Chapter :- Activity Based Costing

Cost Ascertainment

DM	xx	Direct cost
DL	xx	
Overhead	xx	Indirect cost
Total cost	xx	

Direct Cost

⇒ Directly attributable to product.

Indirect cost

⇒ Allocated to product

Method of Allocation

1. **Traditional costing**

⇒ Absorb overhead based on machine Hours, Labour hours etc.

2. **Activity Based Costing**

⇒ Absorb overhead based on cost driver.

Meaning :-

Activity :- event / action that incur cost

Cost-driver :- factor causing change in cost of activity

Cost-object :- product / service / job etc. who cost is ascertained.

Cost-pool :- group of various individual cost item.

Level of Activities

1. Unit level
2. Batch Level
3. Production sustainable level
4. Facility Level

Function	Cost-driver
R&D cost	No. of research project, personnel hours, technical complexity of project etc.
Customer Service	service call, product service, hours spend on service.
Designing of product, process & service	No. of product design, No. of parts per project, No. of engineering hrs.
marketing	No. of adverstiment, sale personnel. sales revenue etc.
Distribution	No. of unit distributed, customers etc.
Set-up	No. of set-up, production run-hours.
Inspection	No. of setup, inspection hours
Store	No. of Requisition
Packing	No. of Delivery
Machine overhead	Machine Hours
Ordering	Purchase order
Assembling/Painting	No. of parts
Supervision cost (Indirect Labour)	Direct labour cost.

eg. Product - 'A'

DM = 6

DL = 4

No. of setup = 3

MH = 1.5

No. of requisition = 1

Overhead

Set-up	200,000
machine	200,000
Store	100,000
	500,000

No. of setup → 100,000

MH → 50,000

No. of requisition → 20,000

Traditional Costing

Overhead Rate : $\frac{500,000}{50,000} = 10$

Product Cost

DM	6
DL	4
OH (1.5×10)	15
	25

Activity Based Costing

Cost driver Rate

set up = 200,000/100,000 = 2

machine = $\frac{200,000}{50,000} = 4$

store = $\frac{100,000}{20,000}$ 5

Product Costing

DM	6
DL	4
OH	
Set up (3×2)	6
machine (4×1.5)	6
Store (5×1)	5
	27

Chapter:- Cost-sheet

Particulars	Amount	Amount
Opening stock of raw material	xx	
+ Direct material purchased (chapter-2)	xx	
(-) Closing stock of raw material	(xx)	
Raw material consumed		xx
+ Direct labour		xx
(+) Direct Expense		xx
Prime cost		xx
+ factory/work/production Overhead		xx
Gross factory cost		xx
+ opening stock of WIP		xx
- Closing stock of WIP		(xx)
factory/work cost		xx
+ office/administrative overhead (related to production)		xx
+ R&D cost		xx
+ Quality control cost		xx
+ Primary packing		xx
(-) SV of scrap/by-product/miscallaneous income/Recoveries		(xx)
cost of Production (COP)		xx
+ opening stock of finished goods		xx
(-) Closing stock of finished goods		(xx)
Cost of good sold (COGS)		xx
+ office/administrative overhead (General)		xx
+ selling & Distribution Overhead		xx
+ secondary packing		xx
Cost of sale (COS)		xx

+ profit		xx
Sale		xx

Note:- Selling overhead is incurred on sales qty where as production overhead is incurred on actual unit produced.

Note:- Details of expenditure

1. Direct Labour cost

* Includes anything which is paid to Direct Labour

- wages / salary
- All allowances
- Perquisites
- Overtimes
- Contribution to EPF/ PF/ welfare fund etc.

2. Direct Expense

* Expense directly related to each unit production

- Royalty
- Hire charges of machine
- Specific software, drawing & design cost
- technical fee / Know how cost
- utilities cost :- power, fuel, steam
- Amortized cost of moulds, patterns, patient etc.

3. factory overhead

(Indirect cost incurred at factory)

1. factory building/ factory Assets / P&M } → Depreciation → rent → Insurance → Repair & maintenance
2. RM/ WIP → Insurance
3. Consumable/ spares
4. foreman Salary, Supervisor Salary, etc.
5. Amortization of Jig, toolset.

4. Office / Administrative Overhead

(Indirect cost incurred at office)

Related to production ⇓ COP

General (assume) ⇓ COS

→ Audit fee / director fee/ manager fee, legal cost, meeting expense, stationary

→ office building/ assets } → depriciation → rent → repair

5. Selling & Distribution Overhead

(overhead incurred at sales department & distribution department)

1. Building / Vehicle / Assets → Depriciation, Rent, Insurance
2. personnel → Salary, Commission
3. Advertisement, website, market research etc.

Note:- Question may ask to prepare production cost A/C

→ It is just double-entry accounting presentation of cost-sheet.

→ useful for tender / Quotation.

Some other Clearification:-

1. **Abnormal cost:-** It shall not be included in cost of production.
   eg. lock-down, strike, machine break-down. etc.

2. **Penalty / demurrage / damage / Fine:-** It shall not form part of cost of production.

3. **Grant / subsidy / Incentive:-** It shall be reduced which determining cost of goods or services.

4. **Interest / financing cost:-**
   → Not a part of cost of production
   → It is included in cost of sale.

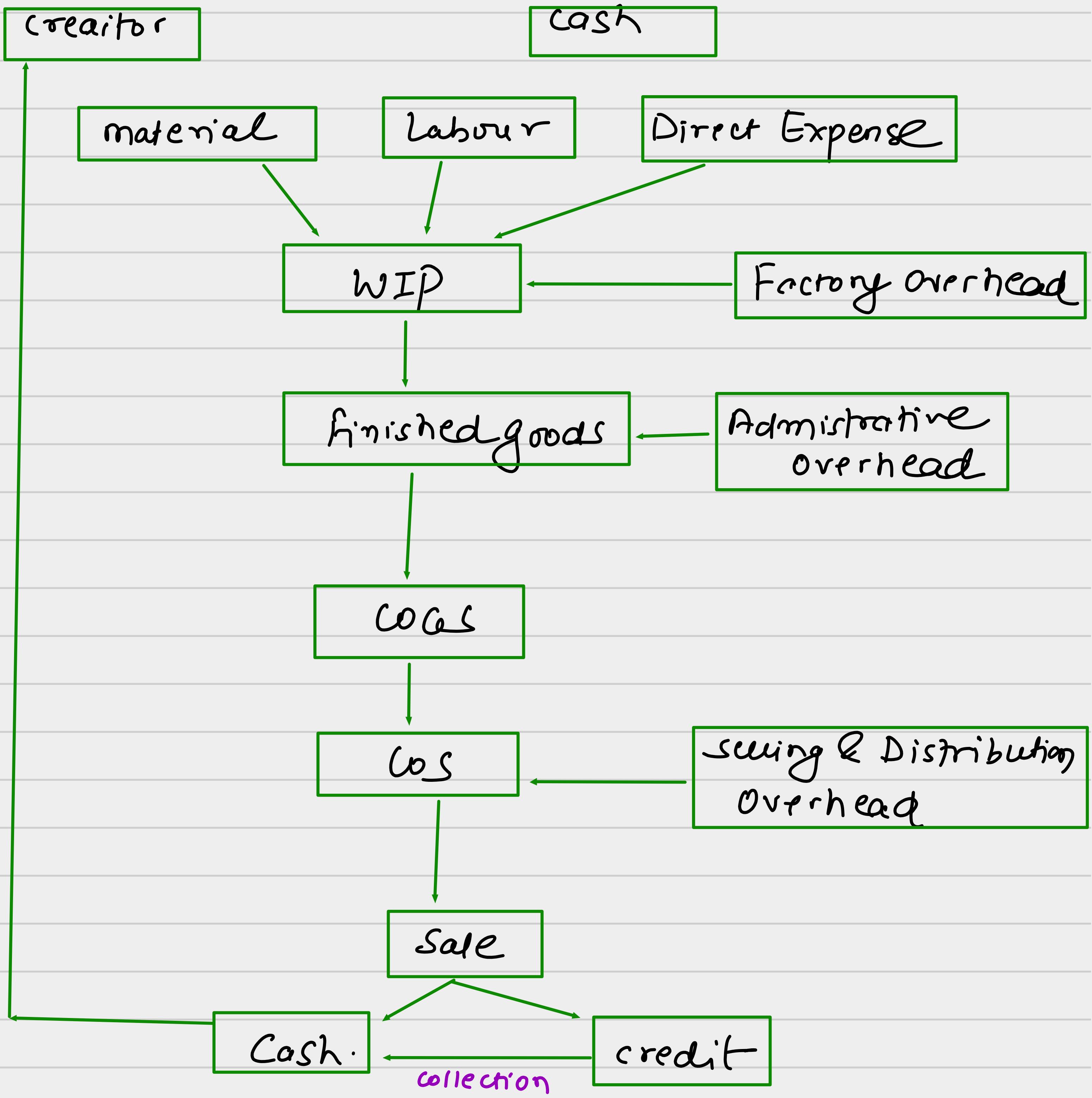
Chapter :- Cost Accounting System

Integrated/ Integral	Non-integrated/ integral
* Single set of book of account.	* seperate books of account is maintained.
* Single figure of profit. so, no reconciliation is required.	* Two figure of profit. so, reconciliation is required.
* No conconcept of notional expense	* It deals with notional expense
* less time / money required.	* Time consuming & costly
* It includes:- ⓐ Revenue :- Interest, rent, dividend ⓑ Expense:- Tax, interest, Bad, debt etc.	* It excludes such income & expense.

Books of Account

Cost Accounting	Financial Accounting
1. It records all item of cost & revenue of product/service/Job.	It records all historical financial transaction.
2. Purpose:- cost control & cost reduction.	Purpose:- Financial Reporting
3. Inventory valuation:- cost	Inventory valuation:- cost or NRV] lower.
4. Concept of opportunity cost, notional expenditure etc.	No such concepts.
5. forcasting is feasible through budgeting.	Forcasting is not feasible.

Flow of transaction



1. Journal Entries

Particulars	Integrated	Non-integrated
1. MATERIAL Purchase (DM + IDM)	Store ledger Control Dr. (SLC) To, cash Creditor	Store ledger Control Dr. To, GLC A/C
Specific job	WIP Control Dr. To, cash / creditor A/C	WIP control Dr. To, GLC
Return to vendor (DM + IDM)	Creditor A/C Dr. To, SLC A/C	GLC A/C Dr. To, SLC A/C

Issue to Production - Direct material	WIP control Dr. To, SLC A/C	WIP control Dr. To, SLC
- Return	SLC A/c Dr. To, WIP control A/C	SLC A/c Dr. To, WIP control A/C
Indirect material (Production/ Repair)	factory Overhead control Dr. (FOC) To, SLC	factory Overhead control Dr. To, SLC
shortage - Normal	factory Overhead control Dr. To, SLC	factory Overhead control Dr. To, SLC
- Abnormal	P/L A/c Dr. To, SLC A/C	Costing P/L Dr. To, SLC A/C
Transfer from (Job1 - Job2)	— No entry — OR Job 2 Dr. To, Job 1 A/C	— No entry — OR Job 2 Dr. To, Job 1 A/C
Payment to creditor	Creditor A/C Dr. To, Cash	— No entry Required

2. LABOUR wages Incurred (DL + IDL)	wages control Dr. To, cash / payable	wages control Dr. To, GLC
Direct Labour (Applied)	WIP control A/C To, wages control A/C	WIP control A/C To, wages control A/C
Indirect Labour (Allocated / Applied)	factory Overhead control A/C (FOC) AOHC A/C SOHC A/C To, wages control A/C	factory Overhead control A/C (FOC) AOHC A/C SOHC A/C To, wages control A/C

Direct Expense	WIP control A/C Dr. To, Cash / creditor A/C	WIP control A/C To, GLC

4. Overhead * Overhead Incurred	FOHC A/C AOHC A/C SOHC A/C To, cash / payable	FOHC A/C AOHC A/C SOHC A/C To, GLC
overhead (applied/Absorbed)	WIP control Dr. To, FOHC A/C Finished goods control A/C To, AOHC A/C Cos control A/C Dr. To, SOHC A/C	WIP control Dr. To, FOHC A/C Finished goods control A/C To, AOHC A/C Cos control A/C Dr. To, SOHC A/C
under/ over Recovery	Under Recovery P/L A/C Dr. To, FOC A/C / AOHC / SOHC A/C Over-Recovery FOHC / AOHC / SOHC A/C Dr. To, P/L A/C	Costing P/L Dr. To, FOHC A/C / AOHC / SOHC FOHC / AOHC / SOHC A/C To, Costing P/L
Finished goods production	Finished goods control Dr. To, WIP control A/C	Finished goods control Dr. To, WIP control A/C
Goods sold (sales → Debtor) (FG → Cos)	Cos Dr. To, finished goods A/C Cash / Debtor Dr. To, Sales A/C	— DO — GLC A/C Dr. To, Costing P/L
Sales return	Sales return A/C Dr. To, Debtor A/C Finished goods A/C Dr. To, Cos A/C	Costing P/L Dr. To, GLC A/C — DO —
Cos → P/L	P/L A/C Dr. To, Cos control A/C	Costing P/L Dr. To, Cos control A/C

Net profit	P/L Dr. To, Capital	Costing P/L Dr. To, GLC A/C

2. Ledger (Non-Integrated)

SLC A/C

To, balance b/d	xx	By, WIP control (Issue)	xx
To, GLC (Purchase)	xx	By, FOC A/C (Indirect/repair/Normal loss)	xx
To, WIP control	xx	By, Costing P/L (Abnormal loss)	xx
		By, GLC A/C (return)	xx
		By, bal. c/d	xx
	xx		xx

Wages Control A/C

To, GLC A/C (Incurred)	xx	By, WIP control (Direct labour)	xx
		By, FOH control (Indirect Labour)	xx
	xx		xx

FOHC A/C

To, GLC A/C (Incurred)	xx	By, WIP control A/C	xx
To, SLC A/C (Indirect)	xx	By, Costing P/L (under-recovery)	xy
To, wages control A/C (Indirect Labour)	xx		
To, Costing P/L (over-recovery)	xx		
	xx		xx

WIP control A/C

To, bal. b/d	xx	By, Finished goods A/C	xx
To, SLC	xx		
To, wages control	xx		
To, FOH	xx		
To, Direct expense	xx		
		By, bal. c/d	xx
	xx		xx

AOHC A/C

To, GLC A/C	xx	By, Finished good A/C	xx
To, Costing P/L (over-recovery)	xx	By, costing P/L (under-recovery)	xx
	xx		xx

Finished goods A/C

To, bal. b/d	xx	By, COS A/C (sale)	xx
To, WIP control A/C	xx		
To, AOHC A/C	xx		
To, COS A/C (sales return)	xx	By, bal. c/d	xx
	xx		xx

SOHC A/C

To, GLC A/C	xx	By, COS A/C	xx
To, Costing P/L	xx	By, Costing P/L	xx
	xx		xx

COS A/C

To, Finished good A/C	xx	By, Costing P/L	xx
To, SOHC A/C	xx	By, Finished good control A/C	xx
	xx		xx

Costing P/L

To, Loss A/C	xx	By, GLC (sales)	xx
To, GLC A/C (return)	xx	By, costing P/L (over-recovery)	xx
To, Costing P/L (under-Recovery)	xx		
To, SLC (Abnormal Loss)	xx		
To, GLC (Net profit)	xx		
	xx		xx

GLC A/C

To, SLC (return)	xx	By, bal. b/d	xx
To, Costing P/L (sales)	xx	By, SLC (Purchase)	xx
		By, wages control (Incurred)	xx
		By, Overhead control (FOH/AOHC/SOHC)	xx
		By, Costing P/L (return)	xx
To, bal. c/d	xx	By, Costing P/L (profit)	xx
	xx		xx

Trial balance

Particular	Dr.	Cr.
SLC	xx	–
WIP	xx	–
Finished goods	xx	–
GLC	–	xx
	xx	xx

3. Ledger under Integrated System.

1. Replace Costing P/L with P/L Accounting (Abnormal loss, under-over recovery / sales / COS)

2. Replace GLC with respective Ledger (Debtor/ creditor/ cash/ outstanding/ prepaid)

3. Additional Ledger:- ① Fixed Assets ② Capital ③ Sales / returns ④ Debtor / creditor ⑤ Share Capital etc.

4. Reconciliation between Profit under Costing Accounting & Financial Accounting

Followings are reasons for difference in profit in cost Accouniting & Financial Accounting.

1. Items in Financial Account only:-

a. Financial Expense

* Interest
* Discount on share/debenture
* Goodwill written-off
* Preliminary expense
* PFI, Donation, subscriptions
* Additional provision for depriciation, Bad debt etc.

b. Financial Income

* Interest / Rent / Dividend
* Transfer fee
* Profit on sale of Investment / FA

c. Any Appropriation.

2. Items in Cost Accounting only (Notional Expense)

– Notional rent, salary, interest on capital, Depriciation on assets with Book value Nil.

3. Basis of valuation (RM/ WIP/ FG)

→ Cost Accounting :- at Cost

→ Financial Accounting :- Cost or NRV, whichever is lower.

4. Material Pricing

① FIFO ② wgt. Average ③ LIFO

5. Under/ Over Recovery of overhead

Note:- Step1:- Calculate Profit as per Financial Accounting
Step2:- " " " " Cost "
Step3:- Prepare Reconciliation statement.

Chapter:- Unit & Batch Costing

1. **Unit Costing:-** method of costing used to determined per unit cost of product.

$$\text{Cost p.u} = \frac{\text{Total cost of production}}{\text{Total unit produced.}}$$

Note:- ① The concept is same as when discussed in cost-sheet chapter.

② If semi-variable cost is given, Identify variable cost & fixed cost portion.

$$\text{Variable cost p.u} = \frac{\text{Change in Total cost}}{\text{Change in total unit}}$$

Fixed cost = Total cost - Variable cost (At any Level)

2. **Batch Costing:-** method of costing used where product are produced in batch.

Cost per batch

Direct material	xx
Direct labour	xx
Direct Expense	xx
Prime cost	xx
+ Overhead	xx
Work Cost	xx

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

, A = Annual demand
S = set-up cost per batch
C = Carrying cost per rupee of production (% of COP)
- Interest, obsolete etc.

Total cost:-

Set-up cost (N×S)	xx
Carrying cost [$\frac{1}{2}$× EBQ×CC]	xx
	xx

Chapter:- Job costing

Specific order Costing

→ Job costing (for short-term contract)

→ Contract Costing (LT contract)

Job Costing	Batch costing
* It is used where unit produced as per customer specification	* used where unit produced in Batch
* cost/Job ascertained	* cost/batch ascertained.
* Job-sheet prepared	* EOQ is calculated.
* E.g. printing, work shop, advertisement	* Medicine, electronic items, radio etc.

Job-sheet

Customer Name:-

Job No:-

Date :-

Particular		₹
Direct material	xx	
Direct Labour	xx	
Direct Expense	xx	
Prime cost		xx
+ factory overhead		xx
Factory cost		xx
+ Administrative overhead		xx
COP		xx
+ Selling & Distribution overhead		xx
COS		xx
+ profit		xx
Sales		xx