CMA INTERMEDIATE

VIVITSU

REVIEWER™

GROUP – II

OPERATIONS MANAGEMENT AND STRATEGIC MANAGEMENT

9

APPLICABLE FOR JUNE '26 & DECEMBER '26

CHAPTER-WISE COMPILATION OF PYP + MQP + WORKBOOK + SM + MCQ BANK

- REFERENCE TO ALL QUESTIONS
- LAST DAY REVISION QUESTIONS MARKED
- ABC ANALYSIS
- QUICK RECAP OF IMPORTANT CONCEPTS

REVIEWER™

OPERATIONS MANAGEMENT AND STRATEGIC MANAGEMENT

CMA Intermediate

1st Edition

Publisher:

VIVITSU
STRIVING TOWARDS KNOWLEDGE

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Reviewer™

Operations Management and Strategic Management

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To the one who's not just dreaming CMA —
but becoming it

CMA

Write your name here

What Matters in CMA?

1 CONCEPTUAL CLARITY

Master the *rationale* behind every technique because in Paper 9, clarity is the key to accuracy.

Use this Reviewer to solidify your grip on the mechanics of costing as soon as you complete your primary study.

2 CONSISTENCY

Solve one comprehensive question daily to master speed and complex adjustments without waiting for syllabus completion.

This *chapter-wise structure* helps you revise consistently and master each concept one at a time, without waiting for the full syllabus.

3 CONFIDENCE

This book offers *ICMAI-style* questions with focused solving practice to help you approach problems correctly and score accurately.

Use the *LDR questions* for a powerful final boost, ensuring you walk into the exam hall fully prepared.

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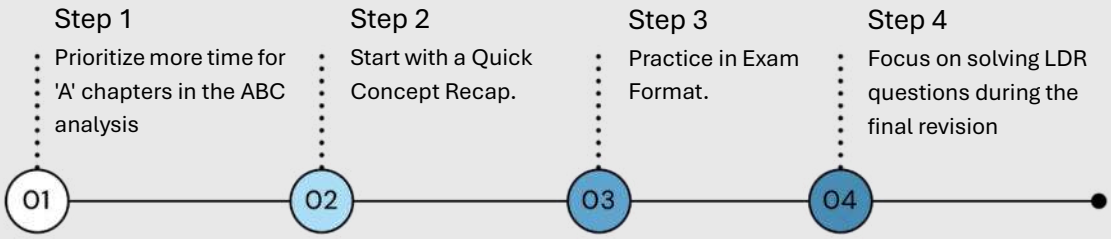
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Don't just study—study smart. Watch renowned professors solve the Vivitsu Reviewer with you on YouTube, breaking down every concept, question, and answer for better understanding and stronger retention.

STRATEGY TO SCORE

60+ in Operations Management and Strategic Management



Step 1: Prioritize your chapters

Topics in the index are categorized as A, B, or C based on their importance. Focus more on 'A' chapters, as they carry the most weight, and give adequate attention to 'B' chapters. While all chapters must be covered, this approach helps manage time efficiently for better results.

Step 2: Start with a Quick Concept Recap

Use this powerful summary for a quick brush-up on key concepts before you attempt the chapter. This helps you identify and understand the core principles. If a question gives you trouble, return to this section / main study material to solidify the concept, then come back and solve it again.

Step 3: Practice in Exam Format

Always solve the question on your own before looking at the answer. If you get confused in MCQs and options or make a conceptual mistake, be sure to mark it to review during your next revision.

Step 4: Last Day Revision (LDR)

Focus on solving LDR questions during the final revision. On the day before your exam, prioritize these questions as they cover the most critical concepts from each chapter. You'll find a quick summary of LDR question numbers listed right before each chapter for easy reference.

1.2

Characteristics of Modern Operations Functions

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Key Features

1. Competitive Advantage	2. Services Orientation
3. Smokestack Disappearance	4. Small is Beautiful

2. Competitive Advantage

Past	Present
High demand	Excess capacity
Production focus	Competition focus
Basic function	Strategic tool

3. Services Orientation

Point	Description
Nature	Intangible, perishable
Interaction	High customer
Volume	Small scale
Location	Near market

4. Smokestack Disappearance

Earlier	Now
Polluting	Eco-friendly

5. Small is Beautiful

Old	New
Large scale	Small units
Mass production	Flexible production

Topic-wise Break up

Question & Answers

Question 3 (MQP [1] 7 Marks Dec'23, MQP [2] 7 Marks Dec'25, June'25, PYP 7 Marks June'24) LDR

Enumerate the characteristics of Modern Operations Functions.

OR

"The Production Management of to-day presents certain characteristics which make it look totally different from what it was during the past. Specifically, To-day's production system is characterized by at least Four Features". In this Context Summarize the Said Features.

Answer 3

Today's production system is characterized by the following features:

1. **Manufacturing as Competitive Advantage:** Unlike the past, today plants have excess capacities, competition is mounting and firms seek and competitive edge and firms intend to exploit the potential. Total Quality Management (TQM), Time- Based Competition, Business Process Re-engineering (BPRE), Just-in-Time (JIT), Fac... The vir... adv...
2. **Ser...** ...ion, the... The entire manufacturing needs to be geared to serve (i) intangible and perishable nature of the services, (ii) constant interaction with clients or customers, (iii) small volumes of production to serve local markets, and (iv) need to locate facilities to serve local markets. There is increased presence of professionals on the production, instead of technicians and engineers.
3. **Disappearance of Smokestacks:** Protective labour legislation, environmental movement and gradual emergence of knowledge based organizations have brought total transformation in the production system. Today's factories are aesthetically designed and built, environment friendly - in fact, they are homes away from homes. Going to factory every day is no more excruciating experience, it is like holidaying at a scenic spot.
4. **Small has Become Beautiful:** E. F. Schumacher, in his famous book Small is Beautiful, opposed giant organizations and increased specialisation. He advocated, instead, intermediate technology based on smaller working units, community ownership, and regional workplaces utilising local labour and resources.

Includes 100% coverage of Work Book+ SM + MCQ Bank + MQP + PYP

LDR Questions | Descriptive: Q 1, Q3
MCQ: 2, 9, 24

Last Day Revision Questions

Last Day Revision Questions mentioned right at the beginning of each chapter
Easy to find 1 day before the exam

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Sr.	Particulars	2023		2024		2025		Average	Page No.	IMP
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2	Operations Planning	10	11	13	20	15		12.67	2.1 – 2.46	A
3	Designing of Operational Systems and Control	8	9	9	11	2	9		3.1 – 3.11	B
										C
									4.1-1 – 4.1-2	C
									4.2-1 – 4.2-6	C
	Study, Method Study, Work Study								4.3-1 – 4.3-3	C
4.4	Optimum Allocation of Resources – LPP	-	-	-	-	-	-	-	4.4-1 – 4.4-12	A
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7	Economics of Maintenance and Spares Management	11	9	7	7	7	11	8.67	7.1- 7.28	A

Prioritize using ABC Analysis

Each chapter is categorized as A , B or C

A : Very Important, Read on priority

B : Moderately Important

C : Less Critical but still essential

CHAPTER 4.3: CONTROL MEASURES – TIME & MOTION STUDY, METHOD STUDY, WORK STUDY

C

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Time Study

Aspect	Point
Meaning	Scientific measurement of time for a job
Aim	Determine standard time
Focus	Best method + time required
Use	Costing, wages, standards

2. Key Concepts (Related Terms)

Term	Meaning
Operation Analysis	Improve process (eliminate/combine/change)
Job Standardisation	Fix best method + time
Job Analysis	Study job requirements & skills

4. Time Study vs Motion Study

Basis	Time Study	Motion Study
Focus	Time taken	Movements
Division	Elements of work	Basic motions
Aim	Set time standards	Find best method

5. Preconditions for Time Study

Condition	Point
Method	Standardised
Sequence	Proper flow
Effort	Minimum human effort

6. Work Study

Aspect	Point
Meaning	Study of work efficiency
Includes	Method study + Time study
Aim	Best use of resources

7. Method Study

Aspect	Point
Meaning	Improve method of doing work
Aim	Easy, efficient, low-cost method
Focus	Eliminate unnecessary motions

8. Features of Method Study

Feature	Point
Uniformity	Standard application
Standard practice	Defined methods
Continuous review	Regular improvement
Cooperation	Employee involvement

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Question & Answer

Quick Review of Important Concepts

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4	Production Planning and Control	22	27	25	23	-	23	20		
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4.4	Optimum Allocation of Resources – LPP	-	-	-	-	-	-	-	4.4-1 – 4.4-12	A
4.5	Transportation	-	-	-	-	-	-	-	4.5-1 – 4.5-18	A
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9	Strategic Analysis and Strategic Planning	27	20	16	16	16	16	18.5	9.1 -9.20	A
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11	Digital Strategy	-	7	11	16	11	7	8.67	11.1 – 11.15	B

ABC Analysis

A Very Important, Read on priority

B Moderately Important

C Less critical but still essential

Ensure you thoroughly read all chapters without skipping any. The ABC analysis is designed to help you prioritize based on past trends, but it should not replace comprehensive preparation.

WHAT DOES REVIEWER INCLUDE?

This Reviewer offers 100% coverage, including all questions from:

- **SM: ICMAI Study Material Questions**
- **WB: ICMAI Workbook Questions**
- **MCQ Bank**
- **PYP: Past Year Papers**
- **MQP: Model Question Papers (1 or 2 denotes MQP 1 or MQP 2)**

CHAPTER 1: OPERATIONS MANAGEMENT - INTRODUCTION

B

LDR Questions	Descriptive: Q 1, Q3 MCQ: 2, 9, 24

1.1 Scope

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Basic Functions of Business

Function	Role
Organisation	Structure & coordination
Finance	Funds & capital management
Operations	Production of goods/services
Marketing	Demand creation & sales

2. Supply–Demand Balance

Situation	Impact
Excess Supply	Wasteful, high cost
Insufficient Supply	Lost sales, dissatisfaction
Ideal Situation	Balance of supply & demand

3. Role of Functions

Area	Function
Supply Side	Operations & Supply Chain
Demand Side	Sales & Marketing
Supporting Fuel	Finance
Core Activity	Operations (Engine of business)

4. Operations Management (OM)

Aspect	Description
Meaning	Managing conversion process
Input	Raw materials, labour, capital
Process	Transformation
Output	Goods & Services
Nature	Tangible + Intangible

5. Objectives of OM

Objective	Meaning
Customer Service	Satisfaction of customer needs
Resource Utilisation	Efficient use of resources

6. Customer Service Dimensions

Dimension	Meaning
Specification	Right quality/product
Cost	Affordable price
Timing	Right delivery time

- **Formula: Right Product + Right Price + Right Time**

7. Resource Utilisation

Aspect	Explanation
Goal	Maximum output, minimum waste
Measures	Time, capacity, productivity
Risk	Inefficiency leads to failure

8. Conflict of Objectives

Aspect	Explanation
Customer Service ↑	Cost may increase
Efficiency ↑	Service may reduce
Solution	Maintain balance

9. Scope of OM

Area	Activity
Facility	Location
Layout	Plant design
Product	Design
Process	Method selection
Planning	Production control
Quality	Quality control
Materials	Materials management
Maintenance	Equipment upkeep

10.Key Decision Questions

Question	Decision Area
What to produce?	Product selection
How much?	Demand forecasting
Where?	Facility location
How?	Process & layout
When?	Scheduling
Materials?	Inventory/MRP
Quality?	Quality management
Machines?	Maintenance
Delivery?	Logistics

11.Major Decision Areas

Decision Area	
Product selection	Inventory management
Facility location	Supplier selection
Demand forecasting	Process management
Process & layout	Quality management
Capacity planning	Maintenance
Production scheduling	Warehousing & transport
MRP / ERP	Reverse logistics

12.Additional Responsibilities

Area	Role
Working Capital	Manage funds for operations
Skill Management	Workforce efficiency

Question & Answers

Question 1 **(MQP [1] 7 Marks June'25, June'24, MQP[2] 7 Marks June'23)** **LDR**

Define the scope of operations management.

Answer 1

Operations Management concerns with the conversion of inputs into outputs, using physical resources, so as to provide the desired utilities to the customer while meeting the other organizational objectives of effectiveness, efficiency and adaptability. It distinguishes itself from other functions such as personnel, marketing, finance, etc. by its primary concern for 'conversion by using physical resources'.

Following are the activities, which are listed under Production and Operations Management functions:

i. Location of facilities.
ii. Plant layouts and Material Handling.
iii. Product Design.
iv. Process Design.
v. Production Planning and Control.
vi. Quality Control.
vii. Materials Management.
viii. Maintenance Management.

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Question 2 **(PYP 7 Marks June'23, June'25)**

List down various major decision areas under Production and Operations management. (Any Ten)

Answer 2

1. Product Selection
2. Facility Location Selection
3. Demand Forecasting
4. Process Selection & Layout Decision
5. Capacity Planning
6. Aggregate Planning & Master Production Schedule (MPS)
7. Materials Requirement Planning (MRP) / Manufacturing Resource Planning (MRP II) / Distribution Resource Planning (DRP) / Enterprise Resource Planning (ERP)
8. Inventory Management
9. Supplier Selection / Sourcing
10. Process Management
11. Quality Management
12. Maintenance
13. Warehousing & Transportation
14. Reverse Logistics

In Addition, an operations manager is also responsible for working capital management, skill – Management etc.

1.2 Characteristics of Modern Operations Functions

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Key Features

1. Competitive Advantage	2. Services Orientation
3. Smokestack Disappearance	4. Small is Beautiful

2. Competitive Advantage

Past	Present
High demand	Excess capacity
Production focus	Competition focus
Basic function	Strategic tool

3. Services Orientation

Point	Description
Nature	Intangible, perishable
Interaction	High customer contact
Volume	Small scale
Location	Near market

4. Smokestack Disappearance

Earlier	Now
Polluting	Eco-friendly
Basic	Modern & aesthetic

5. Small is Beautiful

Old	New
Large scale	Small units
Mass production	Flexible production

Question & Answers

Question 3 **(MQP [1] 7 Marks Dec'23, MQP [2] 7 Marks Dec'25, June'25, PYP 7 Marks June'24)** **LDR**

Enumerate the characteristics of Modern Operations functions.

OR

"The Production Management of To-day presents certain characteristics which make it look totally different from what it was during the past. Specifically, To-day's production system is characterized by at least Four Features". In this Context Summarize the Said Features.

Answer 3

Today's production system is characterised by the following features:

1. **Manufacturing as Competitive Advantage:** Unlike the past, today plants have excess capacities, competition is mounting and firms look and competitive edge and firms intend to exploit the potential. Total Quality Management (TQM), Time- Based Competition, Business Process Re-engineering (BPRE), Just-in-Time (JIT), Focused Factory, Flexible Manufacturing Systems (FMS), Computer Integrated Manufacturing (CIM), and The Virtual Corporation are but only some techniques which the companies are employing to gain competitive advantage.
2. **Services Orientation:** Service sector is gaining greater relevance these days. The production system, therefore, needs to be organised keeping in mind the peculiar requirements of the service component. The entire manufacturing needs to be geared to serve (i) intangible and perishable nature of the services, (ii) constant interaction with clients or customers, (iii) small volumes of production to serve local markets, and (iv) need to locate facilities to serve local markets. There is increased presence of professionals on the production, instead of technicians and engineers.
3. **Disappearance of Smokestacks:** Protective labour legislation, environmental movement and gradual emergence of knowledge based organisations have brought total transformation in the production system. Today's factories are aesthetically designed and built, environment friendly - in fact, they are homes away from homes. Going to factory every day is no more excruciating experience, it is like holidaying at a scenic spot.
4. **Small has Become Beautiful:** E. F. Schumacher, in his famous book Small is Beautiful, opposed giant organisations and increased specialisation. He advocated, instead, intermediate technology based on smaller working units, community ownership, and regional workplaces utilising local labour and resources.

CHAPTER 4.5: TRANSPORTATION

A

LDR Questions	Descriptive: Q 5, Q 10, Q 14

QUICK REVIEW OF IMPORTANT CONCEPTS

Transportation Problem

Standard Matrix

	D_1	D_2	D_3	...	D_n	Supply
O_1	c_{11}	c_{12}	c_{13}	...	c_{1n}	a_1
O_2	c_{21}	c_{22}	c_{23}	...	c_{2n}	a_2
...	...	...	...	...	...	...
O_m	c_{m1}	c_{m2}	c_{m3}	...	c_{mn}	a_m
6Demand	b_1	b_2	b_3	...	b_n	

– Fill:
- **c_{ij} = cost**
- **x_{ij} = allocation**

$Z = \sum c_{ij} x_{ij}$

Step 1: Balance Check

- If Supply = Demand → OK
- If not: Add Dummy row/column (cost = 0)

Step 2: Initial Solution (IBFS)

✓ North-West Corner
- Start top-left
- Allocate min(supply, demand)

✓ Least Cost Method
- Choose lowest cost cell

✓ Vogel Approximation (VAM)
- Penalty = difference of 2 lowest costs
- Choose highest penalty
- Allocate to lowest cost

Step 3: Check Optimality (MODI)

If all opportunity costs ≥ 0 → Optimal
If any negative → Improve

Step 4: Improvement

- Form closed loop
- Add (+) and subtract (–)
- Reallocate

Key Conditions

- Allocations = m + n – 1
- If less → add **ε (degeneracy)**

Key Conditions

- Allocations = m + n – 1
- If less → add **ε (degeneracy)**

Special Cases

- Prohibited route → cost = M
- Ma**ximisation** → convert:
- New cost = Max – profit

Exam Tricks

- Always draw matrix first
- Use VAM (best method)
- Check m+n−1 rule
  Optimal → **no negative in MODI**

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Question & Answers

Question 1 (SM)

The cost conscious company requires for the next month 300, 260 and 180 tonnes of stone chips for its three constructions C_1, C_2 and C_3 respectively. Stone chips are produced by the company at three mineral fields taken on short lease by the company. All the available boulders must be crushed into chips. Any excess chips over the demands at sites C_1, C_2 and C_3 will be sold ex-fields.
The fields are M_1, M_2 and M_3 which will yield 250, 320 and 280 tones of stone chips respectively.
Transportation costs from mineral fields to construction sites vary according to distances, which are given below in monetary unit (MU).

	To	C_1	C_2	C_3
From	M1	8	7	6
	M2	5	4	9
	M3	7	5	5

(i) Determine the optimal economic transportation plan for the company and the overall transportation cost in MU.

(ii) What are the quantities to be sold from M_1, M_2 and M_3 respectively?

Answer 1

(i) Table: 1 Cost Matrix

To / From	C1	C2	C3	Supply
M1	8	7	6	250
M2	5	4	9	320
M3	7	7	5	280
Demand	300	260	180	850 / 740

From the given data we have Total Supply = 850 tonnes and total Demand = 740 tonnes i.e., Supply ≠ Demand. So this is an unbalanced problem of transportation. To make it balanced we introduce a "Dummy" construction site of demand 850 – 740 = 110 tonnes and having zero cost elements for all the cells of the matrix corresponding to it.

Table: 2 Basic Feasible Solution by VAM (Optimal)

To / From	C1	C2	C3	Dummy	Row Penalties: Supply	1st	2nd	3rd	4th	Row Nos.(u_i)
M_1	8	7	140 6	110 0	250 140	6*	2	1	1	u_1=0
M_2	300 5	20 4	9	0	320 20	4	1	5*	-	u_2=-2
M_3	7	240 5	40 5	0	280 40	5	0	0	0	u_3=-1
Demand	~~300~~	~~240~~ 260	~~40~~ 180	~~110~~	850					
Column Penalties: 1st	2	1	1	0						
2nd	2*	1	1	-						
3rd	-	1	1	-						
4th	-	2*	1	-						
Column Nos.(v_j)	v_1=7	v_2=6	v_3=6	v_4=0						

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Row Penalty = 2nd lowest cost figure of a row – Lowest cost figure of that row.

For the **1st Set of Row Penalties –**

(a) For 1st row, 2nd lowest cost = 6 and lowest cost = 0

∴ Penalty = 6 – 0 = 6

(b) For 2nd Row, 2nd lowest cost = 4 and Lowest cost = 0

∴ Penalty = 4 – 0 = 4

(c) For 3rd Row, 2nd lowest cost = 5 and Lowest cost = 0,

∴ Penalty = 5 – 0 = 5

Similarly, **Column Penalty** = 2nd lowest cost figure of a column – Lowest cost figure of that column

For the **1st Set** of **Column Penalties** –

(a) For 1st column, 2nd lowest cost = 7 and Lowest cost = 5, ∴ Penalty = 7 – 5 = 2

(b) For 2nd column, 2nd lowest cost = 5 and Lowest cost = 4, ∴ Penalty = 5 – 4 = 1

(c) For 3rd column, 2nd lowest cost = 6 and Lowest cost = 5, ∴ Penalty = 6 – 5 = 1

Of all these Row and Column penalties of 1st set, 6 is highest and it corresponds to 1st Row.

Hence allocation should be done at that cell of 1st Row where cost is least. This corresponds to the cell (M1 – Dummy). So maximum possible unit of 110 is allocated in this cell by maintaining parity of supply and demand. With this allocation the total demand of 'Dummy' site is exhausted. But the supply of the corresponding Mineral Field (M1) is not fully exhausted. Remaining supply capacity of M1 i.e. 250 – 110 = 140 tonnes is shown as balance in the supply cell of M1. As the demand of 'Dummy' is fullfilled, the entire column for this has been shaded indicating the same. Figures of this column will no longer participate in any of the subsequent calculations of Penalty (for Rows as well as columns)

The same procedure of calculating penalty for Rows and Columns and subsequently allocating maximum possible quantity in the least cost cell corresponding to highest penalty is repeated until all the allocations are made maintaining parity of Supply and Demand.

The solution thus obtained is the **Basic Feasible Solution**. It is given as follows.

Table: Showing Optimum Allocation

Cell	Allocation	Cost of Transportation (₹)
$M_1 - C_3$	140 tonnes	140 × 6 = 840
M_1 - Dummy	110 tonnes	110 × 0 = 0
$M_2 - C_1$	300 tonnes	300 × 5 = 1500
$M_2 - C_2$	20 tonnes	20 × 4 = 80
M_3 - C_2	240 tonnes	240 × 5 = 1200
M_3 - C_3	40 tonnes	40 × 5 = 200
Total	850 tonnes	₹3820

Here, m = No. of rows of the matrix = 3

n = No. of columns of the matrix = 4

$\therefore$ m + n – 1 = 3 + 4 – 1 = 6

Also, no. of allocated cells = 6

As, no. of allocated cells = 6 = m + n – 1, the solution is a **non degenerate** one.

Now the solution is tested for **OPTIMALITY**.

For this, Row Nos. (u_i) and column nos. (v_j) are calculated by using the equation $C_{ij} = u_i + v_j$ for all the **allocated cells**, where C_{ij} = Cost figure of the cell i-j.

Allocated Cell	C_{ij}	$C_{ij} = u_i + v_j$			
$M_1 - C_3$	$C_{13} = 6$	$C_{13} = u_1 + v_3$	or, $6 = u_1 + v_3$	or, $6 = 0 + v_3$ (Assume $u_1 = 0$) or, $v_3 = 6$	**(1)**
M_1 - Dummy	$C_{14} = 0$	$C_{14} = u_i + v_4$	or, $0 = u_1 + v_4$	or, $0 = 0 + v_4$ or, $v_4 = 0$	**(2)**
$M_2 - C_1$	$C_{21} = 5$	$C_{21} = u_2 + v_1$	or, $5 = u_2 + v_1$	or, $5 = -2 + v_1$ or, $v_1 = 7$	**(6)**
$M_2 - C_2$	$C_{22} = 4$	$C_{22} = u_2 + v_2$	or, $4 = u_2 + v_2$	or, $4 = u_2 + 6$ or, $u_2 = -2$	**(5)**
$M_3 - C_2$	$C_{32} = 5$	$C_{32} = u_3 + v_2$	or, $5 = u_3 + v_2$	or, $5 = -1 + v_2$ or, $v_2 = 6$	**(4)**
M_3 - C_3	$C_{33} = 5$	$C_{33} = u_3 + v_3$	or, $5 = u_3 + v_3$	or, $5 = u_3 + 6$ or, $u_3 = -1$	**(3)**

Hence no. of equations = 6 and no. of unknowns = 7. So to start with a solution, it is assumed u1 = 0. thereafter all the other row nos. and column nos. are calculated. The sequence of usage of the above equations is indicated as (1), (2), (3), ... (6).

Next opportunity cost (Δ_{ij}) for all the unallocated cells are calculated using $\Delta_{ij} = C_{ij} - (u_i + v_j)$

Unallocated Cell	C_{ij}	Opportunity Cost [$\Delta_{ij} = C_{ij} - (u_i + v_j)$]
M_1 - C_1	$C_{11} = 8$	$\Delta_{11} = C_{11} - (u_1 + v_1) = 8 - (0 + 7) = 1$
$M_1 - C_2$	$C_{12} = 7$	$\Delta_{12} = C_{12} - (u_1 + v_2) = 7 - (0 + 6) = 1$
$M_2 - C_3$	$C_{23} = 9$	$\Delta_{23} = C_{23} - (u_3 + v_3) = 9 - (-2 + 6) = 5$
M_2 - Dummy	$C_{24} = 0$	$\Delta_{24} = C_{24} - (u_2 + v_4) = 0 - (-2 + 0) = 2$
M_3 - C_1	$C_{31} = 7$	$\Delta_{31} = C_{31} - (u_3 + v_4) = 7 - (-1 + 7) = 1$
M_3 - Dummy	$C_{34} = 0$	$\Delta_{34} = C_{34} - (u_3 + v_4) = 0 - (-1 + 0) = 1$

As all the opportunity cost values are nonnegative, the solution is optimal.

(i) So the optimal transportation plan is as shown in Table-3 and minimum cost of transportation is ₹ 3820/-

(ii) Quantities to be produced by M_1, M_2 and M_3 are respectively 250,320 and 280 tonne of which 110 tonnes worth of stone chips produced by M_1 will remain unused by the construction sites. So this quantity can be sold ex-field.

CHAPTER 4.3: CONTROL MEASURES – TIME & MOTION STUDY, METHOD STUDY, WORK STUDY

C

LDR Questions	Descriptive: Q 3

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Time Study

Aspect	Point
Meaning	Scientific measurement of time for a job
Aim	Determine standard time
Focus	Best method + time required
Use	Costing, wages, standards

2. Key Concepts (Related Terms)

Term	Meaning
Operation Analysis	Improve process (eliminate/combine/change)
Job Standardisation	Fix best method + time
Job Analysis	Study job requirements & skills

4. Time Study vs Motion Study

Basis	Time Study	Motion Study
Focus	Time taken	Movements
Division	Elements of work	Basic motions
Aim	Set time standards	Find best method

5. Preconditions for Time Study

Condition	Point
Method	Standardised
Sequence	Proper flow
Effort	Minimum human effort

6. Work Study

Aspect	Point
Meaning	Study of work efficiency
Includes	Method study + Time study
Aim	Best use of resources

7. Method Study

Aspect	Point
Meaning	Improve method of doing work
Aim	Easy, efficient, low-cost method
Focus	Eliminate unnecessary motions

8. Features of Method Study

Feature	Point
Uniformity	Standard application
Standard practice	Defined methods
Continuous review	Regular improvement
Cooperation	Employee involvement

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Question & Answer

Question 1 (WB)

The time study of a work operation yields a cycle time of 10 minutes. The analyst rated the worker observed at 80%. The firm uses a 15% allowance factor. Please compute the normal time and standard time for this operation.

Answer 1

Average Cycle Time (ACT) = 10 Minutes
Performance rating (PR) = 80%
Therefore, Normal time (NT) = ACT × PR = 10 Minutes × 80% = 8 Minutes

Standard time $= \frac{\text{Normal Time}}{1 - \text{Allowance Fraction}} = \frac{8}{1 - 0.15}$ = 9.41 Minutes

Question 2 (WB)

A work measurement study was conducted in a company for 80 hours and the following results were obtained:

- **Units produced : 3200**
- **Idle time : 15%**
- **Performance rating : 120%**
- **Allowance time : 12% of standard time**

Compute the standard time for the task.

Answer 2

Computation of Standard time:

Particulars	Value
Total time (80 × 60)	4,800 Minutes
Less: Idle time 15%	720 Minutes
Effective time	4,080 Minutes
Units produced	3,200 units
ACT (Actual Cycle Time)	1.275 Minutes
Performance Rating	120%
Normal Time (ACT × PR)	1.53 Minutes
Standard Time (ST) = NT / (1 – AF)	1.53 / (1 – 0.12) = 1.74 Minutes

Question 3 (WB) LDR

A time study of a shop worker revealed the actual times shown below. The analyst rated the worker at 90% rating factor and the company allows the following per 8-hour day:

Worker	Machine time (minute / cycle)	Total
2.3	0.80	3.10
1.8	0.80	2.60
2	0.80	2.80
2.2	0.80	3.00
1.9	0.80	2.70
10.20*	0.80	11.00
2.20	0.80	3.00
1.80	0.80	2.60

Personal time : 20 minutes and delay time : 30 minutes

***Unusual non-recurring situation.**

Please compute the standard time.

Answer 3

Step 1: Computation of normal time (NT)

	ACT	PR	NT = ACT × PR
Average Cycle Time (ACT):			
• Worker: (2.30 + 1.80 + 2.00 + 2.20 + 1.90 + 2.20 + 1.80) / 7	2.0286	90%	1.8257
• Machine	0.8000	100%	0.8000
Total Normal Time			2.6257

Allowance Fraction (AF) = (20 + 30) / (8 × 60) = 0.1042

Standard Time (ST) = NT / (1 - AF) = 2.6257 / (1 - 0.1042) = 2.93 Minutes (Approx.)

Question 4 (WB)

A time study was conducted for a worker in shipping department in a factory. The observations (in minutes) are as under:

Elements	A	B	C	D	Performance Rating
P: Obtain the case	0.15	0.25	0.20	0.17	90%
Q: Place 3 dozen bottles in case	1.56	*	1.80	1.75	105%
R: Set case aside	0.20	0.10	0.10	0.15	95%

* Dropped the bottle.

Please compute the following:

(i) Normal time; (ii) Standard time if the allowance factor is 10%.

Answer 4

Elements	ACT (Average Observed Time)	ACT	PR	NT = ACT × PR
P	(0.15 + 0.25 + 0.20 + 0.17) / 4	0.1925	90%	0.1733
Q	(1.56 + 1.80 + 1.75) / 3	1.7033	105%	1.7885
R	(0.20 + 0.10 + 0.10 + 0.15) / 4	0.1375	95%	0.1306
Total				2.0924

Standard Time (ST) = NT / (1 – AF) = 2.0924 / (1 – 0.10) = 2.32 Minutes

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Multiple Choice Questions

1. Work study comprises following main techniques: ***(MQP[1] 2 Marks June'25)***

(a) Method study & work measurement
(b) Method study & time study
(c) Time study & work measurement
(d) Method study & job evaluation.

Ans: (a)

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GROUP – II

CORPORATE ACCOUNTING AND AUDITING

10

APPLICABLE FOR JUNE '26 & DECEMBER '26

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- REFERENCE TO ALL QUESTIONS
- LAST DAY REVISION QUESTIONS MARKED
- ABC ANALYSIS
- QUICK RECAP OF IMPORTANT CONCEPTS

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CORPORATE ACCOUNTING AND AUDITING

CMA Intermediate

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Reviewer™

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To the one who's not just dreaming CMA —
but becoming it

CMA

Write your name here

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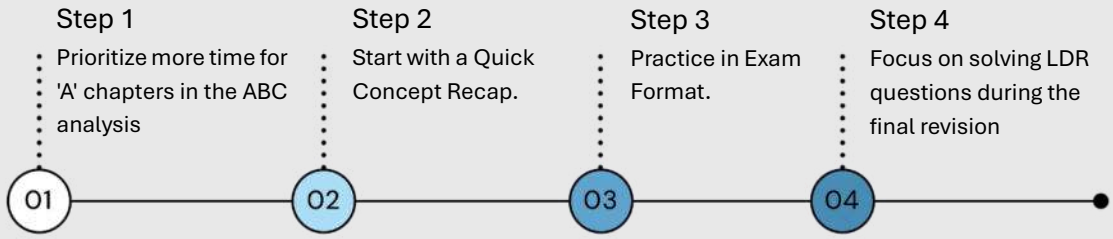
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STRATEGY TO SCORE

60+ in Corporate Accounting and Auditing



Step 1: Prioritize your chapters

Topics in the index are categorized as A, B, or C based on their importance. Focus more on 'A' chapters, as they carry the most weight, and give adequate attention to 'B' chapters. While all chapters must be covered, this approach helps manage time efficiently for better results.

Step 2: Start with a Quick Concept Recap

Use this powerful summary for a quick brush-up on key concepts before you attempt the chapter. This helps you identify and understand the core principles. If a question gives you trouble, return to this section / main study material to solidify the concept, then come back and solve it again.

Step 3: Practice in Exam Format

Always solve the question on your own before looking at the answer. If you get confused in MCQs and options or make a conceptual mistake, be sure to mark it to review during your next revision.

Step 4: Last Day Revision (LDR)

Focus on solving LDR questions during the final revision. On the day before your exam, prioritize these questions as they cover the most critical concepts from each chapter. You'll find a quick summary of LDR question numbers listed right before each chapter for easy reference.

Case 3: Partial Underwriting – Single Underwriter

Step	Formula
Gross Liability	Issue Size × %Underwritten
Unsubscribed Shares	Issue − Total Subscription
Deficit	Gross − Marked
Net Liability	Lower of (Unsubscribed, Deficit)
Final Liability	+ Firm Underwriting

Underwriting Commission Rules

Aspect	Rule
Shares	Max 5% of issue price

Includes 100% coverage of Work Book+ SM + MCQ Bank + MQP + PYP

(A) Shares Taken by Underwriter

Entry – Underwriters A/c Dr. → To Share Capital A/c + Securities Premium A/c

(B) Commission Entry

Entry – Underwriting Commission A/c Dr. → To Underwriters A/c

(C) Final Settlement

Situation	Entry
Amount receivable from underwriter	Bank A/c Dr. → To Underwriters A/c
Amount payable to underwriter	Underwriters A/c Dr. → To Bank A/c

Question 1 (SM, MQP[1] 7 Marks Dec'24)

XYZ Ltd. is issuing 20,00,000 shares of ₹10 each to the public. N Ltd. has been appointed as the underwriter for 5% of the issue size. The commission payable to the underwriter is 5% of the issue price. Calculate the amount of underwriting commission payable to N Ltd. if the shares are issued at par. How will your answer change if the shares are issued at 20% premium?

Answer 1

When shares have been issued at par:

Gross Liability = 5% of 20,00,000 = 1,00,000 shares.

Issue price = Face value = ₹ 10 per share

Underwriting Commission = [Gross Liability (in shares) × Issue Price per share] × Rate of Commission

= [1,00,000 × 10] × 5% = ₹50,000.

When shares have been issued at a premium of 20%:

Gross Liability = 5% of 20,00,000 = 1,00,000 shares.

Issue price = ₹ 10 + 120% = ₹ 12 per share

Underwriting Commission = [Gross Liability (in shares) × Issue Price per share] × Rate of Commission

= [1,00,000 shares × 12] × 5% = ₹60,000

Question 2 (SM)

A Ltd. issued 1,00,000 equity shares of ₹100 each at par to the public, underwritten only by X & Co. The company received applications for 90,000 shares of which 80,000 shares were marked. Determine the liability of the X & Co.

Answer 2

Underwriting liability of M/s U & Co.

= No. of Shares Issued (-) No. of shares subscribed by the public

= 1,00,000 (-) 90,000

= 10,000 shares.

LDR Questions	Descriptive: Q 5, Q 7, Q 13, Q 16, Q 19, Q 21 MCQ: 1, 6, 15, 23, 28

Last Day Revision Questions

Last Day Revision Questions mentioned right at the beginning of each chapter

Easy to find 1 day before the exam

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Sr.	Particulars	2023		2024		2025		Average	Page No.	IMP
		June	Dec	June	Dec	June	Dec			
	SECTION A : CORPORATE ACCOUNTING									
1	Accounting for Shares and Debentures	15	18	18	16	18	18	17.17		A
1.1	Issue of Shares, Forfeiture of Shares, Rights Issue, Bonus Issue, Sweat Equity Shares, Employee Stock	-	-	-	-	-	-	-	1.1.1 – 1.1.xx	
1.2									1.2.1 – 1.2.22	B
1.3	Securities	-	-	-	-	-	-	-	1.3.1 – 1.3.8	C
2	Preparation of the Statement of Profit and Loss and Balance Sheet	15	16	16	18	16	18	16.50	2.1 – 2.71	A
3	Cash Flow Statement	10	9	9	7	9	2	7.67	3.1 – 3.40	A
4	Accounts of Banking, Electricity and Insurance Companies	16	16	18	16	16	16	16.33		
4.1	Accounts of Banking Companies	-	-	-	-	-	-	-	4.1.1 – 4.1.26	A
4.2	Accounts of Electricity Companies	-	-	-	-	-	-	-	4.2.1 – 4.2.9	B
4.3	Accounts of Insurance Companies	-	-	-	-	-	-	-	4.3.1 – 4.3.25	B
5	Accounting Standards	6	9	9	7	7	20	9.67	5.1 – 5.32	B

Prioritize using ABC Analysis

Each chapter is categorized as A , B or C

A : Very Important, Read on priority

B : Moderately Important

C : Less Critical but still essential

LOR Questions | Description: Q 4, Q 5, Q 10 MCQ: 3, 5, 6

QUICK REVIEW OF IMPORTANT CONCEPTS

Comprehensive Table – Underwriting of Shares

Topic	Concept / Rule	Formula / Logic	Journal Entry
Meaning of Underwriting	Underwriting is an agreement where underwriters guarantee full subscription of securities.	—	—
Underwriter	A financial intermediary who undertakes the risk of under-subscription.	—	—
Underwriting Commission	Commission paid for bearing risk of under-subscription.	Commission = Gross Liability × Issue Price × Rate	Underwriting Commission A/c Dr. → To Underwriters A/c



Quick Review of Important Concepts

Table of Contents

Sr.	Particulars	2023		2024		2025		Average	Page No.	IMP
		June	Dec	June	Dec	June	Dec			
	SECTION A : CORPORATE ACCOUNTING									
1	**Accounting for Shares and Debentures**	15	18	18	16	18	18	17.17		
1.1	Issue of Shares, Forfeiture of Shares, Rights Issue, Bonus Issue, Sweat Equity Shares, Employee Stock Option and Stock Purchase Scheme, Buy-back of Shares	-	-	-	-	-	-	-	1.1.1 - 1.1.52	A
1.2	Redemption of Preference Shares, Issue and Redemption of Debentures	-	-	-	-	-	-	-	1.2.1 – 1.2.22	B
1.3	Underwriting of Securities	-	-	-	-	-	-	-	1.3.1 – 1.3.8	C
2	**Preparation of the Statement of Profit and Loss and Balance Sheet**	15	16	16	18	16	18	16.50	2.1 – 2.71	A
3	**Cash Flow Statement**	10	9	9	7	9	2	7.67	3.1 – 3.40	A
4	**Accounts of Banking, Electricity and Insurance Companies**	16	16	18	16	16	16	16.33		
4.1	Accounts of Banking Companies	-	-	-	-	-	-	-	4.1.1 – 4.1.26	A
4.2	Accounts of Electricity Companies	-	-	-	-	-	-	-	4.2.1 – 4.2.9	B
4.3	Accounts of Insurance Companies	-	-	-	-	-	-	-	4.3.1 – 4.3.25	B
5	**Accounting Standards**	6	9	9	7	7	20	9.67	5.1 – 5.32	B

SECTION B: AUDITING										
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7	Provision Relating to Audit under Companies Act, 2013	32	34	29	36	40	34	35.83	7.1 – 7.39	A
8	Auditing of Different Types of Undertakings	6	11	11	7	9	11	9.67	8.1 – 8.15	B

ABC Analysis

A Very Important, Read on priority

B Moderately Important

C Less critical but still essential

Ensure you thoroughly read all chapters without skipping any. The ABC analysis is designed to help you prioritize based on past trends, but it should not replace comprehensive preparation.

WHAT DOES REVIEWER INCLUDE?

This Reviewer offers 100% coverage, including all questions from:

- **SM: ICMAI Study Material Questions**
- **WB: ICMAI Workbook Questions**
- **MCQ Bank**
- **PYP: Past Year Papers**
- **MQP: Model Question Papers (1 or 2 denotes MQP 1 or MQP 2)**

CHAPTER 2: PREPARATION OF THE STATEMENT OF PROFIT AND LOSS AND BALANCE SHEET

A

LDR Questions	Descriptive: Q 5, Q 7, Q 13, Q 16, Q 19, Q 21 MCQ: 1, 6, 15, 23, 28

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Statement of Profit & Loss

Step	Particulars	What to include	Exam Tip
1	Revenue from Operations	Sales / Service income	Net of returns
2	+ Other Income	Interest, dividend, profit on sale	Non-operating
3	= Total Income	(1 + 2)	Starting point
4	– Expenses	See below	Main working
5	= Profit before Tax (PBT)	Core profit	Important
6	– Tax Expense	Current + Deferred	If given
7	= Profit after Tax (PAT)	Final profit	Answer

Expense Classification

Expense Type	Examples	Adjustment Impact
Material Cost	Raw material used	Opening + Purchase – Closing
Purchases	Trading goods	Direct expense
Change in Inventory	Opening – Closing	Adjust properly
Employee Benefit	Salary, PF	Add outstanding
Finance Cost	Interest, bank charges	Always separate
Depreciation	Fixed assets	Mandatory adjustment
Other Expenses	Rent, admin, misc	Adjust prepaid/outstanding

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2. Balance Sheet

Equity & Liabilities

Head	Sub-items	Key Understanding
Shareholders' Funds	Share Capital + Reserves	Owner's funds
Share Application Money	Pending allotment	Temporary
Non-Current Liabilities	Debentures, long loans	>12 months
Current Liabilities	Creditors, short loans	≤12 months

Assets

Head	Sub-items	Key Understanding
Non-Current Assets	Fixed assets, investments	Long-term use
Current Assets	Stock, debtors, cash	Short-term

3. Most Important Adjustments

Adjustment	P&L Effect	Balance Sheet Effect
Closing Stock	Reduce expense	Current Asset
Outstanding Expense	Increase expense	Liability
Prepaid Expense	Decrease expense	Asset
Accrued Income	Increase income	Asset
Unearned Income	Decrease income	Liability
Depreciation	Expense	Reduce asset
Bad Debts	Expense	Reduce Debtors
Provision for DD	Expense	Reduce Debtors

4. Current vs Non-Current Classification

Item	Rule	Example
Current Asset	Realised within 12 months	Stock, Debtors
Non-current Asset	>12 months	Machinery
Current Liability	Payable within 12 months	Creditors
Non-current Liability	Long-term	Debentures

→ If not given → assume 12 months rule

5. Share Capital

Item	Treatment
Authorized Capital	Only disclosure
Issued Capital	Given
Subscribed Capital	Applied shares
Paid-up Capital	After calls
Calls in Arrears	Deduct from capital
Calls in Advance	Show as liability

6. Reserves & Surplus

Reserve	Purpose
Securities Premium	Share issue premium
Capital Redemption Reserve	Preference share redemption
Debenture Redemption Reserve	Debenture redemption
General Reserve	Free reserve
Surplus (P&L)	Accumulated profit

7. Borrowings & Interest

Type	Example	Treatment
Long-term	Debentures, bank loan	Non-current liability
Short-term	OD, creditors	Current liability
Interest	On loans/debentures	Finance cost in P&L

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8. Key Disclosures

Area	What to remember
Depreciation	Separate expense
Interest	Finance cost
Dividend	Not expense (appropriation)
Provision	Show separately
Exceptional Items	Separate line
CSR	Separate disclosure if given
Auditor Fees	Part of other expenses

9. Trade Items

Item	Meaning
Trade Receivable	Debtors (from sales)
Trade Payable	Creditors (from purchases)

Statement Of Profit & Loss

Particulars	Note No.	Current Year (₹)	Previous Year (₹)
I. Revenue from Operations			
II. Other Income			
III. Total Income (I + II)			
IV. Expenses:			
Cost of Materials Consumed			

Purchases of Stock-in-Trade			
Changes in Inventory (FG/WIP/Stock)			
Employee Benefits Expense			
Finance Costs			
Depreciation & Amortization			
Other Expenses			
Total Expenses			
V. Profit before Exceptional Items & Tax			
Exceptional Items			
VI. Profit before Tax			
Tax Expense			
VII. Profit after Tax (PAT)			
Earnings per Share (Basic & Diluted)			

Balance Sheet

Equity & Liabilities

Particulars	Note No.	Current Year (₹)	Previous Year (₹)
I. Equity & Liabilities			
1. Shareholders' Funds			
(a) Share Capital			
(b) Reserves & Surplus			
(c) Money against Share Warrants			
2. Share Application Money Pending Allotment			
3. Non-Current Liabilities			
(a) Long-term Borrowings			
(b) Deferred Tax Liabilities			
(c) Other Long-term Liabilities			
(d) Long-term Provisions			
4. Current Liabilities			
(a) Short-term Borrowings			
(b) Trade Payables			
(c) Other Current Liabilities			
(d) Short-term Provisions			
Total			

Assets

Particulars	Note No.	Current Year (₹)	Previous Year (₹)
II. Assets			
1. Non-Current Assets			
(a) Property, Plant & Equipment			
(b) Intangible Assets			
(c) Capital Work-in-Progress			
(d) Non-current Investments			
(e) Deferred Tax Assets			
(f) Long-term Loans & Advances			
(g) Other Non-current Assets			
2. Current Assets			
(a) Current Investments			
(b) Inventories			
(c) Trade Receivables			
(d) Cash & Cash Equivalents			
(e) Short-term Loans & Advances			
(f) Other Current Assets			
Total			

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Question 1 (SM)

(Reporting Authorised, Issued, Subscribed, Called up and Paid up Capital including Forfeited Shares)
Authorised Capital:
Equity Share 1,00,000 Shares @ ₹100 each = ₹ 1,00,00,000. Preference Share Capital: 15% Redeemable Preference Shares, 50,000 Shares @ ₹100 each = ₹50,00,000. 18%, Convertible Preference Shares, 30,000 shares @ ₹100 each = ₹30,00,000.
Issued Capital: Equity Share 30,000 Shares @ ₹100 each, fully paid up = ₹30,00,000; 19,800 Equity Shares of ₹100 each, ₹80 called up and paid up = ₹15,84,000. Amount received on 200 shares forfeited for non-payment of allotment and first call of ₹30 and ₹40 each, final call was not made on those shares. Amount payable on application ₹10 per share.
Preference Share Capital: 15% Redeemable Preference Shares, 10,000 Shares @ ₹100 each = ₹10,00,000. 18%, Convertible Preference Shares, 20,000 shares @ ₹100 each = ₹20,00,000
How will this be shown in the Workings/Schedules, assuming first year of operation?

Answer 1

Share Capital

A. Authorised Capital

Particulars	Current Year (₹)	Previous Year
(i) Equity Share 1,00,000 Shares @ ₹100 each	1,00,00,000	
(ii) 15%, 50,000 Redeemable Preference Shares @ ₹100 each	50,00,000	
(iii) 18%, 30,000 Convertible Preference Shares @ ₹100 each	30,00,000	
Total	**1,80,00,000**	

B. Issued Capital

Particulars	Current Year (₹)	Previous Year
(i) Equity Share 50,000 Shares @ ₹100 each	50,00,000	
(ii) 15%, 10,000 Redeemable Preference Shares @ ₹100 each	10,00,000	
(iii) 18%, 20,000 Convertible Preference Shares @ ₹100 each	20,00,000	
Total	**80,00,000**	

C. Subscribed, Called up and Paid-up Capital

Particulars	Current Year (₹)	Previous Year (₹)
(i) 30,000 Equity Shares @ ₹100 each, fully paid up	30,00,000	
(ii) 19,800 Equity Shares @ ₹100 each, ₹80 called up and paid up	15,84,000	
(iii) 15%, 10,000 Redeemable Preference Shares @ ₹100 each	10,00,000	
(iv) 18%, 20,000 Convertible Preference Shares @ ₹100 each	20,00,000	
	75,84,000	
Add: Forfeited Shares (amount originally paid-up)	2,000	
Total for Balance Sheet	**75,86,000**	

D. Reconciliation of Number and Amount of Shares

(1) For Equity Shares

Particulars	Current Year		Previous Year	
	No. of Shares	Amount (₹)	No. of Shares	Amount (₹)
Opening Balance	Nil	Nil	Nil	Nil
Add: Fresh Issue (including Bonus Shares, Right Shares, Split of Shares, Shares issued otherwise than for cash as a Purchase Consideration)	49,800	45,84,000	Nil	Nil
Sub Total	49,800	45,84,000	Nil	Nil
Less: Buy-back of Shares	Nil	Nil	Nil	Nil
Closing Balance	49,800	45,84,000	Nil	Nil

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(2) For Preference Shares

(i) For 15% Redeemable Preference Shares of ₹100 each

Particulars	Current Year		Previous Year	
	No. of Shares	Amount (₹)	No. of Shares	Amount (₹)
Opening Balance	Nil	Nil	Nil	Nil
Add: Fresh Issue (including shares issued otherwise than for cash as a Purchase Consideration)	10,000	10,00,000	Nil	Nil
Sub Total	10,000	10,00,000	Nil	Nil
Less: Redemption of Shares	Nil	Nil	Nil	Nil
Closing Balance	10,000	10,00,000	Nil	Nil

(ii) For 18% Convertible Preference Shares of ₹100 each

Particulars	Current Year		Previous Year	
	No. of Shares	Amount (₹)	No. of Shares	Amount (₹)
Opening Balance	Nil	Nil	Nil	Nil
Add: Fresh Issue	20,000	20,00,000	Nil	Nil
Sub Total	20,000	20,00,000	Nil	Nil
Less: Redemption/Buy-back of Shares	Nil	Nil	Nil	Nil
Closing Balance	20,000	20,00,000	Nil	Nil

Question 2 (SM)

While preparing the Balance Sheet as on 31.03.2023, the Accountant of ABC Ltd. is confused regarding classification of following Trade Payables into current and non-current.

Sl. No.	Amount due (₹)	Due from	To be settled on
1	3,10,000	01.04.2022	18.05.2023
2	1,80,000	01.06.2022	15.09.2024
3	40,000	01.08.2022	15.07.2024
4	15,000	01.01.2023	30.04.2024
5	2,30,000	06.03.2023	05.07.2024
6	1,08,000	15.03.2023	31.12.2023

The normal operating cycle of the company is 15 months. Advice the Accountant on classification with reason.

Answer 2

Classification of Trade Payables as Current and Non-current Liabilities

Sl. No.	Amount Due (₹)	Date of settlement	Due from	Cut of period based on operating cycle	Whether due within the cut of date	Whether Current or non-current
1	3,10,000	18.05.2023	01.04.2022	01.07.2023	Before	Current Liabilities
2	1,80,000	15.09.2024	01.06.2022	01.09.2023	After	Non-current Liabilities
3	40,000	15.07.2024	01.08.2022	01.11.2023	After	Non-current Liabilities
4	15,000	30.04.2024	01.01.2023	01.04.2024	After	Non-current Liabilities
5	2,30,000	05.07.2024	06.03.2023	06.06.2024	After	Non-current Liabilities
6	1,08,000	31.12.2023	15.03.2023	15.06.2023	Before	Current Liabilities

Note: An item of liability is considered as a current liability is the same is due to be settled within the normal operating cycle which is calculated from the date of recording the asset in the books. It may also be noted that item no. 2, 3, 4 and 5 are also not likely to be settled within 12 months from the end of the reporting period.

CHAPTER 1.3: UNDERWRITING OF SECURITIES

C

LDR Questions	Descriptive: Q 4, Q 5, Q 10 MCQ: 3, 5, 6

QUICK REVIEW OF IMPORTANT CONCEPTS

Comprehensive Table – Underwriting of Shares

Topic	Concept / Rule	Formula / Logic	Journal Entry
Meaning of Underwriting	Underwriting is an agreement where underwriters guarantee full subscription of securities.	—	—
Underwriter	A financial intermediary who undertakes the risk of under-subscription.	—	—
Underwriting Commission	Commission paid for bearing risk of under-subscription.	Commission = Gross Liability × Issue Price × Rate	Underwriting Commission A/c Dr. → To Underwriters A/c

Types of Underwriting

Basis	Types	Key Point
Extent	Full / Partial	Full = 100% covered
Number	Single / Multiple	Multiple = shared liability
Commitment	Firm / Regular	Firm = fixed obligation

Marked VS Unmarked Applications

Type	Meaning	Exam Logic
Marked	Applications with underwriter's stamp	Deduct from that underwriter
Unmarked	No stamp	Distributed among underwriters

Underwriter's Liability

Type	Formula
Gross Liability	Given in agreement
Net Liability	Gross − (Marked + Unmarked Share) + Firm Underwriting

Case 1: Fully Underwritten – Single Underwriter

Concept	Formula
Liability	Issue Size − Public Subscription

Case 2: Fully Underwritten – Multiple Underwriters

Step	Formula
Step 1	Start with Gross Liability
Step 2	Less: Marked Applications
Step 3	Less: Share of Unmarked Applications
Step 4	Add: Firm Underwriting
Final	Net Liability

Firm Underwriting Treatment

Method	Rule
Treated as Marked	Deduct individually
Treated as Unmarked	Distribute among all

Case 3: Partial Underwriting – Single Underwriter

Step	Formula
Gross Liability	Issue Size × %Underwritten
Unsubscribed Shares	Issue − Total Subscription
Deficit	Gross − Marked
Net Liability	Lower of (Unsubscribed, Deficit)
Final Liability	+ Firm Underwriting

Underwriting Commission Rules

Aspect	Rule
Shares	Max 5% of issue price
Debentures	Max 2.5%
Basis	Calculated on Gross Liability
Paid Even If	Fully subscribed

Accounting Entries

(A) Shares Taken by Underwriter

Entry - Underwriters A/c Dr. → To Share Capital A/c + Securities Premium A/c

(B) Commission Entry

Entry - Underwriting Commission A/c Dr. → To Underwriters A/c

(C) Final Settlement

Situation	Entry
Amount receivable from underwriter	Bank A/c Dr. → To Underwriters A/c
Amount payable to underwriter	Underwriters A/c Dr. → To Bank A/c

Question & Answers

Question 1 **(SM, MQP[1] 7 Marks Dec'24)**

XYZ Ltd. is issuing 20,00,000 shares of ₹10 each to the public. N Ltd. has been appointed as the underwriter for 5% of the issue size. The commission payable to the underwriter is 5% of the issue price. Calculate the amount of underwriting commission payable to N Ltd. if the shares are issued at par. How will your answer change if the shares are issued at 20% premium?

Answer 1

When shares have been issued at par:

Gross Liability = 5% of 20,00,000 = 1,00,000 shares.

Issue price = Face value = ₹ 10 per share

Underwriting Commission = [Gross Liability (in shares) x Issue Price per share] x Rate of Commission

= [1,00,000 x 10] x 5% = ₹50,000.

When shares have been issued at a premium of 20%:

Gross Liability = 5% of 20,00,000 = 1,00,000 shares.

Issue price = ₹ 10 x 120% = ₹ 12 per share

Underwriting Commission = [Gross Liability (in shares) x Issue Price per share] x Rate of Commission

= [1,00,000 shares x 12] x 5% = ₹60,000

Question 2 **(SM)**

A Ltd. issued 1,00,000 equity shares of ₹100 each at par to the public, underwritten only by B & Co. The company received applications for 90,000 shares of which 80,000 shares were marked. Determine the liability of the B & Co.

Answer 2

Underwriting liability of M/s U & Co.

= No. of Shares Issued (-) No. of shares subscribed by the public

= 1,00,000 (-) 90,000

= 10,000 shares.

CHAPTER 4.2: ACCOUNTS OF ELECTRICITY COMPANIES

B

LDR Questions	Descriptive: Q 1, Q 6, Q 8 MCQ: 3

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Key Theory Statements

- Governed by **Electricity Act, 2003**
- Replaced: 1910 Act, 1948 Act, 1998 Act
- Activities separated → **Generation, Transmission, Distribution**
- Accounting → As per **Companies Act, 2013 + CERC + RBI (if applicable)**

2. IMPORTANT AUTHORITIES

Authority	Function
CEA	Technical coordination
CERC	Tariff regulation (Central)
SERC	Tariff regulation (State)

3. Important Practical Adjustments

(a) **Security Deposit**

→ **Journal Entries**

1. On receipt
   - Bank A/c Dr
   - To Security Deposit
2. Interest accrued
   - Interest Exp Dr
   - To Interest Accrued
3. Adjustment in bill
   - Interest Accrued Dr
   - To Sales

→ **Balance Sheet**

- Security Deposit → **Non-current Liability**
- Interest Accrued → **Non-current Liability**

(b) **SLD (Service Line Development Charges)**

Method	Treatment
Liability	Transfer to income gradually
Reserve	Show under Reserves
Capital Reserve	Transfer to P&L proportionately
Asset Reduction	Reduce asset cost

→ **Most important in exam:** Capital Reserve method

(c) **Government Grant (APDRP)**

→ **Treatment:**

- Shown as **Capital Reserve**
- Transferred to P&L in proportion to depreciation

→ **Exam Trick:**

Match → **Grant transfer = Depreciation proportion**

(d) **Depreciation**

→ **Method**: **SLM (as per CERC)**

→ **Key Rules:**

- Land → No depreciation
- Salvage value → **10%**
- Max depreciation → **90%**
- IT assets → 100%

→ **Weighted Average Rate Formula:**

$$\text{Rate} = \frac{\text{Total Depreciation}}{\text{Total Cost}} \times 100$$

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(e) **Tariff Components (Thermal Power)**

1. Capacity Charges (Fixed Cost)

- Return on Equity
- Interest on Loan
- Depreciation
- O&M Expenses
- Interest on Working Capital

2. Energy Charges

- Fuel cost
- Secondary fuel
- Other reagents

4. Important Calculations

(a) **Debt-Equity Ratio**

- Standard = **70 : 30**
- Excess equity → treated as loan

(b) **Return On Equity (Roe)**

- Base rate = **15.5% (Thermal)**
- Formula: ROE = Average Equity × Rate

(c) **Interest On Loan**

- Loan = 70% of capital
- Repayment = Equal to depreciation

(d) **Working Capital**

Includes:

- Fuel cost
- O&M expenses
- Receivables
- Maintenance spares

5. Accounting Treatments Summary

Item	Treatment
Security Deposit	Liability
Interest on Deposit	Expense
SLD Charges	Capital Reserve
Govt Grant	Capital Reserve
Depreciation	SLM
Land	No depreciation

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6. Exam Important Points

- Use **CERC rates (not Companies Act)**
- Show **Capital Reserve clearly**
- Match **Depreciation with Grant transfer**
- Mention **70:30 ratio**
- Write **formula for working capital interest**

Question & Answers

Question 1 **(WB)** LDR

From the following information of SDF Electricity Co. Ltd., an Electricity generation Project, Compute the following:

i. Depreciation and

ii. Advance against depreciation up to the year 2024-2025 as per Regulation 21 of the central Electricity Regulatory Commission (Terms and Conditions of Tariff), Regulations 2004.

- **Date of Commercial Operation of COD: 1st April,2021**
- **Approved Opening Capital Cost as on 1st April,2021: ₹5,00,000**
- **Weighted average Rate of Depreciation: 5.20%**
- **Details of allowed Additional capital, Repayment of Loan and weighted Average Rate of Interest on Loan are as follows:**

Average Rate of Interest on loan are as follows:

Particulars	2021-2022	2022-2023	2023-2024
Additional capital Expenditure (Allowed)	35,000	10,000	7,500
Repayment of Loan	30,000	35,000	35,000
Weighted Average Rate of Interest on Loan	7.50%	7.60%	7.80%

Answer 1

Calculation of total depreciation including Advance Against Depreciation:

Particulars	2021-2022	2022-2023	2023-2024
Opening Capital Cost	5,00,000	5,35,000	5,45,000
Additional Capital Cost	35,000	10,000	7,500
Closing Capital Cost (a + b)	5,35,000	5,45,000	5,52,500
Average Capital Cost [(a + b) /2]	5,17,500	5,40,000	5,48,750
Weighted average rate of depreciation	5.20%	5.20%	5.20%
a. Annualized depreciation	26,910	28,080	28,535
b. Advance against depreciation (AAD)	3,090	6,920	6,465
c. Total depreciation (including ADD) for tariff	30,000	35,000	35,000

Calculation of total depreciation including Advance Against Depreciation:

Particulars	2021-2022	2022-2023	2023-2024
a. Repayment of Loan (10% of Loan amount)	30,000	35,000	35,000
b. Depreciation (Excluding AAD)	26,910	28,080	28,535
c. Excess of Loan repaid over depreciation (a-b)	3,090	6,920	6,465
d. Cumulative repayment of Loan	30,000	65,000	1,00,000
e. Cumulative Depreciation (excluding AAD)	26,910	54,990	83,525
f. Cumulative repayment of loan over cumulative depreciation (d-e)	3,090	10,010	16,475
g. Advance against depreciation (AAD) (lower of c or f)	3,090	6,920	6,465

Question 2 (SM)

Consider the following information provided by ABC Power Supply Company Ltd.
Security deposit received from a customer on 01.10.2021 for ₹2,00,000. Interest rate applicable was 8% for 2021-22 and 9% for 2022-23. The accrued interest for the year is adjusted against the bill for the immediate next quarter. Journalize the above transaction for 2021-22 and 2022-23.

Answer 2

In the books of ABC Power Supply Company Ltd.
Journal

Date	Particulars	Dr. (₹)	Cr. (₹)
01.10.21	Bank A/c To Security Deposit A/c (Being the Security Deposit received)	2,00,000	2,00,000
31.03.22	Interest Expense A/c (2,00,000 × 8% × 6/12) To Interest Accrued on Security Deposit A/c (Being the Provision for Interest Accrued on Security Deposit Made)	8,000	8,000
30.06.22	Interest Accrued on Security Deposit A/c To Sales Turnover A/c (Being the Adjustment of Interest Accrued on Security Deposit in Consumer's Bill)	8,000	8,000
31.03.23	Interest Expense A/c (2,00,000 × 8% × 6/12) To Interest Accrued on Security Deposit A/c (Being the Provision for Interest Accrued on Security Deposit Made)	8,000	8,000
30.06.23	Interest Accrued on Security Deposit A/c To Sales Turnover A/c (Being the Adjustment of Interest Accrued on Security Deposit in Consumer's Bill)	8,000	8,000

Question 3 (SM)

From the following calculate Weighted Average Rate of Depreciation considering the rates as per Appendix-I.

Sr. No.	Assets	Closing Balance at Cost (₹)
1	Land under full ownership	14,30,000
2	Land under Lease	4,30,000

3	(a) Building & Civil Engineering Works Other than Kutcha Roads	33,00,000
	(b) Railways Sidings	40,00,000
	(c) Temporary Erections such as Wooden Structures	10,00,000
4	IT Equipment	20,00,000
5	Self-Propelled Vehicles	30,00,000
6	Portable Air Conditioning Plants	25,00,000
7	(a) Apparatus other than Motors let on hire	15,00,000
	(b) Motors let on hire	2,00,000
8	Communication Equipment	5,00,000
9	Office Furniture, Furnishing, Equipment, Fittings & Apparatus	5,00,000
10	Plants & Machinery in generating stations	2,52,00,000
11	Cooling Towers & Circulating Water Systems	10,00,000
12	Hydraulic Works Forming part of the Hydro-dams, etc.	20,00,000
13	Transformers & Switchgear	2,05,00,000
14	Lighting Arrester, Batteries, Overhead lines including cable support	42,00,000
15	Meters	20,00,000
16	Static Air Conditioning Plants	1,00,00,000
17	Street Light Fittings	47,85,000
18	Vehicles other than Self Propelled Vehicles	2,15,000

Answer 3

Calculation of Total Coat and Total Depreciation

S. No.	Assets	Rate	Cost (₹)	Depreciation (₹)
1	Land under full ownership	0.00%	14,30,000	0
2	Land under Lease	3.34%	4,30,000	14,362
3	Building & Civil Engineering Works			
	(a) Other than Kutcha Roads	3.34%	33,00,000	1,10,220
	(b) Railways Sidings	3.34%	40,00,000	1,33,600
	(c) Temporary Erections such as Wooden Structures	100.00%	10,00,000	10,00,000
4	IT Equipment	15.00%	20,00,000	3,00,000
5	Self-Propelled Vehicles	9.50%	30,00,000	2,85,000
6	Portable Air Conditioning Plants	9.50%	25,00,000	2,37,500
7	(a) Apparatus other than Motors let on hire	9.50%	15,00,000	1,42,500
	(b) Motors let on hire	6.33%	2,00,000	12,660
8	Communication Equipment	6.33%	5,00,000	31,650
9	Office Furniture, Furnishing, Equipment, Fittings & Apparatus	6.33%	5,00,000	31,650
10	Plants & Machinery in generating stations	5.28%	2,52,00,000	13,30,560
11	Cooling Towers & Circulating Water Systems	5.28%	10,00,000	52,800
12	Hydraulic Works Forming part of the Hydro-dams, etc.	5.28%	20,00,000	1,05,600
13	Transformers & Switchgear	5.28%	2,05,00,000	10,82,400
14	Lighting Arrester, Batteries, Overhead lines including cable support	5.28%	42,00,000	2,21,760
15	Meters	5.28%	20,00,000	1,05,600
16	Static Air Conditioning Plants	5.28%	1,00,00,000	5,28,000
17	Street Light Fittings	5.28%	47,85,000	2,52,648
18	Vehicles other than Self Propelled Vehicles	5.28%	2,15,000	11,352
Total			**9,02,60,000**	**59,89,862**

Total Capital Cost of All Assets (other than Freehold land) = 9,02,60,000 -14,30,000 = 8,88,30,000

Weighted Average Rate of Depreciation = $\frac{\text{Total depreciation on all assets(other than freehold land)}}{\text{Total capital cost of all assets (other than freehold land)}} \times 100$

$= \frac{59,89,862}{8,88,30,000} \times 100 = 6.7431\%$

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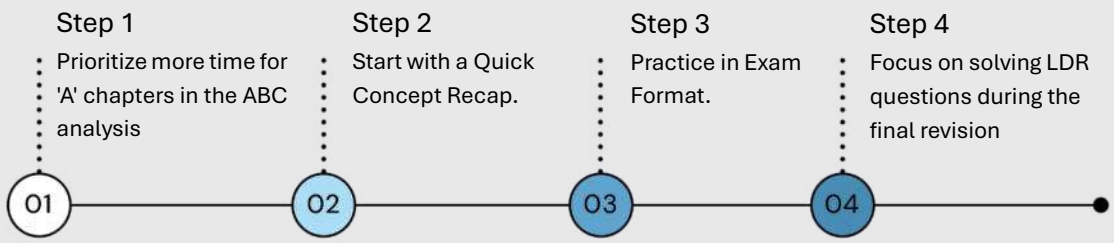
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Step 1: Prioritize your chapters

Topics in the index are categorized as A, B, or C based on their importance. Focus more on 'A' chapters, as they carry the most weight, and give adequate attention to 'B' chapters. While all chapters must be covered, this approach helps manage time efficiently for better results.

Step 2: Start with a Quick Concept Recap

Use this powerful summary for a quick brush-up on key concepts before you attempt the chapter. This helps you identify and understand the core principles. If a question gives you trouble, return to this section / main study material to solidify the concept, then come back and solve it again.

Step 3: Practice in Exam Format

Always solve the question on your own before looking at the answer. If you get confused in MCQs and options or make a conceptual mistake, be sure to mark it to review during your next revision.

Step 4: Last Day Revision (LDR)

Focus on solving LDR questions during the final revision. On the day before your exam, prioritize these questions as they cover the most critical concepts from each chapter. You'll find a quick summary of LDR question numbers listed right before each chapter for easy reference.

17.BETA

- Measures systematic risk

Beta	Meaning
< 1	Low risk
= 1	Same as market
> 1	High risk
< 0	Negative relation

18.CAPM

$$E(R) = R_f + \beta(R_m - R_f)$$

Where:

- R_f = risk-free rate
- β = beta
- R_m = market return

Key points:

- Return depends on systematic risk
- Diversification removes unsystematic risk
- Used to calculate required return

Question & Answers

Question 1 (MQP[2] 6 Marks June'23)

Answer 1

Systematic risk represents that portion of total risk which is attributable to factors that affect the market as a whole. It arises out of external and uncontrollable factors which are not specific to a security or industry to which such security belongs. Different types of systematic risk are discussed below:

(i) **Market Risk:** These are risks that are triggered by political, social and economic events. These risks arise due to changes in demand and supply, expectations of the investors, information flow, investor's risk perception, etc. consequent to the social, political or economic events.

(ii) **Interest Rate Risk:** Uncertainty of future market values and extent of income in the future, due to fluctuations in the general level of interest, is known as Interest Rate Risk. These are risks arising due to fluctuating rates of interest and cost of corporate debt.

Includes 100% coverage of Work Book+ SM + MCQ Bank + MQP + PYP

operationally feasible criterion? State briefly Interrelationship between Investment, Financing and Dividend Decisions.

Answer 2

(i) **Value/Wealth Maximization as the objective of financial management:**

Value/Wealth Maximization is considered as the appropriate objective of an enterprise. When the firms maximize the shareholder's value/wealth, the individual shareholder can use this wealth to maximize his individual utility. Value/Wealth Maximization is the single substitute for a shareholder's utility.

Arguments in favour of Value/Wealth Maximization:

(i) Due to wealth maximization, the short-term money lenders get their payments in time.
(ii) The long time lenders too get a fixed rate of interest on their investments.
(iii) The employees share in the wealth gets increased.
(iv) The various resources are put to economical and efficient use.

(ii) **Profit Maximization:**

Profit maximization is one of the leading goals for all firms as it is reflected in the income statement. If the net operating profits tend to increase consecutively, the firm portrays efficient performance and if the net operating profits tend to decrease consecutively, the firm shows poor financial performance.

Arguments against profit maximization:

(i) It leads to exploitation of workers and consumers.
(ii) It ignores the risk factors associated with profit.
(iii) Profit in itself is a vague concept and means differently to different people.

LDR Questions	Descriptive: Q 2, Q 34, Q 36 MCQ: 13, 18, 52

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Fundamentals of Finance
   - Finance = science of mon… funds)
   - Financial Management … controlling financial resources
   - Two key aspects:
     - Procurement of funds
     - Effective utilization of funds

2. Objectives of Financial Management
   Main objectives:
   - Profit maximization
   - Wealth (value) maximization

   Comparis…

Focus	
Nature	
Risk	
Time value	
Decision	
Conclusion	

3. Scope of F…
   Three key decisions:
   - Investment decision → where and how much to invest
   - Financing decision → debt vs equity mix
   - Dividend decision → distribution vs retention

4. Functions of Financial Management
   - Determining financial needs
   - Determining sources of funds
   - Financial analysis (ratios, performance)
   - Capital structure decision
   - Working capital management
   - Capital budgeting
   - Profit planning and control
   - Dividend policy
   - Fixed asset management
   - Corporate taxation

5. PROFIT vs WEALTH MAXIMIZATION
   Profit Maximization (Pros):
   - Measures efficiency
   - Source of growth
   - Helps survival

   Profit Maximization (Cons):
   - Ignores risk
   - Ignores time value of money
   - Short-term focus
   - Vague concept

   Wealth Maximization (Pros):
   - Considers risk and time value
   - Focus on cash flows
   - Long-term objective
   - Maximizes share price

   Conclusion: Wealth maximization is better and practical.

6. Role Of CFO

Estimate fund requirements	Raise funds (internal/external)	Invest funds efficiently
Manage working capital	Ensure returns to stakeholders	Manage risk and treasury
Comply with regulations	Monitor financial markets	

Last Day Revision Questions

Last Day Revision Questions mentioned right at the beginning of each chapter
Easy to find 1 day before the exam

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2	Institutions and Instruments in Financial Markets	14	9	11	9	11	11	10.83	2.1 – 2.21	
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5	Capital Budgeting	17	18	16	14	16	18	16.50	5.1 – 5.51	A
6	Working Capital Management	19	18	16	18	16	18	17.50	6.1 – 6.40	A
7	Financing Decisions of a Firm	11	14	18	24	22	14	17.17		
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7.3	Dividend Decisions and Dividend Theories	-	-	-	-	-	-	-	7.3.1 – 7.3.12	B

Prioritize using ABC Analysis

Each chapter is categorized as A , B or C

A : Very Important, Read on priority

B : Moderately Important

C : Less Critical but still essential

CHAPTER 3.4: CASH FLOW STATEMENT - PREPARATION AND ANALYSIS

A

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Cash Flow Statement – Core Concept

Meaning + Definitions

Aspect	Explanation
Meaning	Cash Flow Statement shows the changes in cash position between two balance sheet dates.
Cash	Cash includes cash in hand and demand deposits with banks.
Cash Equivalents	These are short-term highly liquid investments with maturity up to 3 months.
Cash Flows	Cash flows include inflows (increase in cash) and outflows (decrease in cash).

2. CLASSIFICATION OF CASH FLOWS

Type	Explanation	Examples
Operating Activities	These are main revenue generating activities of business.	Cash from sales, payments to suppliers, salaries, taxes.
Investing Activities	These relate to purchase and sale of long-term assets.	Purchase/sale of fixed assets, investments.
Financing Activities	These relate to capital and borrowings.	Issue of shares, loans, repayment, dividend paid.



Quick Review of Important Concepts

Table of Contents

Sr.	Particulars	2023		2024		2025		Average	Page No.	IMP
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	SECTION A: FINANCIAL MANAGEMENT									
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2	**Institutions and Instruments in Financial Markets**	14	9	11	9	11	11	10.83	2.1 – 2.21	B
3	**Tools for Financial Analyses**	22	27	27	27	25	25	25.50		
3.1	Comparative, Common-Size Financial Statements and Trend Analysis	-	-	-	-	-	-	-	3.1.1 – 3.1.13	B
3.2	Financial Ratio Analysis	-	-	-	-	-	-	-	3.2.1 – 3.2.27	A
3.3	Fund Flow Statement Preparation and Analysis	-	-	-	-	-	-	-	3.3.1 – 3.3.8	B
3.4	Cash Flow Statement Preparation and Analysis	-	-	-	-	-	-	-	3.4.1 – 3.4.18	A
4	Sources of Finance and Cost of Capital	8	13	11	7	7	11	9.50	4.1 – 4.40	B
5	Capital Budgeting	17	18	16	14	16	18	16.50	5.1 – 5.51	A
6	Working Capital Management	19	18	16	18	16	18	17.50	6.1 – 6.40	A
7	**Financing Decisions of a Firm**	11	14	18	24	22	14	17.17		
7.1	Capital Structure and Capital Stacking	-	-	-	-	-	-	-	7.1.1 – 7.1.14	A
7.2	Leverage Analysis and EBIT- EPS Analysis	-	-	-	-	-	-	-	7.2.1 – 7.2.20	A
7.3	Dividend Decisions and Dividend Theories	-	-	-	-	-	-	-	7.3.1 – 7.3.12	B

SECTION B: BUSINESS DATA ANALYTICS										
8	Introduction to Data Science for Business Decision-making	8	9	9	7	7	7	7.83	8.1 – 8.8	B
9	Data Processing, Organisation, Cleaning and Validation	7	-	-	2	9	2	3.33	9.1 – 9.5	C
10	Data Presentation: Visualisation and Graphical Presentation	16	2	7	2	-	2	4.83	10.1 – 10.7	B
11	Data Analysis and Modelling	1	16	11	16	11	14	11.50	11.1 – 11.10	A

ABC Analysis

A Very Important, Read on priority

B Moderately Important

C Less critical but still essential

Ensure you thoroughly read all chapters without skipping any. The ABC analysis is designed to help you prioritize based on past trends, but it should not replace comprehensive preparation.

WHAT DOES REVIEWER INCLUDE?

This Reviewer offers 100% coverage, including all questions from:

- **SM: ICMAI Study Material Questions**
- **WB: ICMAI Workbook Questions**
- **MCQ Bank**
- **PYP: Past Year Papers**
- **MQP: Model Question Papers (1 or 2 denotes MQP 1 or MQP 2)**

CHAPTER 1: FUNDAMENTALS OF FINANCIAL MANAGEMENT C

LDR Questions	Descriptive: Q 2, Q 34, Q 36 MCQ: 13, 18, 52

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Fundamentals of Finance

- Finance = science of money (raising + using funds)
- Financial Management = planning and controlling financial resources
- Two key aspects:
  - Procurement of funds
  - Effective utilisation of funds

2. Objectives of Financial Management

Main objectives:

- Profit maximization
- Wealth (value) maximization

Comparison:

Basis	Profit Maximization	Wealth Maximization
Focus	Profit	Shareholder value
Nature	Short-term	Long-term
Risk	Ignored	Considered
Time value	Ignored	Considered
Decision base	Profit	Cash flows

Conclusion: Wealth maximization is superior.

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3. Scope of Financial Management

Three key decisions:

- Investment decision → where and how much to invest
- Financing decision → debt vs equity mix
- Dividend decision → distribution vs retention

4. Functions of Financial Management

• Determining financial needs	• Determining sources of funds
• Financial analysis (ratios, performance)	• Capital structure decision
• Working capital management	• Capital budgeting
• Profit planning and control	• Dividend policy
• Fixed asset management	• Corporate taxation

5. PROFIT vs WEALTH MAXIMIZATION

Profit Maximization (Pros):

- Measures efficiency
- Source of growth
- Helps survival

Profit Maximization (Cons):

- Ignores risk
- Ignores time value of money
- Short-term focus
- Vague concept

Wealth Maximization (Pros):

- Considers risk and time value
- Focus on cash flows
- Long-term objective
- Maximizes share price

Conclusion: Wealth maximization is better and practical.

6. Role Of CFO

• Estimate fund requirements	• Raise funds (internal/external)	• Invest funds efficiently
• Manage working capital	• Ensure returns to stakeholders	• Manage risk and treasury
• Comply with regulations	• Monitor financial markets	•

7. Time Value of Money (TVM)

- Money has time value
- ₹1 today > ₹1 in future

Reasons:

- Risk/uncertainty
- Preference for present consumption
- Investment opportunities

8. TVM Techniques

- Compounding → present to future
- Discounting → future to present

9. Important Formulas

Future Value: $FV = PV(1 + r)^n$

Present Value: $PV = \frac{FV}{(1+r)^n}$

10. ANNUITY & PERPETUITY

- **Annuity = equal payments over time**
- **Perpetuity = infinite annuity**

Formulas:

Future Value of Annuity: $FV_{annuity} = A\left(\frac{(1+r)^n - 1}{r}\right)$

Present Value of Annuity: $PV_{annuity} = A\left(\frac{1-(1+r)^{-n}}{r}\right)$

Perpetuity: $PV = \frac{A}{r}$

11. CAGR

$CAGR = \left(\frac{EV}{BV}\right)^{\frac{1}{n}} - 1$

Uses:

- Measure growth
- Compare investments
- Forecast trends

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12. RETURN CONCEPT

- **Return = income + capital gain**

Types:

- Realised return (past)
- Expected return (future)

13. EX-ANTE vs EX-POST

- Ex-ante → expected return
- Ex-post → actual (historical) return

14. TYPES OF RISK

Systematic Risk (cannot be diversified):

- Market risk
- Interest rate risk
- Purchasing power risk

Unsystematic Risk (can be diversified):

- Business risk
- Financial risk
- Default risk

15. RETURN FORMULAS

Total Return: $\text{Total Return} = \frac{D_1 + (P_1 - P_0)}{P_0}$

- Expected Return: $E(R) = \sum R_i P_i$
- Portfolio Return: $E(R_p) = \sum w_i E(R_i)$

16. RISK MEASURES

- Standard deviation → total risk
- Variance → square of SD
- Coefficient of variation (CV): $CV = \frac{\sigma}{E(R)}$

17.BETA

- **Measures systematic risk**

Beta	Meaning
< 1	**Low risk**
= 1	**Same as market**
> 1	**High risk**
< 0	**Negative relation**

18.CAPM

$$E(R) = R_f + \beta(R_m - R_f)$$

Where:

- Rf = risk-free rate
- β = beta
- Rm = market return

Key points:

- Return depends on systematic risk
- Diversification removes unsystematic risk
- Used to calculate required return

Question & Answers

Question 1 (MQP[2] 6 Marks June'23)

Prepare a list of different types of systematic risks.

Answer 1

Systematic risk represents that portion of total risk which is attributable to factors that affect the market as a whole. It arises out of external and uncontrollable factors, which are not specific to a security or industry to which such security belongs. Different types of systematic risks are discussed below:

(i) **Market Risk:** These are risks that are triggered due to social, political and economic events. These risks arise due to changes in demand and supply, expectations of the investors, information flow, investor's risk perception, etc. consequent to the social, political or economic events.

(ii) **Interest Rate Risk:** Uncertainty of future market values and extent of income in the future, due to fluctuations in the general level of interest, is known as Interest Rate Risk. These are risks arising due to fluctuating rates of interest and cost of corporate debt.

(iii) **Purchasing Power Risk:** Purchasing Power Risk is the erosion in the value of money due to the effects of inflation.

Question 2 (PYP 5 Marks June'23) LDR

What is Wealth Maximisation as the Objective of Financial Management? Why is profit maximization, not an operationally feasible criterion? State briefly Interrelationship between Investment, Financing and Dividend Decisions.

Answer 2

(i) Value/Wealth Maximization as the objective of financial management:

Value/Wealth Maximization is considered as the appropriate objective of an enterprise. When the firms maximize the shareholder's value/wealth, the individual shareholder can use this wealth to maximize his individual utility. Value/Wealth Maximization is the single substitute for a shareholder's utility.

Arguments in favour of Value/Wealth Maximization:

(i) Due to wealth maximization, the short-term money lenders get their payments in time.
(ii) The long-time lenders too get a fixed rate of interest on their investments.
(iii) The employees share in the wealth gets increased.
(iv) The various resources are put to economical and efficient use.

(ii) Profit Maximization:

Profit maximization is one of the leading goals for all firms as it is reflected in the income statement. If the net operating profits tend to increase consecutively, the firm portrays efficient performance and if the net operating profits tend to decrease consecutively, the firm shows poor financial performance.

Arguments against profit maximization:

(i) It leads to exploitation of workers and consumers.
(ii) It ignores the risk factors associated with profit.
(iii) Profit in itself is a vague concept and means differently to different people.

(iv) It is narrow a concept at the cost of social and moral obligations. Thus, profit maximization as an objective of Financial Management has been considered inadequate.
Hence, profit maximization, not an operationally feasible criterion.

(iii) Interrelationship between Investment, Financing and Dividend Decisions:

Investment Decision: Investment decision of a firm includes two main aspects—where to invest and how much to invest or the amount of investment. This maximizes the wealth of a firm. There are two basic issues involved in investment decisions:

(a) Evaluation of alternative investment avenues so as to select the best option.

(b) Monitoring and implementation of the selected investment option.

Financing Decision: The objective of a financing decision of a firm should be to find out the optimum combination of debt - equity, where cost of capital will be minimum and return will be maximum. Financing decision involves decision regarding the financing pattern of the firm. There are mainly two sources of raising funds—internal source and external source. Internal source includes the owned fund of the firm *i.e.* the share capital. Whereas the external source includes the borrowed funds *i.e.* loans from banks and other financial institutions, issuing debentures etc. Risk involved in borrowed funds is higher than the risk involved in owned funds. This is because borrowed funds entail a fixed payment commitment like interest, but the owned funds (equity capital) do not include any such fixed commitment except preference shares. So, reasonable care should be exercised while deciding upon the capital structure.

Dividend Decision: Dividend decision of a firm includes determining how much to distribute as dividend and how much to retain for future expansion programme. The objective of dividend policy is to maximize the market value of the equity shares. If the shareholders' expectations are not fulfilled, ultimately it will have a negative impact on the market value of shares. On the other hand, if a firm fails to grasp or rather predict the reinvestment opportunities then it will have an impact on the future growth of the firm.

Conclusion:

So, the scope of financial management is striking a proper balance between all the three decisions of investment, financing and dividend to ensure achieving objective of the firm.

Question 3 (SM)

Find the present value of ₹ 1,000 receivable 6 years hence if the rate of discount is 10%.

Answer 3

₹1,000 × $PVIF_{10\%,6}$ = ₹1,000 × 0.5645 = ₹ 564.5

Question 4 (SM)

An investor expects a perpetual sum of ₹ 5,000 annually from his investment. What is the present value of the perpetuity if interest rate is 10%?

Answer 4

Present value of a perpetuity = $\frac{\text{Perpetuity}}{\text{Interest Rate}}$ | PV= $\frac{A}{i}$ = ₹ 50,000

Question 5 (SM)

From the following data, compute the beta of Security X.

σ_x = 12%; σM = 9%; $r_{(X,M)}$ = +0.72

Answer 5

Beta (β) = $\frac{r_{(AM)} \times \sigma_A \times \sigma_M}{\sigma_M^2}$ | = $\frac{0.72 \times 12 \times 9}{9^2} = \frac{77.76}{81} = 0.96$

Question 6 (SM)

The following information is given:

Security Beta: 1.2, Risk-free rate: 4%, Expected market return: 12%. Calculate expected rate of return on the security.

Answer 6

$E(R_s) = R_F + \{ \beta_s \times (R_M - R_F) \}$

Substituting these data into the CAPM equation, we get

$E(R_s)$ = 4% + [1.20 × (12% - 4%)]

= 4% + 9.6% = 13.6%.

Question 7 (SM)

Compute the future values of (1) an initial ₹ 100 compounded annually for 10 years at 10% and (2) an annuity of ₹ 100 for 10 years at 10%.

Answer 7

The future value of an investment compounded annually = $F_n = P(1 + i)^n = P \times FVIF_{i,n} = F_{10} = ₹100\ (1 + 0.10)^{10} = ₹100\ (2.5937) = ₹259.4$

The future value of an annuity = $A \times FVIFA_{in} = ₹100 \times 15.937 = ₹1593.7$

Question 8 (SM)

A note (secured premium note) is available for ₹ 1,400. It offer, including one immediate payment, 10 annual payments of ₹ 210. Compute the rate of return (yield) on the note.

Answer 8

$V=\sum_{i=1}^{n} \frac{C_i}{(1+r)^i}$

⇒ ₹1,400 = ₹210 $(1 + PVIFA_{r,9})$

⇒ $(1 + PVIFA_{r,9})$ = ₹1,400 / ₹210 = 6.67

$(1 + PVIFA_{r,9})$ = 6.67 - 1 = 5.67

Question 9 (SM)

The shares of ABC Ltd. are currently selling for ₹ 100 on which the expected dividend is ₹ 4. Compute the total return on the shares if the earnings or dividends are likely to grow at (a) 5 % (b) 10 % and (c) 0 (zero) % (no growth).

Answer 9

$r = (D_1 / P_0) + g$

(a) Rate of growth, 5%:

r = (₹4 / ₹100) + 0.05 = 0.04 + 0.05 = 9%

(b) Rate of growth, 10%:

r = (₹4 / ₹100) + 0.10 = 14%

(c) Rate of growth, 0 (zero) % (no growth):

r = ₹4 / 100 = 4%

Question 10 (SM)

Consider, two securities, A and B, whose normal probability distributions of one-year returns have the following characteristics:

	Security A	Security B
Expected return, [E(R)]	0.08	0.24
Standard deviation, (σ)	0.06	0.08
Coefficient of variation, (CV)	0.75	0.33

Comment on the above information.

Answer 10

From the above information it is found that the standard deviation of Security B is larger than that of Security A. So, Security B is the riskier investment opportunity with standard deviation as risk measurement tool. However, relative to the size of expected return, Security A has greater variation. So, Security A is higher risky investment than Security B.

Question 11 (SM)

ABC Ltd. is considering a proposal to buy a machine for ₹ 30,000. The expected cash flows after taxes from the machine for a period of 3 consecutive years are ₹ 20,000 each. After the expiry of the useful life of the machine, the seller has guaranteed its repurchase at ₹ 2,000. The firm's cost of capital is 10% and the risk adjusted discount rate is 18%. Should the company accept the proposal of purchasing the machine?

Answer 11

Year	CFAT (₹)	PV factor (0.18)	Total PV (₹)
1-3	20,000	2.174	43,480
3	2,000	0.751 (As per PVIF Table)	1,502
			44,982
Less cash outlays			30,000
NPV			14,982

Yes, the company should accept the proposal.

CHAPTER 3.1: COMPARATIVE, COMMON-SIZE FINANCIAL STATEMENTS AND TREND ANALYSIS

B

LDR Questions	Descriptive: Q 10, Q 11, Q 12, Q 13

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Comparative Financial Statement Format

Particulars	Previous Year (PY)	Current Year (CY)	Absolute Change (CY – PY)	% Change $\frac{\text{Change}}{\text{PY}} \times 100$
Item 1				
Item 2				
Item 3				
Total				

Key Formulas

Absolute change = Current Year – Previous Year

% Change = $\frac{\text{Absolute Change}}{\text{Previous Year}} \times 100$

2. Common Size Balance Sheet Format

(A) Assets Side

Assets	Amount	% of Total Assets $\frac{\text{Item}}{\text{TotalAssets}} \times 100$
Fixed Assets		
Investments		
Current Assets		
Fictitious Assets		
Total Assets		**100%**

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(B) Liabilities Side

Liabilities	Amount	% of Total Liabilities $\frac{\text{Item}}{\text{TotalLiabilities}} \times 100$
Share Capital / Owner's Fund		
Long-term Liabilities		
Current Liabilities		
Total Liabilities		**100%**

3. Common Size Income Statement Format

Particulars	Amount	% of Sales $\frac{\text{Item}}{\text{Sales}} \times 100$
Sales		100%
Cost of Goods Sold		
Gross Profit		
Operating Expenses		
Operating Profit		
Interest		
Tax		
Net Profit		

Steps to Solve

1.Identify base (Total Assets / Sales).	2.Divide each item by base.
3.Multiply by 100.	4.Present in % format.

4. Trend Analysis Format

Year	Amount	Trend % $\frac{\text{Current}}{\text{Base}} \times 100$
Base Year		**100%**
Year 2		
Year 3		
Year 4		

5. Final Formula Summary Table

Concept	Formula
Absolute Change	$\text{CY} - \text{PY}$
Percentage Change	$\frac{\text{CY}-\text{PY}}{\text{PY}} \times 100$
Common Size %	$\frac{\text{Item}}{\text{Total}} \times 100$
Trend %	$\frac{\text{Current}}{\text{Base}} \times 100$

Question & Answer

Question 1 (MQP[2] 7 Marks Dec'23)

The following data relate to some important items of a company disclosing its development during the last five years:

	2018 (₹)	2022 (₹)
Working Capital	**2,33,53,010**	**3,82,50,955**
Plant and Equipment	**99,78,420**	**2,41,76,835**
Long – Term Debts	**72,80,000**	**1,40,00,000**
Net Tangible Assets	**2,80,80,230**	**4,98,76,090**

By computing the trend ratios, evaluate the changes in the financial position (soundness / weakness) of the company.

Answer 1

Computation of Trend Percentage

Particulars	Absolute Changes	Trend % 2018	Trend % 2022
Working capital	1,48,97,945	100	163.79
Plant & Machinery	1,41,98,415	100	242.3
Long-term borrowings	67,20,000	100	192.31
Net Tangible assets	2,17,95,860	100	177.62

Interpretation of changes:

Trend percentage depicts that there is an increase of 142.3% in plant and machinery while an increase in working capital is 63.79%. These trend percentages show that there is rapid increase in fixed assets. But if we see the changes in absolute figures of above said both items then just opposite result comes before us.

Working capital is increased by ₹1,48,97,945 and plant and machinery is increased by ₹1,41,98,415. On the basis of trend percentage, it can be said that finance has been provided from long term borrowing and working capital for purchasing plant and machinery.

There is an increase of 92.31% and 77.62% respectively in long term debt and net tangible assets which is undesirable because more increase in long term debts in comparison to net tangible assets is the indicator of increasing debt burden.

Question 2 (SM)

A partial list of trend and common-size percentages for ABC Ltd. is given below.

	March, current year	March, previous year
Trend percentages:		
Sales (net)	**120**	**100**
Cost of goods sold	**?**	**100**
Gross profit on sales	**?**	**100**

Operating expenses and income taxes	?	100
Net income	?	100
Common-size percentages:		
Sales (net)	100	100
Cost of goods sold	?	?
Gross profit on sales	40	?
Operating expenses and income taxes	20	25
Net income	20	10

Determine the missing trend and common-size percentages.

Answer 2

Determination of common-size percentages and missing trends

Particulars	Common-size percentages		Trend percentages	
	(March current year)	(March previous year)	(March current year)	(March previous year)
Sales(net)	100	100	120	100
Cost of goods sold	60	65	110.76	100
Gross profit on sales	40	35	137.14	100
Operating expenses and income taxes	20	25	96	100
Net income	20	10	240	100

Question 3 **(PYP 7 Marks Dec'24)**

Prepare a Common-size Income Statement from the following income statements and interpret the same.

INCOME STATEMENT

Particulars	31st March 2023 (₹)	31st March 2024 (₹)
Gross Sales	10,30,000	12,42,000
Less: Sales Returns	30,000	42,000
Net Sales	10,00,000	12,00,000
Less: Cost of Goods Sold	6,00,000	6,60,000
Gross Profit	4,00,000	5,40,000
Less: Operating Expenses:		
Administrative Expenses	85,000	1,14,000
Selling Expenses	2,00,000	1,93,200
Total Operating Expenses	2,85,000	3,07,200
Income from Operations	1,15,000	2,32,800
Add: Non-operating Income	24,000	34,200
Total Income	1,39,000	2,67,000
Less: Non-operating Expenses	36,000	53,280
Net Profit	1,03,000	2,13,720

Answer 3

Common Size Income Statement

Particulars	31st March 2023		31st March 2024	
	(₹)	(%)	(₹)	(%)
Gross Sales	10,30,000	103	12,42,000	103.5
Less: Sales Returns	30,000	3	42,000	3.5
Net Sales	10,00,000	100	12,00,000	100
Less: Cost of Goods Sold	6,00,000	60	6,60,000	55
Gross Profit	4,00,000	40	5,40,000	45
Less: Operating Expenses:				
Administrative Expenses	85,000	8.5	1,14,000	9.5
Selling Expenses	2,00,000	20	1,93,200	16.1
Total Operating Expenses	2,85,000	28.5	3,07,200	25.6
Income from Operations	1,15,000	11.5	2,32,800	19.4

Add: Non-operating Income	24,000	2.4	34,200	2.85
Total Income	1,39,000	13.9	2,67,000	22.25
Less: Non-operating Expenses	36,000	3.6	53,280	4.44
Net Profit	1,03,000	10.3	2,13,720	17.81

Note: All percentages have been calculated based on Net Sales.

Comment:

(i) In the year 2024, the cost of goods sold declines by 5%.This may be due to the reduction in the cost of raw materials. As a result, gross profit increases from 40% to 45%.

(ii) The operating expenses reduces by 2.9%. This is due to efficient working of the company. There is reduction in the COGS and operating expenses which jointly contributes in increasing income from operation by 7.9%. Therefore, it can be concluded that the company is efficiently managed in the year 2024 as compared to 2023.

Question 4 (PYP 7 Marks Dec'23)

Prepare a Common Size Income Statement from the following figures extracted from the Statement of Profit and Loss of XYZ Ltd. and offer your comments on its profitability position.

Particulars	2021-22 (₹)	2022-23 (₹)
Net Sales	5,25,000	6,75,000
Less: Cost of Goods sold	2.85,000	3,22,500
Gross profit	2,40,000	3,52,500
Less: Operating Expenses	75,000	1,08,000
Operating profit	1,65,000	2,44,500
Less: Interest on debentures	30,000	25,500
Profit before Tax	1,35,000	2,19,000

Answer 4

Common Size Income Statement

Particulars	2021-22 (%)	2022-23 (%)
Net Sales	100	100
Less: Cost of Goods sold	54.3	47.8
Gross profit	45.7	52.2
Less: Operating Expenses	14.3	16
Operating profit	31.4	36.2
Less: Interest on debentures	5.7	3.8
Profit before Tax	25.7	32.4

Comment:

(i) The PBT to net sales has increased from 25.71% in the year 2021-22 to 32.44% in the year 2022-23. It indicates that the profit earning capacity of the company has improved during the study period. This improvement in the profitability of the company has been mainly due to significant reduction in the cost of goods sold of the company. It may occur due to fall down of input market or may occur due to improvement in the efficiency of the company. As other operating expenses are higher in 2022-23 so, it is clear that company has been operated with tight supervision, tight inventory control for reduction of Cost of Goods Sold.

(ii) The interest on long-term debt to net sales has declined from 5.71% in the 2021-22 to 3.78% in 2022-23. It implies that the financial burden of the company has reduced significantly during the study period. Higher operating profit or fund from operation has been utilised for repayment of long-term debt, so that the financial risk associated with the company has declined significantly during the study period.

Question 5 (SM, WB)

From the following income statement, prepare a common size statement and also interpret the results

Income Statement for the year ended 31st March

Particulars	2023 (₹)	2024 (₹)
Net Sales	10,50,000	13,50,000
Less: Cost of Goods Sold	5,70,000	6,45,000
Gross Profit	4,80,000	7,05,000

Less: Other Operating Expenses	1,50,000	2,16,000
Operating Profit	3,30,000	4,89,000
Less: Interest on Long-term Debt	60,000	51,000
Profit Before Tax (PBT)	2,70,000	4,38,000

Answer 5

Common Size Statement for the year ended 31st March, 2023 and 2024

Particulars	2023	2024
Net Sales	100%	100%
Less: Cost of Goods Sold $\left(\frac{\text{Cost of Goods Sold}}{\text{Net Sales}} \times 100\right)$	54.3%	47.8%
Gross Profit $\left(\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100\right)$	45.7%	52.2%
Less: Other operating expenses $\left(\frac{\text{Other Operating Expenses}}{\text{Net Sales}} \times 100\right)$	14.3%	16%
Operating Profit $\left(\frac{\text{Operating Profit}}{\text{Net Sales}} \times 100\right)$	31.4%	36.2%
Less: Interest on Long-term Debt $\left(\frac{\text{Interest}}{\text{Net Sales}} \times 100\right)$	5.7%	3.8%
Profit Before Tax (PBT) $\left(\frac{\text{PBT}}{\text{Net Sales}} \times 100\right)$	25.7%	32.4%

Comments:

(i) The PBT to net sales has increased from 25.7% in the year 2022-23 to 32.4% in the year 2023-24. It indicates that the profit earning capacity of the company has improved during the study period. This improvement in the profitability of the company has been mainly due to significant reduction in the cost of goods sold of the company. It may occur due to fall down of input market or may occur due to improvement in the efficiency of the company. As other operating expenses are higher in 2023-24 so, it is clear that company has been operated with tight supervision, tight inventory control for reduction of Cost of Goods Sold.

(ii) The interest on long-term debt to net sales has declined from 5.7% in the 2022-23 to 3.8% in 2023-24. It implies that the financial burden of the company has reduced significantly during the study period. Higher operating profit or fund from operation has been utilised for repayment of long-term debt, so that the financial risk associated with the company has declined significantly during the study period.

Question 6 (SM)

From the following figures prepare a common size comparative statement and comment on the results.

Particulars	2019-20 (₹in lakh)	2020-21 (₹in lakh)	2021-22 (₹in lakh)	2022-23 (₹in lakh)	2023-24 (₹in lakh)
Cost of Materials	150	220	250	200	200
Labour Cost	200	140	150	150	175
Conversion Cost	150	150	140	200	175
Total Manufacturing cost	500	510	540	550	550
Sales Revenue	1,200	1,100	1,000	1,000	950
Gross Profit	700	590	460	450	400
Less: Other Operating Expenses	300	220	200	200	180
Operating Profit	400	370	260	250	220

Answer 6

Common Size Comparative Income Statement

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Materials $\frac{\text{Cost of Materials}}{\text{Sales}} \times 100$	12.5%	20%	25%	20%	21.05%
Labour Cost $\frac{\text{Labour Cost}}{\text{Sales}} \times 100$	16.67%	12.73%	15%	15%	18.42%
Conversion Cost $\frac{\text{Conversion Cost}}{\text{Sales}} \times 100$	12.50%	13.64%	14%	20%	18.42%
Total Manufacturing Cost $\frac{\text{Total Manufacturing Cost}}{\text{Sales}}$ 100	41.67%	46.36%	54%	55%	57.89%
Sales Revenue	100%	100%	100%	100%	100%
Gross Profit $\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$	58.33%	53.64%	46%	45%	42.11%

Other Operating Expenses $\frac{\text{Other Operating Expenses}}{\text{Net Sales}}$ 100	25%	20%	20%	20%	18.95%
Operating Profit $\frac{\text{Operating Profit}}{\text{Sales}} \times 100$	33.33%	33.64%	26%	25%	23.16%

Comments:

From the above analysis, it can be concluded that there was a clear upward rising trend in the manufacturing cost of goods sold during the study period. As a result, gross profit to sales has been decreased very significantly during the same period. It was 58.33% in the year 2019-20 which ultimately reduced to 42.11% in the ultimate year of the study period i.e., 2023-24. It implies that operational efficiency of the company has been reduced very significantly during the period.

Question 7 (MQP[1] 7 Marks Dec'23)

Presented below are revenue and expense data for the XYZ Company:

	2022 (₹)	2021 (₹)
Sales	**8,16,000**	**6,56,500**
Sales returns and allowances	**16,000**	**6,500**
Cost of goods sold	**4,00,000**	**3,12,000**
Selling Expenses	**2,00,000**	**1,30,000**
General Expenses	**1,20,000**	**78,000**
Miscellaneous Income	**6,400**	**6,500**
Income Tax	**32,000**	**67,600**

You are required to prepare a comparative statement for the year 2022 and 2021 for the company and also comment on the relationships revealed in the comparative income statement.

Answer 7

Comparative Income Statement

Particulars	Amount(₹)		%	
	2022	2021	2022	2021
Sales	8,16,000	6,56,500	102.0	101.0
Less: Sales returns and allowances	16,000	6,500	2.0	1.0
Net Sales	8,00,000	6,50,000	100.0	100.0
Less: Cost of goods sold	4,00,000	3,12,000	50.0	48.0
Gross Profit (A)	4,00,000	3,38,000	50.0	52.0
Less: Operation Expenses:				
Selling Expenses	2,00,000	1,30,000	25.0	20.0
General Expenses	1,20,000	78,000	15.0	12.0
Total operating Expenses (B)	3,20,000	2,08,000	40.0	32.0
Net Operating Income (A – B)	80,000	1,30,000	10.0	20.0
Add: Miscellaneous Income	6,400	6,500	0.80	1.00
Income before Tax	86,400	1,36,500	10.80	21.00
Less: Income Tax	32,000	67,600	4.00	10.40
Net Income after Tax	54,400	68,900	6.8	10.6

The following are the significant rendered by the comparative income statement:

(i) The ratio of gross profit decreased from 52% to 50% because of increase in the ratio of cost of goods sold. The company suffered ₹ 16,000 (i.e., 2% of ₹ 8,00,000) decrease in potential gross profit.

(ii) The rate of selling expenses rose from 20% to 25% because of increase in advertising expenses.

(iii) There is 3% of increase in general expenses. This may be due to strike in the plant.

(iv) The increase in sales returns and allowances may be due to poor product quality or too aggressive sales policy.

CHAPTER 3.4: CASH FLOW STATEMENT - PREPARATION AND ANALYSIS

A

LDR Questions	Descriptive: Q 11, Q 14 MCQ: 5

QUICK REVIEW OF IMPORTANT CONCEPTS

1. Cash Flow Statement – Core Concept

Meaning + Definitions

Aspect	Explanation
Meaning	Cash Flow Statement shows the changes in cash position between two balance sheet dates.
Cash	Cash includes cash in hand and demand deposits with banks.
Cash Equivalents	These are short-term highly liquid investments with maturity up to 3 months.
Cash Flows	Cash flows include inflows (increase in cash) and outflows (decrease in cash).

2. CLASSIFICATION OF CASH FLOWS

Type	Explanation	Examples
Operating Activities	These are main revenue generating activities of business.	Cash from sales, payments to suppliers, salaries, taxes.
Investing Activities	These relate to purchase and sale of long-term assets.	Purchase/sale of fixed assets, investments.
Financing Activities	These relate to capital and borrowings.	Issue of shares, loans, repayment, dividend paid.

Comprehensive Cash Flow Statement (Indirect Method)

Particulars	Amount (₹)
A. CASH FLOW FROM OPERATING ACTIVITIES	
Net Profit before Tax and Extraordinary Items	xxx
Add: Non-cash and Non-operating Expenses	
Depreciation / Amortisation	xxx
Loss on Sale of Fixed Assets / Investments	xxx
Goodwill / Preliminary Expenses Written off	xxx
Interest Expense	xxx
Transfer to Reserves	xxx
Less: Non-operating Incomes	
Profit on Sale of Fixed Assets / Investments	(xxx)
Interest Income	(xxx)
Dividend Income	(xxx)
Operating Profit before Working Capital Changes	xxx
Adjustments for Working Capital Changes	
Increase in Current Assets (Debtors, Inventory, Prepaid etc.)	(xxx)
Decrease in Current Assets	xxx
Increase in Current Liabilities (Creditors, Outstanding etc.)	xxx
Decrease in Current Liabilities	(xxx)
Cash Generated from Operations	xxx
Less: Income Tax Paid	(xxx)
Net Cash from Operating Activities (A)	xxx
B. CASH FLOW FROM INVESTING ACTIVITIES	
Sale of Fixed Assets	xxx
Sale of Investments	xxx

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Interest Received	xxx
Dividend Received	xxx
Purchase of Fixed Assets	(xxx)
Purchase of Investments	(xxx)
Loans/Advances Given	(xxx)
Loans/Advances Recovered	xxx
Net Cash from Investing Activities (B)	xxx
C. CASH FLOW FROM FINANCING ACTIVITIES	
Issue of Share Capital	xxx
Issue of Debentures / Loans	xxx
Borrowings Taken	xxx
Interest Paid	(xxx)
Dividend Paid	(xxx)
Redemption of Shares / Debentures	(xxx)
Repayment of Loans	(xxx)
Net Cash from Financing Activities (C)	xxx
Net Increase / Decrease in Cash (A + B + C)	xxx
Add: Opening Cash & Cash Equivalents	xxx
Closing Cash & Cash Equivalents	xxx

Question and Answer

Question 1 (MQP[1] 5 Marks June'23)

Identify whether the following items are inflows or outflows and place them under appropriate categories in the cash flow statement under Ind AS 7:

Item Description	Inflow	Outflow	Category
Normal income tax refund			
Proceeds of a share issue			
Interest received by a financial enterprise			
Decrease in debtors			
Dividend received by a manufacturing company			

Answer 1

Item Description	Inflow	Outflow	Category
Normal income tax refund	Yes		Operating Activities
Proceeds of a share issue	Yes		Financing Activities
Interest received by a financial enterprise	Yes		Operating Activities
Decrease in debtors	Yes		Operating Activities
Dividend received by a manufacturing company	Yes		Investing Activities

Question 2 (MQP[2] 7 Marks Dec'23)

Following information is available from the books of Standard Company Ltd.

Particulars	2021 (₹)	2022 (₹)
Profit made during the year		2,50,000
Income received in advance	500	600
Prepaid expenses	1,600	1,400
Debtors	80,000	95,000
Bills Receivable	25,000	20,000
Creditors	45,000	40,000
Bills Payable	13,000	15,000
Outstanding expenses	2,500	2,000
Accrued Income	1,500	1,200

Calculate cash flow from operations.

Answer 2

Profit made during the year		2,50,000
(+) Increase in Income received in Advance	100	
(+) Decrease in Prepaid Expenses	200	
(-) Increase in Debtors	(15,000)	
(+) Decrease in Bills Receivable	5,000	
(-) Decrease in Creditors	(5,000)	
(+) Increase in Bills Payable	2,000	
(-) Increase in Outstanding Expenses	(500)	
(+) Decrease in Accrued Income	300	(12,900)
Net Cash from Operating Activities		2,37,100

Question 3 (WB)

Following information is available from the books of Suresh Ltd. for the year end 31-12-2021 and 31-12-2022.

Particulars	31-12-2021	31-12-2022
Profit made during the year	**-**	**2,50,000**
Income received in advance	**500**	**400**
Prepaid expenses	**1,600**	**2,000**
Debtors	**80,000**	**20,000**
Bills receivable	**25,000**	**40,000**
Creditors	**45,000**	**65,000**
Bills payable	**13,000**	**5,000**
Outstanding expenses	**2,500**	**3,000**
Accrued income	**1,500**	**1,800**

Calculate cash flow from operations for the year ending 31-03-2022.

Answer 3

Calculation for cash from operation for the year ending on 31.03.2022

Particulars	₹	₹
Profit made during the year		2,50,000
Add:		
Decrease in Debtors		
Increase in Creditors	60,000	
Increase in Outstanding Expenses	20,000	80,500
	500	3,30,500
Less:		
Decrease in income received in advance	100	
Increase in prepaid expenses	400	
Increase in bills receivable	15,000	
Decrease in bills payable	8,000	
Increase in accrued income	300	(-)23,800
		3,06,700

Question 4 (WB, PYP 7 Marks June'25)

Calculate Cash Flow from Operating Activities from the following:

Net Profit before tax	**₹ 13,60,000**
Items considered in determining the above Net Profit:	
Interest on long term borrowings	**₹ 1,60,000**
Depreciation and Amortization	**₹ 3,40,000**
Transfer to Reserves	**₹ 2,00,000**
Gain on sale of machinery	**₹ 1,20,000**

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Balances of Current Assets and Current Liabilities were as follows:

Particulars	Opening Balance (₹)	Closing Balance (₹)
Trade Receivables	11,00,000	9,60,000
Trade Payables	7,60,000	8,00,000
Inventories	5,60,000	6,40,000
Prepaid Expense	80,000	1,00,000
Income received in advance	20,000	60,000

Answer 4

Cash Flow Statement
For the year ended on ……

Particulars	₹	₹
Net Profit before tax		13,60,000
Add: Depreciation and amortization		3,40,000
Add: Interest on long term borrowings		1,60,000
Add: Transfer to Reserves		2,00,000
Less: Gain on sale of machinery		(1,20,000)
Operating profit before working capital changes		19,40,000
Add: Decrease in trade receivables		1,40,000
Add: Increase in trade payables		40,000
Add: Increase in income received in advance		40,000
		21,60,000
Less: Increase in inventory		(80,000)
Less: Increase in prepaid expense		(20,000)
Cash Flow from Operating Activities		20,60,000

Question 5 (WB)

From the following summary of cash account of XL Pharma Ltd. for the year ended 31.03.2024, calculate Cash Flow from Operating Activities using Direct Method and prepare Cash Flow Statement.

Particulars	₹	Particulars	₹
To Balance b/d	5,00,000	By Cash Purchase	5,20,000
To Cash Sales	6,00,000	By Trade Payables	5,76,000
To Trade Receivables	6,40,000	By Rent	2,00,000
To Interest and Dividend	8,000	By Administrative Exp.	1,00,000
To Bank Loan	6,00,000	By Income Tax	1,20,000
To Sale of Investment	3,20,000	By Investment	3,60,000
To Trade Commission	1,60,000	By Repayment of Loan	4,00,000
		By Interest on Bank Loan	28,000
		By Balance c/d	5,24,000
	28,28,000		28,28,000

Answer 5

Cash Flow Statement
For the year ended on 31.03.2024

Particulars	₹	₹
Cash Flow from Operating Activities		
Cash Sales		6,00,000
Collection from Trade Receivables		6,40,000
Trade Commission received		1,60,000
		14,00,000
Less: Cash purchase	5,20,000	
Less: Payment to Trade Payables	5,76,000	
Less: Payment of Rent	2,00,000	
Less: Payment of administration expenses	1,00,000	13,96,000
Cash Generated from Operations		4,000

Less: Payment of Income Tax		1,20,000
		(1,16,000)
Cash Flow from Investing Activities		
Sale of investment	3,20,000	
Interest and dividend received	8,000	
Purchase of investment	(3,60,000)	(32,000)
Cash Flow from Financing Activities		
Bank loan raised	6,00,000	
Repayment of loan	(4,00,000)	
Interest on bank loan	(28,000)	1,72,000
		24,000
Add: Opening Cash Balance		5,00,000
Closing Cash Balance		5,24,000

Question 6 **(PYP 7 Marks June'24)**

The following information has been provided by B Ltd. for the year ended on 31.03.2024.

(i) Sales for the year ₹ 96,00,000 entirely made in cash.
(ii) Cost of goods sold was 75% of the sales.
(iii) Trade payables on 31.03.2024 was ₹ 2,00,000 more than the balance on 31.03.2023.
(iv) Closing inventory was higher than the opening inventory by ₹ 1,00,000.
(v) Suppliers were paid ₹ 71,00,000 during the year.
(vi) Operating expense of ₹ 7,20,000 were paid during the year.
(vii) Taxes paid during the year were ₹ 3,00,000.
(viii) The company paid equity dividend of ₹ 2,40,000 during the year.
(ix) The company acquired a land for ₹ 8,00,000 and bought a new machinery for ₹ 4,00,000 during the year.
(x) Interest was received on investment for ₹ 20,000.
(xi) Cash and cash equivalent on 01.04.2023 was ₹ 80,000.
(xii) Cash and cash equivalent on 31.03.2024 was ₹ 1,40,000.

You are required to prepare a Cash Flow Statement for the year ended on 31.03.2024 as per AS 3.

Answer 6

Cash Flow Statement for the year ended on 31.03.2024

Particulars	₹	₹
I. Cash flow from operating activities:		
Cash Receipts from customers		96,00,000
Cash paid to suppliers		(71,00,000)
Cash paid for Operating Expenses		(7,20,000)
Less: Taxes paid		(3,00,000)
Net Cashflow from Operating activities		**14,80,000**
II. Cash flow from investing activities:		
Purchase of Fixed Assets	(12,00,000)	
Interest received on investment	20,000	
Net Cashflow from Investing activities		**(11,80,000)**
III. Cash flow from financing activities:		
Dividend paid	(2,40,000)	
Net Cashflow from Financing activities		**(2,40,000)**
Net increase in cash and cash equivalent		**60,000**
Cash and cash equivalent at the beginning		80,000
Cash and cash equivalent at the end		**1,40,000**

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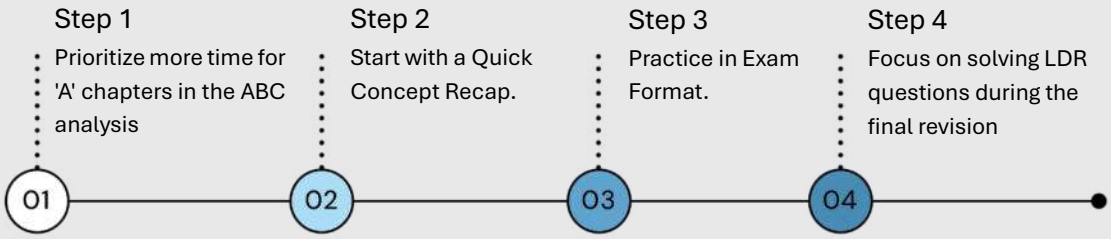
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Topics in the index are categorized as A, B, or C based on their importance. Focus more on 'A' chapters, as they carry the most weight, and give adequate attention to 'B' chapters. While all chapters must be covered, this approach helps manage time efficiently for better results.

Step 2: Start with a Quick Concept Recap

Use this powerful summary for a quick brush-up on key concepts before you attempt the chapter. This helps you identify and understand the core principles. If a question gives you trouble, return to this section / main study material to solidify the concept, then come back and solve it again.

Step 3: Practice in Exam Format

Always solve the question on your own before looking at the answer. If you get confused in MCQs and options or make a conceptual mistake, be sure to mark it to review during your next revision.

Step 4: Last Day Revision (LDR)

Focus on solving LDR questions during the final revision. On the day before your exam, prioritize these questions as they cover the most critical concepts from each chapter. You'll find a quick summary of LDR question numbers listed right before each chapter for easy reference.

Particulars	Per Unit (₹)	Total (₹)
	20	14,00,000
Less: Variable Cost	10	8,00,000
Contribution	10	8,00,000
Less: Fixed Cost		4,00,000
Profits		4,00,000

Calculation of Break-Even Point (in ₹)

Break-Even Point (in ₹) = (Fixed Costs × Sales) ÷ Contribution = 4,00,000 × 14,00,000 ÷ 8,00,000 = ₹8,00,000

Calculation of Margin of Safety (in ₹)

Margin of Safety (in ₹) = Actual (or Budgeted) Sales − Break-Even Sales = ₹14,00,000 − ₹8,00,000 = ₹6,00,000

Question 6 (SM)

XYZ Co. makes a product, the Goldy, which has a variable production cost of ₹6 per unit and a sales price of ₹10 per unit. At the beginning of September 2021, there were no opening inventories and production during the month was 20,000 units. Fixed costs for the month were ₹ 45,000 (production, administration, sales and distribution). There were no variable marketing costs.

Includes 100% coverage of Work Book+ SM + MCQ Bank + MQP + PYP

1. To identify the variable cost of sales, and then the contribution
2. To deduct fixed costs from the total contribution to derive the profit
3. To value all closing inventories at marginal production cost (₹ 6 per unit)

Particulars	18,000 Goldies		15,000 Goldies		20,000 Goldies	
Sales (at ₹10 per unit)		1,80,000		1,50,000		2,00,000
Variable production cost	1,20,000		1,00,000		1,33,333	
Less: Value of closing inventory (at marginal cost)	60,000		30,000		—	
Variable cost of sales		60,000		90,000		1,33,333
Contribution		1,20,000		60,000		66,667
Less: Fixed costs		45,000		45,000		45,000
Profit / (Loss)		75,000		15,000		21,667
Profit (loss) per unit		4.17		1		1.75
Contribution per unit		4		4		4

Question 7 (SM, MQP[2] 7 Marks Dec'23)

(1) P/V Ratio

(2) Break-Even Point

(3) If the selling price is reduced to ₹ 80, calculate New Break-Even Point.

Particulars	₹
Total sales	5,00,000
Selling price per unit	100
Variable cost per unit	60
Fixed cost	1,20,000

Answer 7

(1) P/V Ratio = Contribution ÷ Sales × 100

Contribution = Sales − Variable Cost

Total Sales = ₹ 5,00,000

Selling price per unit = ₹ 100

Sales in units = 5,000 units

Contribution = ₹ 2,00,000

P/V Ratio = 40%

(2) Break-Even Point in sales = Fixed Cost ÷ P/V Ratio = ₹ 3,00,000

(3) If the Selling price is reduced to ₹ 80

Sales =₹ 4,00,000

LDR Questions	Descriptive: Q 6, Q 18, Q 26, Q 30, Q 33 MCQ: 6, 9, 14, 27, 56, 58

QUICK REVIEW OF IMPORTANT CONCEPTS

Traditional Costing

Meaning

- Traditional Costing = Allocation of overheads based on volume
- Uses:
  - Machine hours OR
  - Labour hours

Core Concept

- Overheads are applied using a single cost driver (volume based)

Overhead Rate = Total Overheads / Total Cost Driver

Steps

1. Identify
2. Select
3. Estimate
4. Calculate
5. Apply

Types of Ove

- Plant wide

Key Assumption - All products consume resources in proportion to volume

Major Problems / Limitations

1. Ignores different resource usage by products
2. Overheads (50%+) allocated on small base (labour)
3. Not suitable when automation is high
4. Distorts cost:
   - High volume → Over costed
   - Low volume → Under costed
5. Ignores activities like:
   - Setup
   - R&D
   - Material handling

Peanut Butter Costing

- Spreading cost uniformly across products
- Leads to wrong cost and pricing decisions

Activity Based Costing (ABC)

- ABC is a costing system that allocates costs based on activities rather than broad averages.
- It focuses on accurate allocation of indirect costs to cost objects like products, services, or customers.

Key Elements

- Cost Objects: Products, customers, business units.
- Cost Pools: Group of similar costs (e.g., production, marketing).
- Cost Drivers: Factors causing cost (e.g., no. of orders, machine hours).

Working of ABC

- Identify activities.
- Determine cost drivers.
- Assign costs to activity pools.
- Allocate costs to cost objects based on activity usage.

Last Day Revision Questions

Last Day Revision Questions mentioned right at the beginning of each chapter
Easy to find 1 day before the exam

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Sr.	Particulars	2023		2024		2025		Average	Page No.	IMP
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1	Introduction to Management Accounting	7	7	9	9	9	11	8.67	1.1 – 1.12	C
	SECTION B : ACTIVITY BASED COSTING									
2	Activity Based Costing	12	7	7	11	9			2.1 – 2.[illegible]	B
	SECTION C : DECISION MAKING TOOLS									
3	Marginal Costing	22	15	11	11	11	13	13.83	[illegible] – 3.32	A
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.1 – 4.55	A
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.1 – 5.18	
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.1 – 6.60	B
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	SECTION H: DECISION THEORY									
10	Decision Theory	16	9	13	7	9	11	10.83	10.1 – 10.30	C
										B

Prioritize using ABC Analysis

Each chapter is categorized as A , B or C

A : Very Important, Read on priority

B : Moderately Important

C : Less Critical but still essential

LDR Questions | Descriptive: Q 11,Q 16, Q 19 MCQ: 3, 13, 25

QUICK REVIEW OF IMPORTANT CONCEPTS

Traditional Costing

Meaning

- Traditional Costing = Allocation of overheads based on volume
- Uses:
  - Machine hours OR
  - Labour hours

Core Concept

- Overheads are applied using a single cost driver (volume-based)

$$\text{Overhead Rate} = \frac{\text{Total Overheads}}{\text{Total Cost Driver}}$$

Quick Review of Important Concepts

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	SECTION E: FORECASTING, BUDGETING AND BUDGETARY CONTROL									
7	Forecasting, Budgeting and Budgetary Control	18	23	27	9	23	16	19.33	7.1 – 7.51	A
	SECTION F: DIVISIONAL PERFORMANCE MEASUREMENT									
8	Divisional Performance Measurement	20	22	20	22	20	16	20	8.1 – 8.44	A
	SECTION G: RESPONSIBILITY ACCOUNTING									
9	Responsibility Accounting	1	7	9	9	11	9	7.67	9.1 – 9.16	C
	SECTION H: DECISION THEORY									
10	Decision Theory	16	9	13	7	9	11	10.83	10.1 – 10.30	B

ABC Analysis

A Very Important, Read on priority

B Moderately Important

C Less critical but still essential

Ensure you thoroughly read all chapters without skipping any. The ABC analysis is designed to help you prioritize based on past trends, but it should not replace comprehensive preparation.

WHAT DOES REVIEWER INCLUDE?

This Reviewer offers 100% coverage, including all questions from:

- **SM: ICMAI Study Material Questions**
- **WB: ICMAI Workbook Questions**
- **MCQ Bank**
- **PYP: Past Year Papers**
- **MQP: Model Question Papers (1 or 2 denotes MQP 1 or MQP 2)**

LDR Questions	Descriptive: Q 6, Q 18, Q 26, Q 30, Q 33 MCQ: 6, 9, 14, 27, 56, 58

QUICK REVIEW OF IMPORTANT CONCEPTS

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  - Machine hours OR
  - Labour hours

Core Concept

- Overheads are applied using a single cost driver (volume-based)

$$\text{Overhead Rate} = \frac{\text{Total Overheads}}{\text{Total Cost Driver}}$$

Steps

1. Identify overhead costs
2. Select cost driver (labour/machine hours)
3. Estimate total driver units
4. Calculate: - $\text{Overhead Rate} = \frac{\text{Overhead}}{\text{Driver Units}}$
5. Apply: - $\text{Overhead Applied} = \text{Rate} \times \text{Actual Usage}$

Types of Overhead Rates

- Plant-wide rate → Single rate for whole factory
- Departmental rate → Different rates for each department

Key Assumption - All products consume resources in proportion to volume

Major Problems / Limitations

1. Ignores different resource usage by products
2. Overheads (50%+) allocated on small base (labour)
3. Not suitable when automation is high
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   - High-volume → Over costed
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Working of ABC

- Identify activities.
- Determine cost drivers.
- Assign costs to activity pools.
- Allocate costs to cost objects based on activity usage.

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Key Features

- Links indirect costs to activities.
- Converts many indirect costs into direct costs.
- Uses multiple cost drivers, not just volume-based.

ABC vs Traditional Costing

- ABC → Activity-based, more accurate.
- Traditional → Volume-based, less accurate.

Advantages

- Better cost accuracy.
- Improved pricing decisions.
- Helps in cost control and reduction.
- Identifies inefficient activities.

Activity-Based Management (ABM)

- Focuses on managing and improving activities.
- Aims at cost reduction and efficiency improvement.

Need / Emergence of ABC

- Increase in indirect costs due to automation.
- Greater product diversity.
- Importance of non-volume activities.
- Need for better decision-making in competitive markets.

Conditions Where ABC is Useful

- High overhead costs.
- Multiple product lines.
- Complex operations.
- Costs not driven by volume.

Steps in Activity-Based Costing (ABC)

1. **Identify Activities -** List major activities (setup, inspection, etc.)
2. **Create Cost Pools**
   - Group costs for each activity
3. Identify Cost Drivers
   - Factor causing cost (e.g., no. of orders, setups)
4. Compute Driver Rate = Driver Rate $= \frac{\text{Total Cost Pool}}{\text{Total Driver Units}}$
5. **Allocate Cost to Product** = Cost $=$ Driver Rate $\times$ Activity Usage

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Cost Pool

- Group of overhead costs collected together.
- Based on departments/activities.
- Used for cost allocation.
- Example: Purchasing, maintenance, inspection.

Cost Driver

- Factor that causes cost.
- Used to allocate costs.

  Types:
  - Resource driver (resources used)
  - Activity driver (activity demand)
  - Volume-based (machine hours)
  - Non-volume (setups, orders)

  Examples:
  - No. of orders, setups, machine hours

Cost Object

- Item for which cost is calculated.
- Example: Product, service, customer

ABC – Merits vs Demerits

Merits (Advantages)	Demerits (Disadvantages)
Considers multiple cost drivers (more realistic)	Costly and resource-intensive to implement
Includes all overheads (even non-factory costs)	Complex system, requires detailed records
Provides accurate product costing	Some costs still allocated arbitrarily
Helps in better pricing & decision-making	Too many cost drivers increase complexity
Aids cost control and cost reduction	May overburden low-volume products

• Links cost with activities & resources clearly	• Risk of misinterpretation of data
• Useful for customer profitability analysis	• Not suitable for external reporting (GAAP)
• Applicable in manufacturing, service & retail	• Requires parallel systems (internal & external)

Use of ABC in Decision Making

Key Uses

• Accurate product costing & pricing	• Helps in profitability analysis (product/customer)
• Supports make-or-buy / outsourcing decisions	• Useful in capital investment & plant decisions
• Helps in market segmentation & distribution decisions	

Strategic Use

• Identifies cost drivers → better cost control	• Helps reduce non-value-added activities
• Improves product mix & design decisions	

Practical Benefits

• Better than traditional costing (realistic cost)	• Supports TQM & cost reduction
• Helps in performance evaluation	

When ABC is Needed

• High overheads	• Multiple/diverse products	• Complex operations

Question & Answers

Question 1 **(SM)**

State with a brief reason whether you would recommend an activity based system of costing in each of the following independent situations:

(i) Company Dee produces one product. The overhead costs mainly consist of depreciation.

(ii) Company BC produces 5 different products using different production facilities.

(iii) A consultancy firm consisting of lawyers, accountants and computer engineers provides management consultancy services.

(iv) Company Simens produces two different labour intensive products. The contribution per unit in both products is very high. The BEP is very low. All the work is carried on efficiently to meet the target costs.

Answer 1

(i) ABC is not applicable. One product situation- for allocation of overhead, ABC is not required. ABC for cost reduction not beneficial since most of the overhead is depreciation.

(ii) Multi product situation, production facilities are different - ABC is required for allocation of overhead. Cost drivers are likely to be different, and Cost reduction may be possible through ABC.

(iii) Variety of services and hence ABC required for cost allocation.

(iv) Different products, but labour intensive. Hence, overhead allocation based on readily traceable direct labour cost will be accurate. Hence, ABC is not required for cost allocation.

Question 2 **(SM)**

State whether each of the following independent activities is value-added or non-value-added:

(i) Polishing of furniture used by a systems engineer in a software firm.

(ii) Maintenance by a software company of receivables management software for a banking company.

(iii) Painting of walls of an office building.

(iv) Customers' computer key board cleaning by a computer repair centre.

(v) Providing, brake adjustments in cars received for service by a car service center.

Answer 2

(i) Non-Value Added, (ii) Value Added, (iii) Non-Value Added, (iv) Value-Added, (v) Value-Added

CHAPTER 3: MARGINAL COSTING

A

LDR Questions	Descriptive: Q 37, Q 38, Q 40, Q 42 MCQ: 10, 23, 28, 36, 41

QUICK REVIEW OF IMPORTANT CONCEPTS

Meaning

- Technique separating **Fixed & Variable costs**
- Used for **decision making (not costing method)**

♦ Key Concept

- Marginal Cost = **Variable Cost per unit**

1. Basic Relationships

$S = V + F + P$

$C = S - V$

$C = F + P$

2. Contribution

Contribution per unit $= SP - VC$

Total Contribution $= Sales - VariableCost$

3. P/V Ratio (Contribution Ratio)

$P/V\ Ratio = \frac{C}{S} \times 100$

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

$C = Sales \times \frac{P}{V}\ Sales = \frac{C}{P/V}$

4. Variable Cost Ratio

$VC\ Ratio = \frac{V}{S} \times 100$

$P/V\ Ratio + VC\ Ratio = 100\%$

5. Break-Even Point (BEP)

In Units :$BEP\ (Units) = \frac{F}{C\ per\ unit}$

In Sales Value: $BEP\ (Sales) = \frac{F}{P/V\ Ratio}$

6. Profit

$P = C - F$

$P = \left(Sales \times \frac{P}{V}\right) - F$

7. Sales for Target Profit

$Sales = \frac{F + Desired\ Profit}{P/V}$

In Units: $Units = \frac{F + Desired\ Profit}{C\ per\ unit}$

8. Margin of Safety (MOS)

$MOS = Actual\ Sales - BEP\ Sales\ MOS = \frac{Profit}{P/V}$

$MOS\% = \frac{MOS}{Sales} \times 100$

9. Fixed Cost

$F = \left(Sales \times \frac{P}{V}\right) - Profit$

$F = BEP\ Sales \times \frac{P}{V}$

10. Sales Relationship

$Sales = BEPSales + MOS$

11. Indifference Point

$Indifference\ Sales = \frac{Difference\ in\ Fixed\ Cost}{Difference\ in\ P/V\ Ratio}$

12. Key Factor (Limiting Factor)

$Contribution\ per\ unit\ of\ key\ factor = \frac{Contribution}{LimitingFactor}$

13. Shutdown Point

$Shutdown\ Sales = \frac{F - Avoidable\ Fixed\ Cost}{\frac{P}{V}}$

♦ Abbreviations & Meanings

S / Sales → Total Sales Value	**SP** → Selling Price per unit
V → Total Variable Cost	**VC** → Variable Cost per unit
F → Fixed Cost	**P** → Profit
C → Contribution	**C per unit** → Contribution per unit
P/V Ratio → Profit-Volume Ratio (Contribution ÷ Sales)	**VC Ratio** → Variable Cost Ratio

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BEP → Break-Even Point	**MOS** → Margin of Safety
MC → Marginal Cost (Variable Cost per unit)	

Cost-Volume-Profit (CVP) Analysis

Meaning

- Studies relationship between **cost, volume & profit**.
- Also called **Break-even analysis**.
- Helps in **profit planning & decision-making**.

Key Concepts

Concept	Meaning
Break-even Point	No profit, no loss
Contribution	SP – Variable Cost
Margin of Safety	Excess of actual sales over BEP
Target Profit	Desired profit level

Uses / Importance

- Determines **break-even sales**
- Helps in **pricing & profit planning**
- Assists in **short-term decisions**
- Shows impact of **volume changes on profit**

Assumptions

- Costs divided into **fixed & variable**
- Fixed cost constant, VC per unit constant
- Selling price constant
- Single product / constant sales mix
- Production = sales
- Analysis valid within **relevant range & short term**

Limitations

- Fixed & variable cost assumption unrealistic
- Selling price may change
- Ignores inventory changes
- Difficult cost classification
- Not suitable for long-term decisions

Break-Even Chart

Meaning

- Graphical representation of **CVP (Cost–Volume–Profit)** relationship.
- Shows **break-even point (no profit, no loss)**.
- Indicates **profit/loss at different output levels**.

Key Features

- X-axis → Units (output)
- Y-axis → Cost & Revenue
- **Fixed cost line** → Parallel to X-axis
- **Total cost line** → Fixed + Variable cost
- **Sales line** → Revenue line
- Intersection = **Break-even point (BEP)**

Important Concepts

- **Profit area** → Sales > Cost
- **Loss area** → Sales < Cost
- **Margin of Safety** → Distance beyond BEP
- **Angle of Incidence** → Shows profit rate (larger = higher profit)

Assumptions

- Costs = Fixed + Variable
- Fixed cost constant
- Variable cost/unit constant
- Selling price constant
- Linear relationship
- Production = Sales

Effects of Changes

Change	Effect on BEP
↑ Selling Price	↓ BEP
↓ Variable Cost	↓ BEP
↓ Fixed Cost	↓ BEP
↑ Costs	↑ BEP

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Types

- Conventional Break-even chart
- Contribution chart
- Profit-Volume (P/V) chart

Advantages

- Easy graphical understanding
- Shows profit/loss at different levels
- Helps in decision-making

Disadvantages

- Works for **single product / constant mix**
- Based on **simplified assumptions**
- Difficult to show multiple changes

Multi-Product Break-Even Analysis

Concept

Used when firm sells **multiple products**.

- Requires assumption of **constant sales mix**.

Sales Mix

- Fixed ratio of products sold (e.g., A : B : C = x : y : z).
- Ensures **consistent proportion in analysis**.

Key Idea

- Calculate **Weighted Average Contribution (WAC)**.
- Weight based on **proportion of each product in mix**.

Important Point - Product with **higher share in mix → greater impact on contribution**.

Special Case - If all products have same **C/S ratio**, mix **does not affect BEP**.

Differential Cost

Meaning

- Change in **total cost due to alternative decision**.
- May arise from changes in **volume, price, product mix, method, etc.**
- Can be **increase or decrease** in cost.

Uses / Applications

- Make or buy decisions
- Accept/reject orders
- Product mix decisions
- Pricing decisions
- Replacement of machines
- Expansion or shutdown decisions

Important Points

- Differential cost = **Cost of Option A – Cost of Option B**
- Helps choose **most profitable alternative**
- If cost decreases → **profit increases**

Difference: Marginal vs Differential Cost

Basis	Marginal Cost	Differential Cost
Meaning	Cost of one extra unit	Change in total cost
Cost Type	Only variable cost	Variable + fixed
Use	Output decisions	Alternative decisions
Scope	Narrow	Broad

Absorption vs Marginal Costing

Basis	Absorption Costing	Marginal Costing
Meaning	Costing method including **Fixed + Variable cost**	Technique including **only Variable cost**
Nature	Traditional / Total costing	Decision-making technique
Cost Included	Fixed + Variable	Only Variable
Fixed Cost Treatment	Included in product cost	Treated as period cost
Inventory Valuation	Includes fixed cost	Only variable cost
Focus	Gross Profit	Contribution
Profit Formula	Sales – Total Cost	Contribution – Fixed Cost

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Cost per Unit	Changes with output	Constant
Use	Financial reporting	Managerial decisions
Overhead Treatment	Absorbed/apportioned	Not absorbed
Stock Effect	Affects profit	No effect on profit
Profit (Stock ↑)	Higher profit	Lower profit
Profit (Stock ↓)	Lower profit	Higher profit
When Suitable	External reporting	Internal decision-making
Key Point	Fixed cost carried in stock	Fixed cost fully charged

Marginal vs Absorption Costing (Statements)

Marginal Costing Statement	Amt (Rs.)	Absorption Costing Statement	Amt (Rs.)
Sales	**XXX**	**Sales**	**XXX**
Less: Variable Costs	(XXX)	Less: Cost of Goods Sold	(XXX)
- Direct Material		- Direct Material	
- Direct Labour		- Direct Labour	
- Variable OH		- Variable OH	
- Variable S&D		- Fixed Production OH	
Contribution (S – V)	XXX	= Total Production Cost	
Less: Fixed Costs	(XXX)	± Opening Stock	
- Fixed Production OH		– Closing Stock	
- Fixed Admin & S&D		**Gross Profit**	**XXX**
Profit	**XXX**	Less: Admin + S&D (Fixed + Variable)	(XXX)
		Net Profit	**XXX**

Question & Answers

Question 1 (PYP 4 Marks June'23)

Write down the differences between Absorption Costing & Marginal Costing.

Answer 1

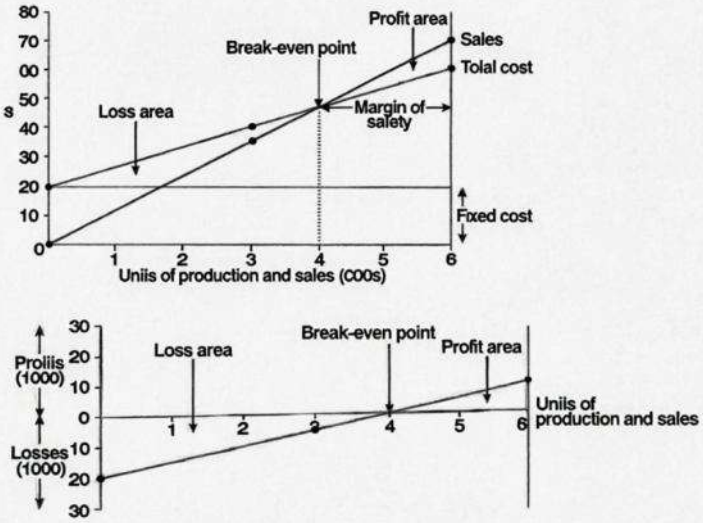
The differences between Absorption Costing & Marginal Costing are:

Absorption Costing	Marginal Costing
Both fixed and variable costs are considered for product costing and inventory valuation.	Only variable costs are considered for product costing and inventory valuation.
Fixed costs are charged to the cost of production. Each product bears a reasonable share of fixed cost and thus the profitability of a product is influenced by the apportionment of fixed costs.	Fixed costs are regarded as period costs. The profitability of different products is judged by their P/V ratio.
Cost data are presented in conventional pattern. Net profit of each product is determined after subtracting fixed cost along with their variable cost.	Cost data are presented to highlight the total contribution of each product.
The difference in the magnitude of opening stock and closing stock affects the unit cost of production due to the impact of related fixed cost.	The difference in the magnitude of opening stock and closing stock does not affect the unit cost of production.
In case of absorption costing the cost per unit reduces, as the production increases as it is fixed cost which reduces, whereas, the variable cost remains the same per unit.	In case of marginal costing the cost per unit remains the same, irrespective of the production as it is valued at variable cost.

Question 2 (MQP[1] 4 Marks June'23)

Angle of Incidence in a Break-Even Chart? Can it be used in managerial decision making?

Answer 2



Question 3 (SM)

From the following information, calculate the amount of profit using marginal cost technique:
Fixed cost ₹3,00,000
Variable cost per unit ₹5
Selling price per unit ₹10
Output level 1,00,000 units

Answer 3

Contribution =Selling Price-Marginal Cost=(1,00,000 × 10)-(1,00,000 × 5)= 10,00,000 - 5,00,000= ₹ 5,00,000.
Contribution = Fixed Cost + Profit₹ 5,00,000 = ₹ 3,00,000 + Profit
Profit = ₹ 2,00,000

Question 4 (SM)

From the following particulars find out break-even point:
Fixed Expenses ₹1,00,000
Selling price Per unit ₹20
Variable cost per unit ₹15

Answer 4

Break-Even Point in Units = Fixed Cost ÷ Contribution per unit
Contribution per unit = Selling Price per unit - Variable Cost per unit = ₹ 20 - ₹ 15 = ₹ 5
BEP (in units) = ₹1,00,000 ÷ ₹ 5 = 20,000 units
BEP in Sales = 20,000 × ₹ 20 = ₹4,00,000

Question 5 (SM,WB)

You are given the following information for the coming year of a factory:

Particulars	Amount
Fixed expenses	₹4,00,000
Selling price per unit	₹20
Variable expenses per unit	₹10
Budgeted output	80,000 units

Calculate Break-even Point in Rupees and Margin of Safety in Rupees.

Answer: 5

For calculating Break-even Point, arranging information in the following format would be appropriate and, in the format, it would be useful to show sales and variable cost per unit and fixed cost in total.
(Budgeted Output – 80,000 Units)

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Particulars	Per Unit (₹)	Total (₹)
	20	16,00,000
Less: Variable Cost	10	8,00,000
Contribution	10	8,00,000
Less: Fixed Cost		4,00,000
Profits		4,00,000

Calculation of Break-Even Point (in ₹)

Break-Even Point (in ₹) = (Fixed Costs × Sales) ÷ Contribution = 4,00,000 × 16,00,000 ÷ 8,00,000 = ₹8,00,000.

Calculation of Margin of Safety (in ₹)

Margin of Safety (in ₹) = Actual (or Budgeted) Sales – Break-Even Sales = ₹16,00,000 – ₹8,00,000 = ₹8,00,000

Question 6 (SM)

XYZ Co. makes a product, the Goldy, which has a variable production cost of ₹6 per unit and a sales price of ₹10 per unit. At the beginning of September 2021, there were no opening inventories and production during the month was 20,000 units. Fixed costs for the month were ₹ 45,000 (production, administration, sales and distribution). There were no variable marketing costs.

Required

Calculate the contribution and profit for September 2021, using marginal costing principles, if sales were as follows: (a) 10,000 Goldies (b) 15,000 Goldies (c) 20,000 Goldies

Answer 6

The stages in the profit calculation are as follows:

1. To identify the variable cost of sales, and then the contribution
2. To deduct fixed costs from the total contribution to derive the profit
3. To value all closing inventories at marginal production cost (₹ 6 per unit)

Particulars	10,000 Goldies		15,000 Goldies		20,000 Goldies	
Sales (at ₹10 per unit)		1,00,000		1,50,000		2,00,000
Variable production cost	1,20,000		1,20,000		1,20,000	
Less: Value of closing inventory (at marginal cost)	60,000		30,000			—
Variable cost of sales		60,000		90,000		1,20,000
Contribution		40,000		60,000		80,000
Less: Fixed costs		45,000		45,000		45,000
Profit / (Loss)		(5,000)		15,000		35,000
Profit (loss) per unit		(0.5)		1		1.75
Contribution per unit		4		4		4

Question 7 (SM, MQP[2] 7 Marks Dec'23)

From the following information calculate:

(1) P/V Ratio

(2) Break-Even Point

(3) If the selling price is reduced to ₹ 80, calculate New Break-Even Point:

Particulars	₹
Total sales	5,00,000
Selling price per unit	100
Variable cost per unit	60
Fixed cost	1,20,000

Answer 7

(1) P/V Ratio = Contribution ÷ Sales × 100

Contribution = Sales - Variable Cost

Total Sales = ₹ 5,00,000

Selling price per unit = ₹ 100

Sales in units = 5,000 units

Contribution = ₹ 2,00,000

P/V Ratio = 40%

(2) Break-Even Point in sales = Fixed Cost ÷ P/V Ratio = ₹ 3,00,000

(3) If the Selling price is reduced to ₹ 80:

Sales =₹ 4,00,000

CHAPTER 9: RESPONSIBILITY ACCOUNTING

LDR Questions	Descriptive: Q 11,Q 16, Q 19 MCQ: 3, 13, 25

QUICK REVIEW OF IMPORTANT CONCEPTS

Responsibility Accounting – Concept

- System of **management accounting** to measure performance
- Focus on **divisions (not whole organisation)**
- Responsibility is assigned to **specific managers**
- Authority is given along with responsibility
- Performance = **Actual vs Budget comparison**

Meaning (In Simple Terms)

- Organisation divided into **responsibility centres**
- Each centre has a **manager responsible for results**
- Costs & revenues are assigned to that manager
- Used for **control and performance evaluation**

Essential Features

Inputs & Outputs

- Inputs = Costs (resources used)
- Outputs = Revenues (results achieved)

Budgeting System

- Uses **planned (budget)** + actual data
- Variance helps in control

Responsibility Centres

- Organisation divided into **manageable units**
- Each unit has a responsible person

Organisation Structure

- Must match **authority-responsibility hierarchy**

Controllable Costs

- Managers responsible only for **controllable costs**

Performance Reporting

- Reports show **budget vs actual**
- Variances highlighted
- Reporting flow = **bottom → top**

Pre-requisites

- Large/divisional organisation
- Clear goals & targets
- Budgeting system in place
- Defined authority & responsibility
- Timely reporting system

Responsibility Centres

Cost Centre

- Responsible only for **costs**
- No control over revenue
- Performance = **Cost control / variance**
- Example: Production department

Revenue Centre

- Responsible for **sales revenue**
- Limited control over costs
- Performance = **Actual vs budgeted revenue**
- Example: Sales department

Profit Centre

- Responsible for **cost + revenue**
- Focus on **profit maximization**
- Decisions: pricing, output, marketing
- Example: Product division

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Investment Centre

- Responsible for **profit + investment**
- Performance measured by **ROI, RI, EVA**
- Controls assets & capital decisions
- Example: Subsidiary/company division

Responsibility Reporting

Purpose

- Evaluate performance
- Improve future decisions

Features

- Based on organisation structure
- Easy to understand
- Highlights **variances**
- Timely & regular
- Shows **budget vs actual**
- Includes only **relevant (controllable) data**

Reporting Levels

- Lower level → detailed & frequent
- Higher level → summarized

Cost, Revenue, Profit (Basic Link)

- Cost = Input (expenses)
- Revenue = Output (income)
- Profit = Revenue – Cost

Basis of responsibility centres:

- Cost centre → Cost
- Revenue centre → Revenue
- Profit centre → Profit

Question & Answers

Question 1 (SM)

Consider each of the following scenarios:

(i) Mr. P K. Dhawan, plant manager for the laser printer factory of Bharat Co. brushed his hair back and sighed. December had been a bad month; two machines had broken down, and some direct labourers (all on salary) were idled for part of the month. Materials prices increased, and insurance premiums on the factory increased. No way out of it —costs were going up. He hoped that the marketing VP would be able to push through some price increases, but that really wasn't his department.

(ii) Ms. Sonam Kapoor was delighted to see that her ROI figures had increased for the third straight year. She was sure that her campaign to lower costs and use machinery more efficiently (enabling her factories to sell several older machines) was the reason why she planned to take full credit for the improvements at her semi annual performance review. For each of the above independent scenarios, indicate the type of responsibility center involved (cost, revenue, profit, or investment).

Answer 1

(i) Cost center — Total cost

(ii) Profit center — Operating Income

Question 2 (SM)

The processing department of a large company informs the marketing department that the price of processing 2,00,000 items will be ₹50,00,000. The marketing department submits the material for the item two weeks later than originally planned and tells the processing department that the scheduled date of completion has been advanced two weeks. In order to achieve the new schedule, the processing department incurs an additional production cost of ₹16,00,000.

(i) In an organization using responsibility accounting, where would the additional costs be assigned? Would these costs be considered controllable costs? What effect might this have on future printing orders from the marketing department?

(ii) In an organization that does not use responsibility accounting, where would the various costs be assigned? What effect might this have on future printing orders from the marketing department?

Answer 2

(i) In an organization using responsibility accounting, the originally quoted price of ₹50,00,000 plus the additional cost of ₹16,00,000 would be assigned to the marketing department. This would be considered a

controllable cost. The long-range effect might be that the marketing department will become more cost-conscious and will plan activities better.

(ii) In an organization that does not employ responsibility accounting; the additional production costs most probably would be assigned to the processing department. There would be no motivation by the marketing department to adhere to scheduled dates or to plan processing needs in a better fashion.

Question 3 (SM)

The receipt of raw materials used in the manufacture of products and the shipping of finished goods to customers are under the control of the warehouse supervisor. Approximately 60% of the warehouse supervisor's time is spent on receiving activities and 40% on shipping activities. Separate employees handle the receiving and shipping operations. The labour-related costs for the warehousing function are as follows:

Warehouse supervisor's salary	**₹40,000**
Receiving clerks' wages	**₹75,000**
Shipping clerks' wages	**₹55,000**
Employee benefit costs (30% of wage and salary costs)	**₹51,000**
	₹2,21,000

The company employs a responsibility accounting system for performance reporting purposes. The costs are classified on the report as period or product costs. You are required to state the total labour-related costs to list on the responsibility accounting performance report as product costs under the control of the warehouse supervisor for the warehousing function.

Answer: 3

This question focuses on product costs that are under the control of the warehouse supervisor. The supervisor controls both receiving and shipping, but shipping is a selling cost. Thus shipping is a period cost that is expensed in the period in which it is incurred, so shipping costs are not product costs. Therefore, the costs for the shipping department are not part of the answer, even though they are controllable by the warehouse supervisor. The supervisor's salary is not controlled by the supervisor, so that is not a part of the answer, either. The labour-related product costs that the supervisor can control include only the wages and benefits of the receiving department. The receiving clerks' wages are ₹75,000 and their benefits are 30% of this amount (₹22,500). Therefore, the supervisor controls ₹97,500 of costs (₹75,000 + ₹22,500).

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Question 4 (SM)

The following information for R & Co. for the prior year:

- **The company produced 1,000 units and sold 900, both as budgeted.**
- **There were no beginning or ending work-in-process and no beginning finished goods inventory.**
- **Budgeted and actual fixed costs were equal, all variable manufacturing costs were affected by production volume only, and all selling variable costs were affected by sales volume only.**
- **Budgeted per unit revenues and costs were as follows:**

Sales price ₹100
Direct materials ₹30
Direct labour ₹20
Other variable manufacturing costs ₹10
Fixed manufacturing costs ₹5
Variable selling costs ₹12
Fixed selling costs (₹3,600 total) ₹4
Fixed administrative costs (₹1,800 total) ₹2
Calculate the contribution margin earned by R & Co. for the prior year

Answer 4

Contribution margin is calculated as sales revenue minus the variable costs for the units sold. The sales price is ₹100 per unit and the variable costs total ₹72 per unit: Direct Material - ₹30; Direct Labour - ₹20; other variable manufacturing costs - ₹10; Variable selling costs - ₹12. Thus, contribution is ₹28 per unit (₹100 - ₹72). 900 units were sold, giving a contribution margin of ₹25,200