Subject: **Chp1: material costing : ==marathon /Notes==**

Concept 1 : Valuation of material

1. Purchase cost
2. Trade Discount
3. Quantity Discount
4. Cash Discount
5. Subsidies / Grants / Incentives
6. Road Tax / Toll Tax
7. Indirect Tax ⟶ IGST / CGST / SGST

    Credit Available   Credit Not Available

8. Basic Customs Duty
9. Demurrage
10. Dentention charges / fine / Any other Penalty
11. Insurance

    Q: How much Insurance will Buyer Book?

12. Commission / Brokerage
13. Freight Inward
14. Cost of Container

    Returnable   Non - Returnable

Full Amt Refunded   Partial Amt is Refunded

NOTE: Return is Different from Rejection

15. Shortage ⟶ Normal / Abnormal Reasons.

Subject: _____ / /

Concept 2: Re-order level + Economic order Qty

1. **Re-Order level :** It is the level at which order for material procurement is placed

Formula:

i. max cons $\times$ max ROP

— ROL

ii Safety stock $+ \left[\begin{array}{ccc} Avg & \times & Avg \\ cons & & ROP \end{array} \right]$

$\rightarrow$ Re-order Period (ROP) is the time taken for Delivery of Goods

2. **Economic order Qty. (EOQ)**

Formula: $\sqrt{\dfrac{2 \times A \times O}{C}}$

A = Annual Demand of Raw Material
O = Ordering cost per order
C = Carrying cost per unit per annum

Other imp points

a) Avg Inventory = EOQ/2

b) Number of Orders = Annual Demand / EOQ

c) Frequency of Orders = $\dfrac{Days/month}{No. \ of \ orders}$

d) At EOQ $\rightarrow$ OC = CC

Subject: _____ / /

→ **EOQ v/s NON EOQ (w/o DISCOUNT)**

Solution:

Given:

AD =

OC =

CC =

Formula: $EOQ = \sqrt{\dfrac{2 \times A \times O}{C}}$ =

Statement of cost comparison betⁿ EOQ & NON EOQ

Particulars	EOQ	NON-EOQ
i. AD		
ii Purchase Price		
iii Purchase cost		

↳ **since Discount is not offerred, total purchase cost is irrelevant for Decision making.**

iv. OQ		
v. NO. of orders		
vi. OC = v × OC per order		
vii Avg Inv.		
viii CC. pu. pa		

→ **since Discount is not given it will Remain same**

ix CC = vi × vii		
x. Total cost = PC + OC + CC		

Subject: _____ / /

→ **EOQ v/s NON EOQ (w/ Discount)**

solution:

Given

AD =

OC =

CC =

formula: $EOQ = \sqrt{\dfrac{2 \times A \times O}{C}}$ = _____

statement of cost comparison between EOQ & NON-EOQ

Particulars	EOQ	NON-EOQ
i. AD		
ii. Purchase Price		
iii. Purchase cost		
iv. OQ		
v. No. of orders		
vi. OC = v × O per order		
vii. Avg Inv.		
viii. CC.pu.pa = % × Respective Price		

↳ Question may state that cc.pu.pa may not vary according to Discount policy

ix. CC = vii × viii

x. Total cost. = PC + OC + CC.

→ **Negotiation of Further Discount**

$$TC_{NON-EOQ} - TC_{EOQ} = Amt\ of\ Disc.$$

$$\%\ of\ Disc = \dfrac{Amt\ of\ Disc}{Total\ cost\ @\ EOQ} \times 100.$$

Subject: _____ / /

CONCEPT 3: Stock levels

a) Re-order level

i. $\text{Max cons} \times \text{Max ROP}$

OR

ii. $\text{Safety stock} + \left[\text{Avg cons} \times \text{Avg ROP} \right]$

b) Min. Stock level: $\text{ROL} - \left[\text{Avg cons} \times \text{Avg ROP} \right]$

c) Max Stock level: $\text{ROL} + \text{ROQ} - \left[\text{Min cons} \times \text{Min ROP} \right]$

Imp point:
- Formula includes ROQ & NOT EOQ
- when Question does not provide ROQ then EOQ = ROQ
- when Question has BOTH EOQ & ROQ consider ROQ

d) Average stock level $= \dfrac{\text{Min stock level} + \text{Max stock level}}{2}$

OR

$\text{Safety stock} + \dfrac{1}{2}\text{ROQ}$

e) Danger level: $\text{Normal consumption} \times \text{lead time for Emergency Purchases}$

Subject: / /

Concept 4 : Input Output Ratio

Formula: $\dfrac{\text{Input}}{\text{Output}}$

eg. 3:2 for every 3 units of input
2 units of output is obtained.

eg: 110% → 110 units of input 100 units
of output is obtained.

Concept 5 : ABC Analysis

	A	B	C
value	70%	10%	20%
Qty	20%	10%	70%

Concept 6 : FSN: Fast, Slow & Non-moving

Inventory Turnover Ratio : $\dfrac{\text{Cost of material consumed}}{\text{Cost of Avg Inv.}}$

Opening Stock
(+) Purchases
(-) closing

$\dfrac{\text{Opening Stock} + \text{Closing Stock}}{2}$

Ans is in No. of times

High	Medium	low
Fast	moderate	slow.

Subject: _____ / /

→ **Inventory Holding Period**

Formula: $$\frac{\text{No. of days/weeks/months}}{\text{Inventory Turnover Ratio}}$$

High	Medium	low
Slow	moderate	Fast

Concept 7 : Stores ledger.

```
[   ]  →  a) Inward        Stores [   ]  →  a) Issue
          b) Returned                        b) Returned
Supplier  to Supplier                          to Store
```

P1 ⇄ P2

Supplier
Issue Rate will
be Rate @ which
it was purchased
   c) Replacement
   material is
   Received

Rate @ which
it was issued
to Prod^n Dept
   c) loss
   Normal
   Abnormal.

Inter
Dept
Trf.
↓
No Entry
in
Stores
ledger.
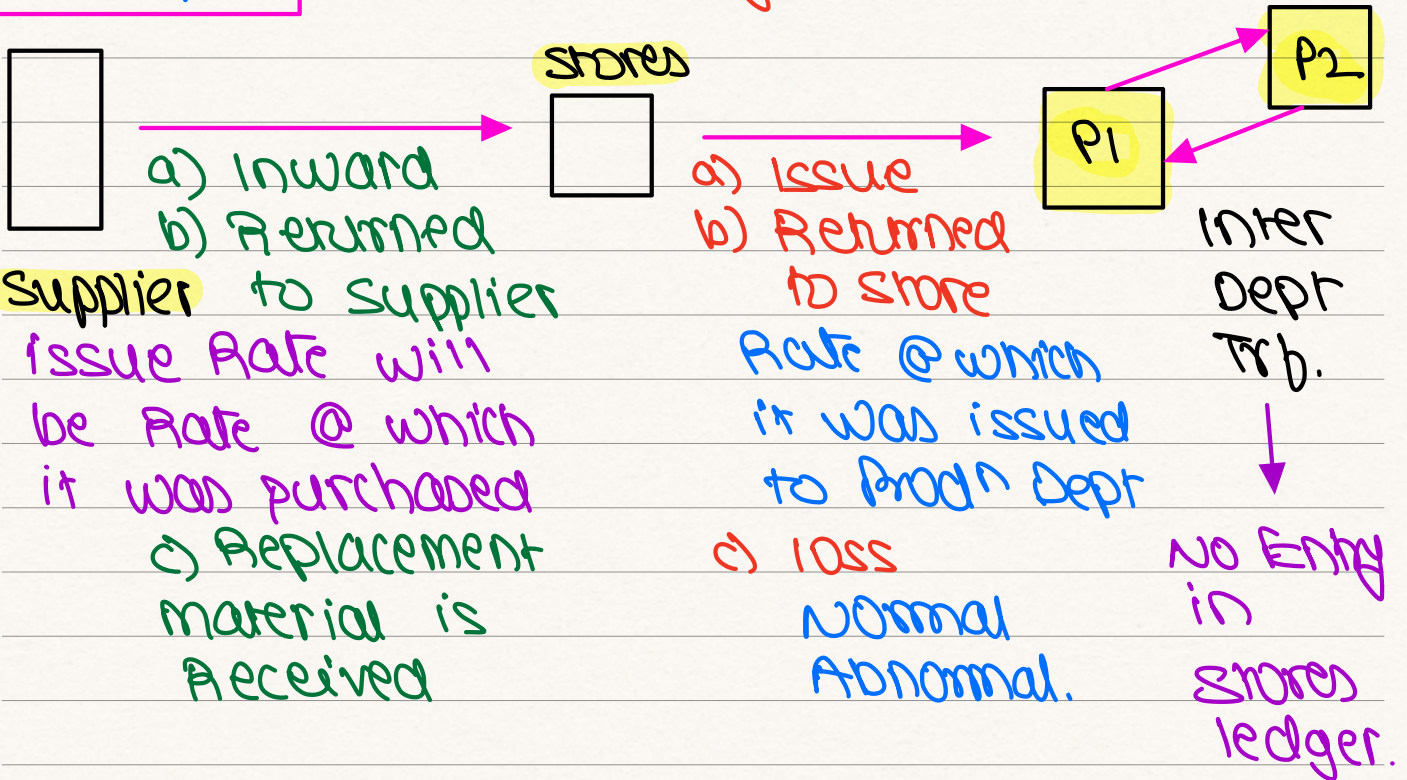
☞ **Methods:**

a) First in First out
b) Last in First out
c) Average method

Weighted Average
$$\frac{Q_1 \times R_1 + Q_2 \times R_2}{Q_1 + Q_2}$$

Simple Average
$$\frac{R_1 + R_2}{2}$$

Subject: Chp2: Labour Costing   / /

CONCEPT 1: Labour Turnover Ratio

method	Separation	Replacement	New Recruitment
Expln:	left & Discharged	Substitutions	Additions made to existing workforce on A/c of Exp.
comes in	✗	✓	✓
Goes out	✓	✓	✗

Accessions: Replacement + New Recruitment

flux: w/o Expansion: Separation + Replacement

w/ Expansion: Separation + Replacement + New Recruitment

OR

Separation + Accessions.

Denominator: $\text{Avg Labour} = \dfrac{\text{No. of workers @ start} + \text{No. of workers @ End}}{2}$

NOTE: No. Of Emp @ Start
    (-)   Separation
    (+)   Replacement
    (+)   New Recruitment
          No. Of Emp @ End.

Subject: _____ / /

Concept 2: Computation of wages & Earnings

⬇   ⬇

Cost to   In Hand.
Company

a) Computation of [Cost to Company]

Basic Salary
(+) Allowances
Perquisites
Bonus
Commission
Overtime
Incentives

> Gross Salary
> (+) Employers conn

Gross Salary
(-) Tax Deducted
@ Sources
(-) Employees cont
  • PF
  • ESI
(-) Profession Tax

} it is Deducted
& paid to Govt.

Net Salary

Subject: _____ / /

Concept 3 : Cost control

1:≡ **Attendance**

i. Time keeping : In Time - Out Time

ii Time Booking : Details of work performed.

Actual Hrs ————————————— **Idle Time**

Normal Idle Time
Cost will be absorbed by effective/Productive Hours

Abnormal Idle Time
Cost will Transferred to Costing P&L A/c

Concept 4 Overtime

Hours worked over & Above Normal working time is called as Overtime

i. Normal overtime wages added to Cost as Direct Labour

ii Overtime Premium:
a) Agreed by Customer & Customer is Ready to pay : Direct Labour
b) unexpected Development : Overheads
c) Due to Fault of mgmt : Charged to

Subject: _____ / /

Respective Dept

a) Abnormal Reasons: Costing P&L.

Concepts: Bonus:

i. Halsey

　a) Normal wages Time Taken $\times$ Time Rate

　b) Bonus 50% [Time Saved $\times$ Time Rate]

ii Rowan

　a) Normal wages: Time Taken $\times$ Time Rate

　b) Bonus: $\dfrac{\text{Time Saved}}{\text{Time Allowed}}$ [Time Taken $\times$ Time Rate]

Bonus under Halsey & Rowan be equal when

$$AH = \frac{1}{2} SH$$

Note: when AH is for AQ
SH should also be for AQ.

Subject: / /

Concept 6 : Efficiency

a) Efficiency (Hrs) $= \dfrac{Std \; Hrs}{Act \; Hrs} \times 100$

b) Efficiency (units) $= \dfrac{Actual \; units}{Std \; units} \times 100$

Concept 7: Types of cost

Particulars	Prime Cost	Factory Cost	Conversion Cost
Direct mat	✓	✓	✗
Direct lab	✓	✓	✓
Direct Exps	✓	✓	✓
Factory OH	✗	✓	✓

Concept 8 : Contribution

Sales	Sales − VC = Contribution
(−) Variable cost	Profit + FC = Contribution
Contribution	Sales × P/V Ratio = Contribution
(−) Fixed cost	
Profit	P = Contribution
	V & Sales

Subject: __Chp4: Overheads__ / /

Indirect Expenses:

i. These expenses are known to us after the end of Relevant Period

ii However these costs need to be charged to arrive at cost of Product

This is done By following below steps.

a) Estimate / Budget

b) Adjusted to known circumstances

c) Allocation: charge it to Traceable Dept.

Prod'n A	Prod'n B	Service X (R&M)	Service Y (Canteen)
		₹ ₹ ₹	₹ ₹
		• loose Tools	• Grocery
		• Spares	
Rent Elec	Rent Elec	Rent Elec	Rent Elec

d) Apportionment: Distribute among all other departments using that facility on some Agreed Basis (Primary Distribution)

e) Re-Apportionment Distribution of service Departments expenses over Production Dept. (Secondary Distribution)

Total OH ₹ ₹   ₹ ₹

Subject: _____ / /

→ **Methods of Re-Apportionment**

a) **Direct method:** Here, the services given by one service Dept to another is ignored

Service X ⟶ Dept A, Dept B
Service Y ⟶ Dept A, Dept B

b) **Non-Reciprocal / Step Down method.**
Service Department providing Highest No. of services to other Depts will be Re-Apportioned First (Descending order)

Service X ⟶ Service Y, Dept A, Dept B
Service Y ⟶ Dept A, Dept B.

(Y's OH + Share of OH Received from X)

c) **Reciprocal method**

Service X ⟶ Service Y, Dept A, Dept B
Service Y ⟶ Service X, Dept A, Dept B

| Repeated Distribution method | Trial & Error method | Simultaneous Equation method. |

Subject: _____   / /

	Production A	Production B
Allocation	✓	✓
Apportionment	✓	✓
Re-Apportionment	✓	✓
Budgeted Total Overheads	₹ ₹ ₹	₹ ₹ ₹

Basis of Apportionment

Particulars	Basis
1. Stores	value of Stores Reqn
2. Time keeping & A/c	No. of workers
3. Power	HP of m/c
4. Canteen / meal chgs	No. of workers
5. Factory Rent	Area
6. Power	HP × m/c Hrs
7. Depreciation	capital value of Assets
8. Other overheads	m/c Hrs
9. Insurance of m/c	value
10. Insurance of Bldg	value
11. Power	Effective HP hrs %.
12. Light	Area / No. of light pts
13. Rent	Area
14. Personnel Dept Exps	No. of Employees
15. Indirect wages	Direct wages
16. Fuel & Heat	Radiator Sections
17. Power	KW Hrs.
18. Bldg maintenance	Floorspace / Area.

Subject: _____ / /

19. Insurance chgs for Inventory	Avg Inv × Price
20. Storage cost	Avg Inv Storage
21. Packing & forwarding	Annual Sales
22 Invoicing cost	No. of Invoices

☞ Overhead Recovery Rate

1. Direct method: Based on No. of unit

$$\frac{\text{Estimated Overheads}}{\text{Estimated No. of units}}$$

2. Indirect method:

i. % of Direct material $\quad \dfrac{\text{Estimated overheads}}{\text{Direct material}}$

ii % of Direct Labour $\quad \dfrac{\text{Estimated overheads}}{\text{Direct Labour}}$

iii % of Prime cost $\quad \dfrac{\text{Estimated overheads}}{\text{Prime cost}}$

iv M/c Hr Rate $\quad \dfrac{\text{Estimated overheads}}{\text{Productive M/c Hrs}}$

v. Labour Hr Rate $\quad \dfrac{\text{Estimated overheads}}{\text{Productive lab Hrs}}$

Subject: _____ / /

Over/under Recovery of overheads

eg: $\dfrac{\text{Est. Total OH}}{\text{Est. No of units}} = \dfrac{₹200.000}{20,000 \text{ units}}$

$= ₹10 \text{ pu.}$

↓

Overhead Recovery Rate.

Absorbed OH = Actual × Overhead units Recovery Rate

eg: ₹100,000

After end of Relevant Period we come to know | actual overheads |

eg: ₹80,000   eg ₹150,000

₹20,000 Over Recovery   ₹50,000 under Recovery

→ Comprehensive m/c Hr Rate

$\dfrac{\text{Total overheads} + \text{Direct Labour}}{\text{Productive m/c Hrs}}$
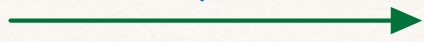
Subject: Chp 4 : Cost Sheet   / /

→ **Basic cost sheet**

Direct material
Direct labour
Direct Expens
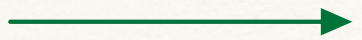→ Prime cost

Factory OH
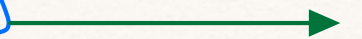→ Factory cost

Office OH
→ Cost of Production

Selling & Dist OH
→ Cost of Sales / Cost of Goods Sold.

Subject: _____ / /

→ **Comprehensive cost sheet**

Direct material consumed

Opening (RM)
(+) Purchases
(—) closing (RM)

Direct labour
Direct Expenses
———————————→ Prime cost

Factory OH / works OH
———————————→ Gross Factory cost

(+) Opening (WIP)
(—) closing (WIP)
———————————→ Net Factory cost

Quality control
Research & Development
Admin OH (Related to prodn)
Primary Packing
(—) Scrap, By products, Misc Income
———————————→ cost of Production

(+) opening stock (FG)
———————————→ cost of Goods Avbl forsale

(—) closing stock (FG)
———————————→ cost of Goods Sold

Admin OH (Gen)
Selling OH
Dist OH
marketing
———————————→ cost of sales

Subject: Chp5: Cost Accounting System   / /

```
                    ↓
    ┌───────────────┴───────────────┐
    ↓                               ↓
```

Non integrated
Financial & Acn
Records are
maintained
  separately

integrated
Financial &
Accounting
Records are
maintained
together

→ **Non integrated system of Accounting**

Accounts: | Real   Personal | Nominal
                        ↓

i. cost ledger control A\c
       OR
ii General ledger control A\c

a) material

1. material control A\c Dr   } Direct/
       To cost ledger control A\c } Indirect
   (Being material purchased)

2. Stores ledger control A\c Dr
       To material control A\c
   (Being material Trf to Stores)

3. Cost ledger control A\c Dr.
       To Stores ledger control A\c
   (Being material Returned to supplier)

Subject: _____ / /

4. Issue of material.

a) Direct material

WIP control A/c Dr
To Stores ledger control A/c
(Being material issued to Prodn)

b) Indirect material (overheads)

<u>Absorbed</u>
WIP control A/c Dr
To Factory OH cont A/c
(Being FOH charged to Prodn)

<u>Actual (incurred)</u>
Factory OH cont A/c
To Stores ledger control A/c
(Being Indirect material issued to production)

} Difference Over/under Absorption of Overheads

5. Stores ledger control A/c
To WIP control A/c (Direct)
To FOH control A/c (indirect)
(Being material Returned to stores)

6. Job2 A/c Dr
To Job1 A/c
(Being material Trf from Job1 to Job2)

7. WIP control A/c Dr
To Cost ledger control A/c
(Being material Directly purchased for Prodn)

Subject: _____ / /

b) Labour

1. Wages control A/c Dr   } Direct/
       To cost ledger control A/c } Indirect
   (Being wages paid/ incurred)

2.   Wages

a) Direct wages
       WIP control A/c
           To   wages control A/c
       (Being wages charged to Prodn)

b) Indirect wages

Absorbed	Actual/ Incurred
Production	
WIP cont. A/c Dr	Factory OH cont A/c Dr
To FOH cont A/c	To wages cont A/c
(Being Prodn OH	(Being Prodn OH
charged to WIP)	incurred)
Admin OH (Related to Production)	
FG control A/c Dr	Admin OH cont A/c Dr
To Admin OH A/c	To wages cont A/c
Selling & Distribution	
Cost of sales A/c Dr	S&D OH cont A/c Dr
To Selling & Dist OH A/c	To wages cont A/c

Subject: _____   / /

c) Direct Expenses

WIP control A/c Dr
   To cost ledger control A/c
(Being Direct Expenses incurred)

d) General Expenses / Indirect Expenses

Production OH

Incurred: Factory OH control A/c Dr
   To cost ledger cont A/c

Absorbed: WIP control A/c Dr
   To Factory overhead cont A/c

Admin OH

Incurred: Admin OH cont A/c Dr
   To cost ledger cont A/c

Absorbed: Finished Goods control A/c Dr
   To Admin OH control A/c

Selling & Dist OH

Incurred: Selling & Dist OH cont A/c Dr
   To cost ledger cont A/c

Absorbed: Cost of sales A/c Dr
   To Selling & Dist OH cont A/c

Subject: _____ / /

e) Finished Goods control A/c Dr
    To WIP control A/c

f) Cost of Sales A/c Dr
    To Finished Goods cont A/c

g) Costing P&L A/c Dr
    To Cost of Sales A/c

h) **Respective** overhead control A/c
    To Costing P&L A/c
    (Over Absorbed)

i.) Costing P&L A/c Dr
    To **Respective** overhead cont A/c
    (under Absorbed)

J) Cost ledger control A/c
    To Sales A/c

    Sales A/c Dr
    To Costing P&L A/c

Subject: / /

→ **Integrated System Of Accounting**

Particulars	Non-Integrated	Integrated
Shores ledger	✓	✓
Wages conr.	✓	✓
Prodn OH cont	✓	✓
WIP cont Alc	✓	✓
FG cont Alc	✓	✓
Admin OH	✓	✓
S&D OH	✓	✓
Cost of sales	✓	✓
Cost ledger cont Alc	✓	✗

Replaced by Respective Real & Personal Alc

→ **Reconciliation**

Subject: **Chp 6: Activity Based Costing** / /

Overheads

eg: Bill = ₹ 10,000

NO = 5 people

$$\text{Share} = \frac{₹10,000}{5} = ₹2000$$

Activity Based costing : Tu Tera Mei mera

Activities

Starter

Roti

Sabzi

Rice

Dessert

ie. cost is allocated/Apportioned among products based on activities utilised for them

Steps:

a) Cost Driver

b) Cost Driver Qty

c) Cost Driver Rate

d) Allocation (b×c)

Subject: Chp: Process costing   / /

Process I → Process II → Process III → Finished Product

↓   ↓   ↓

Purchase
Sorting
Cleaning

Pulp
Preserve

Bottling
Primary Packing
Branding
Despatch

Format / Illustration

Process I A/c

Particulars	Qty	Amt	Particulars	Qty	Amt
To Direct Mat	100	10000	By Process II	100	40000
To Direct Lab	–	10000			
To Direct Exps	–	10000			
To OH	–	10000			
	100	40000		100	40000

Process II A/c (10% Normal loss)

Particulars	Qty	Amt	Particulars	Qty	Amt
To Process I	100	40000	By Process III	180	85000
To Dir. Mat	100	20000	By Normal loss	20	–
To Dir Lab	–	10000			
To Dir Exps	–	10000			
To OH	–	5000			
	200	85000		200	85000

Subject: _____ / /

Process III A/c (10% Normal loss)

Particulars	Qty	Amt	Particulars	Qty	Amt
To Process II	180	85000	By Process IV (Act output)	250	1,11,000
To Dir mat	120	15000	By Normal loss	30	—
To Dir. Lab	—	10000	By A.Loss (Bal. fig)	20	9000
To OH	—	10000			
	300	120000		300	120,000

Normal loss = 10% of Input ie, 10% × 300 = 30
Actual output (Given)
Abnormal loss (Bal fig) → loss Trf to Costing P&L

$$\text{Effective cost p.u.} = \frac{120,000}{300-30} = ₹444 \, p.u.$$

$\underbrace{300-30}_{\text{Effective units}}$

Process IV A/c (10% Normal loss & Scrap val = ₹100 pu)

Particulars	Qty	Amt	Particulars	Qty	Amt
To Process III	250	111000	By FG A/c (Actual output)	350	333160
To Dir mat	50	89000	By Normal loss	30	3000
To Dir Lab	—	10000			
To Dir Exp	—	20000			
To OH	—	30000			
To Ab. Gain	80	76160			
	380	336160	scrap value	380	336160

$$\text{Effective cost pu} = \frac{260,000 - 3000}{\underbrace{300-30}_{\text{Effective units}}} = ₹952 \, pu$$

Input − output.

Subject: _____ / /

==NOTE:== i. when scrap is given, it value will be credited in case of Normal loss as we bear cost we get Benefit.

ii In case of Abnormal loss, its scrap value wont be Reduced from process A/c as we dont bear cost so No Benefit is Taken.

iii You may be asked to prepare Normal loss/ Abnormal loss A/c

iv. For Question on decisions about further processing compare Extra Revenue with Extra cost

v. Royalty is Debited to Process A/c for units that were normally be expected to be produced.
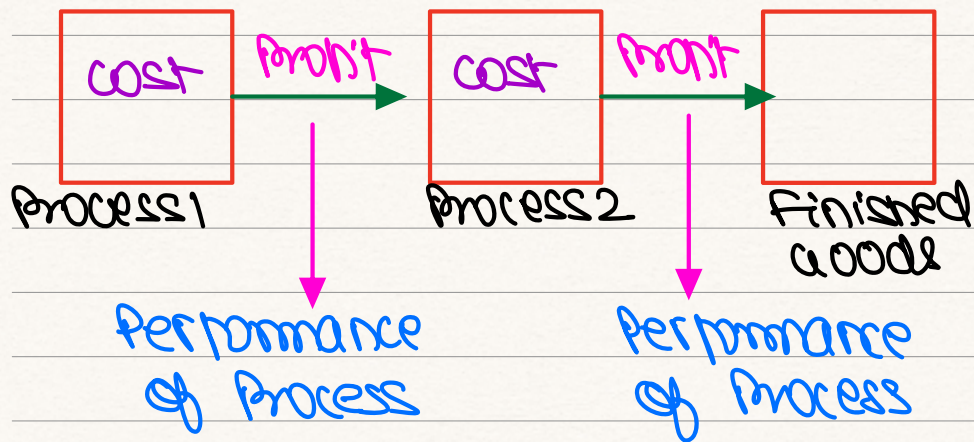In case of Abnormal Gain that extra units Royalty will be Dr. to Ab-Gain A/c

vi Sub-Concepts
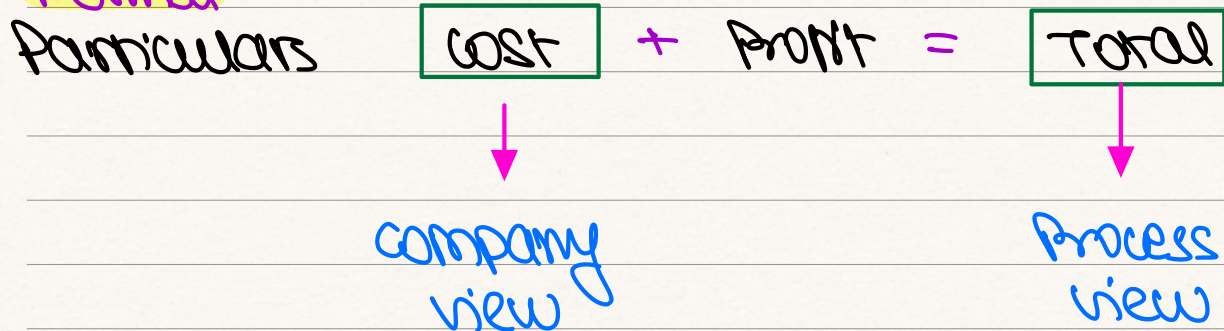
a) Process costing through stock A/c
   o FIFO
   o WAC

Subject: _____ / /

b) Process costing with Inter Process Profits

cost	Profit	cost	Profit	
Process1		Process2		Finished Goods

Performance of Process   Performance of Process

Format

Particulars | COST | + Profit = | Total |

COST → company view

Total → Process view

c) Equivalent units

Situation1

Particulars	Qty	Amt	Particulars	Qty	Amt
Dir. mat	1000	10000	By P2 100%	700	14000
Dir Lab	-	10000	By Cl.St. 100%	300	6000
	1000	20000		1000	20000

$$\text{Effective cost p.u.} = \frac{20000}{1000} = ₹20$$

Subject: _____ / /

Situation 2

Particulars	Qty	Amt	Particulars	%	Qty	EU	Amt
Om	1000	10000	By P2 A/c	100	700	700	32942
DL	–	10000					
DE	–	10000	By Cl. St.	50	300	150	7058
FOH	–	10000	(50% comp in all Respects)				
	1000	40000			1000	850	40000

Effective cost per equivalent unit $= \dfrac{40,000}{850} = ₹47.06$

Situation 3

Dr side same as above

Particulars	Mat %	EU	Lab %	EU	OH & Exps %	EU
By P2 A/c	100	700	100	700	100	700
By Cl. St.	100	300	30	90	50	150
		1000		790		850

Statement of Equivalent cost p.u.

Particulars	EU	Amt	Cost per eq. unit
Material	1000	10,000	10
Labour	790	10,000	12.66
OH	850	10,000	11.76
Exps	850	10,000	11.76

Subject: _____ / /

Statement of Cost Apportionment

Particulars	material	Lab	OH	Exps	Total
Process2 A/c	7000	8862	8232	8232	32326
Closing stock	3000	1138	1768	1768	7674
					40000

Process A/c

Particulars	Qty	Amt	Particulars	Qty	Amt
DM	1000	10000	By P2 A/c	700	32326
DL	-	10000	By cl. Stock	300	7674
DE	-	10000			
OH	-	10000			
	1000	60000		1000	60000

Subject: _____ / /

Chp: Standard costing.

📋 **Material variances**

Total [cost] variance = $SQ \times SR - AQ \times AR$

[Price] variance
$= AQ(SR - AR)$
$= AQ \times SR - AQ \times AR$

[usage] variance
$= SR(SQ - AQ)$
$SR \times SQ - SR \times AQ$

Mix variance
AQ = same

Standard mix → AQ Re-written in Std %

Actual Mix → AQ in Actual %

$SR(RAQ - AQ)$

Yield variance (output)
mix = Std %

SQ → Std Qty in Std Mix

AQ → Actual Qty in Std Mix

$SR(SQ - RAQ)$

Labour variances

Labour [cost] variance = $SR \times SH - AR \times AH$

Labour Rate variance
$AH(SR - AR)$

Labour efficiency variance
$SR(SH - AH)$

Idle time

Labour Net efficiency variance
$SR(SH - Net AH)$

Actual Hrs - Idle Time

Idle Time variance
$SR \times Idle Time$

It will Always Be Adverse

Labour mix/ Gang variance
$SR(RAH - AH)$

Labour Yield variance
$SR(SH - RAH)$

Subject: _____ / /

Overhead variances

I : variable overhead variances

a) Based on Output

i. Std Recovery Rate pu.
ii. Actual Recovery Rate pu.
iii. Actual Output (for Actual Hrs)
iv. Std Output (for Actual Hrs)

v. Total cost variance = $SR \times AO - AR \times AO$

→ Overheads Absorbed

→ Overheads incurred

vi. Efficiency variance = $SR(SO - AO)$

vii. Expenditure variance = $SR \times SO - AR \times AO$

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b) Based on Time

i. Std Recovery Rate ph.
ii. Actual Recovery Rate ph.
iii. Actual Hrs (for Actual output)
iv. Std Hrs (for Actual output)
v. Total Cost variance = $SR \times SH - AR \times AH$

vi. Efficiency variance = $SR(SH - AH)$

vii. Expenditure (Rate) variance = $AH(SR - AR)$

Hint: variable OH variance based on time is similar to Labour variances

Subject: _____   / /

II: Fixed overhead variances

Basic:

1. Actual Fixed Overheads
2. Budgeted Fixed Overheads
3. Budgeted Fixed Overheads Adjusted to Days $\dfrac{BOH}{BD} \times AD$

4. Budgeted Fixed Overheads Adjusted to Hrs $\dfrac{BOH}{BH} \times AH$

5. Budgeted Fixed Overheads adjusted to QY $\dfrac{BOH}{BQ} \times AQ$

variances

Cost variance
1 - 5

FOH Expenditure variance	Fixed overheads volume variance
1 - 2	2 - 5

FOH calendar variance	FOH capacity variance	FOH efficiency variance
2 - 3	3 - 4	4 - 5

Subject: _____   / /

Chp: Marginal costing.

Concept: Marginal cost sheet

    Sales

↳ Variable cost

    Contribution

↳ Fixed cost

    Profit

Concept: P/V Ratio = $\dfrac{\text{contribution}}{\text{Sales}} \times 100$

        OR $\Delta \text{Profit} / \Delta \text{Sales}$

Concept: Contribution

i.   Sales − Variable cost

ii   Fixed cost + Profit

iii Sales × P/V Ratio

Concept: Break-Even Point

       Contribution = Fixed cost

Qty   Sales

$\dfrac{\text{Fixed cost}}{\text{contribution p.u.}}$ $\dfrac{\text{Fixed cost}}{\text{P/V Ratio}}$

S. Profit of ₹₹ ⟶ Desired cont ⟶ FC + Profit

                                          contpu or P/V Ratio

Subject: _____ / /

Concept : Margin of Safety.

Qty	Sales
i. $\dfrac{\text{Profit}}{\text{contribution p.u.}}$	ii $\dfrac{\text{Profit}}{\text{P/V Ratio}}$

Concept : Shutdown point

Qty	Sales
i. $\dfrac{\text{Avoidable FC}}{\text{cont p.u.}}$	ii $\dfrac{\text{Avoidable FC}}{\text{P/V Ratio}}$

Notes By : CA Harshad Jaju

Harshad

All the Best for exams
God Bless you.