Material Costing

Material

Concept ①

Direct Material

ex: Cloth, thread, button for a shirt

Indirect Material

ex: oil used in stitching machine.

①

A = Annual requirement of raw material (Annual purchase qty of RM)

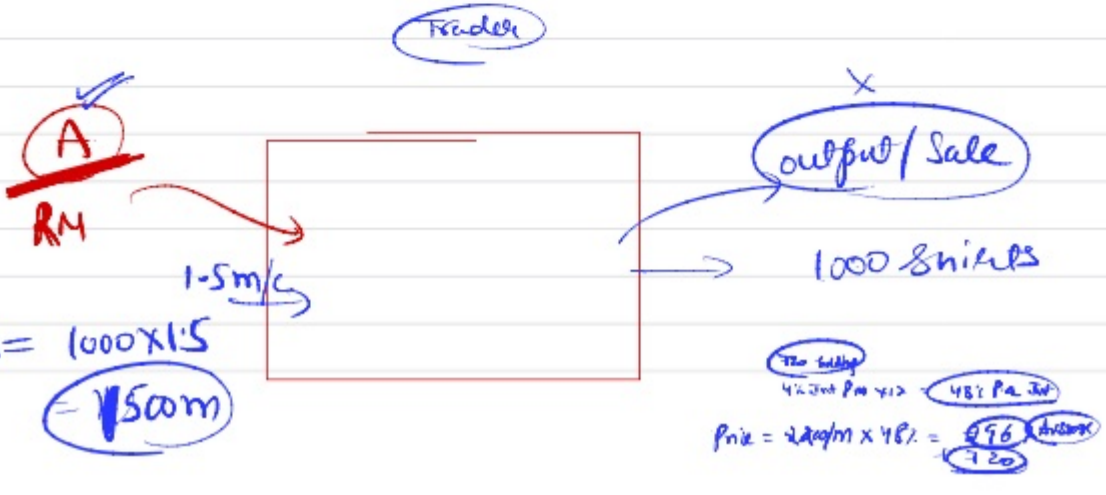
②

O = ordering cost per order (it remains constant even if lot size increases/decreases)

③

C = Carrying cost per unit **per annum.**
(usually its in percentage, multiply by price of RM)
(example Rent, stores salary, Interest cost)

Carrying cost per month × 12 = carrying cost per annum.



Concept ② for example:

- Consumption = 100 - 300kg/day. (100 → Minimum Consumption in a day; 300 → Maximum consumption is a day.)
- Lead Time = 3 - 5 days (3 → Minimum; 5 → Maximum)

Lead Time = Reorder Period = Delivery Period

- A = Annual Demand = 72000 Kg

(i) **Reorder level** (→ Reorder Point) → How much stock should be available when you place a new purchase order.
(Samaan use hote-hote kitne par aajana chaiye ki hum new order place karde)

ROL = Maximum Lead Time × Maximum Consumption
= 5 days × 300 kg = **1500 kg**

(or)

ROL = Safety Stock + Average Lead Time × Average Consumption

(ii) Maximum Stock Level = ROL − (Minimum Lead Time × Minimum Consumption) + ROQ

= 1500 kg − (3 day × 100/day) + 5000 kg

= **6200 Kg**

(iii) Minimum Stock level = ROL − (Average Consumption × Average Lead Time)

$= 1500\text{kg} - \left(\left(\frac{100+300}{2}\right) \times \left(\frac{3+5}{2}\right)\right)$

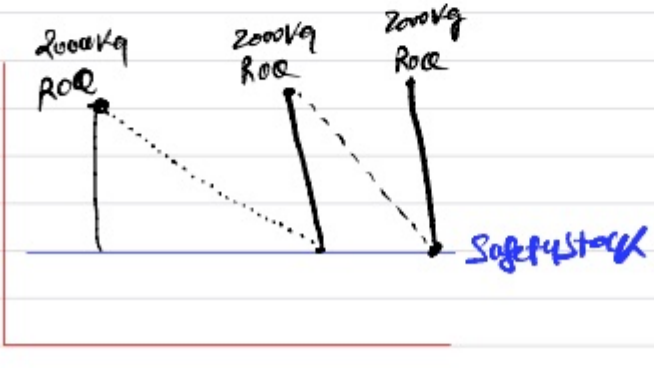
$= 1500\text{kg} - (200 \times 4)$

$= 1500\text{kg} - 800\text{kg} = 700\text{kg}$

(iv) Average Stock level = Safety Stock + $\frac{1}{2}$ ROQ (EOQ) — Preferred

$= \left(\frac{\text{Maximum Stock level} + \text{Minimum Stock level}}{2}\right)$

$= \left(\frac{\text{Opening Stock} + \text{Closing Stock}}{2}\right)$



(v) Danger level = Minimum Consumption × Minimum Lead Time

or = Average Cons × Minimum Lead Time

or = Minimum Cons × Average Lead Time

or = Normal Consumption × Emergency purchase lead time

(vii) Calculating Carrying cost

Total Carrying cost = Average stock × Carrying cost P.u P.a

$= \left(SS + \frac{1}{2} ROQ\right) \times ₹5$

Total carrying cost = ₹

(viii) Calculating ordering cost.

Total ordering cost = Number of orders × ordering cost per order

$= \frac{A}{ROQ} \times ₹100$

Rounded off to higher Natural number

ex: 16.67 ~ 17 orders

16.31 ~ 17 orders

(viii) Total Material Cost

- Total ordering cost = Number of orders × ordering cost per order = ✓
  $\left(\frac{A}{ROQ}\right) \times O$
- Total carrying cost = Average stock × carrying cost p.u.p.a. = ✓
  $= \left(\frac{ROQ}{2} + \frac{1}{2}ROQ\right) \times C$
- Total Purchase Value = Price × Annual Demand = ✓

Total Material Cost *

Total Relevant Cost

Total ordering cost ✓

Total carrying cost ✓

Total Purchase Price → ✓ (if Price is changing)

→ × (if Price is not changing)

Total Relevant cost. (*)

ROQ = cricketer = ??????

(1x) EOQ = Best cricketer = Virat Kohli

A = 72000kg

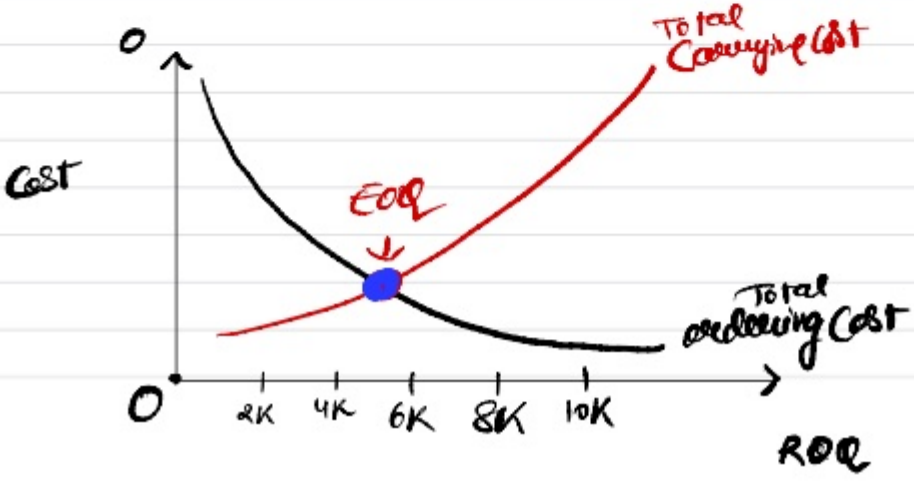
2000 ROQ | 4000 ROQ | 6000 ROQ | 10000kg ROQ | 30000 ROQ

ROQ = Reorder qty. → yaani jab bhi Balaji kb order kre, ek baar mei kitni qty mangaye.

EOQ = Best ROQ = Economic order qty

(Jesi ROQ jiss par hamari ordering and carrying cost ka total minimum aayega)

$$EOQ = \sqrt{\frac{2 \times A \times O}{C}}$$ (Baumol model)

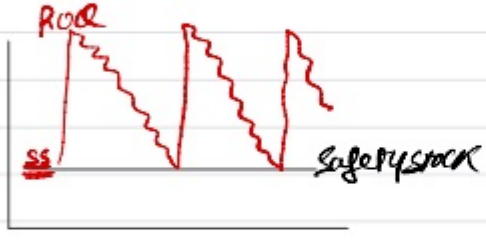


⑩ Safety Stock → It is kept throughout the year.
→ we include carrying cost on it for whole year.

Two formulas change when we have Safety Stock

ⓐ $ROL = Safety\ Stock + Av\ Con \times Av\ Lead\ Time$

ⓑ $Average\ Stock = (SS + \frac{1}{2} ROQ)$



⑪ Number of orders in a year $= \frac{A}{ROQ\ (or\ EOQ)} =$ ☐ ~rounded off to next higher number

ex: 17.72 ~ 18 orders
17.17 ~ 18 orders

⑫ Discount % $= \frac{Discount}{original\ price} \times 100$

(13) How to chose qty when we have Charging Discount.

ex:	Qty	Discount	Qty Purchased
	0 – 3	0%	Apni pasand se koi bhi level decide karo.
	4 – 6	10%	4
	7 – 10	30%	7
	11 – ∞	40%	11

- Select minimum level.

* first level par apni marzi se koi bhi qty, lekin uske baad wale levels par minimum qty is selected.

(14) another method of calculating Total ordering and Total Carrying Cost.

→ only used in case of EOQ.

→ only when we don't have any Safety Stock.

Total ordering & Carrying cost = $\sqrt{2 \times A \times O \times C}$

at EOQ level

Concept 15

Inventory Turnover Ratio.

Inventory Turnover ratio = Cost of Goods Sold (or Sales) / Average Stock = 10

(Stock Turnover ratio)

⇒ The numerator and Denominator both should be in ₹ or in Units (kgs)

Stock holding period = 365 (or 360) / Stock Turnover ratio

(Number of days for which stock is maintained at godown)

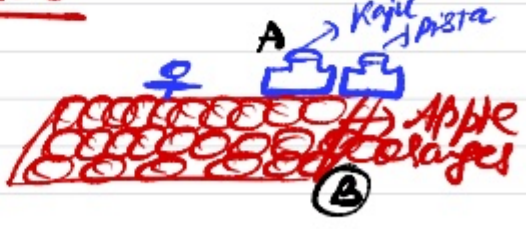
365 / 10 = 365 days

High STR → Fast moving Stock
Low STR → Slow moving Stock

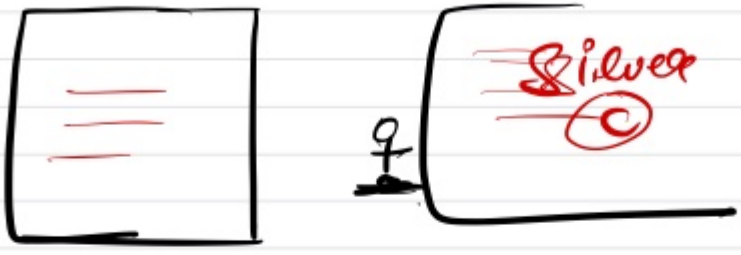
Concept 16 — ABC Analysis

Example — Chirag Wire corner

	Value	Volume
A	70%	10%
B	20%	20%
C	10%	70%



ex② Niti Gold Shop.



Stock is categorised into different classes

A is maximum value (70%) & least volume (10%)
B is medium value (20%) & medium volume (90%)
C is least value (10%) & maximum volume (70%)

These %'s can differ from business to business.

Name	Qty	Price	Qty × Price Value	% of Volume Qty	% of Value	Category
Item 1	Q_1	P_1	V_1	$\frac{Q_1}{\text{Total}} \times 100$	$\frac{V_1}{\text{Total}} \times 100$	A
Item 2	Q_2	P_2	V_2	$\frac{Q_2}{\text{Total}} \times 100$	$\frac{V_2}{\text{Total}} \times 100$	C
Item 3	Q_3	P_3	V_3		$\frac{V_3}{\text{Total}} \times 100$	B
(			(			—
	Total Qty		Total Value			

Concept (17) JIT → Just in time purchase.

Aim → Purchase goods/material when they have to be used.
- → Reduce stock qty.
- → Reduce carrying cost.
- → Improves quality
- → Increase ordering cost (small & more number of orders are placed)
- → It may lead to stockout.

Concept (18) Stores Ledger

→ we need to maintain track of inventory

(I) FIFO → First in First out

① oldest input will be issued first.
② So, closing stock will have new input

In case of falling Raw material prices, FIFO is preferred.

(II) LIFO → Last in First out

① New input will be issued first
② Closing stock will have oldest units

In case of rising Raw material prices, LIFO is preferred.

(III) WAM → (Moving) Weighted Average method

whenever we have to issue we will calculate a new average rate.

ex:

Units	@	Amt
100	20	₹2000
200	25	₹5000
300	₹2333	₹7000

7000 / 300 = ₹2333

we will use WAM rate for issues and also for closing stock.

(iv) Periodic weighted average –

Here we calculate a single weighted average rate at end of period.

- Here date is not important as all calculations are done at period end (month end).

→ Not a very accurate method.

→ used only by very small organisations.

Notes

① Return to Supplier

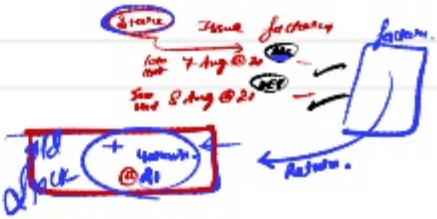
→ It will be shown in issues and at purchase rate.

② Replacement from Supplier

→ It will be treated as new purchase (not old stock)

③ Return from Department / Production factory to Store.
(Internal return)
Shown at rate of closest previous issue rate.
(Jo sabse nazdeek issue kiya tha pehle usi rate pe factory se dikhaya return aayega.)

⇒ This will be treated as old goods (not new).



Concept 19

Notes

Treatment of various items in material.

① Trade discount (quantity discount) → Subtracted from purchase price & shown as deduction in invoice.

② Cash Discount → If represent interest
→ Not shown in cost Accounts

③ Subsidy/Grant/Incentive - Received from government excluded from cost of purchase.

④ Road Tax/ Toll Tax - If paid by buyer, then added in purchase cost.
(when goods are coming to store)

⑤ GST/(IGST/SGST/CGST) → If credit is available then not shown in cost
→ If credit is not available, then included in cost.

⑥ Custom duty → Added to purchase cost
(Paid on imported raw material)

⑦ Demurrage → Penalty imposed by transporter due to delay in loading/unloading.
→ It is abnormal in nature.
→ It is excluded from cost of purchase.

⑧ Detention charges/ Fine → Fine because of non compliance of law/rule.
→ It is abnormal nature exp

→ It is excluded from cost of purchase.

⑨ Insurance charges → Added to cost of purchase.
(In transit)
(Insurance of goods in Godown → it is included in carrying cost)

⑩ Commission/Brokerage
Paid on purchase → Added to cost of purchase.

⑪ Freight Inwards → Added to cost of purchase.
(To bring cost to get goods to store)

⑫ Cost of Container → ⓐ If container is non returnable. Then cost of container added to purchase cost.

ⓑ If container is returnable

Cost of container 100
− Refund of container −80
Shortage = 20
↓
It is treated as cost
(added to purchase cost)

(13) **Shortage**

Normal Reasons

→ Unavoidable reasons

→ Cost of normal Shortage is added to cost of good units

(It is charged from customers)

$$\text{Cost P.U} = \frac{\text{Total cost}}{(\text{Total units} - \text{Normal loss units})}$$

Abnormal Reasons.

→ May be avoidable/unavoidable

→ Cost not treated as purchase cost whereas Debited to Costing P&L A/c.

• Customer will not have to pay for it.

₹ 100 kg × ₹5/kg

$$\frac{₹5 \times 100}{100 - 5} = \frac{₹500}{95\,kg} = ₹5.26$$

Overheads.

Concept ①

Overheads → (Indirect material, Indirect Labour, Indirect Expenses)

Direct	VS	Indirect
These which can be identified on per unit basis. ex: cloth per shirt : Stitching labour cost per shirt.		These which cannot be estimated on per unit basis. which have indirect relationship with output ex: • oil used in machine • Guard Salary (These cannot be calculated per shirt

Ex:

Bill → (A)

Cloth = ₹4000
Labour cost = ₹2000
Lunch exp = ₹500
Tea = ₹100
Electricity = ₹200
Rent = ₹300

overhead

₹7100

Bill (B)

Cloth = ₹4900
Labour cost = ₹2200

✓

₹7100

Concept & Steps

Overhead Distribution.

Jiska kaam bhi jitna hota hai.

Statement of overhead cost

Particulars	Basis	Production Dept		Service Dept		
		Cutting	Stitching	Canteen	Maintenance	
Direct Material	Allocated	X	X	✓	✓	Indirect dept ke direct exp bhi indirect manage hg
Direct Labour	Allocated	X	X	✓	✓	
Rent	Floor Area	✓	✓	✓	✓	(I) Primary Distribution (O/H ko sabhi dept mei batna)
Lighting / Heating	Floor Area of Work Light Points	✓	✓	✓	✓	
Power	(HP x Machine Hours) of Machine OR HP of Machine	✓	✓	✓	✓	
Dep of Machine	Capital Value	✓	✓	✓	✓	
Insurance of Machine	Capital Value	✓	✓	✓	✓	
Dist of Canteen	No of Employee			★		(II) Secondary Distribution (Jab hum service dept ka kharcha, production dept par batte hai.)
Dist of Maintenance Cost	✓✓				★	
Total overheads =		★★	★★			
÷ Suitable base		÷ labour hrs	÷ Machine hrs			Step (III) Tertiary Step. (Jab hum suitable base se divide karke O/H Recovery rate nikalte hai)
O/H Recovery rate		★1	★2			

Basis of Primary Distribution

Overhead Cost			Bases of Apportionment
1.	(i)	Rent and other building expenses	Floor area, or volume of department
	(ii)	Lighting and heating (conditioning)	
	(iii)	Fire precaution service	
	(iv)	Air- conditioning	
2.	(i)	Perquisites	Number of workers
	(ii)	Labour welfare expenses	
	(iii)	Time keeping	
	(iv)	Personnel office	
	(v)	Supervision	
3.	(i)	Compensation to workers	Direct wages
	(ii)	Holiday pay	
	(iii)	ESI and PF contribution	
	(iv)	Perquisites	
4.	General overhead		Direct labour hour, or Direct wages, or Machine hours.
5.	(i)	Depreciation of plant and machinery	Capital values
	(ii)	Repairs and maintenance of plant and machinery	
	(iii)	Insurance of stock	
6.	(i)	Power/steam consumption	Technical estimates
	(ii)	Internal transport	
	(iii)	Managerial salaries	
7.	Lighting expenses (light)		No. of light points, or Area or Metered units
8.	Electric power (machine operation)		Horse power of machines, or Number of machine hour, or value of machines or units consumed.
9.	(i)	Material handling	Weight of materials, or volume of materials, or value of materials or unit of materials
	(ii)	Stores overhead	

Basis of Secondary Distribution

Cost of the Service Departments:	Basis
1. Maintenance and Repair shop 2. Planning and progress 3. Tool room	Direct labour hours, Machine hours, Direct labour wages, Asset value x Hours worked
4. Canteen and Welfare 5. Hospital and Dispensary 6. Personnel Department	No of direct workers No. of employees etc.
7. Time-keeping	No. of card punched, No. of employees
8. Computer Section	Computer hours, Specific allocation to departments
9. Power House (electric lighting cost)	Floor area, Cubic content, No. of electric Points, Wattage.
10. Power House (electric power cost)	Horse power, Kwh, Horse power × Machine hours, Kwh × Machine hours
11. Stores Department	No. of requisitions, Weight or value of Materials issued.
12. Transport Department	Crane hours, Truck hours, Truck mileage, Truck tonnage, Truck ton-hours, Tonnage handled. No. of packages of Standard size
13. Fire Protection	Capital values
14. Inspection	Inspection hours

Notes:

(1) Repairs included in repairs shop cost, building maintenance cost included in maintenance shop cost etc. should be apportioned on the basis of capital values.

(2) Economy, practicability, equitability and reliability are the matters of consideration for selection of the base.

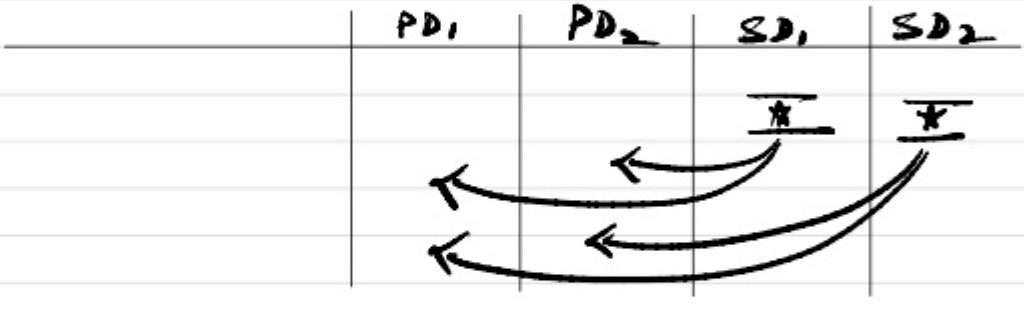
Concept ③ Types of Secondary Distribution

Type① Direct Distribution

(Service Dept sirf Production Dept Ko Services dega)
(Service Dept exclusive Ko Services nahi dega)

ex:

Particulars	PD1	PD2	SD1	SD2
Dist of SD1	70%	30%	–	–
Dist of SD2	40%	60%	–	–

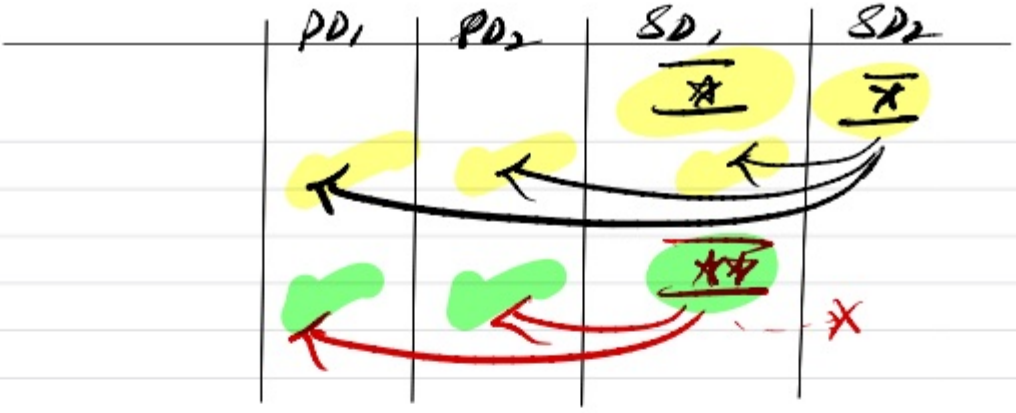


Type② Non Reciprocal Service Method
(One Sided Love) (Step Down Method)

→ one service dept provides services to other, but not vice versa.

ex:

	PD1	PD2	SD1	SD2
Dist of SD1	40%	60%		–
Dist of SD2	30%	40%	30%	–



Type ③ Reciprocal Service Method.

- when both service dept provides services to each other.
(Two sided love)

Ex: Particulars	PD1	PD2	SD1	SD2
Dist of SD1	40%	50%	—	10%
Dist of SD2	30%	40%	30%	—

→ 1st Approach • Repeated Distribution
→ 2nd Approach: Simultaneous Equation
→ 3rd Approach: Trial & Error Approach.

1st Approach: Repeated Distribution (Q2)

* we keep on distributing again and again,

(minimum 2 full cycles)
→ we distribute till figures don't come below 1 ko.
→ At end we ignore share to other service dept.

2nd Approach Simultaneous Equation method.

Hum pehle hi jayda amount distribute kardete hai taaki hamara answer negative aajaaye, aur fir baad me dono ek saath zero bn jaaye.

Ex:	PD1	PD2	SD1	SD2
Distrof S_1 @	40%	40%	→	20%
Dist of S_2 (b)	50%	40%	10%	—
Total OH	₹1,00,000			₹2,00,000.

Let Total amount of OH distributed by S_1 = a
Total amount of OH distributed by S_2 = b.

$a = 1,00,000 + 10\% \text{ of } b$ —(i), $b = 2,00,000 + 20\% \text{ of } a$ —(ii)

Putting value of (ii) in (i)

$a = 1,00,000 + 0.1(2,00,000 + 0.2a)$
$a = 1,00,000 + 20,000 + 0.02a$
$0.98a = 1,20,000$
$a = \frac{1,20,000}{0.98} = ₹1,22,449$

Putting this value in (ii)

$b = 2,00,000 + 20\% \times 122449$
$b = ₹2,24,490.$

	Basis	PD_1	PD_2	SD_1	SD_2
o/H	-	-	-	1,00000	2,00,000
Distribution of SD_1	(40:40:-:20)	48979.5	48979.5	(1,22,449)	24490
				(22449)	224490
Dist of SD_2	(50:40:10:-)	112245	89796	22449	(224490)
				0	0

3rd Approach
★ Trial & Error method.

(Q7)

Concept ④ Distribution of fixed & Variable o/H (Refer Q6, Q4)

Fixed o/H

They are distributed as per planned level

(Normal level / Budgeted level)

Variable o/H

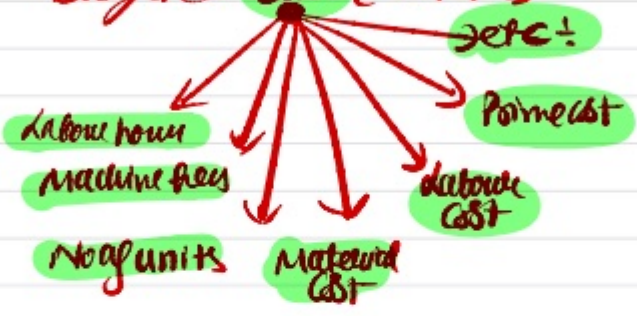
They are distributed on actual level of Production

Concept ⑤ Types of Tertiary step. (Q12)

↓

Calculating overhead recovery rate.

Overhead Recovery rate = Budgeted Total overhead / Budgeted Base (Suitable)



(i) on Labour hours basis.

OH Recovery rate = Budgeted OH / Labour Hours = ₹x / Labour hr

(ii) on Machine hours basis

OH Recovery rate = Budgeted OH / Machine Hours = ₹y / Machine hr

(iii) on Per Unit basis.

OH Recovery rate = Budgeted OH / Number of units = ₹z / unit

(iv) on basis of Material cost

$$\text{OH RR} = \frac{₹\ \text{Budgeted OH}}{₹\ \text{Material Cost}} \times 100 = \square\%$$

(v) on Labour cost basis

$$\text{OH RR} = \frac{₹\ \text{Budgeted OH}}{₹\ \text{Labour cost}} \times 100 = \square\%$$

(vi) on Prime cost basis

$$\text{OH RR} = \frac{₹\ \text{Budgeted OH}}{₹\ \text{Prime cost}} \times 100 = \square\%$$

Notes ① OH recovery rate nikalte hai Budgeted values se.

② OH recovery rate multiply karte hai Actual base se.

Concept ⑥ **Blanket OHRR** VS **Departmental OHRR**

* when all overheads are added and a single rate is calculated for whole business.

$$OHRR = \frac{\text{Total Budgeted OH}}{\text{Total Base}}$$

* Suitable for a single product company.

ex: used by Lay's chips

when we calculate seperate OHRR for each department.

This method is helpful to get to know cost of products which are of different nature

$OHRR_1$ ✓

$OHRR_2$ ✓

* Suitable for company producing different type of products.

ex: used by Maruti Cars

Step① Budgeted OH Rate = $\frac{\text{Budgeted OH}}{\text{Budgeted Base}} = \frac{₹2,00,000}{10,000 \text{ hrs}} = ₹20/\text{MH}$

Step② Absorbed OH = Budgeted OH RR × Actual base
= ₹20/MH × 8000 hrs
Absorbed OH = ₹1,60,000

Step③ Actual OH incurred = ₹1,85,000
(except for absorbed)

Concept — overabsorption & underabsorption

Absorbed OH = Budgeted OH Recovery rate × Actual Base

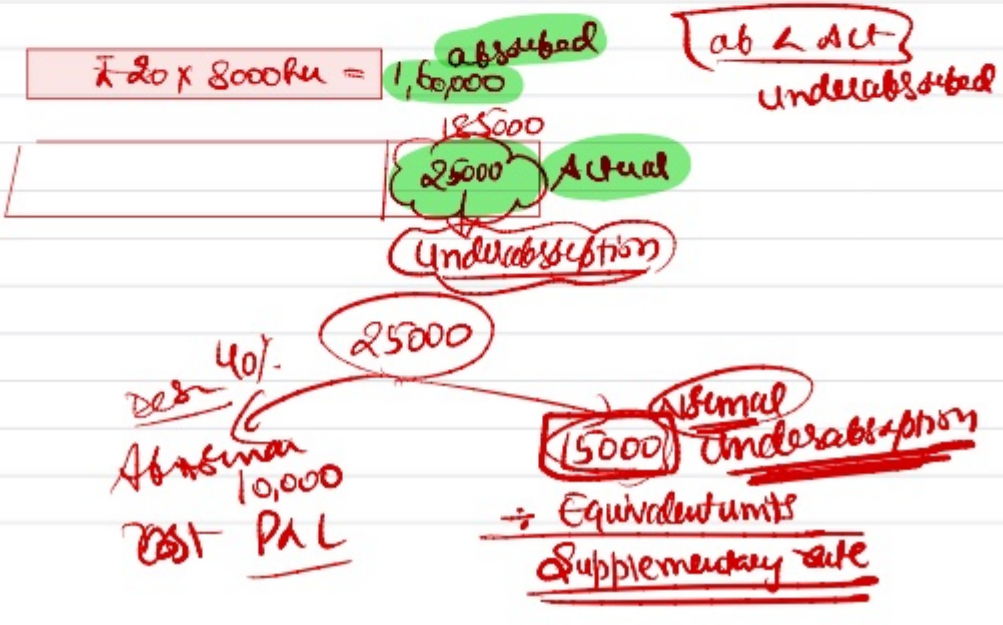
Actual OH = Amount actually incurred.

Case 1

If Absorbed OH (estimate) > Actual OH ⇒ overabsorption.

Case 2

If Absorbed OH (estimate) < Actual OH ⇒ underabsorption.



Concept ⑧ Absorption → over / under

Step ① | OH recovery rate = Budgeted OH / Budgeted Base.

Step ② Overhead Expenses = xxx Total

- Abnormal Nature exp (Strike exp/Legal exp) =
- Actual OH exp = ** Normal.
- Absorbed OH (-)

(OHRR x Actual base)

Underabsorbed or (overabsorbed) */(*)

Abnormal reasons
ex:- Defective planning
Charge to P&L

Normal reasons.
(Like increase in electricity rate, Govt rule change etc.)
↓
It will be charged to production by using a **Supplementary rate.**

Step ③ **Supplementary rate**

Kyunki expenses actually mei badh gaye hai isliye hum Normal underabsorption ko Product pe charge karna chahte hai.

Supplementary rate (SR) = Normal Nature underabsorption O/H / Number of Equivalent units

↓

Equivalent unit
Sold unit × 1 = ✓
Cl FG × 1 = ✓
Cl WIP × 0.5 = ✓
(Degree of completion)
Equivalent unit ✓

Step 4 Applying Supplementary rate.

Sold unit × SR = Debit to cost of sales
Cl FG × SR = Debit to Cl FG A/c
(Cl WIP units × Degree of Completion) × SR = Debit to Cl WIP

Step 5 Journal Entry

Cost of sales — DR
Cl FG A/c — DR
Cl WIP A/c — DR
} Normal underabsorption
Cost of PAL A/c — DR Abnormal underabsorption
To factory O/H Control A/c

(216)

Concept (9) Various concepts related to Capacity.

① Related Capacity → Maximum possible level (200)
(as per manufacturer's claim) (not real)

② Practical Capacity → Actually achievable highest level. (150)

③ Normal Capacity → Capacity usage as per daily expectation (80)

④ Actual Capacity → Capacity actually used by us (75)

Concept 10

Machine Hour Rate (MHR)

Simple MHR

Particulars	Amount
Standing charges (Fixed)	
• Rent	✓
• Salary of operator	✓
• Insurance	✓
• Depreciation (if time based)	✓
Total Standing charge	★
÷ Productive Hours	÷
Standing charge per hr	✓
Running charges (Variable)	
• Power/fuel per hour	✓
• Lubricant oil per hr	✓
• Repair/Maintenance per hr	✓
• Dep (if output based)	✓
Machine Hour Rate	★ per hr

Comprehensive MHR

(Show all expenses on Total basis)

Particulars	Amount
Rent	✓
Salary	✓
Insurance	✓
Depreciation	✓
Repair & Maintenance	✓
Lubrication/oil	✓
Power	✓
Total expenses	★
÷ Productive hrs	÷
MHR	✓ per hr

Two Tier MHR

Q22

In some cases we can charge two seperate rates from customer

★ Seperate setup rate

★ Seperate Running rate

Ex: Boring Machine

Particulars	Set up Time	Running Time
Standing charges		
• Rent	≡	
• Insurance	≡	
Total Standing charge ÷ Productive hrs (Setup + Running hrs)	÷	
Standing charge per hour	✓ per hr	✓ per hr
Machining Exp		
Power	✗	✓
Consumables	✗	✓
Depreciation (if Running)	✓	✓
MHR	★ per setup hr	★ per Running hr

Note ①

Productive Hours → Actual Production hrs

Non Productive Hours → Machine is not actually (Unproductive) for producing

ex: Tawa cleaning time for Dosa

ex: washing Juice machine before next Juice.

ex: waiting time for Cab.

Total Hours available − Set up time (Unproductive) − Repair & maintain = Productive Hours.

Note ②

Depreciation

Based on Time
- Then fixed cost

ex: Dep = ₹30000 per year.

Based on Units
Then Variable cost

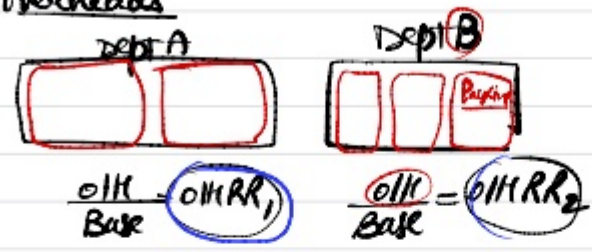
ex: Dep ₹5 per unit (or per hours)

Note ③ Repair & maintenance are always Unproductive

Activity Based Costing

Theme

Chapter overheads



Product (X)

Shirt

Material ✓

Labour ✓

OH

Dept A OHRR2 x 2 hrs ✓

Dept B OHRR2 x 3 hrs ✓

Cost of Prod = *

overhead chapters

Stage (1) OH

Blanket OH RR

All OH = ✓

Simple Base

Stage (2)

Dept wise OHRR

Dept A Base	Dept B Base
OHRR1	OHRR2

Stage (3)

Activity Based Costing

Activity1	Activity2	Activity3	Activity4
✓	✓	✓	✓

↓

Total cost / No of Students = Cost per Student

Dept A Base	Dept B Base
OHRR1	OHRR2

	Teaching	Research	Test
Costing A	✓	✓	✓
Costing B	✓	✓	x
Costing C	✓	x	x

All cost - No of cases

O/H per Case ★1

	Dept A Base	Dept B Base
	✓	✓

Toyota Fortuner	Cloth Seat	Leather Seat	Def Eff
A	✓		✓
FF B	✓		✓
FF C	X	✓	X
FF D	X	✓	✓

Traditional Costing

① Here we divided O/H cost on basis of
- Simple Blanket rate se
- Department wise O/H Recovery rate.

② Isme kabhi-kabhi galat cost distribute ho jaati hai kyunki kuch Products par saari Activities nahi lagi hoti.

ABC

① Here we divide O/H cost on basis of Activity
- Each Activity will have its own seperate rate.

② Yeh better method of cost calculation of a Product hai, kyunki yeh accurate hota hai.

ICAI Examples

Blanket rate

Total cost / All students = ₹1 → Cost per students → ₹3000

Group wise Rate

Department rate

G I	G II
Cost / No of students	Cost / No of students
CP Student	Cost per Student
₹1500	₹1500

E1 E2 E3 E4 E5 E6

Fractional Costing (Covered in chapter overheads)

Type (1) Blanket OH Recovery Rate = Total OH of all dept (Budgeted) / Budgeted Base = (OHR AR)

Type (2) Dept wise OH Recovery Rate.

(Jaha par alag-alag Dept Ki alag-alag rate nikali jaati hai)

Dept A

OH of Dept A / Labour hrs

$OHRR_A$

Dept B

OH of Dept B / Machine hrs

$OHRR_B$

Departmental OH RR

Type ③ Activity Based costing

Step① Identify different activities, activity cost and activity cost driver.

Example

ex: Activity → Delivery of Pizza
Activity → Delivery cost
Activity Cost Driver → No of deliveries

↓

Kis base par iss activity cost ko bata ja sakta hai

Step② Statement for cost Driver rate

Activity	Activity cost ①	Cost Driver	Cost Driver units ②	① ÷ ② Activity Rate
• Setup	₹1,00,000	No of Setup	100	₹1000/Setup
• Purchasing	₹ 3,00,000	No of human orderers	2000	₹150/order

Step③ Statement of cost Distribution

	Product A	Product B
Direct Material	✓	✓
Direct labour	✓	✓
Overheads		
Activity 1 (Setup)	5 Setup × 1000 = ✓	20 Setup × 1000 = ✓
Activity 2 Purchasing	100 × 150 = ✓	500 × ₹150 = ✓
Cost	✓	✓

Standard Costing

Standard → Best achievable level.
→ Benchmark

Standard costing
Topics → Material Variances
→ Labour Variances
→ Variable o/H Variances
→ fixed o/H Variances
→ Mixed questions.

Concept ①

① Budgeted level → units for which we initially calculated cost
(It can be one unit or 1000 unit or anything)

② Actual level → How many units we actually produced.

③ Standard for Actual → when we write Budget again as per actual output, then it is called Standard for Actual.
(Yani Actual output ke liye kitna input chahiye tha.)

Notes: If Budgeted output (1000 Shirts) ≠ Actual output (800 Shirts)
then we cannot compare them, so we need to make Standard for Actual to make them comparable.

1000 units

Sample Table

800 units

800 Units

Particulars	Budgeted			Standard for Actual		Actual		
		@	amt		@			
Cloth	1000m	₹100	✓	$\frac{1000}{1000} \times 800$ (800m)	₹100	900m	₹105	✓
Button	8000	₹2	✓	$\frac{8000}{1000} \times 800$ (6400)	₹2	6400	₹2.5	✓
Thread	(2000)	₹10	✓	$\frac{2000}{1000} \times 800$ (1600)	₹10	2000	₹10	✓

---

① Standard for Actual = $\frac{\text{Budgeted Input}}{\text{Budgeted output}} \times \text{Actual output}$

example ②

1000 kg

Ludegata Sweet Shop.

800 kg

810 kg ②

RSQ

Particulars	Budgeted			Standard for Actual			Revised Standard	
	qty	@			@	qty	qty	
Khoya	600 kg	₹1000		$\frac{600}{1000} \times 800$ (480kg)	₹1000	500kg	1050	$\frac{480}{800} \times 800 =$ (480kg)
Ghee	200 kg	₹600		$\frac{200}{1000} \times 800$ (160kg)	600	180kg	650	$\frac{160}{800} \times 800 =$ (160kg)
Sugar	200 kg	₹50		$\frac{200}{1000} \times 800$ (160kg)	₹50	120kg	45	$\frac{160}{800} \times 800 =$ (160kg)
				800 kg		800 kg		

South Africa

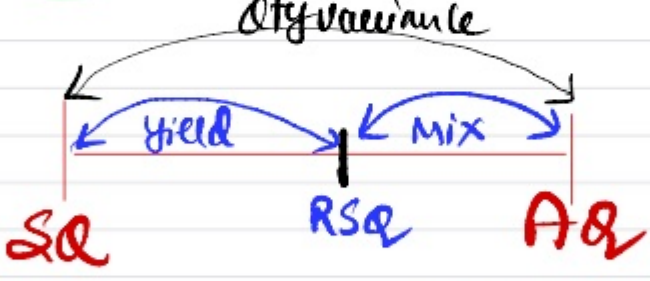
① Material Cost Variance = $(SQ \times SR - AQ \times AR)$

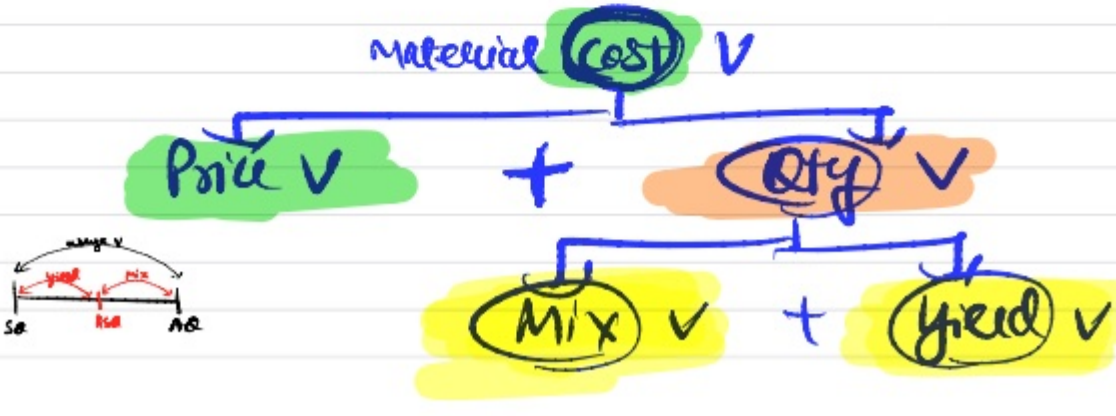
② Material Price Variance = $(SR - AR) \times AQ$ → Jab bhi qty akele ayegi toh actual ki ayegi.

③ Material Qty (usage) Variance = $(SQ - AQ) \times SR$ → Jab bhi rate akele ayega Standard ayega

④ Material Mix Variance = $(RSQ - AQ) \times SR$

⑤ Material Yield Variance = $(SQ - RSQ) \times SR$





Standard — Actual
South Africa

Concept ② Material Variances

① Material Cost Variance = Standard Cost − Actual Cost
= (Standard Qty × Standard Rate) − (Actual Qty × Actual Rate)

Material Cost variance = (SQ × SR − AQ × AR)

Cost variance = (800 × ₹100 − 900 × 105) = 14500 (A)

② Material Price variance = (SR − AR) × AQ
= (100 − 105) × 900 = 4500 (A)

Purchase Manager Ki Galti

③ Material usage variance (Qty) = (SQ − AQ) × SR
= (800 − 900) × 100 = 10000 (A)

Production Manager Ki galti

④ Material Mix Variance = (Revised SQ − AQ) × SR

⑤ Material yield Variance = (SQ − Revised SQ) × SR

★ Revised standard qty → (RSQ)

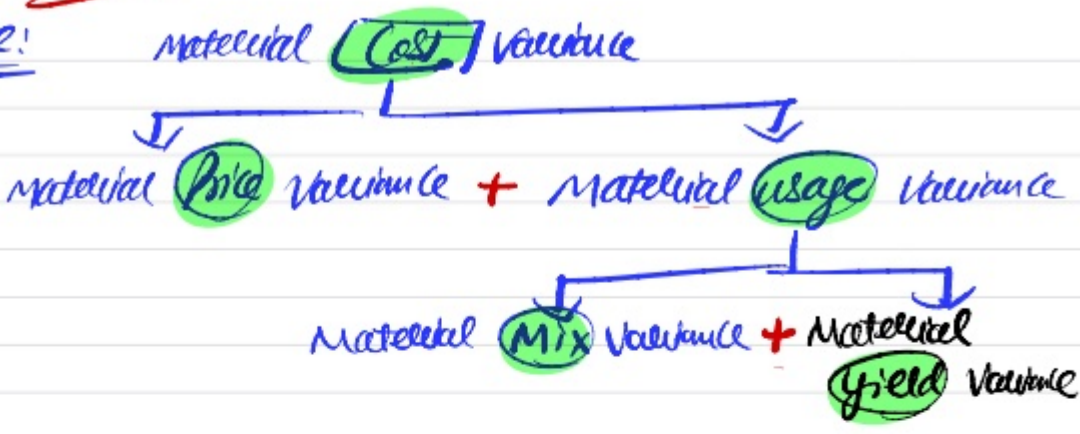
Assume Jo total actual qty use ki hai agar usse standard ratio mei use karte toh kitni qty hoti.

Yani Total Actual qty ko standard ratio mei banto.

$$RSQ = \frac{\text{Individual Standard qty}}{\text{Total Standard qty}} \times \text{Total Actual qty}$$

Verify

Note!



Notes:

① If variance is Negative → It's called Adverse. (A)
② If Variance is Positive → It is called Favorable (F)

③ If we want to use a rate alone → use AQ
④ If we want to use a rate alone → use SR

Common sense Note:

Q RSQ kab nikalenge?

Ans: • Jab question mei Mix & Yield Variance demanded ho.

• Obviously, it is possible only when we have more than one type of Material

---

Concept ③

Labour Variances

Labour Table

Particulars	Budgeted (1000 units) Hours (10×40hrs)	@	Std for Actual (800 units) Hours	@	Actual: Paid Hrs (A)	Actual: Idle Hours (B)	Actual: Worked Hours (A−B)	@	Revised Standard Hours (RSH)
Skilled	400 hrs	₹10	800/1000 × 400 = 320	₹10	12×40 = 480	12×2 = 24 hrs	456 hrs		320 / 640 **
Semi-skilled	5×40hrs = 200 hrs	₹8	800/1000 × 200 = 160	₹8					160 / 640 **
Unskilled	5×40hrs = 200 hrs	₹6	160	₹6					160 / 640 *
			640				*		640

$$\text{Standard for Actual} = \frac{\text{Budgeted Hours}}{\text{Budgeted output}} \times \text{Actual output}$$

Paid Hours → Hours Actually Paid (Worked + Idle Hrs)

Idle Hours → waste hours
ex: machine breakdown
(abnormal wastage of Hours)

Worked Hours → Paid Hrs − Idle Hrs.

Revised Standard Hours → RSH → Agar Actual hrs worked ko Sahi Standard ratio mei hilaa Kiya hota.

$$RSH = \frac{\text{Individual Standard hrs}}{\text{Total Standard hrs}} \times \text{Total Actual Hours Worked}$$

Note:

Concept ④ Variable OH Variances

- Same as Labour Variances.

Source Table

Particulars	Budgeted (1000)		SH for Actual (800)		Actual (800)	
	Hours	@	Hours	@	Hours	@
Variable OH	✓	✓	✓	✓	✓	✓

---

① Variable OH Cost Variance = (SH × SR − AH × AR)

② Variable OH Rate (Expenditure) Variance = (SR − AR) × AH

③ Variable OH Efficiency Variance = (SH − AH) × SR.

Note: If hours are not given for Variable OH, we assume same Hours as Labour.

Variable OH Cost ✓

Expenditure ✓ + Efficiency ✓

Concept ⑤ # Fixed o/H Variances.

Source Table

Particulars	Budgeted			Standard for Actual			Actual		
	Hours	@	Amt	Hours	@	Amt	Hours	@	Amt
Fixed o/H	BH	SR	Fixed Budgeted o/H	SH	SR	Standard fixed o/H	AH	AR	Actual fixed o/H

Volume

Cost Variance

Expenditure V

Source Table ⑪

Budgeted = 25 days × 100 machine hrs × 8 = 20,000 hrs

Possible Hrs = 22 days × 100 × 8 = 17600 hrs

Actual = 22 days × 750 machine hrs = 16500 hrs

Calender Variance

Capacity Variance (Revised)

Capacity Variance

① Fixed o/H Cost V = (Standard cost − Actual cost) (SH×SR − AH×AR)

② Fixed o/H Volume V = Standard fixed o/H − Budgeted fixed o/H

③ Fixed o/H Expenditure V = (Budgeted fixed o/H − Actual fixed o/H)

④ Fixed o/H Efficiency V = (SH − AH) × SR.

⑤ fixed o/H Capacity Variance = (Actual Hours − Budgeted Hours) × SR

⑥ fixed o/H Calendar Variance = (Possible Hours − Budgeted Hours) × SR

⑦ fixed o/H Revised Capacity Variance = (Actual Hours − Possible Hours) × SR

Concept — High-low method.

How to seperate fixed and Variable exp

output	8000	10,000	14000
cost	₹1,80,000	₹2,10,000	₹2,70,000

Step① Variable cost per unit = Change in cost / Change in unit = (₹2,70,000 − ₹1,80,000) / (14000 − 8000)

= 90,000 / 6000 = ₹15 per unit

Step② fixed o/H = Total cost − (Variable cost per unit × Units)

= ₹2,70,000 − (₹15 × 14000)

= ₹2,70,000 − ₹2,10,000

fixed o/H = ₹60,000

Marginal Costing

Note ①

Normal Costing VS Marginal Costing

Focus on

Sales	xxx
− VC	(−)
− FC	(−)
Profit	⊛

↓

* Here Profit is considered important for decision making
* Here fixed cost is also considered Product cost

Focus on

Sales	xxx
− VC	(−)
Contribution	⊛

↓

* Here contribution is considered important for decision making.
* Fixed cost is considered Period cost (not Product cost).

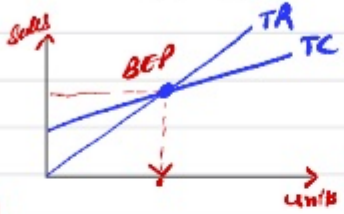
Concept ①

① P/V ratio
Profit Volume Ratio

Sales xxx
− VC (−)
Contribution ⊕
− FC −
Profit ⊕

P/V ratio = Contribution / Sales × 100
or
P/V ratio = FC + Profit / Sales × 100
or
P/V ratio = Change in Cont. / Change in Sales × 100
or
= Change in Profit / Change in Sales × 100

② Breakeven Point (BEP)
- Point of No Profit No loss.



① BEP = FC / Cont Pu. (in units)

② BEP = FC / Cont Pu × SP (in ₹)

③ BEP = FC / P/V ratio (in ₹)

③ Margin of Safety
- Actual Sales Kitni Jayda hai BEP Sales

MOS = Profit / Cont Pu (in units)

MOS = Profit / Cont Pu × SP (in ₹)

MOS = Profit / P/V ratio (in ₹)

BEP% = BEP / Sales × 100, MOS% = MOS / Sales × 100

BEP% + MOS% = 100%

④ Desired Profit or Desired Sales
- When we want to earn desired profit

Desired Sales = (FC + Desired Profit) / Cont Pu (in units)

Desired Sales = (FC + Desired Profit) / Cont Pu × SP (in ₹)

Desired Sales = (FC + Desired Profit) / P/V ratio (in ₹)

⑤ Shut Down Point
Agar ek business. Available FC bhi Recover nahi kar pa rahe toh use Shutdown Karlena Chahiye.

Total FC xxx
− Unavoidable FC (−)
Available FC ⊕

Shut down Point = Available FC / Cont Pu (units)

Shut down Point = Available FC / Cont Pu × SP (₹)

Shut down Point = Available FC / P/V ratio (₹)

(VI) Cash BEP

Total FC	xxx
− Non Cash exp (Depreciation/Amortization)	(−)
Cash FC	(+)

$$\text{Cash BEP} = \frac{\text{Cash FC}}{\text{Cont PU}} \quad (\text{Units})$$

$$\text{Cash BEP} = \frac{\text{Cash FC}}{\text{Cont PU}} \times SP \quad (₹)$$

$$\text{Cash BEP} = \frac{\text{Cash FC}}{\text{P/V ratio}} \quad (₹)$$

Note ① The term Profit here is Profit before Tax

Sales	xxx
− VC	(−)
Cont	✓
− FC	(−)
Profit	(+) (EBIT)
− Int	(−)
EBT	✓
− Tax	
EAT	✓

→ Marginal costing mei Profit before Tax wala Profit use karna hota hai.

○ Agar Question mei after Tax Profit diya ho toh use before Tax mei convert karlo.

Note ② P/V ratio + VC ratio = 100%

$$\left(\frac{\text{Contribution} \times 100}{\text{Sales}}\right) + \left(\frac{\text{VC} \times 100}{\text{Sales}}\right) = 100\%$$

Concept ② Indifference Point

ex: Q27

	Semi-Automatic	Automatic
VC P.U	₹15 P.U	₹10 P.U
Fixed cost	₹1,00,000	₹3,00,000

$$\text{Indifference Point} = \frac{\text{Change in FC}}{\text{Change in VC}} = \frac{₹3,00,000 - ₹1,00,000}{₹15 - 10} = 40,000 \text{ units}$$

Decision Table

Level of operations	Selection
① Units Produced < 40,000 units	Semi automatic Machine (Lower FC)
② Units Produced = 40,000 units	(Select any model, Indifference Point)
③ Units Produced > 40,000 units	Select fully automatic (Lower V.C. P.U)

Indifference Point →

It is the level of operation at which both options (machines) will have equal cost (provide equal profit).
So, we can select **any** option at this point.

$$\text{Indifference Point} = \frac{\text{Diff in FC}}{\text{Diff in VC p.u}} \quad (\text{in units})$$

$$\text{or} \quad \frac{\text{Diff in FC}}{\text{Diff in PV ratio}} \quad (\text{in } ₹)$$

Decision Table

Level of operation

			Selection
①	Units Produced	< Indiff Point	Selection option with lower FC.
②	Units Produced	= Indiff Point	Select any option.
③	Units Produced	> Indiff Point	Select option with lower VC p.u (higher PV ratio)

Concept ③ How to find BEP in multi product business.

Method ① Using Average Contribution P.U. (Q19 Q21 (ii))

[when Question Provides Mix in Qty (units)]

Ex:	A	B	Product Mix given in question = 3:2
Step I Sale Price	₹100	₹80	
− VC	− 50	− 60	
Cont. PU	₹50	₹20	
× Assumed qty	× 3	× 2	(Take Product Mix ratio here)
Contribution	150	40	190 (Total)

Step ② Average Contribution P.U = ₹190 / 5 = ₹38 → use hum BEP ke formula mei denominator mei use karenge.

Step ③

$$BEP = \frac{FC}{\text{Average Cont P.U}} = \frac{₹38000}{38} = 1000 \text{ units}$$

Step ① BEP for A = $1000 \times \frac{3}{5}$ = 600 units

BEP for B = $1000 \times \frac{2}{5}$ = 400 units.

Step ① Calculate Contribution P.U & multiply with product mix ratio.

Step ② Calculate Average Cont P.U. = Total Contribution / Total units

Step ③

$$BEP = \frac{FC}{\text{Average Cont P.U}} = (*)$$

Step ④ Divide BEP into Product Mix ratio.

Method (II) when question provides Mix Ratio in % (in Value)

[Using Combined P/V ratio] (Refer Q11)

↓

(yaha par average cont Pu nahi nikalte)

Step①

	A	B
SP	100	80
−VC	−50	−60
Cont Pu	₹50	₹20

Product Mix — A 60% : B 40%

FC = 38000

P/V ratio — $\frac{50}{100} \times 100 = 50\%$; $\frac{20}{80} \times 100 = 25\%$

Step②

	× Mix %	× 60%	× 40%	
P/V ratio Combined		30%	+10% =	40% (Combined P/V ratio)

Step③ Overall BEP $= \frac{FC}{\text{Combined P/V ratio}} = \frac{₹38000}{40\%} = ₹95000$

Step④

BEP for A = 95000 × 60% = ₹57000 ÷ SP 100 = 570 units

BEP for B = ₹95000 × 40% = ₹38000 ÷ 80 = 475 units

Step① Calculate P/V ratio of each product

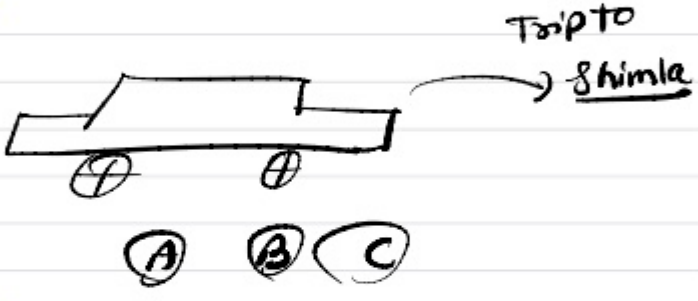
Step② multiply P/V ratio with Mix Ratio & calculate Combined P/V ratio

Step③ Calculate Combined BEP $= \frac{FC}{\text{Combined P/V ratio}}$

Concept ⑨ Merging of Two Plants. (Q14)

When we merge multiple plants together
Step① Convert each plant to 100% capacity level.
Step② Then merge (add) them

Extra Gyan



₹1300

₹ Fufca

FC ⇒ ₹4500 (carcharge)
VC = ₹1000 per person.
(food)

VC = 1000 × 3 = 3000
FC = 4500
7500
÷ 3
2500

(Q12, Q13)

Concept ⑤ Key factor / Limiting factor / Bottleneck resource

- When one factor is limited in availability and thus we have to decide what to produce and what to avoid.

Step ①	A	B	C
SP per unit	✓	✓	✓
− VC per unit	−	−	−
Contribution P.U	✓ ₹20	✓ ₹30	✓ ₹40
÷ Key factor usage	÷ 2 hrs	÷ 4 hrs	÷ 8 hrs
Contribution per key factor	₹10/hr	₹7.5/hr	₹5/hr
Rank	I	II	III

Step ② Now start using resources (key factor) in **Ranking order**.

Make rank I, all possible sale units, then proceed to next rank.

Concept ©

Marginal Costing Vs Absorption Costing

Marginal Costing	Absorption Costing
* only variable cost are included in Product cost	* Both variable and fixed cost are included in Product cost.
* Here Fixed cost is considered Period cost (not Product cost)	* Here Fixed cost is considered Product cost.
→ Decision are based on Contribution	→ Decision are based on Profit.
* The difference between opening and closing stock does not affect the unit cost of production	* The difference between opening and closing stock affects the unit cost of production due to impact of fixed cost.

Marginal Costing

Sale

Less Variable Cost of Production

- Direct Material ✓
- Direct Labour ✓
- Variable Manu. o/H ✓

+ Increase in Variable Cost +

− Decrease in Variable Cost −

Variable Cost of Production (A)

+ opening FG Stock (on VC basis)

− closing FG Stock (on VC basis)

CoGS (variable)

+ Variable Admin o/H +

+ Variable Selling o/H +

Variable Cost of Sales (A)

Contribution (Sale − Variable Cost of Sale) ✓

Less

Fixed Manufacturing o/H (−)

Fixed Admin o/H (−)

Fixed Selling o/H (−)

Profit (A)

Absorption Costing

Sale

less Cost of Production

- Direct Material ✓
- Direct Labour ✓
- Variable Manu. o/H ✓
- fixed Manu. o/H ✓ (absorbed amt ✓)

+ Increase in VC ✓

− Decrease in VC −

Cost of Production (B)

+ opening FG Stock (on Total Cost basis)

− closing FG Stock (on Total Cost basis)

CoGS (Total)

+ under absorption of fixed Manufacturing o/H +

− over absorption of fixed Manufacturing o/H −

+ Admin o/H +

+ Selling o/H +

Cost of Sales (B)

Profit (Sales − Cost of Sale) ✓

Profit (B)

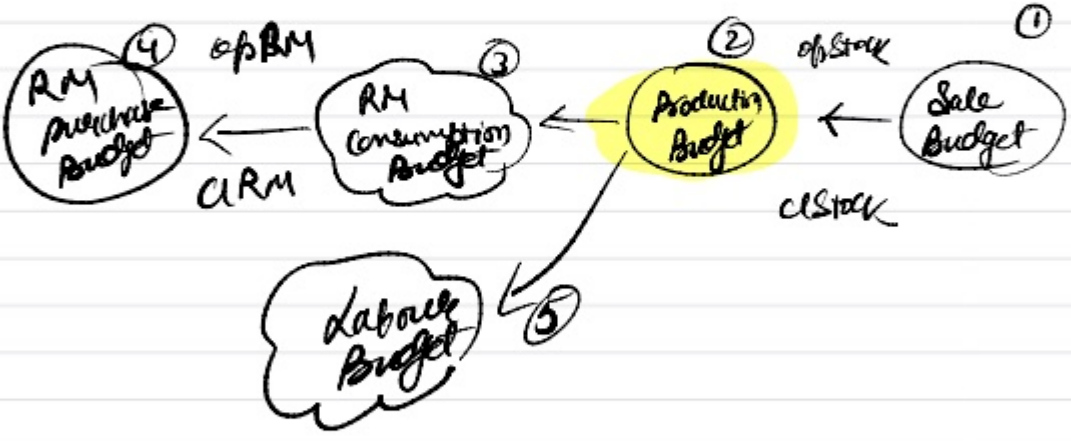
Budgetary control

Topics

1. Production Budget
2. Flexible Budget
3. Cash Budget
4. Budget ratios
5. Miscellaneous.

Concept

(1) Product related Budget (made in reverse order)



(1) Sales Budget

Particulars	chair	Table	Bench
units sold	1000	2000	3000
× Selling Price	₹x	₹y	₹z
Sales Value	✓	✓	✓

ob 100 ~~~> cl 360 (260)

(II) Production Budget

Particulars	Chair	Table	Bench
Sold units	✓	✓	✓
− opening Stock	−100	—	-
+ closing Stock	+360	+	+
Production units	*1	*2	*3

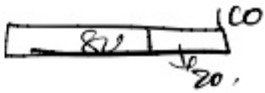
op stock of FG + Production − cl stock of FG = Sold units

(III) Raw Material Consumption Budget

Particulars			wood	Plastic
on chair	*1	1200 chairs	×10kg ✓	2kg = ✓
on Table	*2	1500 Table	×20kg =	5kg = ✓
on Bench	*3	3000 Bench	×5kg =	5kg = ✓
Raw Material Consumed			A	B

(IV) Raw Material Purchase Budget

Particulars	wood	Plastic
RM consumed	A	B
− opening Stock of RM		
+ Closing Stock of RM		
RM Purchased qty	x kg	y kg
× price		
RM Purchased (in ₹)	✓	✓



(V) Labour Budget

		Type (A) Cutting	Type (B) Finishing
on chair	1200 chairs	x 1hr = ✓	✓
on Table	1400 Table	x 2hr = —	—
On Bench	3000 Bench	x 5hr = —	—
Productive Time required	Hrs worked	8500hrs	10,000hrs
+ Unproductive Time			
Total Hours Paid x wage rate	Hours Paid	* x wr1	* x wr2
Total wages Paid		✓	✓

(VI) overhead Budget

Particulars	Dept A	Dept B
Hours of work		
For chairs 1200 chairs	x 2hrs ✓	x 3 Hrs = ✓
For Table 1400 Table	✓	✓
For Bench 3000 Bench	✓	✓
Total Hours x OIH Recovery rate	* x OIHRR1	* x OIHRR2
OIH Expenses	✓	✓

* Profit is calculated on Sold units not Produced units.

Concept ② Flexible Budget

when we prepare Budget for various activity level (Different level of production and Sales)
(It is prepared when future is uncertain like Budget for a new business.

* we prepare Budget at various level of production like 70%, 80% etc.
* fixed cost will not change
* Variable cost will change as per production.

Flexible Budget

Particulars	At 70%	At 80%	At 90%	At 100%
output	70000 units	80000 units	90,000 units	1,00,000 units
Variable expenses	7000	8000	9000	10000
Fixed expenses	5000	5000	5000	5000
Total	✓	✓	✓	✓

(I)

units	cost
1,00,000	3,50,000
90,000	3,30,000

Semi variable cost

Step (1)

$VC \cdot Pu = \frac{\Delta \text{ in cost}}{\Delta \text{ in units}} = \frac{20,000}{10,000} = ₹2 \text{ P.U.}$

Step (2)

$FC = TC - VCPu \times \text{unit}$

$= 350000 - 2 \times 1,00,000$

$FC \Rightarrow ₹1,50,000$

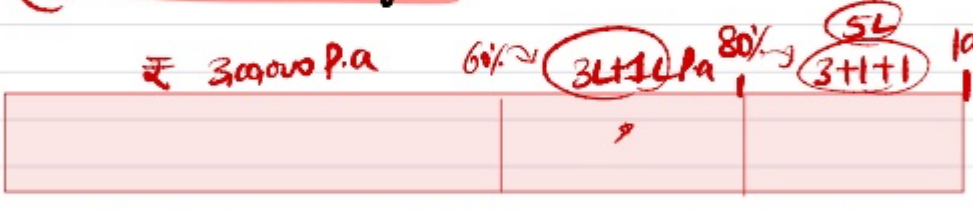
(II)

Semi fixed

Admin cost

upto 60% output → 300,000 Pa

It increases by ₹1,00,000 for every 20% increase in output or part thereof.



Actual Production at 50% in first 3M, 70% in next 6M & 90% in last 3M

3M	6M	3M
50%	70%	90%

cost =)

$\left(3,00,000 \times \frac{3}{12}\right) + \left(4,00,000 \times \frac{6}{12}\right) + \left(5,00,000 \times \frac{3}{12}\right)$

Concept 3

Types of Cost

Variable cost

- This cost increases proportionate to production.
- It is variable on total basis (Fixed on Pu unit)

ex:

units	cost	P.u
1000	1,00,000	₹100
2000	2,00,000	₹100

Fixed cost

- Does not change with output
- It's fixed on Total basis
- It's variable on Pu basis

ex

units	Cost	Pu
1000	₹5,00,000	₹500
2000	₹5,00,000	₹250

Semi-variable cost

- It changes with output but not in same proportion.

* It has both fixed & variable component.

ex:

units	Cost
1000	₹6,00,000
2000	₹7,00,000

We will have to seperate VC & FC

Step① VC Pu = $\frac{\text{Change in cost}}{\text{Change in unit}} = \frac{7,00,000 - 6,00,000}{2000 - 1000} = ₹100$ Pu

Step② Fixed Cost = Total Cost − VC Pu × units
= 7,00,000 − 100 × 2000
Fixed cost = ₹5,00,000

$C = \frac{A}{B}$, $E = \frac{S}{A}$ $A = \frac{S}{B}$.

CAB × ESA = A SB

Concept ④ Budget Ratios.

① Efficiency ratio = $\frac{\text{Standard hours for Actual output}}{\text{Actual hours for Actual output}} = \frac{\text{SH hrs}}{\text{Actual hrs}} \times 100$

② Activity Ratio = $\frac{\text{Standard hrs for Actual output}}{\text{Budgeted hours}} = \frac{\text{SH hrs}}{\text{Budgeted hrs}} \times 100$

③ Capacity Ratio = $\frac{\text{Actual Hours}}{\text{Budgeted hours}} \times 100$

Capacity ratio × Efficiency ratio = Activity ratio

$\frac{AH}{BH} \times \frac{SH}{AH} = \frac{SH}{BH}$

CAB ESA

④ Calendar ratio = $\frac{\text{Available working days}}{\text{Budgeted working days}} \times 100$

⑤ Standard capacity usage ratio = $\frac{\text{Budgeted Hours}}{\text{Maximum possible hours in Budgeted Period}} \times 100$

⑥ Actual Capacity usage ratio = $\frac{\text{Actual Hours}}{\text{Maximum Possible Hours in Budgeted Period}} \times 100$

Concept ⑤ **Cash Budget**

→ A future estimate of cash Receipts/Payment
→ It records all cash transactions occuring in a month. (Revenue nature/ Capital nature).

Cash Budget

Particulars	Jan	Feb	March
Opening Cash Balance	✓	✓ ★	✓ ②
+ Receipts			
Cash Sales	✓	✓	✓
Collection from Debtors	✓	✓	✓
Sale of Asset	✓		
Loan Taken/ Share issue		✓	✓
Dividend received/ Int received	✓	✓	✓
Total Cash Available (A)			
Payments during Period			
→ Cash Purchases			
→ Payment to Creditors			
→ Payment of wages			
→ Payment of Dividend/Int/Tax			
→ Purchase of Machinery			
→ Redemption of Debenture			
Total Payments (B)			
Closing Cash (A) − (B)	★	②	