Padhuka's

Practical Learning Series

COST AND MANAGEMENT ACCOUNTING

For CA Inter New Syllabus 2023

Applicable for May 2024 Examination and onwards

Highlights of this Book

- New Syllabus Full Coverage with Theory & Practical Questions
- About 500+ Solved illustrations with Step-by-Step Solution
- Concept Clarification through Charts & Graphs
- Fast Track Referencer of Formulae & Concepts
- Chapter overview for easy navigation of Topics
- Treasure Trove of Professional Exam Questions

Covering Topic wise MCQ's with Answers

CA B. Saravana Prasath

1st EDITION August 2023

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WITH THE BLESSING OF MATA VAISHNO DEVI

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Contact Address of Author CA G Sekar
C/o SHREE GURU KRIPA'S INSTITUTE OF MANAGEMENT
(An Institution providing Classes for CA Foundation,
CA Intermediate & CA Final-All Subjects)
"Shri Guru Padhuka" 27, Akbarabad 2nd Street, Kodambakkam, Chennai-600024
Phone: 2483 7667; 2484 7667
Email: caclasses@shrigurukripa.com, Website:www.shrigurukripa.com

Sadaashiva Samaarambhaam Sankaracharya Madhyamaam

Asmadaacharya Paryantaam Vande Guru Paramparaam

Many Salutations To

The Great Lineage of Teachers

Originating from the Ever–Blissful Lord Shiva,

The Sankaracharya,

And

To My Own Teachers.

PREFACE

This New Edition of **Padhuka's Practical Learning Series – Cost and Management Accounting for CA Inter New Syllabus** comes to you as a complete guide in a single handy book, with the following Key Features –

- **Easy Format and Structure:** All principles / procedures / techniques / concepts and ideas have been arranged neatly in easy–to–read format, and numbered into Topics / Sub–Topics, so that the Student can understand the subject easily.
- **Explanation and Improved Presentation:** The presentation in each Topic has been revised and explained better, to help the Student remember the ideas / concepts / points more easily.
- **Chapter Overview:** The Chapter overview at the beginning of every chapter will help the Student to navigate through each Chapter–Topic–Sub–Topic, in an organized and phase manner.
- **Solved Illustrations:** Around 600+ Fully Solved Illustrations have been provided, with step–wise presentation, organized into separate headings, to cover every possible question type in each topic.
- **Questions for Practice:** Around 200+ Additional Questions for Practice, have been given at the end of each Chapter. Complete Answers to these can be obtained in **Padhuka's Practical Guide to Cost & Management Accounting – For CA Inter.**
- **Diagrams and Tables:** Diagrams, Charts and Comparative Analysis Tables have been added to enable the Student to assimilate the subject better.
- **Fast Track Referencer:** Fast Track Formula Referencer has been given for quick revision of the various formulae and procedures in the Topics.
- **Latest Exam Solved Papers:** Solved Papers upto Nov 2021 Exams have been included in the respect Chapters. May and Nov 2022 + May 2023 Exam Solved Paper is given in the Initial Pages.
- **Effective Practice Guide:** The Book serves the purpose of Theory Concept Learning and Practice Questions to meet the requirements of all types of Exam Questions.

At the Intermediate level, the Student is expected to be conversant with the concepts for preparation and the presentation in Exams. The Book has been drafted with the primary motive to help the students recapitulate the concepts and principles in an easy manner.

This New Edition has been possible only due to the constant motivation and support provided by **Shri G Sekar, FCA**, and also the timely and quality–oriented assistance provided by an excellent team of Students, Academicians and Professionals.

My sincere thanks to the **Institute of Chartered Accountants of India** for their permission to use questions from previous examinations and Revision Test Papers (RTP).

Many thanks to the Users of Padhuka's Publications, for their positive feedback, which reflects the benefits they have reaped from this Book, and also their keen interest to reciprocate with constructive suggestions.

I also thank the efforts and co–operation of the various Service Providers including the Publisher, in bringing out this New Edition and in quickly getting this Book in the current form.

Constructive Suggestions and Feedback from Users would be highly appreciated, gratefully acknowledged and suitably incorporated.

Chennai

August 2023

With Best Wishes,

B Saravana Prasath, FCA

Dear Students!

Padhuka's Books for CA Inter New Syllabus

Highlights of the Books

1. **Complete Coverage of Syllabus** as prescribed by the Institute of Chartered Accountants of India.
2. **Fast Track Referencer** as appropriate, for each Chapter, for Quick Revision of Topics.
3. **Important Theory Questions** given at the end of each Chapter for reference.
4. **Solved Illustrations** with step–wise solution, in possible question type in a topic – for subjects like Accounting, Advanced Accounting, Financial Management, Taxation, Cost and Mgmt A/cing.
5. **List of Standard Question Areas** from each Topic.
6. **Past Exam Questions** and **Questions from RTPs** included.
7. Effective Tool for Students' Practice to aid Exam and Practical Learning.
8. Powerful Material to **face Professional Exams with confidence.**
9. Very Useful **Practice Tool** for Students – whether they attend Classes or whether they are on self–study mode – to gain hands–on exam experience.

For full details, visit

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ICAI Syllabus and 100% Coverage in Padhuka's Book

S.No.	ICAI Syllabus	Chapter	Padhuka's Title
1	Introduction to Cost and Management Accounting	1	Basic Cost Concepts
2	Material Cost	2	Materials
3	Employee Cost and Direct Expenses	3	Employee Cost
4	Overheads – Absorption Costing Method	4	Overheads
5	Concepts of Activity Based Costing (ABC)	5	Activity Based Costing
6	Cost Sheet	1	Basic Cost Concepts
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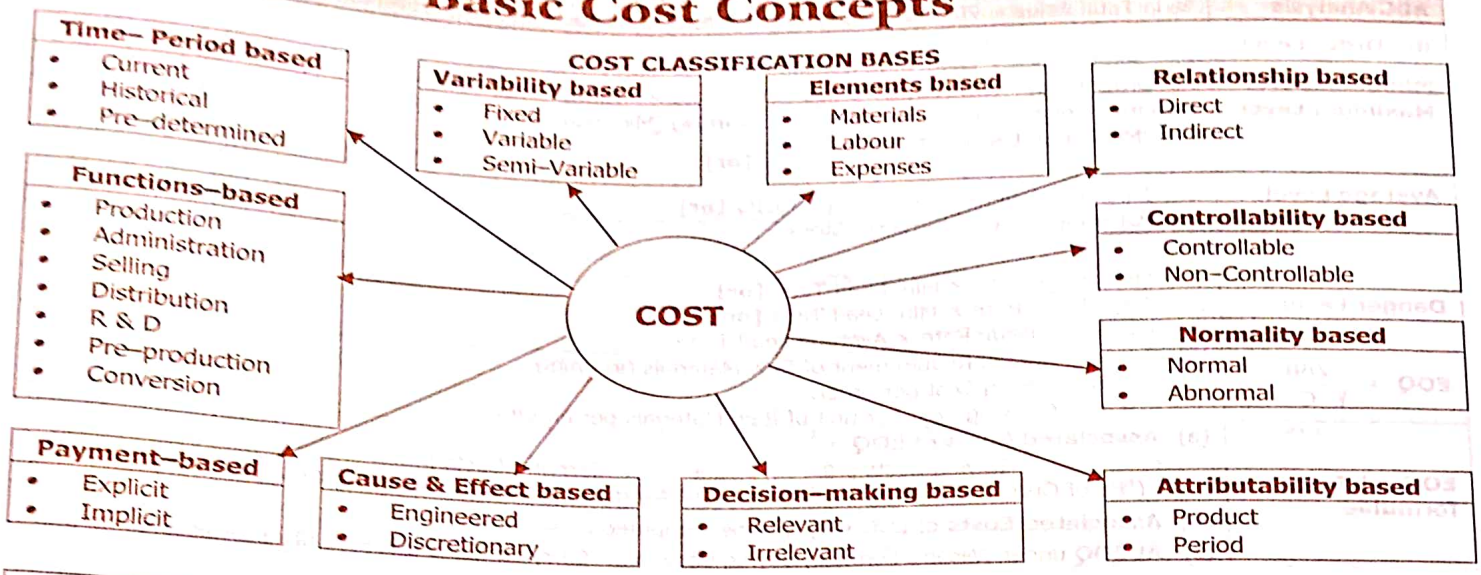
Fast Track Referencer–Important Formula/Hints

Chapter 1 Basic Cost Concepts



FORMAT OF COST SHEET

	Particulars	₹
	Opening Stock of Raw Materials	
Add:	Purchases (including Carriage Inwards, Transit Insurance etc.)	
Less:	Closing Stock of Raw Materials	
	Direct Materials Consumed / Raw Materials Consumed	
Add:	Direct Labour	
Add:	Direct Expenses	
	PRIME COST	
Add:	Factory Overheads (also called Works OH / Manufacturing OH / Production OH)	
	GROSS FACTORY COST / GROSS WORKS COST	
Add:	Opening Stock of Work–in–Progress	
Less:	Closing Stock of Work–in–Progress	
	FACTORY COST / WORKS COST	
Add:	Quality Control Cost (if any)	
Add:	Research and Development Cost (if any)	
Add:	Administrative Overheads relating to Production Activity (if any)	
Add:	Cost of Primary Packing	
Less:	Credit for Recoveries / Scrap / By–Products / Miscellaneous Income	
	COST OF PRODUCTION	
Add:	Opening Stock of Finished Goods	
	Sub–Total (**Note:** This may be considered as **COST OF GOODS AVAILABLE FOR SALE.**)	
Less:	Closing Stock of Finished Goods	
	COST OF GOODS SOLD	
Add:	General Administration Overheads (also called Office OH / General OH / Management OH)	
	Selling and Distribution Overheads (also called Marketing OH)	
	COST OF SALES	
Add:	Profit / Loss (Balancing Figure)	
	SALES	

Chapter 2 Materials

Concept	Formula
ABC Analysis	% in Total Value = 70%, 20% and 10% for A, B, C respectively, & vice–versa for % in total quantity.
Re–Order Level	1. Maximum Usage Rate × Maximum Lead Time **[or]** 2. Safety Stock + Lead Time Consumption
Minimum Level	Re–Order Level – (**minus**) (Average Usage Rate × Average Lead Time)
Maximum Level	Re–Order Level + Re–Order Quantity – (**minus**) [Minimum Usage Rate × Min. Lead Time]
Average Level	1. $\frac{\text{Maximum Level + Minimum Level}}{2}$ **[or]** 2. Minimum Level + ½ of Re–Order Qtty **[or]** 3. $\frac{\text{Opening Stock + Closing Stock}}{2}$
Danger Level	1. Min. Usage Rate × Min. Lead Time **[or]** 2. Avg. Usage Rate × Min. Lead Time **[or]** 3. Minimum Usage Rate × Average Lead Time
EOQ = $\sqrt{\frac{2AB}{C}}$	Where A = Annual Requirement of Raw Materials (in units). B = Buying Cost per order. C = Carrying Cost per unit of Raw Materials per annum.
EOQ related formulae	(a) **Associated Costs of EOQ** = = Buying Costs p.a. + Carrying Costs p.a. = (No. of Orders × Cost per Order) + (Average Inventory × Carrying Cost p.u. p.a.) (b) **Associated Costs** of EOQ may also be computed as = $\sqrt{2ABC}$ (c) **At EOQ** under Wilson's Formula, Buying Costs p.a.=Carrying Costs p.a.= ½ of Associated Costs p.a.

Step	Computation of EOQ when Quantity Discounts are available Procedure
1	Determine various Order Sizes by Trial and Error. *The rules to be followed are – (a) One representation should be given for every price, and (b) Lower limit of every class interval should be chosen.*
2	Find the number of orders for each Order Size chosen above. No. of Orders = Annual Requirement ÷ Order Size.
3	Compute Buying Costs per annum = Number of Orders × Cost per Order.
4	Compute Average Inventory = ½ of Order Size = ½ of **Step 1.**
5	Compute Carrying Costs per annum = Average Inventory × Carrying Cost per unit p.a.
6	Compute Associated Cost per annum = Buying Costs p.a. + Carrying Costs p.a. = **Step 3 + Step 5.**
7	Determine Costs of Purchase p.a. for each price.
8	Compute Total Costs p.a. = Associated Costs + Costs of Purchase = **Step 6 + Step 7.**
9	**Decision:** Quantity relating to **Least Total Costs p.a.** shall be selected as the EOQ.

Note: Instead of Cost of Purchase p.a. under Step 7, Discounts received p.a. can also be considered. In such case, Step 8 = Step 6 **Less** Step 7.

RM Turnover Ratio = $\frac{\text{Cost of Raw Materials Consumed}}{\text{Average Stock of Raw Materials}}$ $\frac{\text{Quantity of Raw Materials Issued / Consumed}}{\text{Average Quantity of Raw Materials in Stock}}$

Note: Cost of Raw Materials Consumed = Opening Stock + Purchases – Closing Stock

Average Stock of Raw Materials = ½ × [Opening Stock + Closing Stock] **[or]** ½ × [Max. Level + Min. Level]

Number of Days average inventory is held = $\frac{365}{\text{Material Turnover Ratio}}$

Chapter 3 Employee Cost

1. Treatment of Idle Time Cost

Cost of **Normal Idle Time** is treated as a **regular part** of cost of production. It is treated –

(a) either as Direct Wages by inflating the Wage Rate (for Direct Workers) or

(b) as Production OH (for Indirect Workers)

Cost of **Abnormal Idle Time** constitutes a **Loss**, and debited to Costing P & L A/c. If it is controllable, the responsibility should be fixed on the person in default.

2. Treatment of Overtime Premium

Situation	Accounting Treatment of Overtime Premium
1. Due to genuine labour shortage.	Treated as Regular Cost of Production, as Direct Labour, by inflating normal wage rate.
2. At Customer's desire, e.g. immediate delivery, etc.	Charged to the Job directly. Such amount will be suitably recovered from the customer by charging at a higher rate.
3. Irregular overtime to meet production requirements due to unexpected developments.	Charged to Job – treated as Factory Overheads.
4. Due to fault of a particular department, e.g. non-availability of materials during normal time.	Charged to the department in default, in order to fix responsibility and prevent recurrence.
5. Due to abnormal conditions, e.g. strike, etc.	Charged to Costing Profit and Loss Account as Loss.

3. Computation of Labour Turnover Rates

Labour Turnover **Without Expansion**	Labour Turnover **With Expansion**
1. Separation Method: $= \frac{S}{L}$	1. Separation Method: $= \frac{S}{L}$
2. Replacement Method: $= \frac{R}{L}$	2. Accession Method: $= \frac{A}{L}$ $= \frac{R+N}{L}$
3. Mixed Method: $= \frac{S+R}{L}$	3. Flux Method: $= \frac{S+A}{L}$ $= \frac{S+R+N}{L}$

S = Number of Separations, R = Number of Replacements, N = Number of New Joinings / New Recruitments,
A = Number of Accessions = Replacements + New Joinings / New Recruitments, (or)
Number of Workers at the end + Number of Separations (–) Number of Workers at the beginning.

L = Average Labour Force = $\frac{\text{[Number of workers at the beginning + Number of workers at the end]}}{2}$

4. Computation of Labour Productivity or Labour Efficiency

(a) **Based on Time:**

$$\text{Efficiency} = \frac{\text{Standard Time allowed for Actual Output}}{\text{Actual Time taken}}$$

(b) **Based on Output:**

$$\text{Efficiency} = \frac{\text{Actual Output produced}}{\text{Standard Output for Actual Time worked}}$$

5. Computation of Wages under different Wages and Incentive Schemes

System	Formula for Wages		
Simple Time Rate	Total Wages = Actual Hours Worked × Rate per hour.		
Simple Piece Rate	Total Wages = Actual Units produced × Rate per piece.		
Premium Bonus Systems	Total Wages = Basic + Bonus, and is calculated as under –		
	System	**Basic Component**	**Bonus Component**
	Halsey	Hrs Worked × Rate p.h.	50% × Time Saved × Rate per hour
	Rowan	Hrs Worked × Rate p.h.	$\frac{\text{Actual Hours}}{\text{Standard Hours}}$ × Time Saved × Rate per hour

Chapter 4 Overheads

Concept	Formula	
Segregation of SV Costs – High and Low Points Method, etc.	• Variable Costs as a % of Sales Value = $\frac{\text{Difference in Total Costs}}{\text{Difference in Sales Value}}$ • Variable Costs at either highest or lowest volume as Sales × Variable Cost % computed above. • Fixed Costs = Total Costs **less** Variable Costs as computed above. **Note:** The above principle can also be used with Difference in Output Quantity or Difference in Operating Hours in the Denominator (instead of Difference in Sales Value), to get Variable Cost per unit or Variable Cost per hour, as the case may be.	
Meaning of Output for OH	**Type of OH**	**Output means**
	Factory OH	= Units sold + Closing Stock of Finished Goods + Closing Stock of WIP.
	AOH related to prodn	= Units sold + Closing Stock of Finished Goods.
	General AOH & SOH	= Units sold

Concept	Formula	
Absorption Costing Steps	1. Collection 2. Classification 3. Allocation 4. Apportionment 5. Re–apportionment 6. Recovery	
Assumptions and Methods in Re–apportionment	**Assumption**	**Method**
	Service Departments **do not serve** one another.	Direct Distribution Method.
	One Service Department serves the other, but does not take back services in **return.**	Step Ladder Method, or Step Method, or Non–Reciprocal Services Method.
	Service Departments serve one another.	Reciprocal Services Method – • Repeated Redistribution Technique (or Trial and Error Technique), (or) • Simultaneous Equations Technique.
Capacity Concepts	1. **Licenced Capacity** is the production capacity of the Plant for which **license** has been issued by an appropriate authority / Government Agency. 2. **Installed Capacity** is the **maximum productive capacity** according to the **Manufacturers' specification** of machines / equipment. 3. **Practical Capacity** = Maximum Capacity **minus** Normal / Unavoidable Time Loss. 4. **Normal Capacity** is the capacity of a Plant, which is expected to be utilised over a long period based on sales expectations. Normal Capacity = Practical Capacity **minus** Loss of productive capacity due to external factors. 5. **Actual Capacity Utilization** is the volume of production achieved, or actual operating hours worked, in relation to installed capacity. 6. If Actual Capacity Utilization < Installed Capacity, the difference is called **Idle Capacity** (or) Forecast Plant Idle Capacity. 7. If Actual Capacity Usage > Installed Capacity, the difference is called **Excess Capacity Utilization.** 8. **Abnormal Idle Capacity** is the difference between Practical Capacity and Normal Capacity or Actual Capacity Utilization whichever is higher. So, **Abnormal Idle Capacity** = Practical (or sometimes Normal) Capacity **minus** Actual Capacity Utilisation.	
Overhead Recovery Methods	1. **Direct Method** (Based on Output)**:** 2. **Indirect Methods:** (a) Percentage of Direct Materials, (b) Percentage of Direct Labour, (c) Percentage of Prime Cost , (d) Labour Hour Rate, (e) Machine Hour Rate	
Machine Hour Rate Concepts	**If Total OH include**	**Machine Hour Rate is called**
	Machine–related **Direct Costs** only	**Direct** Machine Hour Rate
	Machine–related **Direct and Indirect Costs**	**Simple** Machine Hour Rate
	All Machine–related Costs + Operators' Wages	**Comprehensive** Machine Hour Rate

Treatment of Difference in Absorption = OH Variance = Absorbed OH **Less** Actual OH

Absorbed OH is **greater than** Actual OH
(Credit Balance in OH Control A/c)
OVERABSORPTION
(represents Savings in OH Expenditure)

Accounting Treatment (any one of the following)

1. **Write Off:** Small amounts may be credited to Costing P & L A/c.
2. **Deferral:** May be carried over to next year, by transfer to OH Reserve A/c or Suspense A/c.
3. **Cost Reversal:** In case of large amounts, cost of jobs may be reduced / adjusted by passing reversal journal entries.

Absorbed OH is **less than** Actual OH
(Debit Balance in OH Control A/c)
UNDERABSORPTION
(represents Increase in OH Expenditure)

Analysed as due to –

Normal Reasons
e.g. genuine planning errors, changes in assumptions, etc.

Treated as increase in **COSTS** (using Supplementary OH Recovery Rate), and apportioned to production, i.e.–

Abnormal Reasons
e.g. Strike Period Wages, Labour Court Award, Obsolete Stores, Penalties paid, etc.

Treated as **LOSS** and debited to Costing P & L Account. (**Also see Note below**)

	Units Sold	**Closing Stock of Finished Goods**	**Closing Stock of WIP**
Debited to →	Cost of Sales A/c	FG Control A/c	WIP Control A/c

Chapter 5 Activity Based Costing (ABC)

Concept	Points to remember
ABC – Meaning	"An approach to the costing and monitoring of activities which involves tracing resource consumption and costing final outputs. Resources are assigned to Activities, and Activities to Cost Objects based on consumption estimates. The latter utilise cost drivers to attach Activity Costs to Outputs."
Cost Object & Cost Driver	1. **Cost Object** – Item for which cost measurement is required. 2. **Cost Driver:** Factor that causes a change in the cost of an activity. Cost Drivers are classified as – (a) **Resource Cost Driver:** Measure of quantity of resources consumed by an activity & used to assign the cost of a resource to an activity/ cost pool. (b) **Activity Cost Driver:** Measure of frequency and intensity of demand, placed on activities by cost objects & used to assign activity costs to cost objects. **Note:** Selection of Cost Drivers is dependent upon – (a) Degree of Correlation, (b) Cost of Measurement, and (c) Behavioural Effects.

Stages in ABC

Step	Particulars
1	Identify various activities within the Firm into – Primary & Secondary.
2	Relate the Overheads to activities using Resource Cost Drivers.
3	Apportion Costs of Support activities over Primary activities.
4	Determine Activity Cost Drivers for each Activity/ Cost Pool.
5	Compute ABC Rate = Total Cost of Activity (Cost Pool) ÷ Activity Cost Driver
6	Assign Costs to Cost Objects using formula– Resources Consumed × ABC Rate

Traditional Absorption Costing & ABC

Particulars	Traditional Absorption Costing	Activity Based Costing
OH related to	Places / Cost Centres / Departments.	Activities grouped into Cost Pools.
Activity Ascertainment	Only – (a) Unit Level Activities (Variable), and (b) Facility Level Activities (Fixed) may be identified.	4 levels of activities, (a) Unit Level, (b) Batch Level, (c) Product Level, and (d) Facility Level, are identified.
Cost related to	Costs related to Places / Cost Centres.	Activities and Causal Factors.
Cost Drivers	Time (Hours) is assumed as the only "causal factor" governing cost.	Activity–wise Cost Drivers identified.
Single & Multiple Cost Drivers	Only Single Cost Driver for each dept.	Multiple Cost Drivers can be identified. Most dominant is chosen.
Recovery Rates	Either multiple rates (for each department)/ single rate (for the entire factory) may be used.	Specific activity–wise recovery rates are used. There is no "single" or "overall" ABC Rate.
Cost Assignment	Costs are assigned to **Cost Units**, i.e. to products, or jobs or hours.	Costs are assigned to **Cost Objects**.
Cost Control	Not suitable for cost control.	Suitable for Cost Control.

VA vs NVA Activities

Value–Added Activities (VA)	Non–Value–Added activities (NVA)
Activities **necessary** for the utility or performance of the product.	**Additional and extraneous activities**, not fully necessary for product performance / utility.
Customers perceive as adding usefulness to the product or service that they purchase.	If eliminated, this will not reduce the actual or perceived value customers obtain by using the product or service.
Work valued by external/internal customer.	Work not valued by the external or internal customer.
They improve or maintain the quality or function of a product. VA activities result in "costs" and not in losses.	NVA activities do not improve the quality or function of a product or service, NVA activities create waste, result in delay of some sort.
Making product more versatile for certain other uses.	Expediting due to work delays, cost of re–work of defectives, etc.
To simplify VA Activities and manage "costs".	To eliminate NVA Activities and avoid "losses".

ABM

1. The use of ABC as a costing tool to manage costs at activity level is known as Activity Based Cost Management (ABM). ABM utilises cost information gathered through ABC.
2. **Stages:**
   (a) Identification of the activities that have taken place in the Firm.
   (b) Assigning Costs to Cost Pool for each activity.

Concept	Points to remember
	(c) Spreading of Support Activities Costs across the Primary Activities. (d) Determining Cost Driver for each activity. (e) Assigning the costs of Activities to Products, according to product demand for Activities.
Others	**Business Applications of ABM:** 1. Cost Reduction, 2. Activity Based Budgeting, 3. Business Process Re-engineering (BPR), 4. Benchmarking, 5. Performance Measurement **Benefits of ABM:** 1. Cost Reduction, 2. Budget Implementation, 3. Cost Definition, 4. Management Decision Making & 5. Efficient Resource Utilisation.
ABC Vs. ABM	**ABC** / **ABM** Technique of determining cost of activities & cost of output produced. / Focusses on planning, execution & measurement of activities as the key to competitive advantage. Aims to generate improved cost data for use in managing activities. / Aims to use information given by ABC, for effective business processes and profitability. It is the operational segment of ABM. / It is a conceptual aspect.
ABB	1. **Activity Based Budgeting (ABB)** is a process of planning and controlling the expected activities of the Firm, to derive a cost–effective budget, that meets forecast workload and agreed strategic goals. 2. **Key Elements** are – (a) Type, (b) Quantity, and (c) Cost of work / activity to be performed. 3. **Advantages:** (a) Better Cost Analysis, (b) Better Cost Control, (c) Management Focus, (d) Resource Management, and (e) Realistic Approach.
DPP	1. **Benefits:** (a) Better Cost Analysis, (b) Better Pricing Decisions, (c) Better Management of Stores and Warehouse Space, and (d) Rationalisation of Product Ranges. 2. **DPP Indicators:** (a) DPP as % of Sales, (b) DPP per unit of Time, (c) DPP per unit of Space.
Customer Profitability Analysis	Using ABC, profitability can be analysed customer group–wise, since ABC creates cost pools for activities. Customers use some activities but not all, and different groups of customers have different 'Activity Profiles'. Hence analysis of relative profitability based on customer category and related decision–making is called Customer Profitability Analysis.

Format of DPP Statement

Particulars / Product	A	B	C	D	Total
Selling Price per unit	XX	XX	XX	XX	XX
Less: Bought–in–Price per unit	XX	XX	XX	XX	XX
Gross Margin per unit	XX	XX	XX	XX	XX
Less: Directly Attributable Product Costs	XX	XX	XX	XX	XX
1. Warehousing and Storage Costs – e.g. space, insurance	XX	XX	XX	XX	XX
2. Transport Costs – e.g. fuel, vehicle maintenance, labour	XX	XX	XX	XX	XX
3. Product Batch Costs	XX	XX	XX	XX	XX
4. Inventory Financing Costs	XX	XX	XX	XX	XX
Direct Product Profit per unit	XX	XX	XX	XX	XX
Less: Indirect Costs and Common Overheads					XX
Net Profit					XX

Chapter 6 Cost Accounting Systems

Accounts maintained under Non–Integrated System

	Name of Account	Debited with	Credited with
1.	Stores Ledger Control Account [or] Raw Materials Control Account	**Receipt** of Materials in Stores Department, i.e.– • Cost of Purchases including Carriage Inwards, • Materials Returned from Production Department.	• Materials **Issued to** – (i) Jobs (i.e. to WIP), (ii) Repairs Work (Factory OH), (iii) Office (Administration OH), (iv) Sales Department (Selling OH), • Materials returned to Vendor. • Normal and Abnormal Loss of Materials.
2.	Wages Control Account	Wages Paid.	Wages analysed into – • Direct Wages, • Indirect Wages, • Abnormal Idle Time / OT Wages, if any.

	Name of Account	Debited with	Credited with
3.	Factory OH Control Account [or] Production OH Control Account	Factory OH incurred i.e. – • Indirect Material consumed, • Indirect Wages, • Indirect Expenses.	• Factory OH absorbed to production, i.e. transfer to WIP Control A/c. • Adjustment for Underabsorption, if any.
4.	WIP Control Account [or] Job Ledger Control Account	Factory Cost items of Jobs i.e. – • Direct Materials, • Direct Wages, • Factory Overheads absorbed.	• Factory Cost of Production, i.e. transfer to Finished Goods Control Account. • Abnormal Loss in Production Department, if any.
5.	Administrative Overhead Control Account	AOH incurred.	AOH absorbed to goods produced or transferred to Cost of Sales A/c. **(Note)**
6.	Finished Goods Control Account [or] Stock Ledger Control Account	• Factory Cost of Production, & • Administrative Overheads absorbed, • Cost of goods returned by Customers, if any.	• Total Cost of Goods Sold, i.e. transfer to Cost of Sales Account. • Abnormal Loss in Warehouse, if any.
7.	Selling and Distribution Overheads Control Account	Selling and Distribution Overheads incurred.	S & D OH absorbed to units sold, i.e. transfer to Cost of Sales Account.
8.	Cost of Sales Account	• Cost of Goods Sold, & • Selling & Distribution OH absorbed.	Total Cost of Sales, i.e. transfer to Costing P&L A/c.
9.	Sales Account	Transfer to Costing P & L A/c.	Sales Value.
10.	Abnormal Loss Account	Abnormal Loss of Materials, Abnormal Idle Time Wages, Overheads etc.	Transfer to Costing Profit and Loss Account
11.	General Ledger Adjustment Account	• Sales made during the period, • Net Loss for the period, if any, transferred from Costing P&L A/c.	• Cost of Materials Purchased, • Wages Paid, • Various OH incurred and Depreciation, • Profit for the period transferred from Costing P&L A/c.

Note: AOH **related to Production Activity** is transferred to Finished Goods Control A/c (or alternatively to WIP Control A/c), while **General** AOH is transferred to Cost of Sales A/c.

Proforma of Memorandum Reconciliation Account

Dr. Cr.

Particulars	₹	Particulars	₹
To **Loss (if any) as per Financial Books** b/fd		By **Profit as per Financial Records** b/fd	
To Overheads **over–absorbed** in Cost Books – Factory / Administration / S&D Overheads		By Overheads **under–absorbed** in Cost Books – Factory / Administration / S&D Overheads	
To **Non–operating Incomes** e.g. Interest, Dividend credited only in Financial Books		By **Non–operating Expenditure,** Income Tax, Write offs, etc. debited only in Financial Books	
To Opening Stocks (RM, WIP, FG) **under valued** in Financial Books		By Opening Stocks (RM, WIP, FG) **over valued** in Financial Books	
To Closing Stocks (RM, WIP, FG) **over valued** in Financial Books		By Closing Stocks (RM, WIP, FG) **under valued** in Financial Books	
To **Profit as per Cost Records** (bal. figure)		By **Loss (if any) as per Cost Records** (bal. figure)	
Total		**Total**	

Note: The above account may be considered as an extension of the Financial P & L Account. Hence, Financial Profit is taken on the **credit side** of this account. Debit / Credit approach to reconciliation as under –

1. Identify the item causing difference e.g. Production Overheads, Goodwill written–off etc.
2. See whether the item relates to the Debit or Credit side of the Financial P & L Account.
3. Ascertain the direction of the change i.e. whether the amount is to be increased or reduced in order to arrive at the figure as per the Cost Records.
4. If the amount is to be increased, record the difference in the same side, if the amount is to be reduced, reverse the difference by posting it in the opposite side. [Refer Chapter 6 in the Book for **Reconciliation Decision Table**]

Chapter 7 Job and Batch Costing

Job Costs are classified and ascertained as under –

Job Selling Price

+ **Desired Profit**

Total Costs

Direct Costs (ascertained at actuals)

+ **Indirect Costs** (estimated using absorption rates)

Direct Materials	Direct Labour	Direct Exps	POH	AOH	SOH
From Stores Requisition / BOM, net of Matl returns	From Time Cards / Job Cards & Wage Analysis Sheets	From Journals & Vouchers	As % of Direct Labour, or Lab Hour Rate	As % of Works Cost	As % of Sales Value or Works Cost

EBQ $= \sqrt{\frac{2AS}{C}}$, where A = Annual Demand for Finished Product (units).
S = Set–Up Cost per batch.
C = Carrying Cost per unit of Finished Product p.a.

If Rate of Interest (I) and Unit Cost of Production (C) is given, then **EBQ** $= \sqrt{\frac{2AS}{IC}}$

Chapter 8 Single/ Output / Unit Costing

Concept	Single / Output / Unit Costing is applied in situations where Standardised Product(s) is / are produced from a single process. In other words, Output is identical, and each unit of output requires identical cost.
Examples	Industries which produces single output or a few variants of a single output. **Examples:** Quarries, Brickworks, Colliery, Paint Manufacturing, etc. Primary Focus Area is preparation of Product Cost Sheet.
Costing	The principles of Cost Ascertainment are the **same** as applicable for **Job Costing** as in Chapter 7.

Chapter 9 Joint and By Products Costing

Concept	Formula
Methods of Joint Cost Apportionment	1. Physical Quantities Method, 2. Average Unit Cost Method, 3. Survey/Technical Evaluation Method, 4. Contribution Margin Method, and 5. Market Value Methods – (a) Sale Value at Split Off Point, (b) Sale Value after Further Processing and (c) NRV at Split Off Point
Accounting for By–Product Revenue	1. Cost Recognition Methods – (a) Market Value, (b) NRV, (c) Standard Cost, (d) Comparative Price, and (e) Re – use or Opportunity Costs 2. Revenue Accounting – (a) Low, (b) Moderate, and (c) High Revenue situations

Further Processing Decisions

Step	Procedure
1	Compute Additional Revenue = Sale Value after further Processing **Less** Sales Value at Split off.
2	Compute Additional Costs = Further Processing Costs + S & D OH if any.
3	Compute Additional Profit = Additional Revenue **Less** Additional Costs.
4	Decide: If Additional Profit ≥ 0, process further. If not, sell at split off point.

Chapter 10 Process Costing

Accounting Procedure for Process Losses:

Stage A: LOSS ANALYSIS

Step	Procedure
1	Compute **Process Loss** = Input Quantity **Less** Output Quantity.
2	Determine **Normal Loss Quantity**, either based on Input or Expected Production.
3	Compute **Abnormal** Loss or Abnormal Gain, as the case may be. [Step 1 **Less** Step 2]

Stage B: COST ANALYSIS

Step	Procedure
1	(a) Determine **Gross Cost,** i.e. Total of Debit Side of Process Account, and (b) Determine **Gross Input Quantity,** i.e. Total Input Quantity for the Process.
2	Determine **Normal Loss** Quantity, and **Scrap Value**, if any, of Normal Loss.
3	(a) Compute **Net Cost** = Gross Cost **Less** Scrap Value of Normal Loss. (b) Compute **Net Expected Output** = Gross Input Quantity **Less** Normal Loss Quantity.
4	Compute Effective Cost per unit = $\frac{\text{Net Cost}}{\text{Net Expected Output}} = \frac{\text{Step 3(a)}}{\text{Step 3(b)}}$. (This is called as **Good Unit Rate**)

Stage C: VALUATION: The various items are valued as under–

	Item	Basis of Valuation
1	Units Produced & Transferred	Effective Cost per unit as per B(4) above.
2	Normal Loss	Scrap Value only.
3	Abnormal Loss	Effective Cost per unit as per B(4) above. (**Note:** Abnormal Loss is considered as Deemed Good Production, and is valued, as if it were good units produced.)
4	Abnormal Gain	Effective Cost per unit as per B(4) above. (**Note:** Abnormal Gain constitutes Actual (excessive) Good Production.)

Stage D: SCRAP REALISATION ENTRIES (Abnormal Loss / Gain Accounting)

1	Normal Loss A/c	• Debit with Normal Loss Quantity and Scrap Value thereon. • Credit with amount realized by way of sale of scrap. • When Process Loss < Normal Loss, the difference is transferred to Abnormal Gain A/c.
2	Abnormal Loss A/c	• Debit with Abnormal Loss Quantity and Cost thereon at Effective Cost pu, as per Process A/c. • Credit with amount realized by way of sale of scrap. • Net Abnormal Loss is transferred / debited to Costing P & L A/c.
3	Abnormal Gain A/c	• Credit with Abnormal Gain Quantity and Value thereon. • Debit / Adjust Normal Loss Scrap Value, when Process Loss < Normal Loss. • Net Abnormal Gain is transferred / credited to Costing P & L A/c.

EQUIVALENT PRODUCTION: The following steps are involved –

Step 1	Input – Output Reconciliation of quantities on physical basis.
Step 2	Determination of Percentage of Completion and Computation of Equivalent Production.
Step 3	Computation of Cost per equivalent unit.
Step 4	Apportionment of Total Cost over Production, Abnormal Loss and Closing WIP.
Step 5	Preparation of Process Account.

Note: Before applying the above steps, Students are first required to decide on the following –

1. **Method of Valuation, i.e. FIFO or WAC:**
   (a) FIFO Method should be used if – (i) degree of completion for Opening WIP is given, and (ii) Cost break–up of Opening WIP is not given.
   (b) WAC Method should be used if – (i) degree of completion for Opening WIP is not given, and (ii) Cost break–up of Opening WIP is given.
2. **First Process or Subsequent Process:**
   (a) For the First Process, the Cost Elements are – (i) Material, (ii) Labour and (iii) POH.
   (b) For any Subsequent Process, the Cost Elements are – (i) Material A – i.e. transferred in material from the previous process, (ii) Process B – Direct Material Input into the Subsequent Process, (iii) Labour and (iv) POH.

Explanation for Steps

Step 1 Input – Output Reconciliation	(a) Compute Total Input during the period = Opening WIP units + Freshly introduced units. (b) Compute Normal Loss Quantity based on – (i) Percentage of Total Input, or (ii) Percentage of Expected Production, i.e. [Opening WIP + Fresh Units – Closing WIP]. (c) Determine Quantity transferred to next process, and classify it into – (i) Transfer from Opening WIP & (ii) Transfer from Fresh units. [**Note:** This classification is only for FIFO, and not for WAC Method]. (d) Identify the units lying as Closing WIP and compute Abnormal Loss / Gain as balancing figure.	
Step 2 Percentage of Completion and Equivalent Units (See Note below)	**Item**	**Percentage of Completion**
	(a) Transfer to next process out of – (i) Opening WIP	100% **Less** Percentage completed in the prior period, i.e. **balance** Percentage of Completion.
	(ii) Fresh Units introduced	**100%**
	(b) Normal Loss	**Nil**
	(c) Abnormal Loss	**100%** (generally) or as specified in the Question for Scrap.
	(d) Closing WIP	As **specified** in the Question.
	(e) Abnormal Gain, if any	**100%** (quantity written within brackets to signify subtraction)
Step 3 Cost per Equivalent Unit	(a) This is obtained by dividing the Cost (Materials, Labour & POH) by the respective equivalent units. (b) Scrap Value of Normal Loss, if any, is reduced from the Cost of Materials. In case of second or Subsequent Process, it is reduced from Cost of Material A, i.e. Previous Process Raw Material. (c) Under WAC Method, the Total Cost (Opening WIP Cost + Current Cost) is determined for calculating the Cost per Equivalent Unit.	
Step 4: Cost Apportionment	Total Cost is apportioned over Production, Abnormal Loss and Closing WIP by multiplying the equivalent units at the appropriate Cost per Equivalent Unit.	
Step 5 Process Account	Costs are debited to the Process Account. The credit side is updated using the figures determined in Step 4 above. Under FIFO method, Cost of Production consists of Cost of Opening WIP and Cost of Processing during the period.	

Note: Under FIFO Method, in case of Second or Subsequent Processes, Material A is regarded as 100% complete in all respects, except for transfer out of Opening WIP units and Normal Loss.

Chapter 11 Service Costing

Concept	Operating Costing is the method of ascertaining the costs of providing / operating / rendering a service.		
Examples of Cost Units	1. Hospitals	–	Patient–Days, Room–Days, Operations.
	2. Hotels	–	Guest Days, Room Days.
	3. Passenger Transport	–	Kilometres, or Passenger–Kilometres.
	4. Cargo Transport	–	Quintal–Kilometres or Tonne–Kilometres [See **Note** below].
	5. Canteens	–	Number of meals served, Number of tea cups sold etc.
	6. Electricity Supply	–	Kilowatt Hours (KWH). [Note: This is called as Power "Unit"]
	7. Boiler Houses	–	Quantity of Steam raised.
	8. Cinema Houses	–	Number of Tickets, Number of Shows.
	9. IT and ITES Indiustry	–	Number of Person–Days / Person–Weeks / Person–Months.
Operating Cost Statement	1. **Cost Collection:** Costs are accumulated for a specified period, viz, a month, a quarter, or a year, etc. 2. **Cost Classification:** The costs so accumulated are classified under the following three heads – (a) Fixed Costs or Standing Charges, (b) Variable Costs or Running Charges, (c) Semi–Variable Costs or Maintenance Costs. **Note:** When information about **interest** is specifically given, it is treated as a Fixed Cost.		
Absolute & Commercial	• **Absolute (Weighted Average) Tonne–Kms:** Each Route Distance × Respective Load Quantities. • **Commercial (Simple Average) Tonne– Kms:** Total Distance (i.e. Kms) × Avg Load Quantity (Tonnes)		

Chapter 12 Standard Costing

1. MATERIAL COST VARIANCES

Particulars	(1) SQ × SP	(2) RAQ × SP	(3) AQ × SP	(4) AQ × AP
Material A				
Material B				
Total	**WN 1**	**WN 2**	**WN 3**	**WN 4**
Differences				

Material **Yield** Variance = SQ × SP – RAQ × SP

+ Material **Mix** Variance = RAQ × SP – AQ × SP

+ Material **Price** Variance = AQ × SP – AQ × AP

Material **Usage** Variance = SQ × SP – AQ × SP

+ Material **Price** Variance b/fd as above

Total Material Cost Variance
= Standard Material Cost – Actual Material Cost
= SQ × SP – AQ × AP

Meaning of Terms / Abbreviations used:

SQ = Standard Quantity, i.e.
= Expected consumption for actual output.
AQ = Actual Quantity of Material Consumed.
RAQ = Revised Actual Quantity, (See **Note**) i.e.
= Actual Quantity re–written in standard proportion.
SP = Standard Price per unit of material consumed.
AP = Actual Price per unit of material consumed.

Note: Material Purchase Price Variance (MPPV)
Material Price Variance is computed for the actual quantity of materials consumed. If such Price Variance is computed for the actual material quantity **purchased**, it is called as Material Purchase Price Variance. It is computed as –

MPPV = PQ × SP – PQ × AP

Where PQ = Purchase Quantity,
SP = Standard Prices, and AP = Actual Prices.

Note: RAQ can sometimes be referred as RSQ (Revised Standard Quantity).

2. LABOUR COST VARIANCES

Particulars	(1) SH × SR	(2) RAH × SR	(3) AH × SR	(4) AH × AR
Grade A				
Grade B, etc.				
Total	**WN 1**	**WN 2**	**WN 3**	**WN 4**
Differences				

Labour **Sub–Efficiency** Variance = SH × SR – RAH × SR

+ Labour **Mix** Variance = RAH × SR – AH × SR

+ Labour **Rate** Variance =AH × SR – AH × AR

Labour **Efficiency** Variance = SH × SR – AH × SR

+ Labour **Rate** Variance b/fd as above

Total Labour Cost Variance
= Standard Wages – Actual Wages
= SH × SR – AH × AR

Meaning of Terms / Abbreviations used:

SH = Standard Hours, i.e. = Expected Time / Hours for Actual Output.
AH = Actual Hours paid for.
RAH = Revised Actual Quantity, (See **Note**) i.e.
= Actual Hours re–written in standard proportion.
Net AH = Actual Productive Hours
= Total AH **less** Idle Time
SR = Standard Wage Rates per hour
AR = Actual Wage Rates per hour

Note: RAH can sometimes be referred as RSH (Revised Standard Hours).

Note 1: **Labour Cost Variances when Idle Time information is given**

Particulars	SH × SR (1)	Net AH × SR (2)	AH × SR (3)	AH × AR (4)
Grade A				
Grade B, etc.				
Total	WN 1	WN 2	WN 3	WN 4
Differences				

Labour **Efficiency** Variance = SH × SR – Net AH × SR + Labour **Idle Time** Variance = Net AH × SR – AH × SR + Labour **Rate** Variance = AH × SR – AH × AR → Total Labour Cost Variance

Note 2: **Labour Cost Variances when both Grades of Labour and Idle Time information is given**

(1) SH × SR	(2) Revised Net AH × SR	(3) Net AH × SR	(4) AH × SR	(5) AH × AR
Grade A				
Grade B, etc.				
Total				

Sub-Efficiency Variance = Col.(1) – Col.(2) + **Mix** Variance = Col.(2) – Col.(3) + **Idle Time** Variance = Col.(3) – Col.(4) + **Rate** Variance = Col.(4) – Col.(5)

Efficiency Variance = Col.(1) – Col.(3) + **Idle Time** Variance = b/fd as above + **Rate** Variance b/fd as above

Labour Cost Variance = Col.(1) – Col.(5) = (Efficiency + Idle Time + Rate) Variances

3. VOH COST VARIANCES

Based on Time

SH × SR (1)	AH × SR (2)	AH × AR, i.e. AVOH (3)

VOH **Efficiency** Variance = SH × SR – AH × SR + VOH **Expenditure** Variance = AH × SR – AH × AR

Total VOH Cost Variance = SH × SR – AH × AR

(or)

Based on Output

AO X SR (1)	SO X SR (2)	AO × AR, i.e. AVOH (3)

VOH **Efficiency** Variance = AO × SR – SO × SR + VOH **Expenditure** Variance = SO × SR – AO × AR

Total VOH Cost Variance = AO × SR – AO × AR

Note: When idle-time data is given, VOH Variance is sub-classified similar to Labour Cost Variances in **Note 1** above.

Note: VOH Underabsorption = Adverse Variance, and VOH Overabsorption = Favourable Variance.

Note: A combination of Time and Output based Computations can be used as under

Col. (1): AO × SR p.u	Col. (2): AH × SR p.h.	Col. (3): AVOH

VOH **Efficiency** Variance + VOH **Expenditure** Variance → **Total VOH Cost Variance**

4. FOH COST VARIANCES

(1) AO × SR	(2) AH × SR	(3) PFOH	(4) BFOH	(5) AFOH

FOH Efficiency Variance = AQ × SR − SQ × SR, i.e. = SH × SR − AH × SR

\+ **FOH Capacity Variance** = AH × SR − PH × SR

\+ **FOH Calendar Variance** = PFOH − BFOH = PH × SR − BH × SR

\+ **FOH Expenditure Variance** = BFOH − AFOH

\+ **FOH Volume Variance** = AO × SR − BFOH

\+ **FOH Expenditure Variance** b/fd as above

FOH Cost Variance = Standard or Absorbed FOH − Actual FOH = AO × SR − AFOH

Notes: When idle-time data is given, VOH Variance is sub-classified in a manner similar to Labour Cost Variances as above.

Meaning of Terms / Abbreviations used:

SR = Standard Rate per Unit or per Hour, as the case may be.
AO = Actual Output.
BO = Budgeted Output.
SO = Standard Output, i.e. = Expected Output for Actual Hours worked.
PO = Possible Output, i.e. = Expected Output for Actual Days worked.
AH = Actual Hours worked.
Net AH = Total AH − Idle Time, wherever applicable.
BH = Budgeted Hours.
SH = Standard Hours, i.e. = Expected Time Allowed for Actual Output.
PH = Possible Hours, = i.e. Expected Hours for Actual Days worked.
AD = Actual Days, **BD** = Budgeted Days.

	Time-based	Output-based	This represents.....
1.	SH×SR ph =	AO×SR pu =	Standard or Absorbed Fixed OH
2.	AH×SR ph =	SO×SR pu =	Std Cost of Actual Hours worked
3.	BH×SR ph =	BO×SR pu =	Budgeted Fixed OH
4.	PH×SR ph =	PO×SR pu =	Possible Fixed OH

AFOH = Actual Fixed Overhead.
BFOH = Budgeted Fixed Overhead.
PFOH = Possible Fixed Overhead = Expected Fixed OH for Actual Days worked = $BFOH \times \frac{AD}{BD}$

6. BUDGET-RATIOS (or) CONTROL-RATIOS

Ratio	Time-Based Formula	Output-Based Formula
1. Budgeted /Std Capacity Usage Ratio	$\frac{\text{Budgeted Hours}}{\text{Practical Plant Capacity Hours}}$	$\frac{\text{Budgeted Output}}{\text{Practical Plant Capacity Output}}$
2. Actual Capacity Utilisation Ratio	$\frac{\text{Actual Hours}}{\text{Budgeted Hours}}$ (or) $\frac{\text{Actual Hours}}{\text{Possible Hours}}$	$\frac{\text{Standard Output}}{\text{Budgeted Output}}$ (or) $\frac{\text{Standard Output}}{\text{Possible Output}}$
3. Efficiency Ratio	$\frac{\text{Standard Hours}}{\text{Actual Hours}}$	$\frac{\text{Actual Output}}{\text{Standard Output}}$
4. Calendar Ratio	$\frac{\text{Actual Days}}{\text{Budgeted Days}}$ (or) $\frac{\text{Possible Hours}}{\text{Budgeted Hours}}$	$\frac{\text{Possible Output}}{\text{Budgeted Output}}$
5. Volume or Level of Activity Ratio	$\frac{\text{Standard Hours}}{\text{Budgeted Hours}}$	$\frac{\text{Actual Output}}{\text{Budgeted Output}}$

Alternative Computation of Capacity Ratio: The following view as to Capacity Ratio is also relevant for Management-

(a) **Actual Usage of Budgeted Capacity Ratio** = $\frac{\text{Actual Hours}}{\text{Budgeted Hours}}$, and **[Note: See Item 2** (1st Formula) in Table]

(b) **Actual Capacity Usage Ratio** = $\frac{\text{Actual Hours}}{\text{Max. Possible Hours during the period}}$. **[Note: See Item 2** (2nd Formula) in Table]

Chapter 13 Marginal Costing

Concept	Formula
PV Ratio	$= \frac{\text{Total Contribution}}{\text{Total Sales Value}} \times 100$ (or) $\frac{\text{Contribution per unit}}{\text{Sales Price per unit}} \times 100$ (or) $= \frac{\text{Change in Contribution}}{\text{Change in Sales}} \times 100$ (or) $\frac{\text{Change in Profit}}{\text{Change in Sales}} \times 100$ (or) = 100% **Less** Variable Cost Ratio.
Break Even Point	(a) Break Even Point (in Rs.) = $\frac{\text{Fixed Costs}}{\text{PV Ratio}}$ (This is denoted as Break Even Sales Value) (b) Break Even Point (Qtty) = $\frac{\text{Fixed Costs}}{\text{Contribution per Unit}}$ (This is denoted as Break Even Quantity). **Note: Cash BEP (in ₹)** = $\frac{\text{Cash Fixed Costs}}{\text{PV Ratio}}$ (b) **Cash BEP (Qtty)** = $\frac{\text{Cash Fixed Costs}}{\text{Contribution per Unit}}$

Significance of BEP	**Level of Sales**	**Impact on Profits**
	Less than BEP	Firm incurs Losses. [Contribution < Fixed Cost]
	Equal to BEP	No Profit & No Loss. [Contribution = Fixed Cost]
	Greater than BEP	Firm earns Profits. [Contribution > Fixed Cost]

Margin of Safety	(a) Margin of Safety (in Rs.) = Total Sales *Less* BEP Sales (or) $\frac{\text{Profit}}{\text{PV Ratio}}$ (b) Margin of Safety (Qtty) = Total Sales Qtty *Less* BEQ (or) $\frac{\text{Profit}}{\text{Contribution per Unit}}$ **Note:** MOS can also be expressed as a % of Total Sales.
Indifference Point	(a) Indifference Point (Rs.) = $\frac{\text{Difference in Fixed Costs}}{\text{Difference in PV Ratio}}$ (or) = $\frac{\text{Difference in Fixed Costs}}{\text{Difference in Variable Cost Ratio}}$ (b) Indifference Point (units) = $\frac{\text{Difference in Fixed Costs}}{\text{Difference in Contribution per Unit}}$ (or) $\frac{\text{Difference in Fixed Costs}}{\text{Difference in Variable Cost per Unit}}$

Significance of Indifference Point	**Level of Sales**	**Most Profitable Option to be chosen**
	Below Indifference Point	Option with Lower Fixed Cost
	At Indifference Point	Both options are equally profitable.
	Above Indifference Point	Option with Higher PV ratio (lower Variable Cost)

Shut Down Point	(a) Shut Down Point (Rs.) = $\frac{\text{Avoidable Fixed Costs}}{\text{PV Ratio}}$ (b) Shut Down Point (Qtty) = $\frac{\text{Avoidable Fixed Costs}}{\text{Contribution per Unit}}$

Significance of Shut Down Point	**Level of Sales**	**Decision**
	Below Shut Down Point	Close down Operations
	At Shut Down Point	Continue Operations
	Above Shut Down Point	Continue Operations

Angle of Incidence	**AOI:** This is the angle at which the Total Sales line cuts the Total Cost line. It is shown as angle θ (**theta**). If the angle is large, the Firm is said to make Profits at a high rate and vice versa.
Key Factor	**Key Factor** represents a resource whose availability is **less** than its requirement. It denotes the Resource Constraint situation. It is a factor, which at a particular time or over a period limits the activities of a Firm.
Decision Making with Key Factor	1. Identify the Key Factor. 2. Compute Total Contribution or Contribution per unit of the product. 3. Compute Contribution Per Unit of the Key Factor, i.e. Contribution per Direct Labour Hour, Contribution per kg of Raw Material, etc. 4. Rank the products based on Contribution per unit of the Key Factor. 5. Allocate the key resources based on Ranks given above, and other conditions specified in the question.

Chapter 14 Budgetary Control

Concept	Formula
Budgeted Production	= Budgeted Sales (+) Closing Stock of Finished Goods (–) Opening Stock of Finished Goods
Budgeted RM Usage	= Budgeted Production × Raw Material Usage per unit of output
Budgeted RM Purchase	= Budgeted RM Usage (+) Closing Stock of RM (–) Opening Stock of RM
Budgeted RM Costs	• Cost of RM Consumed = Budgeted RM Usage × Raw Material Price • Cost of RM Purchase = Budgeted RM Purchase × Raw Material Price
Budgeted Hours Usage	= Budgeted Production × Direct Labour Hours required per unit of output
Budgeted No. of workers	= $\frac{\text{Budgeted Hours Usage}}{\text{Hours per worker}}$
Budgeted Labour Costs	Cost of Direct Labour = Budgeted Hours Usage × Wage Rate per hour
Flexible Budgets	• Variable Costs increase proportionately based on output levels. • Fixed Costs remain constant at the same output, at all output levels. • Semi-Variable Costs change as per the details available in the question.

Question Types in each Chapter

	Chapter Name	Question Type
1.	**Basic Cost Concepts**	• Cost Sheet Basics & Cost Apportionment • Cost Estimation for New Jobs / Orders Quotation • Use of Simultaneous Equations in Basic Cost Analysis
2.	**Materials**	• ABC Analysis • EOQ Computation and Discount Analysis • Stock Levels • Material Turnover Ratios • Landed Cost of Materials • Pricing of Material Issues & Valuation of Inventory • Stock–Out and Probability Analysis
3.	**Labour**	• Treatment of Idle Time Cost • Treatment of Overtime Premium • Labour Turnover Rates • Wage Payment Systems – (a) Time and Piece, (b) Halsey and Rowan,, etc. • Group Bonus Schemes
4.	**Overheads**	• Segregation of Semi–Variable Expenses • Capacity Concepts • Re–apportionment of Service Department Expenses under 3 Methods • Recovery / Absorption using different methods and Machine Hour Rate • Treatment of Absorption Differences
5	**Activity Based Costing**	• Basic Computations • Cost Statements under Traditional and ABC Systems • Profit Statements under Traditional and ABC Systems • ABC in Service Sector • Customer Profitability Analysis • DPP Analysis
6	**Cost Accounting Systems**	• Non–Integrated Accounting System – Journal Entries and Ledger Accounts • Integrated Accounting System – Journal Entries and Ledger Accounts • Reconciliation of Costing and Financial Profits with the following special points / aspects – (a) WIP and FG Valuation, (b) Reconciliation with Losses, if any, (c) Reverse Working with given Reconciliation Statement
7.	**Job and Batch Costing**	• Preparation of Job Cost Sheet and Estimation of Job Costs for New Orders • Economic Batch Quantity and related computations • Preparation of Batch Cost Sheet and Estimation of Costs and Profits of Batches

	Chapter Name	Question Type
8.	**Single Costing**	• Preparation of Cost Sheet for Product • Semi–Variable Costs & Pricing Decisions using Cost Sheet • Preparation of Income Statement and Basic Decision Making
9.	**Joint and By Products Costing**	• Joint Cost Apportionment Methods • Further Processing Decisions • By Product Revenue Accounting
10.	**Process Costing**	• Process Account – Treatment of Normal Loss, Abnormal Loss and Abnormal Gains • Operation Costing & Routing Transfers through Process Stock Account • Inter–Process Profits • Equivalent Production – FIFO Method – First and Subsequent Processes • Equivalent Production – WAC Method – First and Subsequent Processes • Equivalent Production – Other Illustrations
11.	**Service Costing**	• Preparation of Operating Cost Statement, and Computation of Cost / Fare / Takings.
12.	**Standard Costing**	• Computation of Material Cost Variances • Computation of Labour Cost Variances • Computation of VOH Cost Variances • Computation of FOH Cost Variances • Budget–Ratios or Control–Ratios • Computation of Sales Variances – two approaches • Computation of All Variances / Multiple Variances and / or Reverse Working
13.	**Marginal Costing**	• Basics – Computation of PVR, BEP, MOS, Profits, etc. • Marginal Cost Statement – two periods analysis • BEP in different situations / contexts • Effect of change in Costs, Volume and Prices • Indifference Point • Profits under Marginal & Absorption Costing Systems • Evaluation of Proposals and Decision–Making Basics
14.	**Budgetary Control**	• Functional Budgets – Production, Materials and Labour • Flexible Levels – Analysis of Semi–Variable Costs • Original and Revised Budgets • Misc. Illustrations

Additional Reading Material

Chapter 1: Topic: Digital Costing

Concept	1. A Digital Costing System links a Business' Digital Systems (such as Production, Inventory Management, Purchasing and Sales Ordering Systems) with the digital systems of its Suppliers, Customers & the Market. 2. In a Digital Costing System, data is gathered from each of these sources and from the internet, in real–time, to give up–to–date cost information which reflects current information.
Info	Examples of information that can be provided by a Digital Costing System are – 1. where costs are being incurred 2. Time taken in production 3. Current Purchase Prices for Materials and Components 4. Wastage Level, etc.
Features of Digital Products	1. Digital Products (e.g., video, app, etc.) is without physical form and costs of reproduction are minimal compared with physical products. There is no inventory of digital products. 2. Up–front design and development costs are higher to establish the System. Generally, Costs for Materials are low but Labour Costs are high (e.g., Freelance Staff) for initial design and development. 3. Running Costs during the lifetime are generally fixed, and these are lower, than ongoing variable manufacturing costs for physical products.
Benefits	1. Prices from Suppliers can be found quickly and easily. Ease of buying & better lead times can be obtained. 2. Improved understanding of Cost Drivers allows better cost management. 3. Pricing Decisions can be improved because management has a better idea of how profitable different products are and prices can be amended as soon as costing changes. 4. Standards can be updated regularly and such Standards will reflect current operating conditions. 5. Variance Reporting is improved because standards reflect current conditions and market prices. Real–Time Standards should mean there are no Planning Variances. Variances, if any, are only operational in nature.
Issues	1. Computation of Cost per Unit requires knowledge of costs and sales volume. 2. Difficult to predict variables like product lifespan, expected sales volume, need for updates/new versions. 3. After upfront Design and Development Costs, sometimes, Running Costs are more difficult to estimate. 4. There is a need for good knowledge of the market and how future technologies may impact the product. 5. There is a need for determining how much of the total Indirect Costs relate to the product and how to absorb these (e.g. if there are upgrades which benefit more than one product)

Chapter 2: Topic: GeM – Government e–Marketplace

1. **Meaning:** GeM is a short form of one stop Government e–Market Place hosted by DGS&D where common user goods and services can be procured. GeM is a dynamic, self sustaining and user–friendly portal for making procurement by Government Ministries and Departments, PSUs and other apex autonomous bodies of the Central Government.

2. **Scope:** The Portal was launched on 9th August 2016, and presently more than 7,400 products in about 150 product categories and hiring of transport service are available on GeM POC portal. Transactions for more than Rs.140 Crore have already been processed through GeM.

3. **Features:** (a) Transparency, (b) Efficiency in Buying, (c) Safe and Secure Platform for Buying, (d) Potential to support "Make in India", (e) Cost Savings to Government, etc.

4. **Advantages:**

For Buyers (Govt, Ministries, Depts, PSUs, etc.)	For Sellers
• Listing of products for individual categories of Goods / Services • Search, Compare, Select and Buy facility • Single window system for aggregating demands and ordering • Buying Goods and Services online, as and when required. • Transparency & ease of buying – for both low value buying and also for bulk buying at competitive price	• Direct access to all Government Departments • One stop shop for marketing with minimal efforts. • One stop shop for bids / reverse auction on products / service • New Product Suggestion facility available to Sellers • Dynamic Pricing – Price can be changed based