F = S – V – P

= 1,00,000 – 70,000 – 10,000

= 2,00,000

(3) Sales to earn a profit of Rs.40,000

Equation = F + P /P/v

= 2,00,000 + 40,000/30%

= 2,40,000 x 100/30 = Rs.8,00,000

19.2.2. Margin of Safety :

Margin of safety is the difference between total sales and BEP for sales. Lower Break – even point for sales means higher safety and **Vice – Versa.**

The relevant formula for margin of safety (M/S) is :

M/ S = Actual Sales – Break – even Sales

= AS – BEP for sales

M/S can be calculated in terms of P/V ratio also

M/S = Profit ÷ P/ V ratio

M/S as a percentage = M/S / Total Sales x 100

Significance of M/S :

Business goes to make profit still, even if, sales drop substantially when M/S is relatively higher while, a small drop in sales may throw the business out of gear, when M/S is relatively less. Hence, the aim of business is always to see that M/S. is as high as possible.

Illu.2 : From the following, calculate M/S and percentage there of.

Actual Sales : Rs.5,00,000

B. E. Sales : Rs.4,00,000

Solution:

M/ S = Actual Sales – BEP for Sales

= Rs.5,00,000 – Rs.4,00,000

M/S = Rs.1,00,000

$$\% \text{ of M/S} = \frac{\text{M/S}}{\text{Actual Sales}} \text{ x } 100$$

$$= \frac{1,00,000}{5,00,000} \text{ x } 100 = 20\%$$

It means that margin of safety is 20% and BEP for sales is occurring at 80% of Actual sales.

Illu.3 : **Calculate Margin of safety and the amount of actual sales from the following :**

(a) Profit Rs.10,000

(b) P/V 50%

(c) BEP Sales Rs.20,000

(1) M/S = P ÷ P/ V =

$$= \frac{10,000}{\frac{50}{100}} = \frac{10,000 \text{ x } 100}{50}$$

= Rs.20,000/-

(2) Actual Sales = M/S + BEP Sales

[M/S = AS – BEP for sales]

= 20,000 + 20,000 = **Rs.40,000**

Illu.4 : Calculate : (a) Contribution PU, (b) BEP (c) M/S. (d) Profit (e) Volume of sales to earn a profit of Rs.24,000.

When : Total VCs = Rs.30,000

Total Sales = Rs.60,000

Units Sold : 20,000

Total fixed costs : Rs.18,000

Solution :

(a) Contribution PU:

C = S – V = 60,000 – 30,000 = 30,000

C p. u = Rs.30,000 ÷ 20,000 units

= **Rs.1-50/-**

(b) BEP Sales = F ÷ P/ V = FS / S – V

$$= \frac{18{,}000}{\frac{60{,}000 - 30{,}000}{60{,}000}} = \frac{18{,}000}{\frac{30{,}000}{60{,}000}}$$

$$= \frac{18{,}000 \text{ x } 60{,}000}{30{,}000} = \text{Rs.}36{,}000$$

(c) M/s : AS – BEP Sales

60,000 – 36,000 = Rs.24,000/-

(d) Profit = F + P = S – V

$\therefore$ P = S – V – F

= 60,000 – 30,000 – 18,000 = Rs.12,000/-

(e) Volume of Sales to earn a profit of Rs.24,000/-

$$= \frac{F + P}{\frac{S - V}{S}} = \frac{18{,}000 + 24{,}000}{\frac{30{,}000}{60{,}000}}$$

$$= \frac{42{,}000 \text{ x } 60{,}000}{30{,}000} = \text{Rs.}84{,}000$$

Units required to earn a profit of Rs.24,000 = 84,000 / 3 = 28,000 units

Illu.5 : The following data relates to two periods.

Period	Sales Rs.	Profit Rs.
I year ending 31-12-2004	**1,00,000**	**15,000**
II year ending 31-12-2005	**1,20,000**	**23,000**

Calculate : (a) P/V (b) FC (c) BEP.

Solution :

(a) $$\text{P/ V ratio} = \frac{\text{Change in profit}}{\text{Change in sales}} \text{ x } 100$$

$$= \frac{8{,}000}{20{,}000} \text{ x } 100 = 40\%$$

(b) FC calculation :

Period I : Sales : 1,00,000 Rs.

P/ V = 40%

$$C = \frac{1{,}00{,}000 \text{ x } 40}{100} = 40{,}000/ -$$

F + P = C

F = C – P = 40,000 – 15,000 = 25,000/-

(c)

$$\text{BEP} = \frac{F}{P/V} = \frac{25{,}000}{\frac{40}{100}} = \frac{25{,}000 \text{ x } 100}{40}$$

$$= \frac{1{,}25{,}000}{2} = 62{,}500/ -$$

19.3. GRAPHIC METHOD OF BREAK – EVEN ANALYSIS (OR) BREAK – EVEN CHART:

The oft quoted Break even point (BEP) can be also depicted with the help of a graph. Importantly a break even chart is a graphic Representation of Marginal costing. A vivid description is portrayed about relations among : costs, volume of activity and profits. Besides this, it also reveals the estimated profit / Loss at various levels of output. The BEP, as is indicated in the chart is the point at which the total cost line and total sales line cut with each other.

19.3.1 Hints for preparation of BEA chart :

The following are important points :

(1) On the X – axis, units of production or sales are measured.

(2) Costs and sales Revenues are measured on Y – axis.

(3) Fixed cost line is drawn as a line parallel to X – axis. This implies that fixed cost is common for all levels of output.

(4) Variable costs of different levels of output are plotted over fixed costs line. The variable cost line is joined to F. cost line at zero level of activity. Since V. C. line is drawn above FC line, it is called total cost line.

(5) Sales revenues for various levels are plotted and a line is drawn joining all the points. This is sales line.

(6) The point of intersection of sales revenue and total cost lines is the BEP.

(7) No. of units to be produced at BEP can be ascertained by drawing a perpendicular to X – axis from the point of intersection.

(8) Similarly, cost of BEP units to be produced can be ascertained by drawing a perpendicular to Y – axis from the point of intersection.

(9) The area below BEP is called loss area and the area above BEP is called profit area.

Illu.6 : From the following information, prepare Break Even Chart showing BEP.

Budgeted output : 80,000 units

Fixed Expenses : 4,00,000 Rs.

Variable cost p. u. : Rs.10/-

Selling price p. u. : Rs.20/-

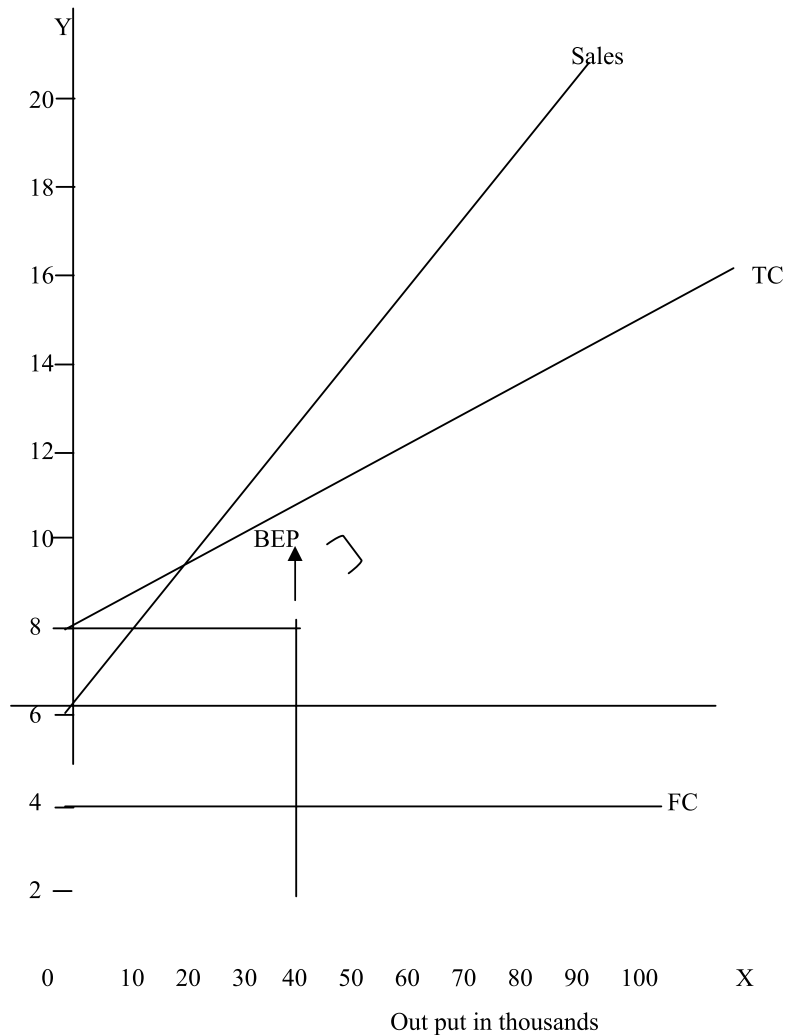
Solution:

Total Cost and Sales

Output units	Variable cost Rs.	Fixed Cost Rs.	Total Cost Rs.	Sales Rs.
20,000	2,00,000	4,00,000	6,00,000	4,00,000
40,000	4,00,000	4,00,000	8,00,000	8,00,000
60,000	6,00,000	4,00,000	10,00,000	12,00,000
80,000	8,00,000	4,00,000	12,00,000	16,00,000

From the above table, BEP is 40,000 units, as, the total cost Rs.8,00,000 is equal to Rs.8,00,000 of sales as at BEP, Cost is just equal to revenue.

Break Even Chart



Fixed cost line runs parallel to X-axis. Total cost line is drawn from 4 lakhs on Y axis. Sales line is drawn from 0. Both TC and sales line cut each other to 40,000 units of ouput (Rs.8,00,000) and hence, B.E.P. from the graph and chart is 40,000 units of output at a cost of Rs.8,00,000.

Illu.7 : How do we calculate Break even point algebraically (or) arithmetically? [BEP]

The BEP can be calculated in terms of :

(a) Units of Sales / output

(b) Sales value and

(c) A percentage

Solution:

(a) BEP in units of output / sales :

$$\text{BEP Units} = \frac{\text{Total Fixed cost}}{\text{Selling price P. u. - Variable cost p.u}}$$

$$= \frac{\text{TFC}}{\text{S - V}} = \frac{\text{TFC}}{\text{Contribution pu}} = \frac{\text{FC}}{\text{C (pu)}}$$

$$= \frac{\text{FC x S}}{\text{S - V}} = \frac{\text{FC . S}}{\text{C}}$$

(b) BEP (In Rupees) =

$$= \frac{\text{FC}}{\frac{\text{Sales - Variable cost}}{\text{Sales}}} = \frac{\text{FC}}{\frac{\text{C}}{\text{S}}}$$

$$\text{With P/V ratio} = \frac{\text{F}}{\text{P/V}} = \frac{\text{F}}{\frac{\text{S - V}}{\text{S}}} = \frac{\text{FS}}{\text{S - V}}$$

(c) BEP as a % capacity of Sales :

$$\text{BEP \%} = \frac{\text{BEP for output}}{\text{Total output}} \text{ x } 100 \text{ (or) } \frac{\text{BEP for sales}}{\text{Total Sales}} \text{ x } 100$$

With the help of BEP for units and sales, the volume of output (or) Sales, for a desired profit can be easily calculated. Since the profit at BEP is zero, the desired profit is to be added to the existing Fixed cost, in order to calculated the volume of output (or) sales. The relevant formula for this are :

(1) Units to earn a desired profit = F + P / C (pu)

(2) Sales to earn a desired profit = F + P / P/V ratio

Illu.8 : From the following particulars, find out

(i) BEP for units and Sales value

(ii) No. of units to earn a desired profit of Rs.90,000/-

- **Fixed factory overheads : Rs.60,000**
- **Fixed selling overheads : Rs.12,000**
- **Variable Manufacturing cost p. u. Rs.12/-**

- **Variable selling cost p. u. Rs.3/-**
- **Selling price p. u. Rs.24/-**

Solution :

(i) BEP (units) =

$$= \frac{F}{C\ pu} = \frac{F}{(S-V)\ pu}$$

Total Fixed cost = Factory Overhead + Selling overhead = 60,000 + 12,000 = Rs.12,000

Selling price : 24, Variable cost = Manufacturing Cost + Selling Cost

= 12 + 3 = 15/-

$\therefore$S = 24, V = 15

$$\therefore \text{BEP (units)} = \frac{F}{S-V\ (pu)} = \frac{72{,}000}{24-15} = 8{,}000 \text{ units}$$

(ii) BEP (Sales) = BEP units x Selling price p. u

= 8,000 x 24 = 1,92,000 Rs.

(iii) No. of units to earn a desired

Profit of Rs.90,000

$$= \frac{F+P}{(S-V)\ pu} = \frac{72{,}000+90{,}000}{24-15} = \frac{1{,}62{,}000}{9}$$

= **18,000 units**

Illu.9 : From the following, calculate (a) P/V ratio (b) BEP (Sales) with P/V (c) Sales required to earn a profit of Rs.4,50,000/- Fixed expenses : Rs.90,000.

Variable cost p. u :

Material Rs.5/-

Labour Rs.2/-

Direct Overhead : 100% on Labour

Selling price p. u : Rs.12/-

Solution :

$$(1)\quad \text{P/ V ratio} = \frac{S-V}{S} =$$

S = 12, V = Material Cost + Labour Cost + Direct Overhead =

= 5 + 2 + 2 = 9/-

$$\therefore P/V = \frac{S - V}{S} = \frac{12 - 9}{12} = \frac{3}{12} = \frac{1}{4} \text{ (or) } 25\%$$

(2) $$\text{BEP (Sales) with } P/V = \frac{F}{P/V} = \frac{F}{\frac{S-V}{S}} = \frac{FS}{S-V}$$

$$= \frac{90{,}000}{1/4} = \frac{90{,}000 \times 4}{1} = \text{Rs.}3{,}60{,}000$$

(3) $$\text{Sales required to earn a profit of Rs.}4{,}50{,}000 = \frac{F + P}{P/V} = \frac{90{,}000 + 4{,}50{,}000}{1/4}$$

$$= \frac{5{,}40{,}000 \times 4}{1} = 21{,}60{,}000 \text{ Rs.}$$

19.3.2. Cash break – even point :

It is the point where the volume of sales and cash realisation there of will be just sufficient to meet immediate cash liabilities. While calculating this point, cash fixed costs (excluding fixed share of depreciation, deferred expenses etc.) and cash contribution (after making adjustments for variable share of depreciation) are considered. This point enables management in determining the level of activity below which, the liquidity position of the company would be adversely affected. Thus, cash BEP is there in marginal costing.

$$\text{Cash BEP (units)} = \frac{\text{Cash Fixed cost}}{\text{Cash contributi on pu}}$$

Illu.10 : Calculate cash BEP, from the following :

- **Selling price Rs.40/-**
- **Variable cost per unit : 30/-**
- **Depreciation included in above p. u Rs.5/-**
- **Fixed cost Rs.1,00,000**
- **Depreciation included in fixed cost Rs.25,000**

Solution:

- Cash BEP = Cash Fixed Cost / Cash contribution pu
- Cash fixed cost = Rs.1,00,000 – 25,000 = Rs.75,000/-
- Cash contribution (pu) = (40 – (30 – 5) = Rs.15/-

- C. BEP (units) = C.F. / C. C. (pu) = 75,000 / 15 = 5,000 units
- Cash BEP (units) = 5,000 units
- Cash BEP (Sales) = 5,000 x 40 = 2,00,000 Rs.

Illu.11 : Calculate cash BEP units / sales from the following :

- **S.P. Pu : Rs.50/-**
- **VC pu. Rs. 40/-**
- **Depreciation included in VC put = Rs.10/-**
- **Fixed cost : Rs.2,00,000 and**
- **Depreciation included in FC : Rs.40,000**

Solution:

$$\text{Cash BEP (Units)} = \frac{\text{Cash Fixed cost}}{\text{Cash contribution pu}}$$

= 8000 units

$$= \frac{2{,}00{,}000 - 40{,}000}{(50 - (40 - 10))} = \frac{1{,}60{,}000}{20}$$

Cash BEP in sales = 8000 x 50 = Rs.4,00,000/-

Composite BEP:

It is a break-even point for a company producing several products.

$$\text{Composite BEP (for sales)} = \frac{\text{Total Fixed Cost}}{\text{Composite P/V}}$$

$$\text{Composite P/V (in a \%)} = \frac{\text{Total Sales - Total VC}}{\text{Total Sales}} \times 100$$

Illu.12 : Calculate composite P/V and BEP (Sales) from the following:

Products	Sales value Rs.	Variable cost Rs.
X	20,000	10,000
Y	40,000	14,000
Z	60,000	36,000

Total Fixed Cost : Rs.50,000

Solution:

$$\text{Composite P/ V} = \frac{\text{Total contribution}}{\text{Total Sales}}$$

$$= \frac{(20,000 - 10,000) + (40,000 - 14,000) + (60,000 - 36,000)}{20,000 + 40,000 + 60,000}$$

$$= \frac{10,000 + 26,000 + 24,000}{1,20,000} = \frac{60,000}{1,20,000} \text{ x } 100 = 50\%$$

= Rs.1,00,000

Advantages of BE charts:

- It is a simple and understandable form about the relations among cost, volume and profit.

$$\text{Composite BEP} = \frac{\text{TF}}{\text{Total P/V}} = \frac{50,000}{\frac{50}{100}} = \frac{50,000 \text{ x } 100}{50}$$

- It is an invaluable aid to management for decision making
- This chart can analyse the profitability of different products.
- BE chart is tool to forecast business outcomes
- This chart shows profitability at different levels of output.

Limitations:

- B.E. Chart is highly assumptious.
- It provides limited data
- B. E. chart does not suit to all factors influencing business.
- B. E. chart by itself does not suggest any remedy as such. etc.

19.4 MANAGERIAL USES / APPLICATIONS OF MARGINAL COSTING :

It has been repeatedly discussed that marginal costing is very much invaluable managerial aid to decision making. The following are some of the uses of marginal costing.

(1) Profit planning and maintaining an expected level of profit.

(2) Make (or) buy decisions (outsourcing)

(3) Problem of Key – factor (or) limiting factor.

(4) Best sales / production mix

(5) Alternative method of production

(6) Optimum level of activity / capacity

(7) Effect of change in selling price

(8) Pricing decisions etc.

19.4.1 Profit planning and expected level of profit : Marginal costing technique can be used to plan for the profit desired. It needs to decide future activities to achieve desired profit. Change in selling price, VCs, and product mix itself affects the profitability. The following example explains it best.

Illu.13 : The price structure of Hero Cycles Ltd. is as under:

Items	Per cycle Rs.
Materials :	**60**
Labour :	**20**
Variable overhead	**20**
Fixed overhead	**50**
Profit	**50**
Selling price	**200**

The above is based on the manufacture of one lakh cycles per annum. The Company exports. Due to competition, it will have to reduce the selling prices but it wants to keep the total profit in tact. What level of production has to be reached to get the same amount of profit if the selling price is to be reduced by (i) 10% and (ii) 20%.

Solution:

To attempt this problem, present profit is to be computed in the 1st place.

- Fixed overhead per cycle : Rs.50/-

  Total fixed overhead for 1,00,000 cycles = 50 x 1,00,000 = Rs.50,00,000.

- Profit per cycle : Rs.50/-

  Total profit for 1,00,000 cycles : Rs.50 x 1,00,000 = Rs.50,00,000.

  Total profit presently = Rs.50,00,000.

$$\text{Desired Sales (in units)} = \frac{F + P}{P/V \text{ ratio}} = \frac{F + P}{C\,pu}$$

(i) If the selling price is Reduced by 10%:

New Selling Price = 200 – 10% = 200 – 20 = Rs.180/-

$$\therefore \text{Desired units for desired profit} = \frac{F + P}{C\,(pu)} = \frac{50\,L + 50\,L}{180 - 100}$$

$$= \frac{1,00,00,000}{80} = 1,25,000 \text{ cycles}$$

(ii) If the selling price is Reduced by 20%:

New Selling Price = 200 – 20% = 200 – 40 = Rs.160/-

$$\therefore \text{Defined units for defined profit} = \frac{F + P}{C\,(pu)} = \frac{100{,}00{,}000}{160 - 100}$$

$$= \frac{100{,}00{,}000}{60} = 1{,}66{,}667 \text{ cycles}$$

Comment :

(1) 1,25,000 cycles have to be made to get the same profit, if the SP is sought to be brought down by 10%.

(2) 1,66,667 cycles have to be made, to get the same profit, by reducing the Selling Price by 20%.

Illu.14: Two companies M Limited and N Limited furnish their profit and loss a/c's for the year 2005 as under :

Items		M Ltd. Rs.		N Ltd. Rs.
Sales		**1,50,000**		**1,50,000**
Less: VC s	**1,20,000**		**1,00,000**	
Fixed costs :	**15,000**	**1,35,000**	**35,000**	**1,35,000**
Budgeted Net profit		**15,000**		**15,000**

You are required to:

(i) Calculate BEP for each business

(ii) Calculate sales volume at which each will attain a profit of Rs.5,000/-

(iii) State which business is likely to get more profit

(1) if there is heavy demand for the product and if there is

(2) low demand for the product with reasons.

Solution:

(i) For calculation of BEP, we need to calculate P/V ratio :

$$P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sales}} = \frac{S - V}{S} \text{ (or) } \frac{S - V}{S} \times 100$$

$$\text{M Ltd. :} \frac{1{,}50{,}000 - 1{,}20{,}000}{1{,}50{,}000} = \frac{30{,}000}{1{,}50{,}000} \times 100 = 20\%$$

$$\text{N Ltd. :} \frac{1{,}50{,}000 - 1{,}00{,}000}{1{,}50{,}000} = \frac{50{,}000}{1{,}50{,}000} \times 100 = \frac{1}{3} \text{ or } 33\frac{1}{3}\%$$

BEP for M Ltd. :

Total FC / P/ V =

$$= \frac{1,50,000}{\frac{1}{5}} = \frac{15,000 \text{ x } 5}{1} = \text{Rs.}75,000$$

BEP for N Ltd. :

$$\frac{\text{Total Fixed Cost}}{\text{P/V}} = \frac{35,000}{1/3} = \frac{35,000\, x3}{1}$$

= Rs.1,05,000

(ii) Sales volume at a profit of Rs.5,000

Sales for a defined profit in M Ltd. = F + P / P/V

$$= \frac{15,000 + 5,000}{1/5} = \frac{20,000 \text{ x } 5}{1}$$

= Rs.1,00,000

Sales for a defined profit of Rs.5,000 in N Ltd. = F + P / P/V

$$= \frac{35,000 + 5,000}{1/3} = \frac{40,000 \text{ x } 3}{1}$$

= Rs.1,20,000

(iii)

(a) When heavy Demand is three: A Company with higher P/V can get more profit. Hence, N Ltd. gets more profit**.**

(b) Low Demand : When there is low demand for the product, it is that Company that gains more, which has BEP at a lower level. Hence, M. Ltd. gets more profits.

19.4.2 Make or Buy Decision: Often it is a big problem to the management to decide whether making a product (or) a component in the company is better than buying it from an outside agency specialised in that (or) not. Sometime, buying may prove to be better and sometimes making may be better than buying. Hence, marginal costing will be of much help. For this, the most important condition is that we must observe distinction between fixed costs and variable costs. The direction either to make (or) buy is given based on the above cost classification. **One is advised to make the product if the VC / MC of the product is more than the buying price. Buying is better if the case is otherwise.**

Make if VC < Outside price. **Buy** if VC > outside price.

Illu.15 : A Manufacturing company says that its cost of making a component X is Rs.8.00 in its workshop and also tells that the same component is available in the outside market at Rs.6.50/- itself with an assurance that there is continuous supply. Often your recommendation with regard to make (or) buy decision.

Give also your view, if the outside supplier intends to supply the same at Rs.5.50/- The cost of making Product X is as under :

Cost of X

Items	Rs.
Material :	**3.00**
Labour :	**2.00**
Variable expenses :	**1.00**
Depreciation and other fixed overheads	**2.00**
Total Cost	**8.00**

Solution:

Variable cost (or) Marginal cost = Material + Labour + Variable expenses

= 3 + 2 + 1 = 6/-

∴ MC/ VC = Rs.6/-

Since variable cost of manufacturing (or) making the product is Rs.6/- and since it is less than the outside, supply price of Rs.6.50/-, it is to be made.

- When the supplier supplies the component at 5.50/-, the better alternative is to buy, as VC is more than the outside supply price.

(i) Hence, in the 1st case, it is better to make than to buy.

(ii) In the 2nd case, it is better to buy than to make it.

19.4.3. Key factor (or) Priority fixation with reference to Key – factors :

Marginal costing helps the management in giving priority to the production of the items for maximising profitability in the light of limiting factor (or) Key – factor. Key factor is called by different names viz., limiting factor, budget factor, principal factor, scarce factor etc. In marginal costing, contribution p.u. is considered for recommending products for introduction newly (or) stopping them, in the normal conditions. But in an abnormal condition where some resource viz., material, time, production capacity, finance etc. is found to be a key – factor, then, the same above said contribution per unit of key – factor is to be calculated and thus, based on that adjusted C (pu) decision is to be made with regard to priorities. The following illustration explains it best.

Illu.16 : Jain Co. manufactures and markets three products P, Q and R. All one made from the same Machines. Machine capacity is key – factor. From the following data, indicate priorities for products P, Q, R to maximise profits.

Items	Products		
	P	**Q**	**R**
Raw material cost pu (Rs.)	**11.25**	**16.25**	**21.25**

Direct Labour pu (Rs.)	2.50	2.50	2.50
Other variable expenses (pu) (Rs.)	1.50	2.25	3.55
Selling price pu (Rs.)	25.00	30.00	35.00
Standard Machine Time in (mts.)	39	20	28

Solution :

Statement of Priorities

	Items	Products					
		P		Q		R	
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	Selling price :		25.00		30.00		35.00
Less:	Material cost	11.25		16.25		21.25	
	Labour cost	2.50		2.50		2.50	
	Variable expenses	1.50	15.25	2.25	21.00	3.55	27.30
(A)	Contribution p. u		9.75		9.00		7.70
(B)	Standard machine time in minutes as K. F.		39		20		28
(C)	Contribution per minute of K. F. [A ÷ B]		9.75 / 39 = 0.25		9.00 / 20 0.45		7.70 / 28 0.275
(D)	Priority given :		3rd		1st		2nd

Comment : It is clear that "Q" product is giving highest contribution per unit of K. F. and hence, it will maximise the profit if it is given 1st priority.

Illu.17 : The following particulars are obtained from the records of a factory.

Items	Product A Rs. P. u	Product B Rs. P.u
Selling Price :	**200**	**500**
Material (Rs.20 P. Lt.)	**40**	**160**
Labour (Rs.10 Ph)	**50**	**100**
Variable overheads	**20**	**40**
Total fixed overhead Rs.15,000	**-**	**-**

Comment as the profitability of each product with ranks given when :

(a) Raw material is in short supply

(b) Production capacity is limited

(c) Sales quantity is limited

(d) Sales value is limited.

(e) Only 1,000lts. of raw material is available for both products in total and maximum sales quantity of each product is 300 units.

Solution :

Items		**Product A Rs. P. u**		**Product B Rs. P.u**
Selling Price :		200		500
Less: Variable costs :				
Materials	40		160	
Labour	50		100	
Variable overhead	20	110	40	300
Contribution p. u.		**90**		**200**

(i) P/ V % [S – V / S x 100] = 45 % 40%

(ii) Contribution per lt. 90/2 = 45 200 / 8 = 25

(iii) Contribution per hour 90/5 = 18 200/ 10 = 20

(a) When Raw material is in short supply, contribution per Lt. Of A is more and hence, A is more profitable ranking is : A and B

(b) When production capacity is limited, contribution per hour of product B is more and hence, "B" is more profitable.

Ranking is : B and A

(c) When sales quantity is limited : Contribution per unit of B is more and hence, Be is more profitable.

Ranking is : B and A

(d) When sales value is limited, the P/ V ratio in % of product A is higher and hence, A is more profitable.

Ranking is : A and B

(e) When Raw material and sales quantity are limited, raw material should be used for a maximum No. of units of product A of 300 units. This will consume 600 Lts. of Raw materials and the remaining 400 lts. of material will be used for producing 50 units of B (400 ÷ 8)

Profit in this case would be as:

	Rs.
Contribution from 300 of A @ 90 =	27,000
Contribution from 50 of B @ 200 =	10,000

Total contribution	**37,000**
Less: Total fixed Costs :	15,000
Maximum profit	**22,000**

19.4.5 Best product mix : One of the important uses of marginal costing is that the company can decide the good, better and the best products and similarly, it can also trace out bad, worse and worst products and thus, as per the cost and contribution analysis of different products, the mix of products can be made in such a manner that all the products in the mix are all good and profitable. The question "What mix of products shall we produce?" is best solved, by marginal costing. See the following illustration.

Illu.18 : Present the following data in a suitable way to the management to help it know what is the best product mix, from the following three proposed mixes.

Items	Product	P. u. Rs.
Selling Prices :	**A**	**20**
	B	**15**
Direct Material	**A**	**10**
	B	**9**
Direct Labour	**A**	**3**
	B	**2**

Total Fixed expenses : Rs.800 and Variable expenses are allocated as 100% of Direct Labour.

Proposed Product Mixes :

(i) 1000 units of A and 200 units of B

(ii) 1500 units of A and 1500 units of B

(iii) 2000 units of A and 1000 units of B

Solution:

(a) Marginal Cost Statement:

Items	Products	
	A Rs.	**B Rs.**
Direct Materials	10	9
Direct Labour	3	2
Variable overheads / Expenses (100 % of D. L.)	3	2
Marginal Cost :	**16**	**13**
Selling price:	20	15
Contribution (pu)	**4**	**2**

(b)

Items	Product Mix		
	1000 of A + 2000 of B Rs.	**1500 of A + 1500 of B Rs.**	**2000 of A + 1000 of B Rs.**
Total Sales :	1000 x 20 + 2000 x 15 = 20,000 + 30,000 = 50,000	1500 x 20 + 1500 x 15 = 30,000 + 22,500 = 52,500	2000 x 20 + 1000 x 15 = 40,000 + 15,000 = 55,000
Less: MCs / VCs	1,000 x 16 = 16,000 2,000 x 13 = 26,000 **42,000**	1500 x 16 = 24,000 1500 x 13 = 19,500 **43,500**	2,000 x 16 = 32,000 10,000 x 13 = 13,000 **45,000**
Contribution (S – V)	8,000	9,000	10,000
Less: Total Fixed Cost :	800	800	800
Profit	**7,200**	**8,200**	**9,200**

Best product mix is the third one, as profit is the highest.

19.4.6. Alternative method of production : Marginal costing helps in deciding whether machine work is better than manual work (or) **Vice – Versa.** The method which gives more amount of contribution is to be considered better method of production. See the following illustration, for more details.

Illu.19 : Product – Q can be made on both machines X and Y. Machine – X can produce 100 units of Q, ph. And Machine – Y can produce 150 units ph. Total machine hours available during the entire year are 2500. Taking the following data, determine the more profitable method of production.

Items	**Per unit of Q**	
	Machine X Rs.	**Machine B Rs.**
Marginal Cost:	**5-00**	**6-00**
Selling price :	**9-00**	**9-00**
Fixed Cost :	**2-00**	**2-00**

Solution:

Profitability Statement

Items	**Machine A**	**Machine B**
Selling price :	9-00	9-00
Less: Variable Costs :	5-00	6-00
Contribution per unit	**4-00**	**3-00**

Output per unit	100-00	150-00
Contribution per unit	400-00	45-00

Items	Machine X	Machine Y
Machine Hour per year	2,500	2,500
Annual Contribution	10,00,000	11,25,000

Comment : Since Machine Y is yielding more contribution, Y is more profitable.

19.4.7. Determination of Optimum level of Activity : Marginal costing helps the management in identifying the best level of activity. When different levels are studied, that particular level is the optimum level which yields as higher contribution. See the following illustration.

Illu.20 : A factory engaged in making plastic buckets is operating at 40% level and produces 10,000 buckets p.a. the cost breakup for one bucket is as under :

Material : Rs.10

Labour : 3

Overhead : 5 [Fixed is 60%]

Selling price : 20

If it is decided to work at 50% level, the Selling price falls by 3%. At 90% level, the Selling price falls by 5% accompanied by a similar fall in prices of materials. You are required to calculate the profit at 50%, and 90%. Levels and also calculate BEP for the same levels.

Solution :

Statement of Profitability at 50% and 90% levels

Items	50% level		90% level	
	Rs. P.u.	Total Rs.	Rs.p. u.	Total Rs.
Sales	19-40 (20 – 3% of 20)	2,42,500	19-00 (20 – 5% of 20)	4,27,500
Variable Costs :				
Materials	10-00	1,25,000	9-50 (10 – 5% 10)	2,13,750
Labour	3-00	37,500	3-00	67,500
Overhead (40% of 5)	2-00	25,000	2-00	45,000
Total Variable cost	**15-00**	**1,87,500**	**14-50**	**3,26,250**
S – V = C	4-40	55,000	4-50	1,01,250
Fixed overhead	-	30,000	-	30,000

Profit (C – F)		**25,000**		**71,250**

$$\text{BEP (in units)} = \frac{\text{Fixed Cost}}{\text{C (pu)}}$$

$$\text{BEP at 50\%} = \frac{30,000}{4.40} = 6,818 \text{ units}$$

$$\text{BEP at 90\%} = \frac{30,000}{4.50} = 6,667 \text{ units}$$

19.4.8 Effect of changes in selling price : Management is often confronted with the problem of analysing the effect of changes in sales price on profitability of the company. Sometimes, it may have to reduce the selling price due to competition, slump, Government Regulations etc. Then, the company can examine these changes in prices and their effect on profitability with marginal costing technique and contribution analsysis in particular. Look into the following.

Illu.21 : The following are the data available from the records of a company.

Items	Rs.
Sales	**60,000**
Variable cost :	**30,000**
Fixed Cost :	**15,000**

Calculate from the above :

(a) P/ V ratio, BEP, M/s at this level

(b) The effect of 10% rise in selling price

(c) The effect 10% decrease in selling price.

Solution :

(a)

(1) P/ V ratio in % =…….0

$$= \frac{\text{S - V}}{\text{S}} \text{ x } 100$$

$$= \frac{60,000 - 30,000}{60,000} \text{ x } 100$$

$$= \frac{30,000}{60,000} \text{ x } 100 = 50\%$$

(2) BEP = FC / P/V =

$$= \frac{15,000}{\frac{50}{100}} = \frac{15,000 \text{ x } 100}{50}$$

= **Rs.30,000**

(3) M/S = present Sales – BEP for Sales

= 60,000 – 30,000 = 30,000

(b) Effect of 10% vise in selling price :

Sales = Rs.60,000 + 6,000 = 66,000

(1) P/V =

$$= \frac{\text{S - V}}{\text{S}} \text{ x } 100 = \frac{66,000 - 30,000}{66,000} \text{ x } 100$$

$$= \frac{36,000}{66,000} \text{ x } 100 = \frac{600}{11} = 54.55\%$$

(2) BEP = F / P/V =

$$= \frac{15,000}{54.55\%} = \text{Rs.}27,500$$

(3) M/S = Present Sales – BEP (Sales)
66,000 – 27,500 = 38,500/-

(c) Effect of 10% decrease in selling price :

Selling price = 60,000 – 10% of 60,000

= 60,000 – 6,000 = Rs.54,000

(1) P / V =

$$= \frac{54,000 - 30,000}{54,000} \text{ x } 100 = \frac{24,000 \text{ x } 100}{54,000}$$

$$= \frac{400}{9} = 44.44\ \%$$

$$= \frac{\text{F}}{\text{P/V}} = \frac{15,000}{44.44\%} = \text{Rs.}33,750$$

(2) BEP =

(3) M/S = Present Sales – BEP

= 54,000 – 33,750 = 20,250

Thus, profitability is largely effected by changes in prices.

19.4.9. Pricing Decision - Accepting Additional orders : This is a big decision making area to the management. When additional orders are to be accepted (or) additional markets are explored at a price lower than the normal price to utilise the available idle capacity, it should be meticulously managed that the whole thing does not influence the normal market and goodwill of the company. The order must never be accepted if it is from a local merchant, that too, at a price less than the normal price. The following illustrations will explain it best.

Illu.22 : The cost sheet of a product is given as under :

Items	p. u. Rs.
Direct Material :	**5-00**
Direct Labour :	**3-00**
Fixed Factory overhead	**0-50**
Variable Factory overhead	**0-50**
Administration overhead	**0-75**
Standard Fixed overhead	**0-25**
Standard variable overhead	**0-50**
Cost	**10-50**
Selling price	**12-00**

The above figures are for an output of 50,000 units, while, the capacity of the firm is 65,000 units. A foreign customer is desirous of buying 15,000 units at a price of Rs.10/- p.u. advise the manufacturer whether the order should be accepted (or) not. What will be the advice, if the order were from a local merchant ?

Solution :

Statement of Marginal Cost (or) Additional Cost for Additional 15000 units

Items	p. u. Rs.	Total for 15000 units Rs.
Direct Materials	5-00	75,000
Direct Labour	3-00	45,000
Prime Cost	**8-00**	**1,20,000**
Variable Overheads :		

Factory Overhead	0-50	7,500
Standard Overhead	0-50	7,500
Marginal cost	**9-00**	**1,35,000**
Sales	10-00	1,50,000
Contribution (S – V)	**1-00**	**15,000**

Comments :

1. The order from foreign customer will give an additional contribution of Rs.15,000 and hence, it may be considered as additional profit, since, Fixed costs must have been already met from the internal market.
2. The order from the local merchant must not be accepted at a price of Rs.10/- as it would adversely effect the domestic market.

19.5 SELF ASSESSMENT QUESTIONS

A. Short Answer Questions

1. What is break even point?
2. What is margin of safety?
3. What is profit volume ratio?
4. What is cash break even point?

B. Essay type questions :

1. Discuss the applications of the marginal costing technique
2. Explain cost volume profit analysis
3. Explain the uses of break even analysis in profit planning
4. What assumptions are made to construct a simple break even chart?
5. Explain the utility of break even analysis in Managerial Decisions
6. What are the managerial uses of break even analysis?
7. What do you mean by P/V ratio? What are its uses?

19.6 EXERCISES

1. Find out Profit volume ratio from the following:

   Sales Rs.60,000; Break even Sales Rs.40,000; Fixed Costs Rs.10,000

   [Ans.: 25%]

2. The following figures of sales and profits of two periods are available in respect of a concern:

Period	Sales (Rs.)	Profit (Rs.)

2002	1,00,000	15,000
2003	1,20,000	23,000

You are required to find out:

(i) Break even point

(ii) Sales required to earn a profit of Rs.30,000.

[Ans.: (I) Rs.62,500; (ii) Rs.1,37,500]

3. A confectioner markets three products, all of which require sugar. His average sales, cost of sales and sugar consumption are as follows:

	Product X	Product Y	Product Z	Total
Sales	Rs.10,000	Rs.12,000	Rs.8,000	Rs.30,000
Cost of sales	Rs.6,000	Rs.8,000	Rs.5,600	Rs.19,600
Sugar requirement	500kg	800kg	240kg	1,540kg

Due to government restrictions his sugar quota has been reduced to1405kgs. Suggest a sales mix which would yield maximum profit to the company under the given circumstances.

[Ans.: Contribution : X Rs.4,000; Y Rs.3,325; Z Rs.3,000 = Rs.10,325]

4. From the following particulars, calculate:

Break even point in terms of Sales value and in units.

	Rs.
Fixed Factory overhead	60,000
Fixed selling overhead	12,000
Variable Manufacturing cost per unit	12
Variable selling cost per unit	3
Selling price per unit	24

[Ans.: Break even points = 8,000 units]

5. From the following data, calculate:

(i) P. V. Ratio

(ii) Break – even sales

(iii) Sales required to earn a profit Rs.4,50,000:

Fixed expenses Rs.90,000

Variable cost per unit:

Direct material	Rs.5
Direct labour	Rs.2
Direct Overheads	100% of Direct labour
Selling price per unit	Rs.12.

[Ans.: (a) 25% (b) Rs.3,60,000; (c) Rs.21,60,000]

6. From the following information, ascertain by Break even point how much the values of sales must be increased by the company.

   Sales Rs.3,00,000

   Fixed cost Rs.2,00,000

   [Ans.: Break even Sales Rs.4,50,000]

7. The sales turnover and profit during two years were as

Year	Sales Rs.	Profit Rs.
2002	1,40,000	15,000
2003	1,60,000	20,000

   You are required to calculate:

   (a) P / V ratio

   (b) Sales required to earn a profit of Rs.40,000

   (c) Profit when sales are Rs.11,20,000

   [Ans.: (a) 25% (b) Rs.2,40,000 (c) Rs.2,60,000]

8. The following data are available from the records of a company.

   Sales Rs.60,000

   Variable cost Rs.30,000

   Fixed cost Rs.15,000

   You are required to:

   (a) Calculate the P /V ratio, Break – even point and margin of safety to this level.

   (b) Calculate the effect of 10% increase in sale price

   (c) Calculate the effect of 10% decrease in sale price.

   [Ans.: (a) P.V. Ratio 50% ; Break even point Rs.30,000; Margin of Safety Rs.30,000; (b) P.V. Ratio = 54.55%; Break Even point Rs.27,500; Margin of Safety Rs.38,500

   (c) P.V. Ratio = 44.44%; Break Even point Rs.33,750; Margin of safety Rs.20,250]

9. Sales of a product amounts to 300 units per month at Rs.15 per unit. Fixed overhead cost is Rs.600 per month and variable cost is Rs.9 per unit. There is a proposal to reduce prices by

15 per cent. Calculate present and future P / V ratio. How many units must he sold to earn the present total profits?

[Ans.: P.V. Ratio (present) 40%; (future) 29.41%; selling price is reduced by 15% = 480 units; Profit Rs.1,200]

10. From the following information calculate:
    (a) P / V Ratio
    (b) Break – even point
    (c) Margin of safety

    Total sales Rs.3,60,000

    Selling price, per unit Rs.100

    Variable cost, per unit Rs.50

    Fixed cost Rs.1,00,000

    (d) If the selling price is reduced to Rs.90, by how much is the margin of safety reduced?

    [Ans.: Profit Rs.80,000; (a) 50% (b) Rs.2,00,000 (c) Rs.1,60,000; (d) Contribution Rs.40; P.V. ratio 44.44%; Break even point Rs.2,25,000; Margin of Safety Rs.1,35,000]

11. Product A can be manufactured either by machine X or machine Y. Machine X can produce 100 units of A per hour and machine Y, 200 units per hour. Total machine hours available are 4000 hours per annum. Taking into account the following cost data, determine the profitable method of manufacture:

	Per unit of Product A	
	Machine X Rs.	**Machine Y Rs.**
Direct material	16	20
Direct wages	24	24
Variable overheads	8	8
Fixed overheads	10	10
Total cost	58	62
Selling price	60	60

[Ans.: P.V. Ratio : Machine X 20%; Machine Y 13.33%; Break even point = Machine X Rs.2,00,00,000; Machine Y Rs.6,00,00,000]

12. From the following particulars.
    (a) Find out unit contribution for R and S Products.
    (b) Suggest which contribution of sales is preferable.

Particulars	R (per one unit)	S (per one unit)
Direct Material	20	18

Direct Wages	6	4
Sales price	40	30

Fixed expenses Rs.800 and variable expenses are 100% on wages.

Sales Mix

(1) 200 units of R and 400 units of S

(2) 300 units of R and 300 units of S

(3) 400 units of R and 200 units of S

[Ans.: Contribution per unit : Product R Rs.8; Product S Rs.4; (a) Profit Rs.2,400; (b) Rs.2,800; (c) Profit Rs.3,200]

19.7 SUGGESTED READINGS

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