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## **BASIC CONCEPTS**

Objectives for Cost Accounting:

- (a) To understand the basic concepts and processes used to determine product costs,
- (b) To be able to interpret cost accounting statements,
- (c) To be able to analyze and evaluate information for cost ascertainment, planning, control and

Decision making, and

- (d) To be able to solve simple cases.

### **1. Define Cost:**

Cost is measurement, in monetary terms, of the amount of resources used for the purpose of Production of goods or rendering services.

### **2. Cost Classification :**

#### **i) Nature of expense**

Material, Labour, Expenses

#### **ii) Relation of Cost Centre**

Direct & Indirect for Material, Labour, Expense

#### **iii) Functions / activities**

Production, Administration, Research & Development, Selling & Distribution.

#### **iv) Behavior wise**

Fixed, Variable & Semi- variable.

#### **v) Management decision making**

Relevant, Opportunity & sunk cost , etc.

#### **vi) Production Process :**

Batch, Process, Operating, Operation, Contract & Joint

#### **vii) Time period :**

Historical, Predetermined, Standard & Estimated

### 3. Responsibility Centre

It is defined as an activity centre of a business organization entrusted with special task. Under modern budgeting & control, financial executives tend to develop responsibility centre for the purpose of control,

Responsibility centers can broadly be classified into 3 categories.

They are:-

- (a) Cost Centers;
- (b) Profit centers;
- (c) Investment centers;

### 4. Cost Center

Any unit of Cost Accounting selected with a view to accumulating all cost under that unit.

*The unit may be:-*

- a) a product,*
- b) a service, division, department, section*
- c) a group of plant and machinery, a group of employees or a combination of several units.*

This may also be a budget centre. Cost Centre or Cost Object is the logical sub-unit for collection of cost. The manager of a cost centre is held responsible for control of cost over there.

#### **Cost unit**

It is a form of measurement of volume of production or service. This unit is generally adopted on the basis of convenience and practice in the industry concerned.

Industry or Product cost unit basis Industry or Product cost unit basis

#### **Examples**

Automobile - Number  
Cement - Tonne/ per bag etc.  
Chemicals - Liter, gallon, kg, ton.  
Power - Kilo – watt hour  
Steel - Tonne  
Transport - Passenger Kilometers

### 5. Types of cost centers

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Cost Centre may be of two types-

- |  |
|--|
| 1) personal and<br>2) Impersonal cost centers. |
|--|

- Personal cost centre consists of person or group of persons.
- Cost centers which are not personal cost centers are impersonal cost centers.

#### **Further classification of cost center**

Again Cost centers may be divided into broad type

- |   |
|---|
| 1) Production Cost Centre and<br>2) Service Cost Centers. |
|---|

- Production Cost Centre is those which are engaged in production like Machine shop, Welding shop, assembling shop etc.
- Service Cost Centre are for rendering service to production cost centre like Power house, Maintenance, Stores Purchase office etc.

### **6. Profit Centre**

1) A profit centre is any sub-unit of an organization to which both revenues and costs are assigned, so that the responsibility of sub-unit may measured

2) In profit centre, both inputs and outputs are capable perform in financial terms and it provides more effective assessment of the managers performance since costs and revenues are measured in monetary terms.

### **7. Define Cost Accounting**

What is cost?

Cost is measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services.

What is cost Accounting?

Cost accounting is the application of accounting and costing principles, methods and techniques in the ascertainment of costs and the analysis of savings and/or excess as compared with previous experience or with standards.

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(According to ICAI) CIMA defines Cost Accounting as "the establishment of budgets, standard costs and actual costs of operations, processes, activities or products, and the analysis of variances, profitability or the social use of funds.

#### **8. Differential cost (Incremental and detrimental costs).**

- It represents the change (increase or decrease) in total cost (variable as well as fixed) due to change in activity level, technology, process or method of production, etc.
- For example if any change is proposed in the existing level or in the existing method of production, the increase or decrease in total cost or in specific elements of cost as a result of this decision will be known as incremental cost or excremental cost.

#### **9. Imputed costs:**

- These costs are notional costs which do not involve any cash outlay.
- Interest on capital, the payment for which is not actually made, is an example of imputed cost.
- These costs are similar to opportunity costs.

#### **10. Inventoriable costs(or product costs).**

These are the costs which are assigned to the product. For example under marginal costing, variable manufacturing costs and under absorption costing, total manufacturing cost (variable and fixed) constitute Inventoriable or product costs.

#### **11. Conversion Cost:**

Costs of converting material input into semi-finished or finished products, i.e. additional direct materials, direct wages, direct expenses and absorbed production overhead.

#### **12. Opportunity cost:**

- This cost refers to the value of sacrifice made or benefit of opportunity foregone in accepting an alternative course of action.
- For example, a firm financing its expansion plans by withdrawing money from its bank deposits. In such a case the loss of interest on the bank deposit is the opportunity cost for carrying out the expansion plan.

#### **13. Out – of – pocket cost:**

- It is that portion of total cost which involves cash outflow.
- This cost concept is a short run concept & is used in decisions relating to fixation of selling price in recession, make or buy, etc.
- Out-of- pocket costs can be avoided or saved if a particular proposal under consideration is not accepted.

**14. Shut down costs:**

- Those costs which continue to be incurred even when a plant is temporarily shut – down, e.g. rent, rates, depreciation, etc.
- These costs can be eliminated with permanent the closure of the plant.
- In other words, all fixed costs which cannot be avoided during the temporary closure of a plant will be known as shut down costs.

**15. Sunk costs:**

- Historical costs incurred in the past are known as sunk costs.
- They play no role in decision making in the current period.
- For example, 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 & therefore, not considered.

**16. Absolute cost:**

- These costs refer to the cost of any product, process or unit in its totality.
- When costs are presented in a statement form, various cost components may be shown in absolute amount or as a percentage of total cost or as p.u. cost or all together.
- Here the costs depicted in absolute amt. may be called absolute costs & are costs on which further analysis and decisions are based.

**17. Period costs:**

- These are the costs which are not assigned to the products but are charged as expenses against the revenue of the period in which they are incurred.
- All non–manufacturing costs such as general & administrative expense, selling & distribution expenses are recognized as period costs.

**18. Explicit costs:**

- These costs are also known as out of pocket costs refer to costs involving immediate payment of cash.
- Salaries, wages postage and telegram, printing and stationery, interest on loan etc. Are some examples of explicit costs involving immediate cash payment.

**19. Implicit costs:**

- These costs do not involve any immediate cash payment.
- They are not recorded in the books of account.
- They are also known as economic costs.

**20. Controllable costs:**

- These are the costs which can be influenced by the action of a specified member of an undertaking.
- A business organization is usually divided into a number of responsibility centers & each such centre is headed by an executive.
- Controllable costs incurred in a particular responsibility centre can be influenced by the action of the executive heading that responsibility centre.

**21. Uncontrollable costs:**

- Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs.
- For example, expenditure incurred by, say, the Tool Room is controllable by the foreman in charge of that section but the share of the tool – room expenditure which is apportioned to a machine shop is not to be controlled by the machine shop foreman.

**22. Discretionary costs:**

- it is a fixed cost in relation to a decision. Discretionary cost can be explained with the help of following two important features.
  - i. They arise from periodic (usually yearly) decisions regarding the maximum outlay to be incurred.
  - ii. They are not tied to a clear cause and effect relationship between inputs and outputs.

Examples of discretionary costs includes: advertising, public relations, executive-training, teaching, research, health care and management consulting services.

**23. Objectives of introducing Cost Accounting System**

- |   |
|---|
| <ol style="list-style-type: none"><li>a. Ascertainment of cost</li><li>b. Determination of selling price</li><li>c. Cost control and cost reduction</li><li>d. Ascertainment of profit of each activity</li></ol> |
|---|

**24. Essential factors for designing a Cost Accounting System.**

- i. A rough understanding of–Organizational structure; manufacturing procedure.
- ii. Selection of a suitable costing technique (Standard or actual, marginal or absorption etc.)
- iii. Pricing method suitable, for the material, to be issued to production. (FIFO, LIFO & Avg.)

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- iv. Method suitable for booking labour cost on jobs. (Efficiency plan, Halsey & Rowan etc.)
- v. A sound plan should be devised for the collection, allocation, apportionment and absorption of overheads.
- vi. Deciding on ways of treating waste, scrap and idle time.
- vii. Designing of suitable forms to be used for collecting and dissemination of Cost data/information.

## **25. Essentials of a good Cost Accounting System**

- i. The Cost Accounting System should be tailor made, practical, simple and capable of meeting the requirements of a business concern.
- ii. The method of costing should be suitable to the industry and serve its objectives.
- iii. The Costing System should receive co-operation and participation of executives from various departments.
- iv. The cost of installing and operating the system should justify the results.
- v. The system of costing should not sacrifice the utility by introducing meticulous and unnecessary details.
- vi. The system should consider the organizational structure of the business and it should be designed as a sub-system of the overall organization.
- vii. There should be a harmonious relationship between costing system and financial accounts. Unnecessary duplication should be avoided. A single integrated accounting system would be ideal.

## **26. Importance of Cost Accounting to Business Concerns**

- (a) Control of materials cost :
- (b) Control of labour cost
- (c) Measuring efficiency:
- (d) Budgeting:.
- (e) Price determination:.
- (f) Arriving at decisions

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## 27. Cost Manual

A manual represents procedure of work. A cost manual helps to prepare different cost reports.

In general, costing system has the following phases:-

- |   |
|---|
| <ul style="list-style-type: none"><li>(i) Cost Collection</li><li>(ii) Cost grouping</li><li>(iii) Cost Analysis</li><li>(iv) Cost apportionment and allocation</li></ul> |
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## 28. Cost Reports

- |   |
|---|
| <ul style="list-style-type: none"><li>(i) Cost Sheets</li><li>(ii) Consumption of materials statements</li><li>(iii) Labour utilization statements</li><li>(iv) Overheads incurred compared with budgets</li><li>(v) Sales compared with budgets</li><li>(vi) Reconciliation</li><li>(vii) Cost of abnormally spoiled work</li><li>(viii) The total cost of inventory carried</li></ul> |
|---|

## 29. Estimated cost:

Kohler defines estimated cost as “the expected cost of manufacture, or acquisition often in terms of a unit of product computed on the basis of information available in advance of actual production or purchase”. Estimated cost are prospective costs since they refer to prediction of costs.

## 30. Multiple Costing:

- It refers to the method of costing followed by a business wherein a large variety of articles are produced, each differing from the other both in regard to material required and process of manufacture.
- In such cases, cost of each article is computed separately by using, generally, two or more methods of costing. For instance, for ascertaining the cost of a bicycle, cost of each part

## 31. Direct Expenses

- Direct Expenses are also termed as ‘Chargeable expenses’.



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- These are the expense which can be allocated directly to a cost unit.
- According to Chartered Institute of Management Accountants, London, direct expenses are 'cost other than materials and wages which are incurred for a specific product or saleable services'.

Examples of direct expenses are:

- (i) Hire charges of special machinery or plant for a particular production order or job.
- (ii) Payment of royalties
- (iii) Cost of special moulds, designs and patterns.
- (iv) Experimental costs before undertaking the job concerned.

### 32. Characteristics of Direct Expenses:

- (i) Direct expenses are those expenses which are other than the direct materials & direct labour.
- (ii) These expenses are either allocated or charged completely to cost centers or work orders.
- (iii) These expenses are included in prime cost of a product.
  - The nature of direct expenses demands a strict control over such expenses.
  - This feature of controlling direct expenses in business houses compels their management to treat some of the direct expenses as indirect expense.
  - Sometime a direct expense is assumed as indirect due to the convenience. Sometimes a concern may treat an expense as direct whereas another may treat the same expense as indirect.

### **Analysis of Behavior- Wise Costs : Fixed, Variable & Semi- Variable.**

Variable cost: which directly varies with activity level or unit of activity is known as variable cost

Fixed cost: which does not varies with production volume

#### **Type of Fixed cost**

##### 1. Committed Fixed cost –

This cost is to be paid even when the production volume is zero. This cost can we saved only when the factory is totally closed down. That is why it is known as SHUT DOWN COST. For e.g. depreciation of the machine, rent of the factory premises, Salary of the top management etc.

2. Discretionary Fixed cost -where the cost is to be incurred at the discretion of the top management & it has no direct relationship with the present product volume. For e.g.-

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advertisement, labour amenities, special machine or dice required for an additional offer etc.

Semi-variable expenses are further segregated into fixed and variable expenses by any of the following methods

1. Comparison by period.
2. Comparison by level of activity-percentage of activity, Direct labour hours or machine hours etc.
3. High and Low points method.
4. Survey method.
5. Simultaneous Equation Method.
6. Scatter diagram.
7. Method of Least Squares.

## COST SHEET

### Specimen of cost sheet

ELEMENT OF COST	AMOUNT ( RS)
Direct material	XXX
Direct labour	XXX
Direct expense	XXX
<b>PRIME COST</b>	<b>XXX</b>
Production or work or factory Over head	XXX
Administration over head in the nature of production	XXX
Research & Development cost	XXX
Quality control Cost	XXX
<b>FACTORY COST</b>	<b>XXX</b>
Add Opening WIP	XXX
Less Closing WIP	XXX
<b>WORK COST</b>	<b>XXX</b>
Add Packing cost	XXX
Less scrap sales	XXX
<b>COST OF</b>	<b>XXX</b>
<b>PRODUCTION</b>	<b>XXX</b>

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Add Opening stock of Finished Goods		XXX
Less closing stock of Finished Goods		XXX
	<b>COST OF GOODS</b>	
<b>SOLD</b>		<b>XXX</b>
Marketing Over heads		XXX
Administration over head in the nature of maketing		XXX
Selling over head		XXX
Distribution over heads		XXX
	<b>COST OF SALES</b>	<b>XXX</b>
Add Profit		XXX
<b>Estimated Selling Price</b>		<b>XXX</b>

### Note:

**1. Direct expenses are the expenses other than direct material cost and direct employee's costs which can be identified with the product. Generally these items are lump sum nature & not a common for the products.**

Direct expenses include:

- i) Cost of utilities such as fuel, power, water, steam, etc.,
- ii) Royalty based on production
- iii) Technical Assistance / know how fees (related to Project Managers)
- iv) Amortized cost of moulds, patterns, patents, etc.
- v) Job charges
- vi) Hire charges for tools and equipment
- vii) Charges for a particular product designing, etc.,

### 2. Production / works overhead/ manufacturing Expenses:

- i) Consumable stores and spares
- ii) Depreciation of plant and machinery, factory building, etc.,
- iii) Lease rent of production assets
- iv) Repair and maintenance of plant and machinery, factory building, etc.,
- v) Indirect employees cost connected with production activities
- vi) Drawing and Designing department cost.
- vii) Insurance of plant and machinery, factory building, stock of raw materials & WIP, etc.

- viii) Amortized cost of jigs, fixtures, tooling, etc.
- ix) Service department cost e.g. Tool Room, Engineering & Maintenance, Pollution Control.
- x) Salaries for staff for production planning, technical supervision, factory administration etc.,
- xi) Normal idle time cost & all normal losses. Abnormal losses are transfer to P& I a/c
- xii) Expenses for stores management
- xiii) Security expenses in the factory
- xiv) Labour welfare expenses
- xv) Dispensary and canteen expenses

### **3. Quality Control Cost**

- The quality control cost is the expenses incurred relating to quality control activities for adhering to quality standard.
- These expenses shall include salaries & wages relating to employees engaged in quality control activity and other related expenses.
- They have to check the quality of material received, quality of WIP, & quality of finished product.

### **4. Research and Development Cost**

- The research and development cost incurred for development and improvement of the process or the existing product shall be included in the cost of production.
- This cost is distributed on the basis of Product Life Cycle.

### **5. Administrative/ office / establishment Overheads**

- Administrative overhead needs to be analyzed in relation to production activities and other activities e.g factory office, works manager office .
- Administrative overheads in relation to production activities shall be included in the cost of production.
- Administrative overheads in relation to activities other than manufacturing activities e.g. marketing, projects management, corporate office expenses, etc., shall be excluded from the cost of production.

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Expenses are

- Salaries of administrative and accounts staff
- General office expenses e.g. rent, lighting rates and taxes, telephone, stationery, etc.,
- Bank charges
- Audit fees
- Legal expense
- Depreciation & repair and maintenance of office building etc.

**6. Selling costs are indirect costs related to selling of products or services and include all indirect cost in sales management for the organization.**

- Salaries commission and traveling expenses for sales personnel
- Advertisement cost
- Legal expenses for debt realization
- Market research cost
- Royalty on sale
- After sales service cost
- Rent of the show room
- Travelling expenses
- Warranty claim
- Brokerage & commission
- Advertisement relating to sales and sales promotion
- Sales incentive
- Bad debt (deductible from actual sales), etc.,

**7. Distribution Costs are the cost incurred in handling a product from the time it is completed in the works until it reaches the ultimate consumer.**

- Transportation cost
- Cost of warehousing salable products
- cost of delivering the products to customers
- Secondary Packaging
- Freight & Forwarding
- Insurance of Warehousing & Storage

### 8. Additional Notes:

1. Primary packing costs is included in production cost whereas secondary packing cost is distribution cost. Primary packing is the minimum required packing at the time completion of production. So it should be added with the complete product although it is a Direct Expense
2. In exceptional cases, for example in case of heavy industries equipment supply, installation cost at delivery site for heavy equipments which involves assembling of parts, testing etc., is included in production cost but not distribution cost. For example, installation cost of a gas turbine at plant site is included in the cost of production of gas turbine.
3. Items not included in product cost

- Provision for bad debt & discount & rebate
- Interest on loan unless the loan is taken for a specific machine
- Provision for tax
- Cash & Trade discount
- Any charges of financial nature, etc

## Material: Pricing & Control

### 1. Purchase requisition

A purchase requisition is a form used for making a formal request to the purchasing department to purchase materials. Purchase requisitions are usually initiated by

- (i) A store department for regular and standard items held in the stock.
- (ii) The production control department for special material required for specific jobs.
- (iii) The maintenance department for maintenance equipment and items of capital expenditure.
- (iv) The heads of departments for office equipment.

### 2. Bin Cards:

- Bin Cards are maintained in the stores.
- These cards relate to materials kept in appropriate bins, racks and containers in the stores.

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- For each kind of material a separate record is kept on a Bin Card showing details of all receipts and issues and balances.
- These cards are usually stated to the corresponding bins, racks and are entered up by Storekeeper in quantitative terms.
- Maximum, Minimum, Re-ordering levels are also indicated on the cards. This enables the storekeeper to ask for replenishment of the stock, before the minimum stock levels are reached.

### **3. Bill of Materials :**

- Bill of material is a complete schedule of parts and materials required for a particular order prepared by the Drawing Office and issued by it together with necessary blue prints of drawings.
- For standard products, printed copies of Bill of materials are kept with blank spaces for any special details of modifications to be filled in for a particular job/order. The schedule details everything, even to bolts and nuts, sizes and weight.

The documents solves a number of useful purposes, such as -

- (i) It provides a quantitative estimate of budget of materials required for a given job process or operation which might be used for control purposes.
- (ii) it substitutes material requisitions and expedite issued of materials.
- (iii) The store-keeper can draw up a programme of materials purchases and issues for a given period and
- (iv) It provides the basis for charging materials cost to the respective job/process.

Generally four copies of it are prepared, one for each of the following departments:

- a. Stores department
- b. Production department
- c. Cost Accountants department
- d. Production planning department.

### **4. Bill of Materials and Stores Requisition**

- Bill of Material is a document prepared by the drawing office or the Production Control Department in an organization detailing the material specifications, quantities, weights, etc. enquired for manufacturing a product or for processing a job.
- Material Requisition or Stores Requisition on the other hand is a document authorizing the storekeeper to issue materials to the consuming department.

### 5. Classification and codification of materials:

- Proper classification and codification of various items of stores is essential for a good system of stores keeping.
- Materials in the stores may be classified either on the basis of their nature or on the basis of their usage. Former method is commonly used for classifying materials as construction materials, consumable stores.
- Codification of classified materials can be done by using alphabetic, numerical or alphanumeric approaches.
- Under codification each item of stores is given a distinctive code number. Numeric system of Codification is commonly used. Under this method, the whole number are used to indicate the main group and the decimals to indicate primarily, secondary and other groups.
- For example, in a printing press, the following codes may be assigned:

Paper 130

Ink 131

Gum 132

If there are various grades, sizes or colors of say ink, these may be assigned the codes:

Ink Red 131.1

Ink Blue 131.2

Ink Green 131.4

Above method is suitable where the number of items is very large and also where punched card Accounting is in use. Now a day's Bar code also uses as codification of material.

### 6. Imprest System of Stores:

- In order to overcome the limitations of Centralized Storing System in large organization, the practice of Imprest System of stores is resorted to.
- Under this system, each sub-stores attached to production departments is given an operating stock which is little more than the normal requirement. At the end of a specified period, the exact quantity issued out is replenished in bulk.

This system has following advantages:

- (i) facilitates day-to-day management through prompt issues of stores.
- (ii) Eliminates maintenance of elaborate inventory records thus reducing handling costs of them
- (iii) Combines the advantages of centralized stores with sub-stores without sacrificing the centralized control.



**7. Perpetual Inventory and Continuous Stock Taking :**

- Perpetual Inventory is a system in which a continuous record of receipt and issue of materials is maintained by the stores department.
- In this system the stock control cards, bin cards and stores ledger show the receipts, issue and balance of each item at any point of times after each transaction.
- The stocks as per dual records namely bin card and stores ledger are reconciled on a continuous basis.
- The system facilitates planning and control. Continuous Stock taking is a system of physical verification of stocks of each item on continuous basis. The actual quantity in the bin card is compared with bin balances.
- Such verification is conducted round the year such that all items of stocks are verified 3 to 4 times in a year.
- Any discrepancies are investigated and reported for corrective action. It also serves as a moral check on stores staff and acts as deterrent to dishonesty.
- A Perpetual Inventory System is usually supported by Continuous Stock taking. It calls for up to date writing up of stores ledger and bin cards and stock control cards.
- The balances as per bin Cards and stores ledger are compared when every receipt or issue is posted.
- The physical balance on continuous stock taking is also compared with the bin card or ledger balances. Thus monthly accounts can be prepared with confidence.

**8. Distinguish between Bin cards and Stores Ledger**

BIN CARD	STORES LEDGER
Bin cards are maintained in the stores and are serving the purpose of stock register.	Stores ledger is maintained in the cost accounts departments.
Entries in it are posted by the issue clerk. He records the quantity about receipts, issue and closing balance along with code number of materials maximum, minimum and reordered Levels.	Here entries are posted by the stores ledger Clerk. He recorded the quantities and value about receipts, issues and closing balance along with code number of materials, Maximum, minimum and reorder levels.

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Here transactions are posted individually.  Posting is done at the time of issue of Materials.	Here transaction can be posted Periodically.  Posting is done after the issue of materials.
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### 9. Just in Time (JIT) purchases

- Just in time (JIT) purchases means the purchase of goods or materials such that delivery immediately precedes their use. Just –in-time(JIT) production (also called lean production) is a “ demand- pull” manufacturing system in which each component in a production line is produced immediately as need in which by the next step in the production line.
- In a JIT production line, manufacturing activity at any particular workstation is promoted by the need for that station’s output at the following station.
- Demand triggers each step of the production process, starting with customer demand for a finished product at the end of the process and working all the way back to the demand for direct materials at the beginning of the process. In this way, demand pulls and order through the production line.

#### Features

- a) Low or Zero inventories; emphasis on operation from source to customer .
- b) Emphasis on customer service and timing.
- c) Short of operations.
- d) Flexibility of operations.
- e) Efficient flow
- f) Use of kanban and Visibility.

#### Benefits:

- a. Reduce inventories and WIP
- b. Reduce space requirements, set up time
- c. Shorter throughput times

- d. Greater employee's involvement, participation & motivation
- e. Smooth work force
- f. Greater productivity
- g. Improved product /service quality
- h. Improved customer service & smaller batch size.
- i. More uniform loading of facilities.

**Pre –requisites of JIT:**

- (i) Low variety
- (ii) Demand stability
- (iii) Vendor reliability
- (iv) Defect free materials.
- (v) Good Communication
- (vi) Preventive maintenance
- (vii) Total quality control

**Desirable factors of JIT:**

- (i) Management commitment;
- (ii) Employee investment;
- (iii) Employee flexibility.

**10. Material handling cost – treatment in cost accounts**

- First approach suggests the inclusion of these costs as part of the cost of materials by establishing a separate material handling rate e.g. at the rate of percentage of the cost of material issued or by using a separate material handling rate which may be established on the basis of weight of materials issued.
- Under another approach these costs may be included along with those of manufacturing overhead and the charged over the products on the basis of direct labour or machine hours.

**11. Cost of receiving and handling materials**

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- Based on annual forecast of raw materials requirements the estimates of freight, insurance, storage, handling etc., can be worked out.
- The total of these estimated expenses is generally expressed as a percentage of total material cost and generally is the basis of recovery of the relevant expenditure.

### 12. Storage Loss

The losses may be broadly classified as:

1. Avoidable
2. Unavoidable.

- Avoidable losses are those which can be controlled through proper management , e.g. breakage and carelessness in handling, human error in posting, calculation, pilferage etc.
- Unavoidable losses can be sub-divided into normal and abnormal. Normal unavoidable losses are inherent in the basic type of materials and are of unavoidable nature, e.g. evaporation, climatic conditions leading to shrinkage, deterioration etc.
- Abnormal unavoidable losses occur due to causes beyond the control of management, e.g. losses due to flood, earthquake etc.
- Losses due to avoidable causes should be adjusted in the cost of materials consumed or included in stores overheads.
- In case of normal avoidable losses, a reasonable amount may be provided on a standard rate fixed based on past experience/technical estimate, the excess loss should be charged to Costing Profit/Loss Account.
- Surpluses on deficiencies due to abnormal causes should be adjusted in Costing Profit/Loss Account.

### 13. Gain or loss through atmospheric variation:

- Many items of raw materials are amenable to temperature changes, which may increase or decrease the apparent volume from that originally recorded at the time of entry into stores.
- Again there are also items for which wastage in stores may be inevitable due to evaporation. While a conservative approach demands the gain in material due to atmospheric changes need not be considered in cost, any unusual gain may be credited to costing profit and loss account.
- on the other hand adjustments for normal storage loss due to evaporation/atmospheric changes should be made in the original price. Abnormal losses are to be collected through a separate account and charged directly to profit and loss account.

### 14. Cost of Containers relating to materials purchased:

- Usually the cost of the containers containing the materials purchased are included in the cost of materials and therefore is automatically form a part of material cost. T
- he containers may be returnable or non returnable.

- The cost of the non returnable containers should be charges as a part of the material cost and ultimately would go into the Prime Cost or Factory overhead depending upon the usage of the materials as direct or indirect.
- In the case of returnable containers the cost of them should not be included either in cost of materials or in any other head because when they are returned to the supplier, full credit would be received.
- if, however, certain containers become damaged, the cost of those less any scrap value should be added to the cost of the materials. Where on return of the containers, credit is given at a reduced value i.e., less than its cost price, the difference between cost and credit rate should be charged to the materials cost.

#### **15. Carriage and Cartage Expenses- treatment in Cost Accounts:**

- Carriage and Cartage expenses are incurred in the course of the movement of materials or goods. Materials may mean direct materials or indirect materials.
- The treatment of the Carriage and Cartage expenses differs with the kind of materials goods transported.
- The Carriage and Cartage expenses relating to raw materials are treated as a part of direct materials cost and those relating to indirect materials are treated as factory overhead and those relating to distribution of materials or finished goods are treated as distribution overhead.
- In case where the Carriage and Cartage are abnormal due to any reason the same is charged off to the Costing Profit and Loss Account.

#### **16. ABC analysis of inventory control**

- It is a system of selective inventory control whereby the measure of control over an item of inventory varies with its usage value.
- It exercises discriminatory control over different items of stores grouped on the basis of the investment involved.
- Usually the items of material are grouped into three categories viz. A, B and C according to their use value during a period. In other words, the high use value items are controlled more closely than the items of low use values.
  1. 'A' Category of items consists of only a small percentage i.e., about 10% of the total items of material handled by the stores but require heavy investment i.e., about 70% of inventory value because of their high prices and heavy requirement.
  2. B' Category of items comprises of about 20% of the total items of material handled by stores. The percentage of investment required is about 20% of the total investment in inventories.

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3. 'C' category of items does not require much investment. It may be about 10% of total inventory value but they are nearly 70% of the total items handled by stores.

### 17. Assumptions underlying EOQ:

The calculation of economic order of materials to be purchased is subject to the following assumptions:

- (i) Ordering cost per order and carrying cost per unit per annum are known and they are fixed.
- (ii) Anticipated usage of materials in units is known.
- (iii) cost per unit of the materials is constant and is known as well.
- (iv) The quantity of materials ordered is received immediately i.e., the lead time is zero.

The famous mathematician Wilson derived the formula which is used for determining the size or order for each of purchases at minimum ordering and carrying costs.

### 18. Different classes of stores:

Broadly speaking, there are three classes of stores viz.

- a. central or main stores;
- b. sub – stores and;
- c. departmental stores

### Rules & Formulae on Materials

1. Minimum level of inventory = Re-order level - (Average rate of consumption  $\times$  average time of inventory delivery i.e. lead time)

Lead time is the time gap between placing an order & receiving the first consignment of it.

2. Maximum level of inventory = Re-order level + Re-order quantity – (Minimum consumption  $\times$  Minimum re-order period)

3. Re-order level = Maximum re-order period  $\times$  Maximum Usage, or  
Minimum level or safety stock level + (Average or normal rate of consumption  $\times$  Average time to obtain fresh supplies).

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4. Average inventory level = Minimum +  $\frac{1}{2}$  Re- order quantity. or

( Maximum level + Minimum level )  $\div$  2

5. Danger / Safety stock level = Avg. consumption  $\times$  Lead time for emergency purchases

2  $\times$  Annual consumption (A)  $\times$  ordering cost per order (Co)

6. EOQ =  $\sqrt{\frac{2 \times \text{Annual consumption (A)} \times \text{ordering cost per order (Co)}}{\text{Carrying cost per unit per annum (Ch)}}$

7. Total ordering cost = No. of order  $\times$  ordering cost per order (Co)

No. of order = Annual consumption  $\div$  Quantity per order

Annual carrying or

Storing or Holding cost = Quantity per order  $\times$  2  $\times$  Ch

Carrying or storing or

Holding cost p.u. p.a. = Purchase price  $\times$  Ch %

Total ordering & carrying cost (Known as Relevant Storing cost)

= 2  $\times$  Annual consumption  $\times$  ordering cost per order  $\div$  carrying cost p.u. p.a.

8. EOQ in Rs. -----

9. Stock out units = Consumption during the lead time - ROL.

$\times$  Stock of quantity = Consumption during the lead time-ROL

$\times$  Expected Stock out quantity =

$\times$  ( Present Stock out quantity- increase in ROL )  $\times$  Probability

Stock out cost = Expected Stock out quantity  $\times$  Stock-out cost p.u.

Storing cost = increase in stock  $\times$  storing cost p.u. p.a.

Select that level where total of annual carrying (storing ) and stock out cost is minimum.

## Labour (Remuneration, Incentive & Cost Control)

### 1. Time Card and Job Card:

- Time card is a document used to record the time of arrival and that of departure of workers in a factory and the information on total time spent thus obtained is used for calculating the wages payable to him where the method of remuneration is on time basis.
- Job card on the other hand is a document used for recording the time spent by the workers on different jobs during the total time he has spent in the factory.

### 2. Time Rate Wages and Piece Rate Wages:

- Under Time rate system of wages payment, the unit of measurement for remunerating the workers is time. This system disregards the output of a worker.
- The wages rate of the workers may be determined on hourly, daily, weekly or monthly basis.
- Piece work system, on the other hand, represents a method of remunerating workers by results. Under this system payment is made with reference to output produced.

### 3. Overtime Premium & treatment of overtime premium in cost accounting.

Overtime is the amount of wages paid for working beyond normal working hours as specified by Factories Act or by a mutual agreement between the workers union and the management. According to Factories Act of 1948, a worker is entitled for overtime at double rate of his wages including allowances) if he works beyond 9 hours in a day or 48 hours in a week. In cost accounting the treatment of overtime premium will be as follows :

(a) When overtime is worked regularly throughout the year as company policy due to labour shortage:

Calculate Average Wage rate = total labour cost including overtime premium/Total hours works.

❖ Labour cost of the job = Hours required for the job X Rate as calculated above.

(b) When overtime is worked irregularly to meet spasmodic production requirement, the extra labour cost i.e. overtime premium will not be charged to customer, rather it is transfer to P & L A/c.

❖ Labour cost of the Job = Time required for the job X Normal wage rate.

(c) When overtime is worked specifically at the customer's request to expedite delivery, customer has to pay the overtime premium including the normal labour cost.

❖ Labour cost of the Job = normal Time X Normal wage rate+ OT × OT Wage rate



**4. Factors determining wage levels:-**

- (a) The demand for the labour and its availability.
- (b) The capacity of the industry to pay.
- (c) The existence of monopolies.
- (d) The bargaining strength of the parties.
- (e) The wage level in similar or other industries in the locality/area.
- (f) The wage in relation to the cost of living. The wages should conform to the standard

**5. Factors determining individual workers remuneration :-**

- a) The amount of education and training necessary for the performance of the work.
- b) The degree of difficulty, danger & inconvenience associated with the work.
- c) The special human characteristics necessary for the performance of the work.
- d) The intensity of the effort required.
- e) The skill, initiative, sense of responsibility, cooperation and willingness.
- f) Time keeping and productivity (quantity of work).
- g) Reliability (Quality of work)
- h) Loyalty to the undertaking in which the worker is employed.

**6. Time and Motions Study:**

- Time study is concerned with the determination of standard time required by a person of average ability to perform a job.
- Motion study is concerned with determining the proper method of performing a job so that there are no wasteful movements, hiring the worker unnecessarily. However, both the studies are conducted simultaneously.

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- Since materials, tools, equipment and general arrangement of work, all have vital bearing on the method and time required for its completion.
- Therefore, their study would be incomplete and would not yield its full benefit without a proper consideration of these factors. It is expressed to the workers with help of a SUMO CART.

### **7. Idle Time Wages:**

- Idle time represents the time for which wages are paid but no production is resulted.
- Idle time can be classified as
  - i) controllable and
  - ii) uncontrollable, and /or
  - iii) normal and
  - iv) Abnormal.
- The normal and uncontrollable idle time cost should be collected through a standing order number and charged off as an overhead.
- If the idle time can be allocated to a particular department its cost should be charged off to such departmental overhead and recovered over the units produced.

### **8. Fringe Benefits:**

- Fringe benefits are those expenses which are incurred by an employer against the individual employees for their welfare.
- Normally such expenses do not form a part of their pay packet, e.g. holiday pay, night shift allowance, pension facilities, ESI contribution by the employer, etc,
- Such expenses may be recovered separately as a percentage on labour cost or as an hourly rate. Alternatively, these may be treated as overheads and apportioned to cost centers on the basis of wages/salary cost.

### **9. Learners' Wages:**

- Wages paid to the learners during the period of their training should not be treated as part of regular wages since during this period they are not in a position to give the normal performances.
- These wages should be booked under separate standing order numbers and charged as an item of overheads.
- A fair method for distribution of this wages to various cost centers would be on the basis of number of learners trained in each month for each department.
- If the period of training varies in different departments a better method would be to distribute on the basis of number of training hours.

**10. Leave Travel Assistance:**

- Leave travel assistance is paid to practically all the employees presently & therefore can be considered as a regular element of labour or staff cost as the case may be.
- This expenditure is of a fixed nature & can be easily predetermined.
- Depending whether the assistance is payable to direct labour, indirect labour or staff the expenditure should be treated as direct labour cost, production overhead cost or administrative/ selling overhead cost & should be appropriately charges.

**11. Night Shift Allowance :**

- It is a customary practice that the persons working in night shifts are paid some extra and such an allowance is known as night shift allowance .
- Such additional expenditure caused by general pressure of work in excess of normal capacity are charged to general production overhead because otherwise jobs performed during days will be cheaper than the jobs completed during nights which by no means a fair proposition.
- If the additional expenditure is incurred extremely as a result of pressing demands from customers such expenditure should directly be charged to the job concerned.
- On the other hand if the night shifts are run for the default of a particular department the night shift allowance should be charged as the departmental overhead applicable to the concerned department.

**12. Non-monetary Incentives:**

- |   |
|---|
| <ul style="list-style-type: none"><li>(a) Free medical treatment for self and family.</li><li>(b) Canteen facilities, provision of subsidized meals</li><li>(c) Recreational facilities.</li><li>(d) Provision of accommodation, free transport, or subsidized transport.</li><li>(e) Educational facilities for the children of employees.</li></ul> |
|---|

**13. Casual worker and outworker :**

- A worker who is appointed for a short duration to carry on normal business activities in place of a regular but temporarily absent worker. Such a worker is also known as daily wager or 'badlies'.
- A casual worker do not enjoy the facilities available to a regular worker.A worker who do not work in the factory premises but either he works in his home or t a site outside the factory is known as an outworker.

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- An outworker who works in his home is usually compensated on the basis of his output. He is supplied with raw materials and tools necessary for carrying out the job. An outwork (outside the factory) is usually engaged on specialized jobs/contract work.

### **14. Foreman's salary:**

- The foreman is mainly concerned with the supervision of man and machines in the workshop and so his salary is "works indirect expense" and must be charged to works expenses account and included in works overhead.
- It is apportioned on the basis of degree of supervision required on such machine or men. If he devotes equal time for all the machines his salary should be equally charged off against all of them.
- In case he devotes more time to a particular machine or to a particular batch of workers proportionately higher share of his salary should be borne by the particular machine or batch of workers.

### **15. Labour cost control Steps.**

- a) Recruitment, placement and training cost.
- b) Basis of remunerating labour.
- c) Time-keeping and time Booking.
- d) Comparison of actual and standard labour cost.
- e) Control on indirect labour cost.
- f) Quality of the output
- g) Productivity of labour.

### **16. Control of indirect labour cost:**

- This can be ensured by fixing a ratio of direct to indirect labour. A comparative study in this area will indicate whether excess labour force is employed.
- Budgetary control is the best way to control indirect labour cost. For service departments the budgeted expenditure should be linked with service programme and the ratio control is to be introduced.

### **17. Basic consideration which govern remuneration of workers**

- a) **Economic Principles:**-The nation should be in a position to dispose of goods and a service produced in the world market at economic prices & imparts such goods & services which are required to maintain the standard of living. Failure to maintain economic production will cause lowering of standard.
- b) **Employer Principles:** - An employer wants to increase net profit by producing and selling a greater output at reduced cost through utilization of labour, materials & machinery. As constant source is on for the means to increase productivity and decrease the cost per man hour.
- c) **Employee Principles:**-The employee expects an appropriate reward for direct and indirect contribution to production of wealth. A workers duty is to work honesty and expect in return to be fairly rewarded monetarily, physically and mentally

### 18. Objectives of group bonus schemes

- (i) Creation of the collective interest and team sprit among the workers.
- (ii) Creation of interest among the superiors to improve performance.
- (iii) Reduction of wastage in materials and elimination of idle-time.
- (iv) Achievement of maximum output at minimum cost.
- (v) Encouragement of individual workers forming part of the team where only the output of The team as a whole can be measured.

### 9. Five schemes of group bonus, as indicated below :-

- (a) Priest man's Production bonus
- (b) Cost efficiency bonus
- (c) Tower – gain sharing plan:-
- (d) Budgeted expenses bonus
- (e) Waste Reduction Bonus:-

20. Cost associated with labour turnover.

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Two types of costs which are associated with labour turnover are :

Preventive costs: These include costs incurred to keep the labour turnover as a low level i.e., cost of medical schemes. If a company incurs high preventive costs, the rate of labour turnover is usually low.

Replacement Costs: the examples of it are cost of advertising, recruitment, selection, training & induction, extra cost also incurred due to abnormal breakage of tools & machines, defectives, low output, accidents etc., cause due to the inefficiency & inexperienced new workers.

## **21. Causes of labour turnover:**

### **a. Personal Causes**

- i. Change of jobs for betterment.
- ii. Premature retirement due to ill health or old age.
- iii. Domestic problems and family responsibilities.
- iv. Discontentment over the jobs and working environment.

### **b. Unavoidable Causes**

- i. Seasonal nature of the business;
- ii. Shortage of raw materials, power, slack market for the product etc :
- iii. Change in the plant location;
- iv. Disability, making a worker unfit for work;
- v. Disciplinary measures;
- vi. Marriage (generally in the case of women).
- vii. Change in methods of production or new technology.

### **c. Avoidable Causes**

- i. Dissatisfaction with job, remuneration, hours of work, working conditions, etc
- ii. Strained relationship with management, supervisors or fellow workers;
- iii. Lack of training facilities and promotional avenues;
- iv. Lack of recreational and medical facilities;

v. Low wages and allowances

22. Effects of labour turnover:

- a. Even flow of production is disturbed;
- b. Efficiency of new workers is low;
- c. productivity of new but experienced workers is low in the beginning;
- d. There is increased cost of training and induction;
- e. New workers cause increased breakage of tools, wastage of materials etc.

**23. Remedial steps to minimize labour turnover:**

1. Exit Interview: An interview may be arranged with each outgoing employee to ascertain the reasons of his leaving the organization.
2. Job analysis and evaluation: Before recruiting workers, job analysis and evaluation may be carried out to ascertain the requirements of each job.
3. Scientific system of recruitment, placement and promotion: The organization should make use of a scientific system of recruitment selection, placement and promotion for employees.
5. Use of Committee: Issues like control over workers handling their grievances etc., may be dealt by a committee, comprising of members from management and workers.

**Rules for labour Cost**

A. Gross Labour cost = Basic wages+ Allowances +Overtime+ bonus & incentives

Labour Cost of Employer = Gross wages of Worker + Employer's contribution to Provident Fund (PF) & Employees State Insurance scheme (ESI). It is also known as cost to company (CTC)

Earning of the Employee = Gross wages – Employees contribution to PF & ESI. It is known as take home.

In general, labour cost = Earning.

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### Basic Wages computation

1. Time Basis = Hrs worked X Rate per Hr.
2. Production Basis = Units produced X Rate per unit
3. Guaranteed Time Wages = Higher of Basic Wages under Time or Production basis

Bonus or Incentive computation

- A. Efficiency plan.
- B. Saving Plan : cost & time saving Individual incentive.
- C. Group Bonus Scheme: for direct & indirect workers.

Efficiency is measurement

- |                           |  |
|---------------------------|--|
| a. <b>on time basis</b>   | time allowed /time taken                   |
| b. <b>on output basis</b> | actual output /standard or budgeted output |
| c. <b>on cost basis</b>   | budgeted cost / actual cost                |

**Note : Time allowed or standard time = normal working time + premium.**

Bonus or Individual incentive

Halsey system = 50% of time saved X Time rate

Rowan system = Time saved/Time allowed X Time taken X Rate per hour

**Labour Turnover i.e. change in labour force due to**

1. Separation = Resign + Retirement + Retrenchment + Death
2. Accessions= Replacement + New recruitment.
3. The results of labour turnover in Flux method = Replacement +Separation +New requirement.



Rules:

(i) Replacement method = Number of employees replaced / Average employees.

(ii) Separation method = No. of employees separated / Average employees.

(iii) New Recruitment Method = No. of newly Employed / Average employees.

(iv) Flux method 
$$\frac{\text{Number of employees ( separated + accessions )}}{\text{AVG number Of employees X 100}}$$

## Over head, Absorption costing and Job costing

1. **Define Production / Factory / Works / Manufacturing overhead. Give some Examples.**
  - Production Cost is the cost of all items involved in the production of a product or service. It includes all direct costs and all indirect costs related to the production.
  - Production overhead is the indirect costs involved in the production process i.e. it includes those costs of production process which are not attributable to the prime cost of the product. Production overhead is also termed as factory overhead or manufacturing overhead.
  - Examples of Production overhead :

Salaries for staff for production planning, technical supervision, factory administration etc.,

- Normal idle time cost
- Expenses for stores management
- Security expenses in the factory
- Labour welfare expenses
- Dispensary and canteen expenses
- Depreciation of plant and machineries
- Repair and maintenance of factory building and plant & machineries
- Insurance
- Quality control
- Consumable stores and spares
- Lease rent of production assets
- Repair and maintenance of plant and machinery, factory building, etc.,
- Indirect employees cost connected with production activities
- Drawing and Designing department cost.
- Insurance of plant and machinery, factory building, stock of raw materials & WIP, etc.
- Amortized cost of jigs, fixtures, tooling, etc.

- Service department cost such as Tool Room, Engineering & Maintenance, Pollution Control

## 2. Codification of overheads:

Coding is a technique of intelligently describing in number/ letters or a combination of both the lengthy description of numerous cost Accounting heads or ease of recording and controlling of the cost data generated. Codes are developed after accepting/ developing a coding system.

Objectives of codification: The important objectives of codification of overheads are as follows:

- (1) To group items of similar nature, which are amenable to apportionment of overhead expenses on the same basis.
- (2) To facilitate the task of allocation and apportionment of overheads over different departments or cost centers.
- (3) To carry out an analysis of overhead expenses for control purposes.
- (4) To reduce the task of maintaining a huge number of accounts.
- (5) To help the task of machine accounting system in large organization.

Methods of codification: The important methods of codification of overheads are as follows:

(i) Straight numbering system: under this system each type of expenditure is allotted a fixed number for example:

Standing order number; 10 for indirect materials

Standing order number; 11 for indirect labour

(ii) Number Blocks: According to this method, a block of numbers is generally earmarked

Indicated the major heads of expenditure e.g. 1–50 for service labour 51–100 for

Maintenance; 101 – 150 for fringe benefits etc.

(iv) **Combination of symbols and numbers :**

- Under this method a combination of symbol alphabet and a number is used to represent a code.
- Here symbol alphabet stands for the main head of the expenditure and the number represents the concerned department.

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For example in the

Code R1 and R2 , R stands for repairs and '1' and '2' stand for building and machines

respectively. In other words:

R1 – Repairs of building

R2 – Repairs of machines

### (v) **Filed Method or Numerical Code:**

- Under this method codes used are numeric in nature and each code number usually consist of nine digits. The first two digits indicate the nature of expenses viz. variable or fixed.
- The next three digits indicate head of expenses : the next two digits stand for the analysis of expenses and last two digits indicate the cost centre, where expenses have been incurred, for example in code 101200105; 10 stand for variable

cost; 120 for idle time; 01 for waiting of materials and 05 for lathe shop or;

Code	particulars
10/120/01/105	Variable/idle time/ waiting for Mat./Lathe shop.

### (vi) **The mnemonic Method :**

- Under this method English alphabet are used as codes. For example R.F.B. may be used as a code for repairing factory building. Out of the above five methods, the filed method is considered to be most suitable for the purpose of codification of overhead expenses in large size business organization.
- The main plus point of this method is that a code given to an item of expenses represents for of its characteristics. Also another feature of this method is that a large number of items of overhead expense can be accommodated under this type of codification.
- Lastly this method is easy to operate in case mechanical system of accounting is in vogue in the concern.

### **Rules & procedure for determining overhead recovery rate:**

**A. COLLECTION**

**B. CLASSIFICATION :**

**C. COST ALLOCATION :**

**D. COST APPORTIONMENT :**

**E. RE-APPORTIONMENT OR SECONDARY DISTRIBUTION. ( Ref q-6)**

**F. COMPUTATION OF RECOVERY RATES ON SUITABLE BASIS**

**G. OVERHEAD ABSORPTION or RECOVERY or CHARGED or ADDED or**

**A. COLLECTION:**

There are seven main sources of cost data relating to factory overheads (Actual)

1. Purchase day book;
2. Overheads invoices;
3. Stores requisitions. These three meant for collection of indirect materials cost.
4. Wages analysis book for indirect wages.
5. Cash book and petty cash book.
6. Journal proper.
7. Other registers like plant and machinery.

**B. CLASSIFICATION :**

There may be three broad categories of factory overheads.

1. Plant overheads: it is the overhead of top management which is at the head of all Functional departments.
2. Overheads relating to production dept. or cost centre
3. Overheads relating to service dept.

All the factory overheads are to be classified to suit the purpose of cost accounting, whether item wise i.e. rent, insurance, depreciation etc., or function-wise. Standing order numbers are used for collecting the factory overheads. Cost Account numbers (known as standing order no. ) are used for collecting the Administration, Selling and Distribution overheads.

**C. COST ALLOCATION:**

- When items of cost are identifiable directly with some products or departments such costs are charged to such cost centers or functional areas. This process is known as cost allocation.

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- Example Wages paid to workers of service department can be allocated to the particular department. Indirect materials used by a particular department can also be allocated to the department.
- Cost allocation calls for two basic factors-(i) concerned department/product should have caused the cost to be incurred, and (ii) exact amount of cost should be computable.

### D. COST APPORTIONMENT:

- In case of single product organization no apportionment is required as all the costs are divided by the total no. of units to get the recovery rate.
- In case of multi product organization the overheads distributed amongst the cost centers on some predetermined basis.
- This method is known as cost apportionment. The determination of suitable basis of apportionment is very important and usually following principles are adopted for such process:

(i) service or use,

(ii) survey method,

(iii) ability to bear.

basis once adopted should be reviewed at periodic intervals to improve upon the accuracy of apportionment.

The following tables indicates the various bases of apportionment :

Item of factory Overhead Basis of apportionment

- |  |   |
|--|---|
| 1. Rent.....                                   | Area or volume of building  |
| 2. Depreciation of Machinery.....              | % of original cost of machinery or machine hour rate  |
| 3. Power or motive power.....                  | HP rating ,Horse power multiplied by machine hours<br>or KWH or value of machine or machine hour. |
| 4. Electric lighting.....                      | Number of light points or area.   |
| 5. Canteen expenses.....                       | Number of meal served or employees no.  |
| 6. Store-keeping and materials handling.....   | Number of stores requisition or material consumed   |
| 7. Indirect wages of maintenance department .. | Estimated or actual time spent. or direct wages   |

- |                                  |   |
|----------------------------------|---|
| 8. Delivery expenses.....        | Weight, volume or ton-kilo-metre            |
| 9. Repairs of plant.....         | Value of plant.                             |
| 10. Supervision.....             | no. of machine/employee or floor space.     |
| 11. Fire Insurance.....          | Value of Asset or area occupied.            |
| 12. Machine shop exp.....        | Machine hours or Labors hours.              |
| 13. General Exp.....             | Direct Wages or LHR                         |
| 14. Maintenance of building..... | Area or labour hours.                       |
| 15. Civil Service Dept.....      | Area.                                       |
| 16. Crane service.....           | Crane hours or weight of materials handled. |
| 17. Miscellaneous .....          | Labour hour/ labour cost.                   |

### G. Under or over recovery & its treatment

- If the actual overheads exceed the amount applied to production it is said to be under absorption. That mean all overheads could not be absorbed.
- If the actual overheads are less than the amount applied to production, it is said to be over-absorption. If un-recovered amount is due to management fault then that amount will be transferred to Costing P & L a/c. the rest amount is treated as follows

This amount is treated as follows:

1. Supplementary overhead rate : If the under-absorption is significant, supplementary overhead rate is computed and applied to the jobs or number of units as follows :

$\text{Supplementary overhead rate} = \frac{\text{Under-absorption of factory overhead}}{\text{Actual base}}$
---

Or distribute the amount in the ratio as given in the problem

2. Transfer to current year's costing P and L a/c :- If the under-absorption is minor and insignificant, it may be transferred to the current year's costing P and L a/c., without reopening the various job accounts involved.
3. Transfer to next year: Alternatively, the under-absorption can be transferred to the next year's Factory overhead control account with the hope that the same can be adjusted in the next year. But this method is not recommended as most of the overhead are period costs and related to time.

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Note: Adjustment and accounting treatment of over-absorption of factory overheads can be done in the reversal way.

## Process costing Joint product and by product

### 1. Compare Process Costing with Job Costing.

The main points of comparison between job costing and process costing are as follows:

- i. Job costing is applicable to goods produced/manufactured to customer's specifications. However, process costing is applicable to production consisting of succession of continuous operations or processes.
- ii. Costs are accumulated by a job or work order irrespective of its time of completion under job costing. When a job is finished all costs associated with it are charged to it in full. Whereas under process costing costs are accumulated by processes for a particular period regardless of the number of units produced.
- iii. Each job will be different from the other under job costing whereas in the case of process costing units of product are homogenous and indistinguishable, because goods are produced on a mass scale.
- iv. Job is normally a single unit; the whole unit is taken as one for process costing purposes.
- v. Job costing does not involve transfer of costs from one job to another. Whereas in the case of process costing transfer of output from one process to another involves the transfer of its costs as well.

### 2. What is operation costing?

- It is refinement of process costing. It is concerned with the determination of cost of each operation.
- It is used those industries where a process consists of distinct operations. It is concerned with the determination of cost of each operation rather than process.
- It offers scope for computation of unit operation cost at the end of each operation by dividing the total operation cost by total output of units.

### Rules for Process costing & Jt. And By- Product

**Objective to find the value of main products, their sale price and profit. For this purpose distribute the joint cost among the main products. For this purpose different techniques are available, as discussed in point below.**

**Joint cost = Total cost up to split off point – (NRV from by-product + scrap of normal loss.)**

**Every Process A/c is debited with the costs incurred & credited by the losses, transfer, sale & closing stock. Both sides will tally unless the transfer is made at a profit (known as inter profit transfer)**

1. Normal loss or unavoidable loss which is inherent in a process. It is always computed on input material as estimation. Sometimes it is also computed on throughput i.e. Opening WIP+ Introduction-Closing WIP.

Normal Loss A/c.....Dr.  
To Process A/c

2. Scrap of a process includes both normal & abnormal losses. If the actual scrap is More than the normal loss then the additional scarp quantity is known as abnormal loss.

Abnormal loss A/c.....Dr.  
To Process A/c

3. If actual scrap is less than normal loss than the difference is known as abnormal gain. It is a part of good units.

Process A/c.....Dr.  
To Abnormal gain A/c

4. Abnormal loss units are sold at the scrap value of the corresponding process.

Cash or GLA A/c.....Dr.  
To Abnormal loss A/c

**The balance of this ledger is transfer to Costing P & L A/c**

5. Adjust the abnormal gain units with normal loss, as abnormal gain arises due to reduction in normal loss. So, losses of normal scarp realize is the opportunity cost for the abnormal gain.

Abnormal gain A/c.....Dr.  
To Normal loss A/c

The balance of this ledger is transfer to Costing P & L as abnormal gain

6. Rest of the normal loss units are realized in cash



Cash of GLA A/c ..... Dr.

To Normal loss A/c

7. Prepare process stock account after each process, if asks in problem.
8. Valuation of transfer units, abnormal gain or abnormal loss .

$$\text{Rate per unit} = \frac{\text{Total Input cost} - \text{Scrap value of normal loss \& By product}}{\text{Total units introduced} - \text{Normal loss units. \& by-product unit}}$$

9. For re-cycle material, the issue rate is the weighted average rate of the virgin or fresh materials of process 1.
10. Opening & closing WIP are valued on equivalent production basis. This is computed on the basis of FIFO or Average Basis.
11. The net realization from by products is credited to the process a/c.  
 Net realization = sale value of by product – profit – further processing cost of by product & selling cost. So, NRV utilized to reduce the joint cost of the main process. This is also known as Reverse cost method.  
 If the By Product is not further processed then credit the sale value of By product in Process A/c

12. Apportionment of joint cost among main products  
 Joint cost = total cost of process or dept. up to split off point or separation point – Realization from normal loss and by product. Joint cost is to be distributed among main process.  
 Apportionment Rules are :  
 A. Estimated Net Realizable Value method (NRV).

$$\text{NRV} = \text{Sales value of production after further processing} - \text{Further processing cost.}$$

Distributed the joint cost in the ratio of the NRV of Products. If any product is not further processed then it takes at sales value of split off point.

**Then prepare a profitability statement as below:-**

Rs.

Share of joint cost .....XX

At further processing cost..... xx

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Cost of production.....xx  
Less: Closing value of finished goods & WIP.....xx  
(Apply FIFO method less value of closing finished)  
Add opening finished goods & WIP.....xx  
Cost of Goods Sold.....xx  
Add Selling & distribution cost..... xx  
Cost of sales (a).....xx  
Sale value of the product (b).....xx  
Profit (b-a).....xx

Estimated gross profit percentage method on total basis.

GP = sale value of production – total cost.

GP Percentage = Total profit/Total sale value of production X 100

❖ Share of Joint cost = Sale value of production-GP-Further processing cost.

C. Market value (of production) after further process method.

D. Market value (production) at split off point.

E. Physical measurement basis. (out put ratio)

Note: If nothing is mentioned in the problem, always apportion Joint cost in the sale value Ratio at split off point.

13. Decision regarding further processing : apply IR vs. DC
14. For any decision making problem, current total profit has to be maintained.

## Contract costing

### 1. Features of Contract.

(i) The major part of the work in connection with each contract is ordinarily carried out at the site of the contract.ee/Customer

- (ii) The bulk of the expenses incurred by the contractor are considered as direct.
- (iii) The indirect expenses, mostly consist of office expenses of the yards, stores and works.
- (iv) A separate account is usually maintained for each contract.
- (v) The number of contracts undertaken by a contractor at a time is not usually very large.
- (vi) The Production unit or output in contract costing is one unit.

## **2. Main features of 'Cost-Plus-Contracts'.**

1. This method is adopted in the case of those contracts where the probable cost of the contract can not be ascertained in advance with a reasonable accuracy.
2. These contracts are preferred when the cost of material and labour is not steady and the contract completion may take number of years.
3. The different costs to be included in the execution of the contract are mutually agreed, so that no dispute may arise in future in this respect. Under such type of contracts contractee is allowed to check or utilization the concerned books, documents and accounts.
4. Such a contract offers a fair price to the contractee & also a reasonable profit to the contractor.
5. The contract price here is ascertained by adding a fixed and mutually pre-decided component of profit to the total cost of the work.

## **3. Escalation Clause.**

- This clause is usually provided in the contract as a safeguard against any like changes in the price or utilization of material and labour.
- If during the period of execution of a contract, the price of materials or labour rise beyond a certain limit, the contract price will be increased by an agreed amount. Inclusion of such a term in a contract deed is known as an 'escalation clause'.
- An escalation clause usually relates to change in price of inputs; it may also be extended to increased consumption or utilization of quantities of materials, labour etc. In such a situation the contractor has to satisfy the contract that the increased utilization is not due to his inefficiency.

#### 4. Sub – contracting:

It is a common business practice followed by business concerns, under which operations requiring special processing are sub – contracted. Examples of such operations are painting, cutting, stitching etc. this is done due to following reasons:

- (i) The operations which are given to outside sub – contractors are those operations which Requires the use of special skill or special equipment which is not available with the concern.
- (ii) If the management of a concern intends to engage available labour hours and machine Hours for operations which require special skill or special facility available with the concern .
- (iii) If there is temporary increase in demand of product of a concern some of the operations are Given to outsiders to bridge the imbalance between the production capacities. The payment made to sub – contractor or outsiders are charged as direct expenses of the specific jobs/ Work orders.

## Cost control Account

### 1. Cost Ledger Control Account

- This control account is also popularly known as ‘General Ledger Adjustment Account’ is opened in Cost Ledger to complete double-entry.
- All items of income and expenditure taken from financial accounts and all transfers from cost accounts to financial books are recorded in this accounts.
- Since the purpose of this account is to complete double entry in the cost ledger, therefore all transactions in the cost ledger must be recorded through the ‘Cost Ledger Control Account’.
- The balance in this account will always be equal to the total of all the balances of the impersonal accounts.

### 2. Integrated Accounts.

- It is the name given to a system of accounting whereby cost and financial accounts are kept in the same set of books.
- This system avoids the need for separate sets of books for financial and costing purposes. Integrated accounts provide or meet out fully the information requirement for costing as well as financial accounts.

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- Due to the use of one set of books, there is significant extent of saving in efforts made.
- No delay is caused in obtaining information as it is provided from books of original entry. The question of reconciling profit & financial profit does not arise, as there is one figure of profit only.

### 3. Advantages of integrated Accounting:

- (i) Since there is one set of accounts, thus there is one figure of profit. Hence the question of reconciliation of costing profit and financial profit does not arise.
- (ii) There is no duplication of recording of entries & efforts to maintain separate set of books.
- (iii) Costing data are available from books of original entry and hence no delay is caused in obtaining information.
- (iv) The operation of the system is facilitated with the use of mechanized accounting.
- (v) Centralization of accounting function results in economy.

## Marginal costing

### 1. Important factors of Marginal Costing Decisions.

- i. Whether the product or production makes a contribution.
- ii. In the selection of alternatives, additional fixed costs if any should be considered.
- iii. The continuity of demand after expansion and its impact on selling price are to be considered.
- iv. Non-cost factors such as the need to keep labour force intact and government attitude are also to be taken into account.

### 2. CVP analysis and its purposes

Profit per unit of a product depends on its selling price and cost of sales. Total profit depends on sales volume which in turn depends inter alia on selling price. By and large cost also depends on volume of production. Thus, a close relationship exist between costs, volume and profit.

The following purposes are served by analysis of cost-volume-profit relationship :

- i. to forecast profit fairly accurately.
- ii. to set up flexible budgets.

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- iii. To evaluate performance for control.
- iv. To ascertain the effects of costs of changes in volume for market expansion or contraction.
- v. To formulate price policies.
- vi. To know the amount of overhead costs that could be changed to production costs at various levels of operation.

### 3. The assumptions of CVP:

- All variables remain constant per unit.
- A single product or constant sales mix.
- Fixed costs do not change.
- Profits are calculated on variable cost basis.
- Total costs and total revenues are linear functions of output.
- The analysis applies to relevant range only.
- Costs can be accurately divided into fixed and variable components.
- The analysis applies only to short-term horizon.

### 4. Profit/Volume Ratio:

- Profit volume ratio is the ratio of contribution denoting the difference between sales and variable cost.
- Since in the short term fixed cost does not change, Profit/volume ratio also measures the rate of change of profit due to change in the volume of sales.

Thus Profit/Volume ratio is expressed as:  $P/V = \text{Contribution} \div \text{sales}$

### 5. Break even point:

- Break even point represents that volume of production where total cost equal total revenue resulting into a no-profit no-loss situation.
- If output falls below that point, there is loss and if output exceeds the point there is profit. Therefore at breakeven point.

Revenue = Total Cost

Sales = Fixed Cost + Variable Cost

Sales-variable Cost = Contribution = Fixed Cost

## **6. Assumptions of break-even analysis.**

- i. All costs can be easily classified into fixed and variable components.
- ii. Both revenue and cost functions are linear over the range of activity under consideration .
- iii. Prices of output and input remain unchanged.
- iv. Productivity of the factors of production will remain the same.
- v. The state of technology and the process of production will not change.
- vi. There will be no significant change in the levels of inventory.
- vii. The company manufactures a single product.
- viii. In the case of a multi-product company, the sales mix will remain unchanged.

## **7. Limitations of break-even chart.**

1. The variable cost line need not necessarily be a straight line because of the possibility of operation of law of increasing costs or law of decreasing returns.
2. Similarly the selling price will not be a constant factor. Any increase or decrease in output is likely to have an influence on the selling price.
3. When a number of products are produced, separate break-even charts have to be drawn. This poses a problem of apportionment of fixed expenses to each product.
4. Break-even charts ignore the capital employed in business which is one of the important guiding factors in the determination of profitability

## **8. Margin of Safety**

- Margin of safety is the difference between the sales or production at a particular level of activity and the break even sales a production.
- A large margin of safety indicates the soundness of the business and correspondingly a small margin of business indicates a not too-sound position.
- Margin of safety can be improved by lowering the fixed cost and variable costs, increasing the volumes of sales and production, increasing the selling prices or changing the product mix resulting into a better overall Profit/Volume ratio.

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Margin of safety = Profit / P/V ratio.

### 9. Angle of Incidence:

- It is the angle of intersection between the sales and the total cost lines. It indicates the profit earning capacity of the concern at a certain level of sales production.
- The larger the angle of incidence the more is the profit earning capacity and vice versa. It also provides an indication as to what extent the output & sales price may be varied to attain a desired level of profit.
- It gives an easy and clear idea to the profitability under different levels of activities & also for different product mix & is a simple visual aid to find out profit earning capacity without going in for any calculation.

### 10. Limitations of Marginal Costing

1. Marginal Costing assumes that all costs can be classified into fixed and variable.
2. Contribution of a product itself is not a guide for optimum profitability.
3. Marginal Costing ignores time factor and investment.
4. The overheads of fixed nature cannot altogether be excluded particular contracts while valuing work-in-progress.
5. In the long run, the selling prices should be based on total cost i.e. inclusive of fixed cost also.

## Budget

### 1. Definition

A budget is a financial and/or quantitative statement, prepared prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective.

### 2. Objective of Budgets:-

- (a) A budget is a blue print of the desired plan of action or operation.
- (b) Budgets provide a means of co-ordination of the business as a whole .
- (c) Budgets are means of communication.



(d) Budgets facilitate centralized control with delegated authority and responsibility.

### 3. Budgetary Control:

Budgetary control is defined as the establishment of budgets relating the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision.

## Standard Costing

### 1. What is a Standard Cost?

A Standard cost is a carefully predetermined unit cost which is prepared for each cost unit. It contains details of the Standard amount and price of each resource that will be utilised in providing the service or manufacturing the product.

### 2. Standard:

It is a benchmark measurement of resource usage, set in defined conditions. The definition goes on to describe a number of bases which can be used to set the standard, including:

- A prior period level of performance by the same organization;
- The level of performance achieved by comparable organizations;
- The level of performance required to meet organizational objectives.

### 3. What is variance analysis?

- A variance is the difference between the expected standard cost and the actual cost incurred. A unit standard cost contains detail concerning both the usage of resources and the price to be paid for the resources.
- Variance analysis involves breaking down the total variance to explain how much of it is caused by the usage of resources being different from the standard, and how much of it is caused by the price of resources being different for the standard.

Variance analysis are 2 types

#### 1. Cost variances

- a. Variable cost Variance;
- b. Fixed cost variance

#### 2. Revenue variances

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- a. on sales
- b. on margin

## Miscellaneous

### **1. Define Product costs. Describe three different purposes for computing product costs.**

Product costs are attributable costs. These are the costs, which are assigned to the product.

Under marginal costing variable manufacturing costs and under absorption costing, total manufacturing costs constitute product costs.

The three different purposes for computing products costs are as follows :

- i. Preparation of financial statements: Here focus is on attributable costs.
- ii. Product pricing: It is an important purpose for which product costs are used. For this purpose, the cost of the areas along with the value chain should be included to make the product available to the customer.
- iii. Contracting with government agencies : For this purpose government agencies may not allow the contractors to recover research and development and marketing costs under cost plus contracts.

### **2. How does a Production Account differ from a Cost Sheet.**

- 1. Production Account is based on double entry system whereas cost system whereas cost sheet is not based on double entry system.
- 2. Production Account consists of two parts. The first part shows cost of the components and total production cost.

The second part shows the cost of sales and profit for the period. Cost sheet presents the elements of costs in a classified manner and the cost is ascertained at different stages such as prime cost; works cost; cost of production; cost of goods sold; cost of sales and total cost.

- 3. Production account shows the cost in aggregate and thus facilitates comparison with other financial accounts. Cost sheet shows the cost in detail and analytical manner which facilitates comparison of cost for the purpose of cost control.

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4. Production account is not useful for preparing tenders or quotations. Estimated cost sheets can be prepared on the basis of actual cost sheets and these are useful for preparing tenders or quotations.

### 3. Scrap Accounting :

Accounting treatment of scrap depends on the realizable value.

- Where value of scrap is negligible, absorb the cost and the realized amount from sale of scrap will be treated as other income.
- When value of scrap is significant and identifiable with job or process, the cost will be transferred to scrap account and the realization from sales will be credited to job or process account.
- The difference will be transferred to costing profit and loss account. When value is significant, but scraps are not identified with particular job or process the net realisation after deducting selling cost is transferred to either overheads or material account to reduce the overhead rate or material cost respectively.

Control of scrap:

- Scrap control starts from the designing of product and process. Efforts shall be made to maximize utilization of material and minimum wastage of material in the processing.
- A standard allowance for scrap should be fixed and actual should be compared against it.
- A periodical report indicating type of scrap, nature of product, good production units, scrap units – actual and normal, % scrap to good units and standard allowance % and value of scrap, etc. should be prepared from the data collected at the shop level, and placed before the Departmental Head for review and remarks.

### **Spoilage :**

#### **Accounting:**

Cost of normal spoilage which is inherent in the operation is absorbed by charging either to the production order or to production overheads. Cost of abnormal spoilage arising out of causes not natural to the manufacturing process is charged to costing profit and loss account. As regards charge to production there are two methods –

Identifying loss arising out of spoilage, and

Absorbing in the value of good units so that spoilage quantity or value is not identified.

If spoiled units are reused as raw material in the same manufacturing process, no separate accounting treatment is required. On the other hand, if spoilage is used for any other process or job, a proper credit should be given to relevant process account or job account.

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Control :

Control of spoilage is exercised by setting standards, fixation of responsibility and systematic.

**Waste :**

**Accounting :**

Good units should absorb the cost of waste. However, if any value is realised, the process account concerned may be credited. Cost of abnormal waste should be excluded from the total cost and charged to the costing profit and loss account.

Control :

Control is exercised over the quantum of waste arising in a process or operation usually through standard set for the normal percentage of visible and invisible wastes that may be anticipated to arise in various manufacturing processes or operations.

In order to keep a control on waste, a periodical report should be prepared by each department indicating

- (a) Nature of waste,
- (b) Quantity of waste generated,
- (c) Value, if any, and
- (d) Percentage comparison between normal and actual waste.

Control action consists of review by departmental head and corrective action is taken especially if wastage is abnormal.

**Defective:**

**Accounting:**

Cost of defectives includes reprocessing expenses such as material, labour, direct expenses which will add to the cost of job or process as a direct expense.

However, if the expense is not identifiable with the particular job or process and the amount is not significant, the total expenses shall be collected by way of a standing order number, and charged to the departmental overheads or general overheads.

If defectives are abnormal and are due to causes beyond the control of the organization; say, power failure at the time of reworking the cost of rework should be debited to costing profit and loss account. It should be noted that cost of remedying imperfection is not the cost of the particular job, on which the

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defective work was discovered. The cost of defective work is considered as an item of manufacturing overhead.

Control:

Effective control has to be exercised on the physical units of defectives as well as on the cost of salvaging. Best way is to fix standard or norms for defectives and rework and rectification costs.

### **Small tools:**

These are mechanical appliances used for various operations on work place, specially in engineering industries. Such tools drill bits, chisels, screw cutter, files etc.

Treatment of cost of small tools of short effective life :

(i) Small tools purchased may be capitalized and depreciation over life if their life is ascertainable. Revaluation method of depreciation may be used in respect of very small tools of short effective life. Depreciation of small tools may be charged to :

-- Factory overheads

-- Overheads of the department using the small tool

(ii) Cost of small tools should be charged fully to the departments to which they have been issued, if their life is not ascertainable.

### **Bad Debts:**

- Bad debts occur when some of the debtors fail to honor the commitments to pay. So the organization suffers a loss in the sense that they do not receive the price for goods sold or services rendered.
- Bad debts are usually considered part of selling and distribution overhead. It is also a debatable point in the sense that some accountants feel that bad debts arise out of financial policy and should not be taken into cost accounting altogether.
- These expenses should be charged off directly in the Costing Profit and Loss Account. In case when bad debts are included in costing and are considered as part of selling overheads this should be divided into normal and abnormal elements.
- When bad debts are within normal limits they should be absorbed in selling overheads as normal charge and when they are beyond the normal limits they should be charged off to P/L A/c thereby not being considered in the cost.

### **Canteen Subsidy**

Canteen Subsidy is generally treated as an overhead cost. Canteen expenses are booked in separate standing order number and all receipts from the workers are credited to the same. The net cost

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representing the canteen subsidy met by the organization is then apportioned to the cost/profit/service centers in any of the following basis

- (I) Total wage cost
- (II) Total number of employees served.
- (III) Total number of employees employed
- (IV) Total number of meals served.

### Data Processing Cost

- Data processing is a service activity and the related cost should be allocated to various departments who use the services of the Data processing department.
- The most accurate basis of allocation of this cost should be number of cards punched or tapes processed relating to various user-departments.

In large organizations this basis may prove to be impractical. The alternative methods which may be used are:

- (a) Number of reports processed pointed,
- (b) Standard percentage,
- (c) Computer hours,
- (d) Man-hours in Data processing depart.

### Directors' fees and Salaries.

- Directors' Fees, etc. represent Administrative Overheads. Directors' remuneration is sharable between works, administration, selling and distribution when they look after different functions on the basis of time devoted to each function.
- When there are separate directors to look after such functions viz. Sales, Finance, personnel, Production, etc., their fees and salaries should be grouped under such functional costs and thereafter apportioned to cost units as overhead costs.

### 2. Dismantling and re-installation of Machinery in the Same Shop :

It may be found over a time span that the original layout is ineffective with the changes in time, outlook troth in business, technological development etc. necessitating readjustment of location and of resting of Machineries. In such a situation, such cost may be written off to P & L A/c.

### Excavation Expenses for an abandoned project.

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- This is an unusual expenditure and therefore should be kept outside the purview of costs accounts and charged directly to Profit and Loss Account.
- If the amount involved is considered to be unreasonably burdensome during an accounting period, then the same may be spread over an appropriate number of years but the period should not be too long.

### **Goods Returned by Customers on Rejection**

- If the goods returned by customers are resalable in alternative markets, only the cost of outward freight and the expenses incurred on getting the goods back from the original customer will be treated as selling overheads.
- If the goods are rejected on quality grounds and there is no chance of their being sold an management has to scrap the product, then the cost of production less the net realizable value of the scrap, if any, will have to be treated as factory overheads.
- Similarly, if the goods have deteriorated in quality while in storage at sales depots and have been ultimately rejected by the Customer, the cost of sales less net realizable value of scrap, if any, may be treated as selling overheads.
- The above treatments apply to normal losses. In case of unusual loss caused due to such rejection the same may be transferred to Costing Profit/Loss Account.

### **Historical Costing:**

- Costing is a technique and process of ascertainment of costs. The technique in costing consists of principles and rules which govern the procedure of ascertaining costs of products or services.
- The technique is dynamic and changes from time to time and according to circumstances. There are many types of costing of which historical costing is one and widely used.
- In 'Historical Costing', cost are ascertained after they are incurred. Historical Costing, therefore, means the actual cost and does not consider any standard or estimated cost. This type of costing though presenting the actual cost, is losing importance to the

### **Interest on Capital:**

- There are divergent views on this item. Some argue for its inclusion in 'cost' and have points in support and others do not regard it as a part of 'cost'.
- The argument for inclusion of interest in cost are that interest is a reward for capital and that real profit cannot be ascertained without taking interest into account.
- In order to make intelligent comparison of cost it is necessary to include notional interest when financing is done out of own capital.
- But the argument against inclusion of interest in cost is that the required of capital is profit and not interest.

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- Comparison of costs can be drawn up on a proforma basis without complicating cost accounts by including interest.

### **Rectification Work**

- The rectification work on finished goods or a job may be carried out at the factory premises before dispatch to customers or at customers' place subsequent to dispatch.
- The reasons for carrying out such rectification work may be attributable to manufacturing defects, use of substandard components, mishandling during transit etc. Minor rectification work can be treated as manufacturing overheads or selling overheads as the case may be.
- However, cost of major repairs and replacement of exceptional nature should be treated either as a deferred charge or written off to Costing Profit/Loss Account.

### Sales Promotion Expenses

- These expenses are incurred to promote sales promotion which in turn, depends on the business policy of the organization. Unlike manufacturing expenses where nature and amount of the expenses are closely linked with production, sales promotion expenses are linked with the marketing policy of the organization.
- Generally sales promotion expenses include advertisements in Souvenir, Posters, Sign-boards, Neon-signs etc. Sales promotion expenses should be treated as deferred revenue expenditure to be charged off as overheads over a period because the benefits arising out of sales promotion policy are expected to accrue over a fairly long period of time, say 7/10 years. The apportionment of such costs on to particular products may be done on incremental sales achieved due to the promotional drive. If the sales promotion is undertaken for a short period and the amount spent is not large, expenses on such promotion may be written off in the same year under selling and distribution overheads.