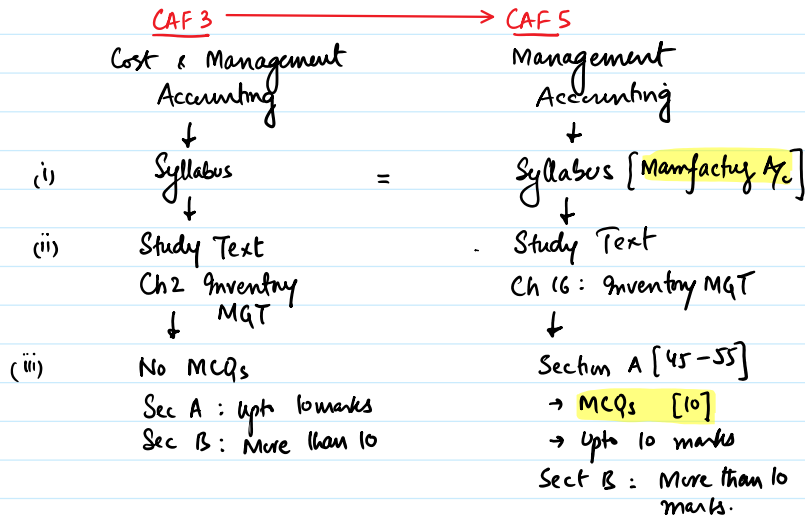


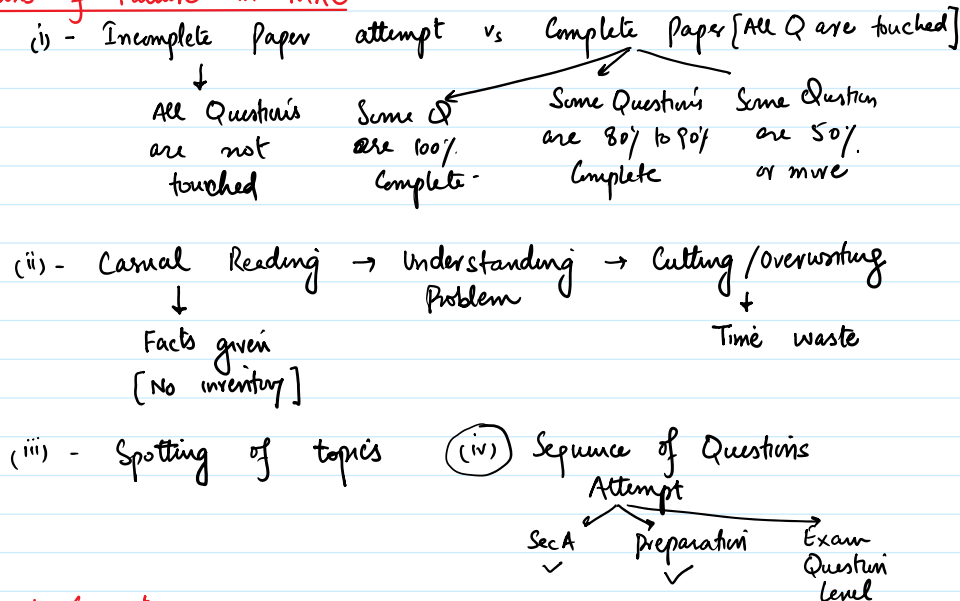
LECTURE # 1 - MAC Crash Batch

[BASIC CONCEPTS]

Changes:



Reasons of Failure in MAC

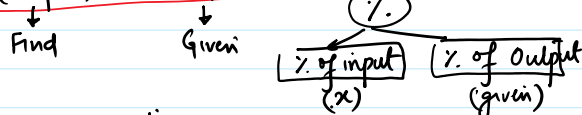


Basic Concepts

(1) Production units

(a) - When FG inventory is given : $OS \text{ units} + \text{Production units} - CS \text{ units} = \text{Sale units}$

(b) - When FG rejection rate (NL rate) is given : $\text{Production units (Input)} = \text{Good units (Output)} + \text{Rejection units}$



e.g.,

Order = 15000 units

Rejection rate = 20%

Production units = ?

Production units = Good units + Loss (Rejected units)

(Input) (Output)

$$x = 15000 \text{ units} + 20\% \text{ of input}$$

$$x = 15000 + 20\% x$$

$$x - 0.20x = 15000$$

$$x = \frac{15000}{0.80} = 18750 \text{ units}$$

15000 Good 3750 Rejected

$$x = \frac{15000}{0.80} = 18750 \text{ units}$$

15000 3750
Good Rejected

(c) - When Completion Rate : Equivalent Production units (EPU)

(d) - When Limited Capacity : $\text{Production units} = \frac{\text{Total Available Resource}}{\text{Resource pu}}$

e.g Machine Capacity = 5000 Hrs
MH pu = 2 MH pu

$$\text{Production units} = \frac{5000 \text{ MH}}{2 \text{ MH pu}} = 2500 \text{ units}$$

2) Production Cost per unit / Manufacturing Cost per unit / Factory Cost per unit

Marginal Costing		Absorption Costing [Silent]	
	Rs.		R.
D. Mat Cost pu	✓	D. Material Cost pu	✓
+ D. Lab Cost pu	✓	+ D. Labour Cost pu	✓
+ V. FOH Cost pu	✓	+ V. FOH Cost pu	✓
= V. Production Cost pu	✓	+ Fixed FOH Cost pu (OAR)	✓
		= Full Production Cost pu	✓

(3) Sale Price / Bid Price / Contract Price

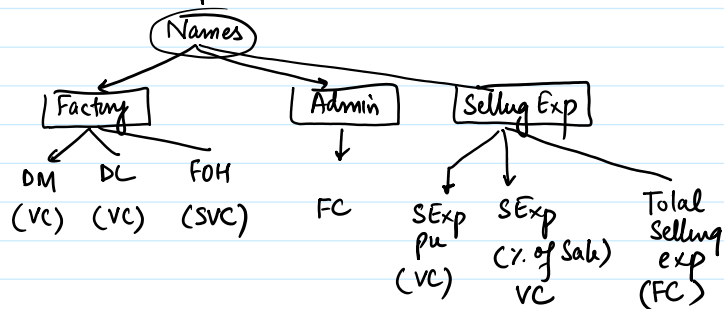
Marginal Costing		Absorption Costing		Relevant / Opportunity Cost Principles	
	Rs.		Rs.		Rs.
D. Mat Cost	✓ pu	D. Mat Cost	✓ pu	Relevant expenses	
+ DL Cost	✓ pu	+ DL Cost	✓ pu	D. Mat Relevant Cost	✓
+ V. FOH Cost	✓ pu	+ V. FOH Cost	✓ pu	+ D. Labour Relevant Cost	✓
= V. Production Cost	✓ pu	+ Fixed FOH Cost (OAR)	✓ pu	+ V. FOH Relevant Cost	✓
+ V. S & M Cost	✓ pu	= Production Cost pu	✓	+ Allocatable FC / Incremental FC	✓
= Every VC	✓ pu	+ V. S & M Cost pu	✓	+ NCA usage relevant Cost	✓
+ Contribution Margin	✓ pu	+ Fixed S & M Cost pu	✓	+ V. S & M Relevant Cost	✓
= S. Price	✓ pu	+ Admin Cost (Fixed)	✓	+ Allocatable Fixed S & M	✓
		= Every Cost	✓	+ Allocatable Admin Cost	✓
		+ Profit	✓	= Total Relevant Cost	✓
		= S. Price pu	✓	+ Profit	✓
				= Bid Price / Cont Price	✓

(4) Identification of VC/FC/SVC

Cost is given at multiple volumes

Units	5000 Rs	8000 Rs	10000 Rs	
A Cost	50,000 [Rs 10]	80,000 [Rs 10]	100,000 [Rs 10]	(VC)
B Cost	25,000 [Rs 5 pu]	40,000 [Rs 5 pu]	50,000 [Rs 5 pu]	(VC)
C Cost	50,000	50,000	50,000	(FC)
D Cost	15,000 [Rs 3 pu]	21,000 [Rs 2.63]	25,000 [Rs 2.5]	(SVC)

Cost is given at Single Volume/No volume -



- Salaries exp → FC
- Rent expense
 - Rent exp pu pa (VC)
 - Rent exp (area occupied) (VC)
 - ✓ → Rent exp pm/pa (FC)
- Insurance expense
 - Insurance exp pu pa (VC)
 - Insurance exp (Avg inv) (VC)
 - Insurance exp pm/pa (FC)
- Dep expense
 - Dep exp (Straight Line) FC
 - Dep exp (Output Method) VC
- Storage expense
 - Storage exp pu pa (VC)
 - Storage exp pm/pa (FC)
- Delivery expense → VC
- Interest on loan (Finance Cost)
 - ↳ % of Purchase Cost pu (VC)
 - ↳ % of loan (FC)

- High & low point
- learning curve
- Material loss, Lab loss
- Marginal,