Variable overheads Variances

That expense which will change with output. (ex: electricity Cost)

upar ke Kharche (Indirect expenses) ex: Depreciation

It operates exactly like labour variances.

Source Table

Particulars	Budgeted		Standard for Actual		Actual	
	Hours	@	Hrs	@	Hrs	@
• Variable OH						

★

Variable OH Cost Variance = $(SH \times SR - AH \times AR)$

Variable OH Rate Variance = $(SR - AR) \times AH$
(expenditure)

Variable OH Efficiency Variance = $(SH - AH) \times SR$

New Topic → Fixed O/H Variances

Source Table (I)

Particulars	Budgeted (10000 units)			Standard for Actual (8000 units)			Actual (8000 units)		
	Hours	@	Amt	Hours	@	Amt	Hours	@	Amt
Fixed O/H	BH	SA	= BH×SR	SH ×	SA	= SH×SR	AH ×	AR	= AH×AR

Budgeted fixed O/H → Standard fixed O/H → Actual fixed O/H

← Volume → ← Cost →

← Expenditure →

Budgeted Hours = 25 Days × 100 Machines × 8 hrs = 20,000 Hrs

Possible Hours = 22 Days × 100 × 8 = 17,600 → Revised Capacity Variance ⎫ Calender Variance

Actual Hours = 22 Days × 750 Machine Hours = 16,500 Hrs

Capacity Variance

(I) Fixed O/H **Cost** Variance = SH×SR − AH×AR

(II) Fixed O/H **Volume** Variance = Standard fixed O/H − Budgeted fixed O/H

(III) Fixed O/H **Expenditure** Variance = Budgeted fixed O/H − Actual fixed O/H

(IV) Fixed O/H **Efficiency** Variance = (SH − AH) × SR

(V) Fixed O/H **Calender** Variance = (Possible Hours − Budgeted Hours) × SR

→ Iski life ICAI ne barbaad kardi hai.

(VI) Fixed O/H **Capacity** Variance = (Actual Hours − Budgeted Hours) × SR

(VII) Fixed O/H **Revised Capacity** Variance = (Actual Hours − Possible Hours) × SR

This is Preferred by ICAI and shown in Place of Capacity

Note ① If question aske for

fixed OIH Variance = fixed OIH **COST** Variance

Note ②
ICA I at "Capacity Variance = $(AH - BH) \times SR$"
Ko Calculate nahi Karta,

Jabki "Revised Capacity Variance = $(AH - PH) \times SR$"
Ko hi Capacity variance maan leta hai.

So, we should also follow it

Note ③ If in a Question we Con write (Hours) it's our first
Preference.

→ If Question does not provides details about (Hours)
we use [Days] in units Coloumn.

→ If a question does not provide (Hours) & (Days) information
we use (Units) @ Amts

If we Can't have
Hours & days

Marginal Costing

Normal Costing	Marginal Costing
* Sales xxx	* Sales xxx
— VC (—)	— VC (—)
— FC (—)	Contribution (★)
Profit (★)	
we take decisions based on Profit	we take decision on basis of Contribution.

Example:

1700   1700   1700

A B C   → → Shimla
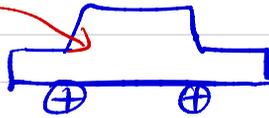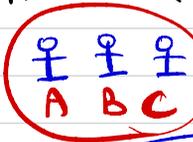
1000₹

fukra Dost

Fixed [Car Rent] = 3000
Food Bill   ⇒ 2100 (Per Person 700)
5100

Normal Costing	Absorption Costing
Sale Price = ₹1000	Revenue (Sale) = ₹1000
— VC ₹700	— VC = ₹700
—FC (3000÷4) −750	Contribution ₹300
Loss −450	
Reject Fukra.	Accept Fukra

	Breakeven Point	**Marginof Safety**	**Desired Sales &** **Desired Profit level**	

Sales   xxx
− VC   (−)
Cont   ✔
− FC   (−)
Profit   ✗

① Plv Ratio
(Profit Volume Ratio)

$$PlvRatio = \frac{Contribution \times 100}{Sales}$$

$$PlvRatio = \frac{FC + Profit \times 100}{Sales}$$

PlvRatio + VC Ratio = 100%

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

→ level of sales where we have no Profit - no loss
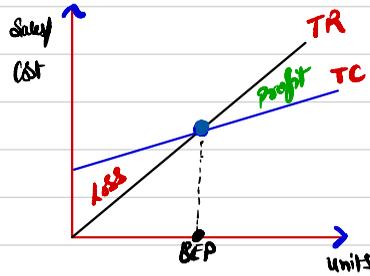
$$BEP = \frac{FC}{Cont.P.u} \quad (in\ units)$$

$$BEP = \frac{FC}{Cont.P.u} \times SP \quad (in\ ₹)$$

$$BEP = \frac{FC}{PlvRatio} \quad (in\ ₹)$$

→ what is the extra level of sales we have over BEP, which Provides Profit
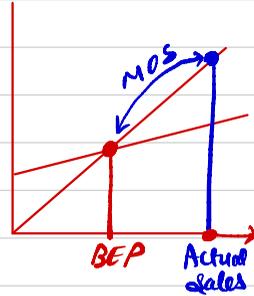
$$MOS = \frac{Profit}{Cont.P.u} \quad (in\ units)$$

$$MOS = \frac{Profit}{Cont.P.u} \times SP \quad (in\ ₹)$$

$$MOS = \frac{Profit}{PlvRatio} \quad (in\ ₹)$$

If we Know desired Sales / Profit level

$$Desired\ Sales = \frac{FC + Desired\ Profit}{Cont P.u} \quad (in\ units)$$

$$Desired\ Sales = \frac{FC + Desired\ Profit}{Cont Pu} \times SP \quad (in\ ₹)$$

$$Desired\ Sales = \frac{FC + Desired\ Profit}{PlvRatio} \quad (in\ ₹)$$

Total FC = xxx
− unavoidable FC
avoidable FC

Shut Down Point
↓
Agar ek business avoidable FC bhi nahi Kama sakta toh dukan mare.

• If a business is not able to generate Contribution equal to avoidable FC it Should Shut Down.

Shut Down Point =
• $\frac{Avoidable\ FC}{Cont\ Pu}$ (in units)

• $\frac{Avoidable\ FC}{Cont Pu} \times SP$ (in ₹)

• $\frac{Avoidable\ FC}{PlvRatio}$ (in ₹)

$$P/v \ Ratio = \frac{Change \ in \ Profit}{Change \ in \ Sales} \times 100$$

$$P/v \ Ratio = \frac{Change \ in \ Contribution}{Change \ in \ Sales} \times 100$$

$$BEP\% + MOS\% = 100\%$$

$$\frac{BEP}{Sales} \times 100 + \frac{MOS}{Sales} \times 100$$

$$\Rightarrow \left(\frac{BEP + MOS}{Sales}\right) \times 100$$

* Business Kam Se Kam
avoidable FC Ko recover Karna
hi chahta hai.

$$\Rightarrow \frac{Sales}{Sales} \times 100 = \boxed{100\%}$$

Note:
Fixed Cost		$\times \wedge \times$
— Non Cash Expenses		(—)
(Depreciation, Amortization)		
Cash Fixed Cost		⊗

$$Cash \ BEP = \frac{Cash \ FC}{Cont \ P \cdot U} \ (in \ units)$$

or

$$= \frac{Cash \ FC}{Cont \ PU} \times SP \ (in \ ₹)$$

or

$$\Rightarrow \frac{Cash \ FC}{P/v \ ratio} \ (in \ ₹)$$

Concept of Cost

Variable Cost

⇒ Cost which is **fixed** on per unit basis

⇒ Cost which is **Variable** on Total basis

Units	Cost	Per unit
100	₹1,00,000	₹1000
200	₹2,00,000	₹1000

ex: ① RM Cost
② wages of labour
③ Royalty Per unit basis

Fixed Cost

⇒ Cost which is Variable on per unit basis

⇒ Cost which is fixed on Total basis.

Units	Cost	Per unit
100	₹50,000	₹500
200	₹50,000	₹250

ex: ① Manager's Salary
② Rent of Building

Semivariable Cost

The cost which has some part as **Variable** and some part as fixed.

Units	Cost	Per unit
100	6,00,000	₹6000
200	11,00,000	₹5500

Step ①

$$VC \, P.U = \frac{Diff \, in \, Cost}{Diff \, in \, units} = \frac{11L - 6L}{200 - 100} = \frac{5L}{100}$$

VC. Pu = ₹5000

Step ②

$$FC = TC - n \times VC.Pu$$

$$FC = 11L - 200 \times 5000$$

FC = ₹1,00,000

Income Statement

Sales	xxx
− Variable Cost	(−)
Contribution	xxx
− Fixed Cost	(−)

Earning Before Int & Tax = EBIT (Operating Profit)

− Interest	
Earning Before Tax = EBT	
− Tax	
Earning After Tax = EAT (Profit after Tax)	

Note (11)   Specific FC   vs   Combined FC

Question 76   vs   Question 83

In this Question FC for each Product was given seperately.

So, we could calculate seperate

P/V ratio and at end a combined P/V ratio

In this Question FC was only given in Combined manner.

So, we could only calculate overall P/V ratio.

Also do Q77,78

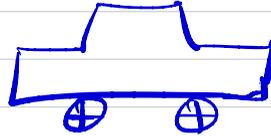# Indifference Point   Q 81

Example to understand Indifference Point

♀
Uncle Piyush

Tata Nexon

Petrol
FC = Int = ₹ 1,00,000
   × Dep

VC = Running = ₹ 5/Km
        cost

Electric
FC = Int = ₹ 1,80,000
   × Dep

VC = Running = ₹ 2/Km
        cost