CHAPTER 1 BASIC CONCEPTS

Student's Tip - Students should prepare this chapter thoroughly from two view points, namely, one in every examination some marks are attributed to this chapter and two, unless students understand the concepts discussed here, they will not be able to grasp the following chapters easily.

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1. COST ACCOUNTANCY

The Institute of Cost and Management Accountants of England defines Cost Accountancy as follows:

"The application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information, derived therefrom for the purpose of managerial decision making."

Thus cost accountancy is a very comprehensive term.

2. COST ACCOUNTING

2.1 <u>Definition of Cost Accounting</u>:

Based on the terminology published by the *Institute of Cost and Management Accountants of England*, Cost Accounting is defined as *the process of accounting for cost*. This process begins with the recording of income and expenditure or the bases on which they are calculated and ends with the preparation of periodical statements and reports for the purpose of ascending and controlling costs.

2.2 Objectives of Cost Accounting:

Following are the main objectives of Cost Accounting -

(i) Ascertainment of Cost:

It can be done in two ways, namely,

(a) **Post Costing**, where the ascertainment of cost is done based on actual information as recorded in financial books. (b) **Continuous Costing**, where the process of ascertainment is of a continuous nature i.e. where cost information is available as and when a particular activity is completed, so that the entire cost of a particular job is available the moment it is completed.

(ii) Determination of Selling Price:

Though there are various other considerations for fixing the selling price of a product (like the market conditions etc.), cost of the product is an important factor which cannot be sidelined.

(iii) Ascertainment of Profit :

The purpose of any business activity is to earn a profit and profit can be computed by matching the revenue and cost of that particular product/activity.

(iv)Cost Control and Cost Reduction:

Cost Control and Cost Reduction are two different concepts.

Cost Control aims at maintaining the costs in accordance with established standards. It involves the following steps -

- a. Determination of target cost
- b. Measurement of actual cost
- c. Analysis of variation with respect to target cost
- d. Initiation of corrective action.

Cost Reduction on the other hand aims at improvement established targets. It is defined as "the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended or diminution in the quality of the product."

The difference between Cost Cost Control and **Cost Reduction** can be summarized as under:

[May'94]

Cost Control	Cost Reduction
 It represents efforts made ds towards achieving a target or a goal. 	1. It represents achievement of <i>reduction</i> of cost .
2. The process of cost control is to Set-up a target, investigate the variations and take remedial action.	contended merely with the
 It assumes existence of norms or Standards which are not challenged. 	3. It assumes that the standards can be improved.
4. It is preventive function.	4. It is a <i>corrective function.</i>
5. Sometimes, it lacks a dynamic approach.	5. It is <i>continuous process</i> of analysis of all the factors affecting cost.

(v) Facilitation of Inventory Valuation :

As per the **Accounting Standard 2 on Valuation of Inventories**, Inventories are to be valued at "**Iower of cost and net realisable value**". Costing accounting determines the ascertainment of this "cost" based on which the inventory is valued.

(vi) Assisting Management in Decision-making:

Decision-making is a process of choosing between two or more alternatives, based on the resultant outcome of the various alternatives. A *Cost Benefit Analysis* also needs to be done. All this can be achieved through a good cost accounting system.

2.3 Importance of Cost Accounting:

The importance of cost accounting can be highlighted through the following benefits which accrue to any business concern:

(i) Control of Material Cost:

Normally, material cost constitutes a major portion of the cost of the product. Hence control of material cost can ensure a good amount of benefit. Control of material cost can be **exercised as follows**:

- a. Maintaining *optimum level of stock* to avoid unnecessary locking up of capital
- b. Maintaining an uninterrupted supply of materials
- c. Use of techniques like value analysis, standardisation etc.

(ii) Control of Labour Cost:

Labour cost control can be exercised as follows:

- a. Setting standard time for each activity and keeping adverse variance to the minimum
- b. Laying down proper remuneration schemes
- c. Control over labour turnover
- d. Control over idle time, overtime

(iii) Control of Overheads:

Overheads are nothing but *indirect expenses incurred at* the factory, office and sales depots. Again control over overheads will ensure a control over the total cost of the product and a higher profit margin.

(iv) Determination of Selling Price :

(v) Budgeting:

Any commercial activity begins with the preparation of budgets for the same. A budget serves as a guideline against which the actual performance can be measured and continuous corrective action can be taken to ensure that the budget is adhered to.

(vi) Measuring Efficiency :

Efficiency can be measured by comparing actuals against standards and corrective action can be taken.

(vii) Strategic Decision-making:

Cost accounting enables the management to take up various strategic decisions like "Make or Buy", "Shut down or Continue", "Replace or Continue", "Status quo or Expansion" etc.

2.4 Advantages of Cost Accounting:

- (i) Helps **optimum utilization** of men, materials and machines
- (ii) Identifies areas requiring corrective action
- (iii) Identifies unprofitable activities, losses, inefficiencies
- (iv) Helps price fixation
- (v) Facilitates cost control and cost reduction
- (vi) Facilitates use of various cost accounting techniques, like, variance analysis, value analysis etc.
- (vii) Helps management in formulation of policies
- (viii) Helps management in making **strategic financial decisions**. For eg: the technique of marginal costing helps the management in making various short term decisions.
- (ix) Helps in formation of cost centres and responsibility centres to exercise control

- (x) **Marginal Cost** having a linear relationship with production volume enables in formulation and solution of "Linear Programming Problems".
- (xi) Provides a **data-base** for reference by government, wage tribunals and trade unions etc.

2.6 Limitations of Cost Accounting:

- It is not an exact science and involves_inherent element of judgement.
- Cost varies with purpose. Therefore cost collected for one purpose will not be suitable for another purpose.
- iii. Cost accounting presents the base for taking the best decisions. It does **not give an outright solution** .
- iv. Most of the cost accounting techniques are based on some *pre-assumed* notions.
- v. The **apportionment of common costs** comes under a lot of criticism.
- vi. There are **different views** held by different experts on the treatment of certain items of cost.

2.6 Reports Generated by Cost Accounting Department:

The Cost Accounting Department generates the following reports as a routine, for use of its executives:

- i. Expen
- ii. **Cost Sheet**_giving details as to component wise break-up of each element of cost as compared with previous year's data, competitors data.
- Material Consumption Statement, showing total quantity and types of material issued and used, wastage's if any. Comparison of actual v/s standard.
- iv. Labour Utilization statement showing total number of hours, budgeted & actually worked, types of labour utilised, idle time etc.
- v. **Labour Turnover**, cost of recruitment and training of new employees.
- vi. **Overheads Statement** giving break-up of various types of overheads, the actual overheads incurred as against the budgeted and the over/under absorption, if any

- vii. **Sales Statement** giving product wise break-up of unit realisation, volume achieved as against the targets.
- viii. **Inventory Analysis Sheet** giving break-up of inventories into materials, work-in-progress and finished goods, their number of months holding as against the normal holding period in the industry.
- ix. Statement of **Abnormal wastages / losses /** spoilages
- x. ses incurred on **research and development** as compared with the budget.
- xi. Any other report pertaining to any cost centre (explained later).

3. INSTALLATION OF COST ACCOUNTING SYSTEM

[May'96, Nov'99]

3.1 <u>Basic Considerations in Installation of Cost</u> <u>Accounting System</u>:

A **system** is an established set of procedures for the purpose of achieving specific objectives at minimum cost. A lot of problems can be avoided if the cost accounting system is introduced carefully. Before setting up a system of cost accounting, the under mentioned factors should be studied:

- The **objective of costing system** i.e whether it is for price fixation or for cost control or for a particular management decision.
- ii. **Size of the organisation,** general organisation of the business with a view to finding out the manner on which the system could be introduced
- iii. **Areas of functioning** wherein the management's action will be most beneficial.
- iv. **Management's policies and expectations**. The system of costing should be designed after a careful study of the management's polices and expectations.
- v. **Methods & procedures in vogue** for purchase, receipts, storage and issue of material, methods of wage payment etc.
- vi. **Technical aspects** of the business should be studied thoroughly by the designers. They should

- also make an attempt to seek the assistance and support of the supervisory staff and workers of the organisation for the system.
- vii. The **maximum amount of information** that would be sufficient and how the same should be secured without too much burden on the existing system of the organisation.
- viii. **Forms standardisation** various forms to be used by costing system for various data collection and dissemination.
- ix. The **degree of accuracy** of data to be supplied by the system and how verification of such data can be brought about.
- x. **Benefits of system to be explained** the manner in which the benefits of installation of the cost accounting system should be explained and how an awareness of the utility of the same should be created.
- xi. The manner in which an **integral system of accounts** can be devised so as to automatically reconcile financial profit with costing profit with the help of control accounts.
- xii. **Information requirements** of management, the nature of reports to be generated through the cost accounting system

3.2 <u>Steps in Introduction of Cost Accounting System</u>: [Nov'93]

The introduction of a cost accounting system will involve the following steps:

- i. Codification and classification
- ii. Establishment of cost centres
- iii. Guidelines for separation of fixed and variable costs
- iv. Guidelines for allocation of indirect costs
- v. Introduction of standard formats
- vi. Specification of reports and their periodicity
- vii. Preparation of Cost Accounts Manual
- viii. Guidelines for post-installation appraisal of costing system

3.3 <u>Essentials of a Good Cost Accounting System</u>: [Nov'93, May'96]

i. It should be **simple and practical**.

- ii. It should be **tailor-made** for the requirements of the organisation.
- iii. The data to be used by the cost accounting system should be **accurate** or else the output will suffer.
- iv. The system of costing should not sacrifice the **utility** by introducing meticulous and unnecessary details.
- v. The *cost* of installation should justify the results.
- vi. Active **co-operation** and participation of executives from different departments ensures in developing a good cost accounting system.
- vii. A *carefully phased program* should be prepared by using network analysis for the introduction of the system.

3.4 <u>Difficulties Likely to be Experienced in the Introduction of a Cost Accounting System:</u>

Following initial difficulties are likely to be experienced when a new costing system is introduced:

- i. **Lack of support** from other departmental heads
- ii. **Resistance** from accounting staff
- iii. **Non co-operation** from the supervisory staff
- iv. Shortage of trained staff

4. ROLE OF A COST ACCOUNTANT IN A MANUFACTURING ORGANISATION

A cost accountant in a manufacturing organisation plays several important roles

- i. He **establishes a cost accounting department** in his concern.
- He ascertains the requirement of cost information which may be useful to organisational managers at different levels of the hierarchy.
- iii. He **develops a manual**, which specifies the functions to be performed by the cost accounting department. The manual also contains the format of various forms which would be utilised by the concern for procuring and providing information to the concerned officers. It also specifies the frequency at which the cost information would be supplied to a concerned executive.

Usually, the functions performed by a cost accounting department includes -cost ascertainment, cost comparison, cost reduction, cost control and cost reporting.

- a. Cost ascertainment, requires the classification of costs into direct and indirect. Further it requires classification of indirect costs (known as overheads) into three classes viz., factory overheads; administration overheads and selling and distribution overheads. Cost accountant suggests the basis which may be used by his subordinates for carrying out the necessary classifications as suggested above.
- b. **Cost comparison** is the task carried out by cost accountant for controlling the cost of the products manufactured by the concern. Cost accountant of the concern establishes standards for all the elements of cost and thus a standard cost of the finished product. The standard cost so determined may be compared with the actual cost to determine the variances. Cost accountant ascertains the reasons for the occurrence of these variances for taking suitable action.
- c. **Cost analysis** may also be made by cost Accountant for taking decisions like make or buy and for reviewing the current performance.
- d. Cost accountant also plays a key role in the preparation of **cost reports**. These reports help the executives of a business concern in reviewing their own performance and in identifying the weak areas, where enough control measures may be taken in future.

In brief, one may say that there is hardly any activity in a manufacturing organisation with which a cost accountant is not directly associated in some form or the other.

5 COST ACCOUNTING, FINANCIAL ACCOUNTING AND MANAGEMENT ACCOUNTING

5.1 Cost Accounting And Financial Accounting:

Financial Accounting is concerned with the preparation of financial statements, which summarise the results of operations for a selected period of time and show the financial position of the organisation as at a particular

date. It helps to assess the overall progress of an organisation, its strength and weakness. It facilitates effective control over the assets of the organisation.

However, there are serious limitations of financial accountancy from the point of view of the management. It is on account of these limitations that "Costs Accounting" has been developed for the purpose of management control and internal reporting.

The limitations of financial accounting together with procedures that over come the limitations are given below:

Limitations of Financial Accounting

Overcome By Cost Accounting

Forecasting and Planning

Financial accounts cannot provide information required for future planning accounting overcomes this

Budget technique of cost hurdle.

Decision-making

Day-to-day decision making like -

- 1. Which product mix is the most profitable?
- 3. When will the break-even point be achieved?

Cannot be facilitated by financial accounting.

The technique of marginal costing overcomes the decision-making limitation. The management can make accurate decisions by 2. When to shut down the activity? analysis of the cost incurred / to be incurred.

Control and Assessment

Financial accounting does not	The techniques of budgeting and
provide management with the	standard costing enable
information required to assess the	management to perform this

performance of various departments function.
/ persons.

Thus the important limitations of financial accountancy namely, lack of analysis of data and absence of yardsticks is very well overcome by cost accountancy.

5.2 Cost Accounting and Management Accounting:

The scope of management accounting is broader than that of cost accounting. In **cost** accounting, the main emphasis is on cost and it deals with its collection, analysis, relevance, interpretation and presentation for various problems of the management. **Management** accountancy utilizes the principles and practices of financial accounting in addition to other modern management techniques for efficient operation of the organisation.

The main emphasis in management accountancy is towards determining policy and formulating plans to achieve the desired objective of the management.

Management accountancy has been defined by CIMA as under:

"An internal part of concerned with identifying, presenting and interpreting information used for:

- a. Formulating strategy
- b. Planning and controlling activities
- c. Decision making
- d. Optimising the use of resources
- e. Disclosure to shareholders and others external to the entity
- f. Disclosure to employees
- g. Safeguarding assets".

6. COST - CONCEPTS AND TERMS

- **6.1** *Cost* Cost represents the *amount of expenditure* (actual or notional) *incurred on or attributable to a given thing*. It represents the resources that have been or must be sacrificed to attain a particular objective.
- **6.2 Pre-determined cost** It is the cost which is computed in advance, before the production starts, on the basis of specification of all the factors affecting the cost.
- **6.3 Standard cost** It is a pre-determined cost which is arrived at, assuming a particular level of efficiency in utilisation of material, labour and other indirect services. It is the planned cost of a product and is expected to be achieved under a particular production process under normal conditions. It is often used as a basis for price fixing and cost control.
- **6.4 Estimated Cost** It is an approximate assessment of what the cost will be. It is based on past data adjusted to anticipated future changes.

(Note: Standard cost Vs Estimated cost [Nov'92]

Although pre-determination is the essence of both standard cost and estimated cost, they differ from each other in the following respects:

- a. Difference in computation
- b. Difference in emphasis
- c. Difference in use
- d. Difference in records
- e. Difference in applicability
- **6.5 Marginal cost** It is the amount at any given volume of output by which aggregate cost changes if the volume of output changes increases/decreases) by one unit.
- **6.6 Differential cost** It is the difference in the total cost between alternatives calculated to assist decision making Thus, it represents the change in total cost (both fixed and variable) due to a change in the level of activity, technology, process or method of production, etc.
- **6.7 Discretionary cost** It is an "escapable" or "avoidable" cost. In other words, it is that cost which is *not essential* for the accomplishment of a particular objective.

- **6.8 Decision-driven cost** It is that cost which is incurred following a policy decision and continues to be incurred till that decision is altered. It does not vary with changes in output or with operational activities.
- **6.9** *Managed / Policy cost* It is that cost which is incurred as a matter of policy eg: R & D cost. This cost has two important features :
 - a. It arises from periodic (usually annual) decisions regarding the maximum outlay to be incurred And
 - b. This cost is *not tied to a cause and effect relationship* between input and output.

(Note: Decision-driven cost Vs Managed / Policy cost while managed / policy cost arises from periodic decisions (usually annual), decision-driven cost has no such fixed frequency).

- **6.10 Post-ponable cost** It is that cost which can be shifted to the future with little or no effect on the efficiency of the current operations.
- **6.11** Imputed / Notional cost CIMA defines notional cost as "the value of benefits where no actual cost is incurred". Thus, imputed cost is that cost which does not involve any cash outlay. Though it is a hypothetical cost, it is relevant for decision making. Interest on capital, the payment for which is not actually made, is an example of imputed cost.
- **6.12** Inventoriable / Product cost It is the cost which is assigned to the product. For eg: Under marginal costing ® variable manufacturing cost. Under absorption costing ® total manufacturing cost (fixed and variable) constitute product or inventoriable cost.
- **6.13** Opportunity cost It refers to the value of sacrifice made or benefit of opportunity forgone in accepting an alternative course of action. For e.g. If Mr. A works in his brother's firm instead of working in X Ltd., then the loss of salary Mr. A suffers by foregoing employment in X Ltd., is the opportunity cost of working in his brother's firm.

- **6.14** Out of pocket cost It is that portion of total cost which involves cash outlay. It is a short term cost concept and is used in short- term decision making like make or buy, price fixation during recession. Out of pocket cost can be avoided if a particular proposal under consideration is not accepted.
- **6.15** *Joint cost* It is the cost of the process which results in more than one main product.
- **6.16 Period cost** It is the cost which is not assigned to the product but is *charged as an expense* against the revenue of the period in which it is incurred. All the non-manufacturing costs like administrative, selling and distribution expenses are treated as period costs.
- **6.17 Sunk cost** Historical cost which is incurred in the past is known as sunk cost. This cost is not relevant in decision making in the current period. For eg. In the case of a decision relating to the replacement of a machine, the written down value of the existing machine is a sunk cost and hence irrelevant to decision making.
- **6.18 Committed cost** It is a fixed cost which results from *decisions of prior period* and is not subject to managerial control in the present. Examples of committed cost are depreciation, insurance premium and rent.
- **6.19 Shut down cost** The fixed cost which cannot be avoided during the temporary closure of a plant is known as shut down cost. Examples of shut down cost are depreciation and rent.
- **6.20 Relevant cost** CIMA defines relevant cost as " cost appropriate to a specific management decision".
- **6.21** *Replacement cost* It is the cost of replacement in the current market.
- **6.22 Absolute cost** It is the *total cost* of any product or process. For e.g.: in a cost sheet, both absolute cost and cost per unit are depicted.
- 6.23 Cost centre [May'95, May'97]

Meaning - For the installation of a cost accounting system, the organization is divided into sub-units. Cost centre is the smallest organisational sub-unit for which separate cost collection is attempted. It is defined as a location, a person or an item of equipment (or group of these) for which cost may be ascertained and used for the purpose of cost control.

<u>Types</u> - *Primarily* there are two types of cost centres, namely:

- a. Personal cost centre consisting of a person or a group of persons
- b. *Impersonal cost centre* consisting of a location or an item of equipment (or a group of these).

Functionally, there are two types of cost centres, namely:

- a. Production cost centre It is a cost centre where both direct and indirect expenses are incurred for the production. Following are the examples of production cost centres- machine shop, milling and turning shop, assembly shop.
- b. Service Cost Centre A cost centre which renders services to production cost centres is termed as service cost centre. It serves as an ancillary unit to the production cost centre.
 Powerhouse, boiler plant, repair shop, material service centre, all are examples of service cost centres.

<u>Considerations</u> - Formation of appropriate cost centres is very important for the purpose of cost control. Important considerations for the formation of cost centres are as follows:

- a. Organisation of the factory
- b. Conditions prevalent for incurrence of cost
- c. Management's decision needs
- **6.24 Cost unit Meaning Once the cost of various cost centres is ascertained, the need arises to express the cost of output (product / service). A cost unit is defined as a unit of quantity of product, service or time (or a combination of these) in relation to which costs may be ascertained or expressed.**

Cost units are usually *units of physical measurement* like number, weight, time, area, length, volume etc.

<u>Examples</u> - A few typical examples of cost units are given below :

Industry	Cost Unit Basis	
Automobile	Number	
Bicycle	Number	
Transport	Tonne-kilometer Passenger-kilometer	
Furniture	Each article	
Bridge construction	Each contract	
Interior decoration	Each job	
Advertising	Each job	
Nursing home	Bed or day	
Power	Kilowatt hour	
Bricks	Number	
Cement	Tonne, bag	
Steel	Tonne	
Chemical	Litre, gallon, tonne,kilogram	
Sugar	Tonne	
Coal	Tonne	

6.25 Cost allocation - Cost allocation refers to the allotment of whole items of costs to cost centres. For example, if a worker is employed in department "A", then the wages paid to the worker are allocated or charged to department "A". This process of charging the entire wages (being 'cost') of the worker to department "A" is termed as cost allocation.

6.26 Cost apportionment - It is the process of distributing an item of cost over several cost centres or cost units. Thus, one item of cost is charged to two or more cost centres or cost units. Normally overheads (indirect costs) are charged to cost centres or cost units by way of apportionment in proportion to the anticipated benefits.

(**Note** : **Cost allocation Vs Cost apportionmen**t. The former involves the process of charging *direct* expenditure

to cost centres or cost units while the latter involves the process of charging *indirect* expenditure to cost centres or cost units.)

- **6.27 Cost absorption** It is the process of absorbing the overhead costs (indirect costs) allocated to or apportioned over a particular cost centre. Thus cost absorption follows cost allocation and cost apportionment. Selection of correct method of overhead absorption is very important for pricing policies, tenders and other managerial decisions. Overhead absorption is accomplished through overhead rates. For eg. the overhead costs of a 'grinding centre' may be absorped by using a rate per " grinding" hour.
- **6.28 Responsibility centre -** <u>Meaning</u> When an organisation is divided into different sub-units according to the responsibility and for each sub-unit, a specified individual is made responsible, then the sub-unit thus formed is termed as a responsibility centre. Thus, a responsibility centre is defined as an activity centre of a business organisation entrusted with a special task.

The specified individual is held accountable only for those activities which he directly affects. Under modern budgeting and control, finance executives tend to apply the concept of responsibility centres for the purpose of control.

Types -

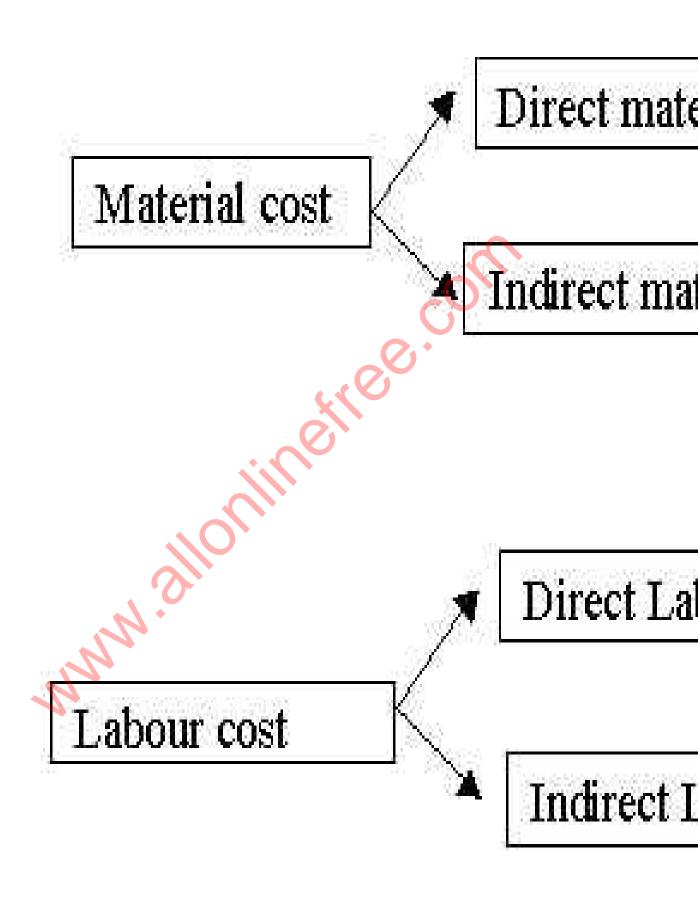
Responsibility centres can be classified as under:

- a. Cost centres Refer 6.23 above
- b. Profit centres Centres, which have the responsibility of generating and maximising profits, are called profit centres. [Nov'97]
- c. *Investment centres* Centres which are responsible for earning an optimum return on investments are termed as investment centres.
- d. Revenue centres Centres which are devoted to raising revenue with no responsibility for production are called revenue centres. Eg. Sales centre.
- e. Contribution centres Profit centres whose expenditure are reported on a marginal cost basis, are called contribution centres.

7. ELEMENTS OF COST

The following diagram depicts the various elements of cost:





7.1 Material Cost:

- Direct Materials Materials which are present in the finished product or can be identified in the finished product are called direct materials. For eg. coconuts in case of coconut oil or wood in a wooden cupboard.
- ii. Indirect Materials Indirect materials are those materials which do not normally form part of the finished products or which cannot be directly traced to the finished product. For eg. stores, oil, grease, cotton wool etc.

7.2 Labour Cost:

- i. **Direct Labour** Labour which can be attributed wholly to a particular product, process or job is called direct labour. It is the labour utilised in converting raw materials into finished products. For eg. labour employed in the crushing department of an oil mill.
- ii. Indirect Labour Labour which cannot be identified with a particular product, process or job is called indirect labour. Indirect labour cost is apportioned to cost units or cost centres. For eg. maintenance workers.

7.3 Expenses:

- i. **Direct Expenses** Expenses incurred (except direct materials and direct labour) specifically for a product, process or job is known as direct expenses. They are also called "chargeable expenses". For eg. hiring charges for a machine specifically hired for a particular process, excise duty, royalty.
- ii. **Indirect Expenses** Expenses incurred other than direct expenses are called indirect expenses. For eg. factory rent & insurance, power, general repairs.

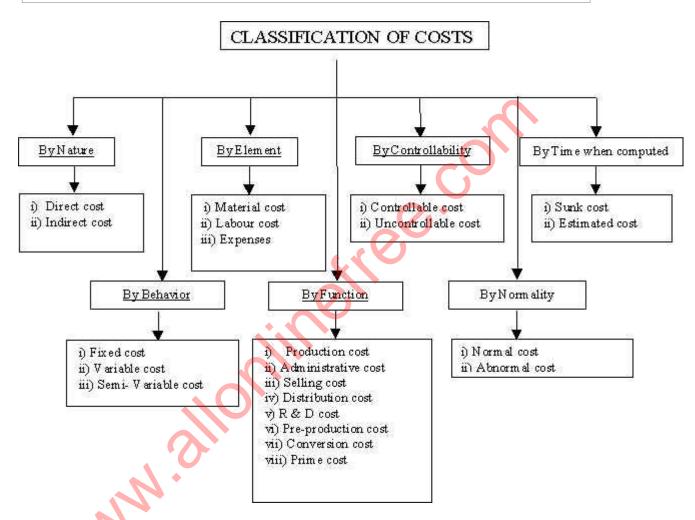
7.4 Overheads:

Overheads is the sum total of indirect materials, indirect labour and indirect expenses. Functionally overheads can be classified as under -

- i. Production / Works overheads
- ii. Administrative overheads

- iii. Selling overheads
- iv. Distribution overheads

8. CLASSIFICATION OF COST



8.1 Classification By Nature:

- Direct cost Direct cost is that cost which can be identified with a cost centre or a cost unit. For e.g. cost of direct materials, cost of direct labour.
- ii. <u>Indirect cost</u> Cost which cannot be identified with a particular cost centre or cost unit is called indirect costs. For e.g. wages paid to indirect labour.

8.2 Classification By Behaviour:

<u>Fixed cost</u> - Fixed cost is that cost which <u>remains</u> constant at all levels of production. For e.g. rent, insurance.

- ii. Variable cost The cost which varies with the level of production is called variable cost i.e., it increases on increase in production volume and vice-versa. For e.g. cost of materials, cost of labour.
- iii. <u>Semi-variable cost</u> This cost is partly fixed and partly variable in relation to the output. For e.g. telephone bill, electricity bill.

8.3 Classification By Element:

Refer 7 above.

8.4 Classification By Function:

- i. **Production cost** It is the cost of the entire process of production. In other words it is nothing but the cost of manufacture which is incurred upto the stage of primary packing of the product.
- ii. Administrative cost It is the indirect cost pertaining to the administrative function which involves formulation of policies, directing the organisation and controlling the operations of an undertaking. This cost is not related to any other functions like selling and distribution, research and development etc.
- iii. **Selling cost** Selling cost represents the *indirect* cost which is incurred for
 - (a) seeking to create and stimulate demand and
 - (b) securing orders.
- iv. **Distribution cost** It is the cost of the sequence of operations which begins with making the packed product available for despatch and ends with making the reconditioned returned empty package, if any available, for re-use.
 - v. <u>R&D cost</u> "Research Cost" and "Development cost" are two different types of costs.

 Research cost is the cost of researching for new products, methods and applications. Development cost is the cost of the process which begins with the implementation of the decision to produce the new product or apply the new method and ends with the commencement of formal production of that product or by that method.
- vi. **Pre-production cost** It is that part of the development cost which is incurred for the *purpose*

- of a trial run, before the commencement of formal production.
- vii. <u>Conversion cost</u> It is the cost incurred for converting the raw material into finished product. It comprises of direct labour cost, direct expenses and factory overheads.
- viii. **Prime cost** Prime cost is the aggregate of direct material cost, direct labour cost and direct expenses. The term 'direct' indicates that the elements of cost are traceable to a particular unit of output.

8.5 Classification By Controllability: [May'97]

- i. <u>Controllable cost</u> The cost, which can be influenced by the action of a specified person in an organisation, is known as controllable cost. In a business organisation, heads of each responsibility centre are responsible to control costs. Costs that they are able to control are called controllable costs and include material, labour and direct expenses.
- ii. <u>Uncontrollable cost</u> The cost which cannot be influenced by the action of the person heading the responsibility centre is called uncontrollable cost. For e.g. all the allocated costs and the fixed costs.

Note: It may be noted that controllable and uncontrollable cost concepts are related to the authority of a person in the organisation. An expenditure which may be controllable by one person may not be controllable by another. Moreover, in the long run, all cost may be controllable.

8.6 Classification By Normality:

- i. **Normal cost** It is the cost which is normally incurred at a given level of output, under the conditions in which that level of output is normally attained. Normal cost is *charged to the respective product / process*.
- ii. <u>Abnormal cost</u> It is the cost which is not normally incurred at a given level of output in the conditions in which that level of output is normally attained.

This cost is *charged to the costing profit and loss account* i.e., the product / process does not bear the abnormal cost.

8.7 Classification By Time when Computed:

- i. **Sunk cost** Refer 6.17 above
- ii. **Estimated cost** Refer 6.4 above

9. TYPES / TECHNIQUES OF COSTING

Following are the techniques of costing used in industries for ascertaining the cost of products / services:

- **9.1** <u>Historical Costing</u> It is the ascertainment of costs after they have been incurred. This costing is based on recorded data and the cost arrived at are verifiable by past events. This type of costing has limited utility.
- **9.2** <u>Uniform Costing</u> CIMA defines it as "the use by several undertakings of the same costing system, i.e., the same basic costing methods, principles and techniques."
- **9.3** <u>Standard Costing -</u> CIMA defines standard costing as " a control technique which compares standard costs and revenues with actual results to obtain variances which are used to stimulate improved performance."
- **9.4** <u>Direct Costing</u> Under direct costing, a unit cost is assigned only the direct cost, i.e., all the direct costs are charged to the relevant operations, products or processes. The indirect costs are charged to the profit and loss account of the period in which they arise. As a result, inventory is valued at direct cost only.
- **9.5** <u>Marginal Costing</u> Under marginal costing, marginal cost is ascertained by differentiating between fixed and variable costs. In this type of costing, variable costs are charged to cost units and fixed costs of the period are written off in full against the aggregate contribution.

Marginal costing is of great importance in case of shortterm decision making.

- **9.6** <u>Absorption Costing</u> It is the technique of assigning all costs i.e. both fixed and variable, to the respective product/service.
- 9.7 <u>Difference between various Types of Costing</u>

Note: Please note the following distinctions

- a. Marginal Costing V/S Absorption Costing Marginal cost excludes fixed costs. Under absorption costing, even fixed costs are charged to the product/service.
- b. Marginal Costing V/S Direct Costing
 Under marginal costing only variable cost (both direct and indirect) is charged to the cost unit while under direct costing, only direct cost (both fixed and variable) is charged to the cost unit.
- c. Absorption Costing V/S Direct Costing
 Under absorption costing, all costs (both direct and indirect) are assigned to the cost unit, whereas under direct costing only direct cost is assigned to the cost unit. In both types of costing, variability of cost is ignored.
- d. Differential Costing V/S Marginal Costing_

[May'94, Nov'97]

<u>Differential Costing</u>	Marginal Costing	
Scop	<u>e</u>	
Wider than marginal costing.	arrower than differential costing.	
Variability		
Both fixed and variable costs are considered.	Only variable costs are considered.	

Definition

Cannot be precisely defined except in terms	Can be defined as prime cost plus
of increase or decrease in total costs.	variable overheads.

Basis of Decision Making

Comparison of differential cost with incremental /	Margin of contribution and profit
decremental revenue.	volume.

Incorporation in Accounting System

This type of costing does not find a place in the accounting system as it involves future course of action. However, it may be incorporated in the budgets.

Marginal costs may be incorporated in the accounting system.

Applicability

Applicable to both, long term as well as	Applicable only to short term decision
short term decision making.	making.

10. METHODS OF COSTING & THEIR APPLICABILITY

The method of costing applied by a particular industry depends upon the nature of the industry.

Following are the various methods of costing which are commonly followed:

10.1 <u>Job Costing</u> - The objective under this method of costing is to ascertain the cost of each job order. A job card is prepared for each job to accumulate costs. The cost of the jobs is determined by adding all the costs against the job when it is completed.

This method of costing is used in *printing press*, foundaries, motor- workshops, advertising etc.

10.2 <u>Batch Costing</u> - This method of costing is used where small parts/components of the same kind are required to be manufactured in large quantities. Here a batch of similar products is treated as a job and the cost of such a job is ascertained as mention in (10.1) above

For e.g. in a *cycle manufacturing unit,* rims are produced in batches of 1,000 units each, then the cost will be determined in relation to a batch of 1,000 units.

10.3 <u>Contract Costing</u> - If a job is very big and takes a long time for its completion, then the method appropriate for costing is called contract costing. Here the cost of each contract is ascertained separately.

It is suitable for firms engaged in erection activities like construction of bridges, roads, buildings, dams etc.

10 4 <u>Process Costing</u> - This method of costing is used in those industries where the production comprises of successive and continuous operations or processes. Here specific units lose their identity in the manufacturing operation. Under this method of costing, costs are accumulated by 'processes' for a particular period regardless of the number of units produced.

This method of costing is followed by *chemical industry*, soap industry, rubber industry, paints industry.

10.5 Operating Costing - The method of costing used in service rendering undertakings is known as operating costing.

This method of costing is generally made use of by transport companies, gas and water works departments, electricity supply companies, canteens, hospitals, theatres, schools etc.

10.6 <u>Single Output/Unit Costing</u> - This method of costing is used where a <u>single product</u> is <u>produced</u>. The total production cost is divided by the total number of units produced to get the unit/single output cost.

This method of costing is normally used in *marble* quarrying, *mining*, *brick-kilns*, *breweries*, *etc*.

10.7 <u>Multiple Costing</u> - It is a combination of two or more methods of costing mentioned above. Suppose a firm manufactures bicycles, including its components, the parts will be costed by way of batch costing but the cost of assembling the bicycle will be done by unit costing. This method is also called composite costing.

Some other industries using this method of costing are those manufacturing – radios, automobiles, aeroplanes etc.

11.ANALYSIS OF PAST QUESTIONS

11.1 Scanning of Questions Asked in Past Examinations:

Nov'92 - Distinguish between : Standard costs and Estimated costs. (4 marks)

May'93 - Match the following : (1 mark each)

 Total fixed cost 	What cost should be
 Total variable cost 	Incurred cost
 Unit variable cost 	 Increases in proportion to output
 Unit fixed cost 	 Cost of conversion
Standard cost	 What costs are expected to be
 Period cost 	 Decreases with rise in output
Actual cost	 Remains constant in total
Labour and overhead	Remains constant per unit
 Incremental cost 	 Cost not assigned to products
 Budgeted cost 	Added value of a new

May'93 - Indicate whether the following statements are True or False: All costs are controllable.

i. Conversion cost is equal to direct wages plus factory overhead.

product

- ii. Variable cost per unit varies with the increase or decrease in the volume of output.
- iii. Depreciation is an out of pocket cost.
- iv. An item of cost that is direct for one business may be indirect for another.
- v. Fixed cost per unit remains fixed. (1 mark each)

Nov'93 - Outline the steps involved in installing a costing system in a manufacturing unit. What are the essentials of an effective costing system? (16 marks)

May'94 - Distinguish between:

Marginal costing and Differential costing

Cost control and Cost reduction (8 marks)

May'95 - Write short notes on : Cost centre. (4 marks)

May'96 - What are the essentials of a good cost accounting system? (6marks)

May'96 - Narrate the essential factors to be considered while designing and installing a cost accounting system. (10 marks)

Nov'96 - A factory manufactures only one product in one quality and size. The owner of the factory states that he has a sound system of financial accounting which can provide him with unit cost information and as such he does not need a cost accounting system. State your arguments to convince him the need to introduce a cost accounting system. (4 marks)

May'97 - What is meant by 'Cost Centre'? (4 marks)

May'97 - Distinguish between the following: Controllable costs and Uncontrollable costs. (4 marks)

Nov'97 - What is meant by 'Profit Centre'? (4marks)

Nov'97 - Distinguish between : Differential costing and marginal costing

May'98 - Name the various reports (Elaboration not needed) that may be provided by the Cost Accounting Department of a big manufacturing company for the use of its executives. (5 marks)

Nov'98 - Specify the methods of costing and cost units applicable to the following industries:

i. Toy making

- ii. Cement
- iii. Radio
- iv. Bicycle
- v. Ship building
- vi. Hospital. (3 marks)

Nov'99 - Discuss the four different methods of costing along with their applicability to concerned industry. (4 marks)

Nov'99 - Enumerate the factors which are to be considered before installing a system of cost accounting in a manufacturing organisation. (5 marks)

11.2 Frequency Table Showing Distribution of Marks :

Exam	Descriptive Questions	Practical Questions	Total Marks
May'95	4	-	4
Nov'95	-	-	_
May'96	16	-	16
Nov'96	4	-	4
May'97	8	-	8
Nov'97	4	_	4
May'98	5	_	5
Nov'98	3	-	3
May'99	-	-	-
Nov'99	9	-	9

Material

Introduction:-

These Chapter deals with Calculation & Control of Material Cost. Normally Stock of material is valued either at cost price or MKT Price whichever is lower. Under the Cost Price criteria method like FIFO [First In First Out], LIFO [Last In First Out], Weighted Average, Simple Average are used.

The Above Approach are related to calculation & valuation of material stock. However it is equally important to control the material cost. For controlling the cost , it is necessary to decide how much should be purchased, when to purchased, what should be stock level, How much discount should be demanded from the supplier etc. It is also necessary to keep check over material turnover. For controlling the material cost .

[1] ECONOMIC ORDER QUANTITY (EOQ) OR REORDER QUANTITY (ROQ)

It represent the quantity of material which should be purchased each time. These quantity is economical from the angle of the storages & ordering cost.

$$EOQ = \sqrt{\frac{2AB}{CS}}$$

Where

A = Annual Consumption of Qty

B = Buying cost OR cost of placing one order.

CS = Cost of storing one unit of material for one year.

If the cost of the Investment is given then such cost also will be part of CS

Note:- Whenever Discount Factor given in a problem. These Formula will not be apply for calculating EOQ.

[2] Reorder Period OR Delivery Period OR Lead Time:-

It represent the time gap involves between placement of order & Actual Receiving of the Delivery. Such Period is again divided into Maximum Period, Minimum Period, Average Period & Emergency Period.

[3] Reorder Level (ROL):-

It represents that level of stock of which fresh quantity of material should be purchased. The Purchased Quantity will be EOQ.

ROL is calculated as follows:

A1

MADIUM USAGE X MAXIMUM DELIVERY PERIOD

B1

Normal Usage OR Avg Usage X [Minimum Stock Period + Avg Delivery Period]

C1

Safety Stock Quantity + Lead time Consumption Quantity

4] Maximum Stock Level

It represent minimum Qty of stock which should be maintained by Organisation.

5] Minimum Stock Level :-

It represent Minimum Qty of stock which should be maintained by Organisation

6] Average Stock Level :-

It represent on an average how much stock quantity should be maintained.

1]

Minimum Stock Level
$$+ \left[\frac{1}{2} X ROQ \right]$$

2]

7] Danger Level:-

It represent that Level of stock below which production will stop.

8] Material Inventory Turnover Ratio:-

9] Material Inventory Period:-

It represents the period of one Consumption Cycle.

Turnover Ratio = Ans in Days



INTRODUCTION:-

This Chapter deals with Calculation of wages under Piece rate system & Time rate system. It is also covers Labour Turnover; it's impact on profit & additional coverage will be General problem relating to labour calculation.

PART I

Piece rate system of labour Calculation:-

In this Approach wages are paid according to Quantity produced by the workers.

Amount of Wages [Normal Wages] = Actual Quantity Produced X Std Labour Rate P.u.

However efficient workers should be given some incentives & therefore following Approaches will be developed by **Orthodox Cost Accountant..**

[1] Taylor Approach :-

Level of Efficiency	Remuneration		
Less than 100%	83% of Std Piece rate		
>=100%	175% of Std Piece rate		

Note: In the Institute Study Material it is given 125% which is not correct.

[2] Merrick Approach:-

Level of Efficiency	Remuneration		
Upto 831/3% OR 83.33%	Std Piece rate		
Above 831/3% OR 83.33% but Upto 100%	10% above Std Piece rate		
Above 100%	20% above Std Piece rate		

PART II

Time rate System of Labour Calculation :-

In this Approach Remuneration is Calculated according to actual time worked by the worker.

Amount of Wages = Actual Hrs Worked X Std Labour rate Per Hrs

Following thinking are available

[1] HALSEY'S 50% PREMIUM APPROACH: -

Workers Remuneration = (Actual Hrs Worked X Std Rate Per Hrs) + $\left[\frac{50}{100}$ X (Std Time - Actual Time) X Std R

Std Time :- It means Time allowed OR Std taken for Actual Production.

Actual Time :- It means Actual time take for Actual Production OR Actual Hrs Worked by the Worker.

Difference Between Std time & Actual Time, It represent Time Saved.

1st Part of the Formula Indicates Normal Wages

2nd Part of the Formula Indicates Bonus Amt or Incentives

[2] Rowan Approach :-

PART III

Mixed Approach :-

It is Developed by Gantt Task

This Approach is combination of Time rate system & Piece rate system.

Level of Efficiency	Remuneration
< 100%	Actual Hrs Work X Std Rate Per Hour
100%	Actual Hrs Work X [Std Rate Per Hour + 20%]
. 4.	Actual Qty Produced X High Piece rate
>100%	OR
W.	Actual Hrs Work X Std Rate per Hour + 1/3

^{*} High Piece rate is fixed by the management.

Labour Turnover

It represent worker leaving the Job & New worker's Appointed. Labour Turnover is essential for removal of inefficient worker & appointing of the new efficient workers. However high rate of turnover will result into loss of production, loss of sales, loss of profit & other administrative cost relating to selections, recruitment, training, etc of new workers.

Following method are available for calculation of labour turnover.

[1] Separation Method:

Average No of Workers = Workers at the Beginning of the Period + Workers at the End of the Period 2

[2] Replacement Method:

Number of Workers Replaced in place of those who left the Job Avg Number of Workers

[3] Flux Method:-

It is a Combination of 1st and 2nd

Number of Workers Left + Number of Workers Replaced X 100

Avg Number of Workers

[4] Labour Turnover on the Basis of Hours

Number of Hour Lost due to Turnover
Total Productive Hours

OVERHEADS

This chapter deals with detail analysis of Factory overhead, the Basis coverage is as under :-

- [1] Distribution of Service Department Overheads to Production Department
- [2] Treatment of Over Absorption & Under Absorption of overheads
- [3] Calculation of Machine Hour Rate.

Distribution of Service Department Overheads to Production Department

These Department helping the Production Dept are known as "Service Department".

For E.g;- Power Generation Dept

Repair & Maintenance Dept

Labour and Welfare Dept

Cost of such Department will be ultimately transfer to Production Dept . For this Purpose 3 Method are available.

- [1] Simultaneous Equation Method
- [2] Step and Ladder Method
- [3] Repeted Cycle Method OR Continuous Distribution Method

Note: If Nothing is given in problem about method, then [3] Method will be Apply.

Treatment of Over Absorption and Under Absorption of Factory
Overheads:

Absorption means Amt of Factory Overheads charge to WIP Account i.e. Production A/c.

Actual Overheads incurred is Different Amt & overheads charge to WIP is different Amt. Factory overheads charged to WIP on the basis of some predefined standard de to this situation of over and under Absorption arises.

If the amt of absorption is High as compared to amt actually incurred, it is represent "Over Absorption"

E.g:

Factory Overheads A/c

	120000		120000
[Bal Fig]			
Over Absorption	20000		
Actual Overheads Incurred	100000	Overheads charged to WIP	120000

If the amt of absorption is Less as compared to amt actually incurred, it is represent "Under Absorption"

E.g:

Factory Overheads A/c

Actual Overheads Incurred	100000 Overheads charged to	80000
	Under Absorption	20000
	100000	100000

Overheads Absorption is Calculated as under:

METHO D I	ACTUAL LABOUR HOUR WORK X STD RATE LABOUR HOUR
METHO D II	ACTUAL UNIT PRODUCED X STD FACTORY OVERHEADS PER UNIT
METHO	ACTUAL WAGES INCURRED X STD % OF OVERHEADS
DIIII	ACTUAL WAGES INCORRED X STD % OF OVERHEADS ABSORPTION
	WITH REF TO WAGES
METHO D IV	ACTUAL MACHINE HOUR WORK X STD RATE OF OVERHEADS PER MACHINE HOUR

If Standard rate of overheads absorption is not given then calculate as under:

	Standard Factory Overheads X 100	
	Standard Direct Labour X 100	
[2]		
	Std Factory Overheads	
	Standard Direct Labour Hours	
[3]		
	Std Factory Overheads	
	Std Machine Hours	
[4]		
	Std Factory Overheads	
	Standard Production Quantity	

* How to deal with Amount of Over or Under Absorbed Overheads:

APPROACH I	Amount will be carried forward to Next Year
APPROACH II	Amount will be transferred to Costing P/L A/c.
APPROACH	Nullify the Over and Under Absorption Situation by revising std rate of
III	absorption.

Revise Std Rate of Absorption
Original Standard Rate [+/-] Supplementary Rate

In Case of Under Absorption Positive Supplimentary rate will be adopted & in case of over Absorption Negative supplimentary rate will be adopted.

Calculation of Machine Hour Rate

Machine Hour Rate represent expenses involved for using a machine for one Productive Hour.

Expenses of the Machine & Productive Hours of Machine, both should be calculated for the period operation.

In the Absence of Information Machine set up time will be considered as Productive time.

Cost Control [Integrated and Non Integrated Account]

This chapter deals with Accounting Treatment of costing transaction. Two Approach are available

- 1] Non Integrated Approach
- 2] Integrated Approach

Non Integrated Approach:-

It is pure costing approach in which Person A/c & Real A/c's are ignored. In order to complete Double effects, Artificial Account is prepare "General ledger Adjustment Account"

In this approach those item are ignored which are not considered in cost sheet .

We have to deal following account

- [1] Stores Ledger Control Account
- [2] Wages Control Account

- [3] Factory Overheads Account
- [4] WIP Account
- [5] Office & Administration Account
- [6] Finished Goods Account
- [7] Selling and Distribution Account
- [8] Cost of Goods Sold Account
- [9] Costing Profit and Loss Account
- [10] Sales Account
- [11]General Ledger Adjustment A/c (GLA A/c)

Flow of Transaction :-

[1] Total Material Purchased

Direct Material Transferred to WIP A/c

Indirect Material Transferred to Factory overheads A/c

[2] Total Wages

Direct Labour Transferred to WIP (Production) A/c

Indirect Labour Transferred to Factory overheads A/c

- [3] For Direct Expenses WIP Account will be directly affected.
- [4] Factory Overheads incurred Transferred to WIP Account
- [5] WIP Account transferred to Finished Goods Account
- [6] Office and Administration Transferred to Finished Goods
- [7] Finished Goods Account Transferred to Cost of Sales Account
- [8] Selling and Distribution Expense Transferred to Cost of Sales Account
- [9] Cost of Sales Transferred to Costing Profit and Loss Account

[10] Cash/ Credit Sale done Transferred to Costing Profit and Loss Account.

[11] Costing Profit and Loss Account Transferred to GLA Account

1	TOTAL MATERIAL PURCHASED		
	STORES LEDGER CONTROL ACCOUNT Dr	XX	
	TO GENERAL LEDGER ADJUSTMENT ACCOUNT		XX
2	MATERIAL ISSUED TO PRODUCTION		
	WIP ACCOUNT Dr	XX	
	TO STORES LEDGER CONTROL ACCOUNT		XX
3	REPAIRS AND MAINTENANCE MATERIAL [INDIRECT MATERIAL]		
	FACTORY OVERHEADS ACCOUNT Dr	XX	
	TO STORES LEDGER CONTROL ACCOUNT		XX
4	TOTAL WAGES INCURRED		
	WAGES CONTROL ACCOUNT Dr	XX	
	TO GENERAL LEDGER CONTROL ACCOUNT		XX
_	DIRECT LABOUR CHARGED TO PRODUCTION		
5	WIP ACCOUNT Dr	XX	<u> </u>
	TO WAGES CONTROL ACCOUNT	^^	XX
	TO WAGES CONTROL ACCOUNT		^^
6	REPAIRS AND MAINTENANCES [INDIRECT LABOUR]		
	FACTORY OVERHEADS ACCOUNTS Dr	XX	
	TO WAGES CONTROL ACCOUNT		XX
7	DIRECT EXPENSES INCURRED		
	WIP ACCOUNT Dr	XX	
	TO GENERAL LEDGER CONTROL ACCOUNT		XX
8	FACTORY OVERHEADS INCURRED		
J	FACTORY OVERHEADS ACCOUNT Dr	XX	
	TO GENERAL LEDGER ADJUSTMENT ACCOUNT	^^	XX
	TO GENERAL LEDGER ADJUSTMENT ACCOUNT		

9	SALE OF SCRAPE		
	GENERAL LEDGER ADJUSTMENT ACCOUNT Dr	XX	
	TO FACTORY OVERHEADS ACCOUNT		XX
10	FACTORY OVERHEADS ABSORBED OR RECOVERED OR APPLIED OR ALLOCATED (TRANSFERRED)		
	WIP ACCOUNT Dr	XX	
	TO FACTORY OVERHEADS ACCOUNT		XX
11	FINISHED GOODS PRODUCED		<u> </u>
	FINISHED GOODS ACCOUNT Dr	XX	<u> </u>
	TO WIP ACCOUNT		XX
	401		
12	OFFICE AND ADMINISTRATION OVERHEADS INCURRED		
	OFFICE OVERHEADS ACCOUNT Dr	XX	
	TO GENERAL LEDGER ADJUSTMENT ACCOUNT		XX
13	OFFICE OVERHEADS ABSORBED OR APPLIED OR ALLOCATED OR RECOVERED		
	FINISHED GOODS ACCOUNT Dr	XX	
	TO OFFICE OVERHEADS ACCOUNT		XX
14	COST OF FINISHED GOODS SOLD		İ
	COST OF SALES ACCOUNT Dr	XX	
	TO FINISHED GOODS ACCOUNT		XX
15	SELLING AND DISTRIBUTION OVERHEADS INCURRED		
	COST OF SALES ACCOUNT Dr	XX	
	TO SELLING AND DISTRIBUTION OVERHEADS ACCOUNT		XX
16	CASH AND CREDIT SALE DONE		
	GENERAL LEDGER ADJUSTMENT ACCOUNT	XX	<u> </u>
	TO SALES ACCOUNT		XX
17	SALES TRANSFER TO COSTING PROFIT AND LOSS		
1 /	DALLS TRANSIER TO COSTING PROFIT AND LOSS		

	ACCOUNT		
	SALES ACCOUNT Dr	XX	
	TO COSTING PROFIT AND LOSS ACCOUNT		XX
18	COST OF SALES TRANSFERRED TO COSTING PROFIT AND LOSS ACCOUNT		
	COSTING PROFIT AND LOSS ACCOUNT Dr	XX	
	TO COST OF SALES		XX
19	PROFIT TRANSFERRED TO GENERAL LEDGER ACCOUNT		
	GENERAL LEDGER ADJUSTMENT ACCOUNT Dr	XX	
	TO COSTING PROFIT AND LOSS ACCOUNT		XX

Integrated Approach :-

It is a mixed Approach, which is combination of costing Approach and Financial Accounting Approach. It has 2 features

- (1) Personal and Real Account will be considered. Therefore GLA Account will not be taken place. First 10 Account prepared as usual, followed by other Personal and Real Accounts.
- (2) Non Costing Transaction will also be considered E.g Interest, discount, Dividend, Income Tax Etc.

The Flow of Transaction will be Considered here also.

JOB COSTING AND BATCH COSTING

JOB COSTING

When continuous production is not carried out but production depends on specific order received from customer, then in such case technique of Job costing is adopted for cost & profit calculation. Each order represent separate Job and we have to prepare Job cost sheet. The technique of Job costing is applied for preparation of Tender or Quotation.

In Absence of Information following points should be considered for preparing Job cost sheet.

- [1] First a fall prepare cost sheet of running business or transaction took place in previous period.
- [2] Calculate per unit cost of direct material, Direct labour, Direct Expenses and Selling & Distribution Overheads. Any Increase or Decrease will be adjusted to such per unit cost. The Revise per unit cost will be multiplied by Quantity of the Job order and we will get respective cost per job cost sheet.
- [3] Calculate % of Factory overheads to Direct labour, using Data of previous period transactions.
- [4] Apply this % on Direct Labour of Job cost sheet & we will get Factory overheads for Job cost sheet.
- [5] Normally in Job Cost Sheet there will be no opening and closing WIP & Finished Goods. Even sale of scrape will not be taken place.
- [6] Calculate % of office overheads to Works Cost using data of previous period. Apply this % to works cost of job cost sheet, & we will get office overheads for job cost sheet.
- [7] Calculate % of Profit to cost of sale using data of previous period. Apply this % to cost of sale of Job Cost sheet & we will get the profit for job cost sheet.

BATCH COSTING:-

When Item produced is small in size identically nature, large scale production is carried out & cost per unit is quite lower, then the techniques of Batch Costing is utilised for calculation of cost.

We have to prepare cost sheet for particular Batch size. The Overall amount of fixed cost will not change according to Batch size but per unit fixed cost will be change according to Batch size.

If Semi variable expenses take place then it will be divided into Variable cost and Fixed cost.

This Techniques is utilised of manufacturing items like Pencils, Pins, Clips and Other small stationary Items, small Electrical Items, Etc.

OPERATING COSTING

Introduction

These Chapter deals with Calculation of Cost for Service Orientated Organisation.

E.g.- Hospitals, Theaters, Transportation Services, Educational Institution, Etc.

We have to Calculate Cost & Quantity for Period of Operation.

Cost Per Unit =
$$\frac{\text{Total Cost}}{\text{Total Quantity}}$$

At the time of calculation cost Proper classification should be adopted in respect of variable cost, Fixed cost & Semi variable cost.

Variable Cost include those expenses which fully change according to the level of activity or level of Quantity.

Fixed Cost are those Cost which change according to time Factor & doesn't have any relation with the quantity involves.

Normally Expenses like Rent, Depreciation, Interest, Etc are time based expenses or fixed expenses. Whenever we come across semi-variable expenses we have to divided into parts i.e Variable Cost and Fixed Cost. Normally Maintenance cost is semi-variable cost.

Process Costing

Introduction

Process Account

	Qty	Rate	Amt		Qty	Rate	Amt
To Direct Material	XX	XX	XX	By Sale of Scrape	xx	XX	XX
To Indirect Material	xx	XX	xx	By Sale of Wastage	xx	xx	XX
To Direct Labour	xx	xx	xx	By Normal Loss	xx	XX	XX
To Indirect Labour	XX	XX	XX	By Sale of Output	XX	xx	XX
To Direct Exp	xx	XX	XX	By Loss on sale of Output	xx	xx	XX
To Indirect Exp	xx	XX	xx	By Output transferred to Next Process	xx	XX	XX
To Abnormal Gain	XX	XX	XX				
To Profit on sale of Output	xx	XX	XX				
	XX	XX	XX		XX	XX	XX

whenever it is possible to divide production procedure into separate function, then cost is calculated for each function separately by preparing Process Account. Process account will include all cost upto fact level.

Following are the Important Terms :-

1] Normal Loss :-

It represent Expected Loss of Output quantity which cannot be controlled. Such Quantity is estimated on the basis of Previous Experience. If Such Loss does not have sale value then it reflect as normal loss.

2] Expected Output = Input Quantity - Normal Loss

3]

Normal Cost of Process Per Unit = $\frac{\text{All Expenses -Sale of Scrape Amt}}{\text{Expected OutPut}}$

4] Abnormal Loss :-

When actual Output obtained is lower as compare Expected output, then such loss of output is known as Abnormal Loss. Abnormal Loss take place due to Negligence.

Abnormal Loss Account Dr..... xx

To Process Account

XX

Amount of Abnormal Loss = Abnormal Loss Qty X Normal Cost Per Unit

51 Abnormal Gain

When Actual output obtained is higher as compare to Expected Output, then such Extra output obtained is considered as Abnormal Gain.

Process Account Dr... xx

To Abnormal Gain Account xx

Amount of Abnormal Loss = Abnormal Qty X Normal Cost Per Unit

Note:- Effect of Abnormal Loss or Gain will be given only when actual output is given in the question.

INTER PROCESS PROFIT PROBLEM

When output of one process is transferred is transferred to another process by charging profit then it is Inter Process Profit Problem. In the Process account we have to give 3 column i.e Cost, Profit & Total. Total column is actual, All figure given in the problem are at total level, all calculation should be done with reference to amount of total column.

Output of 1st process will be transferred to second process by charging profit. Same procedure will be followed in subsequent process also. The opening & closing stock of 1st process will not have element of profit. However opening and closing stock subsequent process & finished goods will have profit element. We have to create stock reserves account for element pf profit in such stock. The stock reserves treatment will be covered in Costing P/L A/c.

The value of closing stock will be deducted from debit side instead of writing on credit side. The amount of profit will appear in Profit column & total column but never in cost column.

EQUIVALENT PRODUCTION

Introduction

In the Process Problem WIP is involved, then Equivalent Production Treatment will be apply. The cost of the process will be allocated between completed output and Incompleted Output depending on the level of completion derived in the current period.

Equivalent Production for the 1st Process using FIFO order:-

The opening WIP will be completed 1st & then fresh input will be completed, due to this Closing is available out of fresh Input. Following steps will be followed as working Note.

STEP I:- Prepare Process Account with Qty Data

STEP II :- Division of output quantity (using FIFO)

STEP III :- Statement of Equivalent Production

(QTY)

Particulars	Material	Labour	Fact. Overheads
Opening WIP completed in current period (Apply Balance %)	xx	xx	xx
Output from current Input (Always 100%)	xx	xx	xx
Closing WIP completed in current period (Apply % Given)	xx	xx	xx
Abnormal Loss (If scrape completion % is given then apply that % otherwise 100%)	xx	xx	xx
(-) Abnormal Gain (always 100%)	XX	XX	XX

Equivalent Quantity	xx	XX	xx
---------------------	----	----	----

Step IV Statement pf Equivalent Cost

	Material	Labour	Factory Overheads
	Rs.	Rs.	Rs.
Cost incurred in Current Period	XX	XX	XX
(-) Sale of Scrape	XX	XX	XX
Net Cost	XX	XX	XX
Equivalent Qty	XX	XX	XX
Equivalent C.P.U	X	X	X

Step V :- Valuation Procedure

Part I Value of completed Output

(A) Value of opening WIP completed

Opening Cost B/d (given in the Problem) xx

(+) Current cost xx

[Equivalent Qty X Equivalent C.P.U] xx

(+) Value of Output From Current Input

[Equivalent Qty X Total Equivalent C.P.U] xx

XX

Part II Value of closing WIP

Equivalent Qty X Equivalent CPU

Part III Value of Abnormal Loss

Equivalent Qty X Equivalent CPU

Part Iv Value of Abnormal Gain

Equivalent Qty X Equivalent CPU

After these working prepare Process Account which must tally.

CHAPTER 17 COST AUDIT & COST ACCOUNTING RECORD RULES

Student's Tip - This is another simple chapter and gives an introduction to cost audit and cost accounting record rules. The students should prepare this chapter from theoretical point of view.

SYNOPSIS:

1. Cost Audit

- 1.1 Meaning of Cost Audit
- 1.2 Objectives of Cost Audit
- 1.3 Other Aspects of Cost Audit
- 1.4 Types of Cost Audit
- 1.5 Circumstances Under Which a Cost Audit is Ordered
- 1.6 Cost Audit Programme
- 1.7 Advantages of Cost Audit
- 1.8 Principal Functions of Cost Auditor.

2. Cost Accounting Record Rules

- 2.1 Introduction
- 2.2 Accounting Records to be Maintained
- 2.3 Industries Covered

3. Analysis of Past Questions

- 3.1 Scanning of Questions Asked in Past Examinations
- 3.2 Frequency Table Showing Distribution of Marks

1. COST AUDIT

[May'92]

1.1 Meaning of Cost Audit:

The Institute of Cost and Management Accountants of England defines Cost Audit as follows - "the verification of cost records and accounts and a check on adherence to the cost accounting procedures and their continuing relevance".

Thus, cost audit involves the following:

- i. Examination of correctness of cost accounts: This involves verification of the cost accounting system, the methods and techniques of costing; the accuracy of the cost accounts and the reports generated.
- ii. Ensuring that the Cost Accounting Plan has been adhered to: This involves checking whether the objectives/policies laid down by the management are in accordance with the Cost Accounting Plan.

1.2 Objectives of Cost Audit : [Nov'99]

The objectives of cost audit can be summarised as follows -

- Protective Objectives
- a) To examine whether proper cost accounting records as per the *provisions of the Companies Act* have been maintained.
- b) To check whether the records maintained as above give a true and fair view of the cost of production.
- c) To verify the cost data and the reports generated therefrom.

- d) To reduce wastage of materials and labour.
- e) To maintain internal check and internal control in the various areas of operation.

(ii) Constructive Objectives

- a. To make available accurate and timely information to the management.
- b. To generate useful information for the Government so as enable it to fix prices, to give concessions to industries etc.
- c. To help the management in the decision making process.
- d. To reduce cost of production by making maximum utilisation of resources and to increase the level of efficiency by choosing the most beneficial method of operation.
- e. To enable fixation of prices.
- f. To promote cost-consciousness.

1.3 Other Aspects of Cost Audit : [Nov'97]

Apart from the aspects discussed above, cost audit also covers the following:

(i) Efficiency Audit:

Efficiency audit involves measurement of the efficiency of the performance of a company. Efficiency audit means comparison of actual performance with the set target, ascertaining the variances, investigating the reasons for the variances and instituting remedial action for the same.

Thus, the main *purpose of efficiency audit* is to ensure that -

- a. There is most optimum utilisation of resources
- b. The resources are channelised in the most profitable lines.

(ii) Propriety Audit:

It means the audit of executive actions and plans bearing on the finances and expenditure of the company.

The cost auditor has to check the following *aspects* while conducting a propriety audit –

- a. Whether the existing procedures aid the management in decision making
- b. Whether the planned expenditure would give optimum results
- Whether the return on investment could be improved by some other alternative plan of action

Thus, a propriety audit aims at supporting a reasonably high standard of financial prudence, so as to look after the interests of the shareholders.

Annexure to the Cost Audit (Report) Rules specifically provide for the cost auditor's comments on "cases where the company's funds have been used in a negligent or inefficient manner".

1.4 Types of Cost Audit:

(i) Statutory Cost Audit:

Following are the features of statutory cost audit -

- a. Section 233B of the Companies Act, 1956,empowers the Government to bring any industry under the purview of cost audit.
- b. A statutory cost audit is *not an annual feature* like the statutory financial audit. It is to be conducted only when an order for the same is made by the Government.
- c. Normally, a statutory cost audit is ordered for a particular industry and not for a particular company. Thus, if a company manufactures say, three products, only one product may be covered under statutory cost audit.
- d. Section 209(1)(d) of the Companies Act, 1956, prescribes the cost records to be maintained for the purpose of cost audit.

- e. The cost auditor is appointed by the Board of Directors of a company with the previous approval of the Central Government. A cost accountant or a chartered accountant may be appointed as a cost auditor. However an auditor appointed under Section 224 of the Companies Act, 1956, cannot be appointed as the cost auditor of the same company. Powers and duties of the cost auditor with respect to access to books of accounts and records and obtaining information and explanations from the officers of the company are the same as under Section 227(i) if the Companies Act, 1956.
- f. The company should make available to the cost auditor, within 90 days from the end of the financial year, all the cost accounting records as would be required for conducting the cost audit.
- g. The cost auditor is required to submit his report in triplicate to the Central Government within 120 days from the end of the financial year of the company. A copy of the report should be sent to the company also. The report should be in the form laid down in the Cost Audit (Report) Rules, 1968 and the subsequent amendments to the same.
- h. The company should furnish to the Central Government, within 30 days of the receipt of the cost audit report, all information and explanations on every reservation and qualification contained in the report. The Central Government is empowered to call for further information/explanations, if required and may take the requisite action on the report.

(ii) Cost Audit on behalf of the Management :

The management establishes a costing system so as to facilitate intelligent decision-making. The correctness of the decisions depends upon the reliability of the costing system and the accuracy of the cost data generated based on which such decisions are based.

A cost audit enables the management to -

- a. Establish the *reliability* of the cost accounting system
- b. Establish the accuracy of the cost data generated
- c. Verify whether the *objectives* for installing the cost accounting system are being met
- d. Ascertain whether the existing targets fixed can be *upgraded* or whether the existing cost accounting system can be improved.

(iii) Cost Audit on behalf of the Customer :

In the case of a "cost-plus contract" the contractee (or the customer), may insist on a cost audit so as to ascertain the correctness of the "cost". Normally, the contract stipulates this facility for the contractee.

(iv) Cost Audit on behalf of the Government:

Such an audit is conducted under the following circumstances:

- a. When the Government wants to fix a fair price for essential commodities
- b. When the Government is approached for concessions, subsidy, protection to a particular industry / company.
- c. When the Government wants to fix duties on certain products.

(v) Cost Audit on behalf of the Trade Association:

When a company becomes a member of a trade association, it may have to fulfill certain requirements of the trade association, one of which may be cost audit.

Such an audit helps the trade association to ascertain the *reliability of the data* submitted by the member company. It also facilitates the following -

a. The trade association may negotiate with the Government for *subsidies*, *concessions* etc.

- b. Cost audit may be useful in settling trade disputes on account of demand for higher wages, bonus etc.
- c. In case of *major cost variations* within the industry, the respective company's costs can be verified.

1.5 <u>Circumstances Under Which a Cost Audit is</u> Ordered:

With reference to "Types of Cost Audit" in 1.4 above, following are the circumstances under which a cost audit is ordered -

- i. When a company or a product incurs continuous losses.
- ii. In case of cost-plus contracts
- iii. For price fixation
- iv. In case of *major cost variations* within the different units of the industry
- v. In case of *granting subsidy* by the Government
- vi. In case of *fixation of levies and duties* on products by the Government
- vii. For settling trade disputes on account of higher wages, bonus etc.
- viii. When a trade union wants to negotiate with the Government for certain benefits.

1.6 Cost Audit Programme:

Meaning of Cost Audit Programme

A Cost Audit Programme is a plan of operations to be carried out while conducting a cost audit. It is a sequential arrangement of the activities to be carried out during a cost audit.

Contents of Cost Audit Programme

The contents of the Cost Audit Programme depends upon the following factors –

a. Whether the audit is partial or complete? i.e., whether the audit pertains only to a few aspects of the cost accounting system or it covers the entire system.

b. Whether the audit is continuous or periodical?

However, the Cost Audit Programme covers the following areas –

(i) General

Following are the general points to be considered during the preparation of the Cost Audit Programme

- a. The cost auditor should obtain a list of the different officers in key position in the organization.
- b. He should become familiar with the existing system of cost accounting in the organization and ensure that the cost accounting rules are followed correctly. He should check whether the existing system can be improved and upgraded.
- c. He should see whether the systems of standard costing and budgetary control are in operation and if so, then whether they are adequate or they need to be improved.
- d. He should see if an effective system of internal control is in existence.
- e. He should be aware of the *characteristics of* the industry of which the organisation under audit, is a part.
- f. He should note the *key factors* relating to the industry.
- g. He should familiarize himself with the production process, the different production and service departments, the materials used, the labour employed etc.

(iii) Audit Note Book

The Audit Note Book is systematic written record of the –

- a. **Procedure** adopted for conducting the cost audit
- b. *Notes* pertaining thereto
- c. Queries made and replies received
- d. Correspondence made
- e. Any other points pertaining to the audit

This book is useful while preparing the audit report.

(iv) Audit Procedures

This involves the various methodologies undertaken during the audit. These are as under –

- a. Questionnaires
- b. Vouching
- c. Test checking
- d. Checking and ticking

(v) Audit Report

The Cost Audit Report has to be filed with the Government within 120 days of the end of the financial year for which the cost audit is conducted. To meet this requirement, he should prepare a detailed cost audit plan covering all the aspects to be reported.

(vi) Advantages of Cost Audit Programme

Following are the advantages of a cost audit programme -

- (i) Work is done systematically.
- (ii) Work is ready within the time limits.
- (iii) Review of work done is easily possible.
- (iv) No area of work is left unattended.
- (v) There is documentary evidence of work done.
- 1.7 Advantages of Cost Audit: [May'99]

Following are the advantages of cost audit -

To The Management

Cost audit helps in detection of errors and frauds.

- ii. The management gets accurate and reliable data based on which they can make day-to-day decisions like price fixation.
- iii. It helps in cost control and cost reduction.
- iv. It facilitates the system of standard costing and budgetary control.
- v. It helps the management in *inter-unit / firm* comparison.
- vi. It enables the management to identify loss making propositions.
- vii. It helps the management to identify the inefficiencies and institute remedial action against the same.
- viii. It helps the management to *improve* upon the existing cost accounting system.
- ix. It keeps a *check on crucial areas* like valuation of finished goods, work-in-progress.

To The Government

- Cost audit ensures efficient functioning of the industry. This in turn, nurtures a healthy competition among the different companies and paves a path for fast progress.
- ii. It helps in *identification of sick units* and enables the Government to make relevant decisions.
- iii. It helps in *fixing prices* in the case of essential commodities and checking undue profiteering.
- iv. It enables to take decisions as to granting of subsidies, incentives and protection to various industries.
- v It helps to take decisions as to levies, duties and taxes.
- vi It facilitates the determination of cost claims submitted to the Government under cost-plus contracts.

To the Society

- i. Cost audit enables the Government to fix prices of essential commodities. This safeguards the interests of the society.
- ii. Cost audit enables the Government to keep a check on undue profiteering by the

manufacturers and avoids artificial price rise due to monopolistic tendencies.

To the Shareholders [Nov'97]

- i. Cost audit reveals whether any of the products of the company are making losses. Thus though the company making an overall profit, a loss making line may eating up the company's profits. This is brought to the notice of the shareholders and the management is forced to take remedial measures, thereby making optimum utilisation of resources.
- ii. Cost audit ensures that the shareholders get a fair return on their investments.

1.8 Principal Functions of Cost Auditor:

The Institute of Cost and Works Accountants has laid down the following principal functions of a cost auditor:

(i) Capacity Utilisation

The cost auditor has to ensure that -

- a. There is *optimum utilisation* of installed capacity, i.e., the machine hours utilised have resulted in optimum level of production.
- b. The idle capacity has been kept to the minimum.
- c. The bottlenecks in the optimum utilisation of capacity are identified and relevant remedial action is taken.

(ii) Procedure For Issue of Stores

The cost auditor has to ensure that -

- a. There is proper authorisation (Material Requisition Note) for issue of materials from the stores.
- b. There is no chance of *loss or pilferage* of material lying on the shop floor.

- c. Any excess material is promptly returned to the store vide a Material Return Note and credit is given to the relevant cost unit.
- d. Any scrap arising on account of utilisation of material is duly returned to the stores and credit is given to the relevant cost unit.
- e. There is adequate documentation for the movement of materials, thus establishing an audit trail.

(iii) Labour

The cost auditor has to ensure that -

- a. There is optimum utilisation of labour.
- b. There is a proper system of recording time.
- c. Standard time for each job / process is scientifically ascertained and actual performance is compared with it to establish variances. These variances are in turn, scrutinized and analysed so as to minimize them in future.
- d. The standard time set for each job / process is constantly *reviewed* for upgradation, thereby increasing the efficiency of labour.
- e. There is a proper method of remuneration in practice. Such a method should include an element of incentives so as to increase the productivity.
- f. Idle time is restricted to the minimum.
- g. Unnecessary overtime is avoided.
- h. There is a scientific method of allocating labour cost to various jobs / processes.

(iv) Overheads and Indirect Expenditure [Nov'95]

The cost auditor has to see that -

- a. Classification of overheads into those of production, administration, selling and distribution is done correctly.
- b. Bases for absorption of overheads is scientifically ascertained and applied.
- c. Allocation of overheads is done correctly.
- d. Overheads *budget* is prepared. Actual overheads incurred are periodically reviewed

- and variances are computed. Reasons for variances are ascertained and corrective action is taken.
- e. *Unabsorbed* overheads are treated correctly in cost accounts.
- f. Compared to the value of production, the overheads *loaded* are not excessive.
- g. Allocation of overheads between finished and unfinished goods is done in accordance with correct principles.

(v) Inventory

The cost auditor has to ensure that -

- a. The *level of inventory is commensurate* with the quantum of production.
- b. The orders are based on the concept of Economic Order Quantity (E.O.Q.).
- c. The *lead time* for each category of inventory is correctly worked out.
- d. The carrying costs and handling costs are duly considered and correctly computed.
- e. There is constant review of inventory levels and efforts are made to reduce the inventory costs.
- f. There is a check of the book inventory (i.e. inventory as per Ledger) with the physical inventory. Discrepancies, if any, should be investigated into and remedial action should be taken promptly.
- g. There is no room for *loss or pilferage* of inventory.
- h. There are *no bottlenecks* in the process of receipts and issues of inventory.
- There is proper authorisation and documentation for the movement of inventory.
- j. The entire handling of inventory is in accordance with the cost accounting plan.

(vi) Opening and Closing Stocks

The cost auditor has to ensure that -

- a. The *level of stock is commensurate* with the volume of production and that there are no bottlenecks in the handling of stocks.
- b. The *physical verification* of stocks is duly carried out.
- c. There is proper authorization and documentation for the movement of stocks.
- d. Aging of stocks is done. Non-moving / obsolete or slow-moving stock is identified and treated accordingly in the accounts.
- e. Valuation of stocks is done correctly and as per recognized policy.
- f. There is adequate storage security and there are no chances for misappropriation of stock.
- g. Quantum of *non-moving stores* is not abnormal as compared to the annual consumption rate.

(vii) Work - in - Progress [Nov'96]

The cost auditor has to see the following -

- a. The stock of work-in-progress is *physically* verified and that there is no discrepancy between book stock and physical stock.
- b. The valuation is correctly done with reference to the stage of completion.
- c. The stage of completion is correctly determined and applied.
- d. There is no over / under valuation of work-inprogress.
- e. The quantum of work-in-progress is commensurate with the volume of production.

2. COST ACCOUNTING RECORD RULES

[May'99]

2.1 Introduction:

Before the imposition of statutory cost audit, the Government of India had issued Cost Accounting Record Rules under Section 209 (1)(d) of the Companies Act, 1956 in respect various products / industries. According to the rules, all the companies involved in production / manufacturing activity, for

which certain cost accounting records have been prescribed, should maintain such records relating to utilization of materials, labour and other items of cost. The purpose of such a provision is that at any given point of time, product-wise cost of production and cost of sales can be easily ascertained. The cost accounting records prescribed as above have to be maintained in a specific format and their preparation has to be completed within the stipulated time limit. These rules are preliminary to statutory cost audit.

2.2 Accounting Records to be Maintained:

According to the Cost Accounting Record Rules, accounting records pertaining to the following need to be maintained for different industries –

- (i) Raw materials
- (ii) Labour
- (iii) Overheads
- (iv) Research and Development expenses
- (v) Conversion Cost
- (vi) Packing Cost
- (vii) Interest
- (viii) By-products and joint-products
- (ix) Captive consumption
- (x) Utilities and services
- (xi) Capital expenditure
- (xi) Work-in-progress
- (xii) Cost of Production and Cost of Sales
- (xiii) Reconciliation of Cost Accounts with Financial Accounts

- (xiv) Computation of Variances
- (xv) Physical verification
- (xvi) Statistical data

2.3 Industries Covered:

The list of industries for which Cost Accounting Record Rules have been issued are as under:

- (i) Cement
- (ii) Cycles
 - i. Rubber Tyres and Tubes
- ii. Caustic Soda
- iii. Room Air-conditioners
- iv. Refrigerators
- v. Automobile Batteries
- vi. Electric Lamps
- vii. Electric Fans
- viii. Electric Motors
- ix. Motor Vehicles
- x. Tractors
- xi. Aluminium
- xii. Vanaspati
- xiii. Bulk Drugs
- xiv. Sugar
- xv. Infant Milk Food
- xvi. Industrial Alcohol
- xvii. Jute Goods
- xviii. i Paper
- xix. Rayon
- xx. Dyes
- xxi. Soda Ash
- xxii. Nylon
- xxiii. i Polyester
- xxiv. v Cotton Textiles
- xxv. Dry Battery Cell
- xxvi. i Sulphuric Acid
- xxvii. ii Steel, Tubes and Pipes
- xxviii. iii Engineering Industries (Diesel Engine, Internal Combustion Engine, Power Driven Pumps)
- xxix. Electric Cables and Conductors

xxx. Bearings

xxxi. i Milk Food

xxxii. ii Chemical Industries

xxxiii. iii Formulations

xxxiv. iv Cosmetics and Toiletries

3. ANALYSIS OF PAST QUESTIONS

3.1 <u>Scanning of Questions Asked in Past</u> Examinations:

May'92 - Write explanatory note on : Cost Audit (8 marks)

Nov'95 - As a cost auditor what will you verify on the area of "overheads and indirect expenditure" (3 marks)

Nov'96 - What, as a cost auditor, will you verify in the area of work-in-progress? (4 marks)

Nov'97 - What are the important aspects of cost audit? How is it useful to the shareholders of a company? (6 marks)

May'99 - How is cost audit useful to management, society, shareholders and government? (4 marks)

May'99 - Write a brief note on Cost Accounting Record Rules (3 marks)

Nov'99 - Discuss the purpose of Cost Audit ? (3 marks)

3.2 Frequency Table Showing Distribution of Marks:

Exam	Descriptive Questions	Practical Questions	Total Marks
May'95	-	-	-
Nov'95	3	-	3
May'96	-	-	-
Nov'96	4	-	4
May'97	-	-	-
Nov'97	6	-	6

May'98	_	-	-
Nov'98	_	-	-
May'99	7	-	7
Nov'99	3	-	3

Reconciliation of Costing and Finance

Introduction:-

In this Topic we reconcile or match costing Profit with Finance Profit. Costing Profit is calculated in Costing Department in the factory. Finance Profit is calculated in account department in head office. For any company for one accounting year, Profit figure must be same but in Actual Life this figure are never same. There is always difference between this profits. A Statement is Prepared regularly explaining the reason for differences. Such statement is known as statement of Reconciliation. Following are reasons for Difference:-

[1] Recording Of Expenses:-

In cost books expenses are record as estimate. In finance books expenses are recorded as actual. Estimate never equal to Actual.

[2] Method of Stock Valuation :-

In Cost Books stock is valued at cost of Production . In Finance books stock is valued at cost or Mkt Price which is less. As a method of stock valuation is different stock figure are different.

[3] Method Of Depreciation :-

In Cost records, Depreciation depends upon use of assets. In Finance books Dep depends upon SLM or RBM Method. As Method of Dep are Different and hence the profit is Different.

[4] There is a certain item which appear only in finance books or only in cost books. As a result figure are different and hence the Profit is different.

STATEMENT OF RECONCILIATION

Profit as Per	XX
i Toric as i ci	^^

Cost Books		
Add:- 1)	XX	
2)	XX	
3)	XX	XX
		XX
Less :- 1)	XX	
2)	XX	
3)	XX	XX
Profit as Per finance Books		xx

Rules for Reconciliation Statement :-

- [1] Exp are More , Profit is Less , Now You Add
- [2] Exp are Less , Profit is More , Now You Less
- [3] Income are Less, Profit is Less, Now You Add
- [4] Income are More, Profit is More, Now You Less

Hint :- Opening Stock - Exp

MMI

Closing Stock - Income

COST SHEET

Every Business wants to earn maximum profits. For this Purpose, he has two options

- [1] Increase in Selling Price
- [2] Decrease the Cost

Rise in selling Price is not possible as there exists competition in the Mkt. Hence efforts are made to reduce the cost. The focus is on the future transaction of the company.

Cost Sheet:-

Cost Sheet is a statement in which all expenses are grouped under suitable heads for there analysis, Control, and Reduction. Aim is to earn maximum profit

Cost Sheet for the Year

Particulars	Amt	Amt	CPU
Raw Material / Direct Material :-			
Opening Stock	XX		
Purchases	XX		
Carriage Inward/ Fright	XX		
	XX		
(-) Sale of Material	XX		
Raw Material lost / destroyed	XX		
Purchase Return	XX		
Raw Material Consumed		XX	
Royalty		XX	
Production Wages		XX	

Factory wages		XX
Direct Expenses		XX
Chargeable Exp		XX
Special tools		XX
PRIME COST		XX
Add :- Production / Factory / Works Overheads		
Factory Rent and Taxes	XX	
Power Electricity	XX	
Repairs and Maintenance	XX	
Manufacturing Exp	XX	
	XX	
(-) Scrape Sale	XX	XX
(+) Opening Stock of WIP		XX
		XX
(-) Closing Stock of WIP		XX
FACTORY COST / WORKS COST		XX
Add :- Office Overheads		
Printing and Stationary	XX	
Miscellaneous / General Exp	XX	
Managing Directors Salary	XX	XX
COST OF PRODUCTION		XX
STATEMENT OF PROFIT	Γ / LOS	S
Opening stock of finished Goods		XX
(+) Cost of Production		XX
(+) Purchases of Finished Goods		XX
		XX
(-) Closing Stock of Finished Goods		XX
COST OF GOODS SOLD		XX
Add :- Selling and Distribution of Goods		
Advertisement	XX	
Salesman Salary	XX	
Cash Discount	XX	
Bad Debts	XX	
Showroom Exp	XX	XX
TOTAL COST / COST OF SALE		XX
Profit / Loss		xx /

	(xx)
NET SALE	XX

Note:-

- [1] Interest paid on loan Dividend Paid , Bank charges Etc are Financial Exp not considered in Cost Sheet.
- [2] In the absence of any instruction Cash Discount and Bad Debts are taken as selling Exp. Alternatively if they are taken as Finance Exp, they will not taken in Cost Sheet.
- [3] Purchase of Fixed Assets is a Capital Expenditure never taken in Cost Sheet.

CHAPTER 16 UNIFORM COSTING & INTER-FIRM COMPARISON

Student's Tip - This chapter is only of theoretical importance. However, students should study this chapter well for the following two reasons; one, that the chapter is very simple to understand and; two, that nearly every examination covers this chapter.

SYNOPSIS:

1. Uniform Costing

- 1.1 Meaning of Uniform Costing
- 1.2 Applications of Uniform Costing
- 1.3 Objectives of Uniform Costing
- 1.4 Pre-requisites for installation of Uniform Costing System
- 1.5 Essentials of a good Uniform Costing System
- 1.6 Uniform Cost Manual

- 1.7 Advantages of Uniform Costing
- 1.8 Limitations of Uniform Costing

2.Inter-firm Comparison

- 2.1 Meaning of Inter-firm Comparison
- 2.2 Procedure for Inter-firm Comparison
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- 2.4 Advantages of Inter-firm Comparison
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3. Analysis of Past Questions

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1.UNIFORM COSTING

[May'92,May

1.1 Meaning of Uniform Costing:

Uniform Costing is not a specific method of costing. It is only a system where several undertakings use a common set of costing principles, practices and procedures. The main objective of uniform costing is that the different undertakings in an industry should adopt a common method of costing and apply uniformly, the same principles and techniques so as to facilitate better cost comparison and cost control.

CIMA defines uniform costing as "the use by several undertakings of the same costing system, i.e., the same basic costing methods, principles and techniques."

1.2 <u>Applications of Uniform Costing</u>:

The need for application of uniform costing arises in the following circumstances :

i. When a single undertaking has a number of factories located at different locations and produces similar products or performs similar operations - Though the products manufactured / processes performed are identical, the cost of products / processes is bound to vary due to difference in location. Unless uniform costing is applied, it will be very difficult to compare the costs of products / processes at different factories.

ii. When a number of undertakings are members of a trade association -

Members of the association are required to maintain uniform costing records. This ensures that cost data submitted by members is comparable and consistent. It also enables the trade association to fix common prices for the whole industry and measure the operating efficiency of the members.

1.3 Objectives of Uniform Costing:

The main objectives of uniform costing are summarised as follows:

- i. To **generate reliable cost data** for inter-unit or inter-firm cost comparison.
- To improve the operational efficiency of individual units by comparing the efficiency of units with each other / overall performance of the industry.
- iii. To facilitate control on fixed costs.
- iv. To provide relevant cost data to the Government for fixing and regulating the prices of the products.
- v. To **eliminate unhealthy competition** among the different units.
- vi. To bring about **standardisation** in the operations of different units.
- vii. To reveal lines of individual products which have been discovered to be *unprofitable*.

1.4 <u>Pre-requisites for installation of Uniform Costing</u> System: [May'97]

For successful application of uniform costing system, the following conditions must be satisfied :

- i. The firms in the industry should be **willing to share** and exchange the relevant and correct information.
- ii. The participating firms should function with a **spirit of mutual co-operation and trust**.

- iii. The participating firms should **not** function with a sense of rivalry and jealousy or nurture **unhealthy competition**.
- iv. **Uniformity** with respect to the following points must be established before installing a uniform costing system:

[May'98]

- a. Size of participating firms
- b. Method of production employed
- c. Accounting methods, principles and procedures

1.5 Essentials of a good Uniform Costing System:

A good uniform costing system essentially covers the following :

- i. **Method of costing** to be used e.g. process costing, contract costing etc.
- ii. **Techniques of costing** to be used e.g. marginal costing, standard costing
- iii. **Unit of cost** to be used e.g. tonnes, kilograms etc.
- iv. **Production centres, cost centres, profit centres** to be used
- v. System of *classification and codification* of cost accounts
- vi. Definitions of various **elements of cost** e.g. direct material, direct labour, chargeable expenses, overheads (factory, administration, selling and distribution)
- vii. Definition of costs to be categorised as **fixed**, **variable and semi-variable** and the method to be used in seggregation of semi-variable costs
- viii. Classification of **production and service** departments
- ix. Method of apportionment of service department cost
- x. Base to be used in applying overheads to production units e.g. as a percentage of prime cost/direct wages or on machine hour rate basis
- xi. Treatment of *over/under-absorbed overheads*
- xii. Definition and treatment of *defectives, scrap,* spoilages and waste
- xiii. Method of *pricing material issues* e.g. LIFO, FIFO etc.

- xiv. Treatment of **handling and storage costs of materials**
- xv. Method of **payment of remuneration** e.g. timerate, piece-rate etc.
- xvi. Method of **valuation** of work-in-progress and finished goods
- xvii. Method for pricing of **joint products and by- products**
- xviii. Treatment of **controversial items** like interest on own capital, rent on owned premises
- xix. Method, presentation and frequency of **data/reports** to the management
- xx. Any other **foreseeable requirement** which may arise

1.6 Uniform Cost Manual: [Nov'94]

Uniform Cost Manual is a **written document**, which may be in the form of a book or a bulletin, containing the principles, methods and procedures for the ascertainment and control of cost in uniform costing. It is necessary for the successful operation of uniform costing system. Such a manual provides **guidelines** to the participating firms to organise their cost accounting system on a uniform basis.

Following are the **salient features** of a uniform cost manual :

- i. It includes *objectives*, scope and advantages of the system
- ii. It contains the definitions of various terms , codification and classification of accounts and the general principles of cost accounting
- iii It lays down the *parameters* for inter-firm/inter-unit comparison
- iv. It specifies the *reporting pattern* (method, presentation and frequency) to the management

1.7 <u>Advantages of Uniform Costing</u>: [Nov'95, Nov'98]

- A ready-made system of cost accounting can be installed without experimenting. This brings about savings in cost, time and efforts.
- ii. Uniform costing facilitates *inter-firm and inter-unit comparison*.

- iii. It makes possible **standardisation** of costing principles and practices.
- iv. It nurtures **healthy competition** among the participating firms.
- v. Thus, **operating efficiency** of the firms improves resulting in an overall increase in the efficiency of the industry.
- vi. It enables the participating firms to receive the **services of experts jointly**, thereby minimizing the cost to each firm.
- vii. It helps in **fixing selling prices** and eventually improvement in customer relations as it can be established that prices are based on reliable information which is representative of the costs of the industry.
- viii. It facilitates *negotiations* between the trade association and the Government in respect of granting concessions or subsidies and fixing duties or taxes.
- ix. It enables the Government to **regulate prices of essential commodities**.
- x. It facilitates introduction of uniform wage structure in the industry, thereby **reducing labour turnover**.
- xi. Small firms which cannot afford to spend on research and development can reap the benefits of such research from the bigger firms. **Technological improvements can be shared.**

1.8 <u>Limitations of Uniform Costing</u>: [Nov'96, Nov'98, Nov'99]

- Sometimes the participating firms are so **diverse in nature** that application of a uniform costing system may be very difficult.
- ii. Small firms may not be very keen on installing such a system as it may be expensive for them.
- iii. There is **no secrecy** maintained and competitors do not want to share information with each other.
- iv. Uniform costing acts as disincentive for the more efficient firms as the benefits of their efficiency are passed on to other member firms.
- v. Such a system *promotes monopolistic tendency*, whereby prices may be increased artificially.

2. INTER-FIRM COMPARISON

2.1 <u>Meaning of Inter-firm Comparison</u>: [May'95, Nov'97]

Inter-firm comparison consists of voluntary exchange of information pertaining to the various aspects of the participating firms (like costs, productivity, profitability etc.) among the firms engaged in a similar business, so as to increase the efficiency of the firms concerned and the overall efficiency of the industry.

Inter-firm comparison is a technique of evaluating the performances, efficiencies, costs and profits of a firm with those of other firms in the industry. The process of evaluation is carried out by a neutral body, like a trade association. It enables the participating firm to compare its performance with that of the most efficient firm.

Inter-firm comparison follows the principle of "comparing like to like" and this is possible only a uniform costing system in use. Thus, *uniform costing system is a pre-requisite to inter-firm comparison*.

2.2 Procedure for Inter-firm Comparison:

The following procedure is adopted for inter-firm comparison :

- i. **Information is collected** from the participating firms by a central body like a trade association.
- The information so collected is **analysed and presented** in such a manner that the secrecy of the information supplied by the partcipating firms is maintained.
- iii. Only relevant information is **provided to a participating** firm so that, that firm can use the information to improve it's efficiency.

2.3 <u>Pre-requisites for Inter-firm Comparison</u>: [May'95, Nov'97]

 Uniform costing system - As discussed earlier, a good uniform costing system is a pre-requisite to inter-firm comparison. For developing such a system,

- active co-operation is required from all the participating firms.
- ii. **Central Body for inter-firm comparison -** The responsibility of collecting, analysing and disseminating information from the participating firms needs to be entrusted to a neutral body. In India, this responsibility is entrusted to trade associations, manufacturing associations, Chamber of Commerce and Industry and National Productivity Council. Besides collecting and supplying information, such an entity also undertakes research and development activities for the common benefit of all the firms. It also conducts various training programmes for its member firms.
- iii. **Varied membership -** For a purposeful and successful inter-firm comparison, it is essential that firms of different sizes become members of the Central Body.
- iv. Nature and extent of information to be collected Though there is no limit to collecting information, the
 extent of information required to be collected
 depends upon the demand for such information,
 comparative value of the information and the
 efficiency of the central body. Collection of mass data
 or irrelevant data should be avoided as otherwise it
 will give rise to confusion and additional cost to the
 member firms. Though there is no standard list of
 information to be collected, normally, the following
 data is procured by the central body from it's
 member firms:
 - a. Information pertaining to costs and cost structures
 - b. Raw material consumption
 - c. Labour efficiency and utilisation
 - d. Machine efficiency and utilisation
 - e. Method of production
 - f. Inventory control
 - g. Technical aspects
 - h. Return on capital employed
 - Return on net worth
 - j. Reserves and appropriation of profits
 - k. Liquidity position
 - Debtors and Creditors etc.
- v) **Method of collection and presentation of information -** The methodology for collection and

dissemination of information should be clearly laid down. Normally, the central body collects the information at *fixed intervals*, like quarterly, half-yearly or annually. This information is collected via specific *forms or questionnaires*. The information to be supplied by the member firms is normally in *ratios*. Absolute figures are not collected so as to safeguard the secrecy of the data supplied by the member firms. Such information collected is analysed and presented in the form of a *report*. This report is made available only to member firms.

2.4 Advantages of Inter-firm Comparison:

- i. The standing of each member in the industry is ascertained. The weaknesses and the reasons for the same are highlighted. This facilitates the management to take *remedial action* and improve the efficiency of their firm.
- ii. By ranking the members, an atmosphere of *healthy* competition is created, whereby each member tries to better it's competitor's achievement.
- iii. Healthy competition in turn benefits the consumers.
- iv. Inter-firm comparison *promotes cost-consciousness* among the members of the industry.
- v. It helps the Government in price regulation.
- vi. It enables the Government to grant protection/concession to the industry, if necessary.
- vii. Since the evaluation of the participating firms is done by a neutral body, the *report generated is unbiased*.

2.5 Limitations of Inter-firm Comparison : [May'97]

- i. The information may not be forthcoming from the members due to *lack of organisational secrecy.*
- ii. Even the data submitted by the members may *not* be fully accurate due to the above-mentioned reason.
- iii. In absence of a uniform costing system, inter-firm comparison is meaningless.
- iv. **Non-availability of a suitable basis** of comparison poses a problem for the introduction of a system of inter-firm comparison.
- v. Members heading the ranking list may become complacent.

3. ANALYSIS OF PAST QUESTIONS

3.1 <u>Scanning of Questions Asked in Past</u> Examinations:

- **May'92 -** Write explanatory note on : Uniform costing (8 marks)
- **Nov'94** Write short note on : Uniform cost manual (4 marks)
- **May'95** Explain the meaning of 'Inter-firm Comparison'. Describe the requisites to be considered while installing a system of inter-firm comparison by an industry (16 marks)
- **Nov'95** A firm of printers is contemplating joining the uniform costing system being operated by it's Trade Association but the Managing Director is doubtful about the advantages of becoming involved in the scheme.
- Prepare a report to the Managing Director describing the advantages the firm is likely to gain. (7 marks)
- **May'96** Write short notes on : Uniform costing, Inter-firm comparison (6 marks)
- **Nov'96** State the limitations of uniform costing (4 marks)
- **May'97** What are the requisites for installation of a uniform costing system ? (6 marks)
- **May'97 -** Write four limitations of inter-firm comparison (4 marks)
- **Nov'97 -** What is meant by 'Inter-firm comparison'? Describe the requisites to be considered while installing a system of inter-firm comparison (8 marks)
- **May'98** Write short note on : Points on which uniformity is essential before introducing uniform costing (4 marks)
- **Nov'98** Explain in brief advantages and limitations of uniform costing (4 marks)

Nov'99 - Explain in brief the limitations of uniform costing (2 marks)

3.2 Frequency Table Showing Distribution of Marks:

Exam	Descriptive Questions	Practical Questions	Total Marks
May'95	16	-	16
Nov'95	7	-	7
May'96	6	-	6
Nov'96	4	-	4
May'97	10	-	10
Nov'97	8	-	8
May'98	4	-	4
Nov'98	4	- 0	4
May'99	-		-
Nov'99	2		2



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