

# ***CA INTERMEDIATE***

***COST & MANAGEMENT ACCOUNTING***

***QUICK REVISION BOOK***

***By***

***CA. NAMIT ARORA SIR***

***This book is dedicated to my Brother***

***Mr. MANIK ARORA***

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**CHAPTER 1**

**MATERIAL COST**

1. **Re-order quantity (ROQ):** Order size repeated by any business organization.
2. **Ordering cost:** Cost associated with placement of orders (handling, freight etc.).

$$\text{Annual Ordering Cost} = \frac{A}{ROQ} \times O$$

Here,

- A = Annual requirement of raw material to be purchased in quantity
- O = Cost per order

**Note:** Number or orders should not be in decimals.

3. **Carrying cost:** Cost associated with holding of average raw material stock (storage, interest, obsolescence etc).

**Annual Carrying Cost:**

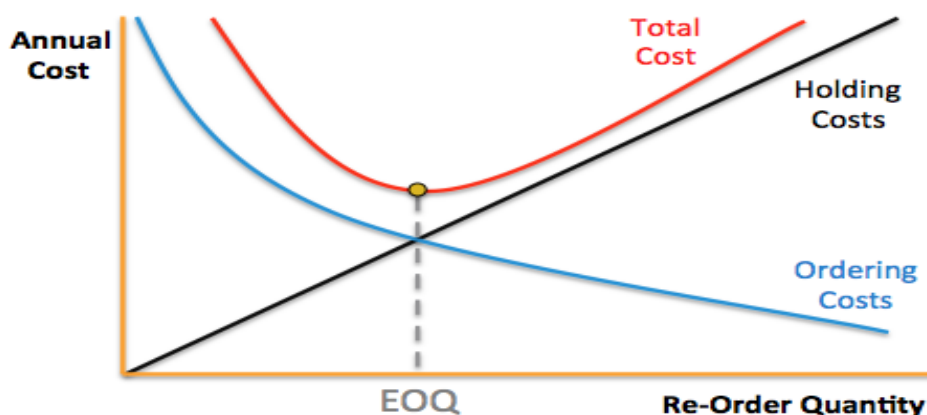
**Alternative 1:** When there is no Safety Stock =  $\frac{1}{2} \times ROQ \times C$

**Alternative 2:** When there is Safety Stock =  $\left(\frac{1}{2} \times ROQ \times C\right) + \text{Safety Stock units} \times C$

Here,

- C = Carrying cost per unit per annum

4. **Economic order quantity (EOQ):** Order size (Unique ROQ) at which total of ordering and carrying cost will be lowest. Order size (Unique ROQ) at which total annual ordering cost equal to annual carrying cost.



$$\text{Economic order quantity (EOQ)} = \sqrt{\frac{2AO}{C}}$$

Here,

- A = Annual requirement of raw material to be purchased in quantity
- O = Cost per order
- C = Carrying cost per unit per annum

5. **Re-order Level/ Ordering Level/ Re-order Point:**

**Alternative 1** = Maximum usage × Maximum re-order period

**Alternative 2** = Average usage × Average re-order period + Minimum stock/Safety stock

6. **Minimum Stock Level** =  $ROL - (Average\ usage \times Average\ re-order\ period)$

7. **Maximum Stock Level** =  $ROL + ROQ - (Minimum\ usage \times Minimum\ re-order\ period)$

8. **Average Stock level:**

**Alternative 1** =  $\frac{1}{2} (Minimum\ stock\ level + Maximum\ stock\ level)$

**Alternative 2** =  $\frac{1}{2} \text{ of } ROQ + Minimum\ stock\ level$

9. **Danger Stock Level:**

**Alternative 1** = Average usage × Emergency re-order period (**preferred**)

**Alternative 2** = Minimum usage × Emergency re-order period

10. **ABC analysis:**

	<b>% Value</b>	<b>% Quantity</b>	<b>Control</b>
<b>A</b>	70%	10%	<b>High</b>
<b>B</b>	20%	20%	<b>Medium</b>
<b>C</b>	10%	70%	<b>Low</b>

11. **Valuation of Material:**

**Statement Showing Cost Per Unit**

<b>Particulars</b>	<b>₹</b>
<b>Purchase price/Invoice price/Listed Price</b>	XXX
<b>Less: Trade or Quantity discount (× Cash discount)</b>	(XXX)
<b>Less: Subsidy/grant/incentives from government</b>	(XXX)
<b>Add: Road tax/toll tax</b>	XXX
<b>Add: IGST/CGST/SGST (when ITC is not available)</b>	XXX
<b>Add: Custom duty</b>	XXX
<b>Add: Insurance</b>	XXX
<b>Add: Commission/Brokerage on purchase</b>	XXX
<b>Add: Freight inward</b>	XXX
<b>Add: Net cost of Containers/Drums or packing material (when not returnable or returnable at low value)</b>	XXX
<b>Total cost</b>	XXX
<b>÷ Number of Effective units (Total units – Normal shortage – Provision for further Shortage)</b>	÷ XXX
<b>Cost per unit</b>	XXX

**Notes:**

- **Cash discount, Indirect tax if ITC is available and demurrage, detention charges, penalty etc. do not form part of cost.**
- **GST is payable on Net purchase price (Listed price less Trade or Quantity discount)**



- *Freight is distributed on the basis of weight among various materials.*
- *GST, Custom Duty and Insurance are distributed on the basis of value among various materials.*

**12. Normal Loss/Standard Loss/Unavoidable Loss:**

- *Average/ standard loss of concern industry,*
- *Customer will suffer this loss due to increase in cost.*

<i>Particulars</i>	<i>Quantity</i>	<i>Rate</i>	<i>Value</i>
<i>Purchase</i>	<i>100</i>	<i>10.00</i>	<i>1,000</i>
<i>Less : Normal Loss</i>	<i>(10)</i>	<i>-</i>	<i>-</i>
<i>Total Cost</i>	<i>90</i>	<i>11.11</i>	<i>1,000</i>

**13. Abnormal loss:**

- *Loss over and above normal loss*
- *Businessmen will suffer this loss by debiting it in Costing P/L and profit will decrease*
- *No impact on cost per unit*

<i>Particulars</i>	<i>Quantity</i>	<i>Rate</i>	<i>Value</i>
<i>Purchase</i>	<i>100</i>	<i>10.00</i>	<i>1,000</i>
<i>Less : Abnormal Loss</i>	<i>(10)</i>	<i>10.00</i>	<i>(100)</i>
<i>Total Cost</i>	<i>90</i>	<i>10.00</i>	<i>900</i>

**14. Inventory Turnover Ratio (ITR) = Raw Materials Consumed ÷ Average Inventory**

**15. Inventory Holding Period (in days) = 365 ÷ ITR**

**16. Stores ledger:**

<i>Date</i>	<i>Receipts</i>			<i>Issues</i>			<i>Balance</i>		
	<i>Quantity</i>	<i>Rate</i>	<i>Value</i>	<i>Quantity</i>	<i>Rate</i>	<i>Value</i>	<i>Quantity</i>	<i>Rate</i>	<i>Value</i>
				<i>Return to supplier</i>					
	<i>Return to stores</i>								
				<i>Shortage</i>					

**Notes:**

- *Transferred between two job or departments: No treatment in stores ledger*
- *Return to supplier: Issue side at the rate it received from supplier or latest purchase rate*
- *Return to stores: Receipt side at the rate of issue or recent issue rate when rate of issue is unknown*
- *Abnormal shortage: Issue side as per the method (transfer to Costing P/L)*
- *Normal shortage: Issue side only in quantity column*
- *Material consumed: Total value of issued material - Material return to stores - Abnormal shortage - Return to supplier*



**CHAPTER 2**

**EMPLOYEE COST**

1. **Wages under Straight Time Rate System** = Working hours × Time Rate per hour
2. **Wages under Straight Piece Rate System** = Number of units produced × Piece Rate
3. **Wages under Piece Rate System with Guaranteed Time Wages:**

*Step 1: Calculate wages as per Piece Rate System*

*Step 2: Calculate wages as per Time Rate System*

*Step 3: Payment to worker (whichever is higher between Step 1 and Step 2)*

4. **Wages under Halsey system** =  $(AH \times R) + 50\% (SH - AH) \times R$

Here,

- AH = Actual hours worked for actual production
- SH = Standard hours for actual production
- SH - AH = Time saved by the worker
- R = Time rate

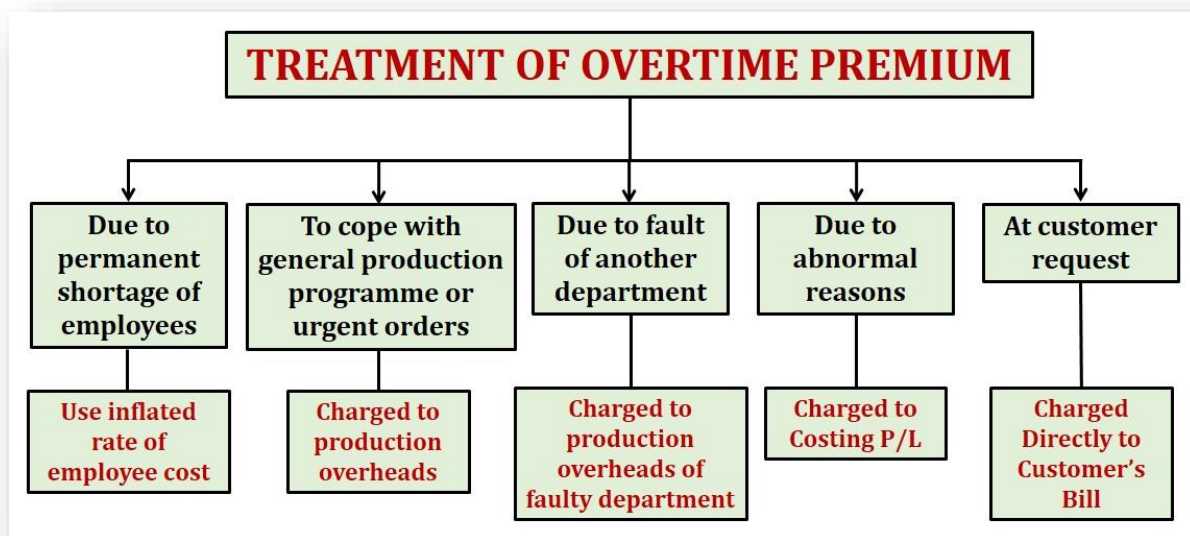
5. **Wages under Rowan system** =  $(AH \times R) + AH/SH (SH - AH) \times R$

6. **Effective hourly rate** = Wages ÷ AH

7. **Overtime: Working over and above normal working hours**

**Overtime premium: Payment in excess of normal wage rate**

**Overtime payment** = Payment as per normal rate + Overtime premium



8. **Idle time: Worker in factory without work but eligible for wages.**

**Normal idle time: It is the time which cannot be avoided or reduced in the normal course of business.**

**Causes**

- The time lost between factory gate and the place of work,
- The interval between one job and another,
- The setting up time for the machine,
- Normal rest time (fatigue), break for lunch etc.

**Treatment**

- Increase employee rate
- Charged to production overheads

**Abnormal idle time:** Apart from normal idle time, there may be factors which give rise to abnormal idle time

**Causes**

- Idle time may also arise due to abnormal factors like lack of coordination
- Power failure, breakdown of machines
- Non-availability of raw materials, strikes, lockouts, poor supervision, fire, flood etc.

**Treatment**

- Transfer to costing P/L

**9. Statement Showing Gross Wages:**

<i>Particulars</i>	<i>Amount</i>
Basic Wages	XXX
Dearness Allowance	XXX
<i>Basic plus D.A.</i>	XXX
Bonus	XXX
Various Allowances	XXX
Other Payments	XXX
<b>Gross Wages</b>	<b>XXX</b>

**10. Statement Showing Net Wages:**

<i>Particulars</i>	<i>Amount</i>
<b>Gross Wages</b>	<b>XXX</b>
Less: Employee's contribution to Provident Fund	(XXX)
Less: Employee's contribution to Pension Fund	(XXX)
Less: Employee's contribution to E.S.I.	(XXX)
Less: T.D.S.	(XXX)
Less: Professional Tax	(XXX)
Less: Loan Deduction	(XXX)
Less: Any other Deduction	(XXX)
<b>Net Wages</b>	<b>XXX</b>

**11. Statement Showing Employee Cost Per Hour:**

<i>Particulars</i>	<i>Amount</i>
<b>Gross Wages</b>	<b>XXX</b>
Add: Employer's contribution to P.F.	XXX
Add: Employer's contribution to E.S.I.	XXX
<b>Employee Cost</b>	<b>XXX</b>
÷ Effective Labour Hours (Working Hours - Eligible Holidays - Normal Idle Time)	÷XXX
<b>Employee Cost Per Hour</b>	<b>XXX</b>



**Note:** If nothing is specified in the question, contribution of employer towards Provident Fund, Pension Fund and E.S.I. equals to employee contribution.

**12. Labour Turnover Rates:**

$$\text{Separation Method} = \frac{\text{Number of separations}}{\text{Average workers}} \times 100$$

$$\text{Replacement Method} = \frac{\text{Number of replacements}}{\text{Average workers}} \times 100$$

$$\text{New Accession Method} = \frac{\text{Number of new joinings}}{\text{Average workers}} \times 100$$

$$\text{Accession Method} = \frac{\text{Number of total joinings}}{\text{Average workers}} \times 100$$

$$\text{Flux Method (alt 1)} = \frac{\text{No. of separations} + \text{replacements}}{\text{Average workers}} \times 100$$

$$\text{Flux Method (alt 2)} = \frac{\text{No. of separations} + \text{accessions}}{\text{Average workers}} \times 100$$

$$\text{Average Workers} = \frac{\text{Opening workers} + \text{Closing workers}}{2}$$

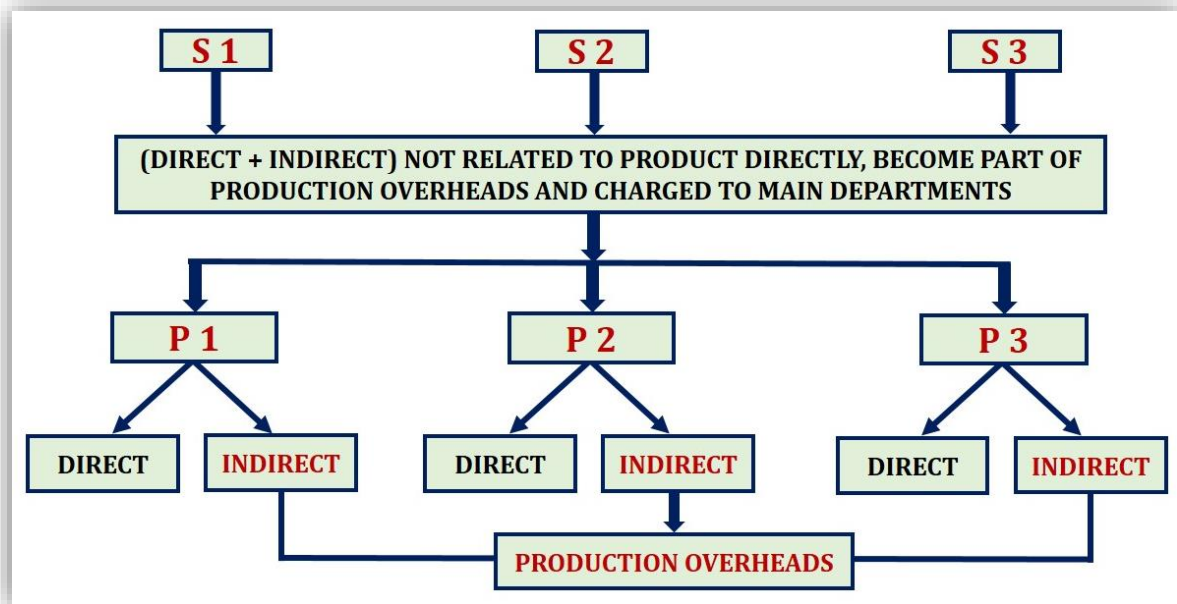
$$\text{13. Equivalent Annual Turnover Rate} = \text{Employee Turnover Rate} \times 365/52/12$$

**14. Statement Showing Profit Foregone on Account of Labour Turnover**

<b>Particulars</b>	<b>Amount</b>
Contribution foregone due to delay in filling the vacancies	XXX
Contribution foregone due to unproductive training hours <i>(If these hours are excluded)</i>	XXX
Settlement cost due to leaving	XXX
Recruitment costs	XXX
Selection costs	XXX
Training costs	XXX
<b>Profit Foregone</b>	<b>XXX</b>



1. **Production Overheads:** All indirect cost related to production.



2. **Types of Departments:**

- **Main/production departments:** Product is produced in these departments.



- **Support/service departments:** Product is not produced in these departments but these departments help to main departments.

Canteen

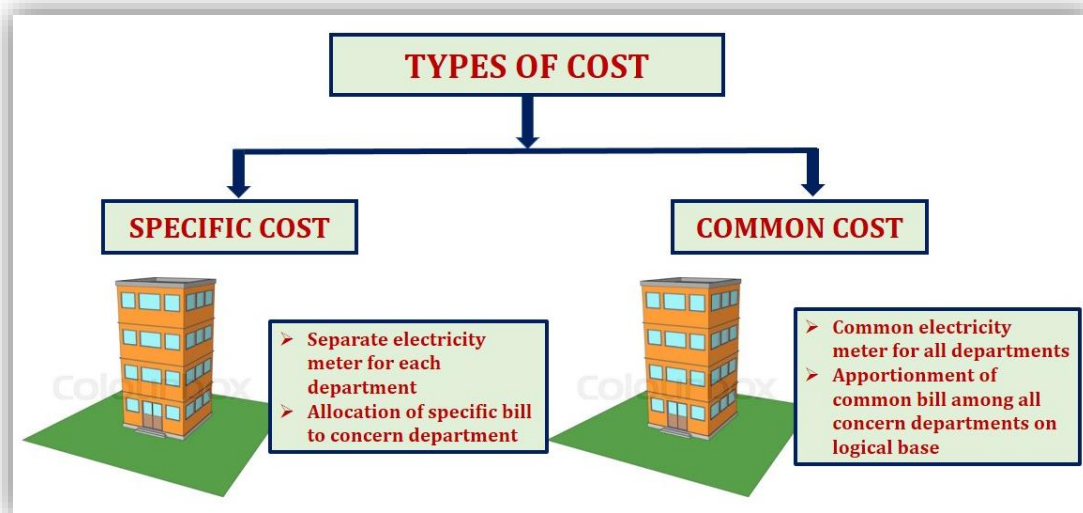


Stores





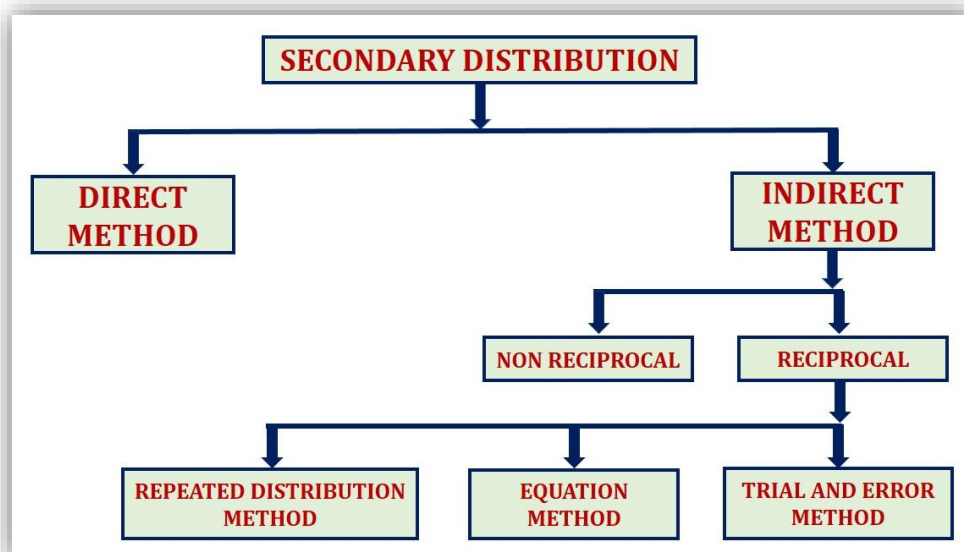
3. Types of Cost:



4. Statement Showing Primary Distribution:

Particulars	Basis	Production dept.		Service dept.	
		P1	P2	S1	S2
<b>Specific Cost:</b>					
Direct material	Allocation	No	No	Yes	Yes
Direct labour	Allocation	No	No	Yes	Yes
Direct expenses	Allocation	No	No	Yes	Yes
Indirect material	Allocation	Yes	Yes	Yes	Yes
Indirect labour	Allocation	Yes	Yes	Yes	Yes
Indirect expenses	Allocation	Yes	Yes	Yes	Yes
Other specific cost	Allocation	Yes	Yes	Yes	Yes
<b>Common Cost:</b>					
Rent	Area	Yes	Yes	Yes	Yes
Insurance etc.	Value	Yes	Yes	Yes	Yes
<b>Total OH</b>		<b>XXX</b>	<b>XXX</b>	<b>XXX</b>	<b>XXX</b>

5. Secondary Distribution:



6. **Direct Method:** Under this method cost of service departments are directly apportioned to production departments. [Service departments are Bhai Bhai]

7. **Non Reciprocal Method or Step Ladder Method or Step Down Method:**

**Step 1:** Apportion expenses of largest service department [Big Brother] to all other departments (Production departments and service departments [Younger Brothers]).

**Step 2:** Apportion expenses (including expenses received from largest service departments) of second largest service department to all other departments (Production departments and service departments excluding largest service department [Big Brother]) and so on.

8. **Reciprocal Method:** Under this method we can distribute expenses by using:

- Repeated Distribution Method or Continuous Allotment Method
- Simultaneous Equation Method
- Trial and Error Method

9. **Repeated Distribution Method:**

**Step 1:** Apportion expenses of any service department to all other departments first (Production departments and service departments).

**Step 2:** Apportion expenses (including expenses received from service departments in step 1) of another service department to all other departments (Production departments and service departments including service department in step 1).

**Step 3:** Repeat the process until 100% apportionment (to finish the process of repeated distribution, apportion the expenses of last distribution directly to production departments when distribution amount is very less).

10. **Simultaneous Equation Method:**

**Step 1:** Calculate adjusted expenses of service departments with the help of equation.

**Step 2:** Apportion adjusted expenses.

11. **Trial and Error Method:**

**Step 1:** Calculate adjusted expenses of service departments with the help of repeated distribution.

**Step 2:** Apportion adjusted expenses.

12. **Predetermined Absorption Rate** = 
$$\frac{\text{Budgeted Overheads}}{\text{Budgeted Recovery Base}}$$

- Overheads **absorption rate** is also known as overheads **charging rate**, overheads **application rate** and overheads **recovery rate**.

13. **Types of Recovery Base:**

- Direct Material Cost
- Direct Employee Cost
- Prime Cost
- Labour Hours
- Machine Hours



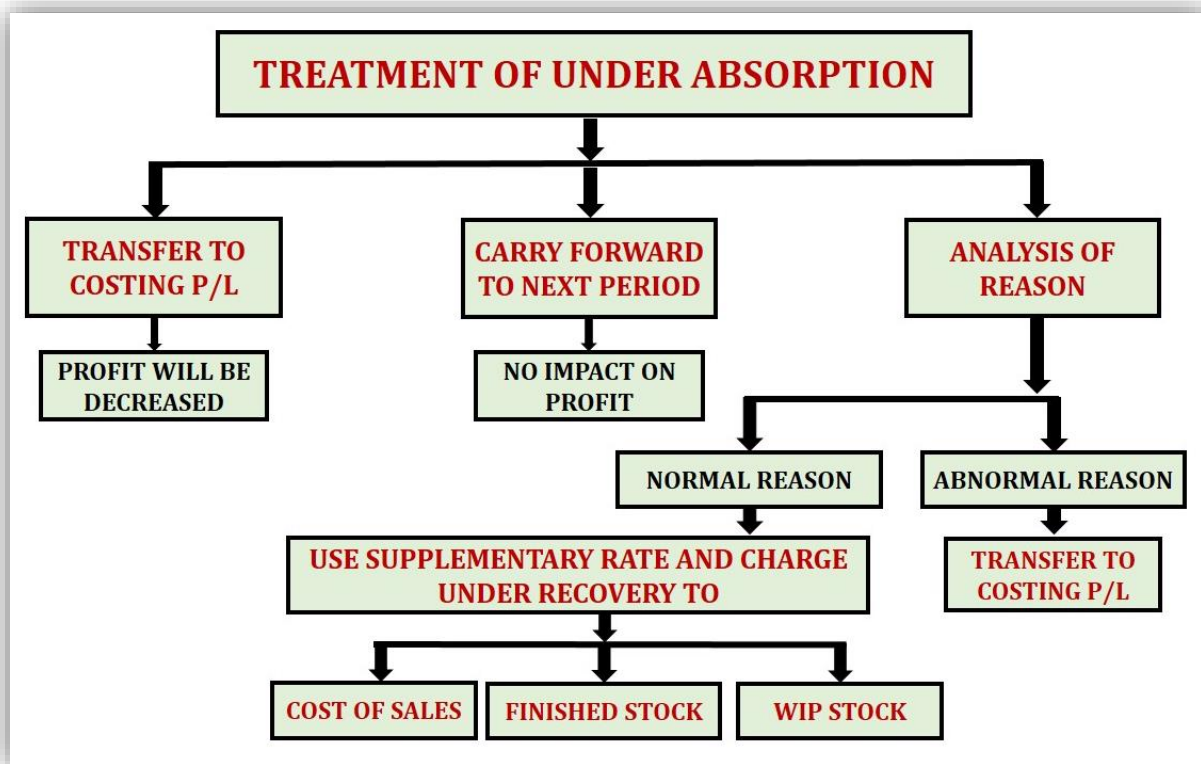
- Number of Physical Units
- Number of Orders or Jobs

**14. Under or Over Absorption:** Difference between absorbed overheads and actual overheads.

Situations:

- |                            |                  |
|----------------------------|------------------|
| 1. Absorbed OH > Actual OH | Over Absorption  |
| 2. Absorbed OH < Actual OH | Under Absorption |
| 3. Absorbed OH = Actual OH | Equal Absorption |

**15. Treatment of Under Absorption:**



**16. Types of Recovery Rate:**

- Normal Rate or Actual Rate =  $\frac{\text{Actual Overheads}}{\text{Actual Recovery Base}}$
- Predetermined Overheads Rate =  $\frac{\text{Budgeted Overheads}}{\text{Budgeted Recovery Base}}$
- Departmental Overheads Rate =  $\frac{\text{Overheads of Concern Department}}{\text{Base of Concern Department}}$
- Blanket Overheads Rate =  $\frac{\text{Total Overheads of Factory}}{\text{Recovery Base for Factory}}$

**17. Blanket Overheads Rate:**

- Blanket overhead rate refers to the computation of one single overhead rate for the whole

factory.

- The use of blanket rate may be proper in certain factories producing **only one major product** in a continuous process or where the **work performed** in every department is fairly uniform or standardised.

**18. Statement of Machine Hour Rate (MHR):**

<b>Particulars</b>		<b>Amount</b>
(A)	<b>Standing Charges or Fixed Cost:</b>	
	Rent	XXX
	Heat and light	XXX
	Forman's salary	XXX
	Depreciation (not related to activity)	XXX
	Wages	XXX
	Bonus	XXX
	Other fixed cost	XXX
	<b>Total Standing Charges (A)</b>	<b>XXX</b>
(B)	<b>Running Expenses or Variable Cost:</b>	
	Repairs and maintenance	XXX
	Consumable stores	XXX
	Power	XXX
	Depreciation (related to activity)	XXX
	Other variable cost	XXX
	<b>Total Running Expenses (B)</b>	<b>XXX</b>
	<b>Total Expenses(A+B)</b>	<b>XXX</b>
	<b>÷ Effective Machine Hours</b>	<b>÷ XX</b>
	<b>Machine Hour Rate (MHR)</b>	<b>XXX</b>

**19. Machine Hours includes:**

- 1. Running Hours**                      **Always Productive or Effective Machine Hours**
- 2. Set up Hours**                        **As per question or assumption**
- 3. Maintenance Hours**                **Always Unproductive Hours**



**CHAPTER 4**

**COST SHEET & UNIT COSTING**

1. **Cost Sheet:** A cost sheet or cost statement is a document which provides a detailed cost information (functional classification).
2. **Proforma Cost Sheet:**

<i>Particulars</i>	<i>Total Cost</i>
<p><b>Direct Material Consumed:</b>  <i>Raw Materials Purchased</i>  <i>Add: Opening stock of Raw Materials</i>  <i>Less: Closing stock of Raw Materials</i>  <i>Add: Carriage Inward</i>  <i>Less: Recovery From Sale of Scrap of Raw Materials</i>  <i>Less: Cost of Abnormal Loss of Raw Materials</i></p>	
<p><b>Direct Wages or Labour or Employee Cost:</b>  <i>Wages and salaries</i>  <i>Allowance and incentives</i>  <i>Payment for overtime</i>  <i>Bonus</i>  <i>Employer's contribution in P.F, E.S.I. etc.</i>  <i>Other benefits</i></p>	
<p><b>Direct Expenses:</b>  <i>Cost of utilities such as power &amp; fuel, steam etc.</i>  <i>Royalty paid/ payable for production or provision of service</i>  <i>Hire charges paid for hiring specific equipment</i>  <i>Fee for technical assistance and know-how</i>  <i>Amortised cost of moulds, patterns, patents etc.</i>  <i>Cost for product/ service specific design or drawing;</i>  <i>Cost of product/ service specific software</i>  <i>Consumable Material</i>  <i>Job Charges paid to job workers</i></p>	
<b>Prime Cost</b>	<b>XXX</b>
<p><b>Factory/Works/Production/Manufacturing Overheads:</b>  <i>Consumable stores and spares</i>  <i>Depreciation of plant and machinery, factory building etc.</i>  <i>Lease rent of production assets</i>  <i>Repair and maintenance of plant and machinery, factory building etc.</i>  <i>Indirect employees cost related with production activities</i>  <i>Drawing and Designing department cost</i>  <i>Insurance of plant and machinery, factory building, stock of RM &amp; WIP etc.</i>  <i>Amortized cost of jigs, fixtures, tooling etc.</i>  <i>Service department cost such as Tool Room, Engineering &amp; Maintenance, and Pollution Control etc.</i>  <i>Carriage on material return</i></p>	
<b>Gross Works Cost/Factory Cost</b>	<b>XXX</b>
<p><i>Add: Opening WIP</i>  <i>Less: Closing WIP</i></p>	
<b>Works/Factory Cost</b>	<b>XXX</b>
<p><i>Add: Quality Control Cost</i></p>	

<p>Add: Research and Development Cost                  Add: Administrative Overheads (relating to production activity)                  Less: Credit for recoveries/Scrap/By-Products                  Add: Packing Cost (Primary)</p> <p style="text-align: right;"><b>Cost of Production</b></p>	XXX
<p>Add: Opening Finished Goods                  Less: Closing Finished Goods</p> <p style="text-align: right;"><b>Cost of Goods Sold</b></p>	XXX
<p><b>Add: Administrative OH (General/not related to production):</b>                  Depreciation and maintenance of, building, furniture etc. of corporate or general management.                  Salary of administrative employees, accountants, directors, secretaries etc.                  Rent, rates &amp; taxes, insurance, lighting, office expenses etc.                  Indirect materials- printing and stationery, office supplies etc.                  Legal charges, audit fees, corporate office expenses like directors' sitting fees, remuneration and commission, meeting expenses etc.</p>	
<p><b>Add: Selling Overheads:</b>                  Salary and wages related with sales department and employees directly related with selling of goods.                  Rent, depreciation, maintenance and other cost related with sales department.                  Cost of advertisement, maintenance of website for online sales, market research etc.                  Expenses for participation in Industrial exhibition</p>	
<p><b>Add: Distribution Overheads:</b>                  Salary and wages of employees engaged in distribution of goods.                  Transportation and insurance costs related with distribution.                  Depreciation, hire charges, maintenance and other operating costs related with distribution vehicles etc.                  Packing Cost (Secondary)</p> <p style="text-align: right;"><b>Cost of Sales</b></p>	XXX
<p>Add: Profit</p>	XXX
<b>Sales</b>	XXX

**Note:**

- **Abnormal Costs:** Any abnormal cost, where it is material and quantifiable, shall not form part of cost of production or acquisition or supply of goods or provision of service. Examples of abnormal costs are:
  - (a) Cost pertaining to or arising out of a pandemic e.g. COVID-19
  - (b) Cost associated with employees due to sudden lockdown.
- **Subsidy or Grant or Incentives:** Any such type of payment received/ receivable are reduced from the cost objects to which such amount pertains.
- **Penalty, Fine, Damages, and Demurrage:** These types of expenses are not form part of cost.
- **Interest, Cash Discount and Other Finance Costs:** Interest, including any payment in the nature of interest for use of non- equity funds and incidental cost that an entity incurs in arranging those funds. Interest and finance charges are not included in cost of production.
- **Income tax, Donations and Bad Debts:** These items are not form part of cost.





**CHAPTER 5**

**JOB & BATCH COSTING**

**1. Job Costing:**

- In this method costs are collected and accumulated for specific jobs/work order
- Each job is treated as a separate entity for the purpose of costing
- This method is used to ascertain cost and profit of each job and takes into account the cost of materials, employees and overhead etc.

**2. Proforma Job Cost Sheet:**

<i>Particulars</i>	<i>Total Cost</i>
<i>Direct Material Consumed</i> <i>Direct Wages or Labour or Employee Cost</i> <i>Direct Expenses</i>	
<b>Prime Cost</b>	<b>XXX</b>
<i>Factory/Works/Production/Manufacturing Overheads</i> <i>Add: Opening WIP (if any)</i>	
<b>Works/Factory Cost</b>	<b>XXX</b>
<i>Add: Administrative Overheads (relating to production activity)</i>	
<b>Cost of Production/Cost of Goods Sold</b>	<b>XXX</b>
<i>Add: Administrative OH (General/not related to production)</i> <i>Add: Selling Overheads</i> <i>Add: Distribution Overheads</i>	
<b>Cost of Sales</b>	<b>XXX</b>
<i>Add: Profit</i>	<b>XXX</b>
<b>Sales</b>	<b>XXX</b>

**3. Valuation of Closing WIP:**

<i>Particulars</i>	<i>Total Cost</i>
<i>Direct Material Consumed</i> <i>Direct Wages or Labour or Employee Cost</i> <i>Direct Expenses</i>	
<b>Prime Cost</b>	<b>XXX</b>
<i>Factory/Works/Production/Manufacturing Overheads</i> <i>Add: Opening WIP (if any)</i>	
<b>Value of Closing WIP</b>	<b>XXX</b>

**4. Batch Costing:**

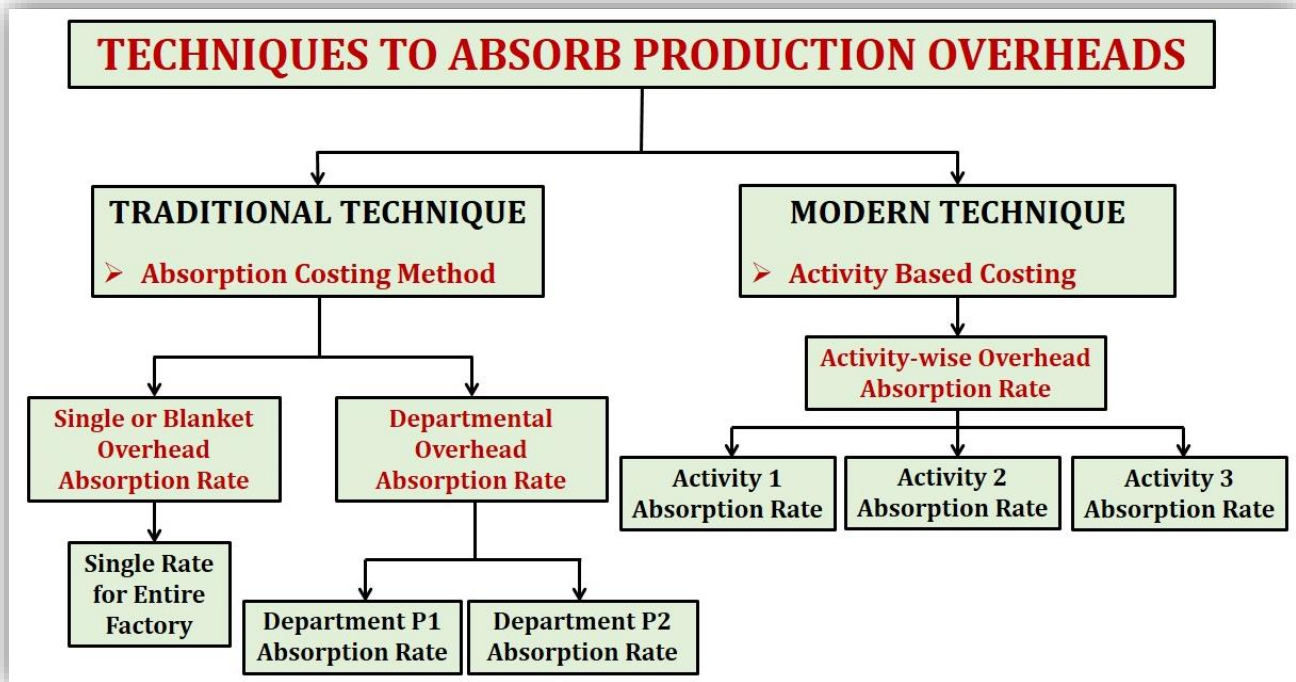
- *Batch costing is a type of specific order costing where articles are manufactured in predetermined lots, known as batch*
- *This method is used to ascertain cost and profit of specific batch or units in specific batch*

**5. Economic Batch Quantity (EBQ):**

$$EBQ = \sqrt{\frac{2DS}{C}}$$

Where,

<i>D</i>	=	<i>Annual demand for the product</i>
<i>S</i>	=	<i>Setting up cost per batch</i>
<i>C</i>	=	<i>Carrying cost per unit of production</i>

1. *Traditional Absorption Costing V/S Activity Based Costing:*

2. **Activity Based Costing:** Activity Based Costing is an accounting methodology that assigns costs to activities rather than products or services. This enables resources & overhead costs to be more accurately assigned to products & services that consume them. ABC is a technique which involves identification of cost with each cost driving activity and making it as the basis for apportionment of costs over different cost objects/ jobs/ products/ customers or services.
3. **Activity:** An event that incurs cost.
- Like:* Packing and forwarding, inspection and testing etc.
4. **Cost Pool:** It represents a group of various individual cost items. It consists of costs that have same cause and effect relationship or Group of various individual cost items related to any specific activity.
- Like:* Group of various cost items related to packing and forwarding.
5. **Cost Driver:** It is a factor that causes a change in the cost of an activity. There are two categories of cost driver:
- Resource Cost Driver:** It is a measure of the quantity of resources consumed by an activity. It is used to assign the cost of a resource to an activity or cost pool.
  - Activity Cost Driver:** It is a measure of the frequency and intensity of demand, placed on activities by cost objects. It is used to assign activity costs to cost objects.
6. **Cost Object:** It is an item for which cost measurement is required e.g. a product or a customer.

7. Stages in Activity Based Costing (ABC):

- a) Identify the different activities within the organisation,
- b) Relate the overheads to the activities (creates 'Cost Pools' or 'Cost Buckets').
- c) Determine the activity cost drivers,
- d) Calculate activity cost driver rates for each activity,
- e) Absorb Overheads on the basis of Cost Driver rate.

8. Proforma Statement Showing Unit Cost and Total Cost Using ABC Method:

Particulars	(₹)
Direct Material Cost	XXX
Direct Labour Cost	XXX
Direct Expenses	XXX
<b>Prime Cost</b>	<b>XXX</b>
Production Overhead:	
Activity 1 say Material procurement @ XXX per order	XXX
Activity 2 say Maintenance @ XXX per hour	XXX
Activity 3 say Set up @ per set	XXX
<b>Total Cost</b>	<b>XXX</b>
÷ Number of units	XXX
<b>Cost per unit</b>	<b>XXX</b>

9. Proforma Statement Showing Determination of Cost Driver Rate:

Activity Cost Pool	Amount	Cost Driver	Volume	Cost Driver Rate
Activity 1 Material procurement	XXX	Material orders	XXX	XXX per order
Activity 2 Maintenance	XXX	Maintenance hours	XXX	XXX per hour
Activity 3 Set up	XXX	No. of Set-ups	XXX	XXX per set-up

**1. Direct Expenses:** Expenses other than direct material cost and direct employee cost, which are incurred to manufacture a product or for provision of service and can be directly traced in an economically feasible manner to a cost object. The following costs are examples for direct expenses:

- (a) Royalty paid/ payable for production or provision of service;
- (b) Hire charges paid for hiring specific equipment;
- (c) Cost for product/ service specific design or drawing;
- (d) Cost of product/ service specific software;
- (e) Other expenses which are directly related with the production of goods or provision of service etc.

**2. Measurement of Direct Expenses:** The direct expenses are measured at invoice or agreed price net of rebate or discount but includes duties and taxes (for which input credit not available), commission and other directly attributable costs.

In case of sub-contracting, where goods are get manufactured by job workers independent of the principal entity, are measured at agreed price. Where the principal supplies some materials to the job workers, the value of such materials and other incidental expenses are added with the job charges paid to the job workers.

**3. Treatment of Direct Expenses:** Direct Expenses form part of the prime cost for the product or service to which it can be directly traceable and attributable. In case of lump-sum payment or onetime payment, the cost is amortised over the estimated production volume or benefit derived.

If the expenses incurred are of insignificant amount i.e. not material, it can be treated as part of overheads.



**CHAPTER 8**

**SERVICE COSTING**

1. **Operating costing:** This method is used to calculate cost and determine price of one service unit.
2. **In CA intermediate ICAI covers following services:**
  - Transport service
  - Hotel and lodges service
  - Restaurant service
  - Hospital service
  - Educational institute
  - Information technology (it) and it enabled services (ites)
  - Toll plaza
  - Financial institutes
  - Insurance and
  - Power generation service.
3. **Transport Service:** Cost and fare per passenger-km. and ton-km (Bus, Taxi and Truck etc.)

**Proforma Operating Cost Sheet for Transport Service**

Particulars	Amount
<b>(A) Standing Charges or Fixed Cost:</b>	
Depreciation (life related to period, like: 5 years)	XXX
Insurance	XXX
License	XXX
Salary of manager, driver, conductor, cleaner etc.	XXX
Taxes	XXX
Permit fee	XXX
Garage rent	XXX
Stationery	XXX
Administration expenses, General overheads etc.	XXX
Any other fixed cost	XXX
<b>Total (A)</b>	<b>XXX</b>
<b>(B) Running Charges or Variable Cost:</b>	
Diesel/petrol/CNG/Electricity for EV	XXX
Lubricants, oil etc.	XXX
Depreciation (life related to activity, like: 50,000 kms)	XXX
Commission	XXX
Any other variable cost	XXX
<b>Total (B)</b>	<b>XXX</b>
<b>(C) Maintenance Charges or Semi Variable Cost:</b>	
Repairs and maintenance	XXX
Tyres	XXX
Spares etc.	XXX
<b>Total (C)</b>	<b>XXX</b>

<b>Total Operating Cost (A + B + C)</b>	<b>XXX</b>
<b>Add: profit</b>	<b>XXX</b>
<b>Net Collections or Taking</b>	<b>XXX</b>
<b>Add: Indirect taxes (Passenger tax, GST etc.)</b>	<b>XXX</b>
<b>Gross Collections or Taking</b>	<b>XXX</b>
<b>÷ Total passenger-kms or ton-kms</b>	<b>XXX</b>
<b>Fare/Charges for Per Passenger-Km or Ton-Kms</b>	<b>XXX</b>

**Notes:**

- a. Depreciation when life of asset is related with activity level (like: 50,000 kms) : **Variable**
- b. Depreciation when life of asset is not related with activity level : **Fixed**
- c. Tyres or battery '**replacement after 5 years**'
  - Step 1:** Calculate lifetime cost of replacement of tyres or battery (no replacement at the end of useful life of asset)
  - Step 2:** Calculate amortization cost of tyres or battery for accounting period.
- d. Service cost at '**every completed 5,000 kms.**'
  - Step 1:** Calculate number of complete 5,000 kms during the accounting period.
  - Step 2:** Calculate service cost = No of complete 5,000 kms. × Cost per service
4. **Differential Fare:** In case of different charges for different categories of service, concept of differential fare is applied on the basis of equivalent units of service.
5. **Absolute ton-km or Weighted average ton-km** =  $D1 \times W1 + D2 \times W2 + D3 \times W3 \dots\dots\dots$
6. **Commercial ton-km or Simple average ton-km** = **Total Distance × Average Weight**
  - During the computation of average weight, zero weight is ignored while distance is considered.
7. **Hotel and Lodge Service:** Cost and fare per room day.
  - Total operating cost **without** any classification
8. **Hospital Service:** Cost and charges per patient day or per patient visit or X Ray, CT Scan etc.
  - Total operating cost is classified into **fixed** and **variable** cost
9. **IT and IT Enabled Services (ITES):** Cost and charges per Project.
  - Total operating cost **without** any classification
  - Generally overheads are absorbed on the basis of salary
10. **Toll Plaza and Toll Roads:** Cost of the project, Cost per km and toll charges per vehicle.
  - Total operating cost **without** any classification
  - **BOT:** Build-Operate-Transfer
  - **Concession Period:** Period within which private organization can recover toll



**11. Educational Institutes:** Cost and fees per batch, per student.

- Total operating cost **without** any classification

**12. Insurance Service:** Cost and charges per policy.

**Proforma Operating Cost Sheet for Insurance Service**

<i>Particulars</i>	<i>Amount</i>
<b>(a) Product Development, Marketing and Sales support:</b>	
Policy development cost	XXX
Cost of marketing of the policy	XXX
Sales support expenses	XXX
<b>Total (A)</b>	<b>XXX</b>
<b>(b) Operations:</b>	
Policy issuance cost	XXX
Policy servicing cost	XXX
Claims management cost	XXX
<b>Total (B)</b>	<b>XXX</b>
<b>(c) IT Cost:</b>	
IT cost	XXX
<b>Total (C)</b>	<b>XXX</b>
<b>(d) Support functions:</b>	
Postage and logistics	XXX
Facilities cost	XXX
Employees cost	XXX
Office administration cost	XXX
<b>Total (D)</b>	<b>XXX</b>
<b>Total Cost (A + B + C + D)</b>	<b>XXX</b>
<b>÷ Number of Policies</b>	<b>÷ XXX</b>
<b>Cost Per Policy</b>	<b>XXX</b>

**13. Financial Institutions:** Cost and fees per loan application, credit card etc.

- Total operating cost **without** any classification

**14. Power House Service:** Cost and charges per KWH.

- Total operating cost is classified into **fixed** and **variable** cost

**15. Service Cost Unit:** To compute the Service cost, it is necessary to understand the unit for which the cost is to be computed. All the costs incurred during a period are collected and analyzed and then expressed in terms of a cost per unit of service.

$$\text{Operating cost per unit} = \text{Total cost} \div \text{Service units}$$



*Service units can be classified as:*

- **Single service unit:** Only one measurement unit is used to know the cost of service or operation.
- **Composite service unit:** Sometime two measurement units are combined together to know the cost of service or operation. These are called composite cost units. For example, a public transportation undertaking would measure the operating cost per passenger per kilometre.

*Examples of Composite units are Ton- km., Quintal- km, Passenger-km., Patient-day etc.*

<i>Service Industry</i>	<i>Unit of Cost (examples)</i>
<i>Transport Services</i>	<i>Passenger-km., (In public transportation) Quintal-km., or Ton-km. (In goods carriage)</i>
<i>Electricity Supply service</i>	<i>Kilowatt-hour (KWH)</i>
<i>Hospital</i>	<i>Patient per day, room per day or per bed, per operation etc.</i>
<i>Canteen</i>	<i>Per item, per meal etc.</i>
<i>Cinema</i>	<i>Per ticket</i>
<i>Hotels</i>	<i>Guest Days or Room Days</i>
<i>Bank or Financial Institutions</i>	<i>Per transaction, per statement, per application, per project etc.</i>
<i>Educational Institutes</i>	<i>Per course, per student, per batch, per lecture etc.</i>
<i>IT &amp; ITES</i>	<i>Cost per project, per module etc.</i>
<i>Insurance</i>	<i>Per policy, per claim etc.</i>



**CHAPTER 9**

**PROCESS & OPERATION COSTING**

1. **Process Costing** is a method of costing used in industries where the material has to pass through two or more processes for being converted into a final product. It is defined as “a method of Cost Accounting whereby costs are charged to processes or operations and averaged over units produced”. A separate account for each process is opened and all expenditure pertaining to a process is charged to that process account. Such type of costing method is useful in the manufacturing of products like steel, paper, medicines, soaps, chemicals, rubber, vegetable oil, paints, varnish etc. where the production process is continuous and the output of one process becomes the input of the following process till completion.

2. **Normal Process Account:**

**Step 1:** Prepare **separate process account** by debiting all direct cost and apportionable and recoverable expenses.

**Step 2:** **Credited** process account with **normal loss** units and their scrap value.

**Step 3:** Calculate normal cost per unit (NCPU)

$$= \frac{\text{Total Cost} - \text{Sale Value of Normal Loss Units}}{\text{Total Units} - \text{Normal Loss Units}}$$

**Step 4:** **Valued** actual output and abnormal gain or loss **as per NCPU**.

**Step 5:** Prepare normal loss, abnormal loss, abnormal gain and profit and loss A/C.

**Proforma Process Account**

Particulars	Units	₹	Particulars	Units	₹
To Process A/C (Previous)	XXX	XXX	By Normal loss	XXX	XXX
To Units introduced	XXX	XXX	By Process A/C (Next) or	XXX	XXX
To Sundry materials		XXX	Finished goods A/C or		
To Labour		XXX	Costing P/L A/C		
To Direct expenses		XXX	By Abnormal loss (If any)	XXX	XXX
To Indirect expenses		XXX		XXX	XXX
To Abnormal Gain (If any)		XXX			
	XXX	XXX			

**Proforma Normal Loss Account (Expected or Standard Loss/Kabadi wale ka A/c)**

Particulars	Units	₹	Particulars	Units	₹
To Process I A/C	XXX	XXX	By Cash A/C:		
To Process II A/C	XXX	XXX	Process I	XXX	XXX
To Process III A/C	XXX	XXX	Process II	XXX	XXX
			Process III	XXX	XXX
			By Abnormal gain A/C	XXX	XXX
	XXX	XXX		XXX	XXX

**Proforma Abnormal Loss Account (Unexpected Loss/ Good units bani kabad)**

Particulars	Units	₹	Particulars	Units	₹
To Process I A/C	XXX	XXX	By Cash A/C:		
To Process II A/C	XXX	XXX	Process I	XXX	XXX
			Process II	XXX	XXX
			By Costing P/L A/C		XXX
	XXX	XXX		XXX	XXX

**Abnormal Gain Account (Unexpected Gain/ Kabad bana Good units)**

Particulars	Units	₹	Particulars	Units	₹
To Normal loss A/C	XXX	XXX	By Process II A/C	XXX	XXX
To Costing P/L A/C		XXX			
	XXX	XXX		XXX	XXX

**Costing Profit And Loss Account**

Particulars	Units	₹	Particulars	Units	₹
To Process III A/C	XXX	XXX	By Sales A/C	XXX	XXX
To Selling & Admin exps.		XXX	By Abnormal gain A/C		XXX
To Abnormal loss A/C		XXX			
To Profit (b.f.)		XXX			
	XXX	XXX		XXX	XXX

**3. Royalty on output or units produced:**

**Step 1:** Debit royalty expense in process account on **standard units to be produced**.

**Step2:** Excess or Less payment of royalty expense is shown in **Abnormal Gain or Loss account**.

**Step3:** Actual payment of royalty is shown in **Royalty A/c**.

**4. Process A/c with By Product:**

**Step 1:** Credit Process A/c by **NRV of By Product**. (NRV = Sales Value – Selling Expenses – Further Cost)

**Step2:** Calculate NCPU = 
$$\frac{\text{Total Cost} - \text{Sale Vale of Normal Loss Units} - \text{NRV of By Product}}{\text{Total Units} - \text{Normal Loss Units} - \text{By Product Units}}$$

**5. Statement of Profit when process department sells a portion of output in market and transfer balance to next process department:**

**Situation 1: Process department is not a responsibility centre (Preferred as per ICAI):**

- Transfer units to next process on the basis of **NCPU**
- Transfer units to Costing P/L A/c on the basis of **NCPU**
- Sale of units and profit are shown in **Costing P/L A/c**



**Situation 2: Process department is a responsibility centre (not recommended):**

- **Transfer units to next process on the basis of NCPU**
- **Sale of units and profit are shown in Process A/c**
- **Transfer profit to Costing P/L A/c**

$$6. \text{ Input Output Ratio} = \frac{\text{Input of Raw Materials in Process Department}}{\text{Output of Units completed from Process department}} \times 100$$

**7. Equivalent Production (Closing WIP Only)**

**Equivalent production:** This concept is used in case of WIP units in process.

**Step 1:** Prepare process account as usual.

**Step 2:** Prepare statement of equivalent production.

**Step 3:** Prepare statement of cost.

**Step 4:** Prepare statement of apportionment of cost or statement of evaluation (in case of abnormal gain or loss).

**Step 5:** Do complete process account.

**Proforma Statement of Equivalent Production**

Particulars	Units	Materials		Labour		Overhead	
		%	E.U.	%	E.U.	%	E.U.
Units introduced:							
Normal loss	XXX	-	-	-	-	-	-
Units completed	XXX	XX	XXX	XX	XXX	XX	XXX
Closing WIP	XXX	XX	XXX	XX	XXX	XX	XXX
Abnormal loss (If any)	XXX	XX	XXX	XX	XXX	XX	XXX
Less: Abnormal gain (If any)	(XXX)	XX	(XXX)	XX	(XXX)	XX	(XXX)
<b>Total</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>

**If nothing is specified in the question:**

- % of completion of Abnormal loss units 100%
- % of completion of WIP units:
  - Materials 100%
  - Labour 50%
  - Overheads 50%
- % of material components 100%

**Always:**

- % of completion of Finished goods 100%
- % of completion of Abnormal gain 100%
- % of completion of Normal loss 0%
- % of completion of units received from previous process 100%

**Proforma Statement of Cost**

Elements	Cost	Eq. Units	Cost per unit
Materials	XXX (Net of Scrap of Normal Loss Units)	XXX	XXX
Labour	XXX	XXX	XXX
Overheads	XXX	XXX	XXX
<b>Total Cost Per Unit</b>			<b>XXX</b>

- Sale value of **scrap** of normal loss units is deducted from the **cost of materials 1** in case of two materials

**Proforma Statement of Evaluation**

Particulars	Elements	Equivalent units	Cost per unit	Total (₹)
1. Units completed	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
				<b>XXX</b>
2. Closing WIP	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
				<b>XXX</b>
3. Abnormal loss	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX
				<b>XXX</b>
4. Abnormal gain	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX
				<b>XXX</b>

- If any item of cost is **directly related** to completed units then cost of such items should be directly **added to valuation of completed units** (Like: Packing material cost related to completed units).

**8. Opening WIP with FIFO method:**

**Step 1:** Prepare process account as usual.

**Step 2:** Prepare statement of equivalent production

- First convert opening WIP units into units completed (**Show balance work only**)
- Convert current units into balance completed units, closing WIP, normal loss, abnormal loss or abnormal gain

**Step 3:** Prepare statement of cost (**ignore cost of opening WIP**).

**Step 4:** Prepare statement of apportionment of cost or statement of evaluation (**Add cost of opening WIP directly to value of completed units**).

**Step 5:** Do complete process account.



**Proforma Statement of Equivalent Production (FIFO Method)**

Particulars	Units	Materials		Labour		Overhead	
		%	E.U.	%	E.U.	%	E.U.
<b>Opening units used for:</b>							
Completed units	XXX	XX	XXX	XX	XXX	XX	XXX
<b>Current units used for:</b>							
Balance completed units	XXX	XX	XXX	XX	XXX	XX	XXX
Normal loss	-	-	-	-	-	-	-
Closing WIP	XXX	XX	XXX	XX	XXX	XX	XXX
Abnormal loss (If any)	XXX	XX	XXX	XX	XXX	XX	XXX
<b>Less: Abnormal gain (If any)</b>	<b>(XXX)</b>	<b>XX</b>	<b>(XXX)</b>	<b>XX</b>	<b>(XXX)</b>	<b>XX</b>	<b>(XXX)</b>
<b>Total</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>

**Proforma Statement of Cost**

Elements	Cost (Ignore cost of opening WIP)	Eq. Units	Cost per unit
Materials	Current Material Cost – Scrap of Normal Loss Units	XXX	XXX
Labour	Current Labour Cost	XXX	XXX
Overheads	Current Overheads Cost	XXX	XXX
<b>Total Cost Per Unit</b>			<b>XXX</b>

**Proforma Statement of Evaluation**

Particulars	Elements	Equivalent units	Cost per unit	Total (₹)
<b>1. Units completed</b>	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
<b>Add: Cost of Opening WIP</b>				<b>XXX</b>
<b>2. Closing WIP</b>	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
<b>3. Abnormal loss</b>	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX
<b>4. Abnormal gain</b>	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX

**9. Opening WIP with Average method:**

**Step 1:** Prepare process account as usual.

**Step 2:** Prepare statement of equivalent production (considering total work).

**Step 3:** Prepare statement of cost (add cost of opening WIP to current period cost element wise).

**Step 4:** Prepare statement of apportionment of cost or statement of evaluation.

**Step 5:** Do complete process account.

**Proforma Statement of Equivalent Production (Average Method)**

Particulars	Units	Materials		Labour		Overhead	
		%	E.U.	%	E.U.	%	E.U.
Normal loss	XXX	-	-	-	-	-	-
Units completed	XXX	XX	XXX	XX	XXX	XX	XXX
Closing WIP	XXX	XX	XXX	XX	XXX	XX	XXX
Abnormal loss (If any)	XXX	XX	XXX	XX	XXX	XX	XXX
Less: Abnormal gain (If any)	(XXX)	XX	(XXX)	XX	(XXX)	XX	(XXX)
<b>Total</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>	<b>-</b>	<b>XXX</b>

**Proforma Statement of Cost**

Elements	Total Cost (Current Cost + Cost of opening WIP)	Eq. Units	Cost per unit
Materials	Current + Opening – Scrap of Normal Loss Units	XXX	XXX
Labour	Current + Opening	XXX	XXX
Overheads	Current + Opening	XXX	XXX
<b>Total Cost Per Unit</b>			<b>XXX</b>

**Proforma Statement of Evaluation**

Particulars	Elements	Equivalent units	Cost per unit	Total (₹)
1. Units completed	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
				<b>XXX</b>
2. Closing WIP	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overhead	XXX	XXX	XXX
				<b>XXX</b>
3. Abnormal loss	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX
				<b>XXX</b>
4. Abnormal gain	Materials	XXX	XXX	XXX
	Labour	XXX	XXX	XXX
	Overheads	XXX	XXX	XXX
				<b>XXX</b>

**Note:** If nothing is specified in respect of method of valuation then:

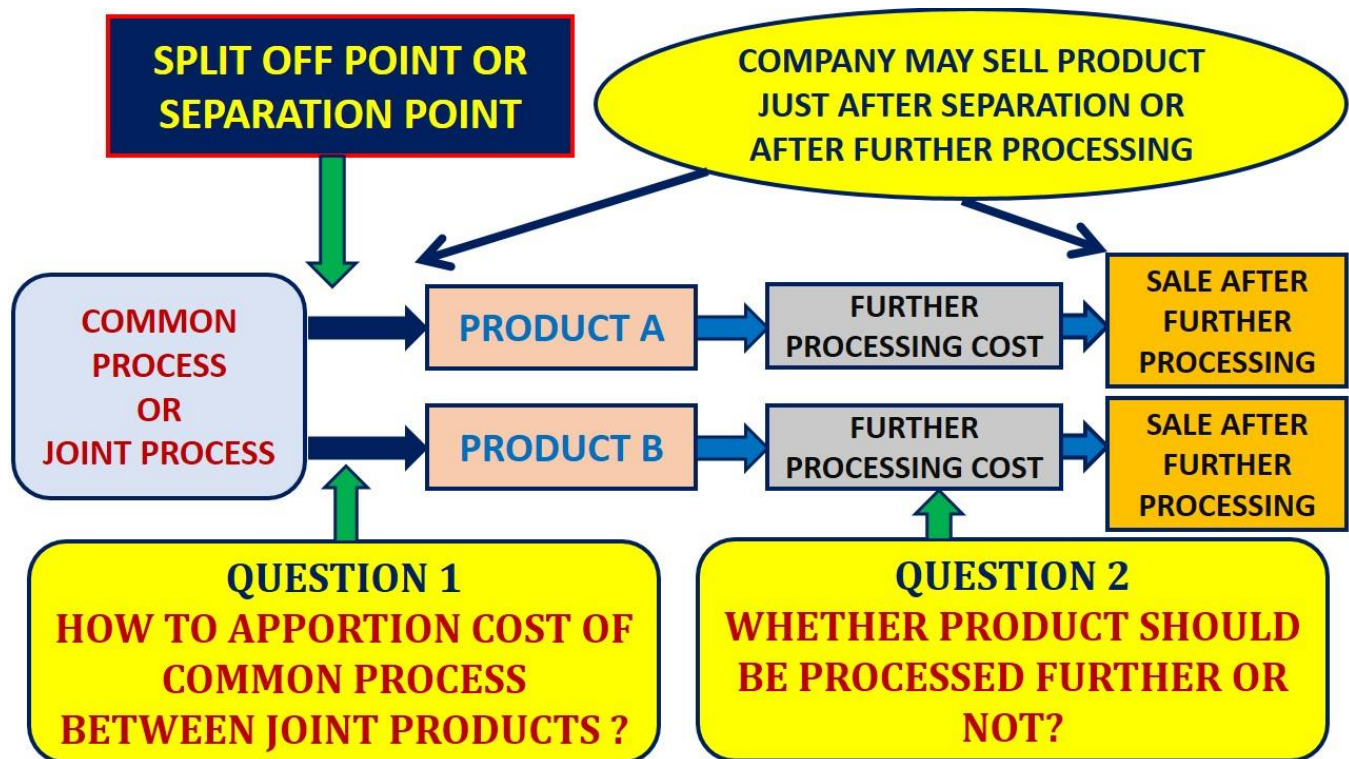
- If % of opening WIP is given : Use FIFO Method
- If % of opening WIP is not given : Use Weighted Average Method

**10. Inter Process Profit:**

- Process department **transfers** its output to **next process** department on **cost plus profit** basis.
- **Profit** earned by each process department is used to **evaluate performance** of concern process department



1. **Joint Products:** Two or more products of **equal importance**, produced, **simultaneously** from the **same process**, with each having a **significant relative sale value** are known as joint products. For example, in the oil industry, gasoline, fuel oil, lubricants, paraffin, coal tar, asphalt and kerosene are all produced from crude petroleum. These are known as joint products.
2. **By-Products:** These are defined as “products recovered from **material discarded** in a main process, or from the production of some major products, where the material value is to be considered at the time of severance from the main product.” Thus by-products **emerge** as a result of processing **operation of another product** or they are **produced from the scrap or waste** of materials of a process. In short a by-product is a **secondary or subsidiary product** which emanates as a result of manufacture of the main product. For example glycerin obtained in the manufacture of soap.
3. **Co Products:** Co-products may be defined as two or more products which are **contemporary** but do **not emerge necessarily from the same material in the same process**. For instance, wheat and gram produced in two separate farms with separate processing of cultivation are the co-products.
4. **Understanding of Chapter:**





**5. Methods of apportionment of joint cost:**

- **Physical unit method:** Apportionment of joint cost on the basis of **physical units or output at split off point**.

**Statement Showing Apportionment of Joint Cost  
(Physical Units Method)**

<i>Particulars</i>	<i>Product A</i>	<i>Product B</i>
<i>Physical units or output at split of point</i>	<i>XXX</i>	<i>XXX</i>
<i>Joint Cost in proportion of Physical units</i>	<i>XXX</i>	<i>XXX</i>

- **Average unit cost method:** Apportionment of joint cost on the basis of **average cost per unit**.

**Step 1: Calculate Average unit cost**

$$\text{Average unit cost} = \frac{\text{Total Joint Cost}}{\text{Total Units at Separation Point}}$$

**Step 2: Apportion joint cost on the basis of average unit cost**

- **Market value at separation point method:** Apportionment of joint cost on the basis of **market value at separation point net of selling expenses at split off point (if any) of total output of products**.

**Statement Showing Apportionment of Joint Cost  
(Market Value at Separation Point Method)**

<i>Particulars</i>	<i>Product A</i>	<i>Product B</i>
<i>Market value at separation point of total output at separation point</i>	<i>XXX</i>	<i>XXX</i>
<i>Less: Selling expenses at separation point</i>	<i>(XXX)</i>	<i>(XXX)</i>
<i>Net Market value at separation point</i>	<i>XXX</i>	<i>XXX</i>
<i>Joint Cost in proportion of Net MV at separation point</i>	<i>XXX</i>	<i>XXX</i>

- **Market value after further processing method:** Apportionment of joint cost on the basis of **market value after further processing of total output of products**.

**Statement Showing Apportionment of Joint Cost  
(Market Value After Further Processing Method)**

<i>Particulars</i>	<i>Product A</i>	<i>Product B</i>
<i>Market value after further processing of total output after further processing</i>	<i>XXX</i>	<i>XXX</i>
<i>Joint Cost in proportion of MV after further processing</i>	<i>XXX</i>	<i>XXX</i>



- **Net realisable value (NRV) method/ NRV at split off point method:** Apportionment of joint cost on the basis of net realisable value at split off point of total output of products.

$$\text{NRV} = \text{Sale value after further processing} - \text{further processing cost} - \text{selling expenses after further processing if any}$$

**Statement Showing Apportionment of Joint Cost  
(NRV Method)**

Particulars	Product A	Product B
Market value after further processing of total output after further processing	XXX	XXX
Less: Further processing cost	(XXX)	(XXX)
Less: Selling expenses after further processing	(XXX)	(XXX)
<b>Net Realizable Value</b>	XXX	XXX
<b>Joint Cost in proportion of NRV</b>	XXX	XXX

- **Contribution margin method:**

**Step 1:** Apportionment of variable joint cost on the basis of physical units.

**Step 2:** Apportionment of fixed joint cost on the basis of contribution.

**Note:** Fixed cost will **not** be apportioned to product having zero or negative contribution.

**Statement Showing Apportionment of Joint Cost  
(Contribution Margin Method)**

Particulars	Product A	Product B
Physical units or output	XXX	XXX
<b>Variable Joint Cost in proportion of Physical units</b>	XXX	XXX
Market value of total output	XXX	XXX
Less: Variable joint cost	(XXX)	(XXX)
<b>Contribution</b>	XXX	XXX
<b>Fixed Joint Cost in proportion of Positive contribution</b>	XXX	XXX
<b>Total Joint Cost (Variable joint Cost + Fixed Joint Cost)</b>	XXX	XXX

➤ **Reverse cost method:**

**Statement Showing Apportionment of Joint Cost  
(Reverse Cost Method)**

Particulars	Product A	Product B
Sale value after further processing of total output after further processing	XXX	XXX
Less: Profit	(XXX)	(XXX)
Less: Selling expenses after further processing	(XXX)	(XXX)
Less: Further cost	(XXX)	(XXX)
<b>Joint Cost</b>	<b>XXX</b>	<b>XXX</b>

**Note:** If total joint cost mismatched with apportioned joint cost then **apportion actual joint cost in proportion of apportioned mismatched joint cost.**

➤ **Constant gross margin method:**

**Step 1:** First calculate constant percentage of profit:

$$\text{Percentage of Profit} = \frac{\text{Total Profit}}{\text{Total Sales}} \times 100$$

**Step 2:** Use reverse cost method to find out joint cost of each product.

**6. Further Processing Decision:** Decision in respect of further processing of any product

$$\text{Incremental Revenue (IR)} = \text{Sale value of total output after further processing} - \text{Sale value of total output at separation Point}$$

$$\text{Incremental Cost (IC)} = \text{Further processing cost} + \text{Selling expenses after further processing} - \text{Selling expenses at split off point}$$

Situation	Further Processing Decision
1. IR > IC	Yes
2. IR = IC	Indifferent
3. IR < IC	No

**7. Treatment of by product:**

**Situation 1:** By product has commercial use: treat it as joint product.

**How to trace:**

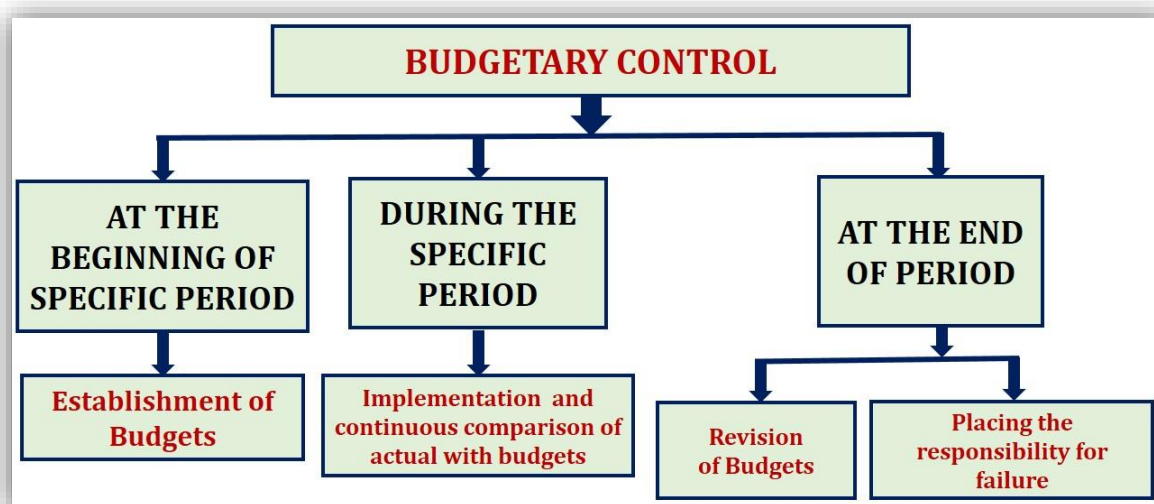
- When joint cost is also apportioned to by-product
- When By-product also earns profit

**Situation 2:** By product don't have commercial use:

**Step 1:** Deduct sale value or NRV of by-product from the joint cost.

**Step 2:** Apportion net joint cost among remaining main products.

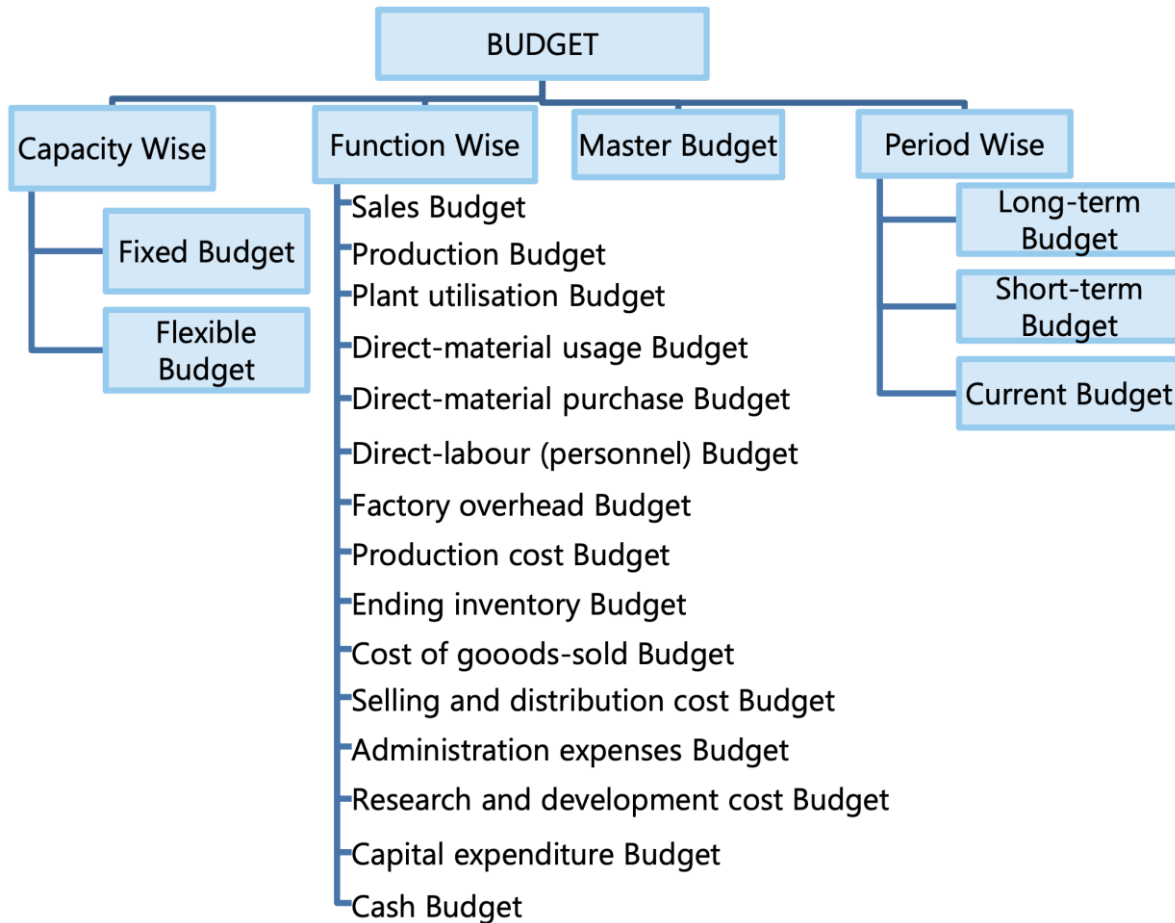
1. **Budget:** A budget is an instrument of management used as an aid in the planning, programming and control of business activity. The Chartered Institute of Management Accountants (CIMA) UK defines budget as “A financial and/or quantitative statement, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective. It may include income, expenditure and employment of capital” The budget is a blue- print of the projected plan of action expressed in quantitative terms for a specified period of time.
2. **Budgetary Control:** It is the system of management control and accounting in which all the operations are forecasted and planned in advance to the extent possible and the actual results compared with the forecasted and planned results.



3. **Difference between Fixed and Flexible budget:**

S.N.	Fixed Budget	Flexible Budget
1	It does not change with actual volume of activity achieved. Thus it is rigid.	It can be re-casted on the basis of activity level to be achieved. Thus it is not rigid.
2	It operates on one level of activity and under one set of conditions.	It consists of various budgets for different level of activity.
3	If the budgeted and actual activity levels differ significantly, then cost ascertainment and price fixation do not give a correct picture.	It facilitates the cost ascertainment and price fixation at different levels of activity.
4	If the budgeted and actual activity levels differ significantly, then the aspects like cost ascertainment and price fixation do not give a correct picture.	Flexible budgeting at different levels of activity facilitates the ascertainment of cost, fixation of selling price and tendering of quotations.
5	Comparisons of actual and budgeted targets are meaningless particularly when there is difference between two levels.	It provided meaningful basis of comparison of actual and budgeted targets.

4. **Types of Budget:**



5. **Zero Based Budgeting (ZBB):**

- *Zero-based Budgeting (ZBB) is defined as a method of budgeting which requires each cost element to be specifically justified, though the activities to which the budget relates are not being undertaken for the first time. The cost of each activity has to be justified and without justification, the budget allowance is zero.*
- *ZBB is an activity based budgeting system where budgets are prepared for each activities rather than functional department.*
- *In case of corporate entities, ZBB is best suited for discretionary costs like research and development cost, training programmes, advertisement etc.*

6. **Performance Budgeting (PB):** Performance budgeting requires fixing of the responsibility of each executive in organisation and the continuous appraisal of his performance. It is, therefore, considered to be synonymous with responsibility accounting. A performance budget is one which presents the purposes and objectives for which funds are required.

7. **Variable Cost Per Unit** =  $\frac{\Delta \text{in Cost}}{\Delta \text{in Units}}$

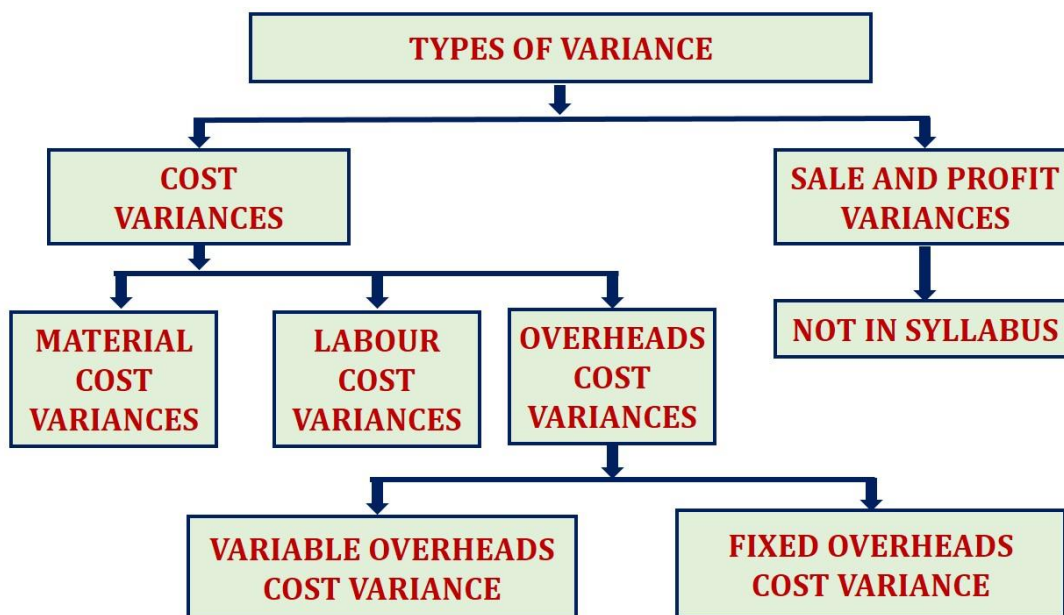
8. **Fixed Cost** = *Total Cost – Variable Cost*



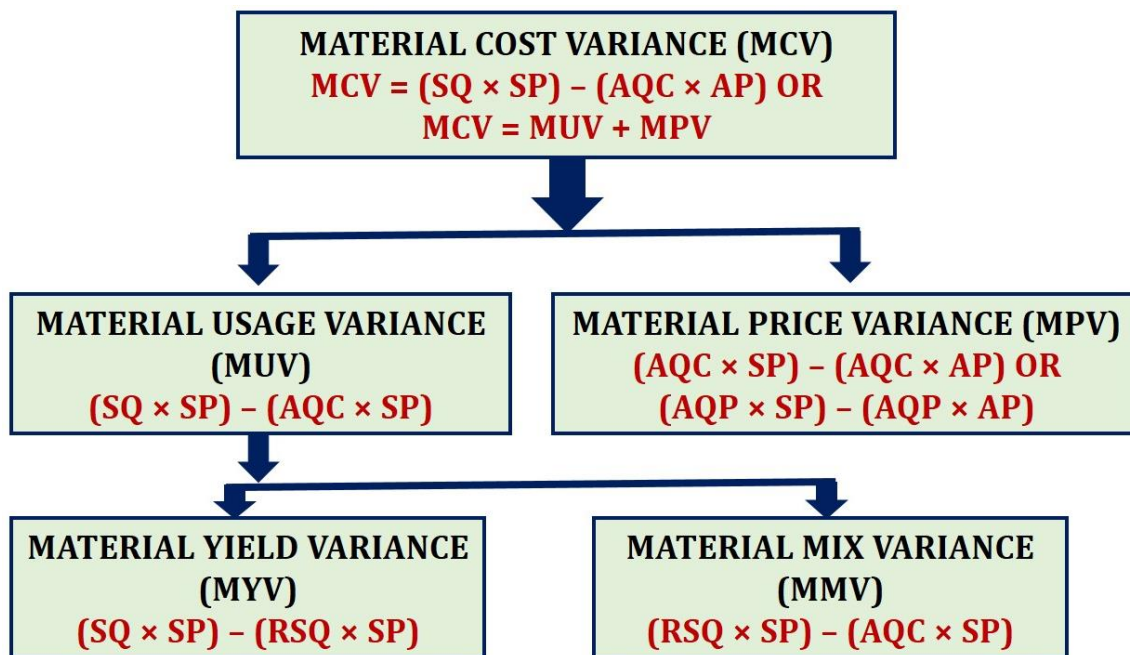
**CHAPTER 12**

**STANDARD COSTING**

1. **Standard Costing:** Standard costing is a method of cost and management accounting which starts with setting of standards and ends with reporting of variances to management for taking corrective actions. The Official Terminology of CIMA, London defines standard costing as “Control technique that reports variances by comparing actual costs to pre-set standards so facilitating action through management by exception.”
2. **Cost Variance:** Difference between actual cost and standard cost to produce actual output.
3. **Types of Variance:**



4. **Material Variances:**



- (a) **Material Cost Variance**  
(MPV Based on consumption) =  $(SQ \times SP) - (AQC \times SP)$
- Material Cost Variance**  
(MPV Based on purchase) =  $MUV + MPV$  or  $MYV + MMV + MPV$
- (b) **Material Usage Variance** =  $(SQ \times SP) - (AQC \times SP)$  or  $MYV + MMV$
- (c) **Material Yield Variance** =  $(SQ \times SP) - (RSQ \times SP)$  or  $MUV - MMV$
- (d) **Material Mix Variance** =  $(RSQ \times SP) - (AQC \times SP)$  or  $MUV - MYV$
- (e) **Material Price Variance**  
(Based on consumption) =  $(AQC \times SP) - (AQC \times AP)$  or  $MCV - MUV$
- (f) **Material Price Variance**  
(Based on purchase) =  $(AQP \times SP) - (AQP \times AP)$  or  $MCV - MUV$

Here,

**SQ (Standard Quantity):** Standard quantity of raw material consumption to produce actual output.

**AQP (Actual Quantity Purchased):** Actual quantity of raw materials purchased.

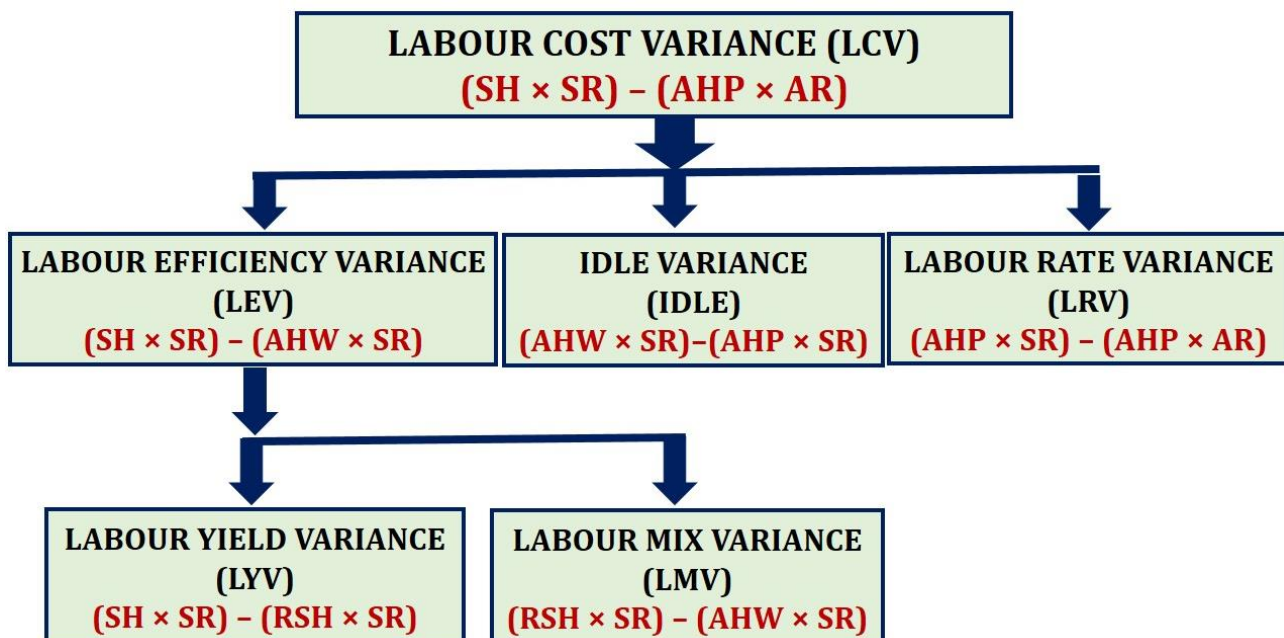
**AQC (Actual Quantity Consumed):** Actual quantity of raw materials consumed to produce actual output.

**RSQ (Revised Standard Quantity):** Actual quantity of raw materials consumed in standard proportion.

**SP (Standard Price):** Standard purchase price of raw materials.

**AP (Actual Price):** Actual purchase price of raw materials.

#### 5. Labour Variances:





- (a) **Labour Cost Variance** =  $(SH \times SR) - (AHP \times AR)$  or  $LEV + Idle + LRV$
- (b) **Labour Efficiency Variance** =  $(SH \times SR) - (AHW \times SR)$  or  $LYV + LMV$
- (c) **Labour Yield Variance** =  $(SH \times SR) - (RSH \times SR)$  or  $LEV - LMV$
- (d) **Labour Mix/Gang Variance** =  $(RSH \times SR) - (AHW \times SR)$  or  $LEV - LYV$
- (e) **Labour Idle Variance** =  $(AHW \times SR) - (AHP \times SR)$  or  $LCV - LEV - LRV$
- (f) **Labour Rate Variance** =  $(AHP \times SR) - (AHP \times AR)$  or  $LCV - LEV - Idle$

Here,

**SH (Standard Hours):** Standard hours to produce actual output.

**AHP (Actual Hour Paid):** Actual labour hours paid.

**AHW (Actual Hours Worked):** Actual labour hours worked to produce actual output.

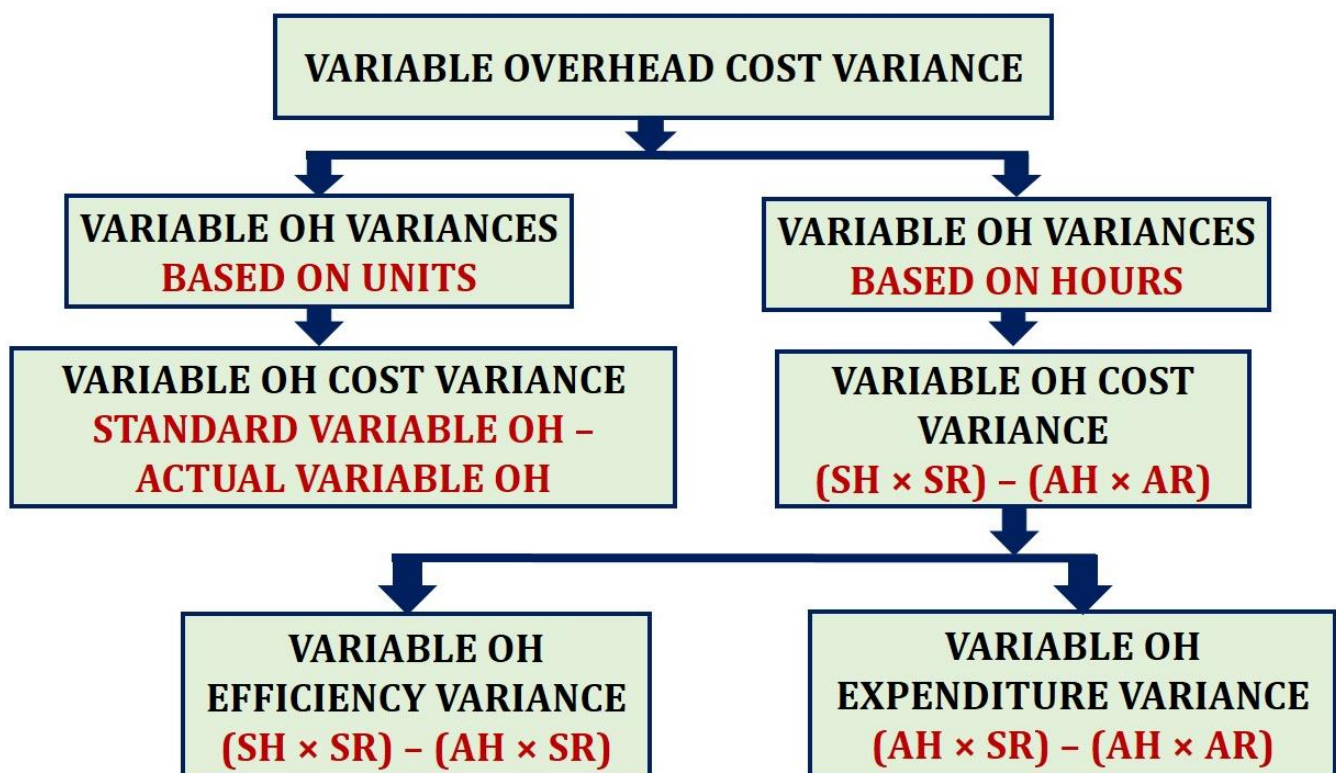
$$AHW = AHP \text{ (actual hours paid) - Abnormal idle time hours}$$

**RSH (Revised Standard Hours):** Actual labour hours **worked** in standard proportion.

**SR (Standard Rate):** Standard wage rate.

**AR (Actual Rate):** Actual wage rate.

6. **Variable Overhead Variances:**





**Method 1: Variable Overhead Variance based on units:**

(a) **Variable OH Cost Variance** = **Standard Variable OH – Actual Variable OH**

➤ We cannot calculate Variable OH **Efficiency** variance and Variable OH **Expenditure** variance on the basis of units.

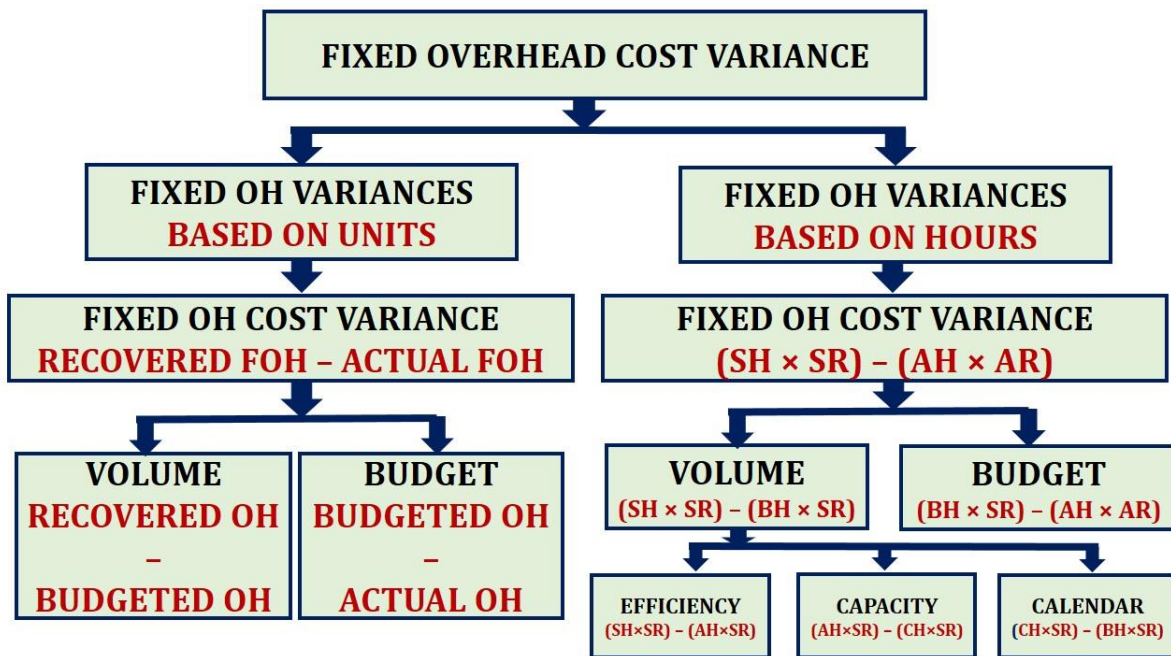
**Method 2: Variable Overhead Variance based on hours:**

(a) **Variable OH Cost Variance** = **(SH × SR) – (AH × AR)**

(b) **Variable OH Efficiency Variance** = **(SH × SR) – (AH × SR)**

(c) **Variable OH Expenditure/Budget Variance** = **(AH × SR) – (AH × AR)**

**6. Fixed Overhead Variances:**



**Method 1: Fixed Overhead Variance based on units:**

(a) **Fixed OH Cost Variance** = **Absorbed/Recovered Fixed OH – Actual Fixed OH**

(b) **Fixed OH Expenditure Variance** = **Budgeted Fixed OH – Actual Fixed OH**

(c) **Fixed OH Volume Variance** = **Absorbed/Recovered Fixed OH – Budgeted Fixed OH**

➤ We cannot calculate Fixed OH **Efficiency** variance, Fixed OH **Capacity** variance and Fixed OH **Calendar** variance on the basis of units.

➤ Here Fixed overheads are recovered on the basis of units.



**Method 2: Fixed Overhead Variance based on hours:**

- (a) **Fixed OH Cost Variance** =  $(SH \times SR) - (AH \times AR)$
- (b) **Fixed OH Expenditure/Budget Variance** =  $(BH \times SR) - (AH \times AR)$
- (c) **Fixed OH Volume Variance** =  $(SH \times SR) - (BH \times SR)$
- (d) **Fixed OH Efficiency Variance** =  $(SH \times SR) - (AH \times SR)$
- (e) **Fixed OH Capacity Variance** =  $(AH \times SR) - (CH \times SR)$
- (f) **Fixed OH Calendar Variance** =  $(CH \times SR) - (BH \times SR)$

Here,

**SH (Standard Hours):** Standard hours to produce actual output.

**AH (Actual Hours):** Actual hours to produce actual output.

**BH (Budgeted Hours):** Budgeted hours or Estimated hours.

**CH (Calendar Hours):** Standard working hours for actual working days.

**SR (Standard Rate):** Standard rate or recovery rate of Fixed OH on the basis of time.

$$SR = \text{Budgeted Fixed OH} \div \text{Budgeted Hours}$$

**AR (Actual Rate):** Actual wage rate.

**(SH × SR):** Absorbed or recovered fixed overheads.

**(BH × SR):** Budgeted fixed overheads.

**(AH × AR):** Actual fixed overheads.

**7. Various Budget Ratios:**

- (a) **Efficiency Ratio** =  $\frac{\text{Standard Hours}}{\text{Actual Hours}} \times 100$
- (b) **Activity Ratio** =  $\frac{\text{Standard Hours}}{\text{Budgeted Hours}} \times 100$
- (c) **Calendar Ratio** =  $\frac{\text{Available Working Days}}{\text{Budgeted Working Days}} \times 100$
- (d) **Standard Capacity Usage Ratio** =  $\frac{\text{Budgeted Hours}}{\text{Maximum Possible Hours in Budget}} \times 100$
- (e) **Actual Capacity Usage Ratio** =  $\frac{\text{Actual Hours Worked}}{\text{Max. Possible working Hours in a Period}} \times 100$
- (f) **Actual Usage of Budgeted Capacity Ratio** =  $\frac{\text{Actual Working Hours}}{\text{Budgeted Hours}} \times 100$



## CHAPTER 13

## MARGINAL COSTING

1. **Marginal Cost Equation:**  $C = F + P$

2. **Contribution:** It is the balance amount of sales after deduction of variable cost which is used to recover fixed cost and provide profit.

$$\text{Contribution} = \text{Sales} - \text{Variable cost}$$

3. **Contribution ratio or Profit Volume ratio (PV ratio):**

$$\text{Profit volume ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$\text{Profit volume ratio} = 100 - \text{Variable cost ratio}$$

$$\text{Profit volume ratio} = \frac{\text{Fixed Cost}}{\text{BEP Sales}} \times 100$$

$$\text{Profit volume ratio} = \frac{\text{Profit}}{\text{MOS Sales}} \times 100$$

4. **Break Even Point (BEP):**

- Level of sales at which company is in situation of **no profit and no loss**
- Level of sales at which contribution and fixed cost are same

$$\text{BEP Sales} = \text{Variable cost} + \text{Fixed cost} + \text{Profit}$$

$$\text{BEP Sales in units} = \frac{\text{Fixed Cost}}{\text{Contribution Per Unit}}$$

$$\text{BEP Sales in units} = \text{BEP Sales in amount} \div \text{Sale price per unit}$$

$$\text{BEP Sales in units} = \text{Total Sales in units} - \text{MOS Sales in units}$$

$$\text{BEP Sales (in amount)} = \frac{\text{Fixed Cost}}{\text{PV Ratio}} \times 100$$

$$\text{BEP Sales (in amount)} = \text{BEP Sales in units} \times \text{Sale price per unit}$$

$$\text{BEP Sales (in amount)} = \text{Total Sales in amount} - \text{MOS Sales in amount}$$

5. **Margin of Safety (MOS):**

- Level of sales over and **above BEP sales**
- Level of sales at which contribution and profit are same

$$\text{MOS Sales} = \text{Variable cost} + \text{Fixed cost} + \text{Profit}$$

$$\text{MOS Sales in units} = \frac{\text{Profit}}{\text{Contribution Per Unit}}$$

$$\begin{aligned} \text{MOS Sales in units} &= \text{MOS Sales in amount} \div \text{Sale price per unit} \\ \text{MOS Sales in units} &= \text{Total Sales in units} - \text{BEP Sales in units} \end{aligned}$$

$$\text{MOS Sales (in amount)} = \frac{\text{Profit}}{\text{PV Ratio}}$$

$$\text{MOS Sales (in amount)} = \text{MOS Sales in units} \times \text{Sale price per unit}$$

$$\text{BEP Sales (in amount)} = \text{Total Sales in amount} - \text{BEP Sales in amount}$$

6. Profit Planning:

$$\text{Target sales in units} = \frac{\text{Fixed Cost} + \text{Profit}}{\text{Contribution Per Unit}}$$

$$\text{Target sales in amount} = \frac{\text{Fixed Cost} + \text{Profit}}{\text{PV Ratio}}$$

$$\text{Target sales in units} = \frac{\text{Fixed Cost}}{\text{Contribution Per Unit} - \text{Profit Per Unit}}$$

$$\text{Target sales in amount} = \frac{\text{Fixed Cost}}{\text{PV Ratio} - \% \text{ of Profit To Sales}}$$

7. PV Ratio and Variable Cost Ratio under two periods data:

$$\text{Variable Cost ratio} = \frac{\text{Change in Total Cost}}{\text{Change in Sales}} \times 100$$

$$\text{Profit Volume ratio} = \frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$$

$$\text{Variable cost per unit} = \frac{\text{Change in Total Cost}}{\text{Change in Sales Units}}$$

$$\text{Contribution per unit} = \frac{\text{Change in Profit}}{\text{Change in Sales Units}}$$

8. Sales Mix or Multiple products:

- Use Composite/Average contribution per unit or PV ratio
- Use Composite/Average contribution per unit or PV ratio to solve the problems

9. Merger of Plants:

**Step 1:** Calculate total Sales, Variable Cost, Fixed Cost and P/V Ratio of merged plant at 100% Capacity.

**Step 2:** Solve the problem with P/V Ratio calculated in Step 1.



**10. Key Factor or Limiting Factor:**

- Anything which **limits** the activity of an entity
- The factor is a key to determine the level of sale and production, thus it is also known as key factor.

**Example of key factor or limiting factor:**

- Men (employees),
- Materials (raw material or supplies),
- Machine (capacity),
- Money (availability of fund or budget)
- Demand for the product etc.

**Step 1: Calculate Contribution per key factor unit.**

**Step 2: Give rank to all products on the basis of contribution per key factor unit.**

**Step 3: Prepare statement of optimum product mix on the basis of rank in step 2.**

**Step 4: Prepare statement showing optimum contribution or profit.**

**11. Shut Down Point:**

$$\text{Shut down point} < \frac{\text{Avoidable Fixed Cost – Reopening Cost}}{\text{Contribution per unit or PV Ratio}}$$

**12. Indifference Point or Cost Indifference Point or Cost BEP:**

$$\text{Indifference point} = \frac{\text{Difference in Fixed Cost}}{\text{Difference in Variable Cost Per unit}}$$

<b>Situation</b>	<b>Suggestion</b>
Expected activity < Indifference point	Select option having lower fixed cost
Expected activity = Indifference point	Select any option
Expected activity > Indifference point	Select option having lower variable cost per unit

**13. Income Statement Under Absorption Costing:**

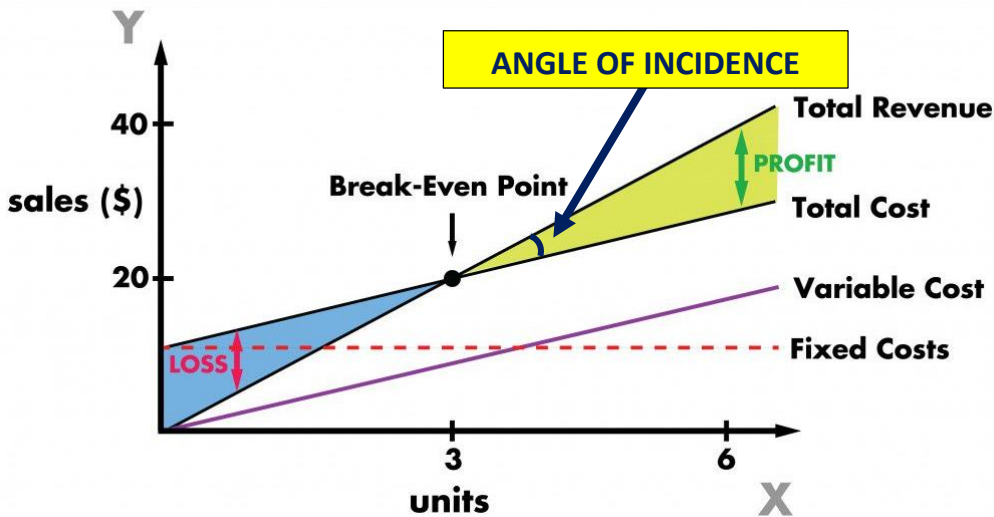
Particulars	₹
Sales	XXX
Production costs:	
Variable (Actual)	XXX
Fixed (Recovered)	XXX
<b>Cost of Production</b>	<b>XXX</b>
<b>Add: Opening stock (Opening Units @ standard rate of cost of production)</b>	XXX
<b>Less: Closing stock (Closing Units @ current rate of cost of production)</b>	(XXX)
<b>Cost of Goods Sold</b>	<b>XXX</b>
<b>Add: Under absorbed fixed production overhead (If any)</b>	XXX

<i>Less: Over absorbed fixed production overhead (If any)</i>	(XXX)
<i>Add: Variable administrative and selling costs</i>	XXX
<i>Add: Fixed administrative and selling costs</i>	XXX
<b>Total Cost</b>	<b>XXX</b>
<b>Profit (Sales - Total Cost)</b>	<b>XXX</b>

14. Income Statement Under Marginal Costing:

Particulars	₹
Sales	XXX
Production costs:	
Variable (Actual)	XXX
Variable Cost of Production	XXX
<i>Add: Opening stock (Opening Units @ standard rate of variable COP)</i>	XXX
<i>Less: Closing stock (Closing Units @ current rate of variable cost of production)</i>	(XXX)
Variable Cost of Goods Sold	XXX
<i>Add: Variable administrative and selling costs</i>	XXX
Variable Cost of Sales	XXX
Contribution (Sales - Variable Cost of sales)	XXX
<i>Less: Fixed cost (all)</i>	(XXX)
Profit (Contribution - Fixed Cost)	XXX

15. BEP and Angle of Incidence Graph:

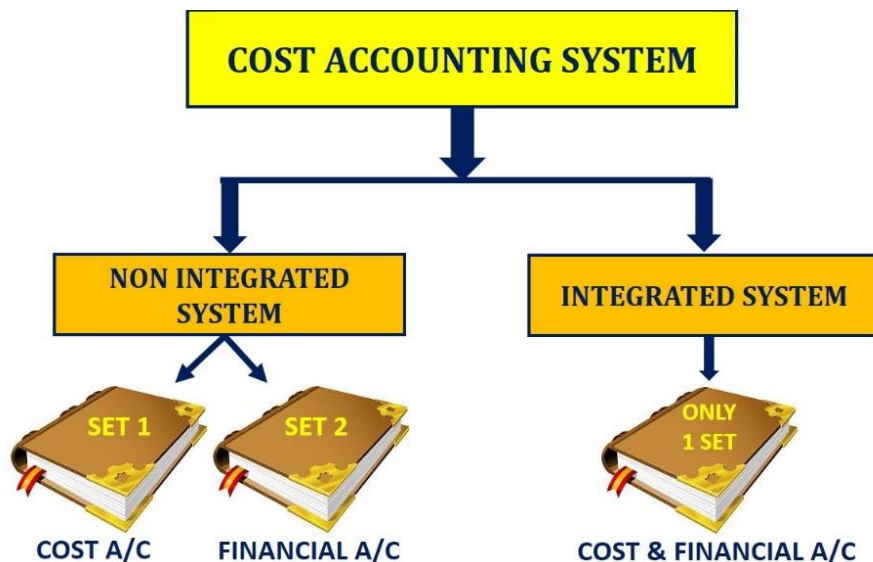




**CHAPTER 14**

**COST ACCOUNTING SYSTEM**

**1. Cost Accounting System:**



**2. Integrated Accounting System:** in this system **only one set** of books of account is maintained to records transactions related to cost account and financial account.

**3. Accounting in Integrated System:**

**Store Ledger Control A/C**

Particulars	₹	Particulars	₹
To Balance b/d	Opening Stock	By Purchase Return A/c	Return
To Cash/Bank/Supplier A/c	Purchase	By WIP A/c	Direct Mat.
To WIP A/c	Return	By Production OH A/c	Indirect Mat.
		By Production OH A/c	Normal Loss
		By Costing P/L A/c	Abnormal Loss
		By Balance c/d	Closing Stock
	-		-

**Wages Control A/C**

Particulars	₹	Particulars	₹
To Bank A/c	Wages Paid	By WIP A/c	Direct Labour
		By Production OH A/c	Ind. Labour
		By Production OH A/c	Normal Idle
		By Costing P/L A/c	Abnormal Idle
	-		-

**Production Overhead Control A/C**

Particulars	₹	Particulars	₹
To Bank A/c	OH Incurred	By WIP A/c	Recovered
To Depreciation A/c	Dep.	By Costing P/L A/c	Under
To Store A/c	Ind. M + NL	or	Recovery
To Wages A/c	Ind. L + NL	By Balance c/d	
	-		-

**Work-In-Progress A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Balance b/d To Stores A/c To Wages A/c To Production OH A/c	Opening WIP Direct Mat. Direct Lab. Recovered	By Finished Goods A/c By Balance c/d	Completed Closing WIP
	-		-

**Administration Overhead A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Bank A/c	OH Incurred	By Finished Goods A/c By Cost of Sales A/c By Costing P/L A/c	Prod. Related General Under Recovery
	-		-

**Finished Goods Control A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Balance c/d To Work-in-process A/c To Administration OH A/c	Opening FG Completed Prod Related	By Cost of sales A/c By Balance c/d	COGS Closing FG
	-		-

**Selling and Distribution Overhead A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Bank A/c	OH Incurred	By Cost of Sales A/c By Costing P/L A/c	Recovered Under Recovery
	-		-

**Cost of Sales A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Finished Good A/c To Administration OH A/c To Selling OH A/c To Costing P/L A/c	COGS General S & D Profit	By Sales A/c	Sales
	-		-

**Costing Profit & Loss A/C**

<b>Particulars</b>	<b>₹</b>	<b>Particulars</b>	<b>₹</b>
To Stores A/c To Wages A/c To Production OH A/c To Administration OH A/c To Selling OH A/c To Net Profit	Abnormal Loss Abnormal Loss Under Recovery Under Recovery Under Recovery Net Profit	By Cost of Sales A/c By Abnormal Gain and Over Recovery	Profit Abnormal Gain
	-		-

4. **Non Integrated Accounting System:** in this system **two sets** of books of accounts are maintained to records transactions related to cost account and financial account.
5. **Accounting in Non-integrated System:**
  - In case of non-integrated accounting system cost records **only** recognize **nominal account** (material cost, labour cost, overheads etc.)





- For all transactions related to **real account** (bank, cash, assets etc.) and **personal account** (debtors, creditors, capital etc.) Cost record use a representative account viz.:
- Cost Ledger Control A/C (CLC) or
- Nominal Ledger Control A/C (NLC) or
- General Ledger Adjustment A/C (GLA)

**Store Ledger Control A/C**

Particulars	₹	Particulars	₹
To Balance b/d To CLC A/c To WIP A/c	Opening Stock Purchase Return to stores	By CLC By WIP A/c By Production OH A/c By Production OH A/c By Costing P/L A/c By Balance c/d	Return Direct Mat. Indirect Mat. Normal Loss Abnormal Loss Closing Stock
	-		-

**Wages Control A/C**

Particulars	₹	Particulars	₹
To CLC A/c	Wages Paid	By WIP A/c By Production OH A/c By Production OH A/c By Costing P/L A/c	Direct Lab. Indirect Lab. Normal Idle Abnormal Idle
	-		-

**Production Overhead Control A/C**

Particulars	₹	Particulars	₹
To CLC A/c To Store A/c To Wages A/c	OH Incurred Ind. M + NL Ind. L + NL	By WIP A/c By Costing P/L A/c or By Balance c/d	Recovered Under Recovery
	-		-

**Work-In-Progress A/C**

Particulars	₹	Particulars	₹
To Balance b/d To Stores A/c To Wages A/c To Production OH A/c	Opening WIP Direct Mat. Direct Lab. Recovered	By Finished Goods A/c By Balance c/d	Completed Closing WIP
	-		-

**Administration Overhead A/C**

Particulars	₹	Particulars	₹
To CLC A/c	OH Incurred	By Finished Goods A/c By Cost of Sales A/c By Costing P/L A/c	Prod. Related General Under Recovery
	-		-

**Finished Goods Control A/C**

Particulars	₹	Particulars	₹
To Balance c/d To Work-in-process A/c To Administration OH A/c	Opening FG Completed Prod Related	By Cost of sales A/c By Balance c/d	COGS Closing FG
	-		-

**Selling and Distribution Overhead A/C**

Particulars	₹	Particulars	₹
To CLC A/c	OH Incurred	By Cost of Sales A/c By Costing P/L A/c	Recovered Under Recovery
	-		-

**Cost of Sales A/C**

Particulars	₹	Particulars	₹
To Finished Good A/c To Administration OH A/c To Selling OH A/c To Costing P/L A/c	COGS General S & D Profit	By CLC A/c	Sales
	-		-

**Costing Profit & Loss A/C**

Particulars	₹	Particulars	₹
To Stores A/c To Wages A/c To Production OH A/c To Administration OH A/c To Selling OH A/c To CLC A/c	Abnormal Loss Abnormal Loss Under Recovery Under Recovery Under Recovery Net Profit	By Cost of Sales A/c By Abnormal Gain and Over Recovery	Profit Abnormal Gain
	-		-

**Cost Ledger Control A/C**

Particulars	₹	Particulars	₹
To Stores A/c To Cost of Sales A/c To Balance c/d	Return Sales Closing Balance	By Balance b/d By Stores A/c By Wages A/c By Production OH A/c By Admin OH A/c By Selling OH A/c By Costing P/L A/c	Opening Bal Purchase Wages Paid OH Incurred OH Incurred OH Incurred Net Profit
	-		-

**Notes:**

- There is **no posting** in stores ledger for Material transferred between Jobs or Batches.
- **Normal loss** of material and normal idle time is to be transferred to **Production Overheads A/C**.
- **Administrative overheads** is treated as related to production in case of absence of information.
- Shortage in material can be treated as (i) normal loss (**preferred**), (ii) abnormal loss.
- Inventory **audit** raw material loss is **abnormal loss**.
- In case of **absence of information** solve the problem by using **non-integrated method**.
- If question asked to prepare **reconciliation** and there is **no additional item** then **under-over recovery** of overhead is **carried forward** to prepare reconciliation.



**CHAPTER 15**

**RECONCILIATION**

1. **Reconciliation:** In case of **non-integrated** accounting system, we have to reconcile profit between two sets of books of account.

**Step 1:** Prepare financial profit and loss account

**Step 2:** Prepare cost sheet or costing profit and loss account

**Step 3:** Prepare reconciliation statement or memorandum reconciliation account

**2. Proforma Reconciliation Statement**

Particulars	Amount	Amount
<b>Profit/(Loss) as per Cost Books</b>		<b>XXX</b>
<b>Add:</b> Opening stock overstated or over-valued in cost	XXX	
Closing stock understated or under-valued in cost	XXX	
Depreciation over recovered	XXX	
Factory overheads over recovered	XXX	
Administration expenses over recovered	XXX	
Selling and distribution overheads over recovered	XXX	
Interest received or Bank interest credited	XXX	
Rent received	XXX	
Commission received	XXX	
Dividend received	XXX	
Stores adjustment (credit in financial book)	XXX	
Transfer fees (credit in financial book)	XXX	
Profit on sale of fixed assets or investment	XXX	
Other abnormal gain	XXX	
Notional rent, salary, depreciation or interest in cost	XXX	<b>XXX</b>
<b>Less:</b> Opening stock understated or under-valued in cost	XXX	
Closing stock overstated or over-valued in cost	XXX	
Depreciation under recovered	XXX	
Factory overheads under recovered	XXX	
Administration expenses under recovered	XXX	
Selling and distribution overheads under recovered	XXX	
Interest paid	XXX	
Dividend paid	XXX	
Income tax	XXX	
Stores adjustment (debit in financial book)	XXX	
Bad debts or provision for doubtful debt	XXX	
Goodwill written off	XXX	
Preliminary expenses/under writing commission etc written off	XXX	
Expenses of share transfer office	XXX	
Obsolescence loss	XXX	
Loss on sale of fixed assets or investment	XXX	
Other abnormal loss	XXX	
Fine, penalty, donation etc.	XXX	<b>(XXX)</b>
<b>Profit/(Loss) as per Financial Books</b>		<b>XXX</b>

### 3. *Reasons of Difference between Cost and Financial Accounts:*

#### 1. *Items included in the financial accounts but not in cost accounts (purely financial items):*

- *Expenses and discounts on issue of shares, debentures etc.*
- *Other capital losses i.e., loss by fire not covered by insurance etc.*
- *Losses on the sales of fixed assets and investments*
- *Profits on the sale of fixed assets and investments*
- *Fictitious assets written off (Preliminary expenses written off etc.)*
- *Goodwill written off*
- *Donations, subscriptions etc.*
- *Fine, penalties etc.*
- *Expenses of the company's share transfer office, if any*
- *Transfer fee received*
- *Interest received on bank deposits, loans and investments*
- *Commission received*
- *Dividends received*
- *Rent received*
- *Bad debts, provision for bad debts*
- *Cash discount*
- *Interest on loans or bank mortgages or debenture etc.*
- *Income tax*
- *Dividend paid*
- *Transfer to reserve etc.*

#### 2. *Items included in cost accounts only (notional expenses):*

- *Charges in lieu of rent where premises are owned (**Notional Rent**)*
- *Interest on capital at notional figure though not incurred (**Notional Interest**)*
- *Salary for the proprietor at notional figure though not incurred (**Notional Salary**)*
- ***Notional depreciation** on the assets fully depreciated for which book value is nil*

#### 3. *Items whose treatment is different in the two sets of accounts:*

- *Difference in methods of valuation of **stock***
- *Difference in methods of **depreciation** etc.*
- *Difference in treatment of overheads (**under-over absorption carry forward method**)*