Department of Commerce CA

Subject: Cost Accounting I

Subject Code: CCP 51

Semester: V

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Unit – I

Introduction

Cost Accounting is a branch of accounting and has been developed due to limitations of financial accounting. Financial accounting is primarily concerned with record keeping directed towards the preparation of Profit and Loss Account and Balance Sheet. It provides information regarding the profit and loss that the business enterprise is making and also its financial position on a particular date. The financial accounting reports help the management to control in a general way the various functions of the business but it fails to give detailed reports on the efficiency of various divisions. The limitations of Financial Accounting which led to the development of cost accounting are as follows.

Limitations of Financial Accounting

1. **No clear idea of operating efficiency**: Sometimes profits in an organization may be less or more because of inflation or trade depression and not due to efficiency or inefficiency. But financial accounting does not give a clear reason for profit or loss.
2. **Weakness not spotted out by collective results**: Financial Accounting shows the net result of an organization. When the profit and loss account of an organization, shows less profit or a loss, it does not give the reason for it or it does not show where the weakness lies.
3. **Does not help in fixing the price**: In Financial Accounting, we get the total cost of production but it does not aid in determining prices of the products, services, production order and lines of products.
4. **No classification of expenses and accounts**: In Financial Accounting, we don't get data relating to costs incurred by departments, processes separately or per unit cost of product lines, or cost incurred in various sales territories. Further expenses are not classified as direct or indirect, controllable and uncontrollable overheads and the value added in each process is not reported.
5. **No data for comparison and decision making**: It does not supply useful data to management for comparison with previous period and for taking various financial decisions as introduction of new products, replacement of labour by machines, price in normal or special circumstances, producing a part in the factory or buying it from outside market, production of a product to be continued or given up, priority accorded to different products, investment to be made in new products or not etc.
6. **No control on cost**: Financial Accounting does not help to control materials, supplies, wages, labour and overhead costs.
7. **Does not provide standards to assess the performance**: Financial Accounting does not help in developing standards to assess the performance of various persons or departments. It also does not help in checking that costs do not exceed a reasonable limit for a given quantum of work of the requisite quality.
8. **Provides only historical information**: Financial Accounting records only the historical costs incurred. It does not provide day-to-day cost information to the management for making effective plans for the future.
9. **No analysis of losses**: It does not provide complete analysis of losses due to defective

material, idle time, idle plant and equipment etc.. In other words, no distinction is made between avoidable and unavoidable wastage.

10. **Inadequate information for reports**: It does not provide adequate information for reports to outside agencies such as banks, government, insurance companies and trade associations.
11. **No answer for certain questions**: Financial Accounting will not help to answer questions like:-
    (a) Should an attempt be made to sell more products or is the factory operating to capacity?
    (b) if an order or contract is accepted, is the price obtainable sufficient to show a profit?
    (c) if the manufacture or sale of product A were discontinued and efforts make to increase the sale of B, what would be the effect on the net profit? (d) Why the profit of last year is of such a small amount despite the fact that output was increased substantially? Etc.

Costing and Cost Accounting

The costing terminology of C.I.M.A, London defines costing as the "the techniques and processes of ascertaining costs". These techniques consist of principles and rules which govern the procedure of ascertaining cost of products or services. The techniques to be followed for the analysis of expenses and the processes by which such an analysis should be related to different products or services differ from industry to industry. These techniques are also dynamic and they change with time.

The main object of traditional cost accounts is the analysis of financial records, so as to subdivide expenditure and to allocate it carefully to selected cost centers, and hence to build up a total cost for the departments, processes or jobs or contracts of the undertaking. The extent to which the analysis of expenditure should be carried will depend upon the nature of business and degree of accuracy desired. The other important objective of costing are cost control and cost reduction.

Cost Accounting may be regarded as "a specialized branch of accounting which involves classification, accumulation, assignment and control of costs." The costing terminology of C.I.M.A, London defines cost accounting as "the process of accounting for costs from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centers and cost units. In its widest usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of profitability of activities carried out or planned".

Wheldon defines cost accounting as "classifying, recording and appropriate allocation of expenditure for determination of costs of products or services and for the presentation of suitably arranged data purposes of control and guidance of management". It is thus a formal mechanism by means of which costs of products or services are ascertained and controlled.

General Principles of Cost Accounting

The following may be considered as the General Principles of Cost Accounting:

1. <u>A cost should be related to its causes:</u> Cost should be related as closely as possible to their causes so that cost will be shared only among the cost units that pass thorough the department of which the expenses are related.
2. <u>A cost should be charged only after it has been incurred:</u> While determining the cost of individual units those costs which have actually been incurred should be considered. For example, a cost unit should not be charged to the selling costs, while it is still in the factory.

Selling costs can be charged with the products which are sold.

3. <u>The convention of prudence should be ignored:</u> Usually accountants believe in historical costs and while determining cost, they always attach importance to historical cost. In Cost Accounting this convention must be ignored, otherwise, the management appraisal of the profitability of the projects may be vitiated. According to W.M. Harper, "a cost statement should, as far as possible, give facts with no known bias. If a contingency needs to be taken into consideration it should be shown separately and distinctly".

4. <u>Abnormal costs should be excluded from cost accounts:</u> Costs which are of abnormal nature (eg. Accident, negligence etc.) should be ignored while computing the cost, otherwise, it will distort costs figures and mislead management as to working results of their undertaking under normal conditions.

5. <u>Past costs not to be charged to future period:</u> Costs which could not be recovered or charged in full during the concerned period should not be taken to a future period, for recovery. If past costs are included in the future period, they are likely to influence the future period and future results are likely to be distorted.

6. <u>Principles of double entry should be applied wherever necessary:</u> Costing requires a greater use of cost sheets and cost statements for the purpose of cost ascertainment and cost control, but cost ledger and cost control accounts should be kept on double entry principle as far as possible.

Objectives of Cost Accounting

Cost accounting aims at systematic recording of expenses and analysis of the same so as to ascertain the cost of each product manufactured or service rendered by an organization. Information regarding cost of each product or service would enable the management to know where to economize on costs, how to fix prices, how to maximize profits and so on. Thus, the main objectives of cost accounting are the following.

1. To analyze and classify all expenditure with reference to the cost of products and operations.
2. To arrive at the cost of production of every unit, job, operation, process, department or service and to develop cost standard.
3. To indicate to the management any inefficiencies and the extent of various forms of waste, whether of materials, time, expenses or in the use of machinery, equipment and tools. Analysis of the causes of unsatisfactory results may indicate remedial measures.
4. To provide data for periodical profit and loss accounts and balance sheets at such intervals, e.g. weekly, monthly or quarterly as may be desired by the management during the financial year, not only for the whole business but also by departments or individual products. Also, to explain in detail the exact reasons for profit or loss revealed in total in the profit and loss accounts.
5. To reveal sources of economies in production having regard to methods, types of

equipment, design, output and layout. Daily, Weekly, Monthly or Quarterly information may be necessary to ensure prompt constructive action.

6. To provide actual figures of costs for comparison with estimates and to serve as a guide for future estimates or quotations and to assist the management in their price fixing policy.
7. To show, where Standard Costs are prepared, what the cost of production ought to be and with which the actual costs which are eventually recorded may be compared.
8. To present comparative cost data for different periods and various volume of output and to provide guidance in the development of business. This is also helpful in budgetary control.
9. To record the relative production results of each unit of plant and machinery in use as a basis for examining its efficiency. A comparison with the performance of other types of machines may suggest the necessity for replacement.
10. To provide a perpetual inventory of stores and other materials so that interim Profit and Loss Account and Balance Sheet can be prepared without stock taking and checks on stores and adjustments are made at frequent intervals. Also to provide the basis for production planning and for avoiding unnecessary wastages or losses of materials and stores.

Last but not the least, to provide information to enable management to make short term decisions of various types, such as quotation of price to special customers or during a slump, make or buy decision, assigning priorities to various products, etc.

Cost Accounting and Financial Accounting-

Both financial accounting and cost accounting are concerned with systematic recording and presentation of financial data. Financial accounting reveals profits and losses of the business as a whole during a particular period, while cost accounting shows, by analysis and localization, the unit costs and profits and losses of different product lines. The main difference between financial accounting and cost accounting are summarized below.

1. Financial accounting aims at safeguarding the interests of the business and its proprietors and others connected with it. This is done by providing suitable information to various parties, such as shareholders or partners, present or prospective creditors etc. Cost accounting on the other hand, renders information for the guidance of the management for proper planning, operation, control and decision making.
2. Financial accounts are kept in such a way as to meet the requirements of the Companies Act, Income Tax Act and other statues. On the other hand cost accounts are generally kept voluntarily to meet the requirements of the management. But now the Companies Act has made it obligatory to keep cost records in some manufacturing industries.
3. Financial accounting emphasizes the measurement of profitability, while cost accounting aims at ascertainment of costs and accumulates data for this very purpose.
4. Financial accounts disclose the net profit and loss of the business as a whole, whereas cost accounts disclose profit or loss of each product, job or service. This enables the management to eliminate less profitable product lines and maximize the profits by concentrating on more profitable ones.
5. Financial accounting provides operating results and financial position usually gives information through cost reports to the management as and when desired.

6. Financial accounts deal mainly with actual facts and figures, but cost accounts deal partly with facts and figures, but cost accounts deal with facts and figures and partly with estimates.
7. In case of financial accounts stress is on the ascertainment and exhibition of profits earned or losses incurred in the business. On account of this reason in financial accounts, the transactions are recorded, classified and analyzed in a subjective manner i.e. according to the nature of expenditure. In cost accounts the emphasis is more on aspects of planning and control and therefore transactions are recorded in an objective manner.
8. Financial accounts are concerned with external transactions i.e. transactions between the business concern on one side and third parties on the other. These transactions form the basis for payment or receipt of cash. While cost accounts are concerned with internal transactions which do not form the basis of payment or receipt of cash.
9. The costs are reported in aggregate in financial accounts but costs are broken into unit basis in cost accounts.
10. Financial accounts do not provide information on the relative efficiencies of various workers, plants and machinery while cost accounts provide valuable information on the relative efficiencies of various plants and machinery.
11. In financial accounts stocks are valued at cost or market price whichever is less, whereas stocks are valued at cost price in cost accounts.

Importance of Cost Accounting

The limitations of financial accounting have made the management to realize the importance of cost accounting. Whatever may be the type of business, it involves expenditure on labour, materials and other items required for manufacturing and disposing of the product. The management has to avoid the possibility of waste at each stage. It has to ensure that no machine remains idle, efficient labour gets due incentive, by-products are properly utilized and costs are properly ascertained. Besides the management, the creditors and employees are also benefited in numerous ways by installation of a good costing system. Cost accounting increases the overall productivity of an organization and serves as an important tool, in bringing prosperity to the nation, thus, the importance of cost accounting can be discussed under the following headings:

a) **Costing as an aid to management**:- Cost accounting provides invaluable aid to management. It provides detailed costing information to the management to enable them to maintain effective control over stores and inventory, to increase efficiency of the organization and to check wastage and losses. It facilitates delegation of responsibility for important tasks and rating of employees. For all these the management should be capable of using the information provided by cost accounts in a proper way. The various advantages derived by the management from a good system of costing are as follows:

1. **Cost accounting helps in periods of trade depression and trade competition**. In periods of trade depression, the organization cannot afford to have wastages which pass unchecked. The management must know areas where economies may be sought, waste eliminated and efficiency increased. The organization must wage a war not only for its survival but also continued growth. The management should know the actual cost of their products before embarking on any scheme of price reduction. Adequate system of costing facilitates this.
2. **Cost accounting aids price fixation**. Although the law of supply and demand determines the

price of the product, cost to the producer does play an important role. The producer can take necessary guidance from his costing records in case he is in a position to fix or change the price charged.

3. **Cost accounting helps in making estimates**. Adequate costing records provide a reliable basis for making estimates and quoting tenders.
4. **Cost accounting helps in channelizing production on right lines**. Proper costing information makes it possible for the management to distinguish between profitable and non-profitable activities; profits can be maximized by concentrating on profitable operations and eliminating non-profitable ones.
5. **Cost accounting eliminates wastages**. As cost accounting is concerned with detailed breakup of costs, it is possible to check various forms of wastages or losses.
6. **Cost accounting makes comparisons possible**. Proper maintenance of costing records provides various costing data for comparisons which in turn helps the management in formulating future lines of action.
7. **Cost accounting provides data for periodical Profit and Loss Account**. Adequate costing records provide the management with such data as may be necessary for preparation of Profit and Loss Account and Balance Sheet at such intervals as may be desired by the management.
8. **Cost accounting helps in determining and enhancing efficiency**. Losses due to wastage of materials, idle time of workers, poor supervision etc will be disclosed if the various operations involved in the production are studied carefully. Efficiency can be measured, cost controlled and various steps can be taken to increase the efficiency.
9. **Cost accounting helps in inventory control**. Cost accounting furnishes control which management requires, in respect of stock of materials, work in progress and finished goods.

b) **Costing as an aid to Creditors**.

Investors, banks and other money lending institutions have a stake in the success of the business concern are therefore benefitted immensely by the installation of an efficient system of costing. They can base their judgment about the profitability and future prospects of the enterprise on the costing records.

c) **Costing as an aid to employees**.

Employees have a vital interest in their employer's enterprise in which they are employed. They are benefited by a number of ways by the installation of an efficient system of costing. They are benefited, through continuous employment and higher remuneration by way of incentives, bonus plans, etc.

d) Costing as an aid to National Economy

An efficient system of costing brings prosperity to the business enterprise which in turn brings prosperity to the business enterprise which in turn results in stepping up of the government revenue. The overall economic development o f a country takes place as a consequence of increase in efficiency of production. Control of costs, elimination of wastages and inefficiencies led to the progress of the industry and, in consequence of the nation as a whole.

Cost units- The Chartered Institute of Management Accountants, London, defines a unit of cost as "a unit of quantity of product, service or time in relation to which costs may be ascertained or expressed".

The forms of measurement used as cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.

Following are some examples of cost unit.

Industry/product	**Cost unit basis**
Automobile	Numbers
Brick works	per 1000 bricks
Cement	per Tonne
Chemicals	Litre, gallon, kilogram, ton
Steel	Tonne
Sugar	Tonne
Transport	Passenger-kilometre, tonne kilometer

Cost centre – According to Chartered Institute of Management Accountants, London, cost centre means "a location, person or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of cost control". Cost centre is the smallest organizational sub-unit for which separate cost collection is attempted. Thus cost centre refers to one of the convenient unit into which the whole factory organization has been appropriately divided for costing purposes. Each such unit consists of a department or a sub-department or item of equipment or , machinery or a person or a group of persons.

For example, although an assembly department may be supervised by one foreman, it may contain several assembly lines. Some times each assembly line is regarded as a separate cost centre with its own assistant foreman.

The selection of suitable cost centres or cost units for which costs are to be ascertained in an undertaking depends upon a number of factors which are listed as follows.

1. Organization of the factory
2. Conditions of incidence of cost
3. Requirements of the costing system ie. Suitability of the units or centres for cost purposes.
4. Availability of information
5. Management policy regarding making a particular choice from several alternatives.

Profit centre – A profit centre is that segment of activity of a business which is responsible for both revenue and expenses and discloses the profit of a particular segment of activity. Profit centres are created to delegate responsibility to individuals and measure their performance.

Difference between Profit centre and Cost centre

The various points of difference between Profit centre and cost centre are as follows.

- Cost centre is the smallest unit of activity or area of responsibility for which costs are collected whereas a profit centre is that segment of activity of a business which is responsible for both revenue and expenses.

- Cost centres are created for accounting conveniences of costs and their control whereas as a profit centre is created because of decentralization of operations i.e., to delegate responsibility to individuals who have greater knowledge of local conditions etc.
- Cost centers are not autonomous whereas profit centres are autonomous.
- A cost centre does not have target cost but efforts are made to minimize costs, but each profit centre has a profit target and enjoys authority to adopt such policies as are necessary to achieve its targets.
- There may be a number of cost centres in a profit centre in a profit centre as production or service cost centres or personal or impersonal but a profit centre may be a subsidiary company within a group or division in a company.

Cost classification

Costs can be classified or grouped according to their common characteristics. Proper classification of costs is very important for identifying the costs with the cost centers or cost units. The same costs are classified according to different ways of costing depending upon the purpose to be achieved and requirements of a particular concern. The important ways of classification are:

1. **By Nature or Elements**. According to this classification the costs are classified into three categories i.e., Materials, Labour and Expenses. Materials can further be sub-classified as raw materials components, spare parts, consumable stores, packing materials etc. This helps in finding the total cost of production and the percentage of materials (labour or other expenses) constituted in the total cost. It also helps in valuation of work-in-progress.
2. **By Functions**: This classification is on the basis of costs incurred in various functions of an organization ie. Production, administration, selling and distribution. According to this classification, costs are divided into Manufacturing and Production Costs and Commercial costs.

Manufacturing and Production Costs are costs involved in manufacture, construction and fabrication of products.

Commercial Costs are (a) administration costs (b) selling and distribution costs.

3. **By Degree of Traceability to the Product :** According to this, costs are divided indirect costs and indirect costs. **Direct Costs** are those costs which are incurred for a particular product and can be identified with a particular cost centre or cost unit. Eg:- Materials, Labour. **Indirect Costs** are those costs which are incurred for the benefit of a number of cost centre or cost units and cannot be conveniently identified with a particular cost centre or cost unit. Eg:- Rent of Building, electricity charges, salary of staff etc.

4. **By Changes in Activity or Volume:** According to this costs are classified according to their behavior in relation to changes in the level of activity or volume of production. They are fixed, variable and semi-variable. **Fixed Costs** are those costs which remain fixed in total amount with increase or decrease in the volume of the output or productive activity for a given period of time. Fixed Costs per unit decreases as production increases and vice versa. Eg:- rent, insurance of factory building, factory manager’s salary etc. **Variable Costs** are those costs which vary in direct proportion to the volume of output. These costs fluctuate in total but remain constant per unit as production activity changes. Eg:- direct material costs, direct labour costs, power, repairs

etc. **Semi-variable Costs** are those which are partly fixed and partly variable. For example; Depreciation, for two shifts working the total depreciation may be only 50% more than that for single shift working. They may change with comparatively small changes in output but not in the same proportion.

5. **Association with the Product:** Cost can be classified as product costs and period costs. Product costs are those which are traceable to the product and included in inventory cost, thus product cost is full factory cost. Period costs are incurred on the basis of time such as rent, salaries etc. thus it includes all selling and administration costs. These costs are incurred for a period and are treated as expenses.
6. **By Controllability**: The **CIMA** defines controllable cost as "a cost **which can be** influenced by the action of a specified member of an undertaking" and a non-controllable cost as "a cost which cannot be influenced by the action of a specified member of an undertaking".
7. **By Normality:** There are normal costs and abnormal costs. Normal costs are the costs which are normally incurred at a given level of output under normal conditions. Abnormal costs are costs incurred under abnormal conditions which are not normally incurred in the normal course of production. Eg:- damaged goods due to machine break down, extra expenses due to disruption of electricity, inefficiency of workers etc.
8. **By Relationship with Accounting Period:** There are capital and revenue expenses depending on the length of the period for which it is incurred. The cost which is incurred in purchasing an asset either to earn income or increasing the earning capacity of the business is called capital cost, for example, the cost of a machine in a factory. Such cost is incurred at one point of time but the benefits accruing from it are spread over a number of accounting years. The cost which is incurred for maintaining an asset or running a business is revenue expenditure. Eg:- cost of materials, salary and wages paid, depreciation, repairs and maintenance, selling and distribution.
9. **By Time..**Costs can be classified as 1) Historical cost and 2) Predetermined Costs.
   The costs which are ascertained and recorded after it has been incurred is called historical costs. They are based on recorded facts hence they can be verified and are always supported by evidences. Predetermined costs are also known as estimated costs as they are computed in advance of production taking into consideration the previous periods' costs and the factors affecting such costs. Predetermined costs when calculated scientifically become standard costs. Standard costs are used to prepare budgets and then the actual cost incurred is later-on compared with such predetermined cost and the variance is studied for future correction.

Types, Methods and Techniques of Costing

The general fundamental principles of ascertaining costs are the same in every system of cost accounting, but the methods of analysis and presenting the costs vary from industry to industry. Different methods are used because business enterprises vary in their nature and in the type of products or services they produce or render. Basically, there are two principal methods of costing, namely (i) Job Costing, and (ii) Process costing.

1. **Job costing**: It refers to a system of costing in which costs are ascertained in terms of specific jobs or orders which are not comparable with each other. Industries where this method of costing is generally applied are Printing Process, Automobile Garages, Repair Shops, Ship-

building, House building, Engine and Machine construction, etc. Job Costing includes the following methods of costing:

(a) ***Contract Costing***: Although contract costing does not differ in principle from job costing, it is convenient to treat contract cost accounts separately. The term is usually applied to the costing method adopted where large scale contracts at different sites are carried out, as in the case of building construction.

(b) ***Bach Costing***: This method is also a type of job costing. A batch of similar products is regarded as one job and the cost of this complete batch is ascertained. It is then used to determine the unit cost of the articles produced. It should, however, be noted that the articles produced should not lose their identity in manufacturing operations.

(c) ***Terminal Costing***: This method is also a type of job costing. This method emphasizes the essential nature of job costing, ie, the cost can be properly terminated at some point and related to a particular job.

(d) ***Operation Costing***: This method is adopted when it is desired to ascertain the cost of carrying out an operation in a department, for example, welding. For large undertaking, it is frequently necessary to ascertain the cost of various operations.

2. **Process Costing**: Where a product passes through distinct stages or processes, the output of one process being the input of the subsequent process, it is frequently desired to ascertain the cost of each stage or process of production. This is known as process costing. This method is used where it is difficult to trace the item of prime cost to a particular order because its identity is lost in volume of continuous production. Process costing is generally adopted in textile industries, chemical industries, oil refineries, soap manufacturing, paper manufacturing, tanneries, etc.

3. **Unit or single or output or single output costing:** This method is used where a single article is produced or service is rendered by continuous manufacturing activity. The cost of the whole production cycle is ascertained as a process or series of processes and the cost per unit is arrived at by dividing the total cost by the number of units produced. The unit of costing is chosen according to the nature of the product. Cost statements or cost sheets are prepared under which various items of expenses are classified and the total expenditure is divided by total quantity produced in order to arrive at unit cost of production. This method is suitable in industries like brick-making, collieries, flour mills, cement manufacturing, etc. this method is useful for the assembly department in a factory producing a mechanical article eg. Bicycle.

4. **Operating Costing**: This method is applicable where services are rendered rather than goods produced. The procedure is same as in the case of single output costing. The total expenses of the operation are divided by the units and cost per unit of services is arrived at. This method is employed in Railways, Road Transport, Water supply undertakings, Telephone services, Electricity companies, Hospital services, Municipal services, etc.

5. **Multiple or Complete Costing**: Some products are so complex that no single system of costing is applicable. It is used where there are a variety of components separately produced and subsequently assembled in a complex production. Total cost is ascertained by computing component costs which are collected by job or process costing and then aggregating the costs

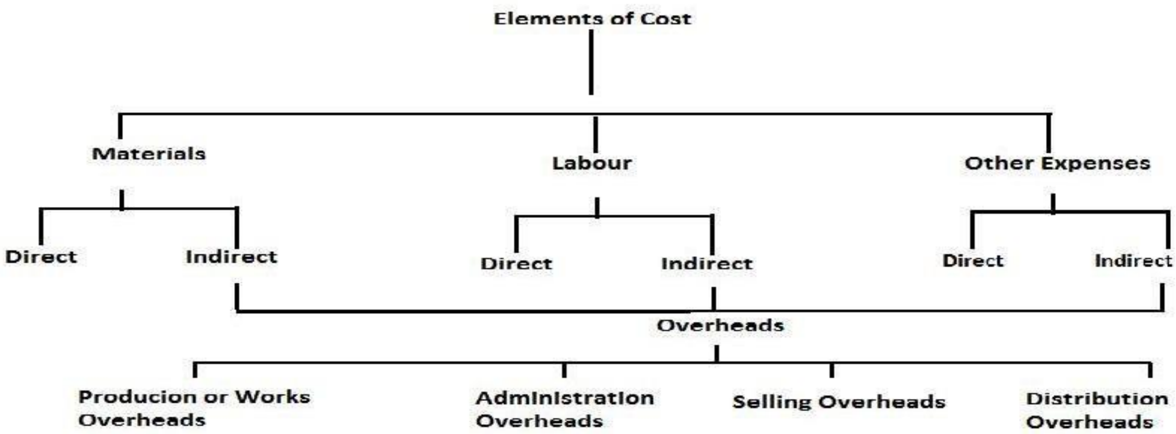
through use of the single or output costing system. This method is applicable to manufacturing concerns producing Motor Cars, Aeroplanes, Machine tools, Type-writers, Radios, Cycles, Sewing Machines, etc.

6. **Uniform Costing:** It is not a distinct method of costing by itself. It is the name given to a common system of costing followed by a number of firms in the same industry. This helps in comparing performance of one firm with that of another.
7. **Departmental Costing**: When costs are ascertained department by department, the method is called "Departmental Costing". Usually, for ascertaining the cost of various goods or services produced by the department, the total costs will have to be analysed, say, by the use of job costing or unit costing.

   In addition to the above methods of costing, mention can be made of the following techniques of costing which can be applied to any one of the above method of costing for special purposes of cost control and policy making:

a) Standard or Predetermined Costs.
b) Marginal Costs

Elements of Cost- The management of an organization needs necessary data to analyze and classify costs for proper control and for taking decisions for future course of action. Hence the total cost is analyzed by elements of costs ie by the nature of expenses. The elements of costs are three and they are materials, labour and other expenses. These can be further analyzed as follows.



By grouping the above elements of cost, the following divisions of cost are obtained.

1. Prime cost = Direct Materials + Direct Labour+ Direct Expenses
2. Works or Factory Cost = Prime Cost + Works or Factory Overheads
3. Cost of Production = Works Cost + Administration Overheads
4. Total Cost or Cost of Sales = Cost of Production + Selling and Distribution

Overheads The difference between the cost of sales and selling price represents profit or loss.

Illustration 1. Find the Prime Cost, Works Cost, Cost of production, total Cost and profit from the following:- Direct Materials Rs.20000; Direct Labour Rs. 10000; Factory Expenses Rs. 7000; Administration Expenses Rs. 5000; Selling Expenses Rs. 7000 and Sales Rs.60,000.

Solution:

Prime Cost = Direct Materials + Direct Labour = Rs.20,000 + Rs.10,000 = Rs.30,000. Works Cost = Prime Cost + Factory Expenses = Rs.30,000 + Rs.7,000 = Rs.37,000.

Cost of Production = Works Cost + Administration Expenses=Rs.37000+ Rs.5, 000 = Rs.42, 000.

Total Cost or Cost of sales= Cost of Production + Selling Expenses = Rs.42, 000+ Rs.7, 000 = Rs.49, 000. Profit = Sales - Total Cost = Rs.60,000 - Rs.49,000=Rs.11, 000.

These terms can be explained as follows

1. **Direct Materials** are those materials which can be identified in the product and can be conveniently measured and directly charged to the product. For example, bricks in houses, wood in furniture etc. Hence all raw materials, materials purchased specifically for a job or process like glue for book making, parts or components purchased or produced like batteries for radios and tyres for cycles, and primary packing materials are direct materials.
2. **Indirect Materials** are those materials which cannot be classified as direct materials. Examples are consumables like cotton waste, lubricants, brooms, rags, cleaning materials, materials for repairs and maintenance of fixed assets, high speed diesel used in power generators etc.
3. **Direct Labour** is all labour expended in altering the construction, composition, confirmation or condition of the product. Thus direct wages means the wages of labour which can be conveniently identified or attributed wholly to a particular job, product or process or expended in converting raw materials into finished goods. Thus payment made to groups of labourers engaged in actual production, or carrying out of an operation or

process, or supervision, maintenance, tools setting, transportation of materials, inspection, analysis etc is direct labour.

4. **Direct Expenses** are expenses directly identified to a particular cost centre. Hence expenses incurred for a particular product, job, department etc are direct expenses. Example royalty, excise duty, hire charges of a specific plant and equipment, cost of any experimental work carried out especially for a particular job, travelling expenses incurred in connection with a particular contract or job etc.
5. **Overheads** may be defined as the aggregate of the cost of indirect materials, indirect labour and such other expenses including services as cannot conveniently be charged direct ot specific cost units. Overheads may be sub-divided into (i) Manufacturing Overheads; (ii) Administration Overheads; (iii) Selling Overheads; (iv) Distribution Overheads; (v) Research and Development Overheads.

Cost sheet or Statement of Cost: When costing information is set out in the form of a statement, it is called “Cost Sheet”. It is usually adopted when there is only one main product and all costs almost are incurred for that product only. The information incorporated in a cost sheet would depend upon the requirement of management for the purpose of control.

Specimen of Cost Sheet or Statement of Cost

	Total Cost Rs.	Cost per Unit Rs.
Direct Materials	xxx	xxx
Prime cost		
Add: Works Overheads	xxx	xxx
Works Cost		
Add: Administrative Overheads	xxx	xxx
Cost of Production		
Add: Selling and Distribution Overheads	xxx	xxx

Illustration 2: Calculate Prime Cost, Factory Cost, Cost of Production, Cost of Sales and profit from the following particulars:

	Rs.		Rs.
Direct Materials	1,00,000	Consumable stores	2,500
Direct Wages	30,000	Manager's Salary	5,000
Wages of Foreman	2,500	Directors' fees	1,250
Electric power	500	Office Stationery	500
Lighting: Factory	1,500	Telephone Charges	125
Office	500	Postage and Telegrams	250
Storekeeper's wages	1,000	Salesmen's salary	1,250
Oil and water	500	Travelling expenses	500
Rent: Factory	5,000	Advertising	1,250
Office	2,500	Warehouse charges	500
Repairs and Renewals:		Sales	1,89,500
Factory plant	3,500	Carriage outward	375
Transfer to Reserves	1,000	Dividend	2,000
Discount on shares written off	500		
Depreciation: Factory Plant	500		
Office Premises	1,250		

Solution **STATEMENT OF COST AND PROFIT**

	Rs.	**Rs.**
Direct Materials		1,00,000
Direct Wages		30,000
Prime Cost		**1,30,000**
Add: **Factory Overheads:**		
Wages of foreman	2,500	
Electric power	500	
Storekeeper's Wages	1000	
Oil and Water	500	
Factory rent	5,000	
Repairs and renewals-Factory Plant	3,500	
Factory lighting	1500	
Depreciation-Factory Plant	500	
Consumable stores	2500	17500

Factory Cost		**1,47,500**
Add: **Administration Overheads:**		
Office rent	2,500	
Repairs and Renewals-Office Premises	500	
Office lighting	500	
Depreciation : Office Premises	1,250	
Manager's Salary	5,000	
Director's fees	1,250	
Office Stationery	500	
Telephone charges	125	
Postage and telegrams	250	11,875
Cost of Production		**1,59,375**
Add: Selling and Distribution Overheads:		
Carriage Outward	375	
Salesmen's Salaries	1,250	
Travelling Expenses	500	
Advertising	1,250	
Warehouse charges	500	3850
Cost of Sales		**1,63,250**
Profit		26,250
Sales		**1,89,500**