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DEPARTMENT OF COMMERCE

Subject :Cost Accounting

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COST, COST ACCOUNTING MEANING AND DEFINITION

Meaning and Definition

Cost accounting is the classifying, recording and appropriate allocation of expenditure for the determination of the costs of products or services, and for the presentation of suitably arranged data for purposes of control and guidance of management. It includes the ascertainment of the cost of every order, job, contract, process, service or unit as may be appropriate. It deals with the cost of production, selling and distribution.

According to Weldon, “Cost accounting is the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of saving/or excess cost incurred as compared with previous experience or with standards”. Thus, cost accounting relates to the collection, classification, ascertainment of cost and its accounting and control relating to the various elements of cost.

Meaning of Cost

How does one define with the cost of something? It is the amount to be paid for a good or service or the resources given in exchange for such good or service.

In commercial terms, the cost is the monetary valuation of the effort, materials, risks and opportunity costs all put together.

Cost is also defined as by the expenditure incurred to produce a given good or service. The cost will be the expenditure that is attributable to something.

Value is measured in terms of the usefulness of the product, the cost is measured strictly in monetary terms.

While cost is a very generic term, it can be classified further. All costs can be qualified as prime cost, sunk cost, factory cost, direct cost, indirect cost, etc. It is advisable to classify costs as it gives more information about it.

Meaning of Costing

Costing is essentially a technique via which we assign or costs to various elements of the business. It is a system of ascertaining costs.

We follow certain rules and principles to guide us in this ascertaining of costs. Some such methods of costing to ascertain these costs are historical costing, standard costing, etc.

- Assigning variable costs according to the activity levels is direct costing
- And assigning fixed costs irrespective of activity levels is known as absorption costing

Thus, cost accounting has the following features:

1. It is a process of accounting for costs.
2. It records income and expenditure relating to production of goods and services.
3. It provides statistical data on the basis of which future estimates are prepared and quotations are submitted.
4. It is concerned with cost ascertainment, cost control and cost reduction.
5. It establishes budgets and standards so that actual cost may be compared to find out deviations or variances.
6. It involves the presentation of right information to the right person at the right time so that it may be helpful to management for planning, evaluation of performance, control and decision making.

Following are the main objectives of cost accounting:

1. To ascertain the cost per unit of the different products manufactured by a business concern;
2. To provide a correct analysis of cost both by process or operations and by different elements of cost;
3. To disclose sources of wastage whether of material, time or expense or in the use of machinery, equipment and tools and to prepare such reports which may be necessary to control such wastage;
4. To provide requisite data and serve as a guide for fixing prices of products manufactured or services rendered;
5. To ascertain the profitability of each of the products and advise management as to how these profits can be maximised;
6. To exercise effective control if stocks of raw materials, work-in-progress, consumable stores and finished goods in order to minimise the capital locked up in these stocks;
7. To reveal sources of economy by installing and implementing a system of cost control for materials, labour and overheads;
8. To advise management on future expansion policies and proposed capital projects;
9. To present and interpret data for management planning, evaluation of performance and control;
10. To help in the preparation of budgets and implementation of budgetary control;
11. To organise an effective information system so that different levels of management may get the required information at the right time in right form for carrying out their individual responsibilities in an efficient manner;
12. To guide management in the formulation and implementation of incentive bonus plans based on productivity and cost savings;

General Principles of Cost Accounting:

1. Cause-Effect Relationship:

Cause-effect relationship should be established for each item of cost. Each item of cost should be related to its cause as minutely as possible and the effect of the same on the various departments should be ascertained. A cost should be shared only by those units which pass through the departments for which such cost has been incurred.

2. Charge of Cost Only after its Incurrence:

Unit cost should include only those costs which have been actually incurred. For example unit cost should not be charged with selling cost while it is still in factory.

3. Past Costs Should not Form Part of Future Costs:

Past costs (which could not be recovered in past) should not be recovered from future costs as it will not only affect the true results of future period but will also distort other statements.

4. Exclusion of Abnormal Costs from Cost Accounts:

All costs incurred because of abnormal reasons (like theft, negligence) should not be taken into consideration while computing the unit cost. If done so, it will distort the cost figures and mislead management resulting in wrong decisions.

5. Principles of Double Entry Should be Followed Preferably:

To lessen the chances of any mistake or error, cost ledgers and cost control accounts, as far as possible, should be maintained on double entry principles. This will ensure the correctness of cost sheets and cost statements which are prepared for cost ascertainment and cost control.

Evolution and Development of Cost Accounting:

Widespread growth of industrialisation in the western world during the last half of the 19th century gave rise to the development of cost accounting. With the advent of the factory system, necessity for accurate cost information was felt to bring efficiency in production. In spite of this, there was slow development of cost accounting during the 19th century.

To quote Eldon S. Hendrickson, “Not until the last 20 years of the 19th century was there much literature on the subject of cost accounting in England and even then very little was to be found in the United States. Most of the literature until this time emphasized the procedures for the calculation of prime costs only.”

*Cost Accounting vs Financial Accounting

Differences Between Cost and Financial Accounting

Cost Accounting	Financial Accounting
Computes costs in a rigorous manner that facilitates cost control and cost reduction.	Analyses transactions in the current accounting period into financial statements (Statement of Cash flows, Profit or Loss, Balance Sheet etc.).
Reports only to the organizations internal management to aid their decision-making.	Reports the results and financial position of the business to the government, creditors, investors, and other external parties.
Cost classifications based on functions, activities, products, processes and on the information needs of the organization in its planning and control.	Cost classifications based on the types of transactions.
Combines objective and subjective assessment of costs contributing to a standard result.	Aims to present a 'true and fair' view of transactions.
Information can be presented as accountants see fit.	Must adhere to accounting standards such as the IFRS and GAAP.

*Cost Accounting Methods

The following are some of the different cost accounting approaches:

- Activity-based costing
- Environmental accounting
- Project accounting
- Resource consumption accounting
- Standard cost accounting
- Target costing
- Throughput accounting
- Life-cycle costing
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Scope and Functions of Cost Accounting

Did you know that the modern version of cost accounting originated during the Industrial Revolution? As businesses began to grow in scale, the need for keeping track of costs arose. From only concerning ourselves with variable costs, cost accounting has come a long way. Let us take a look at the scope and functions of cost accounting.

Scope of Cost Accounting

The scope of cost accounting is actually quite wide. It mainly consists of three main aspects. Let us take a brief look at them.

1] Cost Ascertainment

This is one of the main criteria for cost accounting. Cost ascertainment is the process of collection of expenses and by analysis of these expenses. It links up the production of various products at their different stages of production with such expenses.

Over time we have seen the development of a variety of production processes, and so different systems of costing were also developed.

Examples include historical cost, actual costs, standard costs etc. And linking of these expenses with the manufacturing process occurs via many techniques such as marginal cost technique, direct cost technique etc.

2] Cost Accounting

This is the process of accounting for the costs of a firm. Classifying and recording of costs is the first step in the process. The end result is the preparation and presentation of this statistical data in an acceptable format.

Cost accounting is almost as crucial to management as financial accounting. It allows them to make decisions. And if the cost accounting and financial recording statements are separate, they must be reconciled at year-end.

3] Cost Control

Cost control is the process by which action is taken to reduce the costs and expenses to boost profitability and efficiency.

The idea is to bring the actual figures as close to the target or budgeted figures as possible. This involves the regulation of any costs that deviate from the target.

Functions of Cost Accounting

To understand the entire cost structure of a firm, cost accounting is crucial. It ascertains the costs of various products, processes etc.

So we can compare them to the sales and arrive at the true profitability of the firm. This is one of the main objectives or functions of cost accounting. To achieve this the actual functions of cost accounting change daily. Let us take a look,

- ascertain the cost per unit of every product that the company manufactures
- to identify any wastages whether in material, expense, time, tools and spares etc. Also, suggest ways to minimize this wastage
- also, provide data that helps in the process of price fixing
- calculate with accuracy the profitability of each of the company's products. And figure out ways to maximize these profits
- cost accounting is also responsible for the control of raw material and raw material ordering. So it must ensure that we are not over ordering which leads to capital being locked-up unnecessarily. And under ordering will lead to inefficiency in the manufacturing process,
- also, perform the functions of cost control for materials, labour, and other miscellaneous expenses
- present data to the management that allows them to interpret the data and make business decisions
- help management with incentive plans that are based on efficiency
- also, help the management with the preparation of budgets and setting up budgetary controls

Advantages of Cost Accounting

Cost accounting has now become the norm in most industries and firms. Almost all medium and large scale businesses rely on cost accounting to supplement the information that financial accounting provides. In fact, cost accounting is essential not only to businessmen and the management but also to the economy as a whole. Let us take a look at some of the advantages of cost accounting.

Advantages of Cost Accounting

1] Measuring and Improving Efficiency

Cost accounting allows for data that enables the firm to measure efficiency. This could be efficiencies with respect to cost, time, expenses etc.

Standard costing is then used to compare actual numbers with the industry or economy standards to indicate changes in efficiency.

Say for example the cost of producing one unit increased from Rs.100/- to Rs. 110/-. Now was this due to an increase in prices or due to inefficiency and wastages. Cost accounting will help you measure this.

2] Identification of Unprofitable Activities

Just because a firm is making overall profits, it does not mean all activities are profitable. Cost accounting will help us identify the profitable and unprofitable activities of the firm.

So activities that cause the firm losses can be made profitable or eliminated. This can happen due to the cost ascertainment done in cost accounting.

3] Fixing Prices

This is one of the important advantages of cost accounting. Many businesses price their products based on the cost of production of these products.

To enable this, we first need to calculate the actual cost of production of these products. Costing makes the distinction between fixed cost and variable cost, which allows the firm to fix prices in different economic scenarios. Prices that we fix without the help of cost accounting can be too high or low, and both cause losses to the business.

4] Price Reduction

Sometimes during tough economic conditions, like depression, the prices have to be reduced. In some cases, these prices are reduced to below the total cost of the product.

This is to help the company survive this tough period. Such decisions the management has to take are guided by cost accounting.

5] Control over Stock

Another important advantage of cost accounting is that it helps with restocking and control over materials. Cost accounting will help us calculate the most ideal and economic re-order level and quantities.

This will ensure that the firm is never overstocked or understocked. Also costing allows the management to keep a check over these raw materials, WIP etc.

6] Evaluates the Reasons for Losses

Every firm has to deal with periods of profits and losses. But now they must always evaluate or investigate the reasons for the losses suffered.

This will help to tackle the problem or overcome the cause by some other means necessary. So if you cannot eliminate the reason you can at least minimize the losses.

Cost accounting plays a huge role in determining the cause of any losses. Say, for example, your cost of production is low, and prices are high but yet losses persist. This can be due to low output levels due to inefficiency. Cost accounting helps us determine this.

7] Aids Future Planning

One of the biggest advantages of cost accounting is that it will help the management with future plans they may have. For any production or selling plans, it is important to have detailed data about the machines, the labour capacity, output levels, levels of efficiency of each process etc.

Say for example the management wishes to expand the production to accommodate sales, cost accounting will help determine if the current machines can handle these levels of production or not.

Techniques of Costing

The purpose of cost accounting is to compute the total cost of the production of goods or the cost of providing services. But the presentation of this cost data depends on the techniques of costing employed. These various techniques of costing also help in cost control and cost reduction. Let us take a look.

1] Marginal Costing



Marginal costing is based on the principle of dividing all costs into fixed cost and variable cost.

Fixed costs are unrelated to the levels of production. As the name suggests these costs remain the same irrespective of the production quantities.

Variable costs change in relation to production levels. They are directly proportionate. The variable cost per unit, however, remains the same.

And in marginal costing, we only consider these variable costs while calculating the production costs.

Of all the available techniques of costing, marginal costing is most suitable for making decisions like how much material to buy, the correct product mix, fixing the selling price etc.

2] Standard Costing

Standard costing is a technique where the firm compares the costs that were incurred for the production of the goods and the costs that should have been incurred for the same.

Essentially it is the comparison between actual costs and standard costs. The differences between the two are variances.

The standards costs we use for this comparison are pre-determined. Such standard costs of materials, labour, overheads are calculated with scientific and technical analysis. They help set the benchmark for the whole industry.

If the actual costs are greater than these standard costs, the variance is adverse. So we analyze the reason for this adverse variance and try and solve the root causes.

And if the standard costs are higher than the actual costs, the variance is favourable. Even favourable variances must be analyzed.

3] Budget and Budgetary Control

When we talk about the techniques of costing, budgetary control is an important technique. A budget is a quantitative statement prepared prior to the defined period in order to help achieve certain objectives of the firm.

This budget can be in the form of quantities or can be a monetary statement.

For example, a production budget will deal in quantities of goods to be produced. On the other hand, a marketing budget will be a monetary statement.

Another important feature of a budget is that it is prepared ahead of time. So the budget can be for the next quarter or the next year or any such predetermined period.

A budget will lay down the objectives of this period, and the firm's methods to achieve them.

Budgetary control is the preparation of budgets and analysis of the actual performance of the firm in comparison to the budgeted numbers.

If there is a lot of variation from the budget the firm can take corrective action. This is how budgetary control works.

Cost Centre and Cost Unit

The technique of costing involves two major activities. They are Collection and classification of expenditure according to cost elements and Allocation and apportionment of the expenditure to the cost centres or cost units or both. To complete the above task a cost accountant has to ascertain cost by cost centre or cost unit or by both.

Cost Centre

The Chartered Institute of Management Accountants, London, defines the cost centre. A cost centre is, "a production or service location, function, activity or item of equipment whose costs will be attributable to cost units".

A cost centre is the smallest organizational sub-divisional-unit for which we require separate cost collection.

Thus, cost centre refers to one of the convenient units into which the whole factory organization has been appropriately divided for cost allocation purposes.

Each such unit represents 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 will be supervised by one foreman, it may also contain several assembly lines.

Sometimes we treat each assembly line as a separate cost centre with its own assistant foreman. Take another example, in a dry cleaning centre, they perform activities such as collecting, sorting, marketing and washing of clothes, etc.

Thus, we may treat each activity as a separate cost centre and find all costs relating to a particular cost centre separately.

We may classify the Cost centres as under

(i) Productive, Unproductive and Mixed Cost Centres

Productive cost centres are those cost centre which is actually engaged in making the products. In these cost centre raw materials are handled and converted into saleable products.

In these centres both direct and indirect costs are incurred, machine shops, welding shops, and assembly shops are examples of production cost centres in an engineering factory.

Service or unproductive cost centres do not make the products but are necessary aids to the production centres. Administration, repairs and maintenance, stores and drawing office departments are examples of a service cost centre. Mixed cost centres refer to those which are engaged some on productive and other lines on service works.

(ii) Personal and Impersonal Cost Centre

Personal cost centre a cost centre which consists of a person or a group of persons. An impersonal cost centre is a cost centre that consists of a department, plant or item of equipment (or group of these).

(iii) Operation and Process Cost Centre

An operation cost centre is a cost centre that consists of those machines and/or persons which carry out the same operation. A process cost centre is a cost centre that consists of a continuous sequence of operations.

Hence, the determination of an appropriate cost centre is very important for ascertainment and control of cost. The manager in charge of a cost centre will be responsible for control of the cost of his cost centre.



Cost Unit

As per The Chartered Institute of Management Accountants, London, a unit of cost as “a unit of product or service in relation to which we ascertain costs”.

A cost unit is a device for the purpose of breaking up or separating costs into smaller sub-divisions.

Thus, these smaller sub-divisions are attributable to products or services to find out product cost or service cost or cost of time for a particular job etc.

We may easily determine the cost per ton of steel, per tonne-kilo meter of a transport service or cost per machine hour.

The forms of measurement used as cost units are normally the units of physical measurements like a number, weight, area, length, value, time etc. A unit should be unambiguous, simple and commonly used.

Cost control and Cost reduction

Definition of Cost Control

Cost Control is a process in which we focus on controlling the total cost through competitive analysis. It is a practice which works to align the actual cost in agreement with the established norms.

It ensures that the cost incurred on production should not go beyond the pre-determined cost. Cost Control involves a chain of various activities, which starts with the preparation of the budget in relation to production.

Thereafter we evaluate the actual performance. After that we compute the variances between the actual cost & the budgeted cost and further, we find out the reasons for the same. Finally, we implement the necessary actions for correcting discrepancies.

The major techniques which used in cost control are standard costing and budgetary control. It is a continuous process which helps in analyzing the causes for variances. For example- control wastage of material, any embezzlement and so on.

It involves:

1. Determination of standards;
2. Ascertaining actual results comparing the standards;
3. An analysis of the variances;
4. Establishing the action that may be taken.

Characteristics of a Good Cost Control System

According to backer and Jacobson, effective cost control should have the following characteristics :

- (a) Delineation of centres responsibility, i.e., deciding responsibility centres;
- (b) The delegation of prescribed authority;
- (c) Various cost standards;
- (d) The relevance of controllable cost;
- (e) Cost reporting; and
- (f) Cost reduction

Definition of Cost Reduction

Cost Reduction is a process, which aims to lower the unit cost of a product manufactured or service rendered without affecting its quality. It can be done by using new and improved methods and techniques. It ascertains substitute ways to reduce the production cost of a unit.

Thus, cost reduction ensures savings in per unit cost and maximization of profits of the enterprise. Cost Reduction aims at cutting off the unnecessary expenses which occur during the production Process, storage, selling and distribution of the product. To identify cost reduction we should focus on the following major elements:

- Savings in per unit production cost.
- The quality of the product should not be affected.
- Savings should be non-volatile in nature.

Tools of cost reduction focus on Quality operation and research, Improvement in product design, Job Evaluation & merit rating, variety reduction, etc.



Difference Between Cost Control and Cost Reduction

The following are the main differences between Cost Control and Cost Reduction:

1. Cost Control focuses on decreasing the total cost of production while cost reduction focuses on decreasing per unit cost of a product.
2. Cost Control is a temporary process in nature. Unlike Cost Reduction which is a permanent process.
3. The process of cost control will be completed when the specified target is achieved. Conversely, the process of cost reduction is a continuous process. It has no visible end. It targets for eliminating wasteful expenses.
4. Cost Control does not guarantee quality maintenance of products. However, cost reduction assured 100% quality maintenance.
5. Cost Control is a preventive function because it ascertains the cost before its occurrence. Cost Reduction is a corrective function.

6. Elements of Cost

7. The elements of cost are those elements which constitute the cost of manufacture of a product. We can broadly divide these elements of cost into three categories. In a manufacturing organization, we convert raw materials into a finished product with the help of labour and other services. These services are Material, Labour and Expenses.

Elements of Cost

Again, we can bifurcate these elements of cost into two categories such as Direct Material and Indirect Material, Direct Labour and Indirect Labour, Direct Expenses and Indirect Expenses. We need to add all direct material, direct labour, and direct expenses to calculate the prime cost.

Likewise, we add all indirect material, indirect labor, and indirect expenses to calculate the overhead cost. Again, we can bifurcate the overheads into four categories. They are factory overhead, administrative overhead, selling overhead and distribution overhead.

1. Direct Material

It represents the raw material or goods necessary to produce or manufacture a product. The cost of direct material varies according to the level of output. For example, Milk is the direct material of ghee.

2. Indirect Material

It refers to the material which we require to produce a product but is not directly identifiable. It does not form a part of a finished product. For example, the use of nails to make a table. The cost of indirect material does not vary in the direct proportion of product.

3. Direct Labour

It refers to the amount which is paid to the workers who are directly engaged in the production of goods. It varies directly with the level of output.

4. Indirect Labour

It represents the amount paid to workers who are indirectly engaged in the production of goods. It does not vary directly with the level of output.

5. Direct Expenses

It refers to the expenses that are specifically incurred by the enterprises to produce a product. The production cannot take place without incurring these expenses. It varies directly with the level of production.

6. Indirect Expenses

It represents the expenses that are incurred by the organization to produce a product. These expenses cannot be easily identified accurately. For example, Power expenses for the production of pens.



7. Overhead

It refers to all indirect materials, indirect labour, or and indirect expenses.

8. Factory Overhead

Factory overhead or Production Overhead or Works Overhead refers to the expenses which a firm incurs in the production area or within factory premises.

Indirect material, rent, rates and taxes of factory, canteen expenses etc. are examples of factory overhead.

9. Administration Overhead

Administrative or Office Overhead refers to the expenses which are incurred in connection with the general administration of the organizations.

Salary of administrative staff, postage, telegram and telephone, stationery etc. are examples of administration overhead.

10. Selling Overhead

All expenses that a firm incurs in connection with sales are selling overheads. Salary of sales department staff, travelers' commission, advertisement etc. are examples of selling overhead.

11. Distribution Overhead

It represents all expenses incurred in connection with the delivery or distribution of finished goods and services from the manufacturer to the consumer. Delivery van expenses, loading and unloading, customs duty, the salary of deliverymen are examples of distribution overhead.

Format of Cost Sheet

A cost sheet is a statement prepared at periodical intervals of time, which accumulates all the elements of the costs associated with a product or production job. It is used to compile the margin earned on a product or job and forms the basis for the setting of prices on similar products in the future. We shall study the Cost Sheet Format in detail.

Cost Sheet Format

A Cost Sheet depicts the following facts:

1. Total cost and cost per unit for a product.
2. The various elements of cost such as prime cost, factory cost, production cost, cost of goods sold, total cost, etc.
3. Percentage of every expenditure to the total cost.
4. Compare the cost of any two periods and ascertain the inefficiencies if any.
5. Information to management for cost control
6. Calculate and summarize the total cost of the product.

Objects of Cost Sheet

1. For determining the selling price

A cost sheet helps in determination of selling price of a product or of a service. Cost sheet ascertains cost at each stage of the product and also the total cost of the product, where a margin of profit is added and thus the selling price is ascertained.

2. Facilitating in managerial decision making

Preparation of cost sheet helps managers at various levels in their decision-making process such as

1. to produce or buy a component,
2. what price of goods to quote in the tender,
3. whether to retain or replace an existing machine,
4. how to reduce costs and maximize profit.
5. identify and make decisions whether they need to continue with the product or not.

3. Preparation of budgets

Organizations can prepare a budget with the help of a cost sheet. We can prepare the budget by using the current or previous year's data.

Based on our existing cost sheet, we can make estimates of our cost for the next financial year. It helps to prepare and make the necessary arrangement of funds for costs of the next financial year

Elements of Cost

Prime Cost: It comprises of direct material, direct wages, and direct expenses. Alternatively, the Prime cost is the cost of material consumed, productive wages, and direct expenses.

Factory Cost: Factory cost or works cost or manufacturing cost or production cost includes in addition to the prime cost the cost in indirect material, indirect labour, and indirect expenses. It also includes amount or units of WIP or incomplete units at the end of the period.

Cost of Production: When Office and administration cost at the end of the period are added to the Factory cost, we arrive at the cost of production or cost of goods sold. Here, we make an adjustment for opening and Closing finished goods.

Total Cost: Total cost or alternatively cost of sales is the cost of production plus selling and distribution overheads.

Performa of A Cost Sheet

	PARTICULARS	AMOUNT	AMOUNT

			TOTAL
	DIRECT MATERIAL-PURCHASED		
ADD	OP. STOCK OF RAW MATERIAL		
LESS	CL. STOCK OF RAW MATERIAL		
	MATERIAL CONSUMED		
ADD	DIRECT WAGES		
ADD	DIRECT EXPENSES		
	PRIME COST		
ADD	WORKS OR FACTORY OVERHEADS		
	Factory Overheads		
ADD	OP. STOCK OF WIP		
LESS	CL. STOCK OF WIP		

	WORK COST		
ADD	ADMINISTRATION OR OFFICE OVERHEADS		
	COST OF PRODUCTION		
ADD	SELLING AND DISTRIBUTION OVERHEADS		
ADD	OP. STOCK OF FG		
LESS	CL. STOCK OF FG		
	COST OF SALES		
ADD	PROFIT MARGIN		
	SELLING PRICE		

Method of Preparation of Cost Sheet

Step I	<p>Prime Cost = Direct Material Consumed + Direct Labour + Direct Expenses</p> <p>Direct Material = Material Purchased + Opening stock</p>
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	of raw material-Closing stock of raw material.
Step II	$\text{Works Cost} = \text{Prime Cost} + \text{Factory Overheads}$ $(\text{Indirect Material} + \text{Indirect Labour} + \text{Indirect Expenses}) + \text{opening Work in progress} - \text{Closing Work in progress}$
Step III	$\text{Cost of Production} = \text{Works Cost} + \text{Office and Administration overheads} + \text{Opening finished goods} - \text{Closing finished goods}$
Step IV	$\text{Total Cost} = \text{Cost of Production} + \text{Selling and Distribution Overheads}$
Profit	$\text{Sales} - \text{Total Cost}$

THANK YOU