4TH SEM BBA

Calicut university

PG Department of commerce and management

COST AND MANAGEMENT ACCOUNTING

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Core Course

BACHELOR OF BUSINESS ADMINISTRATION

BBA4B06 COST AND MANAGEMENT ACCOUNTING

Lectures Hours per week: 6 Credits: 4

Internal: 20, External: 80

Objective:

The objective of the course is to acquaint the students with the basic Conceptsand tools of cost and Management Accounting

Learning Outcomes: On completing the course students will be able to:

1. Understand cost and management accounting concepts and its application for decision making. 2. Aware as tocost consciousness and the various methods and techniques of costing Module I : Cost Accounting: Definition - Meaning and scope - Objectives - Cost classification - Elements of cost - Cost units -Cost centre - Types - Methods and Techniques of Costing - Management Accounting:Meaning and scope - Objectives - Difference between cost Accounting, Financial accounting and Management accounting. 10 Hours

Module II : Material and Labour: Material- Meaning and types. Computation of: Stock levelsEOQ - Pricing of Issue of materials - FIFO,LIFO, Simple and Weighted Average methods. Labour:

Computation of Labour cost - Time rate and piece rate system.

15 Hours

Module III : Overheads and Preparation of Cost Sheet: Overhead- Meaning and Definition – concepts of overhead Allocation, Apportionment and Absorption of overheads. (Simple problems only)Preparation of Cost sheet-Format – objects and methods of cost sheet preparation. 20 Hours

Module IV : Methods of Costing: - Job order costing: Meaning – Features – preparation of job cost sheet - Process Costing:Meaning – Features- normal and abnormal loss. 15 Hours Module V : Marginal Costing & Budgetary Control: Marginal costing- Concept-Meaning and computation of contribution, PV ratio and BEP - Construction of Break Even Chart - Profit planning. Budgetary Control : Concepts of Budget and Budgetary Control- preparation of cash and flexible budget 20 Hours

COST ACCOUNTING

4th sem BBA

Chapter 1

INTRODUCTION TO COST ACCOUNTING

The total cost can be found out from financial accounting. But, problem arises when the manufacturer produces more than one type of product. When more than one type of product is manufactured, it becomes necessary to split up the total cost among the various products. Then only the cost per unit of each category of product can be ascertained. Only now the manufacturer can fix the selling price of each category of product. As already stated, from financial accounts, we get only the aggregate cost of all categories of products. Here arises the need for cost accounting. Cost accounting helps in splitting up the aggregate cost (especially indirect cost) among the various categories of products. Thus, a manufacturing enterprise requires cost accounting in addition to financial accounting.

Limitations of Financial Accounting

1. It provides only past data (historical). It is simply a post-mortem of the past events.

2. It does not show profit or loss of each product, job, process etc.
3. It fails to exercise control over resources.
4. It does not measure organizational efficiency.
5. It fails to provide adequate data for price fixation.
6. It does not provide data for comparison of cost.
7. It provides only limited information to management for decision making.

Meaning and Definition of Costing

Costing simply means finding out the cost of a product or service by any method or technique. CIMA, London defines costing as, the technique and process of ascertaining the cost" Thus, costing is the procedure to measure the cost.

Meaning and Definition of Cost Accounting

Cost accounting is the process of accounting for costs. It is the accounting for cost for preparing statements and reports for the purpose of managerial decision making.
According to the latest terminology published by CIMA, "Cost accounting is that part of management accounting which establishes budgets and standard costs and actual costs of operations, processes, departments, or products and the analysis of variances, profitability or social use of funds"

Thus, cost accounting may be defined as a formal accounting system set up for recording analysing, and estimating costs. In short, cost accounting is the formal system for recording costs.

Difference between Costing and Cost Accounting

Costing	Cost Accounting
1. It is concerned with ascertainment of cost. 2. It has narrow scope (includes only cost ascertainment). 3. It involves classification of expenses according to cost elements. 4. It is done by cost accountant.	1. It is concerned with recording of cost. 2. It has broader scope (includes cost ascertainment and cost recording). 3. It involves analysis of cost for the preparation of necessary information. 4. It is done by cost clerks.

Meaning and Definition of Cost Accountancy

CIMA, London defines cost accountancy as 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 as well as presentation of information for the purpose of managerial decision making". According to this definition, the term 'cost accountancy includes costing, cost accounting, budgetary control, cost control, and cost audit.

Scope of Cost Accounting

1. Cost Recording or (Cost Book-keeping)
2. Cost classification
3. Cost Ascertainment
4. Cost Allocation
5. Cost Analysis
6. Cost Comparisons
7. Cost Control
8. Cost Audit
9. Cost Reporting

Objectives (Purposes) of Cost Accounting

1. To ascertain cost per unit of each product / service.
2. To control cost.
3. To determine selling price.
4. To ascertain the profit of each activity.
5. To prepare financial statements
6. To assist management in decision-making.
7. To ascertain the profitability of different products, jobs or work orders.
8. To measure efficiency

9. To control and reduce wastages.

Functions of Cost Accounting

1. Ascertaining actual cost of each product, job or process.
2. Providing cost data for the purpose of pricing, policy formulation, decision-making etc
3. Controlling costs by setting standards and comparing them with the actuals.
4. Measuring efficiency of each product, process or department:
5. Serving as a tool for planning and budgeting.
6. Helping in the selling price fixation,
7. Helping in the preparation of tenders or quotations.

Merits / Importance / Advantages of Cost Accounting

A. Merits to Management

1. Cost accounting system identifies profitable and unprofitable activities. This helps to reduce or eliminate unprofitable activities.
2. Cost accounts furnish cost data to management for decision continue or shut down, accept or reject etc. Making such as make or buy
3. Cost accounting system helps to exercise control on material, labour and overhead costs through standard costing, budgetary control etc.
4. Cost accounting system helps in minimising losses and wastages relating to materials,idle time, idle capacity etc.
5. Cost accounting helps the management in fixing the selling price.
6. Cost accounting system enables to measure organisational efficiency.
7. Cost accounting helps in appraising the performance of each division, department etc. on the basis of cost comparisons,

B. Merits to Employees

1. Cost accounting facilitates the introduction of incentive schemes and bonus plans. In this way it offers better wages to employees.
2. Cost accounting helps in introducing a good wage system.
3. A good costing system helps in increasing the productivity, profitability and prosperity of firms. On account of this, workers get better wages, job security etc.
4. Cost accounting minimizes the possibilities of misunderstanding between workers and employers.

C. Merits to Creditors and Investors

1. Cost data helps the creditors to ascertain the solvency, profitability and future prosperity of an enterprise before they lend.
2. Cost accounting enables the creditors to ascertain whether the capital employed effectively utilised in the business.
3. Cost data helps the creditors to ascertain the solvency, profitability and future prosperity of an

enterprise before they lend.

4. Cost accounting enables the creditors to ascertain whether the capital employed effectively utilised in the business.

D. Merits to Government

1. Cost accounting helps government in formulating policies relating to export, import, taxation, price control measures, wage fixation etc.

2. Cost information helps in preparing national plans and budgets.

3. Cost accounting helps in levying excise duty, sales tax etc.

4. Government can run public sector enterprises efficiently with the help of cost accounts.

E. Merits to Society

1. Cost accounting conducts a war against all kinds of waste. Therefore, consumers get quality products at reasonable prices.

2. Cost accounting brings stability by improving managerial and operating efficiency.

3. Cost saving and cost reduction efforts carried out by various organisations help in curbing inflationary tendencies in the economy.

4. Cost accounting provides continuous employment opportunities to various sections of society.

Demerits / Disadvantages of Cost Accounting

1. Cost accounting lacks uniformity. Different organisations prepare cost records and reports in different methods and forms.

2. Cost accounting provides data for arriving at decisions. It does not offer solutions to a problem.

3. it requires heavy expenditure.

4. Cost computed for one purpose may not be suitable for some other purposes.

5. Cost accounting is not suitable to trading concerns. It is not applicable to small enterprises.

6. Cost accounting is based on assumptions and presumptions. Hence, it is not an accurate or an exact science.

Methods of Costing

1. Job Costing
2. Batch costing
3. Batch costing
4. Process costing
5. Single or unit costing
6. Operating costing
7. Operating costing
8. Multiple costing

Types or Techniques of Costing

1. Absorption Costing; It is the process of charging all costs (both variable and fixed to products, services, jobs or processes. It is also called full costing

2. Marginal Costing: It is the process of charging only variable costs to products, operations and process. It is also known as variable costing.

3. Direct Costing: It is the process of charging all direct costs (all variable costs and some fixed costs) to products, services, jobs etc. The indirect costs are excluded and written off against the profit of the period in which they arise.

4. Differential Costing: It is the technique of comparing cost of two alternatives for the purpose of deciding which alternative is the best.

5. Uniform Costing: It is the use of same costing principles, practices and methods by several undertakings for a common control or comparison of costs.

6. Historical Costing: It is the ascertainment of costs after they have been incurred.

7. Standard Costing: It is a system of comparing actual cost with standard cost, analysing variances and taking remedial action, if necessary.

COST ACCOUNTING

4th sem BBA Chapter 2

COST CLASSIFICATION & ELEMENTS OF COST Meaning and Definition of Cost

The term 'cost' has variety of meanings. It is defined by different people differently. In the Oxford Dictionary cost means "the price paid for something". It means anything which is given or sacrificed to obtain something. But in cost accounting, it has a specific meaning. A cost is incurred when a resource is used for some purpose. In other words, when a business enterprise produces or sells goods or services, it incurs costs. Thus, in cost accounting, the term cost refers to the resources consumed to produce a product or service. ICMA London defines cost as the amount of expenditure incurred on a given thing. Thus, cost is the expenditure incurred to secure an economic benefit. In short, cost refers to the total expenses incurred on the production and sale of products and services.

Expense

Cost provides a benefit. If the benefit is received immediately, then the cost becomes an expense, such as salary expense. If the cost gives future benefits, then the cost is known as asset or expenditure, such as machinery. As the asset is used, an expense such as depreciation arises. Thus, cost includes expense and expenditure.

The AICPA defines expense as "all expired cost which is deductible from revenue". In short, expense is an expired cost with a matching economic benefit.

Loss

If no benefit is received from the cost incurred or it is sure that no benefit will accrue, the cost becomes lost. This lost cost is known as loss.

Classification of Cost (or Types of Costs)

1. Classification According to Functions:
(a) Manufacturing cost (Production cost), (b) Administrative cost, (c) Selling cost, (d) Distribution cost, (e) Financing cost.

2. **Classification According to Behaviour or Variability:**
(a) Fixed cost
(b) Variable cost
(c) Semi variable cost (d) Step cost

3. **Classification According to Identifiability or Traceability:**
(a) Direct costs
(b) Indirect cost

4. **Classification by Association with Time and Period:**
(a) Historical Cost
(b) Product cost
(c) Period cost
(d) Pre-determined

5. **Classification on the Basis of Managerial Decisions:**
(a) Sunk costs
(b) Opportunity costs
(c) Differential costs
(d) Imputed cost
(e) Out of pocket cost
(f) Shut down cost
(g) Marginal cost
(h) Conversion cost
(i) Relevant cost

Cost Units

Cost unit is the unit in which the cost is expressed and ascertained. CIMA, London defines cost unit as "a unit of quantity of product, service or time (or a combination these) in relation to which costs may be ascertained or expressed" it is a device for the purpose of breaking up costs into smaller subdivisions. For example, in the case of steel industry. Its output is measured in terms of tonnes. In this case 'tonne is the cost unit. Therefore, cost per ton of steel is to be computed.

Types of Cost Units

1. Simple cost unit: A simple cost unit measures just one characteristic such as length or volume or weight. Examples of simple cost unit are per tonne, per kg. per 1000 etc.

2. Composite cost unit: The composite cost unit is a combination of two simple cost units. Examples are patient day, tonne km, passenger km. etc.

Cost Centre

For the costing of products or services, an organisation should be divided into departments or branches or sections. Each department or branch or section is known as cost centre. In simple words, cost centre means a section (department) of the business to which cost can be charged. Each cost centre is headed by a responsible person for controlling the cost in his cost centre. Thus, a cost centre is a unit of the organisation in respect of which a manager is responsible for costs under his control

CJ.MA, London defines cost centre as "a location, person, or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of cost control". Thus cost centre is the smallest part of an organisation or area of responsibility for which the costs are collected.

Types of Cost Centre

1. Operation cost centre: Operation cost centre consists of those machines and/or persons carrying out similar operations.

2. Process cost centre: A process cost centre is a cost centre in which a specific process or a continuous process of operation is carried out.

3. Production cost centre: A production cost centre is one which is engaged on regular production. 4. Service cost centre: A service cost centre is one which is engaged in rendering services to production cost centres

5. Personal cost centre: Personal cost centre consists of a person or group of persons. For example, departmental foreman, salesman, supervisor, factory manager etc…

6. Impersonal cost centre: An impersonal cost centre consists of a location or item of equipment or a group of these. For example, machines, departments, vehicles etc…

Difference between Cost Unit and Cost Centre

Cost Centre	Cost Unit
1. Cost centre is a segment of an organisation for which costs are accumulated. 2. The concept of cost centre is used for accumulation and control of costs. 3. Different cost centres may be involved in the production of a product. 4. Cost centres are created for assisting the management in the functions of budgeting and controlling 5. Formulation of cost centres depends upon the nature and techniques of production processes, size of the organisation and the structure of the organisation	1. Cost unit is a unit of measurement of cost. 2. The concept of cost unit is used to ascertain costs. 3. A product will have only one cost unit. 4. Cost units are determined not for budgeting and controlling. 5. Determination of cost units depends upon the nature of the final product and the prevailing trade practices.

Elements of Cost

1. Material

a. Direct material

b. Indirect material

2. Labour

a. Direct labour

b. Indirect labour

3. Expenses

a. Direct expenses

b. Indirect expenses

Overheads

Overheads are indirect charges. These are the aggregate of indirect material cost, indirect labour cost and indirect expenses. These are operating expenses. Overheads cannot be conveniently and directly charged

to specific cost centre or cost unit. These are to be apportioned or absorbed. Overheads are also called oncost. They are sometimes called "burden'.

According to function, overheads can be classified into four, namely, factory overheads, office overheads, selling overheads and distribution overheads.

1. Factory overheads
2. Office overhead
3. Selling overhead
4. Distribution overhead

Divisions or Components of Cost

1. Prime cost
2. Factory cost
3. Cost of production
4. Total cost

Prime cost:

Prime cost = Direct material + Direct labour + Direct expenses

Factory cost:

Factory cost or Works cost Prime cost + Factory or Works overhead

Cost of production:

Cost of production or office cost = Factory cost + Office and administration overheads **Total cost:**

Total cost or cost of sales = Cost of production + Selling and distribution overheads

Module 2

Materials

The materials are a major part of the total cost of producing a product and are one of the most important assets in the majority of the business enterprises. Hence the total cost of a product can be controlled and reduced by efficiently using materials.

The materials are of two types, namely:

(i) Direct materials: The materials which can be easily identified and attributable to the individual units being manufactured are known as direct materials. These materials also form part of finished products. All costs which are incurred to obtain direct materials are known as direct material costs.

(ii) Indirect materials: Indirect materials, on the other hand, are those materials which are of small values such as nuts, pins, screws, etc. and do not physically form part of the finished product. Costs associated with indirect materials are known as indirect material costs.

Material Control

There are 5 R s involved in efficient material control system. They are

- Right quantity
- Right quality
- Right price
- Right price
- Right time
- Right source

Importance of Material Cost Control

It ensures continuous supply of required materials.
It minimise wastage
It leads to effective utilisation of funds
It reduces blocking up of capital
It reduce storage cost
It maintain up-to-date records of inventory
It enables the management to take inventory decision

Techniques of Material Control

1. Classification and codification of material
2. Double bin system
3. Stores stock level
4. Economic Order Quantity
5. Material Turnover Ratio
6. Stock verification system
7. Imprest system
8. ABC analysis
9. VED analysis
10. JIT inventory technique

Stores Stock Level

For maintaining optimum levels of inventory, management will fix different stock level.

The different stock levels are

1. Maximum level
2. Minimum level
3. Reorder level
4. Average level
5. Danger Level

1.Maximum Level

It is the upper level of inventory. This is the level above which stock should not exceed.

Maximum level = Reorder Level +Reorder quantity -(Minimum consumption x Minimum reorder period)

2.Minimum Level

It is the minimum quantity of stock that should be held at all times

Minimum level = Reorder Level -(Normal consumption x Normal reorder period)

Normal or average consumption = Minimum reorder period +Maximum reorder period / 2

3. Reorder Level

This is the level at which order is placed for fresh supply of materials.

Reorder level = Maximum consumption x Maximum reorder period
Or Minimum level + Average Consumption x Average reorder period

4. Average stock level = Minimum level +½ Reorder quantity

5. Danger Level

This is the level of stock below which the stock should never be allowed to fall

Reorder period

It is the time required to obtain new materials.It is the time lag in procurement of material It is also called lead time or delivery period.

ECONOMIC ORDER QUANTITY

The quantity of materials that is ordered should be neither too large nor too less. If it is large, the holding cost of inventory will be larger. If it is less,the ordering cost will be larger. So the size of the order must be economic. This means that only optimum or most favourable or economic quantity should be purchased at a time. This quantity is called Economic Order Quantity

It can be defined as the quantity which is most economical to order at a time. It is the ordering quantity which minimises the total cost of inventory. The total cost of inventory includes- Ordering cost and Carrying cost

Ordering costs are those costs which relate to purchasing and placing an order. Carrying costs are the cost of holding or carrying the inventories. (storage cost)

EOQ is computed by

Methods of Pricing Material Issues

1. First - in First - Out Method (FIFO)

Under this method materials are issued in the order in which they are received in the stores. This means that materials received first are issued first. After completion of the first lot, the second lot is issued and so on. Automatically, closing stock will be valued at the latest price.

2. Last-in-First-out Method (LIFO)

This method is the reverse of the FIFO method. Materials received last are issued first. Closing stock is valued at the oldest consignment.

3. Simple Average Price Method

Under this method, the issue price is calculated by dividing the total of unit prices of materials in the stock from which materials are issued, by the number of prices entering in the calculation

4. Weighted Average Price Method

Under this method issue price is calculated by dividing the value of material in stock by the quantity of material in stock.

LABOUR

Meaning of Labour

Labour represents human contribution to production. It is the physical or mental effort expended in manufacturing a product. In other words, the human effort required for the conversion of raw material into finished goods is called labour. Labour cost is the price paid for using human resources in an enterprise. It represents any remuneration paid to the employees in the form of wages, salaries, commission, bonus etc.

TYPES OF LABOUR

From the cost accounting point of view, labour is classified in to direct labour and indirect labour

Direct labour:- Direct labour is that labour which is directly engaged in production.

Eg:- Wages paid to machine operator and assemblers

Indirect labour:- Indirect labour is that labour which is indirectly engaged in production

Eg:- Wages or salaries paid to supervisor, foreman,accountant, clerk etc.

Difference between Direct Labour and Indirect Labour

Direct Labour	Indirect Labour
1.It can be identified with finished product	1. It cannot be identified with finished product
2.It can be directly charged to a particular unit	2. It cannot be directly charged to cost unit
3.It is primary in production.	3. It is secondary to production
4.It is a part of prime cost	4. It is a part of overhead
5.It varies according to changes in output	5. It remains fixed

LABOUR COST

Labour cost includes the sum total of all payments made by the employer to the workforce for performing the activity of production and the cost of all benefits granted to the workforce.

It includes :- Basic wages,D.A,bonus,E.S.I, gratuity,pension,medical facilities,education,Housing Holiday pay etc

COMPUTATION OF LABOUR COST (Methods of Remuneration)

It can be classified in to two 1) Time Rate System and 2) Piece Rate System

Time Wage System

It is the oldest method of wage payment. Under this system wages are paid to workers on the basis of time

Earnings = Hours worked x Rate per hour

Piece Wage System

Under this method wages are paid on the basis of the number of articles produced by the worker.

Earnings = Number of units produced x piece rate

Types of Piece Rate System

a) Straight Piece Rate System :- In this system of payment is made on the basis of fixed amount per unit produced.

b) Differential Piece Rate System:- In this system two or more piece rates are applicable.They are below standard, standard and above standard

Difference between Time Wage System and Piece Wage System

Time Wage System	Piece Wage System
1 Wages are paid on the basis of time	1. Wages are paid on the basis of quantity
2. Efficiency is not rewarded	2. Efficiency is rewarded
3. It requires more supervision	3. It requires less supervision
4. Its emphasis is on quality of product.	4. Its emphasis is on quantity of product.
5. Minimum wages are guaranteed.	5. Minimum wages are not guaranteed.
6. It is favoured by the trade union	6. It is not favoured by the trade union

4th sem BBA

Cost and Management Accounting

Jan 2021 Note

Overhead and Preparation of Cost sheet (module 3)

Cost related to a cost center or cost unit may be divided into two

Direct and Indirect cost.

The Indirect cost is the overhead cost and is the total of indirect material cost, indirect labour cost, indirect expenses. CIMA defines indirect cost as “expenditure on labour, materials or services which cannot be economically identified with a specific salable cost per unit”. Indirect costs are those costs which are incurred for the benefit of a number of cost centers or cost units. So any expenditure over and above prime cost is known as overhead. It is also called ‘burden’, ‘supplementary costs’, ‘on costs’, ‘indirect expenses’.

Classification of Overheads

Overheads can be classified on the following basis:

i) Function-wise classification: Overheads can be divided into the following categories on functional basis.

(a) Manufacturing or production overheads eg:- indirect materials like lubricants, cotton wastes, indirect labour like salaries and wages of supervisors, inspectors, storekeepers, indirect expenses like rent, rates and insurance of factory, power, lighting of factory, welfare expenses like canteen, medical et

(b) Administration overheads eg:- indirect materials like office stationery and printing, indirect labour salaries of office clerks, secretaries, accountants, indirect expenses rent, rates and insurance of office, lighting heating and cleaning of office, etc.

(c) Selling and Distribution overheads eg:- indirect materials like catalogues, printing, stationery, price list, indirect salary of salesmen, agents, travelers, sales managers, indirect expenses like rent, rates and insurance of showroom, finished goods, godown etc., advertising expenses, after sales service, discounts, bad debts etc.

ii) Behavior-wise classification: Overheads can be classified into the following categories as per behavior pattern.

(a) Fixed overheads like managerial remuneration, rent of building, insurance of building, plant etc.

(b) Variable overheads like direct material and direct labour.

(c) Semi-variable overheads like depreciation, telephone charges, repair and maintenance of buildings, machines and equipment etc.

iii) Element-wise classification: Overheads can be classified into the following categories as per element.

(a) Indirect materials (b) Indirect labour (c) Indirect expenses

Allocation and Apportionment of Overhead to Cost Centers (Depart-metallization of Overhead)

When all the items are collected properly under suitable account headings, the next step is allocation and apportionment of such expenses to cost centers. This is also known as departmentalization or primary distribution of overhead. A factory is administratively divided into different departments like Manufacturing or Producing department, Service department, partly producing departments. Allocation of Overhead Expenses Allocation is the process of identification of overheads with cost centers. An expense which is directly identifiable with a specific cost centre is allocated to that centre. Thus it is allotment of a whole item of cost to a cost centre or cost unit. For example the total overtime wages of workers of a department should be charged to that department. The electricity charges of a department if separate meters are there should be charged to that particular department only

Apportionment of Overhead Expenses Cost apportionment is the allotment of proportions of cost to cost centers or cost units. If a cost is incurred for two or more divisions or departments then it is to be apportioned to the different departments on the basis of benefit received by them. Common items of overheads are rent and rates, depreciation, repairs and maintenance, lighting, works manager's salary etc. Basis of Apportionment Suitable bases have to be found out for apportioning the items of overhead cost to production and service departments and then for reapportionment of service departments costs to other service and production departments. The basis selected should be correlated to the expenses and the expense should be measurable by the basis. This process of distribution of common expenses over the departments on some equitable basis is known as 'Primary Distribution'.

The following are the main bases of overhead apportionment utilized in manufacturing concerns:

DIRECT ALLOCATION

Under direct allocation, overheads are directly allocated to the department for which it is incurred. Example overtime premium of workers engaged in a particular department, power, repairs of a particular department etc.

(i) Direct Labour/Machine Hours. Under this basis, overhead expenses are distributed to various departments in the ratio of total number of labour or machine hours worked in each department. Majority of general overhead items are apportioned on this basis.

(ii) Value of materials passing through cost centers. This basis is adopted for expenses associated with material such as material handling expenses.

(ii) Direct wages. Expenses which are booked with the amounts of wages eg:- worker's insurance, their contribution to provident fund, worker's compensation etc.

Re-apportionment of Service Department Costs to Production Departments Service department costs are to be reapportioned to the production departments or the cost centers where production is going on. This process of re-apportionment of overhead expenses is known as 'Service Distribution'.

The following is a list of the bases of apportionment

Basis of Apportionment

Item	Basis of Apportionment
1. Maintenance Department	1.-Hours worked for each department
2. Payroll or time-keeping department	2.Total labour or Machine hours or number of employees in each department
3. Store keeping department	3. - no. of requisitions or value of materials of each department.
4. Employment or Personnel department.	4. - Rate of labour turnover or number of employees in each department.
5. Purchase Department	5.-no. of purchase orders or value of materials
6. Welfare, ambulance, canteen service, recreation room expenses.	6. No. of employees in each department.
7. Building service department	7.Relative are in each department
8. Internal transport service or overhead crane service	8.Weight, value graded product handled, weight and distance travelled.
9. Transport Department	9.-crane hours, truck hours, truck mileage, truck tonnage, truck tone
10. Power House (Electric power cost)	

	10. –wattage, horse power, horse power machine hours, number of electric points etc.

PREPARATION OF COST SHEET

UNIT COSTING

It is an important method of costing. It is also known as output costing or single costing. It is used to ascertain the cost of producing a unit of output.. This method is called 'unit' costing since every unit of production is identical in all respects and the cost unit is a standard product. According to J.R Batliboi, "Single or output cost system is used in business where a standard product is turned out and it is desired to find out the cost of a basic unit of production."

Features:

1. It is used where output can be measured in convenient physical unit
2. It is followed in concern s engaged in the production of a single product
3. It is followed in industries where manufacturing process is continuous
4. It is followed where all units of production are identical

Cost sheet:

Cost sheet is a device used to determine and present the cost under unit costing. It is a statement of costs incurred at each level of manufacturing a product or service. In a Cost sheet all the elements of cost is taken into consideration. It includes Prime cost, Factory/manufacturing cost, cost of production, cost of sale Profit/loss etc.

FORMAT OF COST SHEET

Cost sheet for the period ending……

	Total	Per Unit
Direct material	Xxx	Xx
Direct labour	Xxx	Xx
Direct expenses	Xxx	Xx
Prime Cost	Xxxxxx	Xxx
Add Factory Over head	Xxx	x
Factory Cost		Xx
Add administrative Overhead	Xxxxxx	Xxx
Cost of Production	Xxx	x
Add Selling and Distribution Overhead	Xxxxxx	Xx
Total Cost / Cost of Sales	Xxx	Xxx
Add Profit	Xxxxxx	x
Sales Price	Xxx	Xx

	xxxxxx	Xxx x Xx xxxx

COST AND MANAGEMENT ACCOUNTING

Feb Note 4 th sem BBA

Module 4 JOB COSTING

Meaning of Job Costing

According to C.I.M.A, London , Job costing is that form of specific order costing which applies where work is undertaken to customer`s specific requirements and each order is comparatively of short duration."

Features of Job costing

- Production commences after receiving orders from customers
- Production is not continuous
- Work according to customer`s specification.
- Each job is treated as a cost unit.
- Each job is unique, specific and distinct
- A separate job cost sheet is prepared
- The cost of production of every job is ascertained after the completion of the job
- The duration of job is short

Examples of Job costing

Manufacturing Process … Printing process, Machine tools manufacture, Garments manufacture etc..

Non- Manufacturing Concern…Repairing unit, general engineering workshop automobile garage etc

Advantages of Job costing

- To find out cost and profit of each job separately
- To helps in identifying profitable and unprofitable job
- It helps is identifying the cost of similar jobs.
- It facilitates cost control
- It helps in fixing responsibility
- It helps in future production planning
- To know the trend of cost

Disadvantages of Job costing

It is historical,

Expensive, due to clerical work,

Different jobs are not comparable and difficult to apply standard costing

Procedure of Job Costing

1. Receiving customer`s enquiry
2. Estimating the price of Job
3. Receiving customer`s order
4. Job number
5. Production Order
6. Recording of Costs
7. Completion of Jobs
8. Computation of profit or loss

JOB COST SHEET

It is a cost sheet prepared in respect of a job. For each job a separate cost sheet is prepared to which expenditure incurred thereon are changed.

PROCESS COSTING

Meaning and Definition of Process Costing

Process costing is one of the basic methods of costing. It is used in those Industries where a product passes through different stages of manufacture before it becomes

A finished product. It is a method of costing which is used to ascertain the cost at each stage.

According to Kohler "Process costing is a method of costing whereby costs are charged to processes or operation and averaged over units produced".

Characteristics of Process Costing

1. It is applicable in industries where production is continuous.
2. Product passes through two or more distinct processes for completion
3. Products are standardized
4. Products are not distinguishable
5. For each process, a separate account is maintained
6. The finished product of one process becomes the raw material of the subsequent process.
7. Cost of material, labour and overheads are collected for each process and charged accordingly

Advantages of Process Costing

1. It is easy to compute average cot because the products are homogeneous in Process Costing.
2. It is possible to ascertain the process costs at short intervals.
3. Process Costing is simple and less expensive in relation o job costing.
4. By evaluating the performance of each process effective managerial control is possible. **Disadvantages of Process Costing**

1. Valuation of work in progress is difficult.
2. It is not easy to value losses, wastes, scraps etc.
3. The apportionment of total cost among joint products and by-products is difficult.
4. Process cost are not accurate, they are only average costs
5. Process costs are only historical.

Principles of Process Costing

The following points are considered while determining the cost under Process Costing.

1. Production activity should be divided into different processes or departments.
2. A separate account is opened for each process.
3. Both direct and indirect costs are collected for each process.
4. The quantity of output and costs are recorded in the respective process accounts.
5. The cost per unit is determined by dividing the total cost at the end of each process by the number of output of each process.

6. Normal loss and abnormal loss are credited in the process account
7. The accumulated cost of each process is transferred to subsequent process along with output. The output of the last process along with cost is transferred to the finished goods account.
8. In case of by-products and joint products their share in joint cost should be estimated and credited to the min process.
9. When there is work in progress at the end of the period the computation of inventory is made I terms of complete units.

Difference between Process Costing and Job Costing

Process Costing	Job Costing
1. Production is continuous 2. Production is for stock 3. All units produced are identica homogeneous 4. There is regular transfer of cost of process to subsequent processes 5. Work in progress always exists	1. Production is according to custon orders 2. Production is not for stock 3. Each job is different from the other 4. There is no regular transfer of cost f one job to another 5. Work in progress may or may not ex

Procedure for Process Costing

1. Each process is separately identified. Separate process account is opened for each process.
2. Along with 'Particulars Column', two columns are provided on both sides of the process account – units (quantity) and amount (Rupees).
3. All the expenses are debited in the respective process account.
4. Wastage, sale of scrap, by-products etc are reordered on the credit side 0f the process account.
5. The difference between debit and credit side shows the cost of production and output of that particular process which is transferred to the next process.
6. The cost per unit in every process is calculated by dividing the net cost by the output.
7. The output of last process is transferred to the Finished Stock Account.
8. Incomplete units at the end of the each period ion every process s converted in terms of completed units

Specimen of Process Account

Process Account

	Units	Rs		Unit	Rs
To Direct materials To Direct Wages To Direct Expenses To Indirect expense To Other Expense any)			By Loss weight (No Loss) By sale of Scrap ByNextProcess Account(Transfer)		

Process losses

The process loss is classified into two- normal process loss and abnormal process loss.

Normal process loss

This is the loss which is unavoidable on account of inherent nature of production process. It arises under normal conditions. It is usually calculated as a certain percentage of input. Normal process loss includes either waste or scrap r both. Waste is unsalable and has no value. Loss in weight is an example of waste. Loss in weight should be credited to the concerned process account. It should be recorded only in terms of quantity.

Loss in weight = Opening Stock + output from the preceding process – (output of the Concerned process + closing stock)

Abnormal Process Loss

Any loss caused by unexpected or abnormal conditions such as plant break don, substandard materials, carelessness, accident etc. or loss in exceeds of the margin anticipated for normal process loss can be called as abnormal process loss. It is controllable and avoidable. When actual loss in the process is greater than the estimated normal loss, it is a case of abnormal loss. It may also be determined by comparing actual output with expected or normal output. If actual output is les than the normal output, the difference is abnormal loss.

$$\text{Value of Abnormal loss} = \frac{\text{Normal cost of normal output}}{\text{Normal output}} \times \text{Units of Abnormal loss}$$

Normal cost of normal output = Total expenditure (i.e., total debit of process A/c) – Sale Proceeds of scrap (i.e. Value of normal loss)

Normal output = Input – Units of normal loss

Abnormal Gain (or Abnormal Effective)

Sometimes actual loss or wastage in a process is less than expected normal loss. In this case the difference between actual loss and expected loss is known as abnormal gain or abnormal effective. It is the excess of actual production over normal output

Abnormal gain is valued in the same manner as abnormal loss. The value of abnormal gain is debited to process A/c and credited to abnormal gain A/c. the value of scrap is debited to abnormal gain A/.c and credited to normal loss A/c. finally abnormal loss A/c is closed by transferring the credit balance to Costing P&L A/c.

$$\text{Value of Abnormal Gain} = \frac{\text{Normal cost of normal output}}{\text{Normal output}} \times \text{Units of Abnormal gain}$$

Normal cost of normal output = Total expenditure– Sale Proceeds of scrap Normal output = Input – Units of normal loss

Units of Abnormal gain = Normal loss- Actual loss

Or = Actual output - Normal output

4th sem BBA

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MODULE V

MARGINAL COSTING AND BUDGETARY CONTROL

The basic objectives of Cost Accounting are cost ascertainment and cost control. In order to help management in cost control and decision-making, cost accounting has developed certain tools and techniques. Marginal costing and Break even analysis are important techniques used for cost control and decision-making.

Marginal Cost

The term Marginal cost means the additional cost incurred for producing an additional unit of output. It is the addition made to total cost when the output is increased by one unit. Marginal cost is also equal to the total variable cost of production or it is the aggregate of prime cost and variable overheads.

The chartered Institute of Management Accountants [CIMA] England defines Marginal Cost "the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit

MARGINAL COSTING

It is the technique of costing in which only marginal costs or variable are charged to output or production. The cost of the output includes only variable costs . Fixed costs are not charged to output. These are regarded as 'Period Costs'. These are incurred for a period. Therefore, these fixed costs are directly transferred to Costing Profit and Loss Account. According to CIMA, marginal costing is "the ascertainment, by differentiating between fixed and variable costs, of marginal costs and of the effect on profit of changes in volume or type of output. Under marginal costing, it is assumed that all costs can be classified into fixed and variable costs. Fixed costs remain constant irrespective of the volume of output. Variable costs change in direct proportion with the volume of output. The variable or marginal cost per unit remains constant at all levels of output

FEATURES OF MARGINAL COSTING [ASSUMPTIONS IN MARGINAL COSTING]

1. All costs can be classified into fixed and variable elements. Semi variable costs are also segregated into fixed and variable elements.

2. The total variable costs change in direct proportion with units of output. It follows a linear relation with volume of output and sales.

3. The total fixed costs remain constant at all levels of output.

4. Only variable costs are treated as product costs and are charged to output, product, process or operation

5. Fixed costs are treated as 'Period costs' and are directly transferred to Costing Profit and Loss Account.

6. The closing stock is also valued at marginal cost and not at total cost.

7. The relative profitability of product or department is based on the contribution it gives and not based on the profit

8. It is also assumed that the selling price per unit remains the same i.e, any number of units can be sold at the current market price.

9. The product or sales mix remains constant over a period of time.

CONCEPT OF CONTRIBUTION

Contribution is the excess of sales over marginal cost. It is not purely profit. It is the profit before recovery of fixed assets. Fixed costs are first met out of contribution and only the remaining amount is regarded as profit. Contribution is an index of profitability. It has a fixed relationship with sales. Larger the sales more will be the contribution and vice versa.

Contribution = Sales – Marginal cost

Marginal cost equation

Sales-Marginal cost = Contribution

Contribution = Fixed costs + Profit

Therefore, Fixed cost = Contribution – Profit

PROFIT VOLUME RATIO [P/V RATIO].

Contribution is an absolute measure of profitability but it cannot be used for comparison of two products or departments. Therefore, the contribution is related to volume of sales.

P/V Ratio = Contribution /Sales x100

When the P/V Ratio is higher, profitability of the product will also be higher. It is an index of relative profitability of products or departments.

Sales = Contribution P/V Ratio

Contribution = Sales x P/V Ratio

P/V Ratio = Change in Profit /Change in sales x100

P/V Ratio = Fixed Cost / Break even sales x 100

Advantages of Marginal Costing

1. It is simple to understand and easy to apply to any firm

2Fixed costs are transferred to costing profit and Loss account.

3. It also prevents the illegal carry forward in stock valuation of some proportion of current years fixed cost.

4. The effect of different sales mix on profit can be ascertained and management can adopt the optimum sales mix

5. It is used in control of cost by concentrating on variable cost of production.

6. It helps in profit planning by break even and cost volume profit analysis

7. It helps management to take a number of short term decisions like pricing, output, closing down of department, sales mix, make or buy etc..

Disadvantages

1. All Assumptions of marginal costing are not appropriate.
2. . 2. The assumption that changes in direct proportion with the volume of also do not hold good under all circumstances.
3. 3. It is difficult to segregate all costs into fixed and variable elements.
4. 4. The exclusion of fixed costs in ascertaining cost of production may give misleading results and lead to non recovery of total costs
5. . The exclusion of fixed costs from inventories affect profit and financial statements may not reflect true and fair view of financial affairs.

BREAK EVEN ANALYSIS

Every business is interested in ascertaining the breakeven point. It is the level of operation where total revenue or sales are equal to total cost. It is the point of no profit or no loss. The contribution received at Breakeven point is just sufficient to meet the fixed costs, leaving nothing as profit. The firm ceases to incur losses at this point or it starts to earn a profit from this point.

Breakeven point can be expressed in algebraic method or graphical method.

Algebraic Method Breakeven point may be expressed in terms of number of units to be produced, or in terms of volume of sales or in terms of the capacity of operation.

It can be calculated by the following formula.

1.Break even point in units = Total Fixed costs/ Contribution per unit

2.Break even point in value = Total Fixed costs / PV Ratio or

Total fixed cost /contribution x sales

Calculation of output to earn a desired amount of profit

= Fixed cost + Profit / Contribution Per Unit

Calculation of Sales Value (Rs) to earn a desired profit

= Fixed Cost + Profit / Contribution x Sales

Margin of Safety

It is the Excess of actual or present sales over the BEP sales. It refers to the amount by which sales revenue can fall before a loss is incurred,

Margin of Safety = Present Sales ---- Break Even Sales

Profit Volume Ratio

P . V Ratio = Contribution / Sales

Uses of P/V Ratio

1. It helps in comparing the profitability of various products.
2. The Management can estimate sales, profit and variable cost
3. It is useful in determining pricing policy
4. Profitibility of product line, product mix, Production techniques etc. are measured by comparing their P/V Ratio
5. It helps in determining sales volume required to earn a given profit.
6. It helps in determining BEP and Margin of Safety

Break Even Chart [Graphic Method]

It is the graphical presentation of breakeven point. It shows the relationship between sales volume, variable and fixed costs. It also shows the profit or loss at different levels of output or volume of sales.

Construction of Break even Chart

A Break even chart shows the total sales line, total cost line and the point of intersection called the breakeven point.

It is constructed using a database of variable costs, fixed costs, total costs and sales at different levels of output.

1.The units of output or sales revenue are plotted along the X axis, using suitable scale of measurement.

2. The costs and sales are plotted along the Y axis

3.. The fixed costs line is plotted first. It forms a parallel line to the X axis indicating that the fixed cost remain constant at all levels of output.

4.The variable cost line is plotted next, starting from zero it progresses continuously indicating that the variable cost increase with the volume fixed cost line of sales.

5. The total cost line is plotted above the variable cost line. It starts from the fixed cost line on the Y axis and follows the same pattern of variable cost line.

6.The sales line is plotted finally. It starts from the zero and progresses continuously, indicating that the sales increase with larger units of output.

7. The point of intersection of sales line and total cost line indicates the Break even point.

ANGLE OF INCIDENCE

It is the angle caused by the intersection of the total sales line and total cost line at the Break even point. The width of the angle represents the rate of profitability i.e, the larger the angle the greater will be the profit the business is making on additional sales

MARGIN OF SAFETY Margin of safety represents the strength of the business to face an adverse market condition. It is the excess of actual sales over break even sales. Higher the Margin of safety, better the position of the firm.

Margin of safety = Actual sales- Break even sales

Margin of safety = Profit / P/V Ratio Or Profit = margin of safety x P/V Ratio

CASH BREAK EVEN POINT

Total fixed costs include depreciation. Depreciation is a non cash expense. Therefore, cash break even point is the number of units to be produced to give a contribution equal to cash fixed costs.

Cash Break even point = Fixed cost – Depreciation Contribution per unit