

Chapter 01: Introduction to Cost Accounting

Introduction:

Accounting is a very old science which aims at keeping records of various transactions. The accounting is considered to be essential for keeping records of all receipts and payments as well as that of the income and expenditures. Cost Accounting helps the business to ascertain the cost of production/services offered by the organization and also provides valuable information for taking various decisions and also for cost control and cost reduction.

Cost :- Cost can be defined as the expenditure (actual or notional) incurred on or attributable to a given thing. It can also be described as the resources that have been sacrificed or must be sacrificed to attain a particular objective. In other words, cost is the amount of resources used for something which must be measured in terms of money.

Costing :- Costing may be defined as 'the technique and process of ascertaining costs'. According to Wheldon, 'Costing is classifying, recording, allocation and appropriation of expenses for the determination of cost of products or services and for the presentation of suitably arranged data for the purpose of control and guidance of management.

Cost Accounting :- Cost Accounting primarily deals with collection, analysis of relevant of cost data for interpretation and presentation for various problems of management. Cost accounting accounts for the cost of products, service or an operation. It is defined as, 'the establishment of budgets, standard costs and actual costs of operations, processes, activities or products and the analysis of variances, profitability or the social use of funds'.

Cost Accountancy :- Cost Accountancy is a broader term and is defined as, 'the application of costing and cost accounting principles, methods and techniques to the science and art and practice of cost control and the ascertainment of profitability as well as presentation of information for the purpose of managerial decision making.'

Objectives of Cost Accounting :-

1. To ascertain the cost of production on per unit basis, for example, cost per kg, cost per meter, cost per liter, cost per ton etc.
2. Cost accounting helps in the determination of selling price. Cost accounting enables to determine the cost of production on a scientific basis and it helps to fix the selling price.
3. Cost accounting helps in cost control and cost reduction.
4. Cost accounting also helps in locating wastages, inefficiencies and other loopholes in the production processes/services offered.
5. Cost accounting also helps in estimation of costs for the future.

Classification of Costs :- An important step in computation and analysis of cost is the classification of costs into different types. Classification helps in better control of the costs and also helps considerably in decision making. Classification of costs can be made according to the following basis.

A. Classification according to elements :- Costs can be classified according to the elements. There are three elements of costing, viz. material, labor and expenses. Total cost of production/ services can be divided into the three elements to find out the contribution of each element in the total costs.

B. Classification according to nature :- As per this classification, costs can be classified into Direct and Indirect. Direct costs are the costs which are identifiable with the product unit or cost center while indirect costs are not identifiable with the product unit or cost center and hence they are to be allocated, apportioned and then absorb in the production units.

- **Direct and Indirect Material :-** Direct material is the material which is identifiable with the product.. Indirect material cannot be identified with the product.
- **Direct and Indirect Labor :-** Direct labor can be identified with a given unit of product, for example, when wages are paid according to the piece rate, wages per unit can be identified. Similarly wages paid to workers who are directly engaged in the production can also be identified and hence they are direct wages. On the other hand, wages paid to workers like sweepers, gardeners, maintenance workers etc are indirect wages as they cannot be identified with the given unit of production.
- **Direct and Indirect Expenses :-** Direct expenses refers to expenses that are specifically incurred and charged for specific or particular job, process, service, cost center or cost unit. These expenses are also called as chargeable expenses. Indirect expenses on the other hand cannot be traced to specific product, job, process, service or cost center or cost unit. Several examples of indirect expenses can be given like insurance, electricity, rent, salaries, advertising etc.

C. Classification according to behavior :- Costs can also be classified according to their behavior. This classification is explained below.

- **Fixed Costs :-** Out of the total costs, some costs remain fixed irrespective of changes in the production volume. These costs are called as fixed costs.
- **Variable Costs :-** These costs are variable in nature, i.e. they change according to the volume of production. Their variability is in the same proportion to the production.
- **Semi-variable Costs :-** Certain costs are partly fixed and partly variable. In other words, they contain the features of both types of costs. These costs are neither totally fixed nor totally variable. Maintenance costs, supervisory costs etc are examples of semi-variable costs. These costs are also called as 'stepped costs'.

C. Classification according to functions :- Costs can also be classified according to the functions/ activities. This classification can be done as mentioned below.

- **Production Costs :-** All costs incurred for production of goods are known as production costs.
- **Administrative Costs :-** Costs incurred for administration are known as administrative costs. Examples of these costs are office salaries, printing and stationery, office telephone, office rent, office insurance etc.
- **Selling and Distribution Costs :-** All costs incurred for procuring an order are called as selling costs while all costs incurred for execution of order are distribution costs. Market research expenses, advertising, sales staff salary, sales promotion expenses are some of the examples of selling costs.
- **Research and Development Costs :-** In the modern days, research and development has become one of the important functions of a business organization. Expenditure incurred for this function can be classified as Research and Development Costs.

Cost Sheet

Cost Sheet is a statement of cost showing the total cost of production and profit or loss from a particular product or service. A Cost Sheet shows the cost in a systematic manner and element wise.

Cost Control and Reduction :- One of the important functions of cost accounting is cost control and cost reduction. Cost control implies various actions taken in order to ensure that the cost do not rise beyond a particular level while cost reduction means reducing the existing cost of production.

Difference between Cost Accounting and Financial Accounting

Financial Accounting	Cost Accounting
It aims at finding out results of accounting year in the form of Profit and Loss Account and Balance Sheet.	It aims at computing cost of production/ service in a scientific manner and then cost control and cost reduction
It is more attached with reporting the results and position of business to persons and authorities other than management like government, creditors, investors, owners etc.	It is an internal reporting system for an organization's own management for decision making.
Financial Accounting data is historical in nature	It not only deals with historical data but is also futuristic in approach.
In financial accounting, the major emphasis is in cost classification based on type of transactions, e.g. salaries, repairs,	In cost accounting, classification is basically on the basis of functions, activities, products, process and on

insurance, stores etc.	internal planning and control and information needs of the organization.
In financial accounting, only those transactions are recorded which can be expressed in monetary terms.	Cost accounting uses both monetary as well as quantitative information.
It aims at presenting 'true and fair' view of the profit and loss position as well as financial position.	It aims at computing 'true and fair' view of the cost of production/services offered by the firm
Financial Accounts are subject to statutory audit to verify whether they disclose a true and fair view of the profit and loss as well as financial position	Cost accounts are subject to cost audit which verifies whether the cost accounts disclose true and fair view of the cost of production of the company.

Installation of a Costing System :-

I. **Size of the firm :-** Size of the firm is an extremely important factor in designing a cost accounting system. As the size of the firm and its business grows, the volume and complexity of the cost data also grows. In such situation, the cost accounting system should be capable of supplying such information.

II. **Manufacturing Process :-** Process of manufacturer changes from industry to industry. In some industries, there may be a continuous process of production while in some batch or job type of production may be in operation. A cost accounting system should be such that the manufacturing process is taken into consideration and cost data is collected accordingly.

III. **Nature and Number of Products :-** If a single product is produced, all costs like material, labor and indirect expenses can be directly allocated to that product. But if more than one product is manufactured, the question of allocation and apportionment as well as absorption of indirect expenses (Overheads) arises and hence the cost accounting system should be designed accordingly as more complex data will be required.

IV. **Management Control Needs :-** The designing of a cost accounting system in a business organization is guided by the management control requirements. The costing system should supply data to persons at different levels in the organization to take suitable action in their respective areas.

V. **Raw Materials :-** The designing of a cost accounting system in a business is also guided by the raw materials required for the production. The nature of raw materials and the degree of waste therein influence the designing of costing system. There are some materials which have a high degree of spoilage.

Chapter 02:- Material Cost Control

Introduction:

Material is one of the important element of cost and it has been observed that in the total cost structure of a product, material content is about 60 to 65%. The substantial proportion of material cost in the total cost demands more and more attention of the management towards this element. The term 'material' generally used in manufacturing concerns, refers to raw materials used for production, sub-assemblies and fabricated parts. The terms 'materials' and 'stores' are sometimes used interchangeably. However, both the terms differ. 'Stores' is wider in meaning and comprises many other items besides raw materials, such as tools, equipment's, maintenance and repair items, factory supplies, components, jigs, fixtures. Sometimes, finished goods and partly finished goods are also included within the scope of this item. This chapter aims at discussing various aspects of material control such as purchasing, store-keeping, issuing and other aspects like material losses etc.

Materials Control

Material cost constitutes a prime part of the total cost of production of manufacturing firm. Proper accounting, therefore is required for controlling the material through purchase control, stores control, issue control and control over various losses. Material control basically aims at efficient purchasing of materials, their efficient storing and efficient use or consumption.

Steps in Material Cost Control

A) **Purchasing and Receiving** : Purchase procedure differs from business to business, but all of them follow a general pattern or procedure. There should be proper Purchase Procedure to ensure that right type of material is purchased at right time, in right quantity, at right prices and at right place. All these things require a well-defined procedure of purchasing. The steps in Purchase Procedure are explained below.

1. **Purchase Requisition**: A form known as 'Purchase Requisition' is commonly used as a format requesting the purchase department to purchase the required material. Normally the purchase requisition is issued by the Stores Department when the quantity of the concerned material reaches the minimum level. Only in the cases of materials, which is not kept in the stores on regular basis, the requisition is issued by the concerned department. Purchase requisition has information like the quantity required, the expected date of receipt, the department in which the material is required, description of material etc.
2. **Purchase Order**: After the receipt of purchase requisition, the purchase department places an order with a supplier, offering to buy certain material at stated price and terms. However before issuing the purchase order, quotations may be invited from various suppliers for arriving at the best deal. The purchase department usually keeps a list of suppliers from whom the quotations are invited. The quotations received are examined on various parameters like price, delivery period, terms and conditions, quality of material etc.

3. Receiving the Materials: The receiving department performs the function of unloading and unpacking materials which are received by an organization. This will need an inspection report which is sometimes incorporated in the receiving report, indicating the items accepted and rejected with reasons. Copies of the receiving report along with the inspection report are sent to various departments like purchase, stores, concerned department, accounts department and costing department.
4. Approval of invoice: Approval of invoice indicates that goods according to the purchase order have been received and payments can be made for the same. However if the goods are not according to the quality ordered or are in excess of the quantity specified or are damaged or are of inferior quality, payment is withheld.
5. Making the Payment: After the invoice is approved the payment is made to the supplier. The purchase procedure is completed with the payment released.

B) **Storing of Materials** : Material purchased by the purchase department is sent to stores before it is issued for production. Thus storing of material can be called as an intermediate step in the material control. If an organization practices Just in Time inventory system, there is no need for storing the materials, but otherwise there is a need that there is a well-planned stores department in the company that will take care of the storing material.

C) **Issue Control** : Another important aspect of material control is the issue control. Material is issued to production and utmost care is to be taken while issuing the material. The first thing is that without authorization material should not be issued to any department. A Material Requisition Note is prepared by the department that is in need of the material and sent to the stores department. It is a written request made to the stores department for sending the material.

Important Issues in Material Procurement:

1. **Economic Order Quantity**: One important question that is to be answered by the Purchase Manager is how much to purchase at any one time? In other words, how much quantity is to be ordered at any one point of time? Whether there are any costs associated with the ordering quantity apart from the purchase price? It will be noticed that there are costs attached to the ordering quantity.

$$\text{Economic Order Quantity} = \sqrt{\frac{2UO}{IC}}$$

IC

U = Annual demand / annual consumption in units

O = Cost of placing and receiving an order

IC = Carrying cost per unit per annum

2. **Fixation of Level** : Another important aspect of material procurement is not to purchase too much or too little. Similarly the timing of the purchase is also important. Fixation of levels of materials is done precisely with these objectives in

mind. The following levels of materials are fixed for achieving objectives like avoiding overstocking, ensuring that the material is ordered at right time and also avoiding shortage of materials.

3. **Maximum Level** : This is the highest level of material beyond which the inventory of material is not allowed to rise. Obviously this level is fixed with the objective of avoiding overstocking.

$$\text{Maximum Level} = \text{Re-order Level} + \text{Re-order Quantity} - [\text{Minimum Consumption} \times \text{Minimum Reorder period}]$$

4. **Minimum Level** : This level is fixed with the objective of avoiding shortage of material. If production is held up due to shortage of material, there will be huge loss to the company. In order to avoid this, the minimum level is fixed. Care is taken that the stock do not fall below this level.

$$\text{Minimum Level} = \text{Ordering Level} - [\text{Average rate of consumption} \times \text{Re-order period}]$$

5. **Re-order Level** : This level is fixed for deciding the time of placing an order. If the stock of materials reaches this level, fresh order is placed so that by the time the material is procured, the level of material may fall up to minimum level but not below that.

$$\text{Re-order Level} = \text{Maximum Usage per Period} \times \text{Maximum Re-order Period}$$

6. **Average Level** : This level is the average of the maximum and minimum level and computed in the following manner.

$$\text{Average Level} = \frac{\text{Maximum Level} + \text{Minimum Level}}{2}$$

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Just in Time Inventory:

This is the latest trend in inventory management. This principle envisages that there should not be any intermediate stage like store-keeping. Material purchased from supplier should directly go the assembly line, i.e. to the production department. There should not be any need of storing the material. The storing cost can be saved to a great extent by using this technique.

The **benefits** of Just in time system are as follows:

- o Right quantities are purchased or produced at right time.
- o Cost effective production or operation of correct services is possible.
- o Inventory carrying costs are eliminated totally.
- o The stores function is eliminated and hence there is a considerable saving in the stores cost.
- o Losses due to breakage, wastage, pilferage etc are avoided.

VED Analysis:

‘V’ stands for vital items and their stock analysis requires more attention. The reason is that if these items are not available, the resulting stock outs will cause heavy losses due to stoppage of production. Thus these items are required to be stored adequately to ensure smooth operation of the plant.

‘E’ means essential items. Such items are considered essential for efficient running but without these items, the system will not fail. Care must be taken to see that they are always in stock.

‘D’ stands for desirable items, which do not affect production immediately but availability of these items will lead to more efficiency and less fatigue.

Thus VED analysis can be very useful to capital intensive process industries. As it analyses items based on their importance and it can be used for those special raw materials which are difficult to procure.

FSND Analysis:

‘F’ stands for fast moving items and stocks of such items are consumed in a short span of time. Stock of fast moving items must be observed constantly and replenishment orders be placed in time to avoid stock out position.

‘N’ means normal moving items and such items are exhausted over a period of time, i.e. say one year. The order levels and quantities for such items should be on the basis of a new estimate of future demand to minimize the risks of a surplus stock.

‘S’ indicates slow moving items, existing stock of which would last for two years or so. These items must be reviewed carefully before eliminating them.

‘D’ stands for dead stock which means that there will not be any further demand for the same. It is necessary to identify these items and if there cannot be any alternative use for the same, should be eliminated.

Pricing of Issues

First in First out (FIFO) Method :

This method of pricing the issues is based on the assumption that the materials purchased and received first in store are issued first to the job. It means the materials are issued in the order in which they are received. The price of the earliest lot of purchase is taken first and when that is exhausted, the price of the next lot of purchase is adopted and so on. In other words, the materials are issued at the oldest cost price. The closing stock is valued at latest or current price.

This method is suitable when prices are falling. It is also useful if transactions are few and prices of material remain stable. In case of perishable materials this method is best applicable.

Advantages :

The following are the advantages of FIFO method.

- i) It is simple to understand and easy to operate.
- ii) It is based on logical and sound principle that materials are issued in order of purchase.
- iii) The closing stock is valued at a more recent price.
- iv) Materials are priced at actual cost hence no unrealized profit or loss arises.
- v) Deterioration and obsolescence can be avoided by exhausting oldest materials at the time of issue.

Disadvantage :

This method suffers from the following disadvantages.

- i) The calculation becomes difficult and complicated when purchases are made very frequently at different prices.
- ii) Issue price does not reflect current market price.
- iii) Cost of production tends to be high during the period of falling prices.
- iv) The pricing of material returns is difficult.
- v) Cost comparison between two similar job becomes difficult when issues are priced differently.

Last in First out (LIFO) Method :

This method is exactly opposite of FIFO method. It is based on the assumption that the material purchased and received last in store are issued first to the job. Under this method the cost of last lot of materials purchased is used for pricing the material issues. Thereafter the price of next earlier lot is taken and so on. In other words, the materials are issued at the latest cost price. The closing stock of materials are valued at the oldest cost price.

In case of a rising price LIFO method is suitable because material is issued at current price.

Advantages :

The following are the advantages of LIFO method.

- i) It is simple to operate and easy to understand.
- ii) It is appropriate for matching cost and revenue.
- iii) Closing stock will be valued at earlier price and will not, therefore show unrealized profit.
- iv) It shows real income in times of rising prices.
- v) It is good method of avoiding tax.

Disadvantage :

The main disadvantages of LIFO method are as follows.

- i) Calculations become complicated when rates of receipts are highly fluctuating.

- ii) Closing stock are not valued at current market price. It is valued at unreal and outdated cost.
- iii) The stocks require to be adjusted during falling prices.
- iv) Due to variation of prices, comparison of cost of similar job is not possible.
- v) This method is not useful in case of perishable materials.

Simple Average Method :

Under this method materials are issued at the average price of materials on hand on the date of issue. The simple average price is calculated dividing the total of all rates of material in hand by the number of rates. The lot which is exhausted, based on FIFO method is excluded in computing the average.

$$\text{Rate of Issue} = \frac{\text{Total of Different Rates}}{\text{No. of Rates}}$$

This method is useful when the materials are received in uniform quantities and purchase prices are normally stable.

Advantages :

Following are the advantages of simple average method.

- i) This method is easy to operate.
- ii) It gives reasonably accurate results if prices are stable.

Disadvantage :

Following are the disadvantages of simple average method.

- i) Materials are not priced at actual costs.
- ii) It does not take into account the quantity of materials purchased.
- iii) Verification of closing stock becomes difficult.
- iv) When price and quantity of different lots are widely fluctuates, this method gives incorrect result.

Weighted Average Method :

This method gives due importance to quantity of material in stock. Under this method issue price of material is calculated by dividing the value of materials in stock by the quantities of material in stock.

$$\text{Rate of Issue} = \frac{\text{Value of material in stock}}{\text{quantities of material in stock}}$$

Weighted average rate is calculated each time when a fresh lot is received. It remains the same till the next lot is received. Thus issue price are calculated at the time of receipt of material and not all the times of issue of material. This method is useful, where the purchase price and quantities of material are widely different.

Advantages :

- i) Easy to calculate and operate.
- ii) Closing stock value is acceptable.
- iii) When prices fluctuate considerably, it smooths out the fluctuations.
- iv) This method is more logical than the simple average method.

Disadvantages :

- i) The issues are not priced at current market price.
- ii) Issue price of materials does not represent actual cost price and therefore a profit or loss may arise.
- iii) It involves considerable amount of clerical work.

Problems:

1) The following is a summary of the receipts and issues of materials in a factory during the month of April.

Date	Particulars	Qty.	Rate per unit (Rs.)
1	Received	2000	10
5	Received	300	12
8	Issued	1200	-
10	Received	200	14
12	Issued	1000	-
23	Received	300	11
31	Issued	200	-

Prepare a statement showing the pricing of issues on the basis of -

- a) FIFO method b) LIFO method

2) The following is a summary of the receipts and issues of materials in a factory during the month of April.

Date	Particulars	Qty.	Rate per unit (Rs.)
1	Received	1000	10
6	Received	150	12
9	Issued	600	-
10	Received	100	14
12	Issued	500	-
23	Received	150	11
31	Issued	100	-

Prepare a statement showing the pricing of issues on the basis of -
A) FIFO method B) LIFO method

3) The following transactions took place in respect of material x during the month of December 2018

- 1 - Opening stock 50 tons at Rs. 1000 per ton
- 2 - Issued 30 tons
- 6 - Received 60 tons at Rs. 1100 per ton
- 9 - Issued 25 tons (Stock verification reveals loss of one ton)
- 10 - Received back from orders 10 tons (previously issued at Rs. 990 per ton)
- 11 - Issued 40 tons
- 22 - Received 22 tons at Rs. 1200 per ton
- 31 - Issued 33 tons.

You are required to write up the stores ledger Account under the -

- a) FIFO Method b) LIFO Method

4) The following transactions took place in respect of material x during the month of January 2019

- 1 - Opening stock 50 tons at Rs. 2000 per ton
- 2 - Issued 30 tons
- 6 - Received 60 tons at Rs. 2200 per ton
- 9 - Issued 25 tons (Stock verification reveals loss of one ton)
- 10 - Received back from orders 10 tons (previously issued at Rs. 1980 per ton)
- 11 - Issued 40 tons
- 22 - Received 22 tons at Rs. 2400 per ton
- 31 - Issued 33 tons.

You are required to write up the stores ledger Account under the -

- a) FIFO Method b) LIFO Method

5) Prepare a store ledger Account showing the receipts and the issues of Material X for March 2020 pricing the material issued on the basis of a) FIFO method and b) LIFO method

Receipts :-

Date	Quantity	Rate per unit Rs.
1-3-2010	2000 units	20
18-3-2010	3000 units	18
30-3-2010	1000 units	16

Issues :-

Date	Quantity
4-3-2010	1000 units
10-3-2010	500 units
22-3-2010	2500 units
31-3-2010	1000 units

6) From the following transactions, prepare separately the stores Ledger Accounts, using the a) FIFO method and b) LIFO method

Jan. 1 - Opening balance 100 units @ Rs. 5 each

Jan. 5 - Received 500 units @ Rs. 6 each

Jan. 20 - Issued 300 units

Feb. 5 - Issued 200 units

Feb. 6 - Received 600 units @ Rs. 5 each

Mar. 10 - Issued 300 units

Mar. 20 - Issued 250 units.

7) The following is a summary of the receipts and issues of materials in a factory during the month of April.

Date	Particulars	Qty.	Rate per unit (Rs.)
1	Received	2000	10
7	Received	300	12
10	Issued	1200	-
10	Received	200	14
12	Issued	1000	-
23	Received	300	11
31	Issued	200	-

Prepare a statement showing the pricing of issues on the basis of -

A) Simple Average method

B) Weighted Average method

8) The following is a summary of the receipts and issues of materials in a factory during the month of April.

Date	Particulars	Qty.	Rate per unit (Rs.)
1	Received	1000	10
8	Received	150	12
11	Issued	600	-
10	Received	100	14
12	Issued	500	-
23	Received	150	11
31	Issued	100	-

Prepare a statement showing the pricing of issues on the basis of -

A) Simple Average method

B) Weighted Average method

9) Prepare a statement showing the pricing of issues on the basis of (a) simple Average and (b) Weighted Average Methods from the following information during a month.

Date -

- 1 - purchased 100 units @ Rs. 10.00 each
- 2 - purchased 200 units @ Rs. 10.20 each
- 5 - Issued 250 units
- 7 - purchased 300 units @ Rs. 10.50 each
- 10 - purchased 200 units @ Rs. 10.80 each
- 13 - Issued 200 units
- 18 - Issued 200 units
- 20 - purchased 100 units @ Rs. 11.00 each
- 25 - Issued 150 units

10) The following transactions took place in respect of material item during the month of April.

Date	Receipt Qty.	Rate	Issue Qty
2	2000	2.00	
10	3000	2.40	
15			2500
18	2500	2.60	
20	2000		

Prepare the stores Ledger Account, pricing the issue at the a) simple Average Rate and b) Weighted Average Rate.

11) The following transactions took place in respect of material item during the month of April.

Date	Receipt Qty.	Rate	Issue Qty
2	1000	2.00	
10	2000	2.40	
15			1500
18	2000	2.60	
20	1000		

Prepare the stores Ledger Account, pricing the issue at the a) simple Average Rate and b) Weighted Average Rate.

12) The following particulars have been extracted in respect of Material X prepare a store Ledger Account showing the receipts and issue, pricing the material issued on the basis of : a) Simple Average Basis b) Weighted Average Basis

Receipts :-

1-10-2019 Opening Stock 200 units at Rs. 3.50 per unit

3-10-2019 purchased 300 units at Rs. 4.00 per unit

13-10-2019 purchased 900 units at Rs. 4.30 per unit

23-10-2019 purchased 600 units at Rs. 3.80 per unit

Issues :-

4-10-2019 Issued 400 units

15-10-2019 Issued 600 units

25-10-2019 Issued 600 units

13) The following particulars have been extracted in respect of Material X prepare a store Ledger Account showing the receipts and issue, pricing the material issued on the basis of : a) Simple Average Basis b) Weighted Average Basis

Receipts :-

1-10-2019 Opening Stock 100 units at Rs. 3.50 per unit

3-10-2019 purchased 200 units at Rs. 4.00 per unit

13-10-2019 purchased 700 units at Rs. 4.30 per unit

23-10-2019 purchased 500 units at Rs. 3.80 per unit

Issues :-

4-10-2019 Issued 200 units

15-10-2019 Issued 400 units

25-10-2019 Issued 300 units

14) Prepare a statement showing the pricing of issues on the basis of (a) simple Average and (b) Weighted Average Method c) LIFO method and d) FIFO methods from the following information during a month.

Date -

- 1 - purchased 500 units @ Rs. 10.00 each
- 2 - purchased 300 units @ Rs. 10.20 each
- 5 - Issued 150 units
- 7 - purchased 300 units @ Rs. 10.50 each
- 10 - purchased 200 units @ Rs. 10.80 each
- 13 - Issued 300 units
- 18 - Issued 200 units
- 20 - purchased 400 units @ Rs. 11.00 each
- 25 - Issued 150 units

Chapter 03: Labour Cost Control

Meaning Of Labour Cost:

The control of labour cost and its accounting is very difficult as it deals with the human element is a human resource and participates in the process of production.

Labour may be classified unto two broad categories

i) Direct labour ii) Indirect labour

➤ **Direct Labour**

It includes all labour directly engaged in converting raw materials into finished goods or in altering the construction, composition or condition of the product.

Eg:- weaver in a weaving unit, washer in a dry cleaning unit

➤ **Indirect Labour**

The labour which cannot be readily identified with a specific job, contract or work order.

Eg:- labour employed in stores department

TIME KEEPING

It refers to the recording of each worker's time of coming in and going out during engagement of the factory.

Objectives of time keeping

- Minimization of labour cost
- Ensuring discipline in attendance
- Preparation of payrolls
- Effective utilization of human resources
- Apportionment of overhead on the basis of labour hours

Methods of Time Keeping:-

- 1) **Manual Method:** - the choice of the manual method adopted by the factory depends upon its size, number of workers employed the nature of the business and policy of a firm. The methods of time keeping are as follows:
 - a) Attendance register method – under this method, an attendance register is maintained by the time keeper in the time office.
 - b) token or disc method- in this method , each worker is allotted a metal disc or a token with a hole bearing his identification number.
- 2) **Mechanical method** – to overcome the difficulties faced in manual methods, ;arge scale concerns use mechanical methods for marking attendance of workers.
 - a) time recording clocks – under this system, each worker is given a time card for week or fortnight.these time or clock crds are serially arranged in atray at the entrance to the factory.
 - b) dial time records – under this method, a machine which is used for recording correct attendance , time of arrival and departure of worker automatically.

- c) key recorder system – this system is economical and easy to operate .
there are a several keys, each of which denotes a worker's number.

TIME BOOKING :-

It is the recording of time spent by the worker on different jobs or work orders carried out by him during his period of attendance in the factory

IDLE TIME

it is that time for which employer pays remuneration to the workers , but they do not work due to certain reasons. It is the time for which there is payment , but no direct production / benefit is obtained.

In other words, the difference between the time which the employees are paid and the employees time booked against the cost object.

The time for which the employees are paid includes holidays, paid leave and other allowable time off such as like tea break, lunch etc.

Types of idle time

- a) **Normal Idle Time;** - it refers that any loss of time is inherent in every situation which cannot be avoided.
- b) **Abnormal Idle Time:** - it refers to any loss of time which may occur due to some abnormal reasons. It can be prevented through effective planning and control.

OVER TIME

It is the work done beyond the normal working period in a day or week. For overtime done,, the workers are given double the wages for the overtime done. The additional amount paid because overtime is known as overtime premium.

LABOUR TURNOVER

It is the rate change in composition of a labour force of an organisation due to retirement , resignation or retirement etc., during particular period.

LABOUR TURN OVER

- a) **Separation method** = $\frac{\text{number of separations}}{\text{average number of workers}} \times 100$

Average number of workers

$$\text{average no.of workers} = \frac{\text{workers at the beginning} + \text{workers at the end}}{2}$$

- b) **Replace method** = $\frac{\text{No.of replacement} \times 100}{\text{average no.of workers}}$

- c) **Flux method** = $\frac{\text{No.of separation} + \text{No.of replacements}}{\text{average no.of workers}} \times 100$

Pay Roll Department

It is of crucial importance in overall labour cost computation and control. The main responsibilities of this department are preparation of payroll from clock cards, job or time tickets, or time sheet.

METHODS OF REMUNERATION

1) TIME RATE SYSTEM

under this system , workers are paid according to the time for which they work. Payment may be on hourly basis, daily basis or monthly basis.

Wages = no.of hours worked x rate per hour

- a) **Flat time** – this method is used for paying remuneration to employees based on their attendance.
- b) **High day rate system** – under this method, a worker is paid a wage rate which is substantially higher than the rate prevailing in the area or in the industry
- c) **Guaranteed time rate** – under this method, it is made at time rate, which varies according to personal qualities of the workers.

2) PIECE RATE SYSTEM

Wages under this system are paid according to the quantity of work done.

Wages = rate per unit x no.of.units produced

- a) **Straight piece rate** – in this method, rate per unit is fixed and the worker is paid according to this rate.
- b) **Increasing piece rate** – in this system different rates are fixed for different levels of production.
- c) **Decreasing piece rate** – in certain cases, where quality is of great consideration , this system is followed to discourage negligence of workers.

3) INCENTIVE SYSTEM

under this system, a standard time is fixed for the completion of a specific job or operation at an hourly rate plus wages for a certain fraction of the time saved by way of a bonus. This plan is also known as bonus plan

- a) **Hasley's premium plan** – under this method, the worker is given wages for the actual time taken and a bonus equal to half of wages for time saved.

[T.T x H R] + 50% [TA – TT] x H.R

- b) **The Halsey – Weir scheme** – under this method, the worker gets bonus of 30% of the time saved instead of 50% of time saved under Halsey plan

[T.T x H R] + 30% [TA – TT] x H.R

- c) **Rowan plan** – wages, according to time basis, are guaranteed and the slow worker is not made to suffer.

Bonus = $\frac{\text{Time saved}}{\text{Standard time}} \times \text{time wages}$

$$\text{Total earnings} = \text{Time taken} \times \text{Hourly rate} + \frac{\text{Time saved}}{\text{Std. time}} \times \text{Time} \times \text{Rate}$$

4) TAYLOR'S DIFFERENTIAL PIECE RATE SYSTEM

This system was introduced by F.W Tylor, the father of Scientific Management. The main features of this incentive plan are as follows:

- Day wages are not guaranteed, I.e it does not assure any minimum amount of wages to workers.
- A standard time for each job is set very carefully after time and motion studies.
- Two piece rates are set for each job- the lower rate and the higher rate.
- The lower piece rate is payable where a worker takes a longer time than the standard time to complete the work. Higher rate is payable when a worker completes the work within the standard time.

PROBLEMS:-

- Calculate the earnings of the workers under the Hasley premium plan:
Hasley wear and rowan plan system
Time allowed 48 hours
Time taken 40hours
Rate per hour rs.10
- Calculate the earnings of the workers under the Hasley premium plan:
Hasley wear and rowan plan system
Time allowed 48 hours
Time taken 40hours
Rate per hour rs.1
- Calculate the total earnings and the rate earned per hour , of 3 workmen under the Hasley premium and Rowan plan, the bonus under the Halsey plan is 50%
Standard time :20hours
Hourly rate of wages rs.4
Time taken A= 16hours; B = 10hours; C=8 hours
- Standard time permit 20 seconds
Normal rate per hour rs,1.80
Differentials to be applied
80% piece rate below standard
120% of piece rate at or above standard
Worker A produces 1300 units per day
Worker B produces 1500 units per day
Calculate Taylor's Differential piece rate system
- Calculate the total earnings of the worker under halsey premium plans
Standard time = 12 hours
Hourly rat = rs.3
Time taken = 8 hours
- Calculate the total earnings of the worker under halsey- weir plans
Standard time = 10 hours

Hourly rate = rs.2 per hour
Time taken = 8 hours

- 7) Calculate the total earnings of the worker under rowan system
Standard time = 10 hours
Hourly rate = rs.3
Time taken = 8 hours
- 8) Calculate the total earnings of the worker under (a) halsey premium plans (b) Rowan Premium plan
Standard time = 56 hours
Hourly rate = rs.2
Time taken = 48 hours
- 9) On the basis of the following information calculate the earnings of A.B.C & D. Under Merrick Differential price rate system.
Standard production per hour 12 units.
Normal rate per unit 60 paise.
In an 8 hour, a day
A produces 64 units.
B produces 96 units.
C produce 84 units.
D produce 100 units.
- 10) The following are the particulars applicable to the work progress;
Time rate =Rs 5/hour
High Task= 40 units per week
Piece rate above high task= Rs 6.5/hour
In a 40-hour week, each of the following work - A,B,C & D produces 35 units, 40 units, 41 units, 52 units respectively. Calculate the wages of the worker under Gant's - Task bonus plan.
- 11) Total number of employees at the beginning -2010, total number of employees at the end - 1990. Number of employees resigned 30, number of employees discharged 50 & Number of employees replaced is 40. From the above details calculate labour turnover by applying
1. Separation Method 2. Replacement Method 3. Flux Method
- 12) Total number of employees at the beginning -5000, total number of employees at the end - 2500. Number of employees resigned 30, number of employees discharged 50 & Number of employees replaced is 40. From the above details calculate labour turnover by applying
1.Separation Method 2. Replacement Method 3. Flux Method
- 13) From the following particulars calculate labour cost for a day of 8 hours.
Basic wages 5 per day
Dearness allowance 25ps. For every point over 700 cost of living index.
Present living index 800 points.
Leave pay 5% of a) and b)
Employees contribution to provident fund 8% of a) &b)

Employers contribution to state insurance 5% of a) , b) and c)
Number of working days in a month 25 days of 8 hours each.

14) Standard time permit 20 seconds

Normal Rate per hour Rs. 1.80

Differentials to be applied

80% piece rate below standard

120% of piece rate at or above standard

Worker A produces 1300 units per day and

Worker B Produces 1500 units per day.

Calculation of piece Rates:

1. Straight piece rate system

2. Taylor's Differential piece rate system

15) From the following particulars, calculate total earnings of each worker under Gantt's Task and Bonus Scheme:

Standard production per week per worker is 2000 units, piece work rate 5 per unit.

Actual production during the month:

A-1000 units

B-2000 units

C-2500 units

Chapter 04: Overhead Cost Control

One of the classification of costs is on the basis of 'Nature' in which costs are classified as 'Direct' and 'Indirect'. Direct costs are those which are identifiable with a cost object or a cost center while Indirect costs are not traceable to cost object or cost center. In other word, indirect costs cannot be linked with the product offered by the firm. If a firm manufactures only one product, all costs are direct but if more than one products are offered, the indirect costs incurred are not traceable with a particular product. So, while direct costs are allocable to a job, process, service, cost unit or a cost center, indirect costs cannot be so allocated. These indirect costs are called as 'Overhead' costs.

Meaning of Overhead Costs:

Overhead Costs are operating cost of a business enterprise which cannot be traced directly to a particular unit of output. Further such costs are invisible or unaccountable.

Definition of Overhead Costs:

According to CIMA, overhead costs are defined as, ' the total cost of indirect materials, indirect labor and indirect expenses.'

Classification of Overheads

Classification is defined by CIMA as, 'the arrangement of items in logical groups having regard to their nature (subjective classification) or the purpose to be fulfilled. (Objective classification) In other words, classification is the process of arranging items into groups according to their degree of similarity. Accurate classification of all items is actually a prerequisite to any form of cost analysis and control system.

1) **Classification according to Elements** :- According to this classification overheads are divided according to their elements. The classification is done as per the following details.

- **Indirect Materials** :- Materials which cannot be identified with the given product unit of cost center is called as indirect materials. For example, lubricants used in a machine is an indirect material, similarly thread used to stitch clothes is also indirect material. Small nuts and bolts are also examples of indirect materials.
- **Indirect Labor** :- Wages and salaries paid to indirect workers, i.e. workers who are not directly engaged on the production are examples of indirect wages.
- **Indirect Expenses** :- Expenses such as rent and taxes, printing and stationery, power, insurance, electricity, marketing and selling expenses etc are the examples of indirect expenses.

2) **Functional Classification :-** Overheads can also be classified according to their functions. This classification is done as given below.

- **Manufacturing Overheads :-** Indirect expenses incurred for manufacturing are called as manufacturing overheads. For example, factory power, works manager's salary, factory insurance, depreciation of factory machinery and other fixed assets, indirect materials used in production etc. It should be noted that such expenditure is incurred for manufacturing but cannot be identified with the product units.
- **Administrative Overheads :-** Indirect expenses incurred for running the administration are known as Administrative Overheads. Examples of such overheads are, office salaries, printing and stationery, office telephone, office rent, electricity used in the office, salaries of administrative staff etc.
- **Selling and Distribution Overheads :-** Overheads incurred for getting orders from consumers are called as selling overheads. On the other hand, overheads incurred for execution of order are called as distribution overheads. Examples of selling overheads are, sales promotion expenses, marketing expenses, salesmen's salaries and commission, advertising expenses etc. Examples of distribution overheads are warehouse charges, transportation of outgoing goods, packing, commission of middlemen etc.
- **Research and Development Overheads :-** In the modern days, firms spend heavily on research and development. Expenses incurred on research and development are known as Research and Development overheads.

3) **Classification according to Behavior :-** According to this classification, overheads are classified as fixed, variable and semi-variable. These concepts are discussed below.

- **Fixed Overheads :-** Fixed overheads are commonly described as those that do not vary in total amount with increase or decrease in production volume, for a given period of time, may be a year. Salaries, depreciation of fixed assets, property taxes, are some of the examples of fixed costs. Total fixed costs remain same irrespective of changes in volume of production but per unit of fixed cost is variable. It increases if production decreases while if production increases, it decreases.
- **Variable Overheads :-** Variable overheads are those which go on increasing if production volume increases and go on decreasing if the volume decreases. Such increase or decrease may or may not be in the same proportion. Variable overheads are generally considered to be controllable as they are directly connected with the production.
- **Semi-variable Overheads :-** These types of overheads remain constant over a relatively short range of variation in output and then are abruptly changed to a new level. In other words, they remain same up to a certain level of output and after crossing that level, they start increasing. For example, supervisor's salary is treated as fixed but if a decision is taken to operate a second shift, additional

supervisor may have to be appointed which results into increase in the salary of the supervisor.

Uses of Overhead Classification:

- 1) It ensures effective cost control.
- 2) It helps the management for effective decision making.
- 3) It facilitates fixing of selling price.
- 4) It helps to find out the unit cost of production.

Allocation V/S Apportionment

1) Allocation deals with whole amount of factory overheads while apportionment deals with proportion of item of cost or proportion to cost centres.

2) The item of factory overhead directly allocated and identified with specific cost centres, whereas apportionment requires suitable and equitable basis. For example, Factory rent may be allocated to the factory and has to be apportioned among the producing and service departments on an equitable basis.

Basis of Apportionment

Overhead apportionment depends upon matching with principles. Accordingly, the basis for apportionment should be related to the basis on which the expenditure is incurred. The following are the usual basis adopted for apportionment of overhead:

Overhead Cost	Basis of Distribution
Lighting & Heating	No. Of light points, space or meter reading.
Rent, Rates & Taxes	Floor Area
Insurance of building depreciation of building	Area floor
Repairs, Insurance & Depreciation of Plant & Machinery and Equipments.	Book Value
Canteen, Safety, Supervision, Welfare, Fringe benefits	No. Of Employees
Delivery van, Internal Transport	Weight, Volume ton
Audit fees	Sales or Total Cost
Storekeepers Expenses	Weight, Value of materials or Number of Requisitions
Power/Steam	H.P Hours or K.W Hours
Insurance of Stock	Insured value of Stock
Compensation to workers, ESI, PF	Wages/ Direct Wages

Store keeping expenses & material charges	Direct Material
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Problems:

1) A company has three production departments A, B and C and two service departments, X and Y. The following data are extracted from the records of the company for a particular period.

Sr. No.	Particulars	Amount (Rs.)
01	Rent and Taxes	25,000
02	General lighting	3,000
03	Indirect Wages	7,500
04	Power	7,500
05	Depreciation of Machinery	50,000
06	Sundries	50,000

Additional Data

Particulars	Total	Dept.A	Dept.B	Dept.C	Dept.X	Dept.Y
Direct Wages (Rs.)	50,000	15,000	10,000	15,000	7,500	2,500
Horsepower of Machines	150	60	30	50	10	-----
Cost of Machinery (Rs.)	12,50,000	3,00,000	4,00,000	5,00,000	25,000	25,000
Production hrs worked	-----	6226	4028	4066	-----	-----
Floor space (sq.mtrs)	10,000	2,000	2,500	3,000	2,000	500
Lighting points (Nos.)	60	10	15	20	10	05

Service Departments' Expenses Allocation :-

Department	A	B	C	X	Y
X (%)	20	30	40	--	10
Y (%)	40	30	20	10	--

You are required to, Prepare primary and secondary distribution summary according to repeated distribution System.

2) A factory has three production departments and two service departments. The following figures have been extracted from the financial books:

Particulars	Rs.
Supervision	6,000
Repairs of plant and Machinery	3,000
Rent	8,000
Light	2,000
Power	3,000
Employer's Contribution to ESI	600
Canteen Expenses	1,000

The following further details have been extracted from the books of the respective departments:

Particulars	A	B	C	D	E
Direct Wages	4,000	3,000	2,000	2,000	1,000
Area of Square feet	2,000	1,000	500	500	100
No. Of Employees	50	40	20	20	10
Value of Machinery	10,000	5,000	3,000	3,000	1,000
Light points	80	60	30	30	20
H.P of Machines	200	100	50	50	20

3) Manish Mill ltd. Has two production departments A,B and one service department S. The actual costs for a period are as follows:

Particulars	Rs.
Power	1,750
Lighting	1,600
Rent and Rates	6,000
Sundries	1,600
Depreciation on Machinery	6,000
Indirect Wages	----

The other particulars are as follows:

Particulars	Dept. A	Dept.B	Service Department
Working Hours	4,000	3,000	2,000
Direct Wages	3,000	2,000	3,000
Cost of Machinery	75,000	50,000	25,000
H.P of Machinery	60	30	10
Light Points	18	12	10
Floor Area(sq.ft)	1,000	1,200	800

Apportion the cost of the various departments on most equitable basis.

4) ABC Ltd has five departments of which X,Y & Z are production departments while A & B are service departments. The following are the particulars relating to the departments:

Particulars	X	Y	Z	A	B
Floor area occupied	360	240	200	140	60
No. of Employees	40	30	24	16	10
Horse power of machines	1,200	800	1,000	----	----
Wages	1,00,000	80,000	60,000	30,000	10,000
Value of plant (Rs)	4,80,000	4,00,000	3,20,000	2,00,000	1,00,000
Value of Buildings	10,00,000	6,00,000	4,00,000	2,00,000	1,00,000
No. Of lights	60	40	30	20	10
Value of Stocks	3,00,000	2,00,000	1,00,000	----	----

Distribute the following costs to the various departments on the most suitable basis:

Particulars	Rs
Rent, Rates and Taxes	10,000
Repairs to plant	15,000
Repairs to Building	23,000
Depreciation of Plant	45,000
Insurance of Stock	3000
Power	9000
Supervision	12,000

Insurance of plant	1500
Lighting	1600

Re-apportionment(Re-distribution)

Re-distribution of overhead from various service departments to production departments is known as Re-apportionment or Secondary distribution. Accordingly, allocation and apportionment of overheads from service departments or centres to production centres or departments.

Methods of Re-apportionment or Re-distribution

1) **Direct Re-distribution Method:** Under this method, the cost of service department is directed to re-distribution to the production departments without considering the services rendered by one service department to another service department.

2) **Step Method:** Under this method, the cost of most serviceable department is first distributed to production departments and other service departments. Thereafter, the next service department is distributed and later the last service department until the cost of all the service departments are re-distributed to the production department.

3) **Reciprocal Service Method:** This method recognizes the fact that if a service department receives services from other department, the services should be charged in the receiving department. Thus, the cost of inter departmental services is taken into account on reciprocal basis. The following are the three important methods available for dealing with reciprocal distribution:

a) **Simultaneous Equation Method:** This is an algebraic method in which simultaneous equations are formed and amount of overhead expenses of each service department are found out, by solving the equations. The total expenses thus obtained are then directly transferred to the production departments.

b) **Repeated Distribution Method:** Under this method, the total overhead costs of the service departments are distributed to service and production departments according to given percentage of the service departments are exhausted, in turn repeatedly until the figures become too small to matter.

c) **Trail and Error Method:** In this method, the cost of a service centre is apportioned to another service centre. Then, the cost of another service centre along with the apportioned cost from the first centre is again apportioned back to the first service centre. This process is repeated till the amount to apportioned becomes zero or negligible.

Problems:

1) Moonlight Engineering company has three production departments, A.B and C and one services department S. Following are the particulars of a month of 25 working days of 8 hours each.

Calculate the labour hour rate for each of the production departments:

Particulars	Rs
Indirect materials	
Dept. A	1,735
Dept. B	930
Dept.C	935
Dept. S	300
Indirect wages	9,000
Rent	8,800
Canteen Expenses	1,800
Lighting	2,200
Depreciation @ 12% p.a	

Other Information:

Particulars	Dept. A	Dept. B	Dept. C	Dept. S
No. Of Workers	20	25	30	15
Area (Sq. Metre)	100	100	150	50
Direct Wages	8,000	10,000	12,000	6,000
No. Of Electric points	40	30	20	20
Value of Assets	5,000	6,000	6,000	3,000

Service rendered by the service department to production departments A, B & C is in the ratio of 2:2:1, respectively.

2) A manufacturing company has three production departments and two service departments. The primary distribution summary of March 2018 gives the following information:

Production Departments

X	32,000
Y	24,000
Z	12,000

Total Production Department=68,000.

Service Departments:

S1	4,500
S2	8,000

The service departments expenses are charged on a percentage basis which is as follows:

Production Departments				Service Departments	
Particulars	X	Y	Z	S1	S2
S1	20%	25%	35%	--	20%
S2	25%	25%	40%	10%	--

3) Swill Co. Ltd has three production departments and two service departments. From the following information show the distribution of service departments cost under the repeated distribution method:

Production Departments

P1	4,800
P2	4,200
P3	3,000

Total Production Department=12,000

Service Departments:

S1	1,000
S2	1,200

The expense of service departments are charges on a percentage basis which is as follows:

Production Departments				Service Departments	
Particulars	P1	P2	P3	S1	S2
S1	20%	40%	30%	--	10%

S2	40%	20%	20%	20%	--
----	-----	-----	-----	-----	----

4) The following particulars related to a manufacturing company has three production departments: P,Q & R and two service departments X & Y.

Production Departments

P	2,000
Q	1,500
R	1,000

Service Departments:

S	500
T	400

The service department expenses are charged on a percentage basis as follows:

Production Departments				Service Departments	
Particulars	P	Q	R	S	T
S	20%	30%	40%	--	10%
T	30%	30%	20%	20%	--

Prepare a statement showing the distribution of the two service departments expenses to three production departments under:

- Simultaneous Equation Method
- Repeated Distribution Method.

5) A manufacturing company has two production departments A & B and three service departments - Time keeping, Stores & Maintenance. The departmental summary showed the following expenses for Dec.2003.

Particulars	Rs.
Department A	32,000
Department B	10,000
Service Departments:	
Time keeping	8,000
Stores	10,000
Maintenance	6,000

Total overhead Expenses	66,000
-------------------------	--------

The following information about departments is available and is used as a basis for distribution:

Production Departments			Service Departments		
Particulars	A	B	Time Keeping	Stores	Maintenance
No. of Employees	20	15	10	8	5
No. Of Stores Requisitions	12	10	--	--	3
Machine Hours	1,200	800	--	--	--

You are required to apportion these costs to production departments.

Chapter – 05:- Reconciliation of cost and financial accounts

Introduction:

When cost accounts and financial accounts are maintained separately in two different sets of accounting books (Non – integral System), the profit or loss shown by the both may not agree. Therefore, it becomes necessary that periodically the profit or loss shown by the two sets of accounts is reconciled.

Meaning

A Reconciliation statement is prepared showing the reasons for difference between the results disclosed by cost and financial books.

Need for Reconciliation cost a/c's & Financial a/c's:-

- To reveal the reasons for difference in profit or loss between cost and financial a/c's
- To check the arithmetical accuracy of both sets of a/c's as well as to detect errors and omissions committed in the a/c's.
- To ensure the reliability of cost a/c's in order to correct ascertainment of cost of production.
- To promote co-ordination between cost and financial departments.
- To ensure managerial decision making.

Reasons For Difference In Profit Or Loss Shown By Cost A/C's And Profit Or Loss Shown By Financial A/C's:-

The disagreement or difference between cost and financial accounts results (profit or loss) arise due to the following reasons:

1. Items shown only in financial account
2. Items shown only in cost account
3. Over or under absorption of overhead
4. Difference in valuation of stock
5. Difference methods of charging depreciation
6. Abnormal gain or loss

1. Items Shown Only In Financial Account

There are certain items of incomes and expenditures which are shown only in financial accounts not in cost accounts. As a result, the profit or loss as per cost accounts would be quite different from the profit or loss as per the financial accounts. These items of financial nature can be divided in three groups:

A. Items of expenditures shown only in financial account:

- * Interest on capital
- * Expenses on issue of shares and debentures
- * Loss on revaluation
- * Discount on debenture
- * Penalties and fine
- * Provision for bad and doubtful debts

- * Loss on sale of fixed assets
- * Donation
- * Goodwill, preliminary expenses etc.

B. Items Of Income:

- * Interest received, rent received, commission received, discount received
- * Dividend received
- * Share transfer fees
- * Returned of income tax
- * Gain on sale of fixed assets

C. Appropriation Of Profits:

- * Income tax paid
- * Dividend paid
- * Transfer to general or specific reserves or funds
- * Transfer to sinking fund
- * Excess provision for depreciation
- * Bonus

2. Items Shown Only In Cost Account

There are very few items, which are shown in cost accounts but not in the financial accounts as they do not represent any transaction with outsiders. These items are also responsible for the disagreement of the results shown by the two sets of accounts. These items are:

- * Rent or depreciation of the own building of the proprietor
- * Remuneration of the proprietor
- * Depreciation on fully depreciated assets
- * Interest on capital employed in production
- * The losses due to defective and spoilage

3. Over Or Under Absorption Of Overhead

In cost account, overheads are charged on the basis of predetermined percentage. But in financial account they are charged with the actual amount. This results over or under absorption of overheads in cost account and may be the main reason for difference in profits disclosed by cost account and financial account.

The effect of over or under absorption of overhead to profit is shown below:

Overhead.....	Result
Over subscription.....	Less Profit
Under subscription.....	More Profit

4. Difference In Valuation Of Stock

In financial account, stocks are valued at cost or market price, whichever is lower, but in cost account, stocks are valued only at its cost price. This result in some difference in result i.e. profit or loss.

6. Difference Methods Of Charging Depreciation

There are different methods of charging depreciation. In financial account, depreciation may be calculated on straight line or diminishing balance method as per Income Tax Act. But in cost account, depreciation is calculated on the basis of use of the asset (generally machine hours). The difference in depreciation methods

also results in disagreement in profit or loss of these two accounts.

6. Abnormal Gains And Losses

Abnormal gains and losses are shown in financial account while they are completely excluded from cost account. Goods lost by fire, theft, accident or costs of abnormal idle time are examples of abnormal losses, which are shown in financial account but not in cost account. Such abnormal gains and losses also lead to disagreement of cost and financial account results.

FORMAT OF RECONCILIATION

Statement showing reconciliation of cost and financial accounts

Particulars	Amount	Amount
	Rs	Rs
Profit as per cost accounts		XXXX
Add: (i) Income which are ignored in cost account		
Interest received	xxx	
Dividend received	xxx	
Share transfer fee rent received	xxx	
Profit of assets sold	xxx	XXXX
(ii) Over valuation of over head expenses in cost account		
Factory over heads	xxx	
Administrative overheads	xxx	
Selling & distribution overheads	xxx	XXXX
(iii) Under valuation of closing stock in cost account		XXXX
Grand Total		XXXX
Less:(i) financial expenditure which are ignored in cost acc		
Income tax	xxx	
Penalty	xxx	
Donation	xxx	
Goodwill written off	xxx	
Preliminary expenses written off	xxx	
Debentures discount written off	xxx	
Bad debt reserve	xxx	
Loss of Assets sold	xxx	XXXX
(ii) undervaluation of overhead expenses in cost		
Factory overheads	xxx	
Administrative overhead	xxx	
Selling and distribution overheads	xxx	XXXX
(iii) overvaluation of closing stock in cost account		XXXX
Profit/Loss As Per Financial Account		XXXX

FORMAT OF RECONCILIATION**Statement showing reconciliation of cost and financial accounts**

Particulars	Amount	Amount
	Rs	Rs
Profit as per financial accounts		XXXX
Add: (i) financial expenditure which are ignored in cost a/c		
Income tax	xxx	
Penalty	xxx	
donation	xxx	
Goodwill written off	xxx	
Preliminary expenses written off	xxx	
Debentures discount written off	xxx	
Bad debt reserve	xxx	
Loss of asset sold	xxx	XXXX
(ii) under valuation of overhead expenses in cost account		
Factory overheads	xxx	
Administrative overheads	xxx	
Selling & overheads	xxx	XXXX
(iii) over valuation of closing stock in cost account		XXXX
Grand Total		XXXX
Less: i) Income which are ignored in cost account		
Interest received	xxx	
Dividend received	xxx	
Share transfer fee rent received	xxx	
Profit of assets Sold	xxx	
Administrative overhead	xxx	
Selling and distribution overheads	xxx	XXXX
(ii) overvaluation of overhead expenses in cost account		
Factory overheads	xxx	
Administrative overheads	xxx	
Selling & distribution overheads	xxx	XXXX
(iii) undervaluation of closing stock in cost account		XXXX
Profit/Loss As Per Cost Account		XXXX

PROBLEMS:-

- 1) The net profit of A Co.Ltd appeared at rs.30,326 as per financial records for the year ending 31.3.2001. The Cost books, however, showed a net profit of Rs.43, 100 for the same period. A scrutiny of the figures from both the sets of accounts revealed the following facts:

Works overhead under recovered in costs	780
Administrative overheads over recovered in costs	425
Depreciation charged in financial accounts	2,800
Depreciation recovered in costs	3,125
Interest on investment not included in costs	2,000
Loss due to obsolescence charged in financial accounts	1,425
Income – tax provided in financial accounts	10,075
Bank interest and transfer fee credited in financial books	187.50
Stores adjustment (credit) in financial books	118.50
Value of opening stock in cost accounts	12,400
Financial accounts	13,150
Value of closing stock: in cost accounts	12,500
Financial accounts	11,500
Interest charged in cost accounts	1,000
Good will written off	2,500
Loss on the sale of furniture	300

Prepare a statement showing the reconciliation between the figures of net profit as per cost accounts and the figure of net profit as shown in financial books

- 2) From the following figures prepare reconciliation statement:

Net profit as per financial books	31,890
Net profit as per costing books	33,380
Factory overheads under recovery in costing	2,850
Administrative overheads recovered in excess	2,125
Depreciation charged in financial books	1,830
Depreciation recovered in costing	1,975
Interest received but not included in costing	225
Income – tax provided in financial books	300
Bank interest credited in financial books	115
Stores adjustment (credit) in financial books	210
Depreciation on stock charged in financial accounts	430
Dividend paid appropriated in financial accounts	600
Loss due to theft provided in financial a/c	130

- 3) From the following figures prepare reconciliation statement:

Net loss as per costing books	1,72,400
Work overheads under recovery in cost accounts	3,120
Depreciation over charged in cost accounts	1,300
Administration overheads recorded in excess in cost a/c	1,300
Interest on investment	8,750

Goodwill written off in financial books	5,700
Income – tax paid	40,300
Stores adjustment (credit) in financial books	475
Depreciation on stock charged in financial books	6,750

- 4) you are required to calculate profit/ loss in cost accounts as well as financial accounts and reconcile them:

PARTICULARS	RS
Sales	2,00,000
Purchase of raw material	30,000
Closing stock	5,000
Direct wages	1,00,000
Indirect wages(factory)	5,000
Bad debts	1,000
Indirect expenses (factory overheads)	20,000
Interest on overdraft	500
Profit on sale of assets	1,000
Selling expenses	20,000
Distribution expenses	10,000

In cost accounts manufacturing overheads recovered at 30% on direct wages, selling overheads recovered rs.15, 000 and distribution overheads recovered Rs.7000.

- 5) The financial books of a company show a net profit of rs.1, 27,560 for the year ending 31.12.2003. The cost account shows a net profit of rs.1, 33,520 for the same corresponding period. The following facts are brought to light:

Factory overheads under recovered in costing a/c	400
Administration overheads over recovered in costing a/c	8,500
Depreciation charged in financial a/c's	7,320
Depreciation recovered in cost a/c	7,900
Interest received but not included in cost a/c	900
Income – tax debited in financial a/c	1,200
Bank interest credited in financial a/c	460
Stores adjustment credited in financial a/c	840
Rent charged in financial a/c	1,720
Dividend paid recorded in financial a/c	2,400
Loss of obsolescence charged in financial a/c	520

- 6) A manufacturing company disclosed a Net loss of rs.5, 72,000 as per their cost accounts for the year ended 31.3.2003. the financial a/c's however disclosed a Net Loss of Rs.8,84,000 for the same period. The following info ration was revealed as a result of scrutiny of the figures of both the set of books.

Factory overheads over absorbed	400
Administration overheads under absorbed	8,500
Depreciation charged in financial a/c's	7,320

Depreciation charged in cost a/c	7,900
Interest on investments not included in cost a/c	900
Income – tax provided	1,200
Interest on loan funds in financial a/c	460
Transfer fees(credited in financial books)	840
Stores adjustment (credited in financial books)	1,720

Prepare a Memorandum Reconciliation Method.

- 7) The profit shown in the financial a/c was rs.1,12,870 and for the same period the cost a/c's showed a profit of Rs.27,040.

Particulars	Cost A/C's	Financial A/C's
Depreciation	98,260	1,05,200
Stock valuation:		
Opening stock	2,75,100	2,55,000
Closing stock	1,82,180	1,87,500
Profit on sale of assets		8,500
Dividend received		26,350
Imputed rent charge		32,500
Reconcile the profit figurers		

- 8) Following figures were available in respect of Ashok Engineering company for the year ended 31.3.201

Particulars	Financial A/C's	Cost A/C's
Opening stock:		
Raw material	6000	5,000
Work – in – progress	7000	6,500
Finished stock	5000	4,500
Closing stock:		
Raw material	4000	4,300
Work – in – progress	3000	3,700
Finished stock	5900	6,200
Purchases	40000	
Direct wages	20000	
Factory expenses	20000	
Sales	1,10,000	21,000 absorbed
Administration expenses	3,000	2,300absorbed
Selling expenses	4,000	4,500 absorbed
Financial expenses	1,000	
Interest and dividend received	1,600	

Compute profit in financial a/c's as well as in Cost Accounts and Prepare a Reconciliation Statement. Show clearly the reasons for the variation of the two profit figures.

9) The following is the trading and profit and loss a/c of S ltd

To materials consumed	23,01,000	By sales (30,000 units)	48,75,000
To direct wages to production	12,05,750	By closing stock (1000 units)	1,30,000
overheads	6,92,250	Work in progress	
To administration overheads	3,10,375	Material	
To selling and distribution	3,68,875	55,250	
overheads	22,750	Wages	97,500
To preliminary expenses written off	45,500	26,000	3,90,000
To goodwill written off	3,250	Production overheads	65,000
To fines	13,000	16,250	
To interest in mortgage	16,250	By dividend received	
To loss on sale of machine	1,95,000	By interest on bank deposit	
To taxation	3,83,500		
To net profit for the year			
	55,57,500		55,57,500

S ltd manufacturers a standard unit

The cost accounting record of S Ltd, shows the following

- Production overheads have been charged to WIP at 20% on prime cost
- Administration overheads have been recovered to Rs.9.75 per finished unit
- Selling and distribution overheads have been recovered at Rs.13 per unit sold
- The under or over absorption of overheads has not been transferred to costing P&L a/c.

Required:

- Prepare a Proforma costing p&L a/c indicating net profit
- Prepare control cost a/c's for production overheads, administration overheads and selling and distribution overheads
- Prepare a statement reconciling the profit disclosed by the cost records with that shown in financial a/c's.

10) During a year the cost books of a company showed a profit of Rs.1, 68,000. A scrutiny of the figures from both the sets of accounts revealed the following facts.

- Sundry income of rs.5, 000 was not considered in cost books
- Factory overheads under recovered in cost books rs.20, 200
- Selling expenses under recovered in cost books of rs.51, 750
- Administration overheads, over recovered in cost books rs.24, 950

Reconciling cost books with financial books.